#  <br> THE <br> CANADA YEAR BOOK 1955 

THE OFFICIAL STATISTICAL ANNUAL OF THE RESOURCES, HISTORY, INSTITUTIONS, AND SOCIAL AND ECONOMIC CONDITIONS OF CANADA

## Published by Authority of

The Right Honourable C. D. Howe, Minister of Trade and Commerce

# DOMINION BUREAU OF STATISTICS <br> Canada Year Book Section <br> Information Services Division 

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## PREFACE

The Canada Year Book, the official annual compendium of information on the institutions and the economic and social development of the nation, may be said to have had its origin in the "Year-Book and Almanac of British North America for 1867 ", although this and succeeding volumes down to 1879 were published privately but with official blessing. Upon the passage of a general Statistics Act in 1886, an official reference volume was instituted under the title "Statistical Abstract and Record of Canada" and produced by the General Statistics Office of the Department of Agriculture. With the amalgamation of the General Statistics Office and the Census Office, the Year Book was remodelled in 1905 and issued under the title "The Canada Year Book, Second Series", embracing short notes on the events of the year, tables compiled from Census and Departmental reports and a historical listing of the Ministries and other Executive Officers of the Dominion since Confederation.

The half century since the new series of Year Books was launched has witnessed manifold developments in centralized statistical organization in Canada under the Dominion Bureau of Statistics, established in 1918. As the Bureau expanded its program of statistical compilation and analysis in keeping with the nation's remarkable economic growth, each annual edition of the Canada Year Book has endeavoured to present this challenging story through special articles, extensive statistical tables and analytical commentary designed to reveal the interrelationship of the various sectors of the economy and portray within a single volume the essential economic and social elements in the progress of Canada.

Apart from the regular annual revision of textual and statistical material, chapter by chapter, a number of special feature articles of current interest have been incorporated in the 1955 edition-the fiftieth anniversary number-of the Canada Year Book. These include: "The Northland-Canada's Challenge" (pp. 22-32); "Migratory Bird Legislation" (pp. 41-45); "Post-War Immigration" (pp. 164-166); "The Forest Products Laboratories of Canada" (pp. 455-461); "Developments in Canada's Mineral Industry-The Metals, Industrial Minerals, Petroleum and Natural Gas, and Coal" (pp. 473-497); "The St. Lawrence Power Project" (pp. 549-553); "Canada's Commercial Fisheries Resources" (pp. 578-590); "The History of the Canadian National Railways" (pp. 840-851); and "The St. Lawrence Seaway" (pp. 885-888).

The extended analysis of the 1951 Census of Canada, presented in the 1952-53 and the 1954 editions of the Canada Year Book, is concluded in the current edition with a survey of the nation's Merchandising and Service Establishments.

In addition to the above-mentioned special articles, other features have been introduced and revisions made in the various chapters. Among these are a detailed treatment of Canadian physiography, an up-to-date digest of the administrative functions of the Federal Government with accompanying chart, a new survey of Federal Government employment, a brief outline of Canada's international activities during 1953-54, preliminary results of the first nation-wide Sickness Survey, short analyses of the new Canadian Criminal Code and of the decennial revision of the Bank Act, sketches of educational and cultural activities of the National Gallery,
the National Film Board and the Canadian Broadcasting Corporation, a survey of scientific and industrial research including that in the atomic field, as well as up-todate reviews of developments in Canada's foreign and domestic trade, manufacturing, hydro-electric power, agriculture, forestry, mining, fisheries, labour legislation, health and welfare, prices, public finance, capital expenditure on construction, machinery and equipment, insurance, the national accounts, and various aspects of the defence of Canada. Numerous diagrams, charts and maps assist in interpreting the economic development of the nation which is presented in summary fashion in the Introduction to the volume (pp. viii ff.).

The concluding chapter, entitled "Sources of Official Information and Miscellaneous Data", presents extensive reference material embracing Government information services, federal legislation, official appointments, a chronology of current events, a list of special articles published in former editions of the Year Book, and a statistical summary of the progress of Canada over a period of eighty-three years. A large folding map of Canada is enclosed in the pocket on the inside back cover of the volume.

The present volume has been produced in the Canada Year Book Section by John F. McVea, Assistant Editor of the Year Book and Chief of the Section, with the assistance of Miss M. Pink, Miss C. Freeth and the Year Book staff, under the general editorship and direction of Dr. C. C. Lingard, Director of the Information Services Division. Charts and graphs have been prepared under the direction of J. W. Delisle, Senior Draughtsman of the Bureau.

The co-operation of numerous officials of the various Departments of the Federal and Provincial Governments and of this Bureau in the preparation of material for the Year Book is hereby gratefully acknowledged. Credit by means of footnotes is given where possible either to the persons or the branches of the public service concerned.

With a view to the improvement of future editions, the Director welcomes not only information bearing on any errors or omissions that may have escaped notice but also suggestions respecting methods of treatment.


Dominion Statistician

## Dominion Bureau of Statistics, Ottawa, May 3, 1955

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## WEIGHTS AND MEASURES AND OTHER INTERPRETATIVE DATA

In Canada, as a rule, the Imperial system of weights and measures is followed. An exception, however, is the ton where, unless otherwise stated, the short ton of $2,000 \mathrm{lb}$. is meant. Billion, where used, represents 1,000 million.

The following table shows the weights and measures used in Canada in connection with the principal field crops and for wheat flour and fruits:-

Pounds<br>per Bushel

## Grains-

Wheat........................ 60
Oats............................ 34
Barley........................ 48
Rye............................ 56
Buckwheat................... 48
Flaxseed....................... 56
Corn........................... 56
Mixed grains.................. 50
All others..................... 60

## Wheat Flour-

1 barrel equals 196 pounds and approximately $4 \cdot 5$ bushels of wheat are used in the production of a barrel of flour.
PoundsPounds
Fruits (standard conversions)- Apples, per barrel ..... 135
Apples, per box ..... 43
Pears, per bushel ..... 50
Plums ..... 50
Cherries " " ..... 50
Peaches " " ..... 50
Grapes ..... 50
Pears, per box ..... 42
Strawberries, per quart ..... $1 \cdot 25$
Raspberries ..... $1 \cdot 25$
Loganberries ..... $1 \cdot 25$

## Relative Weights and Measures, Imperial and United States

The following list of coefficients may be used to translate amounts expressed in one unit to the other. It must be borne in mind that where the list below refers to Imperial pint, quart and gallon, their equivalent in ounces is also in Imperial measure; likewise, United States designations for these quantities are shown in the U.S. equivalent in ounces. The Imperial (or British) fluid ounce and the U.S. fluid ounce are different measures, 1 Imperial fluid ounce equalling 0.96 United States fluid ounce. Similarly, 1 Imperial gallon equals $1 \cdot 2$ United States gallon.

| 1 Imperial pint $=20$ fluid ounces. | 1 Imperial proof gallon=1.36 United States |
| :--- | :--- |
| 1 United States pint $=16$ fluid ounces. | proof gallon. |
| Imperial quart $=40$ fluid ounces. | 1 Short ton $=2,000$ pounds. |
| 1 United States quart $=32$ fluid ounces. | 1 Long ton $=2,240$ pounds. |
| 1 Imperial gallon $=160$ fluid ounces. | 1 Barrel crude petroleum $=35$ Imperial |
| 1 United States gallon=128 fluid ounces. | gallons. |

## FISCAL YEARS OF FEDERAL AND PROVINCIAL GOVERNMENTS

The fiscal year of the Federal Government and of each of the ten Provincial Governments ends on March 31.

Throughout the Year Book, fiscal-year figures are indicated in the text and headings of tables; otherwise, figures are for calendar years.

## THE CANADIAN ECONOMY IN 1954*

The Canadian economy was subject to a variety of adjustments in 1954, certain adverse events being largely counterbalanced by continuing expansionary influences and long-term elements of growth. The adverse factors consisted of a very poor wheat harvest, a moderately reduced defence expenditure, lower investment outlays for new machinery and equipment, a cessation of inventory expansion, a lower volume of exports (chiefly of wheat) and a lower level of consumer purchases of durable goods. These were counterbalanced to a large extent by continued gains in labour income and other forms of personal income, which in turn led to expansion of personal expenditures on consumer goods and services. There sccurred also a renewed upsurge in new residential construction: Imports were lower, implying that some of the reduction in demand was counterbalanced by lower imports, rather than by reduced domestic output. On balance, the nation's output of goods and services in 1954 was 2 p.c. below that of 1953, and amounted to $\$ 24$ billion. If allowances are made for the crop failure, the Gross National Product (excluding accrued net income of farm operators) was $\$ 22.9$ billion as compared with $\$ 22.8$ billion in 1953 . Prices were generally steady throughout the year.

While activity in general was at a reduced level during the winter and early spring months, there occurred at mid-year a gradual renewal of expansion, culminating in a particularly rapid fourth-quarter increase. The aggregate level of business activity, as measured by Gross National Product (other than accrued net income of farm operators), in the fourth quarter of 1954, once again exceeded the previous peak in the third quarter of 1953.

These events were paralleled by somewhat similar developments in the United States, but certain differences should be noted. The agricultural sector is of considerably greater relative importance in Canada's economy and thus the poor 1954 crop had a large weight in the decline observed in Canada. The United States decline began one quarter sooner and lasted one quarter longer than the Canadian and may have been somewhat more severe. $\dagger$ The following paragraphs review briefly the major influences underlying economic developments in 1954. One of the most significant of these was the sharp liquidation of business inventories which began in 1954, following the substantial build-up of the previous year. The change from positive to negative inventory accumulation amounted to $\$ 0 \cdot 6$ billion. This reversal was related to developments during the period when inventories were being accumulated to meet growing defence requirements and the expansion in economic activity generally. As many of these expansive forces levelled off and supplies became easier, inventory holdings in certain lines became excessive and substantial liquidations followed. Thus, production of some manufactured goods was cut back in 1954 and current requirements were met out of inventory stocks.

[^0]Business investment in plant, machinery and equipment declined to $\$ 3.4$ billion in 1954 from $\$ 3.8$ billion in 1953, though earlier estimates of capital investment intentions had suggested a moderate increase over 1953. Unfavourable weather conditions and other developments in 1954 resulted in lower than expected non-residential construction and machinery and equipment expenditures. Additional contributing factors were the completion of a number of remote area projects and other industrial expansion programs, and lower outlays for farm machinery and equipment, the latter being related to developments in the farm sector.

Defence expenditures on the National Accounts basis declined from $\$ 1.9$ billion in 1953 to $\$ 1 \cdot 7$ billion in 1954, reductions being concentrated in construction and in procurement of certain equipment items. This had an adverse effect in related industries. Canadian defence outlays had reached their peak in 1953 and in 1954, by contrast with immediately preceding years, were not an expansionary force.

The lower level of consumer durable goods purchases in 1954 was a furthe factor in the decline of business activity. The removal of consumer credit restraints in 1952 was accompanied by a wave of buying but, by the end of 1953, the accumulated back-log appeared to have been worked off and demand had diminished to more normal proportions. Throughout 1954, consumer purchases of durable goods remained at this lower level, namely, $\$ 1.7$ billion; most types were affected by the decline, the major exception being television sets.

Despite all these adverse developments, production, other than agricultural, remained level with the previous year, reflecting the effects of a number of important counterbalancing influences. Of major significance was the continued rise in personal expenditure on non-durable consumer goods and services which rose from $\$ 13 \cdot 3$ billion in 1953 to $\$ 13 \cdot 9$ billion in 1954. This increase was sufficient to raise the total of consumer expenditures above the 1953 level by about 3 p.c., and to offset an important part of the decline for consumer durables.

A further expansionary influence in 1954 was the fact that housing construction reached an all-time record of $\$ 1 \cdot 2$ billion. Related to this continued growth municipal government expenditures were higher than in 1953 to meet the greater demands for local improvements and services such as roads, streets, sewage and water facilities, schools and hospitals.

These sources of strength in the economy in 1954 were related to three factors: (1) continued growth in population generated new demands for consumer goods and services, and for housing; (2) further impetus to new housing was given through a change in the National Housing Act in early 1954 reducing down-payment requirements and extending the re-payment period, and through a change in the Bank Act permitting the chartered banks to make loans on home mortgages; and (3) personal income was at a high level throughout 1954-an important factor in the continued expansion of consumer demand. It may be noted that, in 1952 and 1953, personal income rose by 15 p.c., while retail prices were relatively unchanged. The resulting gain in 'real' wages supported a large volume of increased buying in these years, as well as a high level of personal saving. In 1954, despite the poor wheat crop and a slightly lower level of employment, personal income remained relatively stable-a development associated with higher average hourly earnings and an increase in transfer payments from government. In addition, although the level
of profits was below that of the previous year, dividend payments to investors were maintained. Net personal rental income increased as the housing stock grew and as rents increased. Interest payments to persons also continued to rise.

An additional factor in the 1954 situation was the decline in imports of goods and services from $\$ 5 \cdot 9$ billion in 1953 to $\$ 5 \cdot 6$ billion in 1954. At a time when Canadian demand for certain types of goods and services was weakening, the effect on Canadian output was somewhat mitigated, at least to the extent that such declines were matched by a cut-back in imports of foreign-produced goods and services.

The over-all effect of these counterbalancing tendencies was to leave total Canadian output, apart from the farm sector, at approximately the same level as in 1953. On the other hand, the over-all level of non-agricultural employment was about 1 p.c. lower. Manufacturing employment declined by 5 p.c., consisting of an 8 -p.c. reduction in the durable goods industries and a 3 -p.c. in the non-durable goods industries. The average number of hours of work per week in manufacturing was 2 p.c. lower. These declines were only partly offset by the continued growth of employment in the service industries. On balance, with a slightly lower employment level, and an increase in both the population and the labour force between 1953 and 1954, there was some increase in unemployment. The number of persons without jobs and seeking work constituted $4 \cdot 3$ p.c. of the labour force, when averaged over 12 months, compared with $2 \cdot 6 \mathrm{p} . \mathrm{c}$. in the preceding year.

Prices were comparatively stable in 1954, with the exception of those for certain farm products. The sharp rise in world prices in 1950 and 1951 which accompanied the outbreak of hostilities in Korea was followed by a decline ending in 1952. Since that time, the general level of prices in Canada has shown little change. The consumer price index in 1954 was approximately unchanged from 1953 and 1952, but the index of wholesale prices was 1.5 p.c. below 1953 and 4 p.c. below 1952. Increased world output of both raw materials and manufactured goods and the renewed competitive vigour of international trade were major factors in the stability of prices. Export prices were slightly lower in 1954 than in the preceding year and import prices were slightly higher so that there was a small deterioration in the terms of trade.

## Industrial Production

An analysis of Canadian production by industry in 1954 shows that substantial shifts occurred in the composition of output in 1954 as compared with 1953. In the first nine months of 1954 , total manufacturing production was 5 p.c. below the 1953 level. Declines were widespread in the durable goods field, where a drop of 9 p.c. occurred. This development reflected inventory liquidations, the reduction in defence spending, falling purchases of consumer durable items, and reduced investment in new farm and other machinery and equipment. Production of primary iron and steel products and motor vehicles each declined by 23 p.c. Activity in the electrical apparatus and supplies industry showed a more moderate decline, reduced output in some fields being offset by a sharp increase in the production of television sets.

In the non-durable goods sector, a reduction in output of 1 p.c. occurred, associated mainly with a drop in output of clothing and textiles; at the same time. there were substantial liquidations of inventories of clothing and textile products.

Partly offsetting this decline were the higher outputs recorded by foods and beverages, chemical products, tobacco products, paper products and petroleum products industries. Many of these gains were associated with higher consumer purchases, though others were related to the growth in resource development.

In the primary industries, the substantial decline in agricultural output was wholly attributable to the great drop in grain output, as production of live stock, poultry, eggs and dairy products recorded advances over 1953.

Operations in the woods showed a moderate increase; declines in logging operations occasioned by reduced activity in sawmills and shingle mills were more than offset by an increase of 19 p.c. in pulpwood production. In the second half of 1954, vigorous housing programs in Canada and the United States, together with a rising level of industrial production in the United Kingdom, stimulated demand for Canadian wood products. A moderate gain was also recorded in primary fisheries operations, the result largely of increased cod landings off the Atlantic Coast and the plentiful run of sockeye salmon in British Columbia.

One of the most significant advances in output occurred in mineral production which rose by more than 10 p.c. in the first nine months of 1954. Output of metals increased by 4 p.c.; copper, nickel and lead showed substantial advances and zinc and gold production, although lower than in 1953, showed improvement by midyear. The increases in metals production were related to stronger export demand reflecting, in turn, a high level of economic activity in the United Kingdom, work stoppages of Chilean and United States copper producers, and a resumption of United States Government stockpiling of zinc and lead. Output of crude petroleum and natural gas continued to show marked gains, as resource development in Alberta continued strong, but coal output, on the other hand, continued to decline. Coal production reached the lowest level in seven years, as other sources of energy were increasingly substituted for it.

In the public utilities sector, production of electric power continued to advance, gaining about 3 p.c. over 1953. Distribution of natural gas increased sharply, but production and sales of manufactured gas rose very little.

On balance, the output of primary goods industries, other than agriculture, was appreciably higher than in 1953.

The general level of construction activity in 1954 was about the same as in 1953. Housing construction showed an appreciable gain but declines in other sectors of construction were offsetting factors. Unfavourable weather conditions and the fact that work was completed on several important resource development projects affected the level of industrial construction in 1954.

While the combined output of goods in 1954 was slightly lower than in the preceding year, services continued to expand. All groups showed increases with the exception of transportation, communication and storage. This latter group declined as a result of reduced shipments of grain and lower shipments of automobiles, machinery, and primary iron and steel products. These declines were partly offset by long-run growth factors in a number of component sub-groups: activity in air and truck transportation and oil pipelines increased; the communications groups also increased as a result of the continued growth in telephone and telegraph services and the rapid expansion in television transmission stations.

Retail and wholesale trade activity rose fractionally in 1954, as a lower volume of sales by motor-vehicle dealers, clothing and shoe stores and some other trades was more than offset by rising sales of food stores, department and variety stores, garages and filling stations and other businesses. Government, health, educational, recreational and business services recorded advances over the 1953 level.

## National Income and Gross National Product

Wages, salaries and supplementary labour income amounted to $\$ 11.9$ billion in 1954, an increase of 2 p.c. over 1953. Gains occurred in most of the primary industries (except agriculture) and in all of the service groups including public utilities, trade, finance, and other services; the increase in the service components was much higher than that for other industries. On the other hand, wages and salaries in transportation, storage and communication, and in manufacturing declined in the year-to-year comparison. Payroll declines in manufacturing, ranging from 6 p.c. to 10 p.c., were concentrated in iron and steel products, transportation equipment, and clothing, textile and leather products industries. Despite these particular declines, the trend of total wages and salaries throughout the year was steadily upward. By the fourth quarter, they were 2 p.c. above the 1954 average, paralleling the increase for the year as a whole.

The total of investment income, which includes corporation profits, interest, net rents and government investment income, amounted to $\$ 3 \cdot 7$ billion in 1954, a decline of approximately 2 p.c. from 1953 . Corporation profits, the major component of investment income, is estimated to have declined by about 6 p.c. for the year. Interest and net rental receipts of persons rose by about 12 p.c. in 1954, reflecting increases in average rents, the growth in the number of housing units, and higher deposit interest paid by banks. Government investment income showed little change from 1953, but higher interest receipts were an approximate offset to a decline in profits of government enterprises. Throughout 1954, investment income (seasonally adjusted) was relatively stable, following declines in the last half of 1953. Corporation profits, which had been declining throughout most of 1953 , levelled off early in 1954 and showed little change throughout the remainder of the year.

Accrued net income of farm operators from farm production was $\$ 1 \cdot 1$ billion in 1954, a decline of about one-third from $\$ 1 \cdot 6$ billion in 1953. This decline was approximately accounted for by the drop of $\$ 0.5$ billion in the value of crop production, which reflected adverse weather conditions in the Western Provinces and severe rust damage to the grain crop. The year 1953, however, produced the second largest grain crop in Canadian history, so that the decline in 1954 represents a drop from a very high base. Moreover, cash income from the sale of farm products declined much less sharply in 1954, partly reflecting the fact that grain deliveries did not drop as sharply as crop production. The decrease in cash income in 1954 amounted to 12 p.c. In contrast to the decline in grain output, the production of live stock increased in 1954, and with prices only slightly lower, there was some increase in income from this source. Cash income from fruits, vegetables and dairy products was unchanged from the previous year.

Net income of non-farm unincorporated business in 1954, at $\$ 1 \cdot 6$ billion, was about 3 p.c. below the preceding year. The decline was concentrated in manufacturing and retail trade; gains occurred in other groups, with the major gains showing up in net income from professional service and the construction industry, the latter being related to the higher level of house building in 1954.

Indirect taxes, less subsidies, amounted to $\$ 2.9$ billion in 1954, relatively unchanged from the 1953 level. However, there were a number of significant shifts among the components. At the federal level, indirect taxes declined by 5 p.c., mainly accounted for by lower excise tax collections and by a drop in customs import duties; the declines in these components were 5 p.c. and 7 p.c., respectively, and were associated with lower levels of factory shipments of goods, particularly durables, as well as with a drop in imports. Changes in tax rates introduced in the 1954 Budget were also a contributing factor in the decline. Accompanying the drop in federal indirect taxes, subsidies were also somewhat lower in 1954 than in the preceding year. At the provincial level, indirect taxes showed an increase of 6 p.c., accounted for by gains in gasoline and retail sales taxes. A gain of 6 p.c. in municipal taxes reflected higher receipts from real and personal property taxes.

Depreciation allowances and similar business costs increased by 5 p.c. in 1954 to reach a total of $\$ 2.5$ billion. Almost all of the increase was the result of higher corporation depreciation, mining development write-offs, and depreciation charges for residential and non-residential real estate.

## Components of Final Demand

As previously noted, consumer expenditure and investment in new residential construction were the two important sustaining forces on the expenditure side in 1954. During the period of the down-turn in production, from mid-1953 to mid1954, the declines in the seasonally adjusted expenditure components were particularly sharp, but from mid-1954 to the end of the year all of the expenditure items were rising, with the exception of outlays for new machinery and equipment. These developments are discussed in greater detail below.

The major expansionary force in the economy in 1954 was personal expenditure on consumer goods and services which rose by 3 p.c., from $\$ 15 \cdot 1$ billion in 1953 to $\$ 15 \cdot 6$ billion in 1954 . This increase was associated with a continuing high level of personal disposable income and a drop in the proportion of income saved. Expenditures for services and non-durable goods were higher in 1954, by 6 p.c. and 3 p.c. respectively, but expenditures for durable goods declined by 6 p.c. With prices slightly higher than in the preceding year, the volume increase in total personal expenditure amounted to about 2 p.c.

The major gain in non-durable goods purchases in 1954 was in the food component which rose by 5 p.c. Purchases of clothing declined by 5 p.c., while expenditure on tobacco and alcoholic beverages remained unchanged. In volume terms, non-durable goods purchases as a whole showed approximately the same increase as is indicated by the value figures.

In the durable goods group, the declines, though widespread, were especially marked in purchases of new automobiles which fell by 12 p.c. Purchases of most types of household appliances and furniture also declined, and domestic shipments of washing machines and refrigerators were down by 9 p.c. and 12 p.c., respectively,
from the previous year; imports of refrigerators showed a drop of 42 p.c. The declines in these and other durable goods purchases were partially offset by higher sales of television sets, domestic shipments of which increased by 45 p.c. over 1953. With prices for durable goods as a whole slightly below the previous year, it is estimated that the volume of purchases declined by about 5 p.c.

Most of the service groups showed increases in 1954, with major gains occurring in expenditures for household operations and utilities, and for shelter. Outlays for user-operated transportation, medical care, education and personal care were also higher in 1954.

Expenditure for goods and services by all levels of government (federal, provincial and municipal) remained practically unchanged in 1954, at approximately $\$ 4.4$ billion. At the federal level, a decline of more than $\$ 100$ million, or 5 p.c., was offset by gains of 5 p.c. and 7 p.c., respectively, in provincial and municipal government expenditures. It may be noted that federal defence expenditure for 1954 amounted to $\$ 1.7$ billion compared with $\$ 1.9$ billion in 1953 , a drop of 9 p.c. (on the National Accounts basis); this decline was only partly offset by increases in federal non-defence outlays. An increase in provincial government expenditure on goods and services reflected larger public investment outlays, while the increase in municipal government expenditures appears to be associated with the high volume of new housing construction in 1954 which increased the demand for roads, schools, and water and sewage facilities.

The steady growth in outlays for capital goods which has been a prominent feature of the post-war period was interrupted in 1954. Gross domestic investment (excluding inventory investment) declined from $\$ 4 \cdot 8$ billion in 1953 to $\$ 4 \cdot 5$ billion, a drop of 6 p.c. This decline was more than accounted for by sharply reduced outlays for machinery and equipment (off by 17 p.c.) and by somewhat smaller expenditures for new non-residential construction (off by 3 p.c.). On the other hand, outlays for new housing continued to increase, with a gain of 9 p.c. over 1953.

The decline in business outlays for plant, machinery and equipment was fairly widespread. Heaviest individual declines occurred in manufacturing, agriculture, fishing and utilities. Smaller declines occurred in mining, quarrying and oil wells, and in the construction industry. Partially offsetting these reductions, increases were recorded for trade, finance and commercial services, with smaller gains occurring in forestry and non-government institutions.

During 1954, inventory changes were a dominating influence in the movement of total production. The volatility of this component, and the rapidity with which changes can occur in the inventory field, make it especially significant in the quarter-to-quarter movements in Gross National Product. Moreover, inventory developments were of major importance in the changes that took place in the annual levels of production in certain industries between 1953 and 1954. From one year to the next, the inventory sector shifted from a position of substantial net accumulation (amounting to $\$ 605$ million), to a position of net liquidation ( $\$ 230$ million). This represented a turn-around of approximately $\$ 800$ million, or 3 p.c. of Gross National Product, of which more than one-half, or nearly $\$ 0.5$ billion, was attributable to movements in business inventories; the remainder was accounted for by depletions in grain and farm-held inventories in 1954 compared with some accumulation in the previous year. The business inventory changeover occurred almost entirely within the manufacturing sector; the changes were most pronounced in the metal-
using industries (iron and steel products and transportation equipment) and in the textile and clothing industries. These were the industries that showed the largest production declines in 1954, and in which imports were cut back most sharply.

By the fourth quarter, however, liquidations no longer appeared to be in evidence and a small accumulation was taking place. This reversal in the inventory sector amounted to $\$ 0.4$ billion and, together with generally rising outlays in other components of Gross National Expenditure, brought the level of total output to a rate of $\$ 24.4$ billion in the final quarter of the year.

Exports of goods and services declined from $\$ 5 \cdot 4$ billion in 1953 to $\$ 5 \cdot 1$ billion in 1954, or by 5 p.c., owing largely to a drop of nearly $\$ 0 \cdot 3$ billion in exports of grains and flour. Non-grain exports were well maintained in 1954, with declines in motor vehicles, primary iron and steel products, and a few defence exports being offset by increases in newsprint, pulp, planks and boards, most base metals, fishery products and chemical products. Receipts from services also showed declines with the largest drop occurring in freight and shipping services.

Imports of goods and services also declined in 1954, from $\$ 5 \cdot 9$ billion in 1953 to $\$ 5 \cdot 6$ billion, or by 5 p.c. Almost three-quarters of this decline was concentrated in imports of iron and its products. Large reductions also occurred in imports of non-metallic minerals and in imports of fibres and textiles. Particular items affected were agricultural implements, and machinery and equipment items. Large increases in imports were few in 1954 and were limited mainly to food products. Among the invisible or service items, increases in tourist expenditures and in interest and dividend payments abroad largely offset the drop in payments for freight and shipping services.

For the year 1954 as a whole, the deficit on current account was slightly smaller than in 1953, amounting to about $\$ 0.4$ billion. The Canadian dollar in terms of U.S. dollars continued strong, being quoted at a premium of several cents throughout the year. However, this margin was beginning to close at the end of 1954, and particularly in the first two months of 1955.

## SYMBOLS

The interpretation of the symbols used in the tables throughout this publication is as follows:-
. figures not available.
... figures not appropriate or not applicable.

- nil or zero.
-- amount too small to be expressed or where "a trace" is meant.
${ }^{\mathrm{p}}$ preliminary figures.
${ }^{*}$ revised figures.
N.B.:- Instead of establishing a holding company as envisaged at page 363, paragraphs 2 and 3, provision was made in the Statutes of Canada 1953-54, c. 47 for both companies to report to the Minister mentioned in the text.


# CHAPTER I.-PHYSIOGRAPHY AND RELATED SCIENGES 

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Nore.-The interpretation of the symbols used in the tables throughout the Year Book will be found on the facing page.

## PART I.-GEOGRAPHY*

Canada comprises the greater part of the northern half of North America lying between the United States, Alaska and Greenland. In longitude Canada extends from Cape Spear, Newfoundland, at $52^{\circ} 37^{\prime}$ W, to Mount St. Elias, Yukon Territory, at $141^{\circ} \mathrm{W}$, a distance of $88^{\circ} 23^{\prime}$. In latitude it stretches from Middle Island, Lake Erie, at $41^{\circ} 41^{\prime} \mathrm{N}$, to the North Pole. The northernmost point of land is Cape Columbia on Ellesmere Island, at $83^{\circ} 07^{\prime} \mathrm{N}$. Thus, Canada is essentially a western and a northern country, a fact of increasing strategic significance. Moreover, its limits have drawn out the climatic, vegetation and soil belts into broad east-west zones, thereby supporting the east-west orientation of the main frontier of the country and aiding Canada's historic east-west development.

The shape of Canada is like a distorted parallelogram, with its four corners making important salients. In the north, the salient formed by the Arctic Archipelago, which penetrates deep into the Arctic basin, guards the northern approaches to the continent from Europe and Asia and makes Canada neighbour to the Union of Soviet Socialist Republics. In the south, the salient of peninsular Ontario thrusts far into the heart of the United States. In the east, the salient of Labrador and the Island of Newfoundland commands the shortest crossings of the North Atlantic Ocean and links Canada geographically with the United Kingdom and France. In the west, the broad arc of land between Vancouver in southern British Columbia and Whitehorse in Yukon Territory provides the shortest crossings of the North

[^1]Pacific Ocean between continental North America and the Far East. Canada thus stands at the crossroads of contacts with the principal powers and some of the most populous areas of the world.

In size, Canada is the largest country in the Western Hemisphere and the second largest country in the world. Its area of $3,845,774 \mathrm{sq}$. miles may be compared with that of the Union of Soviet Socialist Republics, $8,598,701 \mathrm{sq}$. miles;* the United States of America (including Alaska), $3,608,653$ sq. miles;* and Brazil, $3,288,050$ sq. miles.* It is more than forty times the size of the United Kingdom and eighteen times the size of France. This immense size, however, while multiplying certain resources and seeming to afford much scope for settlement, has imposed its own burdens and limitations, particularly because much of the land is mountainous and rocky or is under an Arctic climate. The developed portion is probably not more than one-third of the total; the occupied farm land is only $7 \cdot 6$ p.c. and the currently accessible forested land $16 \cdot 1$ p.c. of the total. The population of Canada, estimated at $15,195,000$ on June 1, 1954, may be compared with $159,696,000^{*}$ for the United States (1953) and with 55,772,000 for Brazil (1953).*

## 1.-Approximate Land and Fresh-Water Areas, by Province and Territory

Note.-A classification of land area as agricultural, forested, etc., is given at p. 20.

| Province or Territory | Land | Fresh Water | Total | Percentage of <br> Total Area |
| :---: | :---: | :---: | :---: | :---: |
|  | sq. miles | sq. miles | sq. miles |  |
| Newfoundland (incl. Labrador). | 147,994 | 7,370 | 155,364 | $4 \cdot 0$ |
| Prince Edward Island. | 2,184 |  | 2,184 | $0 \cdot 1$ |
| Nova Scotia. | 20,743 | 325 | 21,068 | $0 \cdot 6$ |
| New Brunswick | 27,473 | 512 | 27,985 | $0 \cdot 7$ |
| Quebec. | 523,860 | 71,000 | 594,860 | 15.5 |
| Ontario. | 348, 141 | 64,441 | 412,582 | 10.7 |
| Manitoba | 219,723 | 26,789 | 246,512 | 6.4 |
| Saskatchewan | 220,182 | 31,518 | 251,700 | $6 \cdot 6$ |
| Alberta. | 248,800 | 6,485 | 255, 285 | 6.6 |
| British Columbia | 359, 279 | 6,976 | 366,255 | $9 \cdot 5$ |
| Yukon Territory. | 205, 346 | 1,730 | 207,076 | $5 \cdot 4$ |
| Northwest Territories. | 1,253,438 | 51,465 | 1,304,903 | 33.9 |
| Franklin. | 541,753 | 7,500 | 549,25S | $14 \cdot 3$ |
| Keewatin. | 218,460 | 9,700 34,265 | 2288,160 | 5.9 15.7 |
| Mackenzie | 498,225 | 34,265 | 587,490 | 18.7 |
| Canada. | 3,577,163 | 268,611 | 3,845,774 | $100 \cdot 0$ |

## Section 1.-Physical Geography

## Subsection 1.-Physiographic Divisions

Canada includes each of the major characteristic structures of the North American continent, with the exception of the Atlantic coastal plain. Structure tends to dominate relief to a remarkable degree, even though its effects have been modified by glacial and river erosion or deposition. Consequently, structural regions have become main physiographic divisions. Basically, Canada consists of a central rocky upland, or shield, sloping down to flanking basins filled with sedimentary strata and rising again at its margins to mountains of folded rocks, interspersed with igneous intrusions.

[^2]Eight physiographic regions dominate the country: (1) The Canadian Shield; (2) the Lower Great Lakes-St. Lawrence Lowlands; (3) the Western Interior Lowlands of the Prairies and the Mackenzie basin; (4) the Northern Interior, that is, Hudson Bay Lowlands and those of the southern Arctic Archipelago; (5) the mountains of the Canadian Appalachians; (6) the Western Cordilleras; (7) the Arctic ranges, the proposed name for which is the Innuitias; and (8) the Arctic Coastal Plain*.


The Canadian Shield.-The Canadian Shield, covering an area of about $1,850,000$ sq. miles, or nearly one-half the country, is the core of the continent. Broad in the north, between Davis Strait and the Mackenzie basin, it tapers towards its southern extremity in Minnesota. Its eastern edge is tilted up to present the Torngat Mountains of Labrador and the mountains of Baffin Island, with heights of over 5,000 feet. The southern and western sides form much lower uplands, of from 600 to 1,200 feet. They are broken by faults and end in a zone of lake-filled basins, including the Great Lakes, Winnipeg, Athabasca, Great Slave and Great

[^3]Bear lakes. The north consists of a series of low prongs, like the Melville and Boothia peninsulas, flanked by channels and islands. The centre of the Shield has been depressed and is occupied by Hudson Bay and its arms and outlets. The whole makes up a knubbly, rocky plateau with old worn-down mountains above and enclosed plains beneath its general surface.

The rocks of the Shield comprise two series, the Archæan and Proterozoic, including very ancient sedimentaries, together with igneous intrusions, and metamorphic belts. The Archæan rocks are dominantly crystalline in the form of massive domes of from 1,200 to 1,400 feet high; they also embrace smail sedimentary depressions. The Proterozoic rocks are mainly sedimentary and often lie in wide, shallow basins, 600 feet or more below the surrounding uplands. The more important of these are the Coppermine, Thelon, Athabasca and Dubawnt plains in the northwest, the Port Arthur lowland in the southwest, and the Mistassini plain and Ungava trough in the east. The Proterozoics were frequently squeezed up into ranges of fold mountains such as the Bear and Snare Mountains south of Great Bear Lake, the Slave and Nonacho Mountains south of Great Slave Lake, the Athabasca and Tazin Mountains, east of Lake Athabasca, the Cuyuna and Penokean Mountains to the north and south of Lake Superior, the La Cloche Mountains north of Lake Huron and, finally, the Ungava Mountains in central Labrador.

The Shield may be subdivided on the basis of changes in the trend of rocks from place to place. In the south there lies the Grenville province, with an over-all trend from southwest to northeast. North of a line through Lake Nipissing and Lake Mistassini, occurs the Superior province with a west-east trend. It extends north from Lake Superior to about the Nelson River west of Hudson Bay and Great Whale River east of the Bay. The Ungava province occupies the northeast, with a west-southwest to east-northeast trend. Its counterpart is the Churchill province, between Lake Winnipeg and the Dubawnt plain, with a southwest to northeast trend. Finally, in the far northwest is the Slave province where the rocks trend from south-southwest to north-northeast.

The whole of the Shield has been glaciated. Current opinion favours Baffin Island and the high eastern rim of the Shield as the main source of ice; the ice sheets spread out, however, far to the west and south, pushing across to the Rockies, practically to the confluence of the Mississippi and Ohio Rivers, and to Long Island. The ice deepened pre-existing valleys, scooped out some of the softer plains, wore down ridges and spread quantities of debris. As it melted away it created huge frontal lakes, such as the predecessors of the Great Lakes, of the western lakes, and of the various 'clay belts', that now occupy hollows in the Shield. These lakes left behind extremely valuable lacustrine clays and beach gravels that have given the Shield the few agricultural areas it possesses. Post-glacial rivers, too, have benefited from the ice-cut or ice-ponded lakes, obtaining a large volume and a steady flow that make them ideal for hydro-electric development.

Shield structures the world over are peculiarly favourable to metal formation. Thus the Canadian Shield is Canada's principal source of iron, gold, nickel and radio-active metals and has also important supplies of copper, lead and zinc. Recent strides made in the exploitation of these mineral deposits as well as in the development of the vast forest and water-power resources of the area have attracted settlement as never before. The new communities afford important markets for the agricultural produce of the western provinces and the manufactured goods of Ontario and Quebec, and thus the resources of the Shield constitute a factor in cementing together the eastern and western portions of the country. In the north, however, climatic conditions and inaccessibility have prevented extensive colonization.

The Lower Great Lakes-St. Lawrence Lowlands.-Flanking the Shield to the south and southeast they consist of gently dipping or almost flat strata of Palæozoic sediments. Laid down in epi-continental seas in beds of mud (shale), sand and limestone, these strata produced a belted lowland with distinctive though subdued relief. The belts of shale form low vales and the belts of limestone stand up as prominent scarps, the most famous of which is the Niagara Escarpment. The whole region was greatly modified by ice and, as the ice melted, depressions became lakes. The glacial lakes were much larger than those of to-day. Glacial Lake Algonquin covered the three upper Great Lakes, together with Lakes Nipigon and Nipissing. It flowed out to the sea by the Mattawa-Ottawa and the Trent river valleys. When it receded it left behind important plains at Port Arthur, Nipigon and North Bay. Lake Erie developed from a succession of glacial lakes at different levels and consequently is surrounded by a number of sandy deltaic deposits, beach ridges and lacustrine flats, each of which has its own role in diversifying agriculture. Lake Ontario is the successor to Lake Iroquois and is surrounded by the old Iroquois beach which stands out everywhere and provides sites for roads and settlements. Farther east, the lower Ottawa and St. Lawrence valleys were invaded first by glacial Lake Champlain and then by the Champlain Sea. Here also, deltaic sands, beach gravels and lake-bottom clays play a pronounced part in agriculture and in the distribution of settlement. The ice left large terminal or inter-lobate moraines, the most significant of which are the Horseshoe moraine in southwest Ontario and the Oak Ridge moraine in central Ontario. These provide catchment basins for many small rivers.

The Lowlands may be divided into four sub-regions: Southwest Ontario, west of the Niagara Escarpment; Central Ontario, between the Escarpment and the Rideau Hills [these are a spur of the Shield (the Frontenac axis) between the Algonquins and the Adirondacks]; Eastern Ontario and the Montreal Plain; and the estuarine plains of Quebec and Anticosti Island.

The Lowlands are poorly endowed with fuel and other mineral resources, except for the natural gas fields and the salt deposits of southwest Ontario. However, the area is the most southerly part of Canada, has a very favourable climate and good grey-brown soils, and is therefore very productive. The immense waterpower potential of the Niagara and St. Lawrence Rivers and of the rivers plunging down from the Shield or the Appalachians is a major asset. Although the Lowlands comprise Canada's smallest region, they support nearly two-thirds of the country's population.

The Western Interior (Prairies and Mackenzie) Lowlands.-The largest plains in Canada, they occupy a truly continental depression between the Shield and the Rocky Mountains, long the site of shallow seas that expanded and contracted from Palæozoic to Cenozoic times. Sedimentary rocks laid down by rivers and by these seas in almost horizontal strata dominate the scene. They have been attacked, since, by differential erosion, the softer beds being worked down into basins and the harder beds standing up as intervening scarps.

The Prairies have thus come to occupy three levels or steps. The lowest consists of the Manitoba plain, of Palæozoic rocks, dipping gently away from the Shield. This step is at an elevation of from 600 to 900 feet. Much of it is floored by fertile glacial clays and beach ridges left by glacial Lake Agassiz that once filled the Red and Assiniboine Rivers and the flats around Lakes Winnipeg, Manitoba and Winnipegosis. It gives way, westward, to the great Cretaceous escarpment
known as the Manitoba Scarp. This Scarp has been cut into deeply by the Assiniboine, Swan and Saskatchewan Rivers and really exists as a series of uplands of from 1,600 to 2,600 feet high called the Turtle, Riding, Duck, Porcupine and Pasquia Mountains.

The second Prairie step stretches westward from this Scarp at a mean altitude of 2,000 feet. It, too, was glaciated. When the ice retreated large glacial lakes were left, known as Lakes Souris, Regina and Saskatoon. Lake-bed deposits to-day form some of the flattest and most fertile areas. Elsewhere, the ground is rather hummocky, with innumerable sloughs. Another great scarp occurs west of Weyburn and Moose Jaw; it is a continuation of the Missouri Coteau, a wellmarked feature in the United States, and is divided by great re-entrants into individual sectors, the most important of which are Wood and Bear Mountains.

West of the Coteau extends the third and highest Prairie step with an altitude of between 3,000 and 4,300 feet. In the south it is quite hilly, where the Cypress Hills rise above it to shed the waters into the Saskatchewan or Missouri basins. Covered with till, it has generally a slightly rolling surface, suited particularly to ranching. Old glacial lakes along the Bow and Oldman Rivers provide excellent agricultural areas, as do outwash plains in front of the moraines between Calgary and Edmonton.

The three Prairie steps are united by the great arms of the Saskatchewan River flowing from the Rockies to Lake Winnipeg, and also by the soil zones which form broad west-east arcs. Railways, roads and crop-belts accentuate these natural ties. So also do the coal, oil and gas fields. The Prairies are underlain by Canada's chief fuel-bearing rocks. From Estevan through Drumheller to Macleod are a succession of coal fields. Southwest Manitoba and south Saskatchewan lie on the edge of the Williston oil basin. Western Alberta is the site of another large oil field. Gas is important in southern Alberta and in the Peace River district.

A low divide of moraine-capped hills separates the Prairies from the Mackenzie Lowland. This huge area, 1,100 miles long and as wide as 300 miles, consists of an asymmetrical plain, tilted from plateau-like levels in the west, at 4,000 feet, to basin-like stretches in the east, at 500 feet. The main channel follows the eastern depression. Long, rapid, deeply entrenched tributaries, such as the Athabasca, Peace, Liard, Arctic Red and Peel Rivers, come in from the west. Where the Lowland meets the Shield, a few pronounced hollows occur, filled with great lakes. These were much larger during glacial times and consequently glacial-lake beds are exposed all around Lesser Slave, Athabasca, Great Slave and Great Bear Lakes; the more southerly of these areas provide reasonably good agricultural or forest lands. The Athabasca and Peace Rivers, emptying into glacial Lake Athabasca, formed extensive sand deltas; an even larger delta of this type is the one formed by the Slave River at Great Slave Lake. The Mackenzie delta is one of the largest on the continent.

Though the southern part of the Lowland, particularly in the Peace River district, forms good agricultural land, the northern part is climatically unsuited to commercial farming. The lead and zinc deposits at Pine Point and the oil field at Norman Wells, together with oil potential in the middle Mackenzie and Peel basins, are valuable northern assets.

The Northern Interior (Hudson Bay and Inner Arctic) Lowlands.Palæozoic sedimentaries, they dip gently north from the main height of land between the Hudson Bay and Great Lakes drainage basins. They are thus a parallel structure
to that of the St. Lawrence Lowlands, but there the likeness ends. In the past, marine transgression buried the northern Palæozoics, masking the effects of the underlying rocks. Much of the land, then, consists of great stretches of old marine beds sloping down from one raised beach to the other. Through these thrust occasional masses of drumlins and periodic outcrops of rock. Moreover, the climate is arctic and therefore vegetation is limited to grass, moss and lichen, and soil development is inhibited. Thus these northern plains are of little economic value except for some hunting and trapping.

The plains may be divided into four sub-regions: the coast plain of Hudson Bay, between Churchill and Moosonee; the southern part of Southampton Island, and Coats and Mansel Islands; most of the islands and parts of the coast of Foxe Basin; and parts of the southern Arctic Archipelago, including northwest Baffin, Somerset, Prince of Wales, eastern Victoria and eastern Banks Islands.

The Canadian Appalachians.-These are a part of the great range of fold mountains extending from Newfoundland through the Maritimes and southeast Quebec to Tennessee and, beyond the Mississippi, to Arkansas. They were thrown up chiefly in Silurian, Devonian and Carboniferous times, thus involving Palæozoic strata. In those times, two long geosynclines ran through the region-the Laurentian and the Acadian. The former extended from northwest Newfoundland through the Gaspe Peninsula and southeast Quebec, and gave birth to the Long Range of Newfoundland and the Shickshock and Notre Dame Mountains of Quebec. The Acadian geosyncline reached from southeast Newfoundland through Nova Scotia and eastern New Brunswick and was responsible for the uplands of those regions.

Between the mountain ranges are wide basins, floored by sandstone, notably those of Prince Edward Island, Minas basin, and the Annapolis and St. John valleys. The whole complex mass of mountains was planed down by prolonged erosion, so that elevation is moderate, not more than 4,200 feet, and outlines are long and smooth with few sharp crests. The name of the highest area, Tabletop Mountain in the Shickshocks, is indicative of the subdued topography. Subsequently the region was glaciated and small glacial lakes, valley moraines and outwash fans play a significant role in scenery and occupation. Raised beaches to a height of 250 feet line many stretches of coast and are marked by roads and settlements. The rivers have been strongly rejuvenated and are lined with terraces, particularly valuable for cultivation. Intrusions of granite and trap are frequent. The trap sill forming North Mountain in Nova Scotia encloses the famous Annapolis Valley.

Many of the igneous intrusions are associated with metals, as at Bathurst in New Brunswick where large deposits of lead and zinc are found. At one time gold was mined about the intrusions in Nova Scotia. A large deposit of iron at Wabana and deposits of lead and zine at Buchans, Newfoundland, are important. On the edge of the region, in the Eastern Townships of Quebec, is the world's largest supply of asbestos. Finally, significant deposits of coal occur in Cape Breton Island, Nova Scotia, and on the coasts of Northumberland Sound in New Brunswick. Thus, though the fertile plains of the sheltered basins included in the fold belts have long made the region predominantly agricultural, the mineral resources are the basis for limited but thriving industries. Lumbering on forestclad hills and fishing from the bays of a much-indented coast further diversify the activities of the region.

The Western Cordilleras.-These consist of a belt of lofty ranges, deep troughs and broad plateaux, extending for 1,400 miles through the Yukon Territory and British Columbia, and having a width of up to 500 miles. The Cordilleras are characterized by intensive folding, elevation and faulting, the intrusion of enormous batholiths-igneous masses that warped-up overlying sedimentariesand by volcanic activity. They are made up, therefore, of folded sedimentaries, igneous masses and metamorphic rocks. Although older rocks are exposed, Mesozoic and Cenozoic rocks predominate. In Precambrian times the geosynclines formed, in which the Yukon group of sediments in Yukon Territory and the Shuswap group in British Columbia were laid down. Later vast depressions occurred where sediments gathered that are now folded into the Purcells and southern Rockies. The accumulation of great depths of sediment, 20,000 feet or more thick, continued through Palæozoic into Mesozoic times. Then in Jurassic times violent volcanism, folding and the intrusion of granites occurred in the outer belts, throwing up the Coast and Selkirk Ranges. The Rocky Mountain system came into being during Cretaceous and Tertiary times.

The whole region was partly planed down and there is a frequent accordance of summit levels. However, subsequent uplift led to a renewed attack on the land by river and sea, and deeply entrenched rivers, fringed by pronounced terraces, are common. Glaciation has further deepened the valleys and eaten into the divides, leading to knife-like ridges and horn-shaped peaks. Eventual drowning of the coastal fringe made islands of outlying ridges and deep fjords of coastal troughs, producing a highly articulated shore line.

The Cordilleras may be divided into five structures: the Rocky Mountain system; the interior basins and plateaux; the Coast Range; the Inner Passage along the coast; and the outer insular arc.

The Rocky Mountain system begins, in Canada, with the Richardson Range, of moderate elevation, heavily glaciated and then dissected by rivers on its flanks, but with no marked peaks. Southwards is the Peel Plateau of flat sedimentary rocks, eaten into isolated tablelands by river action. Farther south occur the Mackenzie Mountains, with more intensively folded ridges and ice-serrated peaks rising to 9,000 feet. These are separated from the Rockies proper by a pronounced gap, that of the Liard River. The Rockies are composed partly of highly folded beds and partly of nearly flat beds that have been uplifted to great heights. They are split by faults and have been attacked by rivers so successfully as to give way to low passes such as Finlay Forks, Pine, Yellowhead, Kicking Horse and Crowsnest. Three clusters of peaks occur, dominated by Churchill Peak, 10,500 feet, in the north, Mount Robson, 12,972 feet, in the centre, and Mount Assiniboine, 11,870 feet, in the south.

The interior basins and plateaux are considerably lower than the Rocky or Coast Ranges. On the east they begin at a well-marked break called, in part of its course, the Rocky Mountain Trench. This carries the headwaters of the Liard, Peace, Fraser and Columbia Rivers. The Yukon Plateau, in the north, lies between Dawson and Selwyn Ranges. It has flat summits that are separated by deeply cut rivers. Southward, it passes to the Cassiar Mountains, strongly intruded with igneous masses. Thence the Stikine Plateau runs as far as the Skeena-Hazelton Ranges, which are again largely of intruded igneous rock. South of these is the Interior Upland of British Columbia, a wide area of flat-topped uplands from 3,000 to 4,000 feet high, with deep, many-terraced rivers flowing between. The gorge
of the Fraser River is one of the most spectacular in Canada. The river basins afford considerable fertile land for cultivation and the plateau tops provide excellent pasture for cattle grazing. Toward the United States border are the Columbia Mountains, a complex system of folded and intruded rocks and fault-line depressions, rich in minerals and with productive river and lake terraces.

The Coast Range has the highest peaks in Canada including Mount Logan, 19,850 feet, in the Yukon Territory, and Mount Waddington, 13,260 feet, in British Columbia. The Canadian portion starts in the high, partly volcanic, partly folded mass of peaks known as the St. Elias Range. Here active glaciers have cut deep troughs and sharp ridges. South, the Coast Range has some large batholiths. The crystalline rocks have frequently become exposed by the very active erosion caused by heavy precipitation from oceanic airs. Consequently, most of the Coast Range, despite its massive structure, consists of a saw-like series of sharp peaks and ridges.

The Inner Passage, along the coast, comprises the Georgia, Queen Charlotte and Hecate Straits. It is a continuation northward of the string of great depressions occurring in the United States, such as the Sacramento and Willamette Valleys, but it became drowned by the sea and there is now little plain left. The mainland and island coasts rise very steeply to lofty mountains. The Passage has a very large number of arms, most of which are ice-cut fjords or fault depressions. These give it a highly indented shore, of utmost value for coastal fisheries and useful too in providing ready access to a wealth of lumber.

The outer insular arc is made up of outlying ridges, in line with the Coast Range of the United States, which, however, have become partially submerged under the sea. The result is a number of hilly or mountainous islands enclosing small fertile basins. The Queen Charlotte group in the north and Vancouver Island in the south are the most important.

The Western Cordilleras are very complex in structure and consequently have $a$ wide range of resources. In some of the narrow plains, sedimentary rocks are underlain by coal fields as at Fernie and Nanaimo in British Columbia and at Carmacks in the Yukon Territory. Oil is purported to lie under plateau sections in the Yukon. Gold made the Cariboo district of British Columbia and the Klondike area of Yukon Territory world-famous in their time but of greater importance are the large mineral masses usually associated with igneous intrusions, of which copper, lead and zinc are the most significant. To this wealth of metals, the Cordilleras add vast hydro-electric potential and dense, extensive forests. Agriculture is limited except on the Fraser delta and in one or two of the interior trenches.

The Arctic Ranges, or Innuitias.-These make up an extensive belt of fold mountains, 800 miles long, involving rocks from Silurian to Cretaceous times. Folding started in Appalachian times in Silurian and Devonian beds. It overlapped that of the Cordilleras in Cretaceous and Cenozoic beds. Two sub-regions existthe Ellesmere Island system and the Parry Islands folded belt. The Ellesmere Island system seems to indicate a double orogeny, in Silurian and then again in Cretaceous times. The results have been fairly high ranges of from 6,000 to 10,000 feet where folding and thrust faulting are much in evidence. The trends of the folds are from southwest to northeast. The Parry Islands fold belt, trending more nearly west-east, consists of typical Appalachian-like folds in canoe-shaped structures about 2,000 feet high. They include large tracts of horizontal strata.

Farther north in the Sverdrup Islands and in those discovered by Stefansson, the strata form a coast plain* gently sloping towards the Arctic Ocean. The beds are much disturbed locally by piercement domes, notably in Axel Heiberg and Ellef Ringnes Islands. Geological discovery has not yet proceeded to the extent of determining the mineral wealth of the Innuitias. However, piercement domes are frequently the sites of the accumulation of pools of oil. The climate is so severe that it precludes any possibility of agricultural development and has even limited hunting and fishing activities.

[^4]
## Subsection 2.-Hydrographic Features

Lakes and Rivers.-Canada's fresh-water lakes and rivers cover an area of $268,611 \mathrm{sq}$. miles. The outstanding lakes are, of course, the Great Lakes, though only part of these are in Canadian territory. The International Boundary between Canada and the United States passes through Lakes Superior, Huron, St. Clair, Erie and Ontario. Details are given in Table 2.

## 2.-Elevations, Areas, and Depths of the Great Lakes

| Lake | Elevation Above Sea-level | Length | Breadth | $\underset{\text { Depth }}{\text { Maximum }}$ | Total Area | Area on Canadian Side of Boundary |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ft. | miles | miles | ft. | sq. miles | sq. miles |
| Superior........ | $602 \cdot 23$ | 383 | 160 | 1,302 | 31,820 | 11,200 |
| Michigan (U.S.A.) | $580 \cdot 77$ | 321 | 118 | 923 | 22,400 |  |
| Huron. | $580 \cdot 77$ 575.30 | 247 | 101 | 750 | 23,010 | 13,675 |
| Erie..... | $572 \cdot 40$ | 241 | 24 57 | 210 | 9,940 | 5,094 |
| Ontario.. | $245 \cdot 88$ | 193 | 53 | 774 | 7,540 | 3,727 |

There are no tides in the Great Lakes although considerable variation in water-levels is occasioned by strong winds.

Other large lakes of Canada, ranging in area from 9,000 to $12,000 \mathrm{sq}$. miles, are Lake Winnipeg, Great Slave Lake and Great Bear Lake. Apart from these, notable for size, there are innumerable lakes scattered over that major portion of Canada lying within the Canadian Shield. In an area of $6,094 \mathrm{sq}$. miles, accurately mapped, south and east of Lake Winnipeg, there are 3,000 lakes. In an area of 5,294 sq. miles, accurately mapped, southwest of Reindeer Lake in Saskatchewan, there are 7,500 lakes.

## 3.-Elevations and Areas of Principal Lakes, by Province

Notz.-Areas given are for mean water levels. In the case of those reservoirs and lakes for which two elevations are given, HW means high water, LW low water, and N normal level.

| Province and Lake | Elevation | Area | Province and Lake | Elevation | Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundiand- | ft. | sq.miles | Nova Scotia- | ft. | sq.miles |
| Deer... | 12 | 24 | Bras d'Or. | tidal | 360 |
| Grand. | 270 | 140 |  |  |  |
| Melville. . | sea-level | 1,133 |  |  |  |
| Michikamau | 1,650 | 566 | New Brunswick- |  |  |
| Red Indian. | 500 700 | 65 15 | Grand.... | tidal | 65 |

## 3.-Elevations and Areas of Principal Lakes, by Province-continued

| Province and Lake | Elevation | Area | Province and Lake | Elevation | Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Quebec- | ft. | sq.miles | Ontario-concluded | it. | sq.miles |
| Abitibi (total, 350) part Albanel. | 868 1,289 | 55 145 | Seul (reservoir) | HW1,172 <br> LW 1, 156 | 530 |
|  | HW 732 | 109 | Simcoe. . . . . . . . . . . . . . . . . | LW 718 | 280 |
| Bask | LW 677 |  | Stout, Berens River............ | 1,039 | 50 |
| Bienville. |  | 392 | Sturgeon, English River....... | 1,342 | 110 |
| Burnt (Brale) ............. | HW 1,203 | 56 | Superior (total, 31,820) part.... | 692 | 11,200 |
| Cabonga (reservoir) (Kaka- | HW 1,185 | 66 | Timagami.................... | HW $\begin{aligned} & 962 \\ & 593\end{aligned}$ | 90 |
| Chamga). |  | 6 | Timiskaming (total, 110) part $\{$ | $\begin{array}{ll} \mathrm{HW} & 593 \\ \mathbf{N} & 584 \end{array}$ | 55 |
| Chibougamau | 1,253 | 138 | Trout, English River | 1,294 | 156 |
| Clearwater. | 790 | 410 | Trout, Severn River. |  | 215 |
| d'Iberville. |  | 260 | Woods, Lake of the (total, | HW1,062 | 953 |
| Evans. | 612 | 180 |  | LW 1,056 |  |
| Goeland | 660 | 125 |  |  |  |
| Indian House |  | 125 |  |  |  |
| Kaniapis |  | 210 |  |  |  |
| Kipawa | 884 | 95 |  |  |  |
| Lower Seal | 860 | 130 | Manitoba- |  |  |
| Manicouag |  | 110 |  |  |  |
| Manuan | 1,340 | 100 | Athapa | 951 |  |
| Maricourt |  | 110 | Atikameg. | 855 | 112 |
| Mattagam | 615 | 88 | Beaverhill | 651 | 70 |
| Minto. |  | 485 | Cedar | 829 | 537 |
| Mistassini | 1,243 | 840 | Cormorant | 840 | 134 |
| Nichikun | 1,760 | 150 | Cross Nelson | 679 | 274 |
| Olga. | 635 | 50 | Dauphin. . . . . . . . . . . . . . . . . | 853 | 200 |
| Payne |  | 230 | Dog | 815 | 64 |
| Pipmak |  | 90 | Etawne |  | 28 |
| Pletipi. |  | 138 | Gods. | 585 | 319 |
| Quinze, des | HW 867 | 55 | Goose | 935 | 53 |
|  |  |  | Island |  | 181 |
| St. Francis, River St. Lawrence (total, 83) part. | $\begin{array}{ll}\text { N } & 151\end{array}$ | 63 | Kamuchawie (total, 56 ) part. . | 1,153 | 35 30 |
| St. John..................... | N 321 | 375 | Kipahigan (total, 59) part..... | 963 | 29 |
| St. L | LW 65 | 57 | Kiskitto. . . . . . . . . . . . . . . . . . | 696 | 65 |
|  |  |  | Kiskittogisu | 709 | 99 |
| Simar | LW 11 | 130 | Kississing. | 920 | 141 |
|  | HW 593 | 5 | Manison. | 813 | 1,817 |
| Timiskaming (total, 110) part | N 584 | 55 | Moose | 838 | 525 |
| Two Mountains | 72 | 63 | Namew (total, 79) | 873 | 8 |
| Waswanipi. | 680 | 75 | Northern Indian. | 725 | 150 |
| Ontario |  |  | Nueltin (total, 336) part........ |  | 76 155 |
| Ontario |  |  |  | 615 | 54 |
| Abitibi (total, 350) part. |  |  | Pelican, west of Lake Winni- |  |  |
| Dog. Eagle | $1,378$ | 61 137 | pegosis. <br> Playgr | 837 711 | 80 257 |
| Erie (total, 9,940 ) part | 1,192 572 | 5,094 | Red Deer, west of Lake Win- |  |  |
| Huron, including Georgian |  |  | nipegosis. | 862 | 86 |
| Bay (total, 23,010) part...... | 581 | 13,675 | Reed. | 911 | 78 |
| Kesagami. |  | 90 | Reindeer (total, 2,444) part.... | 1,150 | 386 |
| La Croix (total, 55) pa | 1,181 | 25 | St. Martin..................... | 798 | 125 |
| Long. | 1,025 | 75 | Setting | 737 | 49 |
| Manitou, Kenora | 1,215 | 60 | Sipiwesk | 598 | 201 |
| Mille Lacs, Lac d | 1,491 | 102 | Sisipuk (total, 99) p | 915 | 73 |
| Minnitaki | 1,177 | 72 | Southern Indian. | 835 | 1,060 |
| Nipigon. | 852 | 1,870 | Stevenson. |  | 75 |
| Nipissing | 643 | 330 | Swan. | 849 | 100 |
| Ontario (total, 7,540) part | 246 | 3,727 | Talbot................ . . . . | 845 | 72 |
| $\underset{\text { Rainy (total, 345) part }}{\text { (reservoir) }}$ | $\text { HW1, } 108$ | 275 | Todatara (total, 241) part..... | 1.121 | 156 62 |
| Red. | $\begin{array}{r}1,157 \\ \hline 1.15 \\ \hline\end{array}$ | 69 | Waterhe | 829 | 90 |
| St. Clair (total, 460) pa | 575 | 270 | Wekusko | 840 | 64 |
| St. Francis, River St. Lawrence (total, 83) part. | $\begin{array}{\|ll} \text { LW } & 151 \\ \mathbf{N} & 153 \end{array}$ | 20 | Winnipeg. | 713 831 | 9,094 2,086 |
| St. Joseph................ | ( 1,219 | 187 | Woods, Lake of the (total | HW1,062 |  |
| Sandy.. | 1,190 | 270 | $1,485)^{1}$ part (reservoir). | LW 1,056 | 69 |

[^5]3.-Elevations and Areas of Principal Lakes, by Province-concluded

| Province and Lake | Elevation | Area | Province or Territory and Lake | Elevation | Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Saskatchewan- | ft. | sq.miles | British Columbia-concluded | ft. | sq.miles |
| A misk. | 964 | 168 | Kootenay . . . . . . . . . . . . . . . | 1,741 | 168 |
| Athabasca (total, 3,058) part.. | 699 | 2,165 | Kotcho (unsurveyed and esti- |  |  |
| Besnard.................... | 1,294 <br> 1,517 <br> 1 | 72 54 | mated)................... |  | 90 59 |
| Candle Birc | 1,517 1,620 | 54 56 | Lower Arrow. . . . . . . . . . . . . . Okanagan............... | 1,379 | 59 136 |
| Cande. | 1,415 | 78 | Ootsa........................... | 2,666 | 130 |
| Churchill | 1,382 | 213 | Quesnel. | 2,375 | 100 |
| Cold (total, 136) part | 1,756 | 36 | Shuswap........................ | 1,137 | 120 |
| Cree.............. | 1,541 | 350 | Stuart......................... | 2,225 | 139 |
| Cumberland | 871 | 93 | Tagish (total, 138) part. | 2,148 | 93 |
| Deschambault | 1,072 | 209 | Takla. | 2,270 | 102 |
| Doré. | 1,506 | 248 | Teslin (total, 161) part. ........ | 2,250 | 65 |
| Ile-a-la-Crosse. . . . . . . . . . . . . . | 1,379 | 165 | Upper Arrow.................. | 1,395 | 88 |
| Kamuchawie (total, 56) part... | 1,153 ${ }_{963}$ | 26 30 |  |  |  |
| La Plonge...................... | 1,476 | 90 |  |  |  |
| La Ronge. | 1,250 | 450 |  |  |  |
| Last Mountain | 1,608 | 89 |  |  |  |
| Loche, la...................... | 1,459 | 70 |  |  |  |
| Montreal. . . . . . . . . . . . . . . . . . . | 1,608 | 162 | Northwest Territories- |  |  |
| Namew (total, 79) part........ | -873 | 71 |  |  |  |
| Nemeiben. Peter Pond. | 1,259 <br> 1,382 | 63 302 | Aberdeen..................... | 1.130 | 475 207 |
| Primrose (total, 181) part...... | 1,964 | 173 | Aylmer............................ | 1,230 | 340 |
| Quill.. | 1,704 | 236 | Baker. | 30 | 975 |
| Reindeer (total, 2,444 ) part. | 1,150 | 2,058 | Clinton-Colden | 1,226 | 253 |
| Riou. |  | 75 | Dubawnt | 500 | 1,600 |
| Sisipuk (total, 99) part........ | 915 | 26 | Faber | 753 | 163 |
| Smoothstone................... | 1,572 | 110 | Franklin | .. | 175 |
| Snake. | 1,262 | 159 | Garry. |  | 980 |
| Tazin. | 1,130 | 156 | Gras, de. | 1,300 | 345 |
| Wollaston. | 1,300 | 768 | Great Bear | 391 | 12,000 |
|  |  |  | Great Slave. . . . . . . . . . . . . . . | 495 | 11,170 |
|  |  |  | Hardisty . . . . . . . . . . . . . . . . | 699 | 107 |
|  |  |  | Hottah |  | 377 |
|  |  |  | Kaminuriak | 320 | 360 |
| Alberta- |  |  | Macdougal.................... |  | $\stackrel{265}{ }$ |
|  |  |  | Mackay...................... | 1,415 | 250 |
| Athabasca (total, 3,058) part.. | ${ }^{699}$ | 893 | Maguse. . . . . . . . . . . . . . . . . |  | 540 90 |
| Beaverhill. <br> Biche la | 2,202 1,784 | 80 94 | Marian . . . . . . . . . . . . . . . ${ }_{\text {Martre, }}$ | 495 | 90 685 |
| Buffalo........................... | 2,566 | 56 | Nueltin (total, 336 ) part........ | . | 260 |
| Calling. | 1,947 | 55 | Nutarawit...................... |  | 350 |
| Claire. | 699 | 545 | Pelly . . . . . . . . . . . . . . . . . . . . . |  | 331 |
| Cold (total, 136) part.......... | 1,756 | 100 | Point. |  | 295 |
| Lesser Slave. . . . . . . . . . . . . . . | 1,893 | 461 | Rae. | 748 | 74 |
| Mamawi. | 699 | 64 | Schultz | 115 | 110 |
| Peerless. | 2,267 | 75 | Thoalintos. |  | 160 |
| Primrose (total, 181) part..... | 1,964 | 8 | Todatara (total, 241) part..... |  |  |
| Sullivan (variable) <br> Utikuma. | 2,652 2,105 | 62 85 | Yathkyed.................... | 300 | 860 |
| British Columbia- |  |  | Yukon Territory- |  |  |
| Adams. . . . . . . . . . . . . . . . | 1,334 | 52 | Aishihik..................... |  | 107 |
| Atlin (total, 308) part.......... | 2,200 | 307 | Atlin (total, 308) part.......... | 2,200 | 1 |
| Babine........................ | 2,330 | 194 | Kluane. . | 2,500 | 184 |
| Chilko. | 3,842 | 75 | Kusawa. | 2,565 | 56 |
| Eutsuk. | 2,817 | 96 | Laberge | 2,100 | 87 |
| François | 2.345 | 91 | Tagish (total, 138) part. ....... | 2,148 | 45 |
| Harrison. | 34 | 87 | Teslin (total, 161) part........ | 2,250 | 96 |

The river systems of Canada, excluding those of the Arctic Archipelago, are best studied by segregating the main drainage basins as shown in Table 4.

## 4.-Drainage Basins

Nore.-Classified by the Engineering and Water Resources Branch, Department of Northern Affairs and National Resources, Ottawa.

| Drainage Basin | Area <br> Drained ${ }^{1}$ | Drainage Basin | Area Drained ${ }^{1}$ |
| :---: | :---: | :---: | :---: |
| Atlantic Basin | sq. miles | Aretic Basin | sq. miles |
| Atlantic Provinces. Great Lakes and St. Lawrence River. | $\begin{aligned} & 213,885 \\ & 359,312 \end{aligned}$ |  | $\begin{aligned} & 370,681 \\ & 559,676 \end{aligned}$ |
| Tetal. | 573,197 | Total | 930,357 |
| Hudson Bay Basin |  | Pacific. <br> Yukon River | $\begin{aligned} & 273,540 \\ & 127,190 \end{aligned}$ |
| Northern Quebec......................... Southwest Hudson Bay.......... | 343,259 288,997 | Total | 400,730 |
| Western Hudson Bay.................... | $\begin{aligned} & 368,182 \\ & 383,722 \end{aligned}$ | Gulf of Mexico Basin | 10,121 |
| Total........................... | 1,379,160 | Area, Canada (less Aretic Archipelago) | 3,310,396 |

[^6]In Eastern Canada, the Great Lakes and St. Lawrence drainage basin dominates all others and forms an unequalled system of navigable inland waterways through a region rich in natural and industrial resources. From Duluth at the head of Lake Superior to Belle Isle at the entrance to the Gulf of St. Lawrence, the distance is 2,280 miles. The St. Lawrence waterway and its tributaries, most of which have lakes available for reservoiring, have very large developed and potential power resources.

The greater part of Canada drains into Hudson Bay and the Arctic Ocean; the Nelson River drainage is exceptional in running through the most arable and the most settled part of Western Canada, but otherwise the rivers of the West, east of the Rockies, run away from the settled areas towards the cold northern salt waters and this adversely affects their industrial utility. The Mackenzie River, which drains Great Slave Lake, is, with its headwaters, the longest river in Canada ( 2,635 miles) and its valley constitutes the natural transportation route through the Northwest Territories down to the Arctic Ocean. From Fort Smith, on the Slave River, large river boats run without any obstruction down to Aklavik on the delta of the Mackenzie, a distance of 1,292 miles. Table 5 gives the lengths of the principal rivers with their tributaries classified according to the four major drainage basins.

## 5.-Lengths of Principal Rivers and Their Tributaries

Norz. - In this table the tributaries and sub-tributaries are indicated by indentation of the names. Thus, the Ottawa and other rivers are shown as tributary to the St. Lawrence, and the Gatineau and other rivers as tributary to the Ottawa.

| Drainage Basin and River | Length | Drainage Basin and River | Length |
| :---: | :---: | :---: | :---: |
|  | miles |  | milea |
| Flowing into the Atlantic Ocean |  | Flowing into the Atlantic Ocean -con. |  |
| St. Lawrence (to head of St. Louis, Minn.).. | 1,900 | Ottawa-concl. |  |
| Ottaws.................................. | 696 | Mississippi... | 105 |
| Gatineau............................... | 240 | Petawawa. | 95 |
| du Lievre......................................... | 205 135 | South Nation | 80 |
| Madawaska. .............................. | 130 | North... | 80 |
| Rouge..................................... | 115 | North Nation | 60 |

## 5.-Lengths of Principal Rivers and Their Tributaries-concluded

| Drainage Basin and River | Length | Drainage Basin and River | Length |
| :---: | :---: | :---: | :---: |
| Flowing into the Atlantic Ocean-concl. | miles | Flowing into Hudson Bay-concluded | miles |
| St. Lawrence-concl. |  |  |  |
| Saguenay (to head of Peribonca). | 475 | Red (to head of Lake Traverse)........... | 355 |
| Peribonca. Mistassini. | 280 185 | George (to Hubbard Lake)................. | 345 340 |
| Ashuapmuchuan | 165 | Abitibi.... . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 340 |
| St. Maurice. | 325 | Mattagami | 275 |
| Mattawin. | 100 | Missinabi | 265 |
| Manicourgan (to head of Racine-de- |  | Hayes..................................... | 300 |
| Bouleau)........... | 310 | Winisk. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 295 |
| Outardes. | 270 | Whale. | 270 |
| Bersimis. | 240 | Harricanaw | 250 |
| Richelieu. | 210 | Great Whale | 230 |
| St. Francis. | 165 | Leaf. | 165 |
| Chaudière. <br> Via the Great Lakes- | 120 |  |  |
| French (to head of Sturgeon) | 180 | Flowing into the Pacific Ocean |  |
| Sturgeon. | 110 |  |  |
| Grand. | 165 | Yukon (mouth to head of Nisutlin)....... | 1,979 |
| Thames | 163 | Yukon (Int. Boundary to head of |  |
| Spanish. | 153 | Nisutlin)............................ | 714 |
| Trent. | 150 | Porcupine............................ | 590 |
| Mississagi | 140 | Lewes. . . . . . . . . . . . . . . . . . . . . . . . . . . | 338 |
| Nipigon (to head of Ombabika)...... | 130 | Pelly.................................... | 330 |
| Moira. | 60 | Stewart................................ | 320 |
| Thessal | 40 | Macmillan | 200 |
| St. John. | 418 | White | 185 |
| Romaine. | 270 | Columbia (total) . . . . . . . . . . . . . . . . . . . . | 1,150 |
| Natashquan | 241 | Columbia (in Canada)................... | 459 |
| Moisie. | 210 | Kootenay (total)..................... | 407 |
| Hamilton | 208 | Kootenay (in Canada) | 276 |
| Exploits. | 153 | Fraser.. | 850 |
| Naskaupi | 152 | Thompson (to head of North Thompson) | 304 |
| Canairikto | 139 | North Thompson.... | 210 |
| Eagle. | 138 | South Thompson (to head of Shuswap). | 206 |
| Miramichi | 135 | Nechako.. | 287 |
| Marguerite | 130 | Stuart (to head of Driftwood) | 258 |
| Gander. | 102 | Chilcotin. . ${ }^{\text {a }}$ - | 146 |
| Flowing into Hudson Bay |  | West Road (Blackwater) Skeena.................. | 141 360 |
|  |  | Bulkley (to head of Maxam Creek)...... | 160 |
| Nelson (to head of Bow) | 1,600 | Stikine. . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 335 |
| Saskatchewan (to head of Bow) | 1,205 | Alsek. | 260 |
| South Saskatchewan. | 865 | Nass. | 236 |
| Red Deer. | 385 |  |  |
| Bow. | 315 |  |  |
| Belly | 180 | Flowing into the Aretic Ocean |  |
| North Saskatchewan | 760 |  |  |
| Red (to head of Sheyenne) | 545 | Mackenzie (to head of Finlay) ............ | 2,635 |
| Assiniboine.. | 590 | Peace (to head of Finlay)................ | 1,195 |
| Souris. | 450 | Finlay.................................. | 250 |
| Qu'Appelle | 270 | Smoky | 245 |
| Winnipeg (to head of Firesteel) | 475 | Little Smoky | 185 |
| English. | 330 | Parsnip. | 145 |
| Churchill.. | 1,000 | Athabasca. | 765 |
| Beaver. | 305 | Pembina | 210 |
| Koksoak (to head of Kaniapiskau) | 660 | Liard. | 755 |
| Kaniapiskau. | 575 | South Nahanni | 350 |
| Severn (to head of Black Birch). | 610 | Petitot. | 295 |
| Albany (to head of Cat) | 610 | Fort Nelson | 260 |
| Dubawnt. | 580 | Hay. | 530 |
| Eastmain | 510 | Peel (to head of Ogilvie) | 425 |
| Fort George (to Nichicun Lake) | 480 | Arctic Red. | 310 |
| Attawapiskat. | 465 | Slave. | 258 |
|  | 400 | Back.... | 605 |
| Waswanipi............ | 190 | Coppermine | 525 |
| Nelson (to head of Lake Winnipeg) | 400 | Anderson. | 430 |
| Rupert..................................... | 380 | Horton. | 275 |

Ocean Areas and Seas.-A comprehensive description of the ocean areas and seas of Canada would include sciences such as oceanography, marine biology and meteorology. However, the basic factor in any study of the oceanic-continental
margin is the physical relief of the sea-floor and the scope of the information presented here is, therefore, restricted to this and a few salient features of the Atlantic, Arctic and Sub-Arctic, and Pacific marginal seas surrounding Canada. Further details are given in the 1947 Year Book, pp. 3-12.

Atlantic.-Along this coastal area, the sea has inundated valleys and lower parts of the Appalachian Mountains as well as those of the Canadian Shield. The submerged Continental Shelf, protruding seaward from the shore, effects the transition from continental to oceanic conditions. This Shelf is distinguished by great width and diversity of relief. From the coast of Nova Scotia its width varies from 60 to 100 miles, from Newfoundland 120 to 50 miles (at the entrance of Hudson Strait), and northward it merges with that of the Polar Sea. The outer edge of the Shelf, known as the Continental Shoulder, is of varying depths of from 100 to 200 fathoms before the Shelf suddenly gives way to the steep declivity leading to abyssal depths. The over-all gradient of the Atlantic Continental Shelf is slight but the whole area is studded with shoals, plateaux, banks, ridges and islands and the coasts of Nova Scotia and Newfoundland are rugged and fringed with islets and shoals. Off Nova Scotia, the 40 -fathom line lies at an average of 12 miles from the shore and constitutes the danger line for coastwise shipping. The whole floor of the marginal sea appears to be traversed by channels and gullies cutting well into the Shelf.

The main topographical features of the Atlantic marginal sea-floor are attributed to glacial origin but land erosion is an important factor. Eroded materials are carried seaward by rivers, ice and wind, and wave action against cliffs and shorebanks washes away enormous masses that are deposited over the surrounding sea-floor. The conformation of the continental sea-floor is, therefore, constantly changing and navigation charts of Canada's eastern seaboard must be continuously revised.

Arctic and Sub-Arctic.-The submerged plateau protruding from the northern coast of North America is a major part of the Great Continental Shelf surrounding the North Polar Sea on which lie all the Arctic Islands of Canada, Iceland, Greenland and most of those of Europe and Asia. The Polar Shelf develops its maximum width on the 80th meridian of west longitude where it extends from the south of James Bay to the north coast of Ellesmere Island, a distance of over 2,000 miles.

The floor topography of this continental margin is somewhat hypothetical but sufficient has been charted to indicate an abrupt break at the northern oceanward edge. This steep continental terrace borders the whole western side of the Canadian Archipelago and constitutes one of the most striking and significant features of the Polar regions. From this declivity, deep well-developed troughs, cut by glaciers, enter between the western group of islands. A ridge across Davis Strait on which the depth is about 200 fathoms separates this basin from the open Atlantic.

Hudson Bay and Hudson Strait bite deeply into the continent. Hudson Bay is an inland sea 250,000 sq. miles in area having an average depth of about 70 fathoms; the greatest charted depth in the centre of the Bay is 141 fathoms.

Hudson Strait separates Baffin Island from the continental coast and connects Hudson Bay with the Atlantic Ocean. It is 430 miles long and from 37 to 120 miles wide and its greatest charted depth of 481 fathoms is close inside the Atlantic entrance. Great irregularities of the sea-floor are indicated but, except in inshore waters, few navigation hazards have been located.

Pacific.-The marginal sea of the Pacific differs strikingly from the other marine zones of Canada. The hydrography of British Columbia is characterized by bold, abrupt relief-repetition of the mountainous landscape. Numerous inlets penetrate the mountainous coast for distances of 50 to 75 miles. They are usually a mile or two in width and of considerable depth, with steep canyon-like sides. From the islet-strewn coast, the Continental Shelf extends from 50 to 100 seamiles to its oceanward limit where depths of about 200 fathoms are found. There the sea-floor drops rapidly to the Pacific Deeps, parts of the western slopes of Vancouver Island and the Queen Charlotte Islands lying only four miles and one mile, respectively, from the edge of the declivity. These great detached land-masses are the dominant features of the Pacific marginal sea. Along the whole coast continuous navigation is afforded through an inside passage sheltered from the sea by a protective barrier of islands. As is to be expected in a region so irregular in hydrographic relief, shoals and pinnacle rocks are numerous, necessitating great caution in navigation.

## Subsection 3.-Islands

The northern and western coasts of Canada are skirted by clusters of islands. Those on the north include a very large group within the Arctic Circle. On the west coast, Vancouver Island and the Queen Charlotte Islands are the largest and most important but the coastal waters are studded with many small rocky islands.

The Island of Newfoundland forming part of the Province of Newfoundland, the Province of Prince Edward Island, Cape Breton Island forming part of the Province of Nova Scotia, Grand Manan_ Campobello Islands forming part of the Province of New Brunswick, Anticosti Island and the Magdalen group included in the Province of Quebec are the chief islands off the eastern coast.

Notable islands of the inland waters include Manitoulin Island ( 1,068 sq. miles in area) lying in Lake Huron, the so-called Thirty Thousand Islands of Georgian Bay and the Thousand Islands in the outlet from Lake Ontario into the St. Lawrence River.

## 6.-Islands of Over 2,000 Sq. Miles in Area

| Island | Area | Island | Area |
| :---: | :---: | :---: | :---: |
|  | sq. miles |  | sq. miles |
| Aretic Ocean- |  | Aretic Ocean-concluded |  |
| Baffin. | 178,700 | Bylot. | 4,200 |
| Ellesmere | 82,119 | Prince Charles. | 3,500 |
| Victoria. | 81,930 | Cornwallis.. | 2,670 |
| Banks. | 23,230 | Amund Ringnes........................ | 2,515 |
| Devon. | 20,860 |  |  |
| Melville. | 16,141 |  |  |
| Axel Heiberg. | 15,779 | Atlantic Ocean- |  |
| Southampton.. | 15,700 12 | Newfoundland........................... | 42,734 3 |
| Prince of Wales | 12,830 9,370 | Cape Breton. ${ }_{\text {Anticosti ( Gulf of St. Lawrence) . ........ }}$ | 3,970 3,043 |
| Somerset.... | 9,370 6,081 | Anticosti (Gulf of St. Lawrence)....... Prince Edward...................... | 3,043 2,184 |
| Bathurst.... | 6,041 |  |  |
| Ellef Ringnes. | 5,139 | Pacifie Ocean- |  |
| King William. | 4,870 | Vancouver............................... | 12,408 |

## Subsection 4.-Mountains

The predominant orographical feature in Canada is the Great Cordilleran Mountain System which contains many peaks over 10,000 feet in height. The highest peak in Canada is Mount Logan in the St. Elias Mountains of Yukon Territory, which rises 19,850 feet above sea level. The highest elevations in other parts of the country are shown in Table 7.

## 7.-Height of Principal Mountain Peaks in each Province and Territory, by Mountain Range



[^7]
## 7.-Height of Principal Mountain Peaks in each Province and Territory, by Mountain Range-concluded




## ELEVATIONS OF RAILWAY STATIONS IN CITIES AND TOWNS WITH OVER $\mathbf{5 , 0 0 0}$ INHABITANTS

(Census of 1951)

| Province | Station | Elevation Above Sea-Level | Province | Station | Elevation Above Sea-Level | Province | Station | Elevstion Above Sea-Level |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | feet |  |  | fet |  |  | feet |
| Newfoundland........ |  | 1 | Quebeo-Concluded | Quebec West......................... |  | Ontario-Concluded | Pembroke (C.P.R.) . . . . . . . . . . . . . . | 381 |
| Newioundland......... | St John's................................. | ${ }^{8}$ | Quebee-Conclured | Rimouski (C.N.R.)............... | 377 | Ontario-Coneluded | Perth | 440 632 |
|  | Wabana, ............................... |  |  | Rividre du Loup (C.N.R.)............ Rouyn............................ | 315 962 |  | Peterborough (C.P.R.) Port Arthar (C.P.R.) | 632 |
| Prince Edward Island |  | 9 |  | Ste. Agathe des Monts................ | 1,207 |  | Port Colthome (C.N.R.) | 68 38 287 |
| Prince Edward Island | Summerside. | 9 |  | Ste. Foy,...................... | 120 109 |  | Port Hope (C.N.R.). | 287 269 |
| Nova Scotis.......... |  |  |  | St. Jeas (C.P.R.) | 118 |  | Preston..... | 926 |
|  | Amherst (C.N.R.) ................... | 60 13 |  | St Jcaa (C.P.N.R.)....................... | 121 |  | Renfrew (C.P.R | 418 |
|  |  | 74 |  | St. Jerome (C.P.R.) ................... | 308 |  | Riverside..... | 201 318 |
|  | Halifax (new C.N.R.)................. | 24 |  | St. Joseph. St. Joseph dilma (Site of R.C. |  |  |  | 318 756 |
|  | New Glasgow (C.N.R.) ............... | 31 103 |  | St. Chureh) ....................... | 301 |  | Sarnis (C.N.R.)............. | 612 |
|  | New Waterford (Junction) ............. | 103 |  | St. Lambert (C.N.R.)................ | 35 |  | Sault Ste Jratie (C.P. R.) | 636 |
|  | Springhilf (C. R, and C. Co.)....... | 435 |  | St. Laurent.............................. |  |  | Simeoe (South) | 714 |
|  | Stellarton (C.N.R.) . . . . . . . . . . . . | 62 |  | St. Miche. Therdee | 121 |  | Smith's Falls (C.P.R.) | 428 |
|  | Sydney (C.N.R.) ${ }^{\text {a }}$ | ${ }_{6} 7$ |  |  | 306 |  | Stratford (C N. R.).... | 1.193 |
|  | Sydney Mines (C.N.R.) | 62 |  | Shawinigan South......... |  |  | Sudbury (C.P.R.).. | 857 |
|  | Yarmouth (C.N.R.) .................. | 15 |  | Sherbrooke (C.P.R. | 593 |  | Swansca ( $\mathrm{C}, \mathrm{N} \mathrm{K} \mathrm{K}$ ) | ${ }_{5} 65$ |
|  |  |  |  | Sore! (C.N.R.) | 49 |  | Tillsonburg (C.N.R.) | 759 |
| New Brunswick...... | Campbellton (C.N.R.) ................ Chathsm......... | 596 |  | Thetford Mines (Q.C.R.) . . . . . . . . . . | 1.028 |  | Timmin ( O ( $\mathrm{N} . \mathrm{R} . \mathrm{R}$ ) | 800 1.029 |
|  | Edmundston (C.P.R.) ................ | 596 479 |  | Three Rivers (C.P.R.).................. | 1,010 |  | Timmins (O,N.R.). | $\begin{array}{r}1.029 \\ \hline 273\end{array}$ |
|  | Fredericton (C.P.R.)...... | ${ }_{3}^{33}$ |  | Valleyfield (C.N.R. | 161 |  | Trentoo (C.P.R.) | 295 |
|  | Moncton (C.N.R.). | 50 |  | Verdun.. |  |  | Wallaceburg | 580 |
|  | Saint John. | 21 |  | Victoriaville (C.N.R.) | 433 152 |  | Whaterioo (C.N.R.) | 1,058 |
| Quebec................ |  | 363 |  | Weatmount (C.P.R.).................. | 152 |  | Weaton (C.N....... | 4.2) |
|  | Arvids... | 1 | Ontario.... | Barrie (C.N.R.) | 726 |  | Whitby (C.N.R.) | 286 |
|  | Beaaharnois | 129 |  | Belleville (C.P.R.) .................. | 260 |  | Windsor (M.C.R.) | 606 |
|  | Beasport... | 1 |  | Bowmanville (C.N.R.) ................ | 263 |  | Woodstock (C.P.R.) | 948 |
|  | Buckingham (Jct. Sta.) Cap de la Madeleine (C.P.R.).......... | 190 123 |  | Brampton (C.P.R.) ....................... | 721 | Manitoba.. | Brandon (C.P.R.). | 1.206 |
|  | Cap de is Madeleine (C.P.R.).... | 121 |  | Brantiord (C.N.R.) .................. | 706 |  | (C.N.R.) | 1.262 |
|  | Chicoutimi (C.N.R.) | 21 |  | Brockville (C.P.R. and C.N.R.)..... | 283 |  | Dauphin. | 968 |
|  | Costicook | 1,006 |  | Burlington. | 327 |  | Flin Flon | 1.088 |
|  | Dorval (C.N.R.) | 86 91 |  | Cobourg (C.P.R.) | 296 |  | Portage a Prairie C.P.R.)........... | 858 759 |
|  | Drummondville (C.P.R.) | 266 |  | Collingwood (C.N.R.) | 589 |  | Selkirk | 744 |
|  | Gatinenu. | 183 |  | Cornwall (C.P.R.) | 183 |  | Transcons (C.N.R.) | 771 |
|  | Giffard. | 387 |  |  | 513 187 |  | Winnipeg (C.P.R.).................. | 772 |
|  | Grand 'Mre (C.P.R. | 426 |  | Forest Hill | 1 | Saskatchewan. | Moose Jaw (C.P.R.) | 1.778 |
|  | Hull (C.P.R.) | 167 |  | Fort Erie (Union) ..................... | 592 |  | North Battleford. | 1,688 |
|  | Iberville (C.N.R.) | 109 |  | (M.C.R.-Victoria)......... | +605 |  | Prince Albert (C.P.R. and C.N.R.). | 1,414 |
|  | (C.P.R.) | 113 |  | Fort Frances (C.N.R.) . . . . . . . . . . . . | 1,122 |  |  | 1,896 |
|  | Jscques Cartier.... Joliette (C.P.R.) | 183 193 |  | Gslt (C.P.R.) ........................ | 036 |  | Swift Current (C.P.R.) | 1,596 |
|  | Jonquiere (C.N.R.). | 487 |  | Guelph (C.P.R.) ...................... | 1,042 |  | Weyburo (C.P.R.) | 1.857 |
|  | Kenogami (Jonquiedre) | 487 81 |  | Hamilton (King St.) .................. | 305 163 |  | Yorkton (C.P.R.). | 1,657 |
|  |  | 207 |  | Ingersoll (C.P.R.) (South)............ | 880 | Alberta | Calgary (C.P.R.) | 3,439 |
|  | (C.N.R.) | 228 |  | (C)P (North). | 890 |  | Edmonton (C.P.R ) | 2,183 |
|  | Lasalle.... Tuque (C.N. R .) | 545 |  | Kenora (C.P.R.). | 1.090 253 |  | Jasper Place. | 2,186 |
|  | Lauzon (Site of R.C. Cburch) .... | 73 |  | Kitchener.......................... | 1. 101 |  | Lethbridge (C.P.R.) | 2,983 |
|  | Lévis (C.N.R.) .............. | 16 |  | Leamington (C. and O.R.) | 620 |  | Medicine Hat (C.P.R) | 2.182 |
|  | Longueuil (C.N.R.) | 18 |  | Leaside.... | 623 430 832 |  | Red Deer (C.N.R.) | 2,816 2,819 |
|  | Magoz (C.P.R.) | +689 |  | Lindsay (C.P.R.) ................... | 882 | British Columbis |  |  |
|  | Mastane... | 1,042 |  | London Branch. ......................... | 315 |  |  | 32 1,160 |
|  | Mégantio.............................. | 1.311 |  | Midland. | 593 |  | Kelowns. | 1. 131 |
|  |  | ${ }_{25}$ |  | Newmarket............................ | 771 |  | Kimberley Nanaimo (C.P.R. | 3.661 129 |
|  | Montreal (C.P.R.-Windsor) | $1^{108}$ |  | New Toronto |  |  | Nelson (C.P.R.) | 1,766 |
|  | Montreal North. Mont Royal..... |  |  |  | ${ }_{562}^{572}$ |  | New Westminster (C.P.R.) .......... | 12 34 |
|  | Noranda. | 278 |  | Oakville....... | 328 |  | North Vancouver. | 36 12 |
|  | Outremont (C.P.R.)....... | 206 |  | Orillis (C.P.R.) | 725 |  | Penticton. | 1,127 |
|  | Plessisville............... | 44 43 |  | Oshawa (C.P.R.) | 330 215 |  | Port Alberai... | 13 |
|  | Pointe aux remblea ${ }^{\text {Painte Claire (C.N.R.)................. }}$ | 1109 |  | Owen Sound (C.P.R.) | 585 |  | Trail (C P.R). | 19 1,363 |
|  | Pont Visu (C.P.R.) ............... | 111 |  | Paris. | 829 814 |  | Vancouver (C.P.R. | 1,36 |
|  | Pont Visu. Quebec (C.P.R. and C.X.N. | 21 |  | Parry Sound (C.P.R.) .................) | 686 |  | Victoria (E. and N | 1.254 29 |

${ }^{1}$ Elevation data not available.

## Section 2.-Main Physical and Economic Features of the Provinces

Politically, Canada is divided into ten provinces and two territories. Each of the provinces is sovereign in its own sphere, as set out in the British North America Act, 1867, and its amendments. As new provinces have been organized they have been granted political status equivalent to that of the original provinces. The Yukon and Northwest Territories, with their present boundaries, are administered by the Federal Government. The chief physical and economic features of each of the provinces and of the territories are reviewed in the 1954 Canada Year Book, pp. 13-19. Details of resources and their development are given in the different chapters of this volume (see Index).

## PART II.-LAND RESOURCES AND PUBLIC LANDS

## Section 1.-Land Resources

Extensive areas of arable and forested land, together with vast water-power resources, are the basis of Canada's industrial and commercial life. Agricultural land has been developed on a substantial scale and is well distributed from east to west. It is characterized by a diversity of contour, soil and climate and is thus capable of producing a great variety of crops in a volume well beyond domestic requirements. Of the total land area, $15 \cdot 5$ p.c. is estimated as suitable for cultivation and of this area a little less than 50 p.c. is, at present, occupied. Most of the unoccupied land considered potentially suitable for agriculture is now under forest. Altogether, about 42 p.c. of the total land area of the country is forested. This vast extent is of immense importance, not only in the production of lumber, pulpwood and fuel, but also in tempering the climate and conserving the water supply.

This Section of the Year Book is concerned only with those summary phases of the subject that may be regarded as falling under the definition of physiography used in its wider interpretation. Detailed information relating to individual natural resources and their development will be found in later chapters, together with data concerning the efforts directed to conservation of those resources.

Table 1 classifies the land resources as agricultural, forested or unproductive. Duplication is unavoidable, to the extent of agricultural lands under forest, between the totals of present and potential agricultural land and the totals of forested land. Figures of total land area and forested area are obtained from the Geographical Branch of the Department of Mines and Technical Surveys; those of agricultural lands are based on the 1951 Census.

## 1.-Land Area, classified as Agricultural, Forested or Unproductive, by Province

 051 Census.

| Description | New-foundland | Prince Edward Island | Nova Scotia | New <br> Bruns- <br> wick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Colum bia | Yukon and N.W.T. | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Improved-Crops and summerfallow........ | 32 | 669 | 750 | 1,123 | 9,121 | 14,030 | 15,397 | 57,126 | 32,223 | 1,161 | 1 | 131,632 |
| Pasture................... | 9 | 309 | 242 | 381 | 4,196 | 5,055 | 914 | 2,252 | 1,739 | 536 | - | 15,633 |
| Other... | 5 | 31 | 42 | 68 | , 478 | , 748 | 504 | 1,258 | 1,837 | 97 | - | 4,068 |
| Unimproved-Forest (woodland) | 58 | 541 | 2,884 | 3,194 | 9,179 | 6,020 | 2,832 | 4,602 | 4,477 | 1,807 | - | 35,594 |
| Other.............. | 29 | 161 | 1,041 | +656 | 3,255 | 6,772 | 8,057 | 31,111 | 30,192 | 3,747 | 1 | 85,021 |
| Totals, Occupied | 133 | 1,711 | 4,959 | 5,422 | 26,229 | 32,625 | 27,704 | 96,349 | 69,468 | 7,348 | 1 | 271,948 |
| Unoccupied- |  |  |  |  |  |  |  |  |  |  |  |  |
| Grass, brush, Forested ${ }^{2}$.... | 8 | 64 80 | 3,677 3,000 | 1,056 9,500 | 1,500 36,893 | 5,899 61,990 | 8,541 16,000 | 9,242 23,000 | 26,872 45,000 | 2,948 11,450 | 10,065 4,000 | 69,864 210,913 |
| Totals, Unoccupied | 3 | 144 | 6,677 | 10,556 | 38,393 | 67,889 | 24,541 | 32,242 | 71,872 | 14,398 | 14,065 | 280,777 |
| Non-forested | 75 | 1,234 | 5,752 | 3,284 | 18,550 | 32,504 | 33,413 | 100,989 | 91,863 | 8,489 | 10,065 | 306,218 |
| Forested ${ }^{2}$. | 58 | 621 | 5,884 | 12,694 | 46,072 | 68,010 | 18,832 | 27,602 | 49,477 | 13,257 | 4,000 | 246,507 |
| Totals, Agricultural Lan | 133 | 1,855 | 11,636 | 15,978 | 64,622 | 100,514 | 52,245 | 128,591 | 141,340 | 21,746 | 14,065 | 552,725 |
| Forested Land- |  |  |  |  |  |  |  |  |  |  |  |  |
| Softwood-Merchantable. | 7,1615 | 90 | 4,600 | 5,000 | 138,685 | 59,891 | 1,835 | 18,937 | 7,700 | 65,452 | 35,200 | 344,5515 |
| Mixed wood-Merchantab | 4,059 ${ }^{5}$ | 215 | 3,180 | 3,000 | 39,310 | 19,647 | 9,115 | 5,858 | 24,070 | 58,598 | 10,000 | 177,052 ${ }^{5}$ |
| Mixed wood-Merchantable | - | 150 | 825 | 7,000 | 30.195 | 45,182 | 1,100 | 6,909 | 9,360 | - | 19,800 3,500 | 120,521 87,668 |
| Hardwood-Merchantable. | - | 150 15 | 1,620 | 5,000 1,000 | 29,768 4,208 | 8,967 19,058 | 1,680 1,680 | 3,273 8,777 | 31,430 3,620 | - | 4,700 | 44,678 |
| Young growth. | - | 10 | 1,620 850 | 1,000 | 8,606 | 7,067 | 11,650 | 4,129 | 16,880 | - | 2,500 | 52,692 |
| Totals, Productive Forested Land. | 11,220 ${ }^{8}$ | 610 | 11,555 | 22,000 | 250,772 | 159,812 | 30,500 | 47,883 | 93,060 | 124,050 | 75,700 | 827,1625 |
| Unproductive Forested Land...... | 13,6995 | - | 11,555 | , 190 | 94,314 | 63,400 | 62,500 | 62,804 | 37,560 | 124,141 | 200,100 | $658,708{ }^{5}$ |
| Totals, Forested Land. | 24,919 5 | 610 | 11,555 | 22,190 | 345,086 | 223,212 | 93,000 | 110,687 | 130,620 | 248,191 | 275,800 | 1,485,870 ${ }^{5}$ |
| Net Productive Land ${ }^{\text {a }}$. . . . . . . . . . . . . . . . . . . . . . . | 24,9945 | 1,844 | 17,307 | 25,474 | 363,636 | 255,716 | 126,413 | 211,676 | 222,483 | 256,680 | 285,865 | 1,792,088 ${ }^{5}$ |
| Waste and Other Land ${ }^{7}$ | 123,000 ${ }^{8}$ | 340 | 3,436 | 1,999 | 160,224 | 92,425 | 93,310 | 8,506 | 26,317 | 102,599 | 1,172,919 | 1,785,075 ${ }^{8}$ |
| Totals, Land Area. . | 147,994 | 2,184 | 20,743 | 27,473 | 523,860 | 348,141 | 219,723 | 220,182 | 248,800 | 359,279 | 1,458,784 | 3,577,163 |

[^8] open muskeg, rock, road allowances, urban land, etc

## Section 2.-Public Lands

In Table 2, classifying the area of Canada by tenure, items 2, 3 and 4 are obtained from Federal Government sources and items 1, 5 and 6 from Provincial Government sources.

## 2.-Area classified by Tenure, (circa) 1954

Norz.-In previous editions of the Year Book this table was intended as a classification of "land" area only (excluding fresh water) and was therefore based on land area total. However, it has been concluded that the component items do include fresh-water areas, particularly rivers and the smaller lakes, so that the table is now based on "total" area.

| Item | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | sq. miles | sq. miles | sq. miles | 8q. miles | sq. miles | sq. miles |
| 1. Alienated from the Crown or in process of alienation. | 6,683 | 2,173 | 15,619 | 16,464 | 36,000 | 41,099 |
| 2. Federal lands other than National Parks and Indian reserves. | 2 | - | 13 | 476 | $90^{1}$ | 1,126 |
| 3. National Parks | - | 7 | 390 | 80 | 2 | 12 |
| 4. Indian reserves | - | 4 | 30 | 59 | 281 | 2,436 |
| 5. Provincial lands, including leased lands and forest reserves but not Provincial Parks. | 148,631 | - | 5,016 | 10,906 | 538,245 | 362,830 |
| 6. Provincial Parks, | 48 | - | - | - | 20,244 | 5,079 |
| Totals, Land Area | 155,364 | 2,184 | 21,068 | 27,985 | 594,860 | 412,582 |
|  | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
|  | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles |
| 1. Alienated from the Crown or in process of alienation. | 44,845 | 104,413 | 78,469 | 19,695 | 69 | 365,529 |
| 2. Federal lands other than National Parks and Indian reserves............ | 2 | 51 | 11,671 | 161 | 1,508,276 ${ }^{3}$ | 1,521,868 |
| 3. National Parks. | 1,148 | 1,496 | 20,7184 | 1,671 | 3,625s | 29,147 |
| 4. Indian reserves | 819 | 1,882 | 2,370 | 1,283 | 9 | 9,173 |
| 5. Provincial lands, including leased lands and forest reserves but not Provincial Parks. | 197,094 | 142,173 | 141,940 | 329,358 | - | 1,876,193 |
| 6. Provincial Parks. | 2,604 ${ }^{6}$ | 1,685 | 117 | 14,087 | - | 43,864 |
| Totals, Land Area. | 246,512 | 251,700 | 255,285 | 366,255 | 1,511,979 | 3,845,774 |

[^9]
## Subsection 1.-Federal Public Lands

Public lands under the administration of the Federal Government comprise lands in the Northwest Territories, including the Arctic Archipelago and the islands in Hudson Strait, Hudson Bay and James Bay, lands in Yukon Territory, Ordnance and Admiralty Lands, National Parks and National Historic Sites, Forest Experiment Stations, Experimental Farms, Indian reserves and, in general, all public
lands held by the several Departments of the Federal Government for various purposes connected with federal administration. The Dominion Lands Act (R.S.C. 1927, c. 113) and the Ordnance and Admiralty Lands Act (R.S.C. 1927, c. 58) were repealed in 1950, and the Territorial Lands Act (R.S.C. 1952, c. 263) and the Public Lands Grants Act (R.S.C. 1952, c. 224) were enacted to replace them and became effective June 1, 1950.

The largest areas under federal administration are the Northwest Territories and Yukon Territory amounting to $1,511,979$ sq. miles or about 40 p.c. of the surface of Canada. This part of the national domain, which is all north of the 60th parallel of latitude, is under the administration of the Northern Administration and Lands Branch of the Department of Northern Affairs and National Resources.

## THE NORTHLAND-CANADA'S CHALLENGE*

On Dec. 16, 1953, the name of the Federal Department of Resources and Development was changed to Northern Affairs and National Resources. It was an important change, because it marked the first time that a department of government was designated, in its title, as being responsible for administering Canada's Northland. In all the years since Confederation, that responsibility had been submerged in the name of a Branch, or even a Division, of such Departments as Interior, Mines and Resources, and Resources and Development. It was a responsibility administered without fanfare.

Under these circumstances, the Canadian North was something of a blind spot in the eyes of Canadians living south of the 60th parallel of latitude. People did not much care, perhaps because they already had their local interests and a natural preoccupation with developing the southern two-thirds of their country. Where there was interest, it was often sporadic, roused by the romantic poems of Robert Service or novels about the red-coated Mounted Police, and excited by tales of gold-rush days, the discovery of oil at Norman Wells, or of radium at Great Bear Lake. Interest in the North flared up-and died-quickly, leaving only romantic impressions and little precise knowledge.

This change in name of the Department signified a new fact emerging, the fact that in recent years there has been a rapidly growing and much more permanent interest in the importance of that northern hinterland. But no new fact comes into being without the influence of prior events. What is interesting here is the series of events that wakened in Canadians the realization that they owned an important northern frontier.

Perhaps the most important factor in this awakening was simply that Canada, during World War II, had come of age. Until then, Canadians had been busy justifying the existence of the two great transcontinental railways. Time, energy and ingenuity were needed to settle and develop the vast areas opened up by that continent-wide system of transportation. In those years, Canada was like a youth who had not quite grown up. By the end of the second world war, much of the settlement and development of the southern fringe of the country, in which the majority of Canadians live, had been accomplished. Those with vision began to look farther afield-to the North. It was a time of peace and prosperity and Canada was strong enough to tackle new tasks.

[^10]This new preoccupation with the North, as it happened, coincided with the discovery that, on a long-term basis, new sources of raw materials were a prime necessity to the whole civilized world. This was particularly true of minerals. Old sources of supply were being depleted, and the rate of that depletion was accelerated by two major wars.

As eyes turned to the North, it became evident that the grounds for interest there extended beyond the realm of the economic. Living in that frozen land were 25,000 Canadians-native Indians and Eskimos, fur traders, missionaries, fishermen, miners, scientists and government officials. The majority of these people had a permanent stake in the North and were raising their families there. Their experiments in such fields as education, health and welfare and political organization could hardly help but have significance for the rest of the country. Furthermore, many of them were living what might be called a frontier way of life, with all its implied virtues of sturdiness, self-reliance, hospitality and social responsibility. Clearly, any investment in the enlargement of this frontier would pay ample dividends through the freshening influence of these virtues on the whole national life.

Another factor that directed the attention of Canadians to their Northland was its geopolitical position. Geopolitics, defined as the politics of a country as determined by its geographical position, is a term that has been used increasingly since recent advances in transportation and communication techniques have caused such a 'shrinkage' in the size of the world. Only a generation ago there were many places which, because of their isolation, had no political significance internationally. To-day, that is not so. Any place on land or sea can be reached from any other place in a matter of hours. Distance, if the incentive is great enough, is no longer a barrier. That is why the Yukon and Northwest Territories have assumed an added significance in world affairs. The shortest route by air between the leaders of the two major and opposing ideologies, the United States and the Union of Soviet Socialist Republies, is over the Canadian North. In view of this, it is not surprising that defence is a major aspect of the Canadian Government's interest in that area.

In the long-term view, however, it is in its economic importance that the Northland acts as a permanent magnet; in its role as a supplier of mineral wealth. It is the development of this wealth that constitutes the real challenge of the North to Canada.

Is it, then, a question of merely developing the Canadian North as other parts of the country have been developed in the past? Unhappily, it is not quite that simple. The whole key to the economic development of the Yukon and Northwest Territories is adequate transportation, without which much of the wealth is inaccessible. Admittedly transportation has been a problem in developing other parts of the country, but in those high latitudes there are two unusual factors that come into play and magnify the problem many times. These factors are climate and distance. They have made a nightmare of transportation problems in the Canadian North. They loom up behind every difficulty.

When the Canadian Pacific and Canadian National railways were built they traversed long stretches of unsettled land. But they were built with the firm hope that the vacant land would soon be covered with prosperous farms, each contributing to the revenue of the railways. But a railway or any other form of transportation in the Canadian North cannot count on such revenue. The unsettled land it traverses is unable to support an agricultural industry. The winters are too long and the soil is too poor. The railway, lacking revenue from intermediate
points along its route, will be forced to levy high rates in order to stay in business. The necessarily high rates will be further aggravated by the distance factor. It is over 400 miles from railhead at Grimshaw, Alta., to the lead-zinc deposits at Pine Point on the south shore of Great Slave Lake, N.W.T. It is another 100 miles across the lake to Yellowknife. It is another 300 miles in a fairly direct line to Port Radium on Great Bear Lake. From Port Radium to Coppermine on the Arctic Coast is another 200 miles. North, south, east or west, the picture is much the same -scattered settlements and barren distance in between and everywhere the problem of distance from markets and distance from sources of supply. Pound for pound and mile for mile, the cost of carrying goods in the North will inevitably be higher than elsewhere in Canada.

Climate and distance then, will tend to force the development of the Northland into channels which, if at present unpredictable, will undoubtedly be unique in Canada. It may be unique also because of the role of the Federal Government. In other parts of the country, the enterprise of individuals and groups carried the main burden of development. In the Northland, if an hospitable economic climate is to be created in spite of adverse physical climate and barren distance, the role of the Government in the earlier stages of development at least, may have to be much more active than in the south.

The unshackling of northern wealth will, to some extent, follow lines of development already laid down, but the policies and practices of the past must be altered if future development is to be achieved on the scale that the times require.

Mineral Development.-Down to the present, development has consisted mainly of exploiting exceptionally rich or very large mineral deposits. This was unavoidable because of high production costs in the North; nevertheless, it meant that development was limited to a relatively small scale. For example, it is practicable to mine ore in northern Ontario with a gold content of about $0 \cdot 15 \mathrm{oz} . \mathrm{t}$. per ton and make a profit; in the Northwest Territories, to make the same profit, gold content of the ore must be about $0 \cdot 45 \mathrm{oz}$. t. per ton. Evidently, the problemand challenge-consists in getting costs down to a point where lower grade ore may be mined profitably on a large scale.

What has happened in post-war years in the North, when market prices were relatively high, indicates what might take place if costs could be lowered. In the first post-war year, 1946, the value of mineral wealth (excluding uranium) produced in the Yukon and Northwest Territories amounted to about $\$ 2,700,000$. Gold production accounted for about $\$ 2,500,000$ of this amount. Silver, lead, zinc and petroleum were produced in relatively small quantities. By 1953, the total value of mineral wealth produced (again, excluding uranium) increased to almost $\$ 25,000,000$. The value of gold had risen to $\$ 12,500,000$, about $\$ 10,000,000$ of it from the Northwest Territories. In the Yukon Territory, the increase in base-metals mining was astonishing; in $1953, \$ 3,800,000$ worth of lead, $\$ 2,300,000$ worth of zinc and $\$ 5,250,000$ worth of silver were produced. These figures suggest an extraordinarily rapid growth period since 1946, which can be partly accounted for by the fact that, during the war years, the Canadian North was held dormant. At the end of the War, Northland activity spurted forward but, even granting the value of pent-up enthusiasm, it was higher prices that provided much of the impetus. Lower costs would help create the conditions necessary for similar but more permanent growth.

The increase in value of production from $\$ 2,700,000$ in 1946 to $\$ 25,000,000$ in 1953 was achieved from rich deposits that were known and at least partly developed before the War. In the Dawson Mining District of the Yukon where individual miners once stood knee-deep in the swirling streams and panned free gold from the gravels, great hydraulic dredges now operate: indeed, so prolific has this area been that one creek, Bonanza, has been worked over three times. The base-metals deposits of Mayo and Keno Hill were developed rapidly under the stimulus of high prices. The Yellowknife gold field was encouraged to bring its richer mines into production. The mining of radioactive ores at Great Bear Lake was stimulated when uranium, formerly a by-product in the output of radium, became vital as a source of atomic energy.

Though all this was highly satisfactory, it was quite clear that the true potential of the Canadian North could be realized only by opening up new fields, of which there are so many. That this was clear to those working in the North is shown by the fact that, since 1946, activity has been healthily divided among the three traditional stages of mining-prospecting, development and production. Inspired by the ground-breaking work of government geologists and topographers, hundreds of prospectors have penetrated the Northland, staking out the areas from which they hope the future wealth will pour.

Transportation Facilities.-Any great increase in the production of mineral wealth in the North will depend on the provision of expanded and cheaper transportation facilities. Transportation is necessary, first to discover ore bodies, then to bring in the equipment to develop them, and finally to take out the minerals. Present facilities consist of air, water and road transport; the only railway is the 110 -mile White Pass and Yukon Railway, which connects the port of Skagway in the Alaska Panhandle to Whitehorse in Yukon Territory. A summary of existing services and their limitations will perhaps serve to point up the scope of the problems that must be overcome in giving the North a reasonably low-cost transportation system.

Of all the innovations that the twentieth century has brought to the Canadian North, the aeroplane has undoubtedly been the most revolutionary. It has performed perhaps its most important service in the exploration phase of mining, particularly in the Northwest Territories. From an uncertain mode of travel in the 1920 's, when the skills of pilot and mechanic were often the only guarantees against disaster, it has developed into a means of transport of great reliability. Equipped with skis in winter and pontoons in summer, an aircraft has little trouble in finding a safe landing place in that lake and muskeg dotted country. It can deliver the geologist and prospector to a chosen spot, adding months to the short working season. The northern traveller no longer has to walk fifty miles to the west in order to get ten miles to the north. And those who wish to work in spring or early summer no longer need to sail north the previous year and spend a profitless winter of waiting.

In the second phase of mining-the development of the prospect-the aeroplane is playing an increasingly important role. As airstrips multiply, larger and larger commercial planes are penetrating the remote places of the North. To-day, one of the first jobs undertaken on a promising claim is the building of an airstrip so that equipment and supplies may be flown in.

Even in the final phase of mining-taking the product to market-the aeroplane is utilized. Although many commodities; such as base metals, can hardly be transported economically by air, there are some that can. Uranium concentrates and gold, for instance, are so valuable in relation to their weight that air freight is practicable.

Although air freight service has been greatly extended in recent years, the mass movement of bulk goods still depends on water transportation. Traditionally, since the time of the first explorers, the Mackenzie and Yukon Rivers have been used as highways into the Canadian North; both rank among the great river systems of the world. The series of rivers and lakes of the Mackenzie system has a total length of 2,635 miles from the headwaters of the Finlay River in the Rocky Mountains to the Mackenzie Delta on the Arctic Coast; the area drained is 700,000 sq. miles. The Yukon River, from the headwaters of the Nisutlin River in the Mackenzie Mountains, flows for 714 miles through Canada, draining an area of 170,000 sq. miles.

The first obvious drawback to these water highway systems is that they are closed to navigation for about eight months of the year. Modern industry, of course, requires a steady, two-way flow of commerce. It is difficult to compete in the open market if valuable inventories of goods and equipment are immobilized for months at a time. A second drawback is that the barges and river boats can deliver their cargoes only as far as localities along their banks. In the days when the fur trade was the economic activity in the North this mattered little, since the trading posts were invariably built along the waterways. But it is likely that only a small proportion of the eventual mining centres will be located along the river systems, which means that supplementary transportation will be required on an ever-increasing scale.

In view of these facts, it is likely that water transportation will, in the future, be progressively dwarfed by air, and possibly by railways and roads. But bulk goods can be carried so cheaply by water that the rivers will continue to play their part in the transportation system.

It is only in recent years that roads have begun to probe into what has been described accurately as the trackless wilderness of the Canadian North. The philosophy behind road-building there has required an extremely practical basis: the road must contribute to the development of the mining industry. The exceptions to this rule are the Alaska Highway and the Canol Road, both of which were born of the strategic necessities of the second world war. The former, which traverses the southern part of the Yukon Territory, is still used heavily and is maintained by the Canadian Army. The latter, which runs from the oil fields at Norman Wells on the Mackenzie River in the Northwest Territories to a junction with the Alaska Highway about 75 miles east of Whitehorse, is no longer maintained for traffic.

The road system of the Yukon has been built partly by the Federal Government, partly by the Territorial Government, and partly by the various mining companies. From the major centres of the mining industry at Dawson and Mayo, and from Whitehorse, all-weather roads radiate to adjacent mining properties, and the three centres are themselves connected by road.

In the Northwest Territories, the only major road built to date is the $356-\mathrm{mile}$ Mackenzie Highway which runs from railhead at Grimshaw in Alberta to Hay River on the south shore of Great Slave Lake. From Hay River, in winter, a road
is maintained when necessary across the ice of Great Slave Lake to Yellowknife. Only 81 miles of the Mackenzie Highway are in the Northwest Territories. The Federal Government paid the full cost of building this stretch, and contributed twothirds of the cost of the Alberta section. Connecting with the Mackenzie Highway, a 70-mile pioneer road has been built into the base-metals development at Pine Point. The Federal Government paid one-half the cost of this resource road.

Although the highway system in the Canadian North is not yet extensive, much has been learned about road-building under northern conditions that will be valuable when applied to additional construction. Some of the problems that had to be faced and that will be met with again were new in the history of engineering. Never before, for example, had Canadian highway engineers to contend with the problem of laying a road over permafrost, the permanently frozen subsoil of the North. Problems of labour, supply, equipment and climate also assumed novel forms. Thus these roads were an expensive necessity and only by substantial contribution on the part of the Federal Government was it possible to do what has been done. These contributions may be regarded as capital investments. Eventually, when enough of the mineral wealth has been made accessible, the returns will come in at a rate that will make the North far more than self-sufficient. Until that time, the assistance of the Federal Government is both justified and essential.

Hydro-Power.-There is another field, intimately related to the development of the mining industry, in which the Federal Government has provided extensive assistance-hydro-electric power. The construction of hydro-electric power projects is undertaken when a request is made by the mining interests, and usually where there is likelihood of more than one company making use of the output. Through its agency, the Northwest Territories Power Commission, the Government has built two hydro-electric plants. The first, completed in 1948, is on the Snare River about 90 miles from Yellowknife and has a capacity of $8,350 \mathrm{~h} . \mathrm{p}$. to service mines and other consumers in the area. The second, which began operating in November 1952, is on the Mayo River in Yukon Territory; it is at present delivering $3,000 \mathrm{~h} . \mathrm{p}$. to the lead-zinc-silver mines and communities in the Mayo area. The site of this plant has a capacity of $6,000 \mathrm{~h} . \mathrm{p}$. and, although present requirements are being met with the $3,000-\mathrm{h} . \mathrm{p}$. output, future growth of the area has been provided for by the erection of installations capable of realizing the whole potential by simply adding more turbines and generators.

The Secondary Challenge-Furs and Fisheries.-It should not be inferred from the foregoing that the development of the mining industry constitutes the whole economic challenge of Canada's Northland. Though the mining industry will always be the backbone of the Northland's economy, the development of supplementary activities will play an important part. The fur trade and inland fisheries will contribute their share of wealth. To these may be added lumbering, agriculture, reindeer herding and the production of handicrafts. Economists have warned repeatedly of the dire consequences that result from depending on a 'onecrop' economy. Let demand for its product fall off, and the one-industry country or area loses its stability in a very short time. Diversification wherever and whenever possible is always held out as the most desirable state of affairs.

Much of the Canadian Northland's past-and a substantial part of its presentmay be defined in terms of furs. For two centuries the fur trade was the sole basis of the northern economy. Although its value relative to mining has now
declined, its absolute value has remained remarkably constant. With an average annual production value of approximately $\$ 2,000,000$, it has been the major source of livelihood for almost the entire native population, and in all likelihood will continue to be so into the foreseeable future.

But changing conditions affected even this long-established industry. As the population of the Northland increased with growing industrialization, the number of forest fires grew to serious proportions. By destroying the forest cover necessary to the fur bearers and to wildlife generally, the fires became a menace to those who depended on trapping for a living. In addition, the number of trappers increased to the point where over-trapping was inevitable in many areas. These factors, plus the general improvidence of those who could see no end to nature's bounty, led the Government to adopt a policy of regulating trapping intended to ensure the economical harvesting of the fur crop on a sustained-yield basis. Native game preserves were established and restrictions were placed on the number of white trappers. Control measures, such as open and close seasons, were instituted for most mammals and maximum bag limits for certain fur bearers. The first three native game preserves were established in 1923 and, since then, three more have been added; the total area under protection amounts to almost $1,000,000 \mathrm{sq}$. miles. In addition, the Government has established smaller preserves in which even natives are prohibited from trapping and hunting. A Government forest and game protective service has been established and Government scientists are engaged in a continuing study of wildlife management problems.

Efforts to broaden the economic base of the Northwest Territories through encouragement of industries subsidiary to mining led, in 1945, to the establishment of an inland fishing industry at Great Slave Lake. Fifth largest on the continent, Great Slave Lake has an area of 11,170 sq. miles. It lies only 340 miles south of the Arctic Circle. Since the Northwest Territories is wholly under the jurisdiction of the Federal Government, the opportunity existed to institute a program of fishery management founded on scientific research and conservation measures. This opportunity was not lost.

The Fisheries Research Board of Canada made its first survey in 1944 and the following summer the lake was thrown open to commercial fishermen. Catch limits and fishing regulations were based on sound biological information accumulated by the Board. The original annual quota of $2,000,000 \mathrm{lb}$. of whitefish and trout has gradually been raised as a result of continuing surveys to a present level of $9,000,000 \mathrm{lb}$., an amount that covers both the summer and winter seasons. In 1953 , the catch amounted to $5,700,000 \mathrm{lb}$., with a market value of $\$ 1,700,000$.

In the first season of fishing there were 42 fishermen on the lake but so profitable did this enterprise prove that, by 1953, 305 licences were issued. The opening of the Mackenzie Highway in 1948 was a vital factor in the success of the fishery, since it provided swift and economical transportation from Hay River to railhead at Grimshaw, Alta. About 90 p.c. of the catch is marketed in the United States.

The Government maintains an inspection system at the packing houses at Gros Cap and Hay River; two patrol vessels travel the lake during the summer season and, for winter work, snowmobiles are used. The industry itself uses snowmobiles extensively in winter and altogether there are 40 of them in use at Great Slave Lake. The extensiveness of the industry, and its permanence, is indicated by the fact that one of the companies has built a 56 -foot refrigerated diesel freighter capable of carrying 18 tons of fish.

The administration of the Great Slave Lake fisheries is the responsibility of the Federal Department of Fisheries. Field administration is centred in the office of the Chief Supervisor of Fisheries for the Central Area, located at Winnipeg, Man.

Lumber and Agriculture.-The existence of a thrịing lumber industry at such a high latitude seems somewhat unique. The northernmost limit of tree growth extends from the mouth of the Mackenzie River on the Arctic Coast southeast to a point near Churchill, Man. Though the eastern portion of the Northwest Territories is almost completely lacking in forests, in the Mackenzie District and in the whole of Yukon Territory there are many areas of forested land important from an economic viewpoint. Because of the slow rate of growth, it is unlikely that lumbering will ever be an export industry but to whatever extent native timber can eliminate expensive imports and provide a living for the people it should be reckoned as an economic gain.

In the Yukon, local lumber supplied all the needs of the gold rush of 1898 and for 30 years after. Sawmills operating at Dawson and points along the Yukon River turned out vast quantities of lumber for buildings, flumes, sluice boxes, boats, and for thawing the frozen gravel so that the work of extracting gold might go on the year round. After 30 years, timber resources in this area were almost exhausted. To-day, however, small sawmills operate at Mayo, Dawson and various points along the Alaska Highway to manufacture building lumber and to provide fuel for steamboats on the Yukon River. In the Northwest Territories, small sawmills operate at various spots along the Slave River, at Great Bear Lake and along the Mackenzie River.

To protect the forests for the future, the Federal Government has established protection services. Headquarters for the Yukon Forest Protective Service is at Whitehorse; the Mackenzie River valley is the main centre of forest protection in the Northwest Territories, with warden stations located at Fort Smith, Yellowknife, Hay River, Fort Liard, Fort Resolution, Fort Simpson, Fort Norman, Fort Good Hope, Fort McPherson and Aklavik. Fire wardens, employed during the fire-hazard season, emphasize fire prevention publicity in addition to their other duties.

Although the climate and soil conditions of the Northwest Territories preclude the large-scale development of agriculture as an industry, small-scale farming operations have been carried on in the more favourable localities for more than 100 years. The missionaries and fur traders were the pioneers in this field and all down the Mackenzie River valley the rewards for this effort were, if not high, at least soul-satisfying. The long hours of sunshine make up for the short season of warmth.

The Government has carried out a series of extensive tests on the agricultural prospects of the Canadian North. Soil and horticultural surveys made in 1944 and 1945 led to the establishment of an experimental substation at Fort Simpson and a smaller one at Yellowknife. The soil surveys uncovered the fact that thousands of acres of potential fertility exist in the Liard, Slave, and upper Mackenzie River valleys. Even at Yellowknife, where the soil is sandy, it is possible to grow crops by using commercial fertilizer extensively.

In the Yukon, at the height of the Klondike gold rush, thousands of acres were under cultivation to supply the needs of the miners and others who swarmed into the gold fields. As the rush dwindled, agriculture also declined; to-day, however, there are few families that are not almost self-sustaining on a horticultural basis.

Experimental agricultural work by the Federal Government in the Yukon has gone on intermittently since 1915. An experimental substation operated near Dawson between 1917 and 1925 produced much factual information about landuse possibilities in that area. In 1942, a soil survey was made of lands adjoining the Alaska Highway and of those in the Yukon River basin. The following year an experimental substation was set up at Pine Creek on the Alaska Highway, about 100 miles west of Whitehorse. The location of this station permits extensive experimental work in the fertile Takhini-Dezadeash valley, which contains at least 100,000 acres of arable land. It is estimated that the Yukon has 250,000 acres of potential agricultural land.

Unique Activities.-The economic activities of the Canadian North, both major and secondary, that have been outlined thus far have all had some precedent in the more southerly parts of the country; previous experience and knowledge have been invaluable in extending their development into the North. There are, in addition, two wealth-producing activities that have no counterpart elsewhere in Canada-reindeer herding and Eskimo arts and crafts. Both stem from the need to give the natives some sort of stable outlet in order to balance the up-and-down prosperity of trapping. Both exemplify the trial-and-error method that must be followed when an area like the Canadian North is undergoing the process of adjustment to civilizing influences. For both, the trial proved to be very nearly without error.

In 1922 a Royal Commission recommended that Canada should try herding reindeer in the Northland. The practical beginning of the experiment was in 1935, when a herd of 2,370 Alaskan reindeer was brought to the Mackenzie Delta region. The reindeer thrived on a 24,500 sq. mile reserve and, over the years, have more than tripled in number. As the Eskimo apprentice herders learned the occupation, small herds were branched off from the main one and put in charge of the Eskimos themselves. There are now three such herds.

Eskimo arts and crafts are an outgrowth of the native's ingenuity in fashioning implements for himself from the meagre raw materials at hand. Soapstone and ivory were carved into useful articles such as lamps, harpoon heads and pots, into artistic models of animals and people and model kayaks. The art form existed; the role of civilization was to find permanent markets for it. Government encouragement first took the form of an annual grant to the Canadian Handicrafts Guild and later two field workers for the Guild joined the Department of Northern Affairs and National Resources. The future of arts and crafts as a steady source of income for the Eskimos seems assured; everywhere this art form is receiving enthusiastic appreciation.

The Government is constantly on the lookout for new activities that will help the natives bridge the gap between their traditional life and the civilization that is slowly developing around them. Recently, northern service officers have been appointed by the Department of Northern Affairs and National Resources; living among the natives, they will be able to meet at least one aspect of the challenge of the Northland on its home grounds. Their appointment is typical of the new ideas, new approaches, and new spirit being marshalled to master the whole range of the socio-cconomic problems of the North.

Political Forms.-Wherever mankind has found it economically profitable to labour, he has settled permanently; and wherever he has settled permanently he has needed political forms to organize and direct his activities. In this basic need
the Canadian North is no different from other regions. Where it is different is in the problems posed by its great area and small, scattered population. The "rep by pop" cry of Canada's revolutionary days could solve no problems in the North. The same spirit of new ideas and new approaches that has been essential in meeting the economic challenge has been no less essential in meeting the political challenge.

During most of Canada's history, the Northland was a vast, unorganized territory with only a nominal form of government. Its permanent settlements were scattered trading posts and missions, and its way of life required little regulation. The real beginning of political evolution had to await the discovery and development of mineral wealth, and consequent increase in population.

This occurred in 1896 when the Klondike gold strike was made and thousands of people swarmed into the area. Two years later, an Act of Parliament made the Yukon a separate Territory and gave it a local government composed of a Commissioner and Legislative Council of six members, all appointed by the Federal Government. In 1899, the Act was amended to provide for the election of two additional members to the Legislative Council and, in 1902, a further amendment increased the size of the Council to 11 members, five of whom were elected. At the same time, the right to elect a member to the House of Commons was granted. In 1908, by further amendment, the Legislative Council became wholly elective, with ten members serving for a three-year term. Dawson was chosen as the capital.

As the amount of gold produced dwindled and population consequently decreased, the size of the Council was reduced, but it retained its fully elective character. In 1919, the Council was reduced to three members and it remained at this number until 1951. After the second world war, the Yukon again entered a period of rapid expansion, paced by the growing base-metals mining industry. Between 1941 and 1951 its population increased from 5,000 to 9,000 . As a consequence, in 1951, the size of the Council was increased to five members, at which number it remains at the present time. In 1953, the seat of government was moved to Whitehorse.

In the Northwest Territories, mineral discoveries, on which economic and thus political development are based, came at a much later date than in the Yukon. After the first world war, the discovery of oil at Norman Wells caused a brief flurry of interest; in 1930, pitchblende ore, a source of radium and uranium, was discovered at Great Bear Lake; and in 1933 the Yellowknife gold field was discovered. Until these mineral finds were made, the Northwest Territories was a thinly populated area that had already passed through various elementary stages of government as the western provinces were gradually carved out of the great Canadian Northwest. It assumed approximately its present boundaries in 1905, at which time the previous territorial government was discontinued and provision was made for a Commissioner and Council of four members or fewer to administer the government. The seat of government was fixed at Ottawa. The powers of the Council remained dormant for some time, because the economy of the region was still based on the fur trade, which is capable of sustaining only a scanty human population.

The Norman Wells discovery necessitated provision for a more active administration, and the size of the Council was increased in 1921 to six and one member was designated as Deputy Commissioner. The Council was still wholly appointive. No further change was made until 1947, when a resident of Yellowknife was appointed to the Council.

As mineral development expanded, the population of the Northwest Territories increased rapidly; between 1931 and 1951, the white population rose from less than 1,000 to 5,340 . To meet the changing needs and desires of the people, the system of government underwent significant changes. The Federal electoral district of Yukon which had been sending a member to the House of Commons for 45 years, was enlarged in 1947 to include part of the Mackenzie District and was re-named "YukonMackenzie River" In 1952, the Redistribution Act provided for a separate member to represent Mackenzie District.

Important developments also occurred at the Territorial (analogous to provincial) and local government levels. In 1951, the Northwest Territories Act was amended to provide for elected representation on the Territorial Council. Under the amended Act, the number of Councillors was raised to eight, three of whom were elected for terms of three years. Effective in July 1954, the Council consists of nine members, five of whom are senior federal officials appointed by the Governor in Council and four of whom are residents of the Northwest Territories elected for three years to represent four electoral districts in the Mackenzie District. The Council must hold at least two meetings a year, one of which must be in the Territories. All other meetings must be held at the seat of government at Ottawa.

At the local level, important developments have also taken place. Because it was clear that the Territories would not readily fit into the usual classification of rural and urban municipality, a flexible concept known as a municipal district was evolved. Yellowknife, in 1939, was the first district created and the second was Hay River, in 1949. It is the usual practice when a district is first created to provide that a majority of the Council members be appointed by the Commissioner and a minority elected by the residents. This is still the situation at Hay River, but Yellowknife, in 1947, achieved the position where the elected members were in a majority of five to four, with the Chairman still being appointed. In 1949, the membership was reduced to eight, five elected and three appointed, with the Council electing its Chairman from its members. In 1954, the Council became fully elective and now consists of a Mayor and eight Councillors.

In summing up the economic and political background against which the development of the Canadian North will continue to unfold, it should be emphasized that only the barest start has been made in meeting the challenge of that development. Only the first, faint imprints of civilization are beginning to appear in a land that was left almost unmarked by its generations of shifting, nomadic pcople. As has been suggested, it is a development that will follow unprecedented courses because the frontier is being tamed by an adult country with all the force of twentieth century techniques behind it; because it is the aeroplane and not the covered wagon that penetrates the unmapped places.

## Subsection 2.-Provincial Public Lands

Public lands of Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia (except the Railway Belt and Peace River Block) have been administered since Confederation by the Provincial Governments. In 1930, the Federal Government transferred the unalienated portions of the natural resources of Manitoba, Saskatchewan, Alberta and of sections of British Columbia to their respective
governments, and all unalienated lands in the Province of Newfoundland, except those administered by the Federal Government, became provincial public lands under the Terms of Union on Mar. 31, 1949.

All land in the Province of Prince Edward Island has been alienated except 11 sq. miles under federal administration.

Information regarding provincial public lands may be obtained from the respective provinces. (See the Directory of Sources of Official Information, Chapter XXIX, under "Lands".)

Certain areas in most of the provinces have been set aside for parks and reserves; these are dealt with in Subsection 3.

## Subsection 3.-National and Provincial Parks

The future of Canada in the field of outdoor recreation is being wisely provided for by the establishment of National and Provincial Parks. Many of these Parks are easily accessible by highway, rail or air and offer every type of accommodation from camping facilities to palatial hotels and cosy cabins. A wide variety of summer and winter recreational attractions are available in mountain, lakeland, woodland and seaside areas of exceptional scenic beauty.

The areas of the Parks are given in Table 3; location, year of establishment, area, and main characteristics of each National Park are given in Table 4 followed by a brief description of the Provincial Parks.
3.-Area of National and Provincial Parks, by Province, 1954

| Province or Territory | National | Provincial | Total |
| :---: | :---: | :---: | :---: |
|  | sq. miles | sq. miles | sq. miles |
| Newfoundland. | - | 48.00 | 48.00 |
| Prince Edward Island | 7.00 | - | 7.00 |
| Nova Scotis..... | 390.61 | - | $390 \cdot 61$ |
| New Brunswick | 79-63 | - $\overline{14}$ | 79-63 |
| Quebec.. | 1 | 20,244-00 | 20,244.00 |
| Ontario... | $11 \cdot 72$ $1,148.09$ | $5,079 \cdot 17$ $2,604 \cdot 00^{*}$ | $5,090 \cdot 89$ $3,752 \cdot 09$ |
| Manitoba...... | $1,148.09$ $1,496.05$ | $2,604 \cdot 00^{2}$ $1,685 \cdot 13$ | $3,752 \cdot 09$ $3,181-18$ |
| Alberta. | 20,718-00 | 1,685.54 | 20,834-54 |
| British Columbia. | $1,671.00$ | 14,087-00 | 15,758.00 |
| Yukon and Northwest Territories. | 3,625-00 | - | 3,625-00 |
| Canada. | 29,147.10 | 43,863-84 | 73,010.94 |

${ }^{1}$ Less than one square mile.
${ }^{2}$ Three areas, though not designated as Provincial Parks, are used for recreational purposes and are therefore included here (see p. 37).

National Parks.-From 1885, when the first National Park was established around the mineral hot springs at Banff, Alta., until 1954, 28 areas covering more than 29,000 sq. miles have been set aside as National Parks.

These Parks are maintained by the Federal Government for the protection of their flora, fauna and natural phenomena, for the preservation of their scenic beauty and interest and, in some cases, the marking of their historical significance in the building of the nation. They are supervised by the National Parks Branch, Department of Northern Affairs and National Resources, and are developed and maintained in such a manner as to provide perpetual inspiration, education and healthful recreation for present and future generations.

The National Parks are Canada's greatest single tourist attraction. Accommodation in privately owned hotels, bungalow cabins, chalets, lodges and cottages is available, and modern cabins have been built in several of the Parks by the National Parks Administration to afford low-rental accommodation to Park visitors. Recreational facilities include heated outdoor swimming pools with dressing-room buildings; equipped camp-grounds, some with trailer-park facilities; golf courses in superb scenic settings; tennis courts; bowling greens; well-equipped children's playgrounds; athletic fields; horseshoe pitches; outdoor checker-boards; and, in some of the Parks, amphitheatres where plays, concerts and film shows are held in the open. For winter sports there are down-hill and slalom ski courses, ski jumps, ski tows and a chairlift.

A Park warden service protects the forests and wildlife and maintains constant vigilance for the safety and comfort of visitors. Stocking and transfer of game fish are carried out extensively and successfully in order to improve angling opportunities in Park waters; fish hatcheries are operated in three of the mountain National Parks. . (A special article on 'Game Fish in Canada's National Parks' is given in the 1952-53 Year Book, pp. 34-36.) Two of the National Parks are largely big-game preserves where herds of buffalo and other animals find sanctuary.

In addition to the scenic, recreational and wild animal parks, Canada has eleven national historic parks. The National Parks and Historic Sites Service of the Department of Northern Affairs and National Resources is also responsible for the marking, preservation and restoration of places of great historic interest in Canada. More than 450 such sites have been marked on the recommendation of the Historic Sites and Monuments Board of Canada.
4.-Location, Year Established, Area and Characteristics of National Parks

| Park | Location | Year Established | Area | Characteristics |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | sq. miles |  |
| Scenic and <br> Recreational Parks |  |  |  |  |
| Banff................ | Western Alberta, on east slope of Rockies. | 1885 | 2,564•0 | Magnificent scenic recreational area; noted resorts, Banff and Lake Louise. Mineral hot springs; summer and winter sports. Accessible by rail and highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. |
| Yoho................. | Eastern British Columbia, on west slope of Rockies. | 1886 | $507 \cdot 0$ | Lofty peaks, magnificent waterfalls, colourful lakes. Yoho and Kicking Horse Valleys. Accessible by rail and highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. |
| Glacier.............. | Southeastern British Columbia, on summit of the Selkirk Range. | 1886 | $521 \cdot 0$ | Superb alpine region, towering peaks, glaciers and forests. Accessible by rail only. Climbing, skiing, camping. |
| Waterton Lakes...... | Southern Alberta, adjoining Glacier Park in Montana, U.S.A. | 1895 | 204-0 | Canadian section, Waterton-Glacier International Peace Park. Mountain playground with spectacular peaks and beautiful lakes. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. |

4.-Location, Year Established, Area and Characteristics of National Parks-continued

| Park | Location | Year Established | Area | Characteristics |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | sq. miles |  |
| Scenic and Recreational Parks-concl. |  |  |  |  |
| Jasper............... | Western Alberta, on east slope of Rockies. | 1907 | 4,200.0 | Mountain playground and noted wildlife sanctuary. Majestic peaks, ice-fields, beautiful lakes and famous resort, Jasper. Mineral hot springs, summer and winter sports. Accessible by rail and highway. Hotel and bungalow cabin accommodation. Equipped campgrounds. |
| Mount Revelstoke... | Southeastern British Columbis, on west slope of Selkirks. | 1914 | $100 \cdot 0$ | Rolling mountain-top plateau. Colourful alpine meadows. Accessible by rail and highway. Summer accommodation in Park; all-year accommodation in town of Revelstoke. Championship ski runs and ski jump. Equipped camp-grounds. |
| St. Lawrence Islands. | In St. Lawrence River between Morrisburg and Kingston, Ont. | 1914 | $\begin{gathered} 189 \cdot 4 \\ \text { (acres) } \end{gathered}$ | Msinland area and 13 islands among Thousand Islands. Recreational and camping area. Accessible by highway: by boat from nearby mainland points. |
| Point Pelee.......... | Southern Ontario, on Lake Erie. | 1918 | 6.0 | Recreational area. Remarkable beaches, southern flora. Resting place for migratory birds. Accessible by highway. Hotel and bungalow eabin accommodation. Equipped camp-grounds. |
| Kootensy............ | Southeastern British Columbia, on west slope of Rockies. | 1920 | $543 \cdot 0$ | Encloses Vermilion-Sinclair section of Banff-Windermere Highway. Broad valleys, deep canyons, mineral hot springs. Hotel and bungalow cabin accommodation. Equipped grounds. |
| Prince Albert........ | Central Saskatchewan, north of Prince Albert. | 1927 | 1,496.0 | Forested region dotted with lakes and interlaced with streams. Summer playground and recreational area. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped campgrounds. |
| Riding Mountain..... | Southwestern Manitoba, west of Lake Winnipeg. | 1929 | 1,148.0 | Playground and wildlife sanctuary on summit of eacarpment. Fine lakes. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. |
| Georgian Bay Islands | In Georgian Bay, north of Midland, Ont. | 1929 | $5 \cdot 4$ | Recreational and camping area. Unique pillars on Flowerpot Island. Accessible by boat from nearby mainland points. Equipped camp-grounds and annual youth camps on Beausoleil Island. |
| Cape Breton Highlands. | Northern part of Cape Breton Island, N.S. | 1936 | $390 \cdot 0$ | Rugged Atlantic coast line with mountain background. Fine seascapes. Recreational opportunities. Hotel and bungalow cabin accommodation. Equipped campgrounds. |
| Prince Edward Island | North shore of Prince Edward Island. | 1937 | $7 \cdot 0$ | Strip 25 miles long on shores of the Gulf of St. Lawrence. Recreational area, fine bathing beaches. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. |
| Fundy............... | On Bay of Fundy between Moncton and Saint John in New Brunswick. | 1948 | 79.5 | Delightful recreational area. Forested region, wildlife sanctuary, rugged terrain. Bungalow cabin accommodation. Equipped camp-grounds. |

4,-Location, Year Established, Area and Characteristics of National Parks-concluded

| Park | Location | Year Established | Area | Characteristics |
| :---: | :---: | :---: | :---: | :---: |
| Wild Animal Parks |  |  | sq. miles |  |
| Elk Island. | Central Alberta, near Edmonton. | 1913 | $75 \cdot 0$ | Fenced preserve containing large herd of buffalo; also deer, elk and moose. Popular recreational area. Accessible by highway. Bungalow cabin accommodation and equipped camp-grounds. |
| Wood Buffalo ${ }^{1}$. | Partly in Alberta and partly in Northwest Territories, between Athabasca and Slave Rivers. | 1922 | 17,300-0 | Immense region of forests and open plains. Home of largest remaining herd of bison on the Continent. Other wildlife abundant. |
| Historic Parks |  |  | acres |  |
| Fort Anne. | Nova Scotia, at Annapolis Royal. | 1917 | 31.0 | Site of early Acadian settlement. Museum and well-preserved earthworks. |
| Fort Beausejour...... | New Brunswick, near Sackville. | 1926 | $81 \cdot 3$ | Site of French fort erected in middle of 18th century. Museum. |
| Fortress of Louisbourg. | Cape Breton Island, N.S.. 25 miles from Sydney. | 1941 | 339.5 | Ruins of walled city erected by the French, 1720-40. Interesting excavations. Museum. |
| Port Royal. | Port Royal, N.S., 8 miles from Annapolis Royal. | 1941 | 20.5 | Restoration of "Habitation" or first fort built in 1605 by Champlain, DeMonts and Poutrincourt. |
| Fort Chambly | Chambly, Que...... | 1941 | $2 \cdot 5$ | French fort on Richelieu River, first built in 1665. Museum. |
| Fort Lennox. . . . . . . . | He-aux-Noix, Que., near St. Johns. | 1941 | $210 \cdot 0$ | Site of early French fort built in 1759. |
| Fort Wellington...... | Prescott, Ont....... | 1941 | 8.5 | Defence post built 1812-13. Museum. . |
| Fort Malden. . | Amherstburg, Ont.. | 1941 | $5 \cdot 0$ | Site of defence post built 1797-99. Museums. |
| Fort Prince of Wales.. | Northern Manitoba, near Churchill. | 1941 | 50.0 | Ruins of fort built 1733-71 to secure control of Hudson Bay for England. |
| Lower Fort Garry ... | Manitoba, 20 miles north of Winnipeg. | 1951 | $12 \cdot 8$ | Stone-walled fort built by the Hudson'ṣ Bay Company between 1831 and 1839. |
| Fort Battleford...... | Saskatchewan, 4 miles south of North Battleford. | 1951 | . 36.7 | North West Mounted Police post built in 1876. |

${ }^{1}$ Administered by the Northern Administration and Lands Branch, Department of Northern Affairs and National Resources.

Provincial Parks.-In addition to the National Parks described above, most of the provinces have established Provincial Parks. These Parks, as in the case of the National Parks, are areas of great scenic or other interest maintained for the benefit of the public. The Provincial Parks are administered by the provincial governments concerned and, in most cases, have not yet reached the degree of development that marks the National Parks.

A detailed list of the Provincial Parks, showing location, year established, area and a short description in each case, is given in the 1954 Canada Year Book, pp. 26-30. The more important Parks in each province are mentioned briefly in the following outline.

Newfoundland.--Provincial park area in Newfoundland was increased recently from 42 sq. miles to 48 sq. miles. In addition to the 42 sq. miles on the west coast of the Province, which was set aside as Serpentine Park and is still undeveloped, six square miles on the Upper Humber River will be developed in the near future as a Provincial Park.

Quebec.-The Province of Quebec has established five Provincial Parks and four fish and game reserves. Four of the Parks areas are quite extensive in size. La Vérendrye Park, 140 miles northwest of Montreal, covers an area of 4,747 sq. miles; Laurentides Park, 25 miles north of Quebec City is $3,613 \mathrm{sq}$. miles in area; Trembling Mountain, 80 miles north of Montreal, 1,223 sq. miles; and Gaspesian Park, Gaspe Peninsula, 514 sq. miles. Mount Orford Park, situated 15 miles west of Sherbrooke, is 16 sq. miles in extent. The fish and game reserves together cover an area of more than 10,000 sq. miles. These Parks and reserves are wilderness areas of great scenic interest, for the most part mountainous country threaded with many rivers, lakes and streams and abounding in wildlife. In all of them, except Mount Orford, excellent fishing may be found and the Parks are organized to accommodate sportsmen and tourists in camps, cottages and lodges. Trembling Mountain is a famous resort area, in both summer and winter, and is easily reached by highway the year round from Montreal. The Department of Game and Fisheries administers the Parks and reserves as well as four salmon streams which are open to anglers.

Ontario.-There are six Provincial Parks in Ontario administered by the Department of Lands and Forests, all of which are Crown game preserves. Three of these Parks-Algonquin, 105 miles west of Ottawa ( 2,750 sq. miles), Rondeau, 70 miles east of Windsor ( 8 sq . miles), and Ipperwash, 50 miles north of Chatham (109 acres)-are easily reached by car and contain facilities for camping, picnicking, swimming, dancing, fishing, hiking and boating. Boys', girls' and adults' commercial camps are established in Algonquin Park. Quetico Park, in the Rainy River district of northwestern Ontario ( $1,720 \mathrm{sq}$. miles) and Sibley Park, on the north shore of Lake Superior ( 63 sq. miles), are accessible by car but are not developed. Superior Park, about 70 miles north of Sault Ste. Marie ( 540 sq. miles), may be reached by boat or rail and is undeveloped.

Manitoba.-Three areas in the Province may be considered as Provincial Parks, although they are not set up as such. Whiteshell Forest Reserve ( 1,088 sq. miles) and Cormorant Forest Reserve ( 580 sq. miles) are used as recreational areas. Another area known as the Northern Recreational Area ( 936 sq. miles) has not as yet been designated by Order in Council as either a forest reserve or a provincial park, but it also is used as a recreational area and has been included in the total of 2,604 sq. miles designated as provincial park area in Manitoba.

Saskatchewan.-Saskatchewan has ten Provincial Parks having a total area exceeding $1,000,000$ acres. Cypress Hills, Duck Mountain, Greenwater Lake, Moose Mountain, Little Manitou and Valley Centre are operated as summer resorts with chalet, lodge, cabin and trailer accommodation, and camping and picnic facilities. Recreational activities include fishing, boating, swimming, golf, tennis, dancing, baseball, hiking, horseback riding, etc., and the Parks are all well fitted with playground and beach equipment for children. In Cypress Hills Park, elk, antelope, deer and beaver are plentiful and brook and other trout abound in the streams and lakes. Heavy stands of tall, straight lodgepole pine provide
forest cover in this area. In Duck Mountain, Moose Mountain and Greenwater Lake Parks, moose, elk, deer, bear and beaver are common as well as several varieties of grouse. Heavy stands of spruce, poplar and white birch provide excellent cover for wildlife and pickerel, pike and perch are prevalent in the lakes.

Alberta.-In Alberta, 28 Provincial Parks have been established by proclamation or Order in Council but only 20 of them are being developed at the present time. Cypress Hills Park, an area of over 77 sq. miles situated in the southern part of the Province near the Saskatchewan border, is the largest of these Parks. The others include Aspen Beach, Beauvais Lake, Crimson Lake, Dillberry Lake, Pembina River, Gooseberry Lake, Kinbrook Island, Ma-Me-O Beach, Park Lake, Red Lodge, Rochon Sands, Saskatoon Island, Sylvan Lake, Taber, Little Bow, Woolford, Writing-on-Stone, Garner Lake and Vermilion. Picnic shelters, playground equipment and camp stoves are provided in these Parks which are maintained primarily for the recreation and enjoyment of residents of the Province.

British Columbia.-There are 66 Provincial Parks in British Columbia, covering an area of about 14,087 sq. miles. These Parks are classified as Class A, B, C and Special Parks. Class A Parks are those considered most highly for immediate recreational development and are strongly protected. Class B Parks are areas slated for development, valuable wilderness areas or places set aside for a specific reason. Class C Parks are intended primarily for the use of local residents and are generally managed by a Board. Special Parks, of which only one remains, were created in the past by Special Acts of the Legislature. The Parks are in all stages of development and dedicated to a variety of recreational uses. There are immense wilderness areas such as Tweedsmuir and Wells Gray Parks, and outstanding scenic and mountain places, which include Garibaldi, Mount Robson and E. C. Manning Parks. Thousands of city dwellers throng to the ski slopes of Mount Seymour or pienic at Cultus Lake Park. The formal gardens of Peace Arch are a monument to the goodwill between two nations. Vancouver Island has a chain of small forest parks that have achieved a tremendous popularity with tourists, the best known of which are Little Qualicum Falls and Miracle Beach. In addition to the Parks, the roadside camp-site system consists of 49 areas covering about 4.4 sq. miles.

## Subsection 4.-The National Capital Plan*

The Master Plan to guide the long-range development of Ottawa and environs and to create a Capital in keeping with Canada's acheivements and status as a nation is now well launched and evidences of its progress are apparent in many sections of the Capital area.

Preparation of the Plan was begun in 1945 and a preliminary report was completed in 1948. The Final Report was forwarded to the Government by the National Capital Planning Committee and the Federal District Commission $\dagger$ and tabled in the House of Commons on May 22, 1951. Details of the Plan are given in the 1950 Year Book, pp. 18-20, and progress made is outlined in subsequent editions.

Since the inception of the National Capital Plan, the Commission, on the advice of the National Capital Planning Committee, has approved plans of various Federal Government departments for 12 major site developments and 100 buildings.

[^11]Several of the new buildings have been completed and occupied, including the head office for Central Mortgage and Housing Corporation on the Montreal Road and the Dominion Bureau of Statistics at Tunney's Pasture. Others nearing completion are the Department of Veterans Affairs building on Wellington Street and the Government Printing Bureau at Hull. Approval has been given for the construction of a National Library of Canada building on the high ground overlooking the Ottawa River, west of the Supreme Court. The site is at present partly occupied by No. 1 Temporary Building, which is to be removed. The Library of Parliament, which was damaged by fire in 1953, was restored in 1954.

Work continued on a variety of other buildings and projects throughout the Capital area. Among these is an overpass on the Montreal Road designed and built by the Commission to provide a controlled entrance to the National Research Council establishment. Removal of the Aylmer Building permitted completion of the western approach to the Mackenzie King Bridge. The bridge, which was the first completed project in the National Capital Plan, opens up an east-west traffic artery over the Rideau Canal in Confederation Park. Work was also begun by the Commission on the development of the Hog's Back-Mooney's Bay Park. When completed this area will provide a very attractive 50 -acre addition to the Commission's park system in the National Capital.

An important project during 1954 was the rebuilding of Sussex Street, a main artery on which are located several national institutions including the Public Archives, the Royal Canadian Mint, headquarters of the National Research Council, the Prime Minister's official residence and Rideau Hall, the residence of the Governor General. The project included the rebuilding of the Sussex Street bridges over the Rideau River at Rideau Falls. Street-car tracks were removed (motor-buses are now used on the route) and overhead wiring was placed underground. The project was carried out jointly by the City of Ottawa and the Federal District Commission.

Notable progress was made on the installation of new railway facilities in accordance with long-range plans to remove trackage from central Ottawa and Hull to the urban outskirts and subsequently to use the rights-of-way thus released for arterial roads. Land was acquired along the new rail belt for the construction of railway yards and for the relocation of industries requiring rail services. Since November 1953, CNR manifest freight trains from Montreal en route to Western Canada have been using the new belt line and yards, thus by-passing the central area of the Capital. The signal system has been installed in the new yards and as soon as other installations are completed the CNR will transfer its operations from the tracks and yards that bisect the Capital along Catherine Street. The FDC completed the acquisition of extra land to widen and link up this crosstown right-of-way to permit construction of an east-west traffic artery, averaging 200 feet wide, which will join with Highway 17 east and west of Ottawa. Seven miles of trackage has been lifted preparatory to construction of the western end of the new traffic artery. Plans were made by the City, with the co-operation of the FDC, to construct a new bridge at Hurdman's where the new east-west artery will cross the Rideau River.

The Commission continued its policy of using part of the National Capital Fund, into which are paid annual parliamentary grants of $\$ 2,500,000$, to share in the costs of extending municipal water and sewage services in conformity with the Master Plan. Progress also continued on the acquisition of land for the new eastern
and western parkways, which will run in a broad are south from the vicinity of Rockcliffe Airport, cross the Rideau River near Hog's Back, and continue west and north to the Ottawa River near Britannia.

Construction of what will eventually be a 50 -mile scenic driveway through Gatineau Park was begun, and the first two miles of the parkway from the Aylmer Road at Val Tetreau to the Mountain Road were completed and hard-surfaced. Construction was also begun on a new parkway to be known as Fairy Lake Parkway which will run from the Aylmer Road at the western section of Hull and sliirt Fairy Lake to the east. Plans were also made for the extension of the parkway system along the Ottawa shore, east and west of the waterfront approach to the Champlain bridges.

Gatineau Park.-The development of Gatineau Park, located in the wooded hill-and-lake country of the Laurentians north of the City of Hull and about eight miles from the Capital, was begun by the FDC in 1937. It is the summer and winter playground of the National Capital, and is well provided with hiking trails and picnic and camping spots. Swimming, boating and fishing are enjoyed in the Park's many lakes and, in the winter, it is the skiing centre of the district.

Kingsmere, the country estate bequeathed to the nation by the Rt. Hon. William Lyon Mackenzie King and placed in the care of the Commission, is located on Kingsmere Lake at the south end of the Park. Land acquisitions by the Commission have increased the area of the Park to about 45,000 acres, and plans call for its ultimate development to about 80,000 acres.

## Section 3.-Wildlife Resources and Conservation*

The Canadian Wildlife Service.-The Canadian Wildlife Service of the National Parks Branch, Department of Northern Affairs and National Resources, is responsible for attending to wildlife matters coming within the jurisdiction of the Federal Government, except those within the purview of the National Museum and certain activities closely related to Indian affairs.

Its functions include acting in an advisory capacity with regard to conservation and management of wildlife in the Northwest Territories; advising and co-operating with the National Parks and Historic Sites Division regarding fish and wildlife problems in the National Parks; and administration of the Migratory Birds Convention Act, in conjunction with the Royal Canadian Mounted Police and in co-operation with the provincial game authorities. The Canadian Wildlife Service also handles national and international problems relating to Canada's wildlife resources and co-operates with governmental and other agencies having similar interests and problems in Canada and elsewhere.

The Service issues permits for bird-banding in Canada and is the Canadian clearing-house for bird-banding information. It issues permits to qualified persons to take migratory birds for scientific purposes; to take and possess migratory birds for propagating purposes; to collect eiderdown; and to engage in the business of taxidermy.

[^12]The Canadian Wildlife Service plans and carries out scientific investigations concerning numbers, food, shelter, migration, reproduction, diseases, parasites, predators, competitors and uses of wild creatures in Canada. In certain of such investigations, e.g., the mid-winter waterfowl inventory, it works in close cooperation with United States authorities conducting parallel studies.

The Service is responsible for the establishment and administration of bird sanctuaries under the Migratory Birds Convention Act. On Dec. 31, 1953, there were 90 bird sanctuaries with a total area of more than 1,800 sq. miles.

The Limnology Section of the Service concerns itself with the maintenance and improvement of sport fishing, the control of aquatic and semi-aquatic insects, the control of algm, and other biological problems that arise in regard to water areas in the National Parks. It also acts in an advisory capacity to the Northern Administration and Lands Branch in connection with aquatic biological matters.

A series of special articles relating to the wildlife resources of Canada are being carried in the Year Book. Articles on 'Migratory Bird Protection in Canada', 'Game Fish in Canada's National Parks,' and 'The Barren-Ground Caribou' were carried in the 1951, 1952-53 and 1954 editions, respectively. The following article on 'Migratory Bird Legislation' describes the measures taken by Canada to fulfil its obligations under the Migratory Birds Treaty.

## MIGRATORY BIRD LEGISLATION

Migratory birds are protected in Canada under the terms of the Migratory Birds Treaty, signed at Washington on Aug. 16, 1916, and put into effect by parallel legislation in Canada and in the United States. The Treaty does not, however, apply to all birds migrating between the two countries, but only to those classified in three main groups as follows:-
(1) Migratory Game Birds.-Anatidæ or waterfowl, including brant, wild ducks, geese and swans; gruidx or cranes, including little brown, sandhill and whooping cranes; rallidæ or rails, including coots, gallinules and sora and other rails; limicolæ or shorebirds, including avocets, curlew, dowitchers, godwits, knots, oyster catchers, phalaropes, plovers, sandpipers, snipe, stilts, surf birds, turnstones, willet, woodcock and yellowlegs; and columbidæ or pigeons, including doves and wild pigeons.
(2) Migratory Insectivorous Birds.-Bobolinks, catbirds, chickadees, cuckoos, flickers, flycatchers, grosbeaks, humming birds, kinglets, martins, meadowlarks, nighthawks or bull bats, nuthatches, orioles, robins, shrikes, swallows, swifts, tanagers, titmice, thrushes, vireos, warblers, waxwings, whippoorwills, woodpeckers, wrens, and all other perching birds that feed entirely or chiefly on insects.
(3) Migratory Non-game Birds.-Auks, auklets, bitterns, fulmars, gannets, grebes, guillemots, gulls, herons, jaegers, loons, murres, petrels, puffins, shearwaters and terns.

Under the Treaty, no open season may be declared for the hunting of migratory insectivorous birds or migratory non-game birds. Open seasons for migratory game birds may be provided by the Canadian and United States Governments, but no such open seasons may begin before Sept. 1 in any year or may last beyond Mar. 10, or may be more than three and one-half months in length. In practice, opening dates for the various species and districts are generally later than Sept. 1, except in northern Canada, and only in limited areas and for particular species do any seasons extend beyond the end of January.

Many of the migratory game birds have enjoyed a continuous close season throughout Canada and the United States since the provisions of the Treaty came into effect, and have indeed ceased to be generally considered as game birds. Other species were never very popular for food or sport and, although open seasons may be provided for them, they are taken by comparatively few hunters.

The most important game birds in Canada are certain species of geese (including brant) and ducks. Swans and cranes enjoy virtually permanent protection, no open season on them having been declared since the Treaty came into effect. Open seasons for woodcock and Wilson's snipe are provided, although not in all provinces, but there have been no open seasons for other species of shore-birds since 1927. Most provinces have open seasons on some or all species in the rail group. In British Columbia there is an annual open season on band-tailed pigeons, but elsewhere in Canada it is not customary to hunt pigeons or doves and there is no open season for them.

In view of the importance of ducks and geese, special surveys of these birds are made by the wildlife authorities of Canada and the United States, wòrking in close collaboration. A count is made at midwinter, when waterfowl are concentrated chiefly in the United States, with relatively small numbers on the eastern and western coasts of Canada and a few stragglers in the central provinces. This count, taken at a time when hunting of waterfowl has almost or quite ceased throughout the two countries, makes possible a fairly close estimate of the breeding population available for the following spring.

The coming of spring is the signal for the majority of North American waterfowl to forsake their winter resorts in favour of breeding-grounds farther north or at a higher altitude. A large proportion of the duck population selects the sloughs, marshes and lake-shores of the Prairie Provinces as their favoured nesting area. Trumpeter swans prefer to winter in British Columbia and to rear their young on the high prairies of Alberta and in some other remote areas, the locations of which are still in doubt. The little Ross's goose, a more ambitious bird, winters in California and nests near the mouth of the Perry River, north of the Arctic Circle. In fact, almost every district in Canada where suitable nesting territory is available receives its quota of one or more species of waterfowl during the breeding season.

Weather conditions during the spring and summer are of great importance to the stock of North American waterfowl. A cold, wet spring has serious adverse effects on the early attempts at nesting. Also an unusually hot and dry summer,
drying up ponds and marshes before the young ducks are ready to fly, may wipe out thousands of fledglings over wide areas. Epidemic diseases, predation, prairie and forest fires, and farming operations also present hazards to both parents and young.

To obtain an adequate comprehension of the waterfowl situation as it develops between the midwinter census and the following hunting season, wildlife experts maintain a constant watch on the chief breeding areas in spring and summer. A series of extensive surveys is made by officers of the Canadian Wildlife Service, the United States Fish and Wildlife Service, provincial game departments, and other organizations. Sample counts of waterfowl on definite areas are taken, which are compared with similar counts for the same areas in preceding years. Conditions affecting nesting success, such as snow, rain, drought, spring run-off, water levels, temperature fluctuations, predation and disease, are carefully noted. Consequently, as the summer advances, wildlife authorities are able to form a well-founded estimate of continental waterfowl conditions, and to tell with reasonable accuracy how the autumn crop of waterfowl in different areas will compare with that of recent years. Thus the surveys provide a sound scientific basis for the waterfowl hunting regulations for the year.

It may be of advantage here to distinguish clearly between the Migratory Birds Treaty, the Migratory Birds Convention Act, and the Migratory Bird Regulations.

The Migratory Birds Treaty is an international treaty between Canada and the United States which defines the groups of birds affected by it, stipulates certain limitations on open seasons and on the taking and shipment of migratory birds, and provides for the issuing of special permits for scientific and propagating purposes and for the control of birds damaging crops and other interests. The terms of the Treaty are binding on both Canada and the United States and may be altered only by a new treaty.

The Migratory Birds Convention Act is a law passed by the Parliament of Canada, setting forth the measures by which Canada fulfils her obligations under the Migratory Birds Treaty. It may be amended by the Parliament of Canada, but any amendment must be in conformity with the terms of the Treaty. The Act provides for the making, by Order in Council, of regulations for the protection of migratory birds; it also makes provision for enforcement of the Act itself and of such regulations, with penalties for violations.

The Migratory Bird Regulations, authorized by the Act, govern the details of migratory bird protection, including open seasons for migratory game birds, restrictions on hunting methods and appliances, and regulations for the issue and use of permits.

In general, wildlife legislation in Canada is a purely provincial matter. The special federal interest in migratory bird legislation is derived from Sect. 132 of the British North America Act, which provides that the Government of Canada
shall have all powers required to carry out obligations imposed by an external treaty on Canada or on any of its provinces. Consequently, while the provinces retain property in migratory birds within their borders, the adoption of laws to carry out the terms of the Migratory Birds Treaty is a federal responsibility. The provinces are not precluded from passing game laws which cover migratory birds, but such provincial laws, in so far as they apply to migratory birds, must be not less restrictive than federal laws on the same subject.

There is no difficulty in the practical application of the division of federal and provincial powers. Several provinces incorporate in their game laws the provisions of the federal migratory bird legislation. The game and fishery officers of all ten provinces are ex officio game officers under the Migratory Birds Convention Act, and enforce that Act and Regulations thereunder as well as the game and fishery laws of their own provinces.

The annual revision of the Migratory Bird Regulations is one of the important functions of the Canadian Wildlife Service. The main basis of this work is the knowledge of the continental waterfowl situation derived from the midwinter count and the summer surveys. Some items for revision may be under consideration for several months but the peak of the work is attained during June and July. As a rule, the revision is completed and the new Regulations are approved by Order in Council in July or early August, permitting announcement some weeks before the opening of the earliest waterfowl-hunting season in Canada.

In revising the Regulations, the Canadian Wildlife Service works in closest co-operation with game authorities of the provinces and territories. An annual conference of representatives of provincial and federal wildlife services is held at Ottawa, usually in June, by which time preliminary reports of the waterfowl situation are available. At this conference, free discussion of wildlife matters leads to agreement on many questions affecting the Regulations, or clarifies problems for future study. The conference does not frame amendments to the Regulations, but often passes resolutions on which amendments may be based.

By the month of July, a sufficient number of reports have been received from all parts of Canada to permit a comprehensive view of the waterfowl situation. The Canadian Wildlife Service is the focal point for receipt and analysis of this information and, because of the fact that provincial and federal wildlife services are agreed on the basic principles of conservation and co-operate in a spirit of mutual confidence, there is no undue delay in working out the necessary revisions to the Regulations The recommendations of the individual provinces regarding dates of open seasons and bag and possession limits form the basis of corresponding provisions applying within their respective borders. The Regulations as a whole are concurred in by all the provinces and by federal legal authorities before being submitted to the Governor General in Council for approval.

It is customary for the Regulations to contain a provision that they shall come into effect on the first day of September of the year in which they are adopted; thus each year's Regulations have the force of law from Sept. 1 until Aug. 31 of the following year. The annual effective date, Sept. 1, should not be confused with the date of adoption by Order in Council (which is generally some weeks earlier, in order that the Regulations may be thoroughly publicized before they come into effect) or the dates of beginning of open seasons, which vary considerably across Canada.

As soon as the Regulations are adopted by Order in Council they are given immediate publicity throughout Canada by press and radio. Posters and abstracts are issued by the Canadian Wildlife Service and the provinces. The revised Regulations are published in the Canada Gazette. A consolidation of the Migratory Birds Convention Act and the Regulations is printed as soon as possible after the latter are adopted, and is distributed by the Canadian Wildlife Service to all persons and organizations interested.

## PART III.-CLIMATE AND TIME ZONES <br> Section 1.-Climate

A comprehensive discussion of the climatic regions of Canada is available in the 1948-49 Year Book, pp. 41-62, and detailed tabulations of climatic factors covering 36 meteorological stations located mostly at well-known or populous centres are given in the 1950 Year Book, pp. 35-70. Other articles appearing in previous editions are listed under "Climate and Meteorology" in Chapter XXIX of this volume.

Table 1 gives long-term temperature and precipitation data for 35 representative Canadian stations; Tables 2 and 3 provide monthly temperature and precipitation data during 1953 for these same stations. These are mostly wellknown or populous places with climates fairly representative of a considerable area. The figures given under "Temperatures" are, of course, averages obtained over the period of observation in each case. Under "Precipitation", in calculating the annual total, inches of rain is considered the total depth of water accumulated on a hypothetical horizontal impervious surface without evaporation. Similarly, the depth of snow given is that which falls on a horizontal surface, without settling, melting or sublimation. Because the depth of water obtained from melting newly fallen snow is roughly one-tenth of the depth of the snow, the total precipitation is obtained by adding together the total rainfall and one-tenth of the depth of the newly fallen snow. A day with rain is, for the purpose of these tables, one on which $1 / 100$ of an inch or more falls and a day with snow is one with at least $1 / 10$ of an inch of newly fallen snow. Whenever the temperature four feet above the ground falls to $32^{\circ} \mathrm{F}$. or lower, the day is counted as a day with frost. The average date of the last spring frost and of the first frost in autumn marks the approximate period continuously free from frost.

## 1.-Long-Term Temperature and Precipitation Data for 35 Representative Stations

| Station | Height Above Sea ft. | Length of Record yrs. | TEMPERATURES (Fahrenheit) |  |  |  |  | Heating Factor | Killing Frost Average Dates |  | PRECIPITATION (inches) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Jan. | July | Highest on Record 1921-50 | $\begin{gathered} \text { Lowest } \\ \text { on } \\ \text { Record } \\ 1921-50 \end{gathered}$ | DayDegrees ${ }^{1}$ | Last in Spring | First in Autumn | $\begin{array}{\|c} \text { Annual } \\ \text { Total } \end{array}$ | Annual Snow | Jan. | Apr. | July | Oct. | Number of Days |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Rain | Total |
| Gander, N'f'ld | 482 | 14 | $39 \cdot 2$ | $19 \cdot 0$ | $62 \cdot 1$ | 91 | -16 | 8,767 | June 1 | Oct. 3 | $39 \cdot 50$ | $119 \cdot 2$ | $2 \cdot 63$ | $2 \cdot 57$ | $3 \cdot 61$ | $4 \cdot 09$ | 129 | 199 |
| St. John's (Torbay), N'f'ld. | 463 | 10 | $40 \cdot 6$ | 23.9 | $59 \cdot 4$ | 86 | $-10$ | 8,876 | June 2 | Oct. 10 | 59.99 | 141.3 | $5 \cdot 22$ | $5 \cdot 02$ | 3.97 | $5 \cdot 59$ | 147 | 208 |
| Goose Bay, N'f'ld......... | 144 | 10 | 31.7 | $0 \cdot 0$ | $61 \cdot 2$ | 100 | -35 | 12,148 | June 10 | Sept. 14 | $29 \cdot 05$ | $144 \cdot 1$ | 1.93 | 1.76 | 3.28 | 2.42 | 88 | 166 |
| Charlottetown, P.E.I | 186 | 30 | $42 \cdot 5$ | $18 \cdot 8$ | $66 \cdot 6$ | 98 | -23 | 8,263 | May 16 | Oct. 14 | $43 \cdot 13$ | $112 \cdot 7$ | 4.09 | 2.83 | $2 \cdot 85$ | $4 \cdot 17$ | 119 | 162 |
| Annapolis Royal, N.S | 10 | 30 | 44.8 | $24 \cdot 4$ | $65 \cdot 3$ | 91 | -13 | 7,665 | May 20 | Oct. 6 | 41.35 | 68.0 | 4.01 | 2.85 | 3.15 | 3.86 | 115 | 140 |
| Halifax, N.S......... | 83 | 30 | 44.4 | $24 \cdot 4$ | $65 \cdot 0$ | 94 | -21 | 7,350 | May 13 | Oct. 12 | $54 \cdot 26$ | $64 \cdot 1$ | $5 \cdot 16$ | $4 \cdot 48$ | $3 \cdot 62$ | $5 \cdot 12$ | 130 | 156 |
| Sydney, N.S | 197 | 30 | $42 \cdot 8$ | $22 \cdot 7$ | $65 \cdot 0$ | 98 | -23 | 7,896 | May 29 | Oct. 13 | 50.61 | $96 \cdot 6$ | 4.86 | $3 \cdot 77$ | 2.98 | $5 \cdot 22$ | 127 | 165 |
| Chatham, N.B | 112 | 26 | $39 \cdot 7$ | $12 \cdot 4$ | $66 \cdot 1$ | 102 | -43 | 8,887 | May 21 | Sept. 28 | $36 \cdot 33$ | $84 \cdot 2$ | 2.59 | $2 \cdot 78$ | $3 \cdot 10$ | $3 \cdot 86$ | 107 | 151 |
| Fredericton, N.B | 164 | 30 | $41 \cdot 2$ | $14 \cdot 2$ | $66 \cdot 6$ | 102 | -38 | 8,663 | May 20 | Sept. 23 | 41.90 | 88.4 | 3.18 | $3 \cdot 37$ | $3 \cdot 35$ | $4 \cdot 16$ | 108 | 149 |
| Saint John, N.B. | 119 | 30 | $42 \cdot 0$ | $19 \cdot 8$ | 61.8 | 93 | -21 | 8,081 | May 4 | Oct. 16 | 47-69 | 83.0 | $4 \cdot 55$ | $3 \cdot 62$ | $3 \cdot 28$ | $4 \cdot 77$ | 134 | 168 |
| Arvida, Que | 375 | 19 | $36 \cdot 6$ | $4 \cdot 2$ | $65 \cdot 2$ | 95 | -42 | 10,585 | May 20 | Sept. 19 | $38 \cdot 77$ | $115 \cdot 7$ | 2.87 | $2 \cdot 53$ | $4 \cdot 17$ | 3.45 | 112 | 176 |
| Lennoxville, Q | 498 | 30 | 41.6 | $13 \cdot 2$ | $66 \cdot 6$ | 99 | -48 | 8,996 | May 31 | Sept. 10 | $40 \cdot 11$ | 96.5 | $3 \cdot 37$ | $3 \cdot 01$ | $4 \cdot 08$ | 3.40 | 104 | 150 |
| Montreal, Que. | 187 | 30 | $43 \cdot 7$ | $15 \cdot 4$ | $70 \cdot 4$ | 97 | -29 | 8,059 | Apr. 28 | Oct. 17 | 41.80 | $100 \cdot 8$ | $3 \cdot 54$ | $3 \cdot 37$ | 3.97 | 3.40 | 112 | 164 |
| Fort William, Ont | 644 | 30 | 36.8 | $7 \cdot 6$ | 63.4 | 91 | -38 | 10,045 | June 4 | Sept. 7 | $27 \cdot 62$ | 68.8 | 1.67 | 1.81 | 3.26 | $2 \cdot 52$ | 82 | 142 |
| Kapuskasing, Ont | 752 | 13 | $33 \cdot 4$ | $-0.1$ | $63 \cdot 2$ | 101 | $-53$ | 11,374 | June 14 | Sept. 5 | $34 \cdot 51$ | $124 \cdot 0$ | 2.40 | 2.03 | $3 \cdot 63$ | $2 \cdot 56$ | 95 | 182 |
| Ottawa, Ont. | 260 | 30 | 41.6 | $12 \cdot 0$ | $68 \cdot 6$ | 102 | -35 | 8,674 | May 11 | Sept. 29 | 34.89 | $80 \cdot 5$ | $2 \cdot 67$ | $2 \cdot 62$ | $3 \cdot 53$ | $2 \cdot 70$ | 98 | 139 |
| St. Catharines | 347 | 20 | 48.4 | $26 \cdot 7$ | 71.7 | 104 | -12 | 6,607 | May 5 | Oct. 21 | 30.72 | $47 \cdot 1$ | $2 \cdot 54$ | 2.47 | $2 \cdot 36$ | 2.38 | 99 | 132 |
| Toronto, Ont | 379 | 30 | $47 \cdot 0$ | $24 \cdot 5$ | $70 \cdot 8$ | 105 | -22 | 7,196 | May 3 | Oct. 15 | $30 \cdot 94$ | $54 \cdot 6$ | $2 \cdot 72$ | $2 \cdot 55$ | $3 \cdot 23$ | $2 \cdot 29$ | 109 | 145 |
| Churchill, Ma | 43 | 21 | 18.8 | $-16.4$ | $55 \cdot 0$ | 90 | -50 | 15,735 | June 28 | Aug. 30 | $14 \cdot 41$ | $45 \cdot 1$ | $0 \cdot 39$ | 1.21 | $2 \cdot 51$ | 1.53 | 52 | 101 |
| The Pas, Man | 890 | 29 | 31.4 | $-6.2$ | $64 \cdot 9$ | 100 | $-54$ | 12,160 | May 30 | Sept. 9 | 16.98 | 53.2 | 0.77 | 0.93 | 2.42 | $1 \cdot 11$ | 59 | 102 |
| Winnipeg, Man. | , 786 | 30 | $36 \cdot 6$ | $0 \cdot 6$ | $68 \cdot 4$ | 108 | -43 | 10,801 | May 27 | Sept. 15 | $19 \cdot 72$ | 49.4 | 0.93 | 1.20 | 2.72 | 1.44 | 67 | 118 |
| Prince Albert, Sas | 1,414 | 30 | $34 \cdot 0$ | $-1 \cdot 3$ | $65 \cdot 3$ | 103 | -56 | 11,337 | May 30 | Sept. 10 | $15 \cdot 60$ | $45 \cdot 1$ | $0 \cdot 60$ | 1.08 | 2.15 | 0.99 | 62 | 116 |
| Regina, Sask. | 1,884 | 30 | $36 \cdot 7$ | $2 \cdot 3$ | $66 \cdot 6$ | 110 | -54 | 10,630 | June 5 | Sept. 6 | 15.09 | 40.1 | 0.65 | 0.81 | 2.13 | 0.85 | 59 | 109 |
| Beaverlodge, A | 2,500 | 30 | 36.1 | 9.7 15 | 60.2 | 98 | $-53$ | 10,950 | May 30 | Sept. 1 | $17 \cdot 32$ | 68.2 | 1.19 | 0.87 | 2.31 | 1.04 | 76 | 127 |
| Calgary, Alta. | 3,540 | 30 | $39 \cdot 0$ | $15 \cdot 8$ | 62.4 | 97 | -46 | 9,127 | June 3 | Sept. 3 | $17 \cdot 47$ | 57.0 | 0.55 | 1.26 | 2.41 | 0.89 | 57 | 101 |
| Edmonton, Alta. | 2,219 | 30 | $36 \cdot 8$ | 7-7 | $62 \cdot 9$ | 99 | -51 | 9,905 | May 29 | Sept. 6 | 17-63 | 52.9 | 0.90 | 1.10 | 3.11 | 0.84 | 73 | 133 100 |
| Medicine Hat, Alt | 2,365 | 30 | $42 \cdot 2$ | $13 \cdot 7$ | $70 \cdot 2$ | 106 | -49 | 8,495 | May 15 | Sept. 18 | $13 \cdot 55$ | $41 \cdot 6$ | 0.72 | 0.99 | 1.38 | 0.72 | 56 | 100 |
| Cranbrook, B | 3,013 | 30 | $41 \cdot 2$ | $15 \cdot 6$ | 64.4 | 102 | -42 | 8,760 | June 10 | Aug. 27 | 14.46 | 54.5 | 1.58 | 0.61 | 0.85 | $1 \cdot 11$ | 69 | 106 |
| Nelson, B.C. | 2,035 | 30 | $45 \cdot 8$ | 24.4 | $67 \cdot 2$ | 103 | -17 | 7,278 | May 10 | Oct. 2 | 28.52 | 90.0 | 3.48 | 1.59 | 1.15 | 2.85 | 102 | 131 |
| Penticton, B.C. | 1,121 | 30 | 48.0 | $26 \cdot 7$ | $68 \cdot 7$ | 105 | $-16$ | 6,346 | May 7 | Oet. 3 | 11.50 | 25.4 | 0.98 | 0.83 | 0.78 | 0.98 | 83 | 102 |
| Prince George, B.C | 2,218 | 30 | 38.9 | $14 \cdot 6$ | $59 \cdot 6$ | 102 | -58 | 8,996 | June 17 | Aug. 24 | $22 \cdot 17$ | $66 \cdot 6$ | 1.85 | 0.96 | $2 \cdot 14$ | $2 \cdot 12$ | 123 | 162 |
| Victoria, B.C | , 228 | 30 | $50 \cdot 2$ | $39 \cdot 2$ | $60 \cdot 0$ | 95 | 6 | 4,987 | Feb. 28 | Dec. 7 | 26.18 | $10 \cdot 1$ | 4.05 | $1 \cdot 17$ | $0 \cdot 49$ | $2 \cdot 90$ | 141 | 144 |
|  | 1,062 | 30 19 | 23.8 11.7 | -16.0 -19.0 | 59.8 49.0 | 95 87 | -73 -58 | 14,620 19,710 | June 4 | Aug. 21 | 13.99 10.87 | 52.5 55.5 | 0.88 | 1.63 0.67 | 1.72 1.52 | 1.07 1.23 | 63 40 | 117 103 |
| Coppermine, N.W.T. ${ }_{\text {Fort Good Hope, }}$ N.W.T. | 13 214 | 19 29 | 11.7 17.8 | -19.0 -21.0 | 49.0 59.8 | 87 94 | -58 | 19,710 17,520 | June 28 <br> June  <br> 1  | Aug. 18 Aug. 11 | $10 \cdot 87$ 12.18 | $55 \cdot 5$ 57.3 | 0.60 0.72 | 0.67 0.50 | 1.52 1.55 | $1 \cdot 23$ $1 \cdot 20$ | 40 | 103 106 |

[^13] totals.

| Station | Monthly Mean Temperatures (Fahrenheit) |  |  |  |  |  |  |  |  |  |  |  | Annual Mean Tem- <br> perature | Tem-peratureDiffer-encefromNormalfor Year | $\begin{gathered} \text { Annual } \\ \text { Temperature } \\ \text { Extremes } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Jsn. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |  |  | Highest | Lowest |
| Gander, N'f'ld. | 23.9 | 23.8 | 25.0 | 39.9 | 41.4 | 55.4 | $64 \cdot 2$ | 59.4 | 53.8 | 42.2 | 36.0 | 26.2 | $40 \cdot 9$ | 1.7 | 88.4 | -1.3 |
| St. John's (Torbay), N'f'ld... | $27 \cdot 1$ | $27 \cdot 6$ | 26.2 | $39 \cdot 0$ | 40.7 | $54 \cdot 0$ | 61.5 | 57.5 | 54.2 | $44 \cdot 7$ | 39.0 | 31.4 | 41.9 | 1.3 | $80 \cdot 6$ | 7.5 |
| Goose Bay, N'f'ld............ | 1.5 | $6 \cdot 3$ | 16.3 | 37.0 | 41.4 | $52 \cdot 6$ | $61 \cdot 3$ | 56.9 | 48.7 | 38.4 | 25.4 | $5 \cdot 4$ | $32 \cdot 6$ | 0.9 | $90 \cdot 0$ | -24.4 |
| Charlottetown, P.E.I. ....... | 24.8 | 24.6 | 29.2 | 40.8 | $45 \cdot 8$ | $58 \cdot 1$ | ${ }^{65 \cdot 6}$ | $62 \cdot 4$ | 58.8 | 46.9 | 41.0 | $31 \cdot 3$ | 44.1 | 1.6 | 81.6 | $-2.2$ |
| Annapolis Royal, N.S........ | 30.0 31.7 | 29.8 30.0 | $34 \cdot 6$ 33.7 | 44.8 44.8 | $52 \cdot 2$ 49.9 | $59 \cdot 7$ 59.3 | $64 \cdot 4$ 66.2 | $62 \cdot 6$ 84.8 | $58 \cdot 8$ 61.2 | 50.2 51.9 | 43.2 45.3 | $36 \cdot 7$ 37.8 | 47.2 48.0 | 1.9 | 88.0 | 7.0 |
| Sydney, N.S | 28.4 | 26.9 | 29.2 | $40 \cdot 6$ | 43.9 | 56.8 | 65.1 | 62.8 | 58.2 | 47.8 | 42.1 | 33.4 | $44 \cdot 6$ | 1.8 1.8 | 88.6 85.2 | 7.4 |
| Chatham, N.B | 20.7 | 21.6 | 27.3 | 40.0 | 48.8 | 61.0 | $67 \cdot 1$ | 63.4 | 58.9 | 46.3 | 39.0 | 26.5 | $43 \cdot 4$ | 3.7 | 94.2 | -5.8 |
| Fredericton, N.B | 21.7 | 22.2 | 29.7 | 42.8 | 52.2 | $61 \cdot 1$ | $66 \cdot 8$ | 63.7 | 58.6 | 46.5 | $39 \cdot 2$ | 28.2 | $44 \cdot 4$ | $3 \cdot 2$ | 92.0 | -10.8 |
| Saint John, N.B.............. | 26.8 | 26.0 | $32 \cdot 2$ | 42.8 | 49.6 | 58.0 | 63.6 | $61 \cdot 7$ | 57.8 | 48.8 | 42-2 | 33.0 | $45 \cdot 2$ | 3.2 | 88.8 | -2.0 |
| Arvida, Que | $8 \cdot 6$ | $9 \cdot 5$ | $24 \cdot 7$ | 39.7 | 48.0 | 61.2 | $64 \cdot 2$ | 61.6 | 54.9 | 45.2 | 36.4 | 17.8 | $39 \cdot 3$ | 2.7 | 94.5 | -26.0 |
| Lennoxville, Que.............. | 20.8 | 20.1 | $30 \cdot 6$ | 43.0 | 54.6 | 63.2 | $67 \cdot 2$ | 63.8 | 57.0 | $47 \cdot 6$ | $40 \cdot 3$ | 27.9 | $44 \cdot 7$ | $3 \cdot 1$ | 96.0 | -27.0 |
| Montreal, Que | 21.9 | $23 \cdot 2$ | $32 \cdot 2$ | 44.8 | 58.0 | $67 \cdot 4$ | 71.4 | 68.8 | 60.7 | $51 \cdot 3$ | 41.8 | 29.4 | $47 \cdot 6$ | $3 \cdot 9$ | $93 \cdot 6$ | -8.0 |
| Fort William, Ont | $10 \cdot 1$ | $12 \cdot 0$ | 24.5 | 36.0 | 47.0 | $57 \cdot 6$ | 63.3 | 64.8 | 51.8 | $44 \cdot 6$ | 33.0 | $15 \cdot 0$ | 38.3 | 1.5 | 90.5 | $-31 \cdot 0$ |
| Kapuskasing, Ont | 1.6 | $7 \cdot 5$ | 19.6 | 31.8 | $45 \cdot 6$ | 56.4 | $64 \cdot 1$ | $63 \cdot 6$ | 48.8 | 43.8 | 31.3 | $10 \cdot 4$ | $35 \cdot 4$ | 2.0 | 91.6 | -43.0 |
| Ottawa, Ont. | 19.4 | 21.3 | 31.6 | $42 \cdot 2$ | 56.8 | $65 \cdot 2$ | $70 \cdot 0$ | $87 \cdot 6$ | 58.7 | 48.9 | $39 \cdot 6$ | 28.2 | $45 \cdot 6$ | $4 \cdot 0$ | 96.8 | $-10 \cdot 4$ |
| St. Catharines, Ont | 31.1 | $32 \cdot 4$ | 37.2 | $44 \cdot 0$ | 56.8 | 68.6 | 71.8 | 70.7 | 63.4 | 53.1 | 44-7 | $35 \cdot 4$ | 50.8 | $2 \cdot 4$ | 97.0 | $9 \cdot 0$ |
| Toronto, Ont.................. | 29.7 | 30.7 | 36.5 | 44.8 | 56.9 | $67 \cdot 2$ | 72.2 | $71 \cdot 6$ | $63 \cdot 2$ | 53.6 | $44 \cdot 2$ | 33.8 | 50.4 | $3 \cdot 4$ | 99.8 | $4 \cdot 7$ |
| Churchill, Man | -20.8 | -8.2 | 0.9 | 13.4 | 26.5 | 38.3 | 51.2 | 55.9 | $42 \cdot 1$ | $32 \cdot 7$ | 23.0 | -7.4 | $20 \cdot 6$ | 1.8 | 88.2 | $-41 \cdot 7$ |
| The Pas, Man. | -6. 5 | 6.0 | 13.5 | 29.4 | 44.9 | 55.5 | 63.0 | 64.3 | 50.0 | 42.0 | 28.8 | 4.6 | 33.0 | 1.6 | 89.5 | $-37 \cdot 2$ |
| Winnipeg, Man | $3 \cdot 2$ | $6 \cdot 2$ | 20.8 | $35 \cdot 8$ | 51.4 | 61.5 | 66.2 | 68.2 | 53.4 | $49 \cdot 7$ | $32 \cdot 2$ | 12.6 | 38.4 | 1.8 | 93.1 | $-27.2$ |
| Prince Albert, Sask | $-3 \cdot 7$ | $8 \cdot 2$ | 13.9 | 31.7 | $47 \cdot 2$ | 56.4 | 62.9 | 63.6 | $50 \cdot 1$ | $43 \cdot 1$ | 28.0 | $9 \cdot 7$ | $34 \cdot 3$ | $0 \cdot 3$ | 94.0 | -47.8 |
| Regina, Sask. | $7 \cdot 4$ | 11.2 | 19.0 | 33.4 | $48 \cdot 6$ | 59.8 | 65.4 | 66.2 | 53.6 | $47 \cdot 3$ | $32 \cdot 3$ | $17 \cdot 4$ | 38.5 | 1.8 | $90 \cdot 6$ | -38.6 |
| Beaverlodge, Alta | -5.2 | 25.6 | $22 \cdot 6$ | $32 \cdot 0$ | 51.4 | 54.1 | 57.9 | 58.2 | 49.0 | $43 \cdot 7$ | 28.7 | $20 \cdot 3$ | 36.5 | 0.4 | 84.2 | $-41.3$ |
| Calgary, Alta. | 11.8 | 25.0 | 27.9 | 31.2 | 46.9 | 53.6 | 60.4 | $60 \cdot 2$ | 51.8 | $47 \cdot 4$ | $34 \cdot 3$ | $27 \cdot 1$ | $39 \cdot 8$ | 0.8 | 88.2 | $-21.2$ |
| Edmonton, Alta | $2 \cdot 0$ | 22.8 | 23.5 | 35.0 | 51.8 | 57.2 | 61.4 | 62.0 | 52.4 | $48 \cdot 6$ | 32.8 | $24 \cdot 6$ | $39 \cdot 3$ | 2.5 | $85 \cdot 3$ | $-35.4$ |
| Medicine Hat, Alta. . . . . . . . | $15 \cdot 7$ | $27 \cdot 4$ | 29.5 | 36.8 | $52 \cdot 2$ | $60 \cdot 1$ | $67 \cdot 2$ | 68.0 | 59.0 | 52.2 | $40 \cdot 2$ | 28.4 | $44 \cdot 7$ | 2.5 | $102 \cdot 2$ | -21.5 |
| Cranbrook, B.C | 29.9 | 26.6 | 35.2 | $40 \cdot 2$ | $50 \cdot 1$ | 56.1 | 62.6 | 63.5 | 53.2 | 44.5 | $32 \cdot 8$ | 27.5 | 43.5 | $2 \cdot 3$ | $100 \cdot 0$ | -5.0 |
| Nelson, B.C. | 36.5 | 34.8 | 38.9 | 45.2 | 55.4 | 59.3 | 68.4 | $65 \cdot 8$ | 57.5 | 48.7 | $40 \cdot 8$ | 32.8 | 48.7 | 2.9 | 96.0 | 17.0 |
| Penticton, B.C | 36.8 | 36.5 | $42 \cdot 0$ | 48.3 | 55.8 | $60 \cdot 0$ | $67 \cdot 4$ | 66.7 | 57.8 | 48.0 | 41.8 | 36.0 | $49 \cdot 6$ | 1.6 | 88.0 | $15 \cdot 0$ |
| Prince George, | $6 \cdot 6$ | 26.4 | $30 \cdot 2$ | 36.8 | 50.9 | 54.9 | 58.6 | 57.0 | 49.1 | 43.4 | 35.2 | 26.0 | $39 \cdot 6$ | 0.7 | 88.3 | $\bigcirc 54.6$ |
| Victoria, B.C. | 43.1 | 42.5 | 44.8 | 48.7 | 54.0 | 54.8 | 80.0 | 61.2 | 58.8 | 52.4 | 48.2 | 44.0 | 51.0 | 0.8 | $82 \cdot 3$ | $30 \cdot 3$ |
| Dawson, Y.T ${ }^{\text {Coppermine }}$ W ${ }^{\text {W }}$ | -28.4 -24.2 | -0.2 -17.5 | 5.0 -8.9 | 36.3 8.9 | 50.0 25.4 | $59 \cdot 4$ 39.1 | 60.8 49.8 | 55.8 50.4 | 44.5 39.4 | 27.3 23.4 | 8.0 0.9 | 0.7 -14.5 | $26 \cdot 6$ 14.3 | 2.8 2.6 | $85 \cdot 8$ 78.8 | -55.2 -49.3 |
| Fort Good Hope, N.W.T | -29.9 | -10.6 | -8.9 -9.2 | 20.6 | 20.4 $40 \cdot 6$ | 54-0 | 49.6 59.0 | 54-2 | 39.4 41.8 | 23.4 22.4 | - -2.6 | -18.5 -18.2 | 14.3 18.5 | 2.8 0.7 | 78.8 86.0 | -49.3 -55.0 |

3.-Precipitation Data for 35 Weather Stations, by Month, 1953

| Station | Monthly Precipitation (inches) |  |  |  |  |  |  |  |  |  |  |  | Annual Precipitation (inches) |  |  | Total Inches Precipitation Difference from Normal for Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | $\underset{\text { faill }}{\text { Rain- }}$ | Snowfall | Total Precipitation |  |
| Gander, N'f'ld. | $1 \cdot 71$ | 2.58 | $3 \cdot 16$ | $3 \cdot 61$ | 2.09 | $4 \cdot 17$ | 2.08 | 6.06 | $2 \cdot 18$ | 5.38 | $2 \cdot 08$ | $3 \cdot 15$ | 29.42 | 88.3 | $38 \cdot 25$ | -1.25 |
| St. John's (Torbay), N'f'ld | $4 \cdot 76$ | 4.83 | $5 \cdot 07$ | $9 \cdot 78$ | $4 \cdot 90$ | $2 \cdot 95$ | $2 \cdot 67$ | $3 \cdot 62$ | 3.09 | 8-68 | $4 \cdot 96$ | $10 \cdot 61$ | 54.98 | 109.4 | $65 \cdot 92$ | 5.93 |
| Goose Bay, N'f'ld.......... | $3 \cdot 77$ | 4.94 | 2.07 | 3.51 | $1 \cdot 16$ | 3.43 | $3 \cdot 31$ | 9.06 | 2.99 | 1.73 | $2 \cdot 07$ | $4 \cdot 19$ | $23 \cdot 16$ | $190 \cdot 7$ | $42 \cdot 23$ | $13 \cdot 18$ |
| Charlottetown, P.E.I. | 4.07 | $4 \cdot 82$ | $3 \cdot 33$ | $2 \cdot 86$ | 3.23 | $1 \cdot 54$ | 3.45 | 5-35 | $3 \cdot 24$ | $5 \cdot 18$ | $2 \cdot 77$ | $5 \cdot 78$ | $40 \cdot 44$ | 51.8 | $45 \cdot 62$ | 2.49 |
| Annapolis Royal, N.S | 5.03 | $8 \cdot 31$ | $4 \cdot 19$ | $2 \cdot 56$ | $2 \cdot 56$ | $2 \cdot 31$ | 5.41 | $3 \cdot 53$ | $5 \cdot 10$ | $3 \cdot 55$ | $2 \cdot 27$ | $6 \cdot 97$ | $48 \cdot 24$ | 35.5 | 51.79 | $10 \cdot 44$ |
| Halifax, N.S.......... | 6.99 | $7 \cdot 51$ | $4 \cdot 52$ | $3 \cdot 73$ | $3 \cdot 32$ | $3 \cdot 36$ | $4 \cdot 60$ | $4 \cdot 71$ | 2.75 | $7 \cdot 52$ | $4 \cdot 59$ | 8.07 | $56 \cdot 39$ | 52.8 | $61 \cdot 67$ | $7 \cdot 41$ |
| Sydney, N.S............... | $3 \cdot 74$ | $4 \cdot 77$ | $5 \cdot 70$ | 4.03 | $2 \cdot 92$ | 2.07 | $3 \cdot 77$ | 3.04 | $2 \cdot 52$ | $5 \cdot 03$ | $2 \cdot 64$ | $7 \cdot 79$ | $42 \cdot 39$ | 56.3 | $48 \cdot 02$ | -2.59 |
| Chatham, N.B. | 4.45 | $4 \cdot 29$ | $8 \cdot 13$ | $4 \cdot 23$ | $3 \cdot 31$ | 1.18 | $3 \cdot 24$ | $1 \cdot 79$ | $4 \cdot 68$ | $3 \cdot 78$ | 3.48 | $4 \cdot 70$ | $36 \cdot 14$ | 111.2 | $47 \cdot 26$ | $10 \cdot 93$ |
| Fredericton, N.B.......... | $4 \cdot 17$ | 3.78 | $4 \cdot 15$ | 3.83 | $3 \cdot 22$ | 2.02 | $6 \cdot 35$ | $2 \cdot 38$ | $3 \cdot 73$ | 3.41 | 3.47 | $5 \cdot 52$ | $40 \cdot 46$ | $55 \cdot 7$ | $46 \cdot 03$ | $4 \cdot 13$ |
| Saint John, N.B....... . . . . | $6 \cdot 35$ | 6.76 | $6 \cdot 68$ | $3 \cdot 65$ | 3.22 | 2.49 | $4 \cdot 88$ | $4 \cdot 72$ | 5.99 | $4 \cdot 16$ | 2.81 | $7 \cdot 62$ | $55 \cdot 76$ | $35 \cdot 7$ | $59 \cdot 33$ | $11 \cdot 64$ |
| Arvida, Que. | $3 \cdot 14$ | 1.40 | $2 \cdot 53$ | $2 \cdot 38$ | 1.25 | 2.01 | 3.06 | $1 \cdot 16$ | $4 \cdot 59$ | 0.72 | 1.77 | 3.42 | $18 \cdot 01$ | $94 \cdot 2$ | $27 \cdot 43$ | -11.34 |
| Lennoxville, Qu | $4 \cdot 67$ | $2 \cdot 26$ | $3 \cdot 21$ | $2 \cdot 78$ | $3 \cdot 69$ | $3 \cdot 54$ | $5 \cdot 20$ | $2 \cdot 29$ | $2 \cdot 19$ | 3.41 | 1.71 | $4 \cdot 19$ | 31.72 | $74 \cdot 2$ | $39 \cdot 14$ | -0.97 |
| Montreal, Que.. | $3 \cdot 81$ | 1.96 | $4 \cdot 29$ | $3 \cdot 75$ | $3 \cdot 50$ | $3 \cdot 62$ | $2 \cdot 68$ | 1.84 | 2.92 | 1-69 | 1.93 | $4 \cdot 28$ | $30 \cdot 66$ | $56 \cdot 1$ | $36 \cdot 27$ | $-5.53$ |
| Fort William, Ont | 1.86 | 0.85 | $2 \cdot 25$ | 0.95 | $6 \cdot 29$ | $3 \cdot 11$ | 0.74 | 1.82 | $3 \cdot 78$ | 0.80 | 1.98 | 2.49 | 20.01 | $69 \cdot 1$ | $26 \cdot 92$ | $-0.70$ |
| Kapuskasing, Ont. | 2.90 | 2.84 | 2.41 | 1.99 | $3 \cdot 30$ | 2.99 | 2.29 | $3 \cdot 28$ | 6.05 | 0.66 | $3 \cdot 61$ | 2.90 | 19.02 | $162 \cdot 0$ | $35 \cdot 22$ | 0.71 |
| Ottawa, Ont.... | 2.43 | 0.92 | $4 \cdot 19$ | $2 \cdot 63$ | 2.03 | $2 \cdot 60$ | 1.95 | $2 \cdot 51$ | $4 \cdot 12$ | 1.21 | 1.29 | $3 \cdot 50$ | $25 \cdot 58$ | $38 \cdot 0$ | $29 \cdot 38$ | $-5 \cdot 51$ |
| St. Catharines, Ont. . . . . . . | 1.36 | 0.61 | $4 \cdot 30$ | 1.46 | $5 \cdot 74$ | 2.06 | 1.96 | $4 \cdot 59$ | $4 \cdot 75$ | 0.65 | 2.02 | 1.96 | 29.82 | 16.4 | $31 \cdot 46$ | 0.74 |
| Toronto, Ont. . . . . . . . . . . . | 1.79 | 1.09 | 2.84 | $2 \cdot 51$ | $4 \cdot 36$ | 1.79 | 2.76 | 1.99 | $3 \cdot 81$ | 0.84 | 1.81 | 1.82 | $24 \cdot 79$ | 26.2 | $27 \cdot 41$ | $-3 \cdot 53$ |
| Churchill, Man | 0.26 | 0.70 | $1 \cdot 13$ | $1 \cdot 40$ | $0 \cdot 63$ | 1.05 | $1 \cdot 51$ | 0.97 | $4 \cdot 27$ | 0.59 | $1 \cdot 27$ | $1 \cdot 21$ | $8 \cdot 10$ | 68.9 | 14.99 | 0.58 |
| The Pas, Man. | 1.18 | 0.26 | $2 \cdot 77$ | 0.29 | 1.52 | 2.98 | $4 \cdot 14$ | $1 \cdot 25$ | $4 \cdot 57$ | 0.14 | 1.18 | $1 \cdot 38$ | $14 \cdot 36$ | $73 \cdot 0$ | 21.66 | $4 \cdot 68$ $8 \cdot 56$ |
| Winnipeg, Man. . | 1.79 | 1.05 | 1.21 | 1.59 | $4 \cdot 72$ | $4 \cdot 33$ | $7 \cdot 77$ | 1.05 | 2.86 | 1.25 | 0.23 | 0.43 | $22 \cdot 38$ | $59 \cdot 0$ | $28 \cdot 28$ | $8 \cdot 56$ |
| Prince Albert, Sas | 1.32 | 0.77 | $2 \cdot 18$ | 0.49 | 1.42 | 1.86 | $2 \cdot 14$ | 2.48 | 0.76 | 0.11 | 0.56 | 1.62 | 8.65 | $70 \cdot 6$ | $15 \cdot 71$ | 0.11 |
| Regina, Sask. | $0 \cdot 95$ | 0.89 | 1.42 | 0.81 | 3.51 | 4.06 | 3.48 | 0.92 | $1 \cdot 37$ | $0 \cdot 62$ | $0 \cdot 10$ | 0.68 | $14 \cdot 18$ | $46 \cdot 3$ | $18 \cdot 81$ | 3.72 -0.72 |
| Beaverlodge, Alta........... | $3 \cdot 43$ | 0.42 | 0.99 | 0.80 | 2.02 | $2 \cdot 63$ | $2 \cdot 13$ | 0.74 | 1.30 | 0.40 | 0.94 | 0.80 | 9.49 | 71.1 | $16 \cdot 60$ | -0.72 |
| Calgary, Alta... | 0.95 | $1 \cdot 52$ | 0.79 | 3.03 | 1.74 | $5 \cdot 88$ | $2 \cdot 59$ | $2 \cdot 16$ | 1.08 | 0.02 | 0.29 | 1.18 | 14.99 | $62 \cdot 4$ | 21.23 | 3.76 7 |
| Edmonton, Alta. | 1.98 | 0.34 | 1.76 | 1.21 | 1.82 | $4 \cdot 31$ | $7 \cdot 51$ | $4 \cdot 58$ | 0.34 | 0.31 | $0 \cdot 39$ | 0.97 | $19 \cdot 67$ | $58 \cdot 5$ | 25.52 | 7.89 4.79 |
| Medicine Hat, Alta. . . . . . . | 0.75 | 0.67 | 1.65 | $2 \cdot 48$ | 3.43 | $3 \cdot 71$ | 1.67 | 1.50 | 1.45 | 1 | 0.29 | 0.74 | $13 \cdot 84$ | $45 \cdot 0$ | $18 \cdot 34$ | $4 \cdot 79$ |
| Cranbrook, B.C | $2 \cdot 90$ | $2 \cdot 05$ | 0.40 | 1.40 | 0.20 | $3 \cdot 00$ | 0.25 | 1.92 | $0 \cdot 66$ | 0.53 | 0.96 | 1.06 | $9 \cdot 13$ | $62 \cdot 0$ | $15 \cdot 33$ | 0.87 |
| Nelson, B.C. | 4.91 | 3.83 | 2.46 | $2 \cdot 04$ | 2.40 | 3.76 | 1.06 | $3 \cdot 00$ | 1.10 | 2.41 | $2 \cdot 50$ | 1.94 | 25.89 | $55 \cdot 2$ | 31.41 | 2.89 |
| Penticton, B.C. | 1.60 | 0.49 | 0.99 | 0.93 | 1.17 | 1.22 | 0.82 | 1.77 | $0 \cdot 20$ | 0.22 | 0.76 | 0.87 | 9.68 | $13 \cdot 6$ | 11.04 | -0.46 |
| Prince George, B.C | 3.86 | 1.09 | $1 \cdot 13$ | 1.49 | 0.81 | 3.65 | $2 \cdot 15$ | 2.99 | $2 \cdot 03$ | 2.00 | 1.01 | $1 \cdot 13$ | $15 \cdot 78$ | $75 \cdot 6$ | 23-34 | 1.17 |
| Victoria, B.C. | 11.53 | 2.07 | $0 \cdot 77$ | $0 \cdot 56$ | 0.52 | 1.04 | 0.58 | 0.25 | $2 \cdot 01$ | $2 \cdot 31$ | 3.01 | $7 \cdot 27$ | 31.70 | $2 \cdot 2$ | 31-92 | 5.74 |
|  | 0.24 | 0.69 | 0.24 | 0.37 | 1.25 | 1.26 | 1.65 | 2.78 | 1.06 | 0.35 | 0.14 | 0.73 0.04 | 8.25 5.99 | $25 \cdot 1$ $19 \cdot 3$ | 10.76 7.92 | $\begin{aligned} & -3.23 \\ & -2.95 \end{aligned}$ |
| Coppermine, N.W.T. ${ }_{\text {Good Hope, }}$ N.W.T.. . | 0.11 0.12 | 0.36 0.57 | 0.18 0.53 | 0.10 0.11 | 0.01 0.83 | 0.31 1.97 | 0.86 0.41 | $4 \cdot 15$ 1.32 | 0.54 0.53 | 0.60 2.05 | 0.66 0.86 | 0.04 0.57 | $5 \cdot 99$ 4.61 | $19 \cdot 3$ $52 \cdot 6$ | $7 \cdot 92$ 9.87 | $\begin{aligned} & -2.95 \\ & -2.31 \end{aligned}$ |
| Fort Good Hope, N.W.I... | 0.12 | 0.57 | $0 \cdot 53$ | 0.11 | 0.83 | 1.97 | 0.41 | 1.32 |  | $2 \cdot 05$ |  |  | $4 \cdot 61$ |  |  |  |

[^14]
## Section 2.-Standard Time and Time Zones

Standard time, which was adopted at a World Conference held at Washington, D.C., in 1884, sets the number of time zones in the world at 24, each zone extending over one twenty-fourth of the surface of the earth and including all the territory between two meridians $15^{\circ}$ longitude apart. Standard time is Greenwich time, all other time zones being a definite number of hours either in advance of or behind Greenwich.

Canada has seven time zones, the most easterly being Newfoundland standard time, three hours and thirty minutes behind Greenwich mean time. In the west, Pacific standard time, used throughout British Columbia and part of the Northwest Territories, is eight hours behind Greenwich, and Yukon standard time, used throughout the Yukon Territory, is nine hours behind Greenwich. Some municipalities adopt the time used by the local railways which, in certain cases, differs from the standard. There are also villages that adopt such time as seems best to suit their convenience, but, in general, the legal boundaries of the different time zones are actually in use. The boundaries of the time zones in Canada are shown on the following map.


Daylight Saving Time.-For some years before World War I there was active propaganda, particularly in the cities, for the use of an earlier time, usually referred to as 'daylight saving time', one hour ahead of standard time, during the summer months. It was considered, from the economic as well as from the health point of view, that people in industrial towns and cities would gain by having longer periods of sunlight at their disposal for recreation. Canada adopted daylight saving time in 1918, but the Canadian Act lapsed at the end of that year. Since that date, however, various towns and cities have adopted daylight-saving by-laws for varying periods in the summer months.

Legal Authority for the Time Zones.-Most of the regulations made in Canada concerning standard time have been passed by the provincial legislatures and the Northwest Territories Council. The exceptions include: the Daylight Saving Act of 1918; an Order in Council (P.C. 4994) issued in 1940 requiring the continuation, for an additional period, of daylight saving time in a number of places in Ontario and Quebec where it had already been in force for the summer; and an Order in Council in 1942 (P.C. 547) making daylight saving time nation-wide, and later revoked by Order in Council (P.C. 6102), ending the observance on Sept. 30, 1945. Legislation, besides determining the boundaries of zones, regulates such matters as the times of coming into effect or expiration of Acts, ordinances, contracts and agreements, times of opening and closing registration offices, law courts, post offices and other public offices, times of open or close seasons for game. and times of opening and closing business houses and places of amusement.

## PART IV.-ASTROPHYSICS

The science of astrophysics is carried on by three Canadian institutions: the Dominion Observatory, Ottawa, Ont., the Dominion Astrophysical Observatory, Victoria, B.C. (both operated by the Department of Mines and Technical Surveys), and the David Dunlap Observatory, associated with the University of Toronto. Of the two Government institutions, the Dominion Observatory at Ottawa has specialized mainly in the astronomy of position in solar physics and in various branches of geophysical work, and the major effort in astrophysics has been concentrated at the Dominion Astrophysical Observatory at Victoria, B.C. The David Dunlap Observatory was founded in 1935 and is equipped with very fine astrophysical equipment of a kind similar to that in use at Victoria. It performs not only the function of a privately financed and administered research institution but is also the nucleus of a university department of astronomy. A special article dealing with the work of the Dominion Astrophysical Observatory at Victoria, B.C., appears in the 1948-49 Year Book, pp. 63-71.

## CHAPTER II.-CONSTITUTION AND GOVERNMENT

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Note.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

## PART I.-CONSTITUTION OF CANADA

The Canadian federal state was established by the British North America Act, 1867, which united the three British North American provinces of Canada, New Brunswick and Nova Scotia into one country, divided into four provinces, namely, Ontario, Quebec, New Brunswick and Nova Scotia. British Columbia entered the Union in 1871 and Prince Edward Island in 1873. The Province of Manitoba was created in 1870, and the Provinces of Saskatchewan and Alberta in 1905, out of portions of the territories formerly held by the Hudson's Bay Company and admitted to the Union in 1870. Newfoundland entered the Union in 1949. At the present time, therefore, Canada consists of ten provinces and the remaining territories known as the Yukon Territory and the Northwest Territories.

The British North America Act of 1867 divided legislative and executive authority between Canada on the one hand and the provinces on the other. Judicial authority was not similarly divided, provincial and federal courts having jurisdiction with respect to both federal and provincial laws.

While the British North America Act of 1867 together with its subsequent amendments is popularly regarded as the Constitution of Canada, it is not an exhaustive statement of the laws and rules by which Canada is governed. The Constitution of Canada in its broadest sense includes other statutes of the United Kingdom Parliament (e.g., the Statute of Westminster, 1931), statutes of the Parliament of Canada relating to such matters as the succession to the Throne, the demise of the Crown, the Governor General, the Senate, the House of Commons,

## 1.-Provinces and Territories of Canada, Dates of Admission to Confederation, Legislative Process by which Admission was Effected and Present Areas

| Province, Territory or District | Date of Admission or Creation | Legislative Process | Present Area (sq. miles) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Land | Fresh Water | Total |
| Ontario ${ }^{1}$ | July 1, 1867 | Act of Imperial Parliament - Ther | 348,141 | 64,441 | 412,582 |
| Quebec ${ }^{2}$ | July 1, 1867 | British North America Act, 1867 | 523,860 | 71,000 | 594,860 |
| Nova Scoti | July 1, 1867 | (30-31 Vict., c. 3), and Imperial | ${ }_{20,743}$ | 325 | 21,068 |
| New Brunsw | July $\begin{aligned} & \text { July } \\ & 15\end{aligned}$ | Order in Council, May 22, 1867, | 27,473 | 512 | 27,985 |
| Manitoba ${ }^{3}$. | July 15, 1870 | Manitoba Act, 1870 (33 Vict., c. 3) and Imperial Order in Council, June 23, 1870 | 219,723 | 26,789 | 246,512 |
| British Columbia. | July 20, 1871 | Imperial Order in Council, May 16, 1871. | 359,279 | 6,976 | 366,255 |
| Prince Edward Island | July 1, 1873 | Imperial Order in Council, June 26, 1873. | 2,184 | .- | 2,184 |
| Saskatchewan ${ }^{\text {4 }}$ | Sept. 1, 1905 | Saskatchewan Act, 1905 (4-5 Edw. VII, | 220,182 | 31,518 | 251,700 |
| Alberta ${ }^{4}$ | Sept. 1, 1905 | Alberta Act, 1905 (4-5 Edw. VII, c. 3 ). | 248,800 | 6,485 | 255,285 |
| Newioundland | Mar. 31, 1949 | The British North America Act, 1949 (12-13 Geo. VI, c. 22) | 147,994 | 7,370 | 155,364 |
| Northwest Territories ${ }^{5}$. | July 15, 1870 | Act of Imperial Parliament-Rupert's Land Act, 1868 (31-32 Vict., c. 105), and Imperial Order in Council, June 23, 1870 | 253,438 | 51,465 | 1,304,903 |
| Mackenzie ${ }^{6}$ | Jan. 1, 1920 |  | 493,225 | 34,265 | 627,490 |
| Keewatin ${ }^{\text {b }}$. | Jan. 1, 1920 | Order in Council, Mar. 16, 1918...... | 218,460 | 9,700 | 228,160 |
| Franklin ${ }^{6}$. | Jan. 1, 1920 |  | 541,753 | 7,500 | 549,258 |
| Yukon Territory ${ }^{7}$. . . | June 13, 1898 | Yukon Territory Act, 1898 (61 Vict., c. 6) | 205,346 | 1,730 | 207,076 |
|  |  | Canad | 3,577,163 | 268,611 | 3,845,774 |

[^15]electoral districts, elections, Royal Style and Titles, and also statutes of provincial legislatures relating to provincial government and provincial legislative assemblies. Other written instruments, such as the Royal Proclamation of 1763 , early instructions to Governors, letters patent creating the offices of Governors and Governors General, and Orders in Council passed pursuant to the British North America Act, also form part of the Canadian constitutional system. In addition, the Constitution of Canada includes well-established usages and conventions. The preamble to the British North America Act states that it was the desire of the original provinces to be united "with a constitution similar in principle to that of the United Kingdom" and accordingly many of the usages and conventions of government that have been developed in the United Kingdom over the centuries are followed in Canada. For example, the Cabinet system of responsible government as developed in the United Kingdom obtains in Canada although no mention thereof is made in the British North America Act.

No provision was made in the British North America Act, 1867, for amendment thereof by any legislative authority in Canada, but both the Parliament of Canada and the provincial legislatures were given legislative jurisdiction with respect to some matters relating to government. Thus, for example, the Parliament of Canada was given jurisdiction with respect to the establishment of electoral districts and election laws, and the privileges and immunities of members of the House of Commons and the Senate, and each provincial legislature was empowered to amend the constitution of the province except as regards the office of Lieutenant-Governor. By an amendment to the British North America Act passed in 1949, the authority of the Parliament of Canada to legislate with respect to constitutional matters was considerably enlarged, and it may now amend the Constitution of Canada except as regards the legislative authority of the provinces, the rights and privileges of provincial legislatures or governments, schools, the use of the English or French language, and the duration of the House of Commons.

Canada's Status in the Commonwealth of Nations.*-The several stages in the development of the status of Canada have been authoritatively described in the reports of successive Imperial Conferences, including that held at London in 1926 which defined the group of self-governing communities consisting of the United Kingdom and the Dominions as 'autonomous communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or external affairs, though united by a common allegiance to the Crown, and freely associated as members of the British Commonwealth of Nations". That Conference also recognized that, as a consequence of this equality of status, the Governor General of a Dominion "is the representative of the Crown, holding in all essential respects the same position in relation to the administration of public affairs in the Dominion as is held by His Majesty the King in Great Britain", and that "it is the right of the Government of each Dominion to advise the Crown in all matters relating to its own affairs" Simultaneously, with this change in the constitutional relationship between the several parts of the British Commonwealth of Nations, there developed, as a complementary aspect of nationhood, the assumption by the several Dominions of further responsibilities and rights of sovereign States in their relations with other members of the community of nations. Membership in the League of Nations and, more recently, in the United Nations, the exercise of treaty-making powers and the establishment of separate

[^16]diplomatic representation in a number of foreign countries have characterized this phase in the growth of Canada. More explicit recognition of the implications of the principles of equality of status was accorded in the Statute of Westminster of 1931, which provided for the removal of the remaining limitations on the legislative autonomy of the Commonwealth nations.

Thus Canada, under the Crown, has equality of status with the United Kingdom and the other Commonwealth nations in both domestic and foreign affairs; its government advises the Crown in the person of the Governor General on all matters relating to Canada. Canada has membership in the United Nations; makes its own treaties; appoints its own ambassadors and other representatives abroad; levies its own taxes; makes its own laws which are executed by a government dependent on the will of a majority of the people; and maintains its own military, naval and air forces. In short, Canada has achieved the full status of democratic nationhood within the Commonwealth of Nations.

## PART II.-MACHINERY OF GOVERNMENT

## Section 1.-The Federal Government

## Subsection 1.-The Executive

The Crown.-The British North America Act provides that "the Executive Government and authority of and over Canada is . . . vested in the Queen". The functions of the Crown, which are substantially the same as those of the Queen in relation to the Government of the United Kingdom, are discharged by the Governor General in accordance with established principles of responsible government. The practical executive functions of government are exercised by the Cabinet.

Apart from her constitutional position in relation to the various governments of the Commonwealth countries, the Queen is Head of the Commonwealth and symbolizes the association of the member countries. Until 1953, the title of the Queen was the same throughout the Commonwealth. Constitutional developments put the title somewhat out of accord with the facts of the position and, in December 1952, it was decided by the Prime Ministers of the Commonwealth countries meeting at London to establish new forms of title for each country. The title for Canada was approved by Parliament and established by a Royal Proclamation on May 29, 1953. The title of the Queen, so far as Canada is concerned, now is:-
"Elizabeth the Second, by the grace of God of the United Kingdom, Canada and her other realms and territories Queen, Head of the Commonwealth, Defender of the Faith".

The Governor General.-The Governor General, appointed by the Queen on the advice of the Prime Minister of Canada, traditionally serves for a term of five years. He exercises the executive authority of the Queen in relation to the Government of Canada, under the Letters Patent constituting the Office of Governor General and the provisions of the British North America Acts, 1867 to 1952. Acting under the recommendations of his responsible advisers, he summons, prorogues and dissolves Parliament and assents to Bills and exercises other executive functions.

## 2.-Governors General of Canada since Confederation

| Name |  | Date of Assumption of Office |
| :---: | :---: | :---: |
| Vibcount Monck, G.C.M. | June 1, 1867 | Juily 1, 1867 |
| Lord Liggar, G.C.M.G. | Dec. 29, 1868 | Feb. 2, 1869 |
| The Earl of Dufferin, K. | May 22, 1872 | June 25, 1872 |
| The Marquis of Lorne, K.T., G.C.M.G | Oct. 5, 1878 | Nov. 25, 1878 |
| The Marquis of Lansdowne, G.C.M.G | Aug. 18, 1883 | Oct. 23, 1883 |
| Lord Stanley of Preston, G.C.B | May 1, 1888 | June 11, 1888 |
| The Earl or Aberdezn, K.T., G | May 22, 1893 | Sept. 18, 1893 |
| The Earl of Minto, G.C.M.C | July 30, 1898 | Nov. 12, 1898 |
| Earl Grex, G.C.M.G. | Sept. 26, 1904 | Dec. 10, 1904 |
| Frid Marshal H.R.H. The Duke of Connauge | Mar. 21, 1911 | Oct. 13, 1911 |
| The Duke or Devonshire, K.G., G.C.M.G., G.C.V.O | Aug. 19, 1916 | Nov. 11, 1916 |
| General The Lord Byng of Vimy, G.C.B., G.C.M.G | Aug. 2, 1921 | Aug. 11, 1921 |
| Vibcount Whlingdon or Ratton, G.C.b.I., G.C.I.E., G.B.E | Aug. 5, 1926 | Oct. 2, 1926 |
| The Earl of Bessborough, G.C.M.G | Feb. 9, 1931 | Apr. 4, 1931 |
| Lord Tweedsmuir of Elsfield, G.C.M.G., G.C.V.O., C.H <br> Maror-General The Earl or Athlone, K.G., P.C., G.C.B., G.C.M.G. | Aug. 10, 1935 | Nov. 2, 1935 |
| Major-General The Earl of Athlone, K.G., P.C., G.C.B., G.C.M.G., G.C.V.O., D.S.O. | Apr. 3, 1940 | June 21, 1940 |
| Field Marshal Viscount Alexander of Tunis, K.G., G.C.B., G.C.M.G., C.S.I., D.S.O., M.C., A.D.C. | Aug. 1, 1945 | Apr. 12, 1946 |
| The Right Honourable Vincent Massey, C.H | Jan. 24, 1952 | Feb. 28, 1952 |

The Cabinet.-The Cabinet is a committee of the Queen's Privy Council for Canada and is responsible to Parliament. By convention, the members of the Cabinet are members of either the House of Commons or the Senate. Normally, most of the Cabinet members have seats in the House of Commons; at July 15, 1954, the Leader of the Government in the Senate (who was also Solicitor General) and the newly appointed Transport Minister were the only members not in the House of Commons.

The Cabinet initiates nearly all public Bills placed before Parliament and, following established precedent, resigns office when it becomes evident that it no longer holds the confidence of the representatives of the people. Its members are chosen by the Prime Minister and each generally assumes charge of one of the various departments of government, although a Minister may hold more than one portfolio at the same time, or may be without portfolio.
3.-Prìme Ministers since Confederation


# 4.-Members of the Seventeenth Ministry, as at July 15, 1954 

## (According to precedence of Ministers)

Note.-A complete list of the members of Federal Ministries from Confederation to 1913 appears in the 1912 Year Book, pp. 422-429. Later Ministries will be found in subsequent editions of the Year Book.

| Office | Occupant | Date of First Appointment ${ }^{1}$ | Date of Appointment to Present Portfolio |
| :---: | :---: | :---: | :---: |
| Prime Minister and President of the Queen's Privy Council for Canads. | Rt. Hon. Lous Staphen St. Laurent. | Dec. 10, 1941 |  |
| Minister of Trade and Commerce and |  | Dec. 10, 1941 | Nov. 15, 1948 |
| Minister of Defence Production.... | Rt. Hon. C. D. Howe. | Oct. 23, 1935 | $\left\{\begin{array}{lll} \text { Jan. } & 19, & 1948 \\ \text { Mar. } & 22, & 1951 \end{array}\right.$ |
| Minister of Agriculture..... | Rt. Hod. J. G. Gardiner. | Oct. 28, 1935 | Oct. 28, 1935 |
| Minister of National Health and Welfare. | Hon. P | Apr. 18, 1945 | Dec. 12, 1946 |
| Minister of National Revenue. | Hon. J. J. McCann. | Apr. 18, 1945 | Apr. 18, 1945 |
| Minister of Labour.................. | Hon. M. F. Grega | Jan. 19, 1948 | Aug. 7, 1950 |
| Secretary of State for External Affairs. | Hon. L. B. Pearson. | Sept. 10, 1948 | Sept. 10, 1948 |
| Minister of Justice and Attorney General. | Hon. S. S. Garson. | Nov. 15, 1948 | Nov. 15, 1948 |
| Minister of Public Works | Hon. Robert H. Winters | Nov. 15, 1948 | Sept. 17, 1953 |
| Minister of Veterans Affairs. | Hon. Hugues Lapointe. | Aug. 24, 1949 | Aug. 7, 1950 |
| Minister of Finance and Receiver General. | Hon. W. E. Harris. | Jan. 18, 1950 | July 1, 1954 |
| Minister of Mines and Technical Surveys. | Hon. George Prudham......... | Dec. 13, 1950 | Dec. 13, 1950 |
| Postmaster General........... | Hon. Alcide Côté. ............... | Feb. 13, 1952 | Feb. 13, 1952 |
| Minister of Fisheries | Hon. James Sinclatr | Oct. 15, 1952 | Sept. 17, 1953 |
| Minister of National Defence....... | Hon. Ralph O. Campney......... | Oct. 15, 1952 | July 1, 1954 |
| Leader of the Government in the Senate and Solicitor General...... | Hon. Whlinm R. Macdonald.... | May 12, 1953 | $\left\{\begin{array}{lll} \text { May } & 12, & 1953 \\ \text { Jan. } & 12, & 1954 \end{array}\right.$ |
| Minister of Citizenship and Immigration. | Hon. John W. Pickrrsaml. . . . . | June 12, 1953 | July 1, 1954 |
| Minister of Northern Affairs and National Resources. | Hon. Jban Lesage | Sept. 17, 1953 | Sept. 17, 1953 |
| Minister of Transport. | Hon. Grorge C. M | July 1, 1954 | July 1, 1954 |
| Secretary of State of Canada | Hon, Roch Pinard. | July 1, 1954 | July 1, 1954 |

${ }^{1}$ Appointee was not necessarily sworn in on date given.
Administrative duties in the various departments of government became so burdensome during World War II that Parliamentary Assistants were appointed to assist six Cabinet Ministers with their parliamentary duties. The practice was extended after the War and at July 15, 1954, there were 11 Parliamentary Assistants, as follows:-



```
To Minister of Fisheries..................................... J. Watson MacNaught
To Minister of Veterans Affairs............................... C. E. Bennett
```



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To Minister of Transport...................................... L. Langlois
To Postmaster General........................................ T. A. M. KIRK
```



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To Minister of National Health and Welfare................... F. G. Robertson
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The Privy Council.-The Queen's Privy Council for Canada is composed of about seventy members who are sworn of the Council by the Governor General, on the advice of the Prime Minister, and who retain their membership for life. The Council consists, chiefly, of present and former Ministers of the Crown. It does
not meet as a functioning body and its constitutional responsibilities as adviser to the Crown in respect to Canada are performed exclusively by the Ministers who constitute the Cabinet of the day.

## 5.-Members of the Queen's Privy Council for Canada, According to Seniority Therein, as at July 15, 1954

Norz.-In this list the prefix "The Rt. Hon." indicates membership in the United Kingdom Privy Council. Clerk of the Privy Council and Secretary to the Cabinet, R. B. Bryce; Assistant Clerk of the Privy Council, A. M. Hat.

| Member ${ }^{1}$ | Date When Sworn In | Member ${ }^{1}$ | Date When Sworn In |
| :---: | :---: | :---: | :---: |
| The Rt. Hon. Sir Tromas W | Oct. 10, 1911 | The Hon. Alp |  |
| The Rt. Hon. Arthor Me | Oct. 2, 1915 | The Hon. Ernes | Oct. |
| The Hon. Esiofp Leon Patenadde | Oct. 6, 1915 | The Hon. Leo Ricr | Oct. 7, 1942 |
| The Hon. Alabrt Sevigny. | Jan. 8, 1917 | The Hon. broore Claxton...... | Oct. 13, 1944 |
| The Hon. James Alexander | Oct. 12, 1917 | The Hon. Andrew Gborge Latta |  |
| The Hon. |  | The Hon. Josbph Arthur Jea | Nov. ${ }_{\text {Apr. }}{ }^{2}$, 1944 |
| Mewburn. | Oct. 12, 1917 | The Hon. Llonel Chevrier | Apr. 18, 1945 |
| The Hon. Th |  | The Hon. Paul Joseph James |  |
| The Hon. Hime | Oct. 12, 1917 | The Hon. Dovglas Charles | Apr. 18, 1945 |
| Stevens | Sept. 21, 1921 |  | Apr. 18, 1945 |
| The Hon. Jamrs horace King.... | Feb. 3, 1922 | The Hon. James josepr Mciann | Apr. 18, 1945 |
| The Hon. Edward James Mc- <br> Murray. |  | The Hon. David Laurence Mac- |  |
| The Rt. Hon. Chirle |  | The Hon. Tromis Vien | July 19, 1945 |
|  | Sept. 16, 1925 | The Hon. Wishart Mc |  |
| The Hon. Charles Avery |  |  |  |
| The Hon. W |  | The Hon. Mn |  |
| H.R.H. The Duke of Windsor., | Aug. 2, 1927 | Maybew | ne 11, 1948 |
| The Hon. Arthur Charles |  | The Hon. Lestrr Bow |  |
| The Hon. Hugr |  | The Hon. Sturrr Sincl |  |
|  | Aug. 7, 1930 |  | Nov. 15, 1948 |
|  | Aug. 7, 1930 | The Hon. Robert Henty | Nov. 15, 1948 |
| The Hon. Thoscs Gr | 7, | The Hon. F |  |
| MURPRY | Aug. 7, 1930 | Mdisx. |  |
| The Hon. |  | The Hon. Celarles Jost Burchell |  |
| The Hon. SAx | Aug. 14, 1935 | The Hon. Hugurs I | Aug. 25, 1949 |
| The Hon. Locien Henri Gend | Aug. 30, 1935 | The Hon. Gabriel Ed |  |
| he Hon. Wmidam Earl | Aug. 30, 1935 | Rinfret | 49 |
| The Hon. Onesime Gagnon |  | The Hon.W |  |
| The Hon. Charies Gavan Power. | Oct. 23, 1935 | The Hon. George Prud | Dec. 13, 1950 |
| The Rt. Hon. James Lorimer |  | The Hon. Georas Bu |  |
| The Hon. Josepr Enoul Mice | Oct. 23, 1935 | The Hon. Alcide C | Feb. 13, 1952 |
| The Rt. Hon. Clarence Decatur |  | The Hon. James Sinclair ${ }^{2}$ | Oct. 15, 1952 |
| The Rt. Hon. Jiskes | Oct. 23, 1935 | The Hon. Ralpi Osborne |  |
| Gardiner ${ }^{2}$ | Nov. 4, 1935 | The Hon. Eus Be | May 12, 1953 |
| he Hon. James Angus M |  | The Hon. Wrulm Ross |  |
| The Hon. Wпиuмм Рıтв M | JulyJ. <br> Jan. <br> 1940 | The Hon, GE | May 12, 1953 |
| The Hon. Colin Whllam Grorge |  | Drew..... | May 12, 1953 |
| Girgon. | July 8, 1940 | he Hon. Join |  |
| Thorson. | June 11, 1941 | The Rt. Hon. |  |
| The Hon. Willim Ferdinand |  | Rinpret..... | Sept. 16, 1953 |
| Alphonse Turgeon. | Oct. 8, 1941 | The Hon. Jran L |  |
|  | Dec. 10, | The H | July 1, 1954 |
| The Rt. Hon. Sir Wrisson Lson- |  |  |  |
| ard Sprncer Churchill........ | Dec. 29, 1941 | The Hon. Roch | July 1, 1954 |

[^17]
## 6.-Duration and Sessions of Parliaments, 1936-54

Nore.-Similar information for the 1st to the 12 th Parliaments, covering the period from Confederation to 1917 is given in the 1940 Year Book, p. 46, and that for the 13 th to 17th Parliaments in the 1945 edition, p. 53.

| Order of Parliament | Session | Date of Opening | Date of Prorogation | Days of Session | Sitting Days of House of Commons | Date of Election, Writs Returnable, Dissolution, and Length of Parliament ${ }^{1,2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 18th Parliament. | 1st | Feb. 6, 1936 | June 23, 1936 | 139 | 91 |  |
|  | 2nd | Jan. 14, 1937 | Apr. 10, 1937 | 87 | 62 | Oct. 14, 19353 |
|  | 3rd | Jan. 27, 1938 | July 1, 1938 | 156 | 102 | Nov. 8, 19354 |
|  | 4th | Jan. 12, 1939 | June 3, 1939 | 143 | 103 | Jan. 25,19405 |
|  | 5th 6 th | Sept. 7, <br> Jan. 25, 1939 | Sept. 13, 1939 Jan. 25, 1940 | 7 1 | 6 1 | $4 \mathrm{y} ., 2 \mathrm{~m} ., 16 \mathrm{~d}$. |
| 19th Parliament ${ }^{\text {c }}$. | 1st | May 16, 1940 | Nov. 5, 1940 | 174 | 61 |  |
|  | 2nd | Nov. 7, 1940 | Jan. 21, 1942 | 441 | 105 | Mar. 26, 19403 |
|  | 3 rd | Jan. 22, 1942 | Jan. 27, 1943 | 371 | 124 | Apr. 17, 19404 |
|  | 4th | Jan. 28, 1943 | Jan. 26, 1944 | 364 | 120 | Apr. 16, 1945 ${ }^{5}$ |
|  | 5 5th | Jan. 27, 1944 | Jan. 31, 1945 | 371 | 136 | 5 y . |
|  | 6 th | Mar. 19, 1945 | Apr. 16, 1945 | 29 |  |  |
| 20th Parliament.. | 1st | Sept. 6, 1945 | Dec. 18, 1945 | 104 | 76 |  |
|  | 2nd | Mar. 14, 1946 | Aug. 31, 1946 | 171 | 118 | June 11, 19453 |
|  | 3 rd | Jan. 30, 1947 | July 17, 1947 | 169 | 115 | Aug. 9, 19454 |
|  | 4th | Dec. <br> Jan. <br> 26, <br> , <br> 1949 | June 30, Apr. 30, 1 1949 | 109 95 | 119 59 | $\begin{aligned} & \text { Apr. } 30,1949^{3} \\ & 3 \mathrm{y} ., 8 \mathrm{~m} ., 22 \mathrm{~d} . \end{aligned}$ |
| 21st Parliament. | 1st | Sept. 15, 1949 | Dec. 10, 1949 | 87 | 64 |  |
|  | 2nd | Feb. 16, 1950 | June 30, 1950 | 135 | 90 |  |
|  | 3 rd | Aug. 29, 1950 | Jan. 29, 1951 | 154 | 17 | Aug. 25, 19494 |
|  | 4th | Jan. 30, 1951 | Oct. 9, 1951 | 253 | 105 | June 13, $1953^{5}$ |
|  | 5th | Oct. 9, 1951 | Dec. 29, 1951 | 82 | 87 | $3 \mathrm{y} ., 9 \mathrm{~m}$., 20 d . |
|  | 6th | Feb. 28, Nov. 20, 1952 | Nov. 20, 1952 | 267 176 | -87 108 |  |
| 22nd Parliament. $\{$ | 1st | Nov. 12, 1953 | June 26, 1954 | 226 | 139 | Aug. <br> Oct. <br> 10, <br> 8,19533 |

[^18]
## Subsection 2.-The Legislature

The federal legislative authority is vested in the Parliament of Canada, consisting of the Queen, an Upper House styled the Senate, and the House of Commons. Bills may originate in either the Senate or the House subject to the provisions of Sect. 53 of the British North America Act, 1867, which provides that Bills for the appropriation of any part of the public revenue or the imposition of any tax or impost shall originate in the House of Commons. Bills must pass both Houses and receive Royal Assent before becoming law. In practice, most Public Bills originate in the House of Commons, although there has been a marked increase recently in the introduction of Public Bills in the Senate. Private Bills usually originate in the Senate. (See Chap. XXIX for current legislation.)

Under Sect. 91 of the British North America Acts, 1867-1952, the legislative authority of the Parliament of Canada extends to the following matters: the amendment of the Constitution of Canada subject to certain exceptions; the public debt and property; the regulation of trade and commerce; unemployment insurance;
the raising of money by any mode or system of taxation; the borrowing of money on the public credit; postal service; the Census and statistics; militia, military and naval service, and defence; the fixing of and providing for the salaries and allowances of civil and other officers of the Government of Canada; beacons, buoys, lighthouses, and Sable Island; navigation and shipping; quarantine and the establishment and maintenance of marine hospitals; sea coast and inland fisheries; ferries between a province and any British or foreign country or between two provinces; currency and coinage, banking, incorporation of banks, and the issue of paper money; savings banks; weights and measures; bills of exchange and promissory notes; interest; legal tender; bankruptey and insolvency; patents of invention and discovery; copyrights; Indians and lands reserved for the Indians; naturalization and aliens; marriage and divorce; the criminal law, except the constitution of courts of criminal jurisdiction, but including the procedure in criminal matters; the establishment, maintenance and management of penitentiaries; such classes of subjects as are expressly excepted in the enumeration of the classes of subjects by this Act assigned exclusively to the legislatures of the provinces.

In addition, under Sect. 95, the Parliament of Canada may make laws in relation to agriculture and immigration concurrently with provincial legislatures, although federal legislation is paramount in the event of conflict. By the British North America Act, 1951 (14-15 Geo. VI, c. 32), it was declared that the Parliament of Canada might make laws in relation to old age pensions in Canada, but no such law shall affect the operation of any provincial laws in relation to old age pensions.

The Senate.-From an original membership of 72 at Confederation, the Senate, through the addition of new provinces and the general growth of population, now has 102 members, the latest change in representation having been made on the admission of Newfoundland to Confederation in 1949. The growth of representation in the Senate is traced in the 1940 Year Book, pp. 47-49, and is summarized by provinces in Table 7.
7.-Representation in the Senate since Confederation

| Province | 1867 | 1870 | 1871 | 1873 | 1882 | 1887 | 1892 | 1903 | 1905 | $\begin{aligned} & 1915- \\ & 1948 \end{aligned}$ | $\begin{aligned} & 1949- \\ & 1954 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario. | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Quebec. | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| Atlantic Provinces. | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 24 | 30 |
| Nova Scotia. | 12 | 12 | 12 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| New Brunswick | 12 | 12 | 18 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Prince Edward Island. | ... | $\cdots$ | $\ldots$ | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Newloundland.. | $\ldots$ | , | $\ldots$ |  | ... | ... | $\cdots$ | $\cdots$ | $\cdots$ | ... | 6 |
| Western Provinces. |  |  |  |  |  |  |  |  | 15 |  |  |
| Manitoba.... | ... | 2 | 8 | 2 | 3 | 8 | 4 | 4 | 4 | 6 | 6 |
| British Columbia. | $\cdots$ | ... | 8 | $s$ | 3 | 8 | $s$ | 3 | 3 | 6 | 6 |
| Saskatchewan. <br> Alberta. | ... | ... | $\ldots$ | $\ldots$ | $\ldots$ | 2 | 2 | $4\{$ | 4 | ${ }_{6}^{6}$ | ${ }_{6}^{6}$ |
| Totals. | 72 | 74 | 77 | 77 | 78 | 80 | 81 | 83 | 87 | 96 | 102 |

# 8.-Members of the Senate, by Province, as at July 15, 1954 

| Speal | Hon. Whenm MoL |
| :---: | :---: |
| Clerk of the Senate and Cle | Leslie Clare Moyer |
| Leader of the Government. | The Hon. William Ross Macdonald |
| Leader of the Opposition. | The Hon. John Thomas Haig |

(Ranked according to seniority, by province. All Senators are entitled to the designation "The Honourable'".)

| Province and Name of Senator | P.O. Address | Province and Name of Senator | P.O. Address |
| :---: | :---: | :---: | :---: |
| Newfoundland- |  | Ontario- |  |
| (5 Senators-1 vacancy) |  | (22 Senators-2 vacancies) |  |
| Petten, Ray.. | St. John's | McGutre, William Hem | Toronto |
| Pratt, Calvert | St. John's | Wilson, Cairine Reay......... | Ottawa |
| Basha, Michael | Curling | Fallis, Iva Campbell........... | Peterborough |
| Bradley, Frederice G | Bonavista | Lambert, Norman Platt....... | Ottawa |
|  |  | Hayden, Salter Adrian....... | Toronto |
| Prince Edward Island- |  | Paterson, Norman McLeod.... <br> Duyyus, Joseph James. | Fort William Peterborough |
| (3 Senators-1 vacancy) |  | Euler, William Daum. | Kitchener |
| McInt yre, James Peter... | Mount Stewart | Davies, Whliam Rupert. | Toronto |
| Grant, Thomas Vincent, |  | Campbell, Gordon Petrer...... | Toronto |
| M.D. .................. | Montague | Taylor, Whlinm Horace. | Brantford |
| Barbour, George H. | Charlottetown | Bishop, Cearles lawrence.... | Ottawa |
|  |  | Roebtck, Arthur Wentworth. | Toronto |
|  |  | Hurtubise, Joseph Raoul. | Sudbury |
| Nova Scotia- |  | Farquiha, Thomas............. | Trenton |
| (7 Senators-3 vacancies) |  | Golding, Whlijm Henry. | Seaforth |
| Quinn, Felix Patricg.... | Bedford | Woodrow, Allan L. | Toronto |
| Robertson, Wishart McLea. | Truro | Bradette, James A. | Cochrane |
| Kinley, John James.. | Lunenburg | Connolly, John J. | Ottawa |
| McDonald, John Alexinder.. | Halifax | Macdonald, William Ross. | Brantford |
| Comead, Joseph Willie. | Comeauville |  |  |
| Isnor, Gordon B. | Halifax |  |  |
| Hawking, Charles | Miford Station | Manitobs- |  |
|  |  | (4 Senators-2 vacancies) |  |
|  |  | Haig, John Thomas............ | Winnipeg |
| New Brunswick- |  | Beaubien, Arthur lucien..... | St. Jean Baptiste |
| (6 Senators-4 vacancies) |  | Crerar, Thomas Alexander... | Winnipeg Grave |
| Veniot, Clarence Joseph........ <br> McLean, Alexander Neil | Bathurst | Howden, John Power. | Norwood Grove |
| Pirie, Frederick Willum....... | Grand Falls |  |  |
| Burchill, George Perctival.... | South Nelson |  |  |
| Fergusson, Muriel McQueen. | Fredericton | Saskatchewan- |  |
| Leger, Aurel. D................ | Grande Digue | (6 Senators) |  |
|  |  | Calder, James Alexande | Regina |
|  |  | Marcotte, Arthur... | Ponteix |
| Quebe- |  | Aselitine, Walter Morle | Rosetown |
| (19 Senators-5 vacancies) |  | Stevenson, John James. | Prince Albert |
| RAymond, Donat. ........ | Montreal | Wood, Thomas H.. | Regina |
| Hugessen, Adrlan Knatchbull. |  |  |  |
| Fapard, J. Fernand . . . . . . . . . . | L'Islet | Alberta- |  |
| Howard, Charles Benjamin.. | Sherbrooke | (5 Senators-1 vacancy) |  |
| Beauregard, Eleg. . | Montreal | Blais, Aristide.................. | Edmonton |
| Gouin, Lf́on Mercier | Montreal | Gershaw, Fred William | Medicine Hat |
| Vien, Thomas........ | Outremont | Ross, George Henry. | Calgary |
| Dutremblay, Pamphile Ríal. | Montreal | MacKinnon, James Angus | Edmonton |
| Bouchard, Télésphore Damien | St. Hyacinthe | Stambauge, J. Wesley. | Bruce |
| Vaillancourt, Cyrmile........... | Levis |  |  |
| Nicol, Jacob. ........... | Sherbrooke | British Columbia- |  |
| Dupuis, Vincent | Longueuil | (6 Senators) |  |
| Dessureault, Jean Marie....... | Quebec | King, James Horace | Vancouver |
| Boufyard, Paul Henri. . | Quebec | Farris, John Wallace de Beque | Vancouver |
| Godbout, Joseph Adelard. | Frelighsburg | Turazon, James Gray. | Vancouver |
| Jodotn, Mariana Beadchamp... | Montreal | McKezn, Stanley Stewar | Vancouver |
| Tremblay, Leonard D. S. | St. Malachi | Reid, Thomas. | New Westminster |
| Fournier, Sarto... | Montreal | Hodges, Nancy | Victoria |

The House of Commons.-The British North America Act, 1867, provided that, in respect of representation in the House of Commons, the Province of Quebec should have the fixed number of sixty-five members and that there should be assigned to each of the other provinces such a number of members as would bear the same proportion to the number of its population as the number sixty-five bears to the number of the population of Quebec. This Act also provided that, on the completion of a census of 1871 and of each subsequent decennial census, the representation of the several provinces should be readjusted from time to time provided the proportionate representation of the provinces as prescribed by the Act was not thereby disturbed.

In the session of 1946 the House of Commons adopted a resolution stating that the effect of the provisions of the British North America Act relating to representation had not been satisfactory in that proportionate representation of the provinces according to population had not been maintained and that a more equitable apportionment of members to the various provinces could be effected if readjustments were made on the basis of the population of all the provinces taken as a whole. Accordingly, the Act was amended in 1946 to provide a new rule to regulate representation in the House of Commons. Generally speaking, representation was fixed as follows:-

The membership assigned to each province shall be computed by dividing the total population of the provinces by two hundred and fifty-four and by dividing the population of each province by the quotient so obtained.

This rule, employed in the redistribution of representation made in 1947, was effective in the general election of 1949.

After the completion of the 1951 Census, it was apparent that, as a result of a wartime shift of population, a substantial reduction in the representation of the Province of Saskatchewan would ensue under the rules then regulating representation. Accordingly, in an effort to eliminate sharp reductions in provincial representation from one census to another, the British North America Act was again amended to provide representation on the following basis:-

[^19]"1. There shall be assigned to each of the provinces a number of members computed by dividing the total population of the provinces by two hundred and sixty-one and by dividing the population of each province by the quotient so obtained, disregarding, except as hereinafter in this section provided, the remainder, if any, after the said process of division.
" 2 . If the total number of members assigned to all the provinces pursuant to rule one is less than two hundred and sixty-one, additional members shall be assigned to the provinces (one to a province) having remainders in the computation under rule one commencing with the province having the largest remainder and continuing with the other provinces in the order of the magnitude of their respective remainders until the total number of members assigned is two hundred and sixty-one.
" 3 . Notwithstanding anything in this section, if upon completion of a computation under rules one and two, the number of members to be assigned to a province is less than the number of senators representing the said province, rules one and two shall cease to apply in respect of the said province, and there shall be assigned to the said province a number of members equal to the said number of senators.


#### Abstract

"4. In the event that rules one and two cease to apply in respect of a province then, for the purpose of computing the number of members to be assigned to the provinces in respect of which rules one and two continue to apply, the total population of the provinces shall be reduced by the number of the population of the province in respect of which rules one and two have ceased to apply and the number two hundred and sixty-one shall be reduced by the number of members assigned to such province pursuant to rule three. " 5 . On any such readjustment the number of members for any province shall


 not be reduced by more than fifteen per cent below the representation to which such province was entitled under rules one to four of this subsection at the last preceding readjustment of the representation of that province, and there shall be no reduction in the representation of any province as a result of which that province would have a smaller number of members than any other province that according to the results of the then last decennial census did not have a larger population; but for the purposes of any subsequent readjustment of representation under this section any increase in the number of members of the House of Commons resulting from the application of this rule shall not be included in the divisor mentioned in rules one to four of this subsection." 6 . Such readjustment shall not take effect until the termination of the then existing Parliament.
"(2) The Yukon Territory as constituted by chapter forty-one of the Statutes of Canada, 1901, shall be entitled to one member, and such other part of Canada not comprised within a province as may from time to time be defined by the Parliament of Canada shall be entitled to one member." (R.S.C. 1952, c. 304.)
The principal effect of these new rules is that the representation of any province shall not be reduced by more than 15 p.c. at any one readjustment, subject however to the qualification that the rule shall not work out in such manner that the representation of a province with a smaller population shall be greater than any province with a larger population.

Subsequently, Parliament enacted a measure, "An Act to readjust the Representation in the House of Commons, 1952" (I Eliz. II, c. 48), effective in the general election of 1953, which provided that representation in the House of Commons shall be on the following basis:-
"Sect. 2.-Eighty-five members of the House of Commons shall be elected for the Province of Ontario, seventy-five for the Province of Quebec, twelve for the Province of Nova Scotia, ten for the Province of New Brunswick, fourteen for the Province of Manitoba, twenty-two for the Province of British Columbia, four for the Province of Prince Edward Island, seventeen for the Province of Saskatchewan, seventeen for the Province of Alberta, seven for the Province of Newfoundland, one for the Yukon Territory and one for Mackenzie district of the Northwest Territories, thus making a total of two hundred and sixty-five members."
The number of representatives of each province elected at each of the 22 general elections since Confederation is given in Table 9.

## 9.-Representation in the House of Commons as at Federal General Elections, 1867-1953

| Province or Territory | 1867 | 1872 | 1874 1878 | 1882 | $\begin{aligned} & 1887 \\ & 1891 \end{aligned}$ | $\begin{aligned} & 1896 \\ & 1900 \end{aligned}$ | 1904 | $\begin{aligned} & 1908 \\ & 1911 \end{aligned}$ | $\begin{aligned} & 1917 \\ & 1921 \end{aligned}$ | $\begin{aligned} & 1925 \\ & 1926 \\ & 1930 \end{aligned}$ | $\begin{aligned} & 1935 \\ & 1940 \\ & 1945 \end{aligned}$ | 1949 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario. | 82 | 88 | 88 | 92 | 92 | 92 | 86 | 86 | 82 | 82 | 82 | 83 | 85 |
| Quebec. | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 73 | 75 |
| Nova Scotia | 19 | 21 | 21 | 21 | 21 | 20 | 18 | 18 | 16 | 14 | 12 | 13 | 12 |
| New Brunswick. . | 15 | 16 | 16 | 16 | 16 | 14 | 13 | 13 | 11 | 11 | 10 | 10 | 10 |
| Manitoba. . . . | ... | 4 | 4 | 5 | 5 | 7 | 10 | 10 | 15 | 17 | 17 | 16 | 14 |
| British Columbia | $\ldots$ | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 13 | 14 | 16 | 18 | 22 |
| P. E. Island . ... | $\ldots$ | ... | 6 | 6 | 6 | 5 |  | 4 | 4 | 4 | 4 | 4 | 4 |
| Saskatchewan.. | $\ldots$ | $\cdots$ | $\cdots$ | ... | ) 4 | 4 | 10 | 10 | 16 | 21 | 21 | 20 | 17 |
| Alberta. | ... | $\cdots$ | $\ldots$ | $\cdots$ |  |  |  | 7 | 12 | 16 | 17 | 17 | 17 |
| Mackenzie River. | $\ldots$ | $\ldots$ | ... | $\ldots$ | $\cdots$ | $\ldots$ | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Newfoundland... | ... | ... | $\ldots$ | $\ldots$ | ... |  |  | ... | ... | ... |  | 7 | 7 |
| Totals. | 181 | 200 | 206 | 211 | 215 | 213 | 214 | 221 | 235 | 245 | 245 | 262 | 265 |

10.-Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-Second General Election, Aug. 10, 1953, and Revised to July 15, 1954.

Speaker<br>The Hon. L. Rení Beaudoin<br>Clerk of the House of Commons......... Leon J. Raymond<br>Leader of the Opposition<br>The Hon. Georee A. Drew

Nork.-The vote is summarized by provinces in Table 12, p. 70. The leaders of the political parties are indicated by asterisks (*). For Parliamentary Assistants, see p. 56. This information, except the population of constituencies, has been supplied by the Chief Electoral Officer, Ottawa. Party affiliations are unofficial: Lib. $=$ Liberal; P.C. $=$ Progressive Conservative; C.C.F. $=$ Co-operative Commonwealth Federation; S.C. $=$ Social Credit; L.-Lab. $=$ Liberal-Labour; Ind. $=$ Independent.

| Province and Electoral District | Population, Census 1951 | Voters on List | Total Votes Polled | Votes <br> Polled by Mem- | Name of Member | P.O. Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |  |  |  |
| Newfoundland(7 members) |  |  |  |  |  |  |  |
| BonavistaTwillingate. | 45,319 | 24,274 | 12,738 | 10,072 | Hon. J. W. Pickers- |  |  |
|  |  |  |  |  | GILL. | Ottawa, Ont.... | Lib. |
| Burin-Burgeo. | 43,043 | 21,412 | 12,593 | 11,017 | C. W. Carter | St. John's. . . . . | Lib. |
| Bay - Labrador... | 59,128 | 33,879 | 18,889 | 13,653 | T. G. W.Ashbourne |  | Lib. |
| Humber-St. George's | 52,142 | 27,357 | 16,297 | 12,526 | H. Batten.......... | Corner Brook... | Lib. |
| St. John's East...... | 55,116 | 29,961 | 19,757 | 8,310 | A. MacPherson |  |  |
|  |  |  |  |  | Fraser..... | St. John's. . . . . | Lib. |
| St. John's West ..... Trinity-Conception.. | 56,338 | 30,784 | 19,177 | 9,965 | J. A. Power. | St. John's. . . . . | Lib. |
| Trinity-Conception. | 50,330 | 27,048 | 12,317 | 8,814 | L. T. Stick. | Bay Roberts... | Lib. |
| P. E. Island(4 members) |  |  |  |  |  |  |  |
| Kings.. | 17,943 | 10,514 | 9,175 | 4,750 | T. J. Kıckham. . . . . | Souris.. | Lib. |
| Princ | 37,735 | 19,670 | 16,879 | 8,782 | J. W. MacNaught. . | Summerville... | Lib |
| Queens. | 42,751 | 25,285 | 40,508 | $\left\{\begin{array}{l} 10,351 \\ 10,086 \end{array}\right.$ | N. A. Matheson. <br> J. A. MacLenn. | Charlottetown. <br> Beaton's Mills. | Lib. |
| Novs Scotia( 12 members) |  |  |  |  |  |  |  |
| Guysborough | 26,216 | 15, 164 | 10,330 | 6,884 | J. R. Kirk. | Antigonish. | Lib. |
| Cape Breton North |  |  |  |  |  |  |  |
| and Victoria...... | 42,337 | 23,593 | 15,861 | 9,535 | W. M. Buchanan... | North Sydney.. | Lib |
| Cape Breton South. . | 82,859 | 45,632 | 30,798 | 14,971 | C. Gillis.. | Glace Bay...... | C.C.F |
| Colchester-Hants. . | 54,893 | 32,815 | 26,033 | 12,660 | G. T. PURDY | Truro... | Lib. |
| Cumberland...... | 39,655 | 23,839 | 17,223 | 8,860 | A. R. Lusb y | Amherst. . . . . . | Lib. |
| Digby-AnnapolisKings. | 66,510 | 38,432 | 31,980 | 16,422 | G. C. Nowlan. | Wolfville | P.C. |
| Halifax. | 162,217 | 98,208 | 124,773 | [34,587 | J. H. Dickey. | Halifax......... | Lib. |
| Inverness-Richmond | 32,500 | 20,149 | 14,438 | 34,222 9,033 | S. R. Balcom. ...... | Halifax......... | Lib |
| Pictou. | 44,002 | 27,185 | 21,092 | 10,626 | H. B. McCulloch. | New Glasgow... |  |
| Queens-Lunen burg. | 45,800 | 29,397 | 23,262 | 13,053 | Hon. R. H. Winters | Ottawa, Ont.. | Lib. |
| Yarmouth-Clare... | 45,595 | 26,422 | 19,065 | 11,556 | T. A. M. Kirk. | Yarmouth. | Lib. |
| New Brunswick( 10 members) |  |  |  |  |  |  |  |
| Charlotte..... | 25,136 | 15,177 | 11,869 | 6,155 | A. W. Stuart. | St. Andrews. | Lib. |
| Gloucester. | 57,489 | 27,699 | 23,336 | 13,330 | H. Robichaud. | Caraquet....... | Lib. |
| Kent............... | 26,767 | 13,451 | 10,758 | 7,039 | H. J. Michaud..... | Buctouche. | Lib. |
| Northumberland.... Restigouche- | 42,994 | 22,182 | 16,789 | 10,666 | G. R. McWrlinm... | Newcastle...... | Lib. |
| Madswaska. | 70,541 | 34, 141 | 26,815 | 13,266 | J. G. Boucher. | Edmundston. |  |
| Royal . . . ${ }_{\text {a }}$. . . . . | 35, 673 | 21,928 | 17,897 | 9,725 | A. J. Brooks. | Sussex. | P.C. |
| Saint John-Albert.... | 84,407 | 53,055 | 38,579 | 18.881 | T. M. Bell | Saint John. | P.C. |
| Victoris-Carleton.. | 40,810 | 22,661 | 17,295 | 8,445 | G. W. Montcomery | Woodstock | P.C. |
| Westmorland | 80,012 | 46,768 | 37,406 | 20,160 | H. J. MURPHY..... | Moncton. | Lib. |
| York-Sunbury | 51,868 | 30,595 | 24,646 | 12,888 | Hon. M. F. Grega. | Ottawa, Ont | Lib |

## 10.-Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-Second General Election, Aug. 10, 1953, and Revised to July 15, 1954-continued.

| $\begin{gathered} \text { Province } \\ \text { and } \\ \text { Electoral District } \end{gathered}$ | Population, Census 1951 | Voters <br> on <br> List | Total <br> Votes <br> Polled | Votes Polled by Member | Name of Member | P.O. Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |  |  |  |
| Quebec(75 members) |  |  |  |  |  |  |  |
| Argenteuil - Deux - |  |  |  |  |  |  |  |
| Montagnes.. | 46,920 | 27,933 | 19,132 | 13,283 | P. Valois. | Lachute. | Lib. |
| Beauce.... | 54,662 | 27,519 | 22,955 | 13,016 | R. Poulin. | St. Martin de |  |
| Beauharnois- Salaberry. |  |  | 19,035 | 14,269 | R. Cauch | Beauce. ...... | Ind. |
| Bellechasse | 31,076 | 16,287 | 12,077 | 7,124 | L.-P. Picard | Quebec. |  |
| Berthier-Maskinongé |  |  |  |  |  |  |  |
| Delanaudière...... | 44,292 | 24,436 | 19,062 | 10,709 | J. Langlois.. | St. Justin.. | Lib. |
| Bonaventure | 41,121 | 20,463 | 15,843 | 9,177 | B. Arsenault.. | Bonaventure | Lib. |
| Brome-Missisquoi.. | 38,082 | 22,137 | 14,920 | 9,362 | J.-L. Deslirires. | Sutton. |  |
| Chambly-Rouville.. | 34,522 | 21,068 | 15,013 | 9,824 | Hon. R. Pinard | Montreal. | Lib. |
| Champlain.......... | 51,190 | 28,577 | 22,966 | 14,420 | I. Rochefort. | Cap de la Madeleine | b. |
| Chapleau | 53,951 | 30,284 | 21,279 | 10,495 | D. Gourd. | Amos | Lib. |
| Charlevoix. | 42,851 | 22,338 | 18,179 | 10,742 | A. Maltais | Sillery | Lib. |
| Chateauguay-Hunt-ingdon-Laprairie. | 44,343 | 24,468 | 18,295 | 11,104 | J. Bouche | Laprair | Lib. |
| Chicoutimi......... | 58,043 | 29,823 | 24,635 | 16,046 | P.-E. Gagnon. | Bagotville | Ind. |
| Compton-Frontenac. | 42,428 | 21,648 | 17,255 | 10,365 | J.-A. Blanchette. | Chartiervil | Lib |
| Dorchester. | 36,807 | 18,625 | 15,695 | 7,762 | R. Perron. | Sillery. | P.C. |
| Drummond- |  |  |  |  | A. Cloutie | Drummondville | b. |
| Arthab | 77,479 56,050 | 30,696 | 23,359 | 12,058 | L. Langlois | Ste. Anne des |  |
| G |  |  |  |  | L. Langlo | Monts....... | b. |
| Gatineau | 42,467 | 23,500 | 16,538 | 10,759 | J.-C. Nadon ${ }^{1}$ | Maniwaki | Lib |
| Hull. | 64,264 | 37,626 | 29,491 | 21,785 | A. Caron. | Hull. | Lib. |
| Iles-de-la-Madeleine. | 9,999 | 4.903 | 4,300 | 2,337 | C.-A. Cannon | Quebec | Lib |
| Joliette-L'Assomption - Montcalm... | 76,957 | 42,749 | 22,908 | 18,149 | M. Breton | Joliette. | Lib. |
| Kamouraska. | 34,521 | 18,292 | 11,951 | 6,065 | A. Massé. | Quebec. | Lib. |
| Labelle. | 42,701 | 22,298 | 18,679 | 9,569 | G. Roy.. | Mont Laurie | Lib. |
| Lac-Saint-Jean. | 36,022 | 17,785 | 15,549 | 8,697 | A. Gatthier | St. Joseph d'Alma. |  |
| Lapointe | 57,861 | 28,019 | 22,314 | 11,854 | F. Girard. | Jonquièr | Ind. |
| Lévis.. | 41,279 | 24,095 | 19,474 | 13,897 | M. Bourget | Lauzon. | Lib |
| Longueuil | 60,437 | 38,958 | 25,078 | 16,688 | A. Vincent. | Montreal | Lib. |
| Lotbinierre | 36,419 | 18,590 | 16,088 | 9,047 | Hon. H. Lapointr. . | Ottaws, Ont.... | Lib. |
| Matapédia-Matane. | 60,663 | 29,546 | 23,673 | 12,689 | L. Thibaulu.. | Matane. . . . . . | Lib |
| Megantic | 56,873 | 29,239 | 22,588 | 13,951 | J. Lafontaine. | Thetiord Mines. | Lib |
| Montmagny-L Islet. | 37,972 | 20,151 | 15,137 | 10,121 | Hon. J, Lesage | Ottawa, Ont.... |  |
| Nicolet-Yamaska... <br> Pontiac- | 44,248 | 24,357 | 19,383 | 9,483 | M. Boisvert. | Queb | Lib |
| Témiscamingue. . | 41,899 | 21,281 | 15,581 | 9,041 | H. Proudroot. | Fort Coulonge. . | Lib. |
| Portneuf. | 44,351 | 24,959 | 18,332 | 12,701 | P. Gauthier. | Deschambault. | Lib. |
| Quebec East | 79,177 | 47,504 | 33,296 | 25,945 | Rt. Hon. L. S. Sr. LaURENT* | Ottawa, Ont.. | Lib. |
| Quebec West | 54,726 | 31,222 | 23,259 | 8,464 | J. W. Dusresme.... | Quebec. | P.C. |
| Quebec Sou | 52,834 | 35,959 | 25,588 | 18,950 | Hon. C. G. Power.. | Quebec | Lib. |
| Quebec-Montmorency | 72,659 | 39,793 | 30,625 | 18,029 | W. LaCroix. | Quebe | Lib |
| Richelieu-Verchères. | 44,386 | 28,275 | 19,156 | 15,406 | L. Cardin. | Sorel. | Lib |
| Richmond-Wolfe.... | 52,830 | 28,114 | 20,564 | 13,006 | E.-O. Gingras | Marbleton. | Lib. |
| Rimouski. | 61,776 | 31,647 | 24,087 | 8.554 | G. Legaré. | Rimouski. | Lib. |
| Roberval. . . . . . . | 45,984 | 21, 142 | 17,385 | 8.646 | G. Villeneuve | Mistassini. ..... | Lib. |
| St. Hyacinthe-Bagot | 55,430 | 31,649 | Accla | mation | J. Fontaine. | St. Hyacinthe.. | Lib |
| St. Jean - Iberville Napierville $\qquad$ | 49,459 | 27,829 | 18,508 | 16,088 | Hon. A. Côté. | Ottawa, Ont | Lib. |
| St. Maurice-Laflèche | 68,606 | 38,571 | 29,221 | 18,662 | J.-A. Richard...... | Shawinigan |  |
| Saguena | 42,057 | 23,938 | 15,679 | 7,815 | L. Brisson. | Que | Lib. |
| Shefford | 54,618 | 30,048 | 22,858 | 15,409 | M. Borvin. | Granb | Lib |
| Sherbrook | 56,711 | 34,613 | 24,211 | 15,827 | M. Gingues. | Sherbroo | Lib. |
| Stanstead | 40,103 | 22,363 | 16.927 | 10,034 | L.-E. Robsrge | Rock Island | Lib |
| Témiscouata... | 56,383 | 27,194 | 18,708 | 10,675 | J.-F. Pouliot....... | Rivière-du- | Lib. |

10.-Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-Second General Election, Aug. 10, 1953, and Revised to July 15, 1954-continued.

| Province and Electoral District | Population, Census 1951 195 | Voters on List | Total <br> Yotes <br> Polled | Votes <br> Polled by Member | Name of Member | P.O. Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quebee-concluded | No. | No. |  |  |  |  |  |
| Terrebonne........ | 68,087 | 40,035 | Accla | mation | L. Bertrand. | Ste. Thérèse. | Lib. |
| Three Rivers | 57,104 | 34,080 | 29,714 | 15,556 | L. Balcer. | Three Rivers. | P.C. |
| Vaudreuil-Soulanges | 26,611 | 16,790 | 10,839 | 8,463 | L.-R. Beatioin | Hudson. | Lib. |
| Villeneuve.......... | 69,004 | 34,910 | 23,289 | 14,851 | A. Dumas.. | Malartic | Lib. |
| Island of Montreal and Ile JesusCartier | 50,577 | 26,270 | 16,553 | 12,493 | L. D. Cresto | Montreal | Li |
| Dollard | 55,056 | 37,750 | 23,608 | 14,964 | G. Roulen | Montreal |  |
| Hochelaga | 69,209 | 43,080 | 26,002 | 19,467 | R. Eudes. | Montreal | Lib. |
| Jacques Cartier Lasalle. | 72,609 | 50,195 | 33,575 | 19,678 | E. Leduc. .......... | La | Lib. |
| Lafontaine | 53,720 | 35,394 | 20,695 | 15,285 | J.-G. Ratelie. | Montreal. | Lib. |
| Laurier. | 50,244 | 31,993 | 18,295 | 12,648 | J.-E. Leprangois. | Montreal. | Lib. |
| Laval.. | 69,044 | 44,336 | 27,691 | 19,337 | L. Demers. | St. Lauren | Lib. |
| MaisonneuveRosemont. . | 74,146 | 48,424 | 29,658 | 12,266 | J. P. Deschatelets. | Mon | Lib. |
| Mercier............. | 77,934 | 47,153 | 28,637 | 17,479 | M. Monette. | Pointe-auxTrembles. |  |
| Mount Royal. | 77,394 | 52,067 | 28,166 | 17,183 | A. A. Macnaugeton | Montreal | Lib. |
| Notre-Dame-de- | 77,886 | 54,200 | 33,767 | 16,690 | W. M. Hammion.. | Montreal | P.C. |
| Outremont - St. - |  |  |  |  |  |  |  |
| Jean.. | 56,397 | 33,389 | 17,004 | 11,536 | R. Bourque. | Outremon | Lib. |
| Papineau | 69,565 45,119 | 46,149 | 27, 288 | 10,387 | A. Mgunier. | Montreal | Lib. |
| St. Ann...... | 45,119 | 26,451 | 18,719 | 15,519 | T. P. Healy. | Montrea | Lib. |
| Westmount | 63,883 | 41,960 | 25,644 | 14,441 | Hon. D. C. Abbotr ${ }^{1}$. | Ottawa, Ont. | Lib. |
| St. Denis | 67,993 | 42,835 | 24,626 | 17,359 | A. Denis. | Montreal |  |
| St. Henri | 63,612 | 37,998 | 24,036 | 15,046 | J.-A. Bonnier | Montreal | Lib. |
| St. Jacques | 72,417 | 47,540 | 23,892 | 15,443 | R. Beatdry. | Montrea | Lib. |
| George.......... | 47,305 | 32,032 | 14,854 | 9,082 | Hon. B. Claxton. | Ottawa, | Lib. |
| Ste. Mari | 66,517 | 39,048 | 22,531 | 16,288 | H. Dupuis. |  |  |
| Verdun. | 77,448 | 48,147 | 30,051 | 20,281 | P.-E. CôtÉ ${ }^{\prime}$. ${ }^{\text {a }}$. . ${ }^{\text {. }}$ | Verdun. | Lib. |
| Ontario- <br> ( 85 members) |  |  |  |  |  |  |  |
| Algoma East.. | 33,818 | 16,861 | 11,473 | 7,494 | Hon. L. B. Pearson |  | Lib. |
| Algoms West. | 51,988 | 31,094 | 20,677 | 10,461 | G. E. Nixon......... | Sault Ste. Marie | Lib. |
| Brantford. | 50,702 | 30,875 | 21,700 | 9,576 | J. E. Brown. | Brantford. | Lib. |
| Brant-Haldimand. | 46,293 | 27,540 | 20,934 | 10,059 | J. A. Charlion... | Paris. | P.C. |
| Bruce. | 28,205 | 17,735 | 14,030 | 7,132 | A. E. Robinson.... | Kincardine. | P.C. |
| Carleton | 71,974 | 48,372 | 37,038 | 20,137 | Hon. G. A. Drew** | Ottawa. | P.C. |
| Cochrane....... | 39,255 | 20,290 | 14,474 | 6,667 | J. A. A. Habel..... | Kapuskasin | Lib. |
| Dufferin-Simcoe | 41,350 | 22,905 | 16,497 | 9,248 | Hon. W. E. Rowe. . | Newton Robinson |  |
| Durhar | 30,115 | 19,367 | 14,594 | 6,684 | J. M. James. | Bowmanville... | Lib. |
| Elgin | 55,518 | 32,518 | 23,433 | 12,482 | C. D. Coyle ${ }^{3}$ | Straffordville. | P.C. |
| Essex East | 80,086 | 47,992 | 30,332 | 19,946 | Hon. P. Martin | Ottawa | Lib. |
| Essex South | 45,568 | 26,324 | 18,207 | 10,620 | S. M. Clark. | Harrow. | Lib. |
| Essex West | 90,240 | 54,380 | 29,422 | 15,199 | D. Brown. | Windsor | Lib. |
| Fort William | 45,675 | 27,311 | 20,016 | 10,402 | D. McIvor. | Fort William | Lib. |
| Glengarry-Prescott.. | 43,278 | 24,232 | 19,551 | 7,800 | R. Bruneau | Hawkesbury | Lib. |
| Grenville-Dundas... | 32,863 | 21,348 | 13,911 | 8,875 | A. C. Casbrlman... | Prescott. | P.C. |
| Grey-Bruce. | 35,430 | 22,219 | 15,614 | 9,236 | Hon. W. E. Harrib. | Ottawa | Lib. |
| Grey Nor | 36,636 | 23,343 | 17,570 | 8,368 | C. E. Bennett. | Meaford... | Lib. |
| Halton...... | 44,003 | 28,882 | 20,680 | 9,914 | Sybil Bennett. | Georgetown | P.C. |
| Hamilton East.. | 68,489 73,049 | 43,307 47 | 26,181 30,568 | 11,622 12,296 | T. Ross. | Hamilton. | Lib. |
| Hamilton Weat. | 72,555 | 45, 262 | 27,879 | 13,016 | Ellen L. Fatrclovgh. | Hamilton. | P.C. |
| Hastings-Frontenac. | 43,771 | 26,437 | 18,850 | 11,084 | G. S. Werre | Madoc | P.C. |
| Hastings South. | 55,640 | 33,882 | 26,262 | 13,170 | F. S. Follwell | Belleville | Lib |
| Huron. | 43,497 | 26,133 | 21,331 | 11,045 | E. C | Brussels. | P.C |

[^20]10.-Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-Second General Election, Aug. 10, 1953, and Revised to July 15, 1954-continued.

| ```Province and Electoral District``` | Population, 1951 | Voters on List | Total <br> Votes <br> Polled | Votes Polled by Member | Name of Member | P.O. Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario-concluded | No. | No. | No. | No. |  |  |  |
| Kenora-Rainy River | 55,008 | 29,309 | 20,230 | 11,380 | W. M. Benidickson. | Kenor | L.-Lab. |
| Kent. | 63,174 | 37,329 | 26,356 | 15,532 | B. Huffman. | Blenhe |  |
| Kingston | 55,644 | 34,349 | 27,474 | 14,663 | W. J. Henderson.. | Kingston |  |
| Lambton-K | 38,640 | 23,098 | 16,802 | 9,432 | H. A. Mackenzie. | Watiord | Lib. |
| Lambton | 53,993 | 33,522 | 22,283 | 11,666 | J. W. Murpey. | Camlach |  |
| Lanark | 35,601 | 22,273 | 15,926 | 10,029 | W. G. Blair. | Perth. |  |
| Leeds. | 38,831 | 24,830 | 20,046 | 10,097 | H. Stanton | Seeleys Bay | P.C. |
| Lincoln | 89,366 | 57,301 | 37,338 | 16,113 | H. P. Cavers | St. Catharines.. |  |
| London | 72,396 | 48,202 | 31,978 | 15,254 | R. W. Mrichel | London. | P.C. |
| Middlesex Eas | 57,341 | 36,291 | 24,364 | 12,027 | H. O. White. | Glanworth | P.C. |
| Middlesex Wes | 32,402 | 19,815 | 14,933 | 8,645 | R. McCubrin | Strathroy. | Lib. |
| Niagara Falls | 57,808 | 38,927 | 22,729 | 13,400 | W. L. Hodek. | Niagara Falls... | Lib. |
| Nickel Belt | 39,148 | 22,796 | 15,244 | 8,821 | J. L. Gauthier | Sudbury | Lib. |
| Nipissing | 48,120 | 27,298 | 19,834 | 12,415 | J. R. Garland. | North Bay | Lib. |
| Norfolk. | 42,708 | 23,666 | 16,223 | 8,475 | R. E. Anderson | Waterford | Lib |
| Northumber | 33,482 | 21,607 | 17,792 | 9,595 | F. G. Robertson | Cobourg | Lib |
| Ontario. | 78,231 | 50,149 | 30,033 | 12,482 | M. Starr. | Oshaw | P.C. |
| Ottawa E | 56,121 | 35,781 | 26,919 | 19,863 | J. T. Richard | ttaw | Lib. |
| Ottawa W | 74,867 | 49,246 | 36,538 | 20,933 | G. McIlraith | Ottawa |  |
| Oxford. | 58,818 | 35,547 | 25,611 | 12,693 | W. Nesbitt. | Woodsto | P.C. |
| Parry So Muskok | 51,686 | 31,680 | 22,207 | 10,940 | W. K. McDonald. . | Sundrid |  |
| Peel | 55,673 | 38,786 | 25,515 | 13,487 | G. Graydon ${ }^{1}$ | Brampton |  |
| Perth | 51,022 | 32,707 | 24,100 | 12,959 | J. W. Monterth | Stratiord | P. |
| Peterboro | 53,123 | 33,447 | 25,358 | 13,206 | G. K. Fraser. | La |  |
| Port Arth | 66,994 | 35,410 | 24,753 | 12,272 | Rt. Hon. C. D. Howe. | Ot | b. |
| Prince Edward- |  |  |  |  |  |  |  |
| Renfrew North | 31,111 37,188 | 19,131 | 16,851 | 6,360 | J. M. Forgi | Pembra | Lib. |
| Renfrew Sout | 31,624 | 19,093 | 15,562 | 8,627 | Hon. J. J. McCann. | Ottawa | Lib. |
| Russell. | 56,951 | 33,169 | 24,578 | 15,969 | J.-O. Gour | Casselma | Lib |
| Simcoe Eas | 46,769 | 27,459 | 20,124 | 9,099 | W. A. Robinson. | Midland. | Lib |
| Simcoe No | 33,762 | 22,690 | 16,275 | 8,316 | J. H. Ferguson.. | Collingwo | P.C. |
| Stormont | 48,458 | 27,587 | 20,999 | 13,503 | Hon. L. Chevris ${ }^{2}$ | Ottawa | Lib. |
| Sudbury | 58,276 | 31,914 | 21,526 | 12,193 | D. R. Mitchell | Sudbury. |  |
| Timiskamin | 49,658 | 25,654 | 18,889 | 7,497 | Ann Shipley. | Kirkland Lake. |  |
| Timmins | 45,924 | 23,103 | 14,077 | 5,541 | K. A. Eyre. | Timmins. |  |
| Victoria. | 43,654 | 28,352 | 21,830 | 12,634 | C. W. Hodgson | Halibur | P.C |
| Waterloo Nort | 78,482 | 50,457 | 32,519 | 16, 139 | N. C. Schneide | Kitche | Lib. |
| Waterloo So | 47,641 | 30,374 | 21,875 | 9,058 | A. W. A. White. | Galt. |  |
| Welland. | 65,425 | 40,393 | 28,255 | 15,411 | W. H. McMela | Thorol |  |
| Wellington-Hu | 30,462 | 18,724 | 14,420 | 7,198 | W. M. Howe. | Arthur | P.C. |
| Wellington Sout | 43,350 | 27,196 | 20,576 | 9,275 | H. A. Hosking. | Guelp | Lib |
| Wentworth. | 51,990 | 35,010 | 22,292 | 10,476 | F. E. Lennard. | D | P.C. |
| Yor | 66,505 | 53,779 | 31,938 | 13,903 | A. H. HollingWORTH. ......... | Toront |  |
| York East | 65,169 | 45,061 | 26,319 | 11,062 | R. H. McGregor... | Toront |  |
| York-Humb | 63,279 | 44,859 | 27,545 | 11,157 | Margaret Aitien., | Toront | P.C. |
| York North | 51,059 | 33,501 | 22,661 | 10,988 | J. Smith.. | Richmond Hill | Lib. |
| York-Scarborough | 72,117 | 55,811 | 34,356 | 14,889 | F. Enfield. | Toronto |  |
| York South. | 90,454 | 62,202 | 34, 381 | 12, 216 | J. W. Noseworthy. |  |  |
| York West. | 64,891 | 48,605 | 29,845 | 12,228 | R. Adamson ${ }^{3}$. | Port Credit. | P.C. |
| City of TorontoBroadview | 59,676 | 39,136 | 21,302 | 10,403 | G. H. Hees | Toronto |  |
| Danforth | 71,895 | 51,736 | 31,163 | 12,595 | R. H. Small | Toronto | P.C. |
| Davenpor | 60,228 | 38,035 | 22,002 | 8,919 | P. T. Hellyer | Toronto | Lib |
| Eglinton. | 72,208 | 51,266 | 31,173 | 17,354 | D. M. Fleming. | Toronto |  |
| Greenw | 57,876 | 38,351 | 22,353 | 9,702 | J. M. Macdonnell. | Toronto | P.C. |
| High Par | 58,009 | 38,281 | 23,303 | 10,032 | A. J. P. Cameron. | Toronto | Lib. |
| Parkdale | 57,079 | 36,847 | 22,027 | 10,391 | J. Hunter. | Toronto | Lib. |
| Rosedale | 56,341 | 36,181 | 21,511 | 8,702 | C. Henry. | Toronto | Lib |
| St. Pa | 61,486 | 42,516 | 23,901 | 9,738 | R. Michener | Toronto | P.C. |
| Spadina | 85,479 62,871 | 52,220 34 | 28,004 | 15,496 | D. A. Croll |  | Lib. |

[^21]
## 10.-Electoral Distriets, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-Second General Election, Aug. 10, 1953, and Revised to July 15, 1954 -continued.

| $\begin{gathered} \text { Province } \\ \text { and } \\ \text { Electoral District } \end{gathered}$ | Population, Census 1951 | Voters on List | Total Votes Polled | Votes <br> Polled <br> by <br> $\underset{\text { ber }}{\substack{\text { Mem- }}}$ | Name of Member | P.O. Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Manitoba(14 members) | No. | No. | No. | No. |  |  |  |
| Brandon-Souris | 56,589 | 34,989 | 24,145 | 13,915 | W. G. Dinsidle.. | Brandon. | P.C. |
| Churchill | 43,323 42,141 | 24,666 24,062 | 12,464 | 4,984 6,839 | G. D. Weaver. | Flin Flon. |  |
| Lisgar. | 46,921 | 25,981 | 14,623 | 6,581 | W. A. Pommer. | Manitou. | Lib. |
| Marquette | 48,626 | 28,668 | 18,226 | 9,900 | Hon. S. S. Garson. | Ottawa, Ont | Lib. |
| Portage-Neepawa | 50,469 | 28,836 | 17,946 | 8,958 | W. G. Weir. | Carman. | Lib. |
| Provencher | 40,315 | 20,525 | 10,163 | 6,632 | R. N. Jutras. | Letellier | Lib. |
| St. Boniface | 53,067 | 31,179 | 18,822 | 8,051 | F. Visu. | St. Boniface | Lib. |
| Selkirk | 47,037 | 25,012 | 14,412 | 6,265 | R. J. Wood | Teulon | Lib. |
| Springfield | 40,275 | 21,814 | 12,521 | 6,240 | A. B. Weselak | Beausejour |  |
| Winnipeg North | 81,311 | 51,637 | 31,090 | 15,005 | A. Stewart. | Winnipeg. | C.C.F. |
| Centre. | 75,599 | 45,303 | 24,078 | 12,713 | S. H. Knowles..... | Winnipeg | C.C.F. |
| Winnipeg South | 75,820 | 52,433 | 32,080 | 12,597 | O. C. Trainor. | Winnipeg | P.C. |
| Centre. | 75,048 | 53,269 | 29,680 | 12,489 | G. Churchill. | Winnipeg. | P.C. |
| Saskatchewan- <br> ( 17 members) |  |  |  |  |  |  |  |
| Assiniboia. ${ }^{\text {a }}$. ${ }^{\text {a }}$.... | 47,894 | 26,506 | 20,498 | 10,596 | H. R. Argue.. | Kayville. | C.C.F. |
| Humboldt-Melfort. . | 52,286 | 27,811 | 21,036 | 9,512 | H. A. Bryson | Tisdale. | C.C |
| Kindersley. | 44,720 | 26,475 | 20,621 | 8,672 | M. Johnson. | Beadle |  |
| Mackenzie | 50,741 | 25,352 | 18,392 | 8,021 | A. M. Nicholson. | Sturgis | C.C.F. |
| Meadow L | 35,424 | 17,633 | 11,726 | 5,080 | J. H. Harrison.. | Medstea | Lib. |
| Melville | 43,173 | 24,090 | 20,167 | 10,024 | Rt. Hon. J. G. Gardiner. | Ottawa, Ont. | Lib. |
| Moose Jaw - Lake Centre. $\qquad$ | 53,607 | 34,279 | 23,908 | 12,436 | W. R. Thitcher. | Moose Jaw | C.C. |
| Moose Mountain | 40,939 | 22,901 | 18,415 | 8,697 | E. G. MeCulmovar | Manor.. |  |
| Prince Albert. | 53,564 | 28,793 | 22,890 | 10,038 | J. G. Diefenbaker. | Prince Alber | P. |
| Qu'Appelle. | 40,456 | 22,757 | 18,267 | 6,988 | H. P. Mang.. | Edenwold |  |
| Regina City | 66,078 | 44,153 | 32,069 | 14,558 | A. C. Ellis. | Regina. | C.C.F. |
| Rosetown-B | 44,135 | 26,682 | 20,624 | 11,404 | M. J. Coldwels*. | Ottawa, Ont | C.C.F. |
| Rosthern. | 49,455 | 25,933 | 19,074 | 8,616 | W. A. Tucker. | Rosthern. |  |
| Saskatoon | 56,196 | 38,838 | 25,210 | 12,056 | R. R. Knight. | Saskatoon | C.C.F. |
| Maple Creek. | 50,539 | 31,394 | 23,470 | 10,088 | I. Studer | Lac Pelletie |  |
| The Battlefords | 50,913 | 27,556 | 18,884 | 8,922 | M. Campbeli. | Neilburg |  |
| Yorkton.. | 51,608 | 29,379 | 21,228 | 11,027 | G. H. Castleden... | Yorkton. | C.C.F. |
| Alberta( 17 members) |  |  |  |  |  |  |  |
| Acadia.. | 43,832 | 26,157 | 17,417 | 7,956 | V. QUeich | Banff |  |
| Athabascs | 51,559 | 26,563 | 15,543 | 7,293 | J. M. Dechene | Bonnyville. | Lib. |
| Battle River- <br> Camrose.... | 56,913 | 30,641 | 18,344 | 9,238 | R. FAIR | Vermilion |  |
| Bow Rive | 44,795 | 23,993 | 15,495 | 7,320 | C. E. Jounston. | Calgary.. | S.C |
| Calgary North | 67,358 | 47,448 | 29,841 | 11,002 | D. S. Huringess. | Calgary | P.C |
| Calgary South | 70,590 | 48,790 | 30,198 | 12,491 | C. O. Nickle... | Calgary | P.C |
| Edmonton East | 62,843 | 39,263 | 22,094 | 8,802 | A. Holowach | Edmonton | S.C. |
| EdmontonStrathcona. | 56,093 | 39,202 | 24,044 | 8,901 | R. F, L. Hanna.... | Edmonton. | Lib. |
| Edmonton West | 68,299 | 45,223 | 26,501 | 11,301 | Hon. G. Prudiam. | Ottawa, Ont | Lib. |
| Jasper-Edson | 56,605 | 30,133 | 18,975 | 7,639 | C. Y Uill. ......... | Barrhead. | S.C. |
| Lethbridge. | 56,613 49,506 | 26,492 | 17,355 | 9,737 | J. H. Blackmore | Cardsto | S.C |
| Medicine Hat | 49,506 48,656 | 26,992 28,356 | 18,087 19,490 | 8,685 9,305 | E. G. Hansell | Vulcan... |  |
| Peace Rive | 61,015 | 31,925 | 20,876 | 10,151 | S. E. Low*.. | Ottawa, | S.C |
| Red Deer | 46,496 | 26,688 | 16,883 | 8,792 | F. D. Shaw | Innisfail | S.C |
| Vegreville | 47,475 | 25,118 | 17,201 | 8,023 | J. Decore. | Vegrevil | Lib. |
| Wetaskiwin. | 50,853 | 25,763 | 14,914 | 6,920 | R. Тнома | Wetaskiw | S.C. |

10.-Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-Second General Election, Aug. 10, 1953, and Revised to July 15, 1954 -concluded.

| $\begin{gathered} \text { Province } \\ \text { and } \\ \text { Electoral District } \end{gathered}$ | Population, Census 1951 | Voters <br> on List | Total <br> Votes <br> Polled | Votes Polled by Member | Name of Member | P.O. Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| British Columbia(22 members) | No. | No. | No. | No. |  |  |  |
| Burnaby-Coquitlam | 49,633 | 29,679 | 19,324 | 7,232 | E. Regier. | New Westminster. $\qquad$ | C.C.F. |
| Burnaby-Richmond. | 51,540 | 31,784 | 20,621 | 7,021 | T. Goode | Burnaby......... |  |
| Cariboo. | 40,244 | 25,860 | 15,225 | 5,562 | B. R. Leboe....... | Prince George. . | S.C. |
| Coast-Capilano | 65,645 | 44, 177 | 29,822 17834 | 13,614 | Hon. J. Sinclatr.. | Ottawa, Ont.... | C.C.F. |
| Comox-Alberni. ..... | 52,015 45 | 29,744 30 | 17,834 20,832 | 6,115 | T. S. Barnett...... | Alberni......... | C.C.F. |
| Esquimalt-Saanich.. | 45,569 64,070 | 30,907 35,689 | 20,832 23,314 | 9,537 9,618 | G. R. Pearkes..... A. B. Patterson... | Victoria........ | P.C. S.C. |
| Kamloops. | 44.318 | 25,175 | 16,451 | 7,578 | E. D. Fulton. | Kamloops. | P.C. |
| Kootenay East | 33,223 | 18,675 | 13,329 | 4,988 | J. Byrng. | Kimberley |  |
| Kootenay West | 49,570 | 26.960 | 18,485 | 8,990 | H. W. Herridae... | Nakusp. | C.C.F. |
| Nanaimo.... | 45,857 | 27,583 | 18.960 | 7,272 | C. Cameron. | Victoria. | C.C.F. |
| New Westminster... | 81,533 | 52,111 | 34,982 | 10,770 | G. Habn.......... | New Westminster. |  |
| Okanagan Boundary | 54,004 | 29,562 | 20,860 | 8,086 | O. L. Jones. . | Kelowna | C.C.F. |
| Okanagan- Revelstoke | 29,477 | 16,622 | 11,884 | 3,537 | G. W. McLeod. | Enderby....... | S.C. |
| Skeens. | 36,685 | 20,937 | 12,431 | 5,332 | E. T. Applewhatte. | Prince Rupert. . | Lib |
| Vancouver-Burrard.. | 61,416 | 43,874 | 26,196 | 9,035 | J. L. MacDodgall. | Vancouver...... | Lib. |
| Vancouver Centre... | 47,528 | 35,263 | 20,421 | 8,259 | Hon. R.O.Campney | Ottawa, Ont. |  |
| Vancouver East.... | 54,089 | 34,214 | 20,310 | 10,192 | H. E. Winch. ..... | Vancouver...... | C.C.F. |
| VancouverKingsway. | 55,048 | 35,453 | 22,170 | 10,162 | A. MacInnis. | Vancouver...... | C.C.F. |
| Vancouver Quadra.. | 64,131 | 43,367 | 29,320 | 12,769 | H. C. Green....... | Vancouver...... |  |
| Vancouver South.. | 64,926 | 43,625 | 28,732 | 10,459 | E. Philpott. | Vancouver | Lib. |
| Victoria........... | 74,689 | 49.621 | 33,953 | 13,696 | F. T. Fairey | Victoria........ | Lib. |
| Yukon Territory- <br> ( 1 member) <br> Yukon. | 9,096 | 5,028 | 3,818 | 2,176 | J. A. Simmons...... | Whitehorse..... | Lib. |
| Northwest Terri-tories-(1 member) Mackenzie River.... | 10,279 | 5,682 | 3,596 | 1,722 | M. A. Hardis | Yellowknife | Lib |

11.-By-Elections from the Date of the General Election, Aug. 10, 1953, to July 15, 1954 ${ }^{1}$

| Electoral District and Province | Date of By-election | Voters on List | Candidates | Votes <br> Polled | Name of New Member | P.O. <br> Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | No. | No. |  |  |  |
| Elgin, Ont | Mar. 22, 1954 | 32,479 | 2 | 22,670 | J. A. McBain... | St. Thomas | P.C. |
| Gatineau, Que | Mar. 22, 1954 | 23,328 | 4 | 10,756 | R. Leduc. | Maniwaki | Lib. |
| Peel, Ont............ | Mar. 22, 1954 | 40,844 | 3 | 24,699 | J. Pallett | Port Credit | P.C. |
| Verdun, Que. | Mar. 22, 1954 | 48,790 | 7 | 25,435 | Y. Leduc. | Verdun | Lib. |

[^22]The Opposition.-The Opposition occupies an essential place in constitutions based on the British parliamentary system. Like many other institutions, such as that of the premiership, for instance, it is founded on the unwritten customs that have been accepted and become firmly established.

The choice of the Canadian electorate not only determines who shall govern Canada but, by deciding which party receives the second largest number of seats in the House of Commons, it designates which of the major parties becomes the Official Opposition. The function of the Leader of the Opposition is to offer intelligent and constructive criticism of the Government of the day.

When criticism by the Opposition becomes sufficiently effective it can overthrow the existing Government and the Leader of the Opposition might then, as a result of the ensuing election, become Prime Minister.

Although the position of Leader of the Opposition is not recognized in the British North America Act, it received statutory acknowledgment in Canada in 1927. The Senate and House of Commons Act of that year provided for an annual salary to be paid to the Leader of the Opposition in addition to his indemnity as a Member of the House.

Indemnities and Allowances.-Members of the Senate receive a sessional allowance at the rate of $\$ 8,000$ per annum. In addition, they receive, at the end of each calendar year, an annual expense allowance of $\$ 2,000$ which is subject to income tax. Members of the House of Commons are paid a sessional allowance at the rate of $\$ 8,000$ per annum. In addition, they receive $\$ 2,000$ as an expense allowance paid at the end of each calendar year. This allowance, except in the case of Ministers of the Crown and the Leaders of the Opposition in the House and in the Senate, is not subject to income tax. The remuneration of the Prime Minister is $\$ 25,000$ a year and of a Cabinet Minister and the Leader of the Opposition $\$ 15,000$ a year, in addition to the sessional allowance and expense allowance each receives as a Member of Parliament. A Cabinet Minister is also entitled to a motor-car allowance of $\$ 2,000$. The Speakers of the Senate and of the House of Commons receive, besides their sessional allowance and expense allowance, a salary of $\$ 9,000$ and a motor-car allowance of $\$ 1,000$ and are also entitled to $\$ 3,000$ in licu of a residence. The Deputy Speaker of the House of Commons receives a salary of $\$ 6,000$ and an allowance of $\$ 1,500$ in lieu of a residence. The Deputy Chairman of Committees receives an annual allowance of $\$ 2,000$. Parliamentary Assistants to the Ministers of the Crown receive $\$ 8,000$ sessional allowance as Members of Parliament, $\$ 4,000$ a year as Parliamentary Assistants and the $\$ 2,000$ expense allowance paid to all Members of Parliament.

The Federal Government Franchise.-The present franchise laws are contained in the Canada Elections Act (R.S.C. 1952, c. 23). The franchise is conferred upon all Canadian citizens or British subjects, men and women, who have attained the age of 21 years and who have been ordinarily resident in Canada for 12 months prior to polling day at a federal election, and ordinarily resident in the electoral district on the date of the issue of the writ ordering such election. Persons denied the right to vote are:-
(1) Judges appointed by the Governor General in Council;
(2) The returning officer for each electoral district;
(3) Persons undergoing punishment as inmates of any penal institution for the commission of any offence;
(4) Indians ordinarily resident on an Indian reserve who were not members of His Majesty's Forces in World Wars I or II, or who did not execute a waiver of exemption under the Indian Act from taxation on and in respect of personal property;
(5) Persons restrained of their liberty or deprived of the management of their property by reason of mental disease;
(6) Persons disqualified, under any law relating to the disqualification of electors, for corrupt and illegal practices.

The Canadian Forces Voting Regulations set out in the Schedule to the Canada Elections Act prescribe voting procedure for members of the Armed Forces of Canada and also for veterans in receipt of treatment or domiciliary care in certain institutions.

## 12.-Voters on the Lists and Votes Polled at the Federal General Elections of 1940, 1945, 1949 and 1953

Nots.-Corresponding statistics for the general elections of 1911, 1917, 1921 and 1925 are given in the 1926 Year Book, p. 82; those for 1926 in the 1945 edition, p. 66; those for 1930 and 1935 in the 1948-49 edition, p. 94.

| Province or Territory | Voters on the Lists |  |  |  | Votes Polled |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1940 | 1945 | 1949 | 1953 | 1940 | 1945 | 1949 | 1953 |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland..... |  |  | 182,439 55,772 | 194,715 55,469 |  | 63,8071 | 105,190 68,9931 | ${ }_{1}^{111,768}$ |
| $\xrightarrow{\text { P. E. Island....... }}$ | 55,339 335,990 | $\begin{array}{r}54,794 \\ 362,754 \\ \hline\end{array}$ | 55,772 373,585 | 55,469 380,836 | 62,9431 283,4282 | 63,8071 312,9542 | 68,3931 338,9282 | 66,5621 334,8552 |
| New Brunswick | 251,986 | 262,261 | 286,723 | 287,657 | 174,734 | 204,273 | 225,877 | 225,390 |
| Quebec. | 1,799,942 | 1,956,225 | 2,177,152 | 2,352,619 | 1,189,489 | 1,433,591 | 1,610,510 | 1,565,400 |
| Ontario. | 2,340,344 | 2,457,937 | 2,718,118 | 2,894,150 | 1,625,439 | 1,831,806 | 2,042,294 | 1,938,959 |
| Manitoba | 425,066 | 433,921 | 451,882 | 465,374 | 320,860 | 327,794 | 324,079 | 276,422 |
| Saskatchewan | 481,931 | 445,601 | 472,884 | 480,532 | 373,376 | 379,539 | 375,471 | 356,479 |
| Alberta. | 423,609 | 430,430 | 492,228 | 548,747 | 272,418 | 315,863 | 341,222 | 343,258 |
| British Columbia. | 472,584 | 545,077 | 673,782 | 730,882 | 368, 103 | 433,402 | 464,785 | 475,456 |
| Yukon Territory ${ }^{3}$. | 2,097 | 3,445 | 9,064 | 5,028 | 1,741 | 2,164 | 6,823 | 3,818 |
| Northwest Terri- tories | ... | ... | ... | 5,682 | ... | ... | ... | 3,596 |
| Totals. | 6,588,888 | 6,952,445 | 7,893,629 | 8,401,691 | 4,672,531 | 5,305,193 | 5,903,572 | 5,701,963 |

[^23]of Yukon. ${ }^{4}$ Electoral District of Mackenzie River.

## Subsection 3.-The Judiciary

## The Federal Judiciary

The Parliament of Canada is empowered by Sect. 101 of the British North America Act to provide from time to time for the constitution, maintenance and organization of a general Court of Appeal for Canada and for the establishment of any additional courts for the better administration of the laws of Canada. Under this provision, Parliament has established the Supreme Court of Canada, the Exchequer Court of Canada and certain miscellaneous courts.

Supreme Court of Canada.-This Court, first established in 1875 and now governed by the Supreme Court Act (R.S.C. 1952, c. 259), consists of a chief justice, who is called the Chief Justice of Canada, and eight puisne judges. The chief justice and the puisne judges are appointed by the Governor in Council and they hold office during good behaviour but are removable by the Governor General on address of the Senate and the House of Commons. They cease to hold office upon attaining the age of 75 years. The Court sits at Ottawa and exercises general appellate jurisdiction throughout Canada in civil and criminal cases. The Court is also required to consider and advise upon questions referred to it by the Governor in Council and it may also advise the Senate or the House of Commons on Private Bills referred to the Court under any rules or orders of the Senate or the House of Commons.

Appeals may be brought from any final judgment of the highest court of final resort in a province in any case where the amount or value of the matter in controversy exceeds the sum of $\$ 2,000$. An appeal may be brought from any other final judgment with leave of the highest court of final resort in the province; if such court refuses to grant leave, the Supreme Court of Canada may grant leave to appeal. The Supreme Court may grant leave to appeal from any judgment, whether final or not. Appeals in respect of indictable offences are regulated by the Criminal Code. Appeals from federal courts are regulated by the statute establishing such courts.

The judgment of the Supreme Court of Canada in all cases is final and conclusive.
13.-Chief Justice and Judges of the Supreme Court of Canada, as at July 15, 1954
(In order of seniority)

| Name | $\begin{gathered} \text { Date } \\ \text { of } \\ \text { Appointment } \end{gathered}$ |
| :---: | :---: |
| The Hon. Chief Justice Patrick Krrwin. | July 1, 1954 ${ }^{1}$ |
| The Hon. Justice Robert Taschereau. | Feb. 9, 1940 |
| The Hon. Justice I. C. Rand | Apr. 22, 1943 |
| The Hon. Justice Roy L. Kellock | Oct. 3, 1944 |
| The Hon. Justice Jis. W. Ester | Oct. 6, 1944 |
| The Hon. Justice Charles H. Locke | June 3, 1947 |
| The Hon. Justice John R. Cartwright. | Dec. 23, 1949 |
| The Hon. Justice J. H. Gerald Fauteux. | Dec. 23, 1949 |
| The Hon. Justice Douglas Charles Abbott | July 1, 1954 |

${ }^{1}$ First appointed as a Judge of the Supreme Court, July 20, 1935.
Exchequer Court.-The Exchequer Court of Canada was first established in 1875 as part of the Supreme Court of Canada but is now a separate court governed by the Exchequer Court Act (R.S.C. 1952, c. 98). The Court consists of a president and four puisne judges who are appointed by the Governor in Council. The president and the puisne judges hold office during good behaviour but may be removed by the Governor General on address of the Senate and the House of Commons. They cease to hold office upon attaining the age of 75 years. The Court sits at Ottawa and also at any other place in Canada for which sittings may be fixed by the Court. The jurisdiction of the Court extends to cases where claims are made by or against the Crown in right of Canada. Proceedings against the Crown are taken by petition of right pursuant to the Petition of Right Act (R.S.C. 1952, c. 210).

An appeal lies to the Supreme Court of Canada from any final judgment of the Exchequer Court in which the amount in controversy exceeds $\$ 500$; an appeal also lies with leave of the Supreme Court in certain cases where the amount in controversy does not exceed $\$ 500$ or where the judgment is not final.

The Exchequer Court also exercises admiralty jurisdiction in Canada. Admiralty jurisdiction was first conferred in 1891 by the Admiralty Act (54-55 Vict., c. 29) and the admiralty jurisdiction is now governed by the Admiralty Act (R.S.C.

1952, c. 1). Under this Statute the Exchequer Court is continued as a Court of Admiralty. The president and puisne judges of the Exchequer Court exercise admiralty jurisdiction throughout the whole of Canada. In addition, Canada is divided into various admiralty districts; a district judge in admiralty is appointed for each district. Appeals to the Supreme Court of Canada from judgments of the president or the puisne judges are governed by the general appeal provisions in the Exchequer Court Act. Appeals may be taken from a final judgment of a district judge in admiralty either to the Exchequer Court or direct to the Supreme Court of Canada.

Miscellaneous Courts.-Railway Act.-The Railway Act, 1903 (R.S.C. 1952, c. 234), established the Board of Railway Commissioners for Canada as a court of record; by the Transport Act, 1938 (R.S.C. 1952, c. 271), the name was changed to the Board of Transport Commissioners for Canada. This Court exercises jurisdiction with respect to railway matters. The Governor in Council is given jurisdiction to vary any order of the Board and an appeal lies from the Board to the Supreme Court of Canada upon a question of jurisdiction or a question of law.

Bankruptcy Act.-By virtue of para. 21 of Sect. 91 of the British North America Act, 1867, Parliament has exclusive legislative jurisdiction in relation to bankruptcy and insolvency. By the Bankruptcy Act (R.S.C. 1952, c. 14) the superior courts of the provinces are constituted bankruptcy courts; original jurisdiction is conferred upon the trial courts and appellate jurisdiction is conferred upon the appeal courts of the provinces.

Farmers' Creditors Arrangement Act.-Under the Farmers' Creditors Arrangement Act (R.S.C. 1952, c. 111), the county or district courts of the provinces are established as courts for the purposes of this Act and the appeal courts of the provinces are given appellate jurisdiction.

Income Tax Appeal Board.-By the Income Tax Act (R.S.C. 1952, c. 148) an Appeal Board is established, consisting of a chairman and not fewer than two or more than four members, with jurisdiction over appeals against income tax assessments. A further appeal may be taken to the Exchequer Court.

## Provincial Judiciaries*

Certain provisions of the British North America Act govern, to some extent, the provincial judiciaries. Under Sect. 92 (14) the legislature of each province exclusively may make laws in relation to the administration of justice in the province including the constitution, maintenance and organization of provincial courts, both of civil and of criminal jurisdiction. Sect. 96 provides that the Governor General in Council shall appoint the judges of the superior, district, and county courts in each province except those of the courts of probate in Nova Scotia and New Brunswick. Sect. 100 provides that the salaries, allowances and pensions of judges of the superior, district and county courts (except the courts of probate in Nova Scotia and New Brunswick) are to be fixed and provided by the Parliament of Canada and these are set out in the Judges Act (R.S.C. 1952, c. 157). Under Sect. 99 the judges of the superior courts hold office during good behaviour but are removable by the Governor General on address of the Senate and House of Commons. The tenure of office of district and county court judges is fixed by the Judges Act as being during good behaviour and their residence within the county or union of counties for which the court is established.

[^24]All provinces have minor courts with limited civil and criminal jurisdiction, the judges of which are appointed by provincial authority as, for example, Justices of the Peace, Magistrates and Juvenile Court Judges. Except in Quebec, there are County or District Courts of each province with limited jurisdiction varying from $\$ 500$ to $\$ 2,500$ in amount. Each province has a superior court with virtually unlimited jurisdiction variously known as Court of Queen's Bench, Supreme Court, Superior Court, etc., and there is a Court of Appeal in each province.

## Section 2.-Provincial and Territorial Governments*

In each of the provinces, the Queen is represented by a Lieutenant-Governor appointed by the Governor General in Council. The Lieutenant-Governor acts on the advice and with the assistance of his Ministry or Executive Council, which is responsible to the Legislature and resigns office when it ceases to enjoy the confidence of that body.

The Legislature of each province is unicameral, consisting of the LieutenantGovernor and a Legislative Assembly, except for the Province of Quebec where there is a Legislative Council as well as a Legislative Assembly.

The Legislative Assembly is elected by the people for a statutory term of five years but may be dissolved within that period by the Lieutenant-Governor on the advice of the Premier of the province.

The source of legislative authority of the Provincial Legislatures is the British North America Act, 1867 (30-31 Vict., c. 3 and amendments). Under Sect. 92 of the Act, the Legislature of each province exclusively may make laws in relation to the following matters: amendment of the constitution of the province except as regards the Lieutenant-Governor; direct taxation within the province; borrowing of money on the credit of the province; establishment and tenure of provincial offices and appointment and payment of provincial officers; the management and sale of public lands belonging to the province and of the timber and wood thereon; the establishment, maintenance and management of public and reformatory prisons in and for the province; the establishment, maintenance and management of hospitals, asylums, charities and eleemosynary institutions in and for the province, other than marine hospitals; municipal institutions in the province; shop, saloon, tavern, auctioneer and other licences issued for the raising of provincial or municipal revenue; local works and undertakings, other than interprovincial or international lines of ships, railways, canals, telegraphs, etc., or works which, though wholly situated within one province, are declared by the Federal Parliament to be for the general advantage either of Canada or of two or more provinces; the incorporation of companies with provincial objects; the solemnization of marriage in the province; property and civil rights in the province; the administration of justice in the province, including the constitution, maintenance and organization of provincial courts both of civil and criminal jurisdiction, and including procedure in civil matters in these courts; the imposition of punishment by fine, penalty or imprisonment for enforcing any law of the province relating to any of the aforesaid subjects; generally, all matters of a merely local or private nature in the province.

[^25]Further, in and for each province the Legislature exclusively may, under Sect. 93, make laws in relation to education, subject to certain restrictions relating to the establishment of schools by religious minorities. These powers, with similar restrictions, were conferred on the more recently admitted provinces on their inclusion as units in the federation.

The Provincial Legislatures may also make laws, under Sect. 95, in relation to agriculture and immigration, subject to any laws of the Parliament of Canada in relation to these subjects.

Provincial Franchise.-The main qualifications for persons entitled to be registered as voters in provincial elections are given below and apply, with modifications, to voters in all provinces:-

Every person, male or female, at the age of 21 years, who is a Canadian citizen or a British subject and was resident in the province of registration 12 months prior to the election date and with a certain residence requirement in the province and within the electoral district of polling, and who falls under no statutory disqualifications, is entitled to be registered as a voter.

The principal exception to the above gives voting privileges to persons in Saskatchewan at the age of 18 and in Alberta and British Columbia at 19 years. The Elections Act of each province contains details regarding qualifications and disqualifications of the franchise.

## Subsection 1.-Newfoundland

The Government of Newfoundland consists of a Lieutenant-Governor, an Executive Council and a Legislative Assembly. Colonel the Honourable Sir Leonard Outerbridge is the present Lieutenant-Governor of the Province; he was commissioned on Aug. 17, 1949.

The Legislative Assembly has 28 members elected for a term of five years. The General Assembly elected Nov. 26, 1951, is the 30th in the history of Newfoundland and the 2nd since Confederation.

The Premier and each Cabinet Minister receives a salary of $\$ 7,000$ per annum plus a sessional indemnity of $\$ 3,000$. Each Member of the House of Assembly receives a sessional indemnity of $\$ 3,000$. An additional allowance of $\$ 2,000$ is made to the Leader of the Opposition.

## 14.-Legislatures of Newfoundland since Confederation and Ministry as at Mar. 31, 1954

Legislatures, 1949-54

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
| :---: | :---: | :---: | :---: | :---: |
| May 27, 1949 | 1st General Assembly | 4 | July 13, 1949 | Nov. 3, 1951 |
| Nov. 26, 1951 | 2nd General Assembly | 4 | Mar. 12, 1952 | 1 |

[^26]First Ministry
(Party standing at latest General Election, Nov. 26, 1951: 22 Liberals; 4 Progressive Conservatives; 2 vacant.)
Notg.-Date of appointment does not necessarily mean that the Minister was sworn in on date given.

| Office | Name | Date of First Appointment | Date of <br> Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier and Minister of Economic Development. | Hon. J. R. Smallwood. | Apr. 1, 1949 | Apr. 1, 1949 |
| Attorney General. | Hon. L. R. Curtis. | Apr. 1, 1949 | Apr. 1, 1949 |
| Minister of Public Welfare. | Hon. H. L. Pottle. | Apr. 4, 1949 | Apr. 4, 1949 |
| Minister of Fisheries and Co-operatives. | Hon. W. J. Keoug | July 29, 1949 | July 29, 1949 |
| Minister of Public Works | Hon. E. S. Spencer | July 29, 1949 | July 29, 1949 |
| Minister of Education. | Hon. J. R. Chalke | Apr. 4, 1950 | Dec. 23, 1952 |
| Minister of Labour | Hon. C. H. Ballam. | Apr. 4, 1950 | Apr. 4, 1950 |
| Minister of Health | Hon. P. S. Forsey | July 29, 1950 | Dec. 23, 1952 |
| Minister of Municipal Affairs and Supply. | Hon. S. J. Hepferton | Juily 29, 1949 | Dec. 23, 1952 |
| Minister of Finance. | Hon. Gregory J. Power | Dec. 15, 1951 | Dec. 15, 1951 |
| Minister of Provincial Affairs. | Hon. Myles P. Mu | Dec. 15, 1951 | Dec. 15, 1951 |
| Minister of Natural Resources. | Hon. F. W. Rowe. | May 21, 1952 | May 21, 1952 |
| Minister without portfolio | Hon. P. J. Lewis | Dec. 15, 1951 | Dec. 15, 1951 |

## Subsection 2.-Prince Edward Island

The Government of Prince Edward Island consists of a Lieutenant-Governor, an Executive Council and a Legislative Assembly.

The Honourable T. W. L. Prowse, the present Lieutenant-Governor of the Province, was commissioned to office on Oct. 4, 1950. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 86.

The General Assembly elected Apr. 26, 1951, is the 47th in the history of Prince Edward Island Legislatures and the 22nd since Confederation. It has 30 members from 15 electoral districts who serve for a statutory term of five years. One-half of the Members of the Legislative Assembly are elected on a property vote. Each district elects one Councillor (elected on a property vote) and one Assembly member (elected on a general franchise vote).

The annual salary of the Premier is $\$ 6,000$ and the salaries of the Cabinet Ministers are as follows: Attorney and Advocate General and Provincial Treasurer, $\$ 5,000$; Minister of Health and Welfare, Minister of Public Works and Highways, Minister of Industry and Natural Resources, Minister of Agriculture, \$4,000 each; Minister of Education and Provincial Secretary, $\$ 3,000$ each. Each Member of the Assembly is paid the sum of $\$ 1,000$ for each session attended by him and an additional amount of $\$ 500$, tax free, as indemnity for expenses incurred. The Speaker is paid an additional sum of $\$ 400$ and a further additional amount of $\$ 200$, tax free, as an indemnity. The Leader of the Opposition is paid an additional sum of $\$ 800$ and a further additional amount of $\$ 200$, tax free, for expenses incurred by him in relation to his official duties.

## 15.-Legislatures and Premiers of Prince Edward Island, 1935-54, and Ministry as at Mar. 31, 1954

Legislatures, 1935-195! ${ }^{1}$

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
| :---: | :---: | :---: | :---: | :---: |
| July 23, 1935 | 18th General Assembly | 5 | Sept. 25, 1935 | Apr. 21, 1939 |
| May 18, 1939 | 19th Genersl Assembly | 4 | Mar. 20, 1940 | Aug. 20, 1943 |
| Sept. 15, 1943 | 20th General Assembly | 4 | Feb. 15, 1944 | Oct. 27, 1947 |
| Dec. 11, 1947 | 21st General Assembly | ${ }_{2}$ | Feb. 24, 1948 | Mar. ${ }_{2} \mathbf{2 0 , 1 9 5 1}$ |
| Apr. 26, 1951 | 22nd General Assembly. | 2 | Oct. 23, 1951 |  |

${ }^{1}$ The Ministries from 1935-54 were: 19th Ministry, sworn in Oct. 14, 1933, under the leadership of Hon. W. J. P. MacMillan; 20th Ministry, sworn in Aug. 15, 1935, under the leadership of Hon. W. M. Lea; 21st Ministry, sworn in Jan. 14, 1936, under the leadership of Hon. T. A. Campbell; 22nd Ministry, sworn in May 11, 1943, under the leadership of Hon. J. Walter Jones; 23rd Ministry sworn in May 25, 1953, under the leadership of Hon. A. W. Matheson.
${ }^{2}$ Life of Legislature not expired at Mar. 31, 1954.

## Twenty-Third Ministry

(Party standing at latest General Election, Apr. 26, 1951: 24 Liberals and 6 Progressive Conservatives.)
Nots.-Ministers are shown at date of original appointment as a Minister and at date of appointment to present portfolio, despite the formation of a new Ministry consequent upon the appointment of a new Premier. Date of appointment does not necessarily mean that the Minister was sworn in on date given.

| Office | Name | Date of First Appointment | Date of Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier and President of the Executive Council. | Hon. Alexander W. Matheson.. | May 11, 1943 | May 25, 1953 |
| Minister of Health and Welfare. | Hon. B, Earle MacDonald. | May 25, 1953 | May 25, 1953 |
| Minister of Agriculture. | Hon. C. Cleveland Baker | Apr. 16, 1949 | Oct. 13, 1949 |
| Provincial Secretary. | Hon. Whlina Hughes | May 11, 1943 | May 25, 1953 |
| Minister of Industry and Natural Resources | Hon. Eugene Cullen. | Apr. 16, 1949 | Oct. 13, 1949 |
| Attorney and Advocate General and Provincial Treasurer. | Hon. Walter E. Darb | Oct. 13, 1949 | Oct. 13, 1949 |
| Minister of Public Works and Highways. | Hon. Dougald MacKinnon. | Sept. 16, 1939 | June 16, 1951 |
| Minister of Education. | Hon. Keir Clark | June 16, 1951 | June 16, 1951 |
| Minister without portfolio........... | Hon. Edward P. Fole y | June 10, 1954 | June 10, 1954 |

${ }^{1}$ Added to table after Mar. 31, 1954.

## Subsection 3.-Nova Scotia

The Government of the Province of Nova Scotia has a Lieutenant-Governor, an Executive Council and a House of Assembly.

The Honourable Alistair Fraser, the present Lieutenant-Governor, was commissioned to office Sept. 1, 1952. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 87.

The General Assembly has 37 members elected for five years, the maximum duration of its existence. The Assembly elected May 26, 1953, was the 45th in Nova Scotia's history and the 22nd since Confederation.

The Premier of the Province receives a salary of $\$ 12,000$ per annum and each Cabinet Minister a salary of $\$ 10,000$ per annum. Each Member of the House of Assembly receives a sessional indemnity of $\$ 2,400$ and an allowance of $\$ 1,200$ for expenses incidental to the discharge of his duties. The Leader of the Opposition receives an allowance of $\$ 3,000$ in addition to his sessional indemnity.

## 16.-Legislatures and Premiers of Nova Scotia, 1933-54, and Ministry as at Mar. 31, 1954

Legislatures, 1933-54 ${ }^{1}$


[^27]
## Fifteenth Ministry ${ }^{1}$

(Party standing at latest General Election, May 26, 1953: 22 Liberals, 12 Progressive Conservatives, 2 Co-operative Commonwealth Federation and one vacancy.)

Note.-See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier, Minister of Public Health and Welfare. | Hon. Harold Connolly. | Feb. 24, 1941 | Apr. 13, 1954 |
| Minister of Highways and Public Works. |  |  | $\text { June 11, } 1954$ |
| Minister without portfolio (in charge of administration of Nova Scotia |  | Sept. 8, 1945 | June 11, 1954 |
| Attorney General and Minister of | on. Groffrey Stevens. | Apr. 4, 1946 | pr. 13, 1954 |
| Mines and Labour... | Hon. M. A. Patterson, Q.C. | June 10, 1947 | Apr. 13, 1954 |
| Provincial Secretary and Minister of Education. | Hon. Henry D. Hicks | Sept. 30, 1949 | Apr. 13, 1954 |
| Provincial Treasurer and Minister of Municipal Affairs. | Hon. R. M. Fielding, Q.C. | Dec. 7, 1949 | Apr. 13, 1954 |
| Minister of Trade and Industry..... | Hon. W. T. Dauphinez. | Sept. 5, 1950 | Apr. 13, 1954 |
| Minister without portfolio (Chairman of the Nova Scotia Power Commission) | Hon. A. B. DeWolfe |  | Apr. 13, 1954 |
| Minister of Agriculture and Marketing. | Hon. Colin H. Chisholm....... | June 11, 1954 | June 11, 1954 |

${ }^{1}$ As at June 15, 1954.

## Subsection 4.-New Brunswick

The Government of New Brunswick has a Lieutenant-Governor, an Executive Council and a House of Assembly.

The Honourable David Laurence MacLaren, the present Lieutenant-Governor, was commissioned to office Nov. 1, 1945. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 89.

The General Assembly elected Sept. 22, 1952, is the 42nd in New Brunswick's history and the 15th since Confederation. It has 52 members who are elected for a statutory term of five years.

The Premier receives $\$ 5,000$ per annum in addition to the salary for any other portfolio he may hold. The salary of each Cabinet Minister is $\$ 5,000$, the amount paid as indemnity to each Member of the House of Assembly is $\$ 2,000$, plus an
additional $\$ 1,000$ allowance for expenses. The Leader of the Opposition receives an additional $\$ 2,000$. An allowance of $\$ 1,000$, in addition to the regular indemnity, is made to the Speaker.

## 17.-Legislatures and Premiers of New Brunswick, 1935-54, and Ministry as at Mar. 31, 1954

Legislatures, 1935-54

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
| :---: | :---: | :---: | :---: | :---: |
| June 27, 1935 | 11th General Assembly. | 4 | Mar. 5, 1936 | Oct. 26, 1939 |
| Nov. 20, 1939 | 12th General Assembly | 5 | Apr. 4, 1940 | July 10, 1944 |
| Aug. 28, 1944 | 13th General Assembly | 4 | Feb. 20, 1945 | May 18, 1948 |
| June 28, 1948 | 14th General Assembly | 4 | Mar. 8, 1949 | July 16, 1952 |
| Sept. 22, 1952 | 15th General Assembly | 2 | Feb. 12, 1953 | 2, |

\footnotetext{
${ }^{2}$ The Ministries from 1935-54 were: 20th Ministry, sworn in July 16, 1935, under the leadership of Hon. A. A. Dysart; 21st Ministry, sworn in Mar. 13, 1940, under the leadership of Hon. J. B. McNair; 22nd Ministry, sworn in Oct. 8, 1952, under the leadership of Hon. H. J. Flemming. 2 Life of Legislature not expired at Mar. 31, 1954.

Twenty-Second Ministry
(Party standing at latest General Election, Sept. 22, 1952: 36 Conservatives, 16 Liberals.)
Note.-See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier and Minister of Public Works | Hon. Hugh John Flemming. | Oct. 8, 1952 | Oct. 8, 1952 |
| Attorney General..................... | Hon. Whunk J. West. ...... | Oct. 8, 1952 | Oct. 8, 1952 |
| Provincial Secretary-T | Hon. D. D. Patterson | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Agriculture............. | Hon. C. B. Sherwood | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Health and Social Services. | Hon. J. F. McInerne y. | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Lands and Mines. | Hon. N. B. Buchanan. | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Education and Municipal Affairs. | Hon. Claude D. Taylor. | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Labour................. | Hon. Arther E. Skaling | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister of Industry and Development | Hon. J. Roger Pichette. | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister without portfolio and President of the Executive Council. | Hon. T. Babbitt Parlee. | Oct. 8, 1952 | Oct. 8, 1952 |
| Minister without portfolio and Chairman of the New Brunswick Electric Power Commission....... | Hon. Edgar Fournier. | Oct. 8, 1952 | Oct. 8, 1952 |

## Subsection 5.-Quebec

The Government of Quebec consists of the Lieutenant-Governor, an Executive Council, and a bicameral legislature-the Legislative Council and the Legislative Assembly.

The Honourable Gaspard Fauteux, the present Lieutenant-Governor, was commissioned to office Oct. 3, 1950. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 90.

The Legislative Council has 24 members nominated for life by the LieutenantGovernor in Council. The Legislative Assembly has 92 elected members and, like the Legislative Council, has the power to bring forward Bills relating to civil and administrative matters and to the amendment or repeal of laws that already exist. A Bill, to be approved by the Lieutenant-Governor, must have received the assent of both Houses. Only the Legislative Assembly can bring forward a Bill requiring the expenditure of public money. The maximum life of a Legislature is five years.

Salaries and allowances of the Premier, Members of the Executive Council, Legislative Council and Legislative Assembly are fixed according to R.S.Q. 1941, c. 4, as amended by 1-2 Eliz. II, as follows: all Members of the Legislative Assembly and Legislative Council receive $\$ 4,000$ per annum as salary and $\$ 2,000$ by way of allowances; in addition, the Premier receives $\$ 10,000$ as salary, $\$ 4,000$ allowances and $\$ 2,000$ for lodging allowance; Ministers with portfolio an additional $\$ 8,000$ as salary and $\$ 2,000$ allowances; Ministers without portfolio an additional $\$ 3,000$ salary and $\$ 2,000$ allowances; the Leader of the Opposition in the Legislative Assembly an additional $\$ 6,000$ salary, $\$ 2,000$ allowances and $\$ 2,000$ for lodging allowance; and the Leader of the Opposition in the Legislative Council an additional $\$ 5,000$ salary and $\$ 2,000$ allowances.

## 18.-Legislatures and Premiers of Quebec, 1935-54, the Ministry and Members of the Legislative Council as at Mar. 31, 1954

Legislatures, 1935-54 ${ }^{1}$

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
| :---: | :---: | :---: | :---: | :---: |
| Nov. 25, 1935 | 19th General Assembly | 1 | Mar. 24, 1936 | June 11, 1936 |
| Aug. 17, 1936 | 20th Genersl Assembly | 4 | Oct. 7, 1936 | Sept. 23, 1939 |
| Oct. 25, 1939 | 21st General Assembly | 5 | Feb. 20, 1940 | June 29, 1944 |
| Aug. 8, 1944 | 22nd General Assembly | 4 | Feb. 7, 1945 | June 9, 1948 |
| July 28, 1948 | 23rd General Assembly | ${ }_{2}^{4}$ | Jan. Nov. 12, | May ${ }_{2}^{28,1952}$ |
| July 16, 1952 | 24th General Assembly | 2 | Nov. 12, 1952 |  |

${ }^{1}$ The Ministries from 1935-54 were: 16th Ministry, sworn in July 8, 1920, under the leadership of Hon. L. A. Taschereau; 17th Ministry, sworn in June 11, 1936, under the leadership of Hon. A. Godbout; 18th Ministry, sworn in Aug. 24, 1936, under the leadership of Hon. Maurice L. Duplessis; 19th Ministry, sworn in Nov. 10, 1939, under the leadership of Hon. A. Godbout; 20th Ministry, sworn in Aug. 30, 1944, under the leadership of Hon. Maurice L. Duplessis. ${ }^{2}$ Life of Legislature not expired at Mar. 31, 1954.

## Twentieth Ministry

(Party standing at latest General Election, July 16, 1952: 67 Union Nationale, 22 Liberals, 1 Independent and 2 vacancies.)
Note.-See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier and President of the Erecutive Council. |  |  |  |
| Minister of Finance.................... | Hon. Matrice L. Duplessis...... Hon, OnEsime Gagnon........ | Aug. 24,1936 | Aug. 30, 1944 |
| Minister of Lands and Forests and of Hydraulic Resources. | Hon. John S. Bourque. . . . . . . . . | Aug. 24, 1936 |  |
| Minister of Health.................. | Hon. J. H. Albiny Paquette..... | Aug. 24, 1936 | Aug. 30, 1944 |
| Minister of Municipal | Hon. Yves Prévost.......... | July 15, 1953 | July 15, 1953 |
| Minister of Colonizatio | Hon. J. D. Béarn.. | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister without portfoli | Hon. Antonio Elie | Aug. 24, 1936 | Aug. 30, 1944 |
| Minister of Agricul | Hon. Laurent Barré | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Roads. | Hon. Antonio Talbot | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Labou | Hon. Antonio Barrette | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Game a | Hon. Camille Podliot | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Social Welfare and of Youth | Hon. Roméo Lorrain. ${ }_{\text {Hon. Jean-Paul Sauté }}$ | Aug. 30, 1944 Sept. 18, 1946 | Aug. 30, 1944 Sept. 18, 1946 |
| Minister of Trade and Commerce... | Hon. Paul Beaulieu. . | Aug. 30, 1944 | Aug. 30, 1944 |
| Provincial Secretary | Hon. Omer Cóté | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Mines | Hon. C. Daniel French | Dec. 15, 1948 | Dec. 15, 1948 |
| Molicitor General. | Hon. Antoine Rivard | Dec. 15, 1948 | Apr. 12, 1950 |
| Minister without portiol | Hon. Tancrèdz labi | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister without portfoli | Hon. Jacques Miqurlo | July 23, 1952 | July ${ }_{\text {July }} \mathbf{2 3}, 1952$ |
| Minister without portfolio............. | Hon. Weprid Labbé. | July 23, 1952 | July 23, 1952 |

# 18.-Legislatures and Premiers of Quebec, 1935-54, the Ministry and Members 

 of the Legislative Council as at Mar. 31, 1954-concludedLegislative Council
(According to seniority)

| Name | Division | Date of Appointment |
| :---: | :---: | :---: |
| P. R. Du Tremblay | Sorel | Jan. 3, 1925 |
| R. O. Grorimi.. | De Salaberr | Dec. ${ }^{23} 1927$ |
| Elisise Therludut | Kennebee |  |
| Jacor Nicol. | Bedford. | Sept. 16, 1929 |
| Victor Marchind | Rigaud. | Apr. 15, 1932 |
| Gustave lemigux | Montarville | Dec. ${ }^{\text {July }}$ 23, ${ }_{1} 1934$ |
| Emie Moreato. | Lauzon. | June 6, 1935 |
| Alphonse Raymond | De Lorimier | Aug. 28, 1936 |
| J. L. Bartaeau (Speaker) | Shawinigan. | Jan. 14, 1938 |
| Phifpre Brais. | Grandville | Feb. 16, 1940 |
| Jules Brilant. | Golfe | Jan. 14, 1942 |
| Frank L. Connor | Mille Isles. | Jan. 14, 1942 |
| Robert R. Ness. | Inkerman. | Jan. 14, 1942 |
| Waprid Bovex. | Rougemont. |  |
| Félix Mrssigr .... | De Lanaudiè | Feb. 12, 1942 |
| Edouard Asselin | Victoria. | Jun. 22, 1946 |
| GERald Martineau | Les Laurentide | Aug. 22, 1946 |
| J. Outer Renatd... | Alma... | Aug. 22, 1946 |
| J. T. Larocheld | La Salle | Dec. 29, 1948 |
| Patrice Tardip. | De la Vallière | July 20, 1952 |
| Joseph Boulangrr | De la Durantay | Oct. 8, 1952 |
| Edoutrd Masson. | Repentigny.... | Mar. 12, 1953 |

## Subsection 6.-Ontario

The Government of Ontario consists of the Lieutenant-Governor, the Executive Council and the House of Assembly. The Honourable Louis O. Breithaupt, LL.D., the present Lieutenant-Governor of the Province, was commissioned to office Jan. 24, 1952. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 92 .

The House of Assembly, the single-chamber Legislature of the Province, is composed of 90 members elected for a statutory term of five years on an adultsuffrage basis.

Besides the regular departments of government, the Niagara Parks Commission, the Ontario Municipal Board, the Hydro-Electric Power Commission of Ontario, the Ontario Northland Transportation Commission, the Liquor Control Board and the Liquor Licence Board have been created.

Under the provisions of the Legislative Assembly Act (R.S.O. 1950, c. 202, as amended 1952, c. 51 ), each Member of the Assembly is paid an annual indemnity of $\$ 2,600$ and an allowance for expenses of $\$ 1,300$. In addition, the Speaker receives a special indemnity at the annual rate of $\$ 3,000$ and an expense allowance of $\$ 2,000$; the Chairman of the Committee of the Whole a special indemnity at the annual rate of $\$ 1,000$; and the Leader of the Opposition a special indemnity of $\$ 3,000$ and an annual allowance of $\$ 2,000$ for expenses. Each Member of the Cabinet receives the ordinary indemnity as a Member of the Legislature of $\$ 2,600$ plus the $\$ 1,300$ expense allowance in addition to his salary as a Minister of the Crown. The salary provided in the Executive Council Act for the Premier is $\$ 14,000$ and for a Cabinet Minister \$10,000.
19.-Legislatures and Premiers of Ontario, 1934-54, and Ministry as at Mar. 31, 1954

Legislatures, 1934-54

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
| :---: | :---: | :---: | :---: | :---: |
| June 19, 1934 | 19th General Assembly | 3 | Feb. 20, 1935 | Apr. 9, 1936 |
| Oct. 6, 1937 | 20th General Assembly | 8 | Dec. 1, 1937 | June 30, 1943 |
| Aug. 4, 1943 | 21st General Assembly | 2 | Feb. 22, 1944 | Mar. 24, 1945 |
| June 4, 1945 | 22nd General Assembly | 4 | July 16, 1945 | Apr. 27, 1948 |
| June 7, 1948 | ${ }_{24 \text { 23rd }}$ General Assembly | ${ }_{2}^{4}$ | Feb. 10, 1949 Feb. 21, 1952 | Oct. ${ }_{2}^{6,1951}$ |
| Nov. 22, 1951 | 24th General Assembly. | 2 | Feb. 21, 1952 |  |


#### Abstract

${ }^{1}$ The Ministries from 1934-54 were: 11th Ministry, sworn in July 10, 1934, under the leadership of Hon. M. F. Hepburn; 12th Ministry, sworn in Oct. 21, 1942, under the leadership of Hon. G. D. Conant; 13th Ministry, sworn in May 18, 1943, under the leadership of Hon. H. C. Nixon; 14th Ministry, sworn in Aug. 17, 1943, under the leadership of Hon. George A. Drew; 15th Ministry, sworn in Oct. 10, 1948, under the leadership of Hon. Thomas L. Kennedy; 16th Ministry, sworn in May 4, 1949, under the leadership of Hon. Leslie M. Frost. $\quad 2$ Life of Legislature not expired at Mar. 31, 1954.


## Sirteenth Ministry

(Party standing at latest General Election, Nov. 22, 1951: 79 Progressive Conservatives, 8 Liberals, 2 Co-operative Commonwealth Federation and 1 Labour-Progressive.)

Note.-See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier, President of the Council and Provincial Treasurer. | Hon. Lesle M. Frost | Aug. 17, 1943 | May 4, 1949 |
| Minister of Highways................ | Hon. George H. Doucstr | Aug. 17, 1943 | Aug. 17, 1943 |
| Attorney General | Hon. Dana H. Porter | May 8, 1944 | May 4, 1949 |
| Minister without port | Hon. George H. Challies | July 31, 1931 | Aug. 17, 1943 |
| Minister of Municipal | Hon. George H. Dunbar. | Aug. 17, 1943 | Aug. 17, 1943 |
| Minister of Labour.. | Hon. Charles Daley..... | Aug. 17, 1943 | Aug. 17, 1943 |
| Provincial Secretary and Registrar | Hon. G. Arthur Welsh | Jan. 7, 1945 | May 4, 1949 |
| Minister of Public Welfare | Hon. William A. Goodfel | Jan. 7, 1945 | Jan. 7, 1945 |
| Minister of Public Work | Hon. Whllam Griesinge | Apr. 15, 1946 | Jan. 20, 1953 |
| Minister without portfolio ${ }_{\text {Minister }}$ of Travel and Publicit | Hon. Harold R. Scot Hon. Louis P. Cecile | Nov. 28, 1946 Oct. 19, 1948 | $\begin{array}{llr}\text { June } & \text { 3, } & 1952 \\ \text { Oct. 19, } & 1948\end{array}$ |
| Minister of Lands and Forests. | Hon. Welland S. Gemmeli | May 4, 1949 | June 3, 1952 |
| Minister without portfolio | Hon. Whllam E. Hammion | July 15, 1949 | Nov. 16, 1950 |
| Minister of Health... | Hon. Mackinnon Phillips. | Aug. 8, 1950 | Aug. 8, 1950 |
| Minister of Reform In | Hon. John W. Foote. | Nov. 16, 1950 | Nov. 16, 1950 |
| Minister of Educatio | Hon. Whllam J. Dunlof | Oct. 2, 1951 | Oct. 2, 1951 |
| Minister of Agricult | Hon. Fletcher S. Thomas | Oct. 2, 1951 | Jan. 20, 1953 |
| Minister of Mines............... | Hon, Philip T. Kelly. | June 3, 1952 | June 3, 1952 |
| ment............................... | Hon. Willim K. Warrende | Jan. 20, 1953 | Jan. 20, 1953 |

## Subsection 7.-Manitoba

Besides its Lieutenant-Governor, Manitoba has a Provincial Executive composed of 10 members and a Legislative Assembly of 57 members, elected for a statutory term of five years. The Honourable John Stewart McDiarmid, the present Lieutenant-Governor of the Province, was commissioned to office Aug. 1, 1953. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 94 .

The Premier of the Province is paid a salary of $\$ 10,000$ per annum and each of the other Members of the Cabinet $\$ 8,000$. Members of the Legislature are each paid an indemnity of $\$ 2,000$ and an expense allowance of $\$ 1,000$. The Leader of the Opposition is paid an additional amount of $\$ 2,500$ and the Speaker of the Legislature an additional amount of $\$ 2,500$.

## 20.-Legislatures and Premiers of Manitoba, 1932-54, and Ministry as at Mar. 31, 1954

Legislatures, 1932-54 ${ }^{1}$

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
| :---: | :---: | :---: | :---: | :---: |
| June 16, 1932 | 19th General Assembly. | 4 | Feb. 14, 1933 | June 12, 1936 |
| July 27, 1936 | 20th General Assembly | 5 | Feb. 18, 1937 | Mar. 13, 1941 |
| Apr. 22, 1941 | 21st General Assembly | 5 | Dec. 9, 1941 | Sept. 8, 1945 |
| Oct. 15, 1945 | 22nd General Assembly | 4 | Feb. 19, 1946 | Sept. 29, 1949 |
| Nov. 10, 1949 | 23rd General Assembly | 7 | Feb. 14, 1950 | Apr. ${ }_{2}^{23,1953}$ |
| June 8, 1953 | 24th General Assembly | 1 | Feb. 2, 1954 |  |

${ }^{1}$ The Ministries from 1932-54 were: 12th Ministry, sworn in Aug. 8, 1922, under the leadership of Hon. J. Bracken; 13th Ministry, sworn in Jan. 14, 1943, under the leadership of Hon. Stuart S. Garson; 14th Ministry, sworn in Nov. 13, 1948, under the leadership of Hon. D. L. Campbell. ${ }^{2}$ Life of Legisiature not expired at Mar. 31, 1954.

## Fourteenth Ministry

(Party standing at latest General Election, June 8, 1953: 32 Liberal Progressives, 3 Independent Liberal Progressives, 12 Progressive Conservatives, 5 Co-operative Commonwealth Federation, 1 Labour Progressive, 2 Social Credit, 2 Independents.

Nore.-See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
| :---: | :---: | :---: | :---: |
| President of the Council and Minister of Dominion-Provincial Relations. | Hon. Douglas L. Ca | Sept. 21, 1936 | $\left\{\begin{array}{l}\text { Nov. 13, } \\ \text { Dec. 14, } \\ \text { 1948 }\end{array}\right.$ |
| Attorney-General | Hon. Ivan Schuliz | Sept. 21, 1936 | Nov. 7, 1952 |
| Minister of Public Work | Hon. Wrllam Morton | Nov. 22, 1939 | Aug. 19, 1950 |
| Minister of Mines and Natural Resources and Minister of Labour. | Hon. Charles E. Greenlay | Feb. 15, 1946 | $\left\{\begin{array}{lrl}  \begin{cases}\text { Sept. } & \text { 4, } \\ \text { Dec. } & 1953 \\ 14, & 1948\end{cases} \end{array}\right.$ |
| Minister of Health and Public Welfare. | Hon. Francis C. Bbll. | Dec. 14, 1948 | Nov. 7, 1952 |
| Minister of Education............... | Hon. Wallace C. Miller. | Feb. 15, 1946 | Aug. 16, 1950 |
| Minister of Municipal Affairs and Provincial Secretary | Hon. Edmond Prefontaine. | Dec. 1, 1951 | $\left\{\begin{array}{lll}\text { Dec. } \\ \text { Sept. } & 1, & 1951 \\ \text { De } & 1953\end{array}\right.$ |
| Provincial Treasurer and Minister of Industry and Commerce. | Hon. Ronald D. Turner. | Dec. 1, 1951 | $\begin{array}{lll}\text { Sept. } & \text { 4, } & 1953 \\ \text { Dec. } & 1, & 1951 \\ \text { Sept } & 4 & 1953\end{array}$ |
| Minister of Agriculture and Immigration |  | Dec.  <br> Nov. 1,1951 | Sept. 4, 1953 Nov. 7, 1952 |
| Minister of Public Utiliti | Hon. Charles L. Shuttleworth | Sept. 4, 1953 | Sept. 4, 1953 |

## Subsection 8.-Saskatchewan

The Government of the Province of Saskatchewan consists of a LieutenantGovernor, an Executive Council, and a Legislative Assembly.

The Honourable W. J. Patterson, the present Lieutenant-Governor, was commissioned to office July 4, 1951. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 95.

The statutory number of members of the Legislative Assembly is 53, elected for a maximum term of five years.

As of Apr. 1, 1954, the Premier receives $\$ 8,500$ and each Cabinet Minister $\$ 7,000$ annually in addition to the sessional indemnity, while the Leader of the Opposition, the Speaker and the Deputy Speaker receive $\$ 4,000, \$ 2,000$ and $\$ 1,000$, respectively. The sessional indemnity of a Member of the Legislature is $\$ 2,400$ together with an expense allowance of $\$ 1,200$. Members for the three northernmost constituencies of Cumberland, Athabasca and Meadow Lake each receive an additional $\$ 500$.

## 21.-Legislatures and Premiers of Saskatchewan, 1934-54, and Ministry as at Mar. 31, 1954

Legislatures, 1934-54 ${ }^{1}$

| Date of Election |  | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
| :---: | :---: | :---: | :---: | :---: | :---: |
| June | 19, 1934 | 8th General Assembly | 4 | Nov. 15, 1934 | May 14, 1938 |
| June | 8, 1938 | 9th General Assembly | 6 | Jan. 19, 1939 | May 10, 1944 |
| June | 15, 1944 | 10th General Assembly | 5 | Oct. 19, 1944 | May 19, 1948 |
|  | 24, 1948 | 11th General Assembly | 5 | Feb. 10, 1949 | May 7, 1952 |
| June | 11, 1952 | 12th General Assembly | 2 | Feb. 12, 1953 | , |

[^28] not expired at Mar. 31, 1954.

Eighth Ministry
(Party standing at latest General Election, June 11, 1952: 42 Co-operative Commonwealth Federation, 11 Liberals.)

Nors.-See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of <br> Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier, President of the Council and Minister of Co-operation and Co-operative Development ........ | Hon. T. C. Douglas. | July 10, 1944 | $\left\{\begin{array}{lll} \text { July } & 10, & 1944 \\ \text { Nov. 14, } & 1949 \end{array}\right.$ |
| Provincial Treasure | Hon. C. M. Fines. | July 10, 1944 | July 10, 1944 |
| Attorney Genersl.................. | Hon. J. W. Corman | July 10, 1944 | July 10, 1944 |
| Minister of Natural Resources, and Minister of Mineral Resources. | Hon. J. H. Brockrlbank....... | July 10, 1944 | $\left\{\begin{array}{lll} \text { Aug. } & 4, & 1948 \\ \text { Apr. } & 1, & 1953 \end{array}\right.$ |
| Minister of Highways and Transportation | Hon. J. T. Douglas | July 10, 1944 |  |
| Minister of Education | Hon. W. S. Lloy | July 10, 1944 | July 10, 1944 |
| Minister of Social Weliare and Rehabilitation. | Hon. J. H. Sturdy. . . . . . . . . . . | July 10, 1944 | Aug. 4, 1948 |
| Minister of Municipal Affairs | Hon. L. F. McIntosh............. | July 10, 1944 | Aug. 4, 1948 |
| Minister of Labour | Hon. C. C. Wmings. . . . . . . . . . . | July 10, 1944 | Aug. 4, 1948 |
| Minister of Agriculture | Hon. I. C. Nollet. | Feb. 26, 1945 | Feb. 26, 1945 |
| Minister of Public Works. | Hon. J. A. Darling. | Aug. 4, 1948 | Aug. 4, 1948 |
| Minister of Public Health | Hon. T. J. Bentle y. Hon. A. G. Kuzle. | Nov. 14, <br> Oct. 24,1949 | Nov. 14,1949 Oct. 24,1952 |
| Provincial Secretary. | Hon. J. W. Burton. | Oct. 24, 1952 | Oct. 24, 1952 |

## Subsection 9.-Alberta

The Government of the Province of Alberta is composed of the LieutenantGovernor, the Executive Council and the Legislative Assembly.

The Honourable John J. Bowlen, the present Lieutenant-Governor, was commissioned to office Feb. 1, 1950. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 96.

There are 61 members of the Legislative Assembly who are elected for a maximum period of five years.

The salary of the President of the Executive Council is $\$ 11,000$ and of a Cabinet Minister $\$ 8,500$. A special allowance of $\$ 2,500$ is paid to the Leader of the Opposition. The sessional indemnity for each Member of the Legislative Assembly is $\$ 2,400$ plus an expense allowance of $\$ 1,200$.
22.-Legislatures and Premiers of Alberta, 1935-54, and Ministry as at Mar. 31, 1954

Legislatures, 1935-54 ${ }^{1}$

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
| :---: | :---: | :---: | :---: | :---: |
| Aug. 22, 1935 | 8th General Assembly | 9 | Feb. 6, 1936 | Feb. 16, 1940 |
| Mar. 21, 1940 | 9th General Assembly | 4 | Feb. 20, 1941 | July 7, 1944 |
| Aug. 8, 1944 | 10th General Assembly. | 5 | Feb. 22, 1945 | July 16, 1948 |
| Aug. 17, 1948 | 11th General Assembly | 5 | Feb. 17, 1949 | June 28, 1952 |
| Aug. 5, 1952 | 12th General Assembly | 2 | Feb. 19, 1953 |  |

[^29]Eighth Ministry
(Party standing at latest General Election, Aug. 5, 1952: 52 Social Credit, 4 Liberals, 2 Progressive Conservatives, 2 Co-operative Commonwealth Federation, 1 Independent Social Credit.)

Nore.-See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier and Provincial Treasurer | Hon. Ernest C. Manning. | Sept. 3, 1935 | May 31, 1943 |
| And Minister of Mines and Minerals | Hon. Lucien Maynard........... | May 12, 1936 | Sept. 16, 1952 |
| Minister of Education | Hon. Anders O. Aalborg........ | Sept. 9, 1952 | Sept. 9, 1952 |
| Minister of Lands and Forests | Hon. Ivan Casey. | Sept. 9, 1952 | Sept. 9, 1952 |
| Minister of Public Works. | Hon. Alpred J. Hooke | Sept. 9, 1952 | Sept. 9, 1952 |
| Minister of Health. | Hon. W. W. Cross. | Jan. 5, 1954 | Jan. 5, 1954 |
| Minister of Public Welfare. | Hon. R. D. Jorgenson | Jan. 3, 1953 | Jan. 3, 1953 |
| Minister of Economic Affairs......... | Hon. Alpred J. Hooke. .......... | Apr. 20, 1945 | Apr. 20, 1945 |
| Minister of Provincial Secretary ............... | Hon. C. E. Gerhart. . . . . . . . . . | June 1, 1943 | May 8, 1948 |
| Minister of Agriculture............. | Hon. Leonard C. Halmrast..... | Jan. 3, 1953 | Jan. 5, 1954 |
| Minister of Industries and Labour... | Hon. N. A. Whlmore. | Nov. 10, 1953 | Nov. 10, 1953 |
| Minister of Railways and Telephones and Minister of Highways......... | Hod. Gordon E. Taylor......... | Dec. 27, $1950\{$ | Dec. May 27, 19501951 |

## Subsection 10.-British Columbia

The Government of British Columbia has a Lieutenant-Governor, an Executive Council and a Legislative Assembly.

Colonel the Honourable Clarence Wallace, the present Lieutenant-Governor of the Province, was commissioned to office Oct. 1, 1950. Lieutenant-Governors since Confederation are cited in the 1951 Year Book, p. 98.

The Legislative Assembly, elected for a statutory term of five years, has 48 members.

Members of the Executive Council and the Legislative Assembly each receive a sessional allowance of $\$ 2,000$ and $\$ 1,000$ for expenses. In addition, the Premier receives a salary of $\$ 9,000$ and each Member of the Executive Council $\$ 7,500$. The Leader of the Opposition has a special allowance of $\$ 2,000$ and the Speaker and Deputy Speaker receive allowances of $\$ 1,800$ and $\$ 500$, respectively.

## 23.-Legislatures and Premiers of British Columbia, 1933-54, and Ministry as at Mar. 31, 1954

Legislatures, 1933-54 ${ }^{1}$

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
| :---: | :---: | :---: | :---: | :---: |
| Nov. 2, 1933 ${ }^{2}$ | 18th General Assembly | 4 | Feb. 20, 1934 | Apr. 15, 1937 |
| June 1, 1937 | 19th General Assembly | 5 | Oct. 26, 1937 | July 22, 1941 |
| Oct. 21, 1941 | 20th General Assembly | 4 | Dec. 4, 1941 | Aug. 31, 1945 |
| Oct. 25, 1945 | 21st General Assembly | 5 | Feb. 21, 1946 | Apr. 16, 1949 |
| June 15, 1949 | 22nd General Assembly | 4 | Feb. 14, 1950 | Apr. 10, 1952 |
| June 12, 1952 | ${ }^{23} \mathrm{rd}$ General Assembly. | 1 | Feb. 3, 1953 | Mar. 27, 1953 |
| June 9, 1953 | 24th General Assembly | 8 | Sept. 15, 1953 | $s$ |

${ }^{1}$ The Ministries from $1933-54$ were: 22nd Ministry, sworn in Nov. 15, 1933, under the leadership of Hon. T. D. Pattallo; 23rd Ministry, sworn in Dec. 10, 1941, under the leadership of Hon. John Hart; 24th Ministry, sworn in Dec. 29, 1947, under the leadership of Hon. B. I. Johnson; 25th Ministry, sworn in Aug. 1, 1952, under the leadership of Hon. W. A. C. Bennett. ${ }^{2}$ Owing to the death of a candidate, polling day was delayed in the Electoral Districts of Vancouver Centre and Victoria City until Nov. 27, 1933. ${ }^{2}$ Life of Legislature not expired at Mar. 31, 1954.

## Twenty-Fifth Ministry

(Party standing at latest General Election, June 9, 1953: 28 Social Credit, 14 Co-operative Commonwealth Federation, 4 Liberals, 1 Progressive Conservative, 1 Labour.)

Notz.-See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier, President of the Council, and Minister of Finance. | Hon. Whliam Andrew Cecil Bennett. |  |  |
| Provincial Secretary and Minister of Municipal Affairs. |  | Aug. 1, 1952 | Aug. 1, 1952 |
|  | Hon. Wesley Drewett Black. | Aug. 1, 1952 | Aug. 1, 1952 |
| Attorney-General........................ Minister of Mines. | Hon. Robert William Bonner... | Aug. 1, 1952 | Aug. 1, 1952 |
|  | Hon. Robert Edward Sommers | Aug. 1, 1952 | Aug. 1, 1952 |
|  | Hon. Whlliam Kenneth Kiernan | Aug. 1, 1952 | Aug. 1, 1952 |
| Minister of Public Works. <br> Minister of Railways, Minister of Trade and Industry, and Minister of Fisheries. | Hon. Phulp Arthur Gaglardi.. | Aug. 1, 1952 | Aug. 1, 1952 |
|  | Hon. Whllam Ralph Talbot Chetw ynd. |  |  |
| Minister of Labour. <br> Minister of Education <br> Minister of Health and Welfare. |  | Aug. 1, 1952 | Aug. 1, 1952 |
|  | Hon. Ray Grliss Wil | Aug. 1, 1, <br> Apr. <br> 1954 | Aug. Apr. 14, 14, 1954 |
|  | Hon. Eric Charles Fitzgerald Martin. | Aug. 1, 1952 | Aug. 1, 1952 |

## Subsection 11.-Yukon and Northwest Territories

Yukon Territory.-The Yukon was created a separate Territory in June 1898. Provision is made for a local Government composed of a Chief Executive, styled Commissioner, and an elective Legislative Council of five members with a three-year tenure of office. The Commissioner administers the Government under instructions from the Governor in Council or the Minister of Northern Affairs and National Resources. The Commissioner in Council has power to make ordinances dealing with the imposition of local taxes, sale of liquor, preservation of game, establishment of territorial offices, maintenance of prisons and municipal institutions, issue of licences, incorporation of companies, solemnization of marriage, property
and civil rights, administration of justice, and generally all matters of a local nature in the Territory. The seat of local government is at Whitehorse, Yukon Territory.

## TERRITORIAL COUNCIL

|  | (Five members elected 1952, for three years) |  |  |
| :---: | :---: | :---: | :---: |
| Dawson. | . V. C. Mellor | Whitehorse East. | J. L. Phelpg |
| Mayo. | .. A. F. Berry | Whitehorse West.. | F. D. Locke |
|  | Carmacks. | ... A. R. Hayes |  |

## TERRITORIAL OFFICIALS

| Commissioner (Whitehorse) | W. G. Brown |
| :---: | :---: |
| Superintendent of Works and | H. Tait |
| Registrar of Vital Statistics. | W. D. Robertson |
| Legal Advis | F. G. Smith |

The Director of the Northern Administration and Lands Branch, Department of Northern Affairs and National Resources, is directly responsible for the general administration of the Territory under the Iukon Act (R.S.C. 1952, c. 298), and that Department has three lands and mining officials stationed in the Territory. Other Departments of the Federal Government, including Justice, National Revenue, Transport, Post Office, etc., also maintain officials in the Yukon Territory.*

Northwest Territories.-The Northwest Territories as reconstituted on Sept. 1, 1905, comprise:-
(1) all that part of Canada north of the Sixtieth Parallel of North Latitude, except the portions thereof within the Yukon Territory and the Provinces of Quebec and Newfoundland, and
(2) the islands in Hudson Bay, James Bay and Ungava Bay, except those islands within the Provinces of Manitoba, Ontario and Quebec.

For administrative purposes, the Territories were divided into the provisional districts of Mackenzie, Keewatin and Franklin by Order in Council of Mar. 16, 1918. The Northwest Territories Act, 1905, as amended, provides for the Government of the Territories by a Commissioner (who is Deputy Minister of the Department of Northern Affairs and National Resources) under instructions given from time to time by the Governor in Council or the Minister of Northern Affairs and National Resources. Provision is made in the Northwest Territories Act (S.C. 1953-54, c. 8) for a Council of nine members, four of whom shall be elected in the Mackenzie River district and five appointed by the Governor in Council. The Commissioner in Council has power to make ordinances for the Government of the Territories relating to subjects designated by the Governor in Council, subject to any Act of the Parliament of Canada applying to the Territories, respecting such matters as direct taxation within the Territories to raise revenue, estabishment and tenure of territorial offices, maintenance of municipal institutions, licences, administration of civil justice, education, public health and generally all matters of a local nature. The administration of the Territories under the Northwest Territories Act and the ordinances passed by the Commissioner in Council is carried on by the Northern Administration and Lands Branch of the Department of Northern Affairs and

[^30]National Resources. A federal Administrative Officer serves at each of the following Territorial centres: Fort Smith, Aklavik, Hay River and Yellowknife. The seat of government is at Ottawa.

COUNCIL OF THE NORTHWEST TERRITORIES
(a8 at Sept. 7, 1954)

| Commissioner................ | R. G. Robertson |
| :---: | :---: |
| Deputy Commissioner. ....... | F. J. G. Cunningham |
| Members of the Council-* |  |
| Appointed. | Louis de la C. Audette, W. I. Clements, Jean Bodcher, F. J. G. Cunningham, L. H. Nicholson |
| Elected. | Frank Carmichabl, J. W. Goodall, Robert C. Porritt, John Parker |
| Officers of the Council- |  |
| Secretary................... | R. Bouchard |
| Legal Adviser.............. | Wm. Nason |

## Section 3.-Municipal Government $\dagger$

The earliest local government in Canada was carried out by the seigneurs of New France who bore, along with military command and the administration of justice, the responsibilities of appointing justices of the peace and clerks of roads. Some of these officers were soon replaced by a 'syndic' elected by the people, the first in 1644, though a mayor and two aldermen had held office briefly in the city of Quebec in 1643. When the syndics fell into disuse, their powers were delegated by the Governor to officials. The City of Quebec was incorporated in 1832, and the system of local government for the province decreed in 1840 was later remodelled by Acts of $1845,1847,1850$ and 1860.

In the Atlantic Provinces, Saint John, N.B., had attained the distinction of becoming Canada's first incorporated city in 1785. Incorporation of Halifax, N.S., came in 1841 and Charlottetown, P.E.I., in 1855. In Newfoundland, St. John's was created a town in 1888.

The Ontario Parish and Town Officers Act of 1793 provided for an annual meeting in a parish or township to appoint local officers responsible to Parliament and the courts, but the meetings had no law-making powers. Brockville, in 1832, gained from the Governor in Council some local powers that had previously been exercised through the courts. In 1834, York was incorporated as the self-governing City of Toronto. The Municipal Act of 1849 became the foundation of the local government in Ontario and later provided a model for the western provinces. Subsequently, Acts have been passed in all provinces governing aspects of municipal incorporation, powers and duties. Constitutional provision that jurisdiction over municipal affairs would rest with the provinces has resulted, quite naturally, in dissimilarity in the organization of local government across the country. This stems not only from the difference in beginnings and subsequent independent growth in each province, but also from variations in requirements arising out of geographical and population differences.

[^31]The situation remains in a state of flux, with constant amendment of provincial Acts and charters in an attempt to solve old problems and to meet new ones. Just as the call for new and additional services has enlarged the scope of federal and provincial activities, the municipalities have had to assume responsibilities unheard of a few decades ago, or considered beyond their sphere of activity. As a result, amendments to Acts have varied from those enlarging the powers and the boundaries of municipalities, to those establishing closer provincial control and greater financial aid.

An outline of municipal organization at the end of 1953 in each of the provinces of Canada is given in the following paragraphs.*

Newfoundland.-Newfoundland has only one city, St. John's. The remainder of the population is dispersed in small settlements along the coast, and only since 1937 have a few of the larger of these been set up individually as towns with local councils or, where two or three are close together, as rural districts ( 43 in 1953). These latter are not rural municipalities but merely towns consisting of two or more settlements. Local affairs in the remainder of the Province are administered by the Provincial Government. In 1949, the Local Government Act was passed to facilitate incorporations. There are now thirty towns and two rural districts incorporated under the Act while there are eight local government communities with lesser powers of government.

Prince Edward Island.-The Province has one city, Charlottetown, and seven towns all incorporated by special Acts. They comprise less than one-half of one per cent of the area of the Island and only about a quarter of its population. The Village Service Act, 1951, provides for the incorporation of villages. The remaining area of the Province is not organized municipally, the three counties being provincial administrative units only.

Nova Scotia.-Municipal organization in Nova Scotia covers the whole of the Province. The two cities, Halifax and Sydney, operate under special charters; the latter is also governed by certair special legislation. Forty towns operate under the Town Incorporation Act but there are no municipalities incorporated as villages. Cities and towns are independent of counties. The rural area is divided into 18 counties which, in themselves, do not represent units of local government. However, 12 of these counties each comprise one municipality, and the other six comprise two municipalities each, making a total of 24 rural municipalities.

New Brunswick.-The Province is divided into 15 counties which are incorporated municipalities and have direct powers of local self-government in the rural areas. In effect, therefore, they are rural municipalities. In most cases certain of their powers apply in both rural and urban municipalities. The five cities-Saint John, Fredericton, Moncton, Edmundston and Lancaster-have special charters, and the 19 towns operate under the Towns Incorporation Act. There are three villages and 37 local improvement district areas within the counties but outside the cities, towns and villages; these have been incorporated for the provision of limited municipal services.

Quebec.-Municipal divisions in Quebec embrace the more thickly settled areas comprising about one-third of the Province, the remainder being governed by the Province as 'territories'. The organized area is divided into 76 county

[^32]municipalities, which are divided again into local municipalities under the Municipal Code and designated as village, township or parish municipalities or simply as municipalities. The counties, as such, have no direct powers of taxation. Funds to finance the services falling within their jurisdiction are provided by the municipalities forming part thereof. Parts of some counties are not yet organized into incorporated units of local government, being in outlying districts with little or no population. There are 337 villages and 1,111 townships and parishes. A small number of these are independent of the counties in which they are located. Of the 35 cities, a few have special charters. The remainder, along with the 134 towns, are governed by the Cities and Towns Act and numerous special Acts.

Ontario.-Slightly more than one-tenth of the area of Ontario is municipally organized, the remainder being governed entirely by the Provincial Government. The older section of the Province is divided into 43 counties, five of which are united with others for administrative purposes. Although an incorporated municipality, each county is comprised of the towns, villages and townships situated within its borders, which provide its revenue. There are 29 cities, 152 towns, 157 villages, 573 townships and 15 improvement districts. Some of each are located in the northern districts of the Province, which are not organized into counties.

Manitoba.-Only the southern and settled section of Manitoba, comprising less than one-eighth of the area, is organized for local self-government. As in the other three western provinces, there is no county organization and all municipalities are independent, except of provincial control. There are four cities, three with special charters and one governed by a number of special Acts. General Acts govern the 33 towns, 39 villages, 109 rural municipalities and five suburban municipalities. An Act of 1944 (amended January 1945) authorizes organization of local government districts in unorganized or disorganized (formerly organized but later unorganized) territory, and 12 such districts have been set up.

Saskatchewan.-All municipalities in Saskatchewan derive their powers from general Acts that are designated with the name of the type of municipality. There are eight cities, 96 towns, 383 villages and 296 rural municipalities. The area so organized consists of most of the southern two-fifths of the Province. The remainder of this portion is administered for local purposes by the Province in unincorporated local improvement districts. The northern three-fifths is sparsely populated and without local government, though some municipal services are provided by the Province through operation of the Northern Administrative Area.

Alberta.-In Alberta there are cities, towns, villages and rural municipalities known as municipal districts. The latter three classes come under general Acts. Until 1951 each of the seven cities had its own charter, but these have been superseded by the City Act of 1951 . There are 72 towns, 138 villages and 57 municipal districts, but less than one-fifth of the Province is so organized. There are also some unincorporated improvement districts administered by the Province in less densely settled areas. Four county municipalities have been set up. These are not counties as they exist in Ontario but municipalities in which the council administers education and municipal hospitals. They are included with the municipal districts mentioned above and in Table 24 on p. 90.

British Columbia.-Less than 0.5 p.c. of the area of British Columbia is organized into municipalities. Additional small areas have sufficient population to require administration of local activities by the Provincial Government. There
are 35 cities, 49 villages and 29 districts. The latter are chiefly rural municipalities, except for those adjacent to the principal cities of Victoria and Vancouver, which are largely urban in character. It should be emphazised, however, that the application of the name "city" is somewhat different from the commonly accepted meaning in that several of them have populations of less than 1,000 and perhaps one-half or more would not normally be incorporated as cities in another province.

Yukon and Northwest Territories.-There are two cities and one town in the Yukon Territory and two local administrative districts in the Northwest Territories, all of which provide some municipal services to their local areas. These are not shown in Table 24.

## 24.-Municipalities, by Official Designation ${ }^{1}$ and by Statistical Classification, ${ }^{2}$ by Province, as at Dec. 31, 1953

| Item | N'ild. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Offichl Designation ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Cities. | 1 | 1. | 2 | $5$ | 35 | 29 | 4 | 8 | 7 | 35 | 127 |
| Towns... | $40^{3}$ |  | 40 |  | ${ }_{3}^{134}$ | 152 | ${ }_{3}^{33}$ | 96 | 72 |  | ${ }^{593}$ |
| Villages.. | - |  |  | 3 | 337 | 157 | 39 | 383 | 138 | 49 | 1,106 |
| Totals, Urban. | 41 | 8 | 42 | 27 | 506 | 338 | 76 | 487 | 217 | 84 | 1,826 |
| Rural ${ }^{4}$. | 3 | - | 24 | 15 | 1,111 | 588 | $114{ }^{\circ}$ | $296{ }^{7}$ | 578 | 29 | 2,237 |
| Totals, Local Municipalities.. | 44 | 8 | 66 | $42^{\circ}$ | 1,617 | 926 | 190 | 783 | 274 | 113 | 4,063 |
| Quebec and Ontario counties... | ... | ... | ... | ... | 76 | 38 | ... | ... | ... | ... | 114 |
| Totals, Incerporated Municipalities. | 4 | 8 | 66 | 42 | 1,693 | 964 | 190 | 783 | 274 |  | 4,177 |
|  |  |  |  | Sta | tisticat | Clas | hifati | O2 ${ }^{2}$ |  |  |  |
| Municipalities in Metropolitan |  | No. |  |  |  |  |  | No. |  |  |  |
| Areas- ${ }^{10}$ <br> Urban. | 1 | - | 2 | 2 | 54 | 24 | 5 | - | 6 |  | 100 |
| Rural. ........................ | - | - | 1 | 2 | 25 | 17 | 9 |  | 4 | 11 | 69 |
| Totals, Metropolitan Areas.. | 1 | - | 3 | 4 | 79 | 41 | 14 | - | 10 | 17 | 169 |
| Other Urban.. | 40 | 8 | 40 | 25 | 452 | 314 | 71 | 487 | 211 | 78 | 1,726 |
| Other Rural- <br> Semi-urban <br> Other | 3 | 二 | ${ }^{2} 3$ | 13 | 1,086 | $\begin{gathered} 11 \\ 560 \end{gathered}$ | 105 | 296 | 53 | 18 | ${ }_{2,157}^{11}$ |
| Totals, Other Rural. | 3 | - | 23 | 13 | 1,086 | 571 | 105 | 296 | 53 | 18 | 2,168 |
| Totals, Other Urban \& Rural | 43 | 8 | 63 | 38 | 1,538 | 885 | 176 | 783 | 264 | 96 | 3,894 |
| Quebec and Ontario counties... | ... | ... | $\ldots$ | ... | 76 | 38 | ... | ... | ... | ... | 114 |
| Totals, $\mathbf{I n c o r p o r a t e d ~}$ Municipalities....... | 44 | 8 | 66 | 42 | 1,693 | 964 | 190 | 783 | 274 | 113 | 4,177 |

[^33]
## Section 4.-Federal and Provincial Royal Commissions

Federal Royal Commissions.*-Royal Commissions established from Apr. 1, 1952, to Mar. 31, 1954, are reported here, in continuance of those previously reported in the Year Books beginning with the 1940 edition at pp. 1108-1110:-

Royal Commission appointed to inquire into claims re World War II. Oct. 23, 1952. Commissioner: Hon. T. A. Campbell.

Royal Commission appointed for the holding of inquiries regarding the revocation of Canadian Citizenship Certificates. July 17, 1953. Commissioners: His Hon. Wilfred Slater Lane, Hon. Paul Ste-Marie, et al.

Royal Commission appointed to inquire into whether the Criminal Law of Canada relating to the defence of insanity should be amended. Mar. 2, 1954. Commissioners: Hon. James C. McRuer, Dr. Gustave Desrochers, et al.

Royal Commission to inquire into whether the Criminal Law relating to criminal sexual psychopaths should be amended. Mar. 25, 1954. Commissioner: Hon. James C. McRuer, et al.

Provincial Royal Commissions.-Only those Royal Commissions established in 1953-54 are reported here, this list being in continuance of those in previous Year Books beginning with the 1948-49 edition, pp. 1222-1223:-

Newfoundland.-Royal Commission appointed to inquire into and report upon the agricultural resources of the Province. June 15, 1953. Commissioners: A. M. Shaw, W. M. Drummond and P. J. Murray.

Royal Commission appointed to inquire into the forestry resources of the Province. Feb. 22, 1954. Commissioners: Major General H. Kennedy, D. R. Cameron and R. C. Goodyear.

Royal Commission appointed under the Public Enquiries Act to prepare a comprehensive review of the financial position of the Province; also to recommend the form and scale of additional financial assistance for the continuance of public services at the levels and standards reached subsequent to the date of Union. Jan. 19, 1954. Commissioners: Hon. Philip J. Lewis, Hon. Calvert C. Pratt, Philip Gruchy, Gerald S. Doyle and Albert Perlin.

New Brunswick.-Royal Commission appointed to inquire into and concerning all matters proper for the disposition of government grants made available to and administered through several school administrative units of the Province; and the relative tax-paying ability of the Province in comparison with that of the other provinces of Canada. Sept. 11, 1953. Chairman: Dr. W. H. MacKenzie. Commissioners: Julianne Levesque and R. Donald Stewart.

Manitoba.-Royal Commission appointed to inquire into commercial fishing. Aug. 15, 1953. Chairman: M. N. Hryhorezuk.

The Industrial Commission was appointed Aug. 26, 1953, and the Highway Safety Commission was appointed Sept. 16, 1953. No Chairman was named in the Order in Council authorizing these Commissions.

British Columbia.-Royal Commission appointed to inquire into matters relating to the destruction, by slides, of a portion of the power-house of the Whatshan Development. Sept. 4, 1953. Commissioner: Hon. Mr. Justice J. V. Clyne. Report printed, 50 pp .

[^34]
## PART III.-ADMINISTRATIVE FUNCTIONS OF THE FEDERAL GOVERNMENT

Section 1.-Departments, Boards, Commissions, etc.

The following paragraphs indicate the functions of the various departments of government and the special boards and commissions in connection with the work of government.

Though it is not possible, owing to the limitations of space, to enumerate in this Section the details of each service or the divisions or sections of all the departments, the main branches are given along with those services that differ in some quality from the larger class of subjects handled by a department. The work of many of these departments is given in detail in later Chapters of this volume. The Index will be useful in locating required information.

Department of Agriculture.-This Department was established in 1867 ( 30 Vict., c. 53) and conducts the concerns of all phases of agriculture. Research and experimentation are carried out by the Science Service and the Experimental Farms Service; the maintenance of standards and protection of products by the Production Service and Marketing Service; reclamation and development by the Prairie Farm Rehabilitation Administration and the Maritime Marshland Rehabilitation Administration; while security and price stability policies are administered under the Prairie Farm Assistance Administration and the Agricultural Prices Support Board. The results of work in these various fields and information on the policies of the Department in general are made available to the public through the Information Service.

Auditor General's Office.-The Office of Auditor General is authorized under the Financial Administration Act (R.S.C. 1952, c. 116). Duties include the auditing of accounts of expenditures and revenue of Canada, and of Crown companies and other instrumentalities, and the reporting thereon to Parliament.

The Department of Citizenship and Immigration.-This Department came into existence on Jan. 18, 1950, under the Minister of Citizenship and Immigration. It comprises the Canadian Citizenship Branch, the Canadian Citizenship Registration Branch, the Immigration Branch and the Indian Affairs Branch.

The Canadian Citizenship Branch assists governmental and non-governmental agencies engaged or interested in facilitating the adjustment and integration of newcomers and in making Canadians conscious of their privileges and responsibilities as citizens.

The Canadian Citizenship Registration Branch administers the Canadian Citizenship Act and is the custodian of all records under that Act and all Naturalization Acts previously in force.

The Immigration Branch administers the Immigration Act and Regulations and is responsible for the selection, examination and transportation of immigrants, the exclusion or deportation of undesirables and the settlement or establishment of immigrants in Canada.

The activities of the Indian Affairs Branch include management of all Indian affairs. Its organization consists of a headquarters office at Ottawa, a regional supervisory staff, and 87 local agencies in the field.

The Minister of Citizenship and Immigration is responsible to Parliament for the National Film Board, the National Library, the Public Archives, and for the National Gallery of Canada which is governed by a Board of Trustees.

The Civil Service Commission.-The Civil Service Commission of Canada dates from the Civil Service Act of 1908. Under this Act the Commission was given the responsibility of applying, as far as possible, the principle of appointment by merit in filling permanent positions within departmental headquarters positions at Ottawa, termed the "inside service".

The Civil Service Act of 1918 extended the competitive system of appointments to cover the outside as well as the inside service and temporary as well as permanent appointments. It made the Commission responsible for establishing a system of organization and classification that would secure uniformity in the staffing of the various departments and in the salaries paid for work of equal levels of difficulty and responsibility.

The jurisdiction of the Commission now extends to all departments of the Government and to a large number of boards and commissions, exclusive of Crown corporations.

GOVERNMENT OF CANADA


The Civil Service Commission, which is under the jurisdiction of the Secretary of State, consists of three members, one of whom serves as Chairman. Each member of the Commission is appointed by the Governor in Council for a term of 10 years, and each has the rank and standing of a Deputy Minister. The Commission has a staff of approximately 580 persons working under its direction and located in the headquarters office at Ottawa and in district offices at St. John's, N'f'ld., Halifax, N.S., Saint John, N.B., Montreal, Que., Toronto, Ont., Winnipeg, Man., Regina, Sask., Edmonton, Alta., and Vancouver, B.C.

The Department of Defence Production.-The Department of Defence Production was established on Apr. 1, 1951, under the provisions of the Defence Production Act. Under this Act the Minister is given, with certain exceptions, exclusive authority to buy defence supplies and construct defence projects required by the Department of National Defence. The Minister may, if authorized by the Governor in Council, undertake for an associated government anything he may undertake for the Canadian Government. In addition, all powers, duties and functions that theretofore were vested in the Minister of Trade and Commerce under any contract, agreement, lease or other writing entered into pursuant to the Department of Munitions and Supply Act, 1939, or the Defence Supplies Act, 1950, are vested in the Minister of Defence Production.

Broadly, the Department's functions are to procure military goods, to construct defence installations and to organize industry for defence as required, on behalf of the Department of National Defence, other government departments, and associated governments; to promote the expansion of defence production facilities and the development of defence supporting industries, particularly of strategic resources important for the defence of Canada and its allies; and to ensure adequate supplies of essential materials and services for defence requirements. The main units of the Department are: the Ammunition Branch, the Aircraft Branch, the Electronics Branch, the General Purchasing Branch, the Guns Branch, the Machine Tools Branch, and the Shipbuilding Branch. In addition, there are various administrative or service units including Administration, Comptroller's, Economics and Statistics, Industrial Security, Legal, Secretary's, and the Financial Adviser's Branches.

The following Crown companies report to Parliament through the Minister of Defence Production: Canadian Arsenals Limited, Canadian Commercial Corporation, Crown Assets Disposal Corporation, Defence Construction (1951) Limited, and Polymer Corporation Limited.

Dominion Bureau of Statistics.-The Dominion Bureau of Statistics was set up by statute in 1918 as a central statistical department for Canada (8-9 Geo. V, c. 43). In 1948, this statute, which had been consolidated as the Statistics Act (R.S.C. 1927, c. 190), was repealed and replaced by the Statistics Act (R.S.C. 1952, c. 257); it was amended by 1-2 Eliz. II, c. 18, assented to Mar. 31, 1953.

The function of the Dominion Bureau of Statistics is to compile, analyse and publish statistical information relative to the commercial, industrial, financial, social and general condition of the people and to conduct a census of population and agriculture of Canada at ten-year intervals.

The Bureau is the principal publication agency of the Federal Government; the subjects of the reports cover all aspects of the national economy. The Bureau reports to Parliament through the Minister of Trade and Commerce.

The Department of External Affairs.-The main function of this Department is the protection and advancement of Canadian interests abroad. The head of the Department of External Affairs is the Secretary of State for External Affairs. The senior permanent officer of the Department is the Under-Secretary (Deputy Minister), who is the chief adviser to the Secretary of State for External Affairs. He is assisted by an Associate UnderSecretary and by three Assistant Under-Secretaries and a Legal Adviser, and is advised by officers in charge of the various divisions, each responsible for a part of the work of the Department. The divisional heads are assisted by Foreign Service Officers, Administrative Officers and by the administrative staff of clerks, stenographers and typists. While serving abroad, Foreign Service Officers are formally designated as Ambassadors, Ministers, Counsellors, First, Second and Third Secretaries at diplomatic posts and as Consuls General, Consuls and Vice-Consuls at consular posts. Fifty-two diplomatic and consular posts are maintained abroad by Canada.

The work of the Department at Ottawa is performed by 17 divisions which can be grouped, according to their functions, into three categories-political, functional and administrative. There are five political divisions-American, Commonwealth, European, Far Eastern and United Nations; eight functional divisions-Consular, Defence Liaison (1) and (2), Economic, Information, Legal, Historical Research and Reports, and Protocol; and four administrative divisions-Establishments and Organization, Finance, Personnel,
Supplies and Properties.

The Department of Finance.-The Department of Finance, created in June 1868, is under the authority of the Minister of Finance. The Department is responsible for the financial administration of Canada including raising the money required for the various governmental activities by way of taxation or borrowing. The Comptroller of the Treasury, an officer of the Department, is responsible for all Government disbursements.

The work of the Department is organized in seven principal Divisions: Administration, Financial Administration and Accounting Policy, Superannuation, Treasury Board, Taxation, Economic Policy, and International Economic Relations. The Royal Canadian Mint is a branch of the Department. The Inspector General of Banks and the Comptroller of the Treasury are officers of the Department.

The Tariff Board and the Canadian Farm Loan Board are responsible to Parliament through the Minister of Finance.

The Department of Fisheries. - The Department of Fisheries was first organized under a Minister of Fisheries in 1930. Prior to that date the federal fisheries services were maintained by the former Department of Marine and Fisheries, established in 1868. The provinces, under various arrangements, have certain administrative responsibilities in the fisheries but the legislative authority for the regulations of coastal and fresh-water fisheries is with the Federal Department of Fisheries.

The work of the Department includes: conservation and development of the fisheries through the enforcement of fishing regulations, the operation of fish-culture establishments, management and improvement of spawning streams and control of predators; inspection of fish products for quality control and the encouragement of industrial development; promotion of the greatest utilization of fishery products and a proper public understanding of the resource and the industry.

Agencies connected with the Department are the Fisheries Prices Support Board and the Fisheries Research Board of Canada. The Department is represented on these International Commissions: Pacific Salmon Fisheries, Pacific Halibut, that for the Northwest Atlantic Fisheries, North Pacific Fisheries and Whaling.

The Department of Insurance.-The Minister of Finance is responsible for the Department of Insurance which originated in 1875. Under the Superintendent of Insurance, the Department administers the statutes of Canada applicable to: insurance, trust and loan companies incorporated by the Parliament of Canada; provincially incorporated insurance companies registered with the Department; British and foreign insurance companies operating in Canada; small loans companies and money-lenders; and Civil Ṣervice insurance. See also Chap. XXVI (Part II) and Chap. XXVII.

Under the relevant provincial statutes, the Department examines provincial trust companies in the Provinces of Manitoba and New Brunswick and loan and trust companies in the Province of Nova Scotia.

A Fire Prevention Branch was organized in 1919 with responsibility for the administration of Sect. 515 of the Criminal Code. It maintains fire-loss records, makes inspections, reports on fire-prevention legislation and protection methods and endeavours to extend and co-ordinate fire-prevention work in Canada.

The Department of Justice.-This Department provides legal services to the Government and the various government departments, including preparing and settling government legislation, settling instruments issued under the Great Seal, regulating and conducting litigation for or against the Crown, superintending the acquisition of property and prosecutions under federal legislation other than the Criminal Code, administers federal statutes dealing with legal matters and provides administrative services for the Supreme Court of Canada and the Exchequer Court.

The Department also superintends the penitentiaries and administers the prison system of Canada.

The Department of Labour.- The Department of Labour was established in 1900 by Act of Parliament (63-64 Vict., c. 24). The Department administers, under the Minister of Labour, legislation dealing with: industrial relations, investigation of disputes, etc.; fair employment practices; the regulation of fair wages and hours of labour; government annuities; government employee compensation; merchant seamen compensation; vocational training; publication of the Labour Gazette, as well as bulletins giving information on industrial and related subjects.

The Unemployment Insurance Commission and National Employment Service are also under the direction of the Minister of Labour. The Canada Labour Relations Board and the National Advisory Council on Manpower also act on behalf of the Minister of Labour. The Department is the official liaison agency between the Canadian Government and the International Labour Organization.

The Department of Mines and Technical Surveys.-This Department was created by an Act of Parliament (13 Geo. VI, c. 17) which received Royal Assent on Dec. 10, 1949. Its establishment resulted from the reorganization of certain former departments into an
integrated organization whose primary function is to provide technological assistance in the development of Canada's mineral resources through investigations, studies and research in the fields of geology, mineral dressing and metallurgy, and geodetic, topographic and other surveys. The Department is under the Minister of Mines and Technical Surveys and is divided into five branches: the Surveys and Mapping Branch, the Geological Survey of Canada, the Mines Branch, the Dominion Observatories and the Geographical Branch.

The Department also administers the Explosives Act which regulates the manufacture, testing, sale, storage and importation of explosives, and the Emergency Gold Mining Assistance Act which provides cost-aid to the gold industry.

Boards and Commissions are: Canadian Board on Geographical Names; Board of Examiners for Dominion Land Surveyors; International Boundary Commission and Interprovincial Boundary Commissions.

The Department of National Defence.-Created on Jan. 1, 1923, by the National Defence Act, 1922, the Department of National Defence was originally an amalgamation of the Department of Militia and Defence, the Naval Service and the Air Board.

In 1940, the Department of National Defence was separated into three departments, one for each of the Armed Services, and continued under this organization until the cessation of hostilities. In order to afford the maximum possible degree of co-ordination, the three Services were again brought into one departmental organization in 1946.

In 1947, the Defence Research Board was formed to carry out research projects for defence. It is responsible to the Minister of National Defence for this function and for advising him on the effect of scientific, technical and other research on national defence.

Department of National Health and Welfare.-The Department of National Health and Welfare was established in October 1944. Under the Minister of National Health and Welfare, the Department, which is composed of three branches (Health, Welfare and Administration), is administered through two Deputy Ministers.

The Health Branch is divided into three directorates-Health Insurance Studies, Food and Drugs, and Indian Health Services. It has 14 Divisions active in certain public health fields divided into three main groups-Medical Advisory, Research Development, and Environmental Health, each of which is headed by a Principal Medical Officer.

The Welfare Branch is made up of the Divisions of Family Allowances, Old Age Security, Old Age Assistance and Physical Fitness. The Department is also responsible for federal civil-defence planning, with the Civil Defence Co-ordinator reporting to both Deputy Ministers. The Administration Branch includes divisions where activities cover both health and welfare fields, such as research, information, legal and library services, as well as administrative, personnel and purchasing and supply services.

National Library.-The National Library Act, proclaimed Jan. 1, 1953, brought the National Library into being. Though at an early stage of organization, the Library publishes Canadiana-a monthly catalogue of new publications relating to Canada-and is well advanced on a national union catalogue to serve as a key to the contents of all important libraries in Canada. The National Librarian reports to the Minister of Citizenship and Immigration.

National Museum of Canada.-The National Museum illustrates the natural history of Canada - its geology, biology and anthropology. It was formerly part of the Geological Survey, founded in 1842, but was separated from it in 1920, and is now part of the Department of Northern Affairs and National Resources. The Museum carries out field investigations in botany, zoology, vertebrate palæontology, archæology and ethnology including studies of folk-lore and folk-songs, publishes the results of its research and carries out an extensive educational program.

The Department of National Revenue.-From Confederation until May 1918, customs and inland revenue Acts were administered by separate departments; after that date they were amalgamated under one Minister as the Department of Customs and Inland Revenue. In 1921, the name was changed to the Department of Customs and Excise. In April 1924, collection of income taxes was placed under the Minister of National Revenue and under the Department of National Revenue Act, 1927, the Department became known as the Department of National Revenue.

The Department is responsible for the assessment and collection of customs and excise duty, taxes and revenues and other services by ports and outports, as well as for the assessment and collection of income taxes and succession duties.

The Minister of National Revenue is responsible to Parliament for the Income Tax Appeal Board and the Canadian Broadcasting Corporation.

Department of Northern Affairs and National Resources.-The Department of Northern Affairs and National Resources was established in December 1953, superseding the Department of Resources and Development. In addition to Administration Services,
which unit periorms auxiliary functions, the Department is divided into five branches: the National Parks Branch administers the National Parks and National Historic Parks of Canada, National Historic Sites, and wildlife matters coming within the jurisdiction of the Federal Government, and has charge of the National Museum of Canada; the Engineering and Water Resources Branch is responsible for the investigation of water-power resources, for the administration of federal assistance to the provinces under the Canada Water Conservation Assistance Act and for federal interests in certain joint federal-provincial construction projects; the Northern Administration and Lands Branch is responsible for the administration of various Federal Acts, Territorial ordinances and regulations pertaining to the government of the Northwest Territories, for the conduct of certain business arising from the general administration of the Yukon Territory, for the administration of natural resources in these Territories, and for Eskimo affairs, as well as for certain lands and mineral rights in the provinces vested in the Crown in the right of Canada; the Forestry Branch conducts investigations in the protection and utilization of the forest resources of Canada, maintains forest experiment stations and forest products laboratories and administers federal assistance to the provinces under the Canada Forestry Act; and the Canadian Government Travel Bureau promotes the tourist industry by encouraging tourist travel from abroad and interprovincial travel in Canada.

The Minister of Northern Affairs and National Resources is also responsible to Parliament for the Eastern Rockies Forest Conservation Board, the Northwest Territories Power Commission, the National Battlefields Commission, the Historic Sites and Monuments Board, and the Advisory Board on Wildlife Protection. The Deputy Minister is Commissioner of the Northwest Territories.

Post Office Department.-Administration and operation of the Postal Service under the Postmaster General include: supervision of all phases of postal activity including personnel, mail handling, postal accommodation, transportation of mails by land, water, rail and air and the direction and control of financial services including the operation of money order and savings bank business.

Public Archives.-The Public Archives was founded in 1872 and is administered by the Dominion Archivist who has the rank of a Deputy Minister and reports to Parliament through the Minister of Citizenship and Immigration. Its purpose is to assemble and make available to the public a comprehensive collection of historical source material relating to the history of Canada. Major emphasis is placed upon official records of the Government, and the personal papers of political leaders and other prominent figures. These are supplemented by copies of many records in the British and French archives that relate to Canada, a fine map collection, a historical library, and many prints, paintings and photographs.

Department of Public Printing and Stationery.-This Department was established in 1886 and is in the charge of the Queen's Printer and Controller of Stationery.

The Department is responsible for supplying all requirements of printing and stationery to Parliament and Departments of the Canadian Government; the free distribution and sale of all public documents or papers to the public; the publication of the Statutes of Canada, the Canada Gazette, and all departmental reports, papers, etc., required to be published by authority of the Governor General in Council.

The Department of Public Printing and Stationery is under the jurisdiction of the Secretary of State.

Department of Public Works.-This Department was constituted in 1867 and is responsible for the management, charge and direction of the public works of Canada and, except as specifically provided in other Acts, attends to the construction and maintenance of public buildings, wharves, piers, roads and bridges and the undertaking of dredging and navigable waters protection work. The Department maintains architectural and engineering staffs in each province in addition to the Administrative, Architectural, Engineering and Purchasing and Stores Branches at Ottawa.

The Minister of Public Works is responsible to Parliament for the Central Mortgage and Housing Corporation and for federal interests in the Trans-Canada Highway.

Department of the Secretary of State.-The Department of the Secretary of State was constituted in its present form in 1873. The Secretary of State is the official spokesman of the Federal Government as well as the medium of communication between the Federal and Provincial Governments, all correspondence between the Governments being conducted through his Department with the Lieutenant-Governors. He is the custodian of the Great Seal of Canada and the Privy Seal of the Governor General as well as being the channel through which the general public may approach the Crown.

The Secretary of State is the Registrar General of Canada, registering all proclamations, commissions, licences, warrants, writs and other instruments issued under the Great Seal and certain instruments issued under the Privy Seal. He is responsible for the collection and tabling of parliamentary returns.

The Secretary of State also deals with the organization and administration of the Office of the Custodian of Enemy Property. The Civil Service Commission, the Department of Public Printing and Stationery and the Chief Electoral Officer are under the jurisdiction of the Secretary of State, but each of the three Civil Service Commissioners, the Queen's Printer and the Chief Electoral Officer has the rank of Deputy Minister.

The Department of the Secretary of State deals with correspondence concerning the Copyright Appeal Board, the Awards Co-ordination Committee, the Public Records Committee and the Inter-departmental Committee on the use of Parliament Hill. The Special Division deals with domestic protocol, government hospitality and related matters.

Department of Trade and Commerce.-The Department of Trade and Commerce was established by Act of Parliament on June 23, 1887, but did not function until Dec. 5, 1892, when an Order in Council to this effect was passed. Prior to its creation, assistance in the development of Canada's foreign trade was provided by five Canadian Commercial Agents, who served on a part-time basis and were responsible to the Minister of Finance. On Jan. 1, 1895, a Canadian Commercial Agent was appointed at Sydney, Australia, on a full-time basis. He thus became the first Canadian Government Trade Commissioner, in the present meaning of the term.

The Canadian Commercial Agency Service was renamed the Canadian Trade Commissioner Service in 1907, as the term agent created the impression that an officer so designated had something to buy or sell. Officers devoting all their time to the promotion of Canadian trade, and on salary, were thus termed Canadian Trade Commissioners, while those receiving an honorarium were still known as Commercial Agents. The following year, the position of Superintendent of Commercial Agencies was abolished, and a Deputy Minister of Trade and Commerce was appointed on Aug. 1, 1908. Forty-nine offices in 41 countries were maintained in 1953. In addition to trade commissioners and assistant trade commissioners, the foreign service officers included nine agricultural specialists, three fisheries specialists and one timber specialist. Where trade commissioners are members of a mission maintained by the Department of External Affairs, they are given diplomatic status and are known as Commercial Counsellors or Commercial Secretaries.

The Department of Trade and Commerce was expanded in 1945 to provide a wide range of additional services to Canadian businessmen, and now comprises the following Branches and Divisions: Canadian Trade Commissioner Service, Commodities Branch, Agriculture and Fisheries. Branch, International Trade Relations Branch, Canadian Government Exhibition Commission, International Economic and Technical Co-operation Division (responsible for administration of the Colombo Plan), Information Branch, Industrial Development Division, Standards Branch and Economics Branch.

The following boards, commissions, Crown companies and agencies report to Parliament through the Minister of Trade and Commerce: Atomic Energy Control Board, Atomic Energy of Canada Limited, Board of Grain Commissioners, Canadian Patents and Development Limited, Canadian Wheat Board, Export Credits Insurance Corporation, National Research Council and Trans-Canada Air Lines.

The Department of Transport.-The Department of Transport was created on Nov. 2, 1936, from the former Department of Marine, Railways and Canals and the Civil Aviation Branch of the Department of National Defence.

The work of the Department consists of four main Services: Marine, Air, Canals and Railways. The work of the Marine Service includes aids to navigation, nautical and pilotage services, marine agencies, steamship inspection and floating equipment and direct supervision over 300 public harbours; seven other harbours come under supervision of the Department but are administered by Commissions. Air Services cover the operation of civil aviation, meteorological and telecommunication divisions. The latter includes the administration and regulation of radar, radio marine and radio aeronautical aids to navigation and communication by wire and by government telegraph and telephone. The Canal Service has jurisdiction over the canals and canalized waterways of Canada. These include the main or primary canals on the St. Lawrence River and Great Lakes and a number of subsidiary or secondary canals.

Other services of the Department are in connection with the Government-owned companies: the Canadian National Railways, Hudson Bay Railway, Canadian Government Railway, Canadian National (West Indies) Steamship Service and the Prince Edward Island Ferry and Terminals.

The Minister of Transport is responsible to Parliament for the following boards and commissions: the Air Transport Board; Board of Transport Commissioners; Canadian Maritime Commission; Steamship Inspection Board; National Harbours Board; Park Steamship Company Limited; and Canadian National Railway Securities Trust. The Minister is responsible to Parliament for the Canadian Overseas Telecommunication Corporation. The St. Lawrence Seaway Authority reports to Parliament through the Minister of Transport. (See Appendix).


#### Abstract

Department of Veterans Affairs.-This Department, established in 1944, is concerned exclusively with the welfare of veterans and includes medical, dental and welfare services, land settlement and prosthetic services and insurance. The Veterans' Bureau assists veterans in the preparation and presentation of pension claims.

The Minister of Veterans Affairs is also responsible for the Canadian Pension Commission and the War Veterans Allowance Board. The Department has administrative offices in all the larger cities across Canada and at London, England.


## Section 2.-Crown Corporations

The Crown corporation form of public enterprise is not a new type of organiza tion in Canada but, in recent years, as the work of government has become more complex, greater reliance has been placed on it as the appropriate instrument for administering and managing many public services in which business enterprise and public accountability must be combined.

The use of the corporate device to harmonize public responsibility in the development of economic resources and the provision of public services with the pursuit of commercial and industrial objectives has led to the adoption of many different forms and formulæ of management. The most usual practice has been to set up a corporation under the provisions of a special Act of Parliament which defines its purpose and sets forth its powers and responsibilities. However, during World War II, the Minister of Munitions and Supply was authorized to procure the incorporation of companies under the federal Companies Act, 1934, or under any provincial companies Act, to which he might delegate any of the powers conferred on him under the Department of Munitions and Supply Act or any Order in Council. Under this legislation, some 28 companies were created to serve a wide variety of purposes; most of these companies have since been wound up.

Following the successful experience during the war years in relying on the Companies Act for the establishment of Crown companies, similar incorporating powers were granted by an amendment to the Research Council Act and have been incorporated in the Atomic Energy Control and the Defence Production Acts.

In 1946, the Government Companies Operation Act was passed to regulate the operation of companies formed under the Companies Act. However, it was applicable only to a relatively small number of companies and, in order to establish a more uniform system of financial and budgetary control and of accounting, auditing and reporting for Crown corporations generally, Part VIII of the Financial Administration Act was enacted in 1951 and brought into operation by proclamation on Oct. 1, 1952. Upon its enactment, the financial provisions of the Government Companies Operation Act, which were covered by similar provisions in the new Act, were repealed.

One of the more interesting features of the new legislation is the attempt that has been made to define and classify Crown corporations.* The Act defines a Crown corporation as a corporation that is ultimately accountable through a Minister to Parliament for the conduct of its affairs and establishes three classes of corporation: departmental, agency, and proprietary.

[^35]Departmental Corporations.-A departmental corporation is defined as a Crown corporation that is a servant or agent of Her Majesty in right of Canada and is responsible for administrative, supervisory or regulatory services of a governmental nature. Ten departmental corporations are listed in Schedule B to the Act:-

Agricultural Prices Support Board<br>Atomic Energy Control Board<br>Canadian Maritime Commission<br>Director of Soldier Settlement<br>The Director, The Veterans' Land Act<br>Dominion Coal Board<br>Fisheries Prices Support Board<br>National Gallery of Canada<br>National Research Council<br>Unemployment Insurance Commission.

Agency Corporations.-An agency corporation is defined as a Crown corporation that is an agent of Her Majesty in right of Canada and is responsible for the management of trading or service operations on a quasi-commercial basis, or for the management of procurement, construction or disposal activities on behalf of Her Majesty in right of Canada. Schedule $\mathbf{C}$ to the Financial Administration Act lists the following as agency corporations:-

Canadian Arsenals Limited Canadian Commercial Corporation Canadian Patents and Development Limited<br>Canadian Sugar Stabilization Corporation Limited<br>Commodity Prices Stabilization Corporation Limited<br>Crown Assets Disposal Corporation<br>Defence Construction (1951) Limited<br>Federal District Commission<br>National Battlefields Commission<br>National Harbours Board<br>Park Steamship Company Limited.

Since the proclamation of the Financial Administration Act, Atomic Energy of Canada Limited bas been added to the agency grouping, and two corporations, Canadian Sugar Stabilization Corporation Limited and Commodity Prices Stabilization Corporation Limited, have discontinued operations and have surrendered their charters.
$\because$ Proprietary Corporations.-A proprietary corporation is defined as a Crown corporation that (1) is responsible for the management of lending or financial operations, or for the management of commercial or industrial operations involving the production of or dealing in goods and the supplying of services to the public, and (2) is ordinarily required to conduct its operations without Parliamentary appropriations. Twelve such corporations are listed in Schedule D to the Act:-

[^36]Eldorado Aviation Limited, a subsidiary of the Eldorado Mining and Refining Limited, was incorporated as a private company pursuant to the provisions of Part I of the Companies Act on Apr. 23, 1953, and was subsequently added to Schedule D as a proprietary corporation by the Governor in Council pursuant to Sect. 76 of the Financial Administration Act. The St. Lawrence Seaway Authority (see Appendix) is also a proprietary corporation.

Departmental corporations are governed by the provisions of the Financial Administration Act that are applicable to departments generally. Agency and proprietary corporations, however, are subject to the provisions of the Crown corporations Part of the Act, although, if there is any inconsistency between the provisions of that Part and those of any other Act applicable to a corporation, the Act provides that the latter prevail. There is provision in the Part for the control and regulation of such matters as corporation budgets and bank accounts, the turning over to the Receiver General of surplus money, limited loans for workingcapital purposes, the awarding of contracts and the establishment of reserves, the keeping and auditing of accounts, and the preparation of financial statements and reports and their submission to Parliament through the appropriate Minister.

A further form of control is exercised by Parliament through the power to vote financial assistance. This may take different forms. For some corporations, capital may be provided by parliamentary grants, loans or advances that may subsequently be converted into capital stock or bonds; for others it may be by the issue of capital stock to be subscribed and paid for by the Government; or by the sale of bonds either to the Government or the public. In a few instances, corporations have financed all or a portion of their requirements from their own resources or earnings. A special financing arrangement recently adopted has been the allocation of the $15-$ p.c. excise tax charged on radio and television sets and their parts and accessories to the revenue of the Canadian Broadcasting Corporation.

Prior to 1952, Crown corporations did not pay corporate income taxes. However, the Income Tax Act was later amended so that, in respect of financial years commencing after Jan. 1, 1952, proprietary Crown corporations pay such taxes on income earned in the same manner as any privately owned corporation. One desirable result of this amendment is that the financial statements of these Crown companies are now more comparable with those of private industry, with which in some instances they are in competition, and thus it is easier to assess the relative efficiency of their operations.

The functions of the various Crown corporations are given briefly in the following paragraphs. In a number of cases, further details are included in the Chapters dealing with the subjects concerned (see Index).

Agricultural Prices Support Board.-The Board was established in 1944 to assist in stabilizing the prices of agricultural products. The Board reports to Parliament through the Minister of Agriculture.

Atomic Energy Control Board.-In December 1946, by Act of Parliament, all matters concerning atomic energy in Canada were placed under the Atomic Energy Control Board. From Feb. 1, 1947, to Apr. 1, 1952, the National Research Council operated the Chalk River project as an agent of the Board. The Board reports to Parliament through the Minister of Trade and Commerce.

Atomic Energy of Canada Limited.-This Crown Company was incorporated in February 1952 under the Atomic Energy Control Act, 1946, to take over from the National Research Council on Apr. 1, 1952, the operation of the Chalk River project on behalf of the Atomic Energy Control Board. The main functions of the Company are the operation of atomic reactors, research into many aspects of atomic energy and the extraction, processing and marketing of the by-products of the reactors. The Board reports to Parliament through the Minister of Trade and Commerce.

Bank of Canada.-Legislation of 1934 (R.S.C. 1952, c. 13), provided for the establishment of a central bank in Canada, the function of which is to regulate credit and currency, to control and protect the external value of the Canadian dollar and to stabilize the level of production, trade, prices and employment so far as may be possible within the scope of monetary action. The Bank acts as the fiscal agent of the Government of Canada, manages the public debt and has the sole right to issue notes for circulation in Canada. The Bank is managed by a Board of Directors appointed by the Government and composed of a Governor, a Deputy Governor and 12 Directors; the Deputy Minister of Finance is also a member of the Board. The Bank is governed by its own Aet of incorporation. (See footnote, p. 98.)

Board of Grain Commissioners.-Under the Canada Grain Act 1930 (R.S.C. 1952, c. 25), the Board of Grain Commissioners for Canada, comprising a Chief Commissioner, two Commissioners and three Assistant Grain Commissioners, has authority to inquire into any matter relating to the grading and weighing of grain, deductions for dockage or shrinkage, deterioration of any grain during storage or treatment, unfair or discriminatory operation of a grain elevator, etc. The Board publishes its regulations in the Canada Gazette and reports to Parliament through the Minister of Trade and Commerce.

Canadian Arsenals Limited.-This Company was set up in September 1945 to take over Crown-owned plant and equipment. Among the items it now manufactures are propellants and explosives, small arms, radars and a wide range of ammunition and components. Its Divisions, together with the location of their plants, are as follows: Dominion Arsenal Division (Quebec, Valcartier and Rivière-du-Loup, Que.); Explosives Division (Valleyfield and Shawinigan Falls, Que., and storage depot at St. Dominique, Que.); Filling Division (St. Paul l'Ermite, Que.); Gun Ammunition Division (Lindsay, Ont.); Small Arms Division (Long Branch, Ont.) Instrument and Radar Division (Scarborough, Ont.). The Company is responsible to Parliament through the Minister of Defence Production.

Canadian Broadeasting Corporation.-Legislation passed in 1936 (R.S.C. 1952, c. 32), provides that there shall be a corporation, to be known as the Canadian Broadcasting Corporation, which shall consist of a Board of 11 Governors appointed by the Governor in Council and chosen to give representation to the principal geographic divisions of Canada. The Board of Governors determines CBC policy, and the Chairman of the Board is required to devote the whole of his time to the performance of his duties under the Act.

The General Manager is the Chief Executive of the Corporation and directs the operations and activities of the Corporation as well as the application of CBC policy as determined by the Board of Governors. The organization of the CBC consists of the following principal Divisions: Program, International Service, Engineering, Commercial, Press and Information, Broadcast Regulations, Station Relations, Personnel and Administration, and Treasury. Regional Representatives are appointed for Newfoundland, the Maritimes, Quebec, Ontario, the Prairies, and British Columbia.

The Corporation reports to a Minister of the Crown (at present the Minister of National Revenue) who is responsible for dealing with CBC operations when these are under consideration in Parliament.

Canadian Commercial Corporation.-The Canadian Commercial Corporation, established on May 1, 1946, acts as purchasing agent for foreign governments seeking defence supplies in Canada. It also acts as purchasing agent for international agencies such as the United Nations International Children's Emergency Fund and the United Nations Korean Reconstruction Agency. Other functions include arranging production and shipment of Canadian contributions of military stores to NATO countries. The Corporation also serves other departments of the Government of Canada. For instance, it arranges for the purchase and production of supplies and services which the Department of Trade and Commerce is making available to other countries under the Colombo Plan. In carrying out its functions, the Corporation works closely with the Departments of Trade and Commerce and Defence Production. It is responsible to Parliament through the Minister of Defence Production.

Canadian Farm Loan Board.-The Board was organized in 1929 to make loans to farmers secured by mortgage. Later operations extended loans to fishermen secured by mortgage on real estate. The Board is responsible to Parliament through the Minister of Finance.

Canadian Maritime Commission.-The Commission was created in 1947 (R.S.C. 1952, c. 38) to consider and recommend policies and measures necessary for the operation, maintenance, manning and development of a merchant marine and a ship-building and ship-repairing industry. The Commission is responsible to Parliament through the Minister of Transport.

Canadian National Rallways.-Operating under an Act to incorporate the Canadian National Railway Company (1919), brought into effect by Order in Council of Jan. 30, 1923, the Canadian National Railways comprised at that time the old Intercolonial Railway and various eastern branch lines (all embraced in the Canadian Government Railways
which were turned over to the Canadian National board for management and operation), the Canadian Northern Railway (1918) and the Grand Trunk Pacific (1923). The Hudson Bay Railway has been operated by the Canadian National Railways for the Canadian Government since 1935 and a separate accounting is made. Additional lines have been built or acquired and are operated by the Canadian National Railways. The Newfoundland Railway was entrusted to the Canadian National Railway Company in 1949 for operation and management. The CNR is controlled by a Chairman and Board of Directors and is responsible to Parliament through the Minister of Transport.

Canadian National (West Indies) Steamships Limited.-Through the medium of this Crown Company, the Federal Government provides direct steamship services to the West Indies in conformity with the Canada-West Indies Trade Agreement of 1926. The Company is responsible to Parliament through the Minister of Transport.

Canadian Overseas Telecommunication Corporation.-This Crown Company was created on Dec. 10, 1949, by Act of Parliament (R.S.C. 1952, c. 42) to acquire for public operation all external telecommunication assets in Canada, in keeping with the Commonwealth Telegraph Agreement, signed May 11, 1948. This Agreement was designed to bring about the consolidation and strengthening of the radio and cable communication systems of the Commonwealth. The Corporation is responsible to Parliament through the Minister of Transport.

Canadian Patents and Development Limited.-Incorporated under an amendment to the Research Council Act, passed in 1946, the primary purpose of Canadian Patents and Development Limited is to make available to industry, through licensing arrangements, the inventions and new processes developed by the scientific workers of the National Research Council. Their services are also available to other Government Departments, publicly supported institutions and universities. The Board of Directors is composed of representatives from industry, from the universities, and from the National Research Council.

The Canadian Wheat Board.-The Board was incorporated under the Canadian Wheat Board Act to market, in an orderly manner, in the interprovincial and export trade, grain grown in Canada. Its powers include authority to buy, take delivery of, store, transfer, sell, ship or otherwise dispose of grain. Except as directed by the Governor in Council, the Board cannot buy grain other than wheat, but since Aug. 1, 1949, the Board has been directed to buy oats and barley also. Only grain produced in the designated area, which includes Manitoba, Saskatchewan, Alberta and parts of British Columbia and Ontario, is purchased by the Board, which controls the delivery of grain into elevators and railway cars in that area as well as the interprovincial movement and export of wheat, oats and barley generally. (See footnote, p. 98.)

Central Mortgage and Housing Corporation.-This Corporation was incorporated by Act of Parliament in 1945 to administer the National Housing Act, 1944, and earlier housing Acts, to provide facilities for the rediscounting of mortgages for lending institutions and to co-ordinate activities of the Federal Government in the housing field. Since 1950, the Corporation has provided management and supervisory services to Defence Construction Limited which is entrusted with carrying out the construction of defence projects required by the Department of National Defence. The Corporation is responsible to Parliament through the Minister of Public Works.

Crown Assets Disposal Corporation.-By statute, War Assets Corporation was established in June 1944, replacing War Assets Corporation Limited which had been incorporated in 1943. In 1949 the name of War, Assets Corporation was changed to Crown Assets Disposal Corporation. The Corporation's function is to dispose of surplus Crown assets. It is responsible to Parliament through the Minister of Defence Production.

Defence Construction (1951) Limited.-This Company was set up in 1951 to carry out all defence construction, with the exception of housing and aeroplane runways. It replaced the former Crown Company, Defence Construction Limited, which was set up in November 1950. The Company reports to Parliament through the Minister of Defence Production.

Director of Soldier Settlement and Director of the Veterans' LandAct.-The, Director of Soldier Settlement (under the Act of 1919) is also the Director of the Veterans' Land Act, and in either capacity is legally a corporation sole. For administrative purposes, however, the programs carried on under both Acts constitute integral parts of the services provided by the Department of Veterans Affairs.

Dominion Coal Board.-The Board, created in 1947 under the Dominion Coal Board Act (R.S.C. 1952, c. 86), is charged with the duty of studying and recommending to the Government policies respecting the production, importation, distribution and use of coal in Canada. It also administers transportation subventions, other subsidies relating to coal and loans authorized under the Maritime Coal Production Assistance Act (R.S.C. 1952, c. 170).

Eastern Rockies Forest Conservation Board.-The Board was appointed in 1947 under the Eastern Rocky Mountain Forest Conservation Act, which authorized an agreement between the Government of Canada and the Province of Alberta relating to the protection and conservation of the forests of that area of the eastern slope of the Rocky Mountains which forms part of the watershed of the Saskatchewan River. The function of the Board is to plan, supervise and undertake construction, operation and maintenance of projects and facilities necessary for the proper protection of the forests of the area to obtain the greatest possible flow of water in the Saskatchewan River and its tributaries.

During the first seven years of the agreement the Federal Government has undertaken to provide $\$ 6,300,000$ for capital expenditure and Alberta to provide funds for maintenance expenditures. During the period of capital expenditure the Federal Government appoints the Chairman and one member and the Province one member. After the capital period the Federal Government appoints one member, the Government of Alberta appoints two and names one of the three as Chairman. (See footnote, p.98.)

Eldorado Aviation Limited.-Incorporated Apr. 23, 1953, to carry air traffic, both passenger and freight, for Eldorado Mining and Refining Limited and its wholly owned subsidiary, Northern Transportation Company Limited, the Company reports to Parliament through the Chairman of the Committee of the Privy Council on Scientific and Industrial Research.

Eldorado Mining and Refining Limited.--Set up in 1944 under the name of Eldorado Mining and Refining (1944) Limited (the name was changed in June 1952) the Company's business is that of prospecting for, mining and refining uranium ores in Canada. It reports to Parliament through the Chairman of the Committee of the Privy Council on Scientific and Industrial Research.

Export Credits Insurance Corporation.-This Company commenced operations in 1945, under the Export Credits Insurance Act, 1944, and comprises a Board of Directors (including the Deputy Minister of Trade and Commerce, the Deputy Minister of Finance and the Governor of the Bank of Canada) and an Advisory Council. Its function is to insure Canadian exporters against non-payment by foreign buyers arising out of credit and political risks involved in foreign trade. The Corporation reports to Parliament through the Minister of Trade and Commerce.

Federal District Commission.-This Commission had its genesis in the Ottawa Improvement Commission, established by Parliament in 1899 to improve and beautify the National Capital by the development and construction of parks and driveways and to co-operate with the City of Ottawa in local improvement and conservation. Its membership is honorary in character and is appointed by the Governor in Council, and it reports to the Prime Minister. In 1927, the organization's name was changed to the Federal District Commission, its scope of operations widened to include adjacent areas, and its membership increased to ten. Under the FDC Act, the mayors of Ottawa and Hull are included in its membership.

The Commission maintains the grounds of all federal buildings in the National Capital areas and landscapes the grounds of new government buildings. In the Ottawa-Hull area (exclusive of Gatineau Park), where it administers 1,878 acres, it has developed 18 parks and 22 miles of scenic driveways.

In 1946 the Commission became the federal agency responsible for carrying out the National Capital Plan. The membership was further increased to permit the appointment of a commissioner resident in each of the provinces and a separate honorary committee was established by the Commission to advise on the development of Gatineau Park. The National Capital Fund, to which Parliament has made annual grants of $\$ 2,500,000$ since its inception in 1948, was made available to the Commission to execute the work of the National Capital Plan, and a National Capital Planning Committee was appointed to act as a permanent honorary advisory body to the Commission on the implementation of the Plan.

Fisheries Prices Support Board.-The Board was set up in July 1947 to recommend to the Government price support measures when severe price declines occur. The Board functions under the direction of the Minister of Fisheries and consists of an Acting Chairman, who is a senior officer of the Department of Fisheries, and five members chosen from private and co-operative firms in the industry. The Board has authority to buy fishery products and to sell or otherwise dispose of them, or to pay producers the difference between a price prescribed by the Board and the average price the product actually commands.

Hallfax Rellef Commission.-The Commission, a joint enterprise of the Legislature of Nova Scotia (Statutes of N.S., 1918, c. 61) and the Parliament of Canada (Statutes of Canada, 1918, c. 24), was incorporated to administer relief funds contributed for the assistance of sufferers in consequence of the disastrous explosion at Halifax, Dec. 17, 1917. (See footnote, p. 98.)

Industrial Development Bank.-The Bank, a subsidiary of the Bank of Canada, was incorporated in 1944 to provide loans to industrial enterprises where financing is not available through recognized lending organizations. (See footnote, p. 98.)

National Battlefields Commission.-This Commission was established by Act of Parliament in 1908 to preserve the historic battlefields at Quebec City. The Commission is composed of nine members, seven being appointed by the Federal Government and one each by the Provinces of Ontario and Quebec. The Commission is supported by an annual statutory grant from the Federal Government and is responsible to Parliament through the Minister of Northern Affairs and National Resources.

National Film Board.-The National Film Board was established in 1939 and the National Film Act (R.S.C. 1952, c. 185), provides for a Board of Governors of nine members -a Government Film Commissioner, appointed by the Governor in Council, who is Chairman of the Board, three members from the public service of Canada and five members from outside the public service. The Board reports to Parliament through a designated Minister of the Crown (at present the Minister of Citizenship and Immigration). The Board is responsible for advising the Governor in Council on film activities and is authorized to produce and distribute films in the national interest and, in particular, films "designed to interpret Canada to Canadians and to other nations".

National Gallery.-The National Gallery was founded in 1880. By Act of Parliament in 1913 and re-enacted in 1951, it was placed under the management of a Board of Trustees appointed by the Governor General in Council, and is responsible to Parliament through a Minister of the Crown (at present the Minister of Citizenship and Immigration).

The first charge of the National Gallery is the development and care of the national art collections. Other important services are the arrangement of loans and exhibitions from abroad and from its own holdings for showing in Canada and abroad, the promotion of good industrial design, and general extension work consisting of the distribution of reproductions for educational purposes, lectures, educational tours, publications, school broadcasts and art films.

National Harbours Board.- The Board was established by Act of Parliament in 1936. It is responsible for the administration of port facilities at the harbours of Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver and Churchill. The Board is responsible to Parliament through the Minister of Transport.

National Research Council.-In 1917, the Research Council Act was passed and in 1928, laboratories for scientific research were established at Ottawa. The National Research Council now has divisions of pure and applied chemistry, building research, mechanical engineering, radio and electrical engineering, physics, applied biology and medical research. Regional laboratories have been established at Saskatoon, Sask., and Halifax, N.S.

Patentable processes and improvements developed by the Council are made available under licence to industry through a Crown company, Canadian Patents and Development Limited (see p. 102), and any profits from the licensing arrangements are used for further research and development.

The Minister of Trade and Commerce, as Chairman of the Privy Council Committee on Scientific and Industrial Research, is responsible to Parliament for the National Research Council.

Northern Transportation Company Limited.-This Company was incorporated in 1947 under the title of Northern Transportation Company (1947) Limited, the name being changed in 1952. Previously a company chartered under an Alberta Statute, it has been a wholly owned subsidiary of Eldorado Mining and Refining Limited since that Crown company was established, and carries out the business of a common carrier in the Mackenzie River watershed. The Company is responsible to Parliament through the Chairman of the Committee of the Privy Council on Scientific and Industrial Research.

Northwest Territories Power Commission.-The Commission was established by Act of Parliament in 1948 to bring electric power to points in the Northwest Territories where a need developed and where power could be provided on a self-sustaining basis. The Act was amended in 1950 to give authority to the Commission to provide similar services in the Yukon Territory. The Commission is composed of a Chairman and two members appointed by the Governor in Council; it operates hydro-electric plants on the Snare River in the Northwest Territories and on the Mayo River in Yukon Territory and a diesel electric plant at Fort Smith, N.W.T. The Minister of Northern Affairs and National Resources reports to Parliament for the Commission.

Park Steamship Company Limited.--After World War II, this Company acted as an agent for Crown Assets Disposal Corporation in the sale and delivery to purchasers of Government war-built ships. This work is completed but the Company remains available
to carry out any appropriate duties. It has no staff of its own, any necessary work being done by the staff of the Canadian Maritime Commission (see p. 101). The Company reports to Parliament through the Minister of Transport.

Polymer Corporation Limited.-The Corporation was established in 1942 for the purpose of constructing and operating a synthetic rubber plant, which now produces a variety of synthetic rubber products. The plant is located at Sarnia, Ont. The Corporation reports to Parliament through the Minister of Defence Production.

## St. Lawrence Seaway Authority (See Appendix).

Trans-Canada Air Lines.-TCA came into being by Act of Parliament in 1937 to provide for the development of a government-controlled scheduled transcontinental air service. Transatlantic air services, which were inaugurated by the Department of Transport during World War II, were later turned over to TCA. TCA now maintains passenger, mail and commodity traffic services over nation-wide routes and also services to the United States, Mexico, England, Scotland, Ireland, France, West Germany, Bermuda, the Bahamas, Jamaica, Barbados and Trinidad. TCA is responsible to Parliament through the Minister of Trade and Commerce.

Unemployment Insurance Commission.-The Commission was appointed on Sept. 24, 1940, under the provisions of the Unemployment Insurance Act, 1940, for the purpose of administering the Act. It is composed of three Commissioners: a Chief Commissioner, a Commissioner appointed after consultation with organizations representative of workers, and another after consultation with organizations representative of employers. The Chief Commissioner holds office for ten years and each of the other Commissioners for five years. The Board is responsible to Parliament through the Minister of Labour.

## Section 3.-Acts Administered by Federal Departments*

## List of the Principal Acts of Parliament Administered by Departments of the Government of Canada

Note.-Copies of individual Acts of Parliament and amendments may be obtained from the Queen's Printer, Ottawa, at prices of from 10 cents to $\$ 1 \cdot 50$ per copy according to number of pages. Where duplications of certain Acts appear in the list, parts of these Acts are administered under the Departments given.


[^37]
## List of the Principal Acts of Parliament Administered by Departments of the Government of Canada-continued



List of the Principal Acts of Parliament Administered by Departments of
the Government of Canada-continued


List of the Principal Acts of Parliament Administered by Departments of the Government of Canada-continued


List of the Principal Acts of Parliament Administered by Departments of the Government of Canada-concluded


## PART IV.-FEDERAL GOVERNMENT EMPLOYMENT

The Civil Service Commission.*-The Federal Civil Service comprises, in the widest sense, all servants of the Crown-other than those holding political or judicial office-who are employed in a civil capacity and whose remuneration is paid wholly and directly from moneys voted by Parliament. Collectively, they form the staffs of the various departments, commissions, boards, bureaux and other agencies of the Federal Government. Nearly every category of occupation is represented in the Civil Service. A few civil servants are appointed by one or both Houses of Parliament directly, a considerable number by departments and other agencies in accordance with the provisions of certain statutes, generally with executive approval of the Governor in Council, and the remainder-by far the majorityare selected and appointed by the Civil Service Commission of Canada.

The Civil Service Commission, as the central personnel agency of the Federal Government, is the custodian of the merit principle in respect of both initial appointments and promotions. The steps by which the Commission, in its present form, came to be constituted is the record of Civil Service reform in Canada which began a year after Confederation and culminated in the passing of the Civil Service Act of 1918.

Recruitment.-The recruitment of civil servants is conducted by means of open competitive examination through which every citizen has the right to compete for positions in the service of his country.

Examinations are held periodically as the staff requirements of the public service dictate. Any Canadian citizen may apply for headquarters positions open at Ottawa, but applicants for local positions must be residents of the locality in

[^38]which the vacancy occurs. Competitive examinations are announced through the press and through posters displayed on the public notice boards of post offices, offices of the National Employment Service, offices of the Civil Service Commission, public libraries and elsewhere. The examinations may be written, oral, a demonstration of skill, or any combination of these.

The names of persons successful in Civil Service examinations, arranged in order of rank, are recorded on eligible lists. Examination results are formally announced by publication in the Canada Gazette and each candidate-successful or unsuccessful-is advised of his standing. As required, appointments are made from the eligible lists, which usually remain valid for one year.

The rank of the various successful candidates on eligible lists is influenced by the 'veteran's preference'. Actually, the preference is limited largely, in accordance with its definition by law, to members of the Armed Forces who have served overseas in World War I or II or in the Korean theatre of operations. The highest order of preference is the 'disability preference' accorded to pensioners of the Armed Forces who, as a result of their war service, are unable to re-establish themselves in a civilian occupation.

In recent years, the Civil Service Commission has decentralized its operations and now has ten district offices and four sub-offices across the country. The Commission is granting an increasing measure of autonomy and responsibility to these offices to permit more efficient service to field agencies. They now conduct certain examinations that qualify for permanent as well as temporary employment.

Staff Training.-In 1947, the Commission set up a Staff Training Division to promote and guide a systematic service-wide training scheme. The training scheme, sponsored by the Commission, is a joint venture undertaken in co-operation with Federal Government departments, most of which have parallel training divisions, The Commission's Training Division is primarily a co-ordinating agent. It promotes and organizes activities, trains departmental instructors in the presentation of courses, prepares and, in some cases, gives courses of general application to all departments, publishes booklets and other training aids, assists departments in developing training to meet specialized needs, and acts as a general clearing-house for the exchange of information on training matters.

Promotion.-It is a prime objective of the Civil Service Act to create a career service. The result is that promotion, like entrance to the Service, is based on merit and a sound promotion system is developing. The present procedure involves the consideration of three factors: seniority or length of service; efficiency of candidates in their present positions; and fitness for the vacant positions. An automatic rating on seniority is given by the Commission and ratings on efficiency and fitness are provided by the department concerned. Appeal machinery, under Commission jurisdiction, has been set up for those employees who feel that their qualifications have not been properly assessed.

Position Classification and Compensation.-Provision is made in the Civil Service Act for the classifying of positions in the public service. A system of position-classification was instituted in 1919 and positions with like duties and
responsibilities were classified alike and remunerated equally. Each position has a title, a set of tasks or duties which are proper to it in the organization in which it occurs and, arising out of these duties, a set of qualifications appropriate for their performance. Positions with duties of similar kind are grouped together under a common title to form a class, and grades within the class reflect the level of responsibility.

The determination of rates of compensation for each class is a continuing responsibility of the Commission and salary and wage surveys are conducted constantly. Position classification is a mainspring in the Commission's primary function of recruitment, involving the fixing of standards of qualification for each class of position.

Organization and Methods.-In recent years there has been an increasing awareness of the extent to which economical administration depends on the adoption of modern management techniques and devices. In 1948, the Commission set up an Organization and Methods Service to study problems of management in collaboration with officials directly responsible for major areas of administration. Briefly, this Service affords practical assistance to departments and other agencies of the Government through the systematic examination of structure, operations, procedures and work methods. Its growing facilities are offered, free of charge, to all departments.

Statistics of Federal Government Employment.*-Presented here are the first data of a new survey of Federal Government employment commencing April 1952.

The basic concept behind the survey was that it should comprehend all classes of employees (excluding members of the Armed Services but including Force members of the Royal Canadian Mounted Police) for the totality of services at the federal level of government, with separate treatment accorded those activities designated as "government enterprises" because of the economic or proprietary nature of their undertakings; hence the title "Federal Government Employment", in contrast to the title used for the previous survey "Civil Service of Canada" with its restrictions as to services and classes of employees. The guiding principle that has been followed in matters of terminology and presentation of data has been strict adherence, except in dealing with services of relatively minor import, to official usages as employed in the Canada Estimates and, in classification of employees, to the official designations "classified", "exempt" and "statutory" Comparison with figures of previous years should be made only after careful consideration of the differences in composition of services and classification of employees. These points are more fully elaborated in the Explanatory Memorandum. $\dagger$

Included in this survey as governmental services are all the administrative functions of the Federal Government (see pp. 92-98), and all agencies, boards and commissions where the nature of the undertaking is not of a proprietary or economic

[^39]character, but where payments of salaries and/or wages are by legislative appropriation from the General Revenue Fund, including two Agency Corporations (Federal District Commission and National Battlefields Commission) and one Proprietary Corporation (Canadian Farm Loan Board). Statutory employees are also included since salaries of these are paid from the General Revenue Fund in accordance with the terms of an Act of Parliament establishing the position.

The "classified" group embraces several classes of employees including: those who are subject to the Civil Service Act and Civil Service Superannuation Act; those not subject to these Acts but who are employed under other enabling legislation or regulations; those employees of certain Agency and Proprietary Corporations mentioned above; and the "statutory" group, most of whom are only dismissable by an Address to both Houses of Parliament, such as members of the judiciary. The other main group, denominated "exempt", is also a composite of groups of employees (prevailing rate, casual, ships' crews), the chief distinctions of which are that, though paid from revenues passed by legislative appropriation, there is not the same security of tenure, the rates paid are determined by those prevailing in the area of work, and the employment of these groups is often seasonal. Moreover, these classes are not subject to the Civil Service Enactments for the purposes of classification and wages.

Employment of government "enterprises" is treated separately from that of government "services" because of the economic or proprietary complexion of the former activity. The supposition in respect of enterprises is that costs of operation, among them salaries and wages, are paid from the revenues which the undertaking has derived from the activity in which it is engaged. There is in these instances no such thing as a parliamentary appropriation to cover payment of salaries and wages; the accounts of such activities are separate and distinct from those for which the Auditor General is responsible but there exists in all instances ministerial responsibility to Parliament. The activities falling in the category "enterprises" are listed as follows:-

| Atomic Energy of Canada Limited | Defence Construction Limited <br> Bldorado Mining and Refining Limited |
| :--- | :--- |
| Cank of Canada | Export Credits Insurance Corporation |
| Canadian Arsenals Limited | Hudson Bay Railway |
| Canadian Broadcasting Corporation | Industrial Development Bank |
| Canadian National Railways | National Harbours Board |
| Canadian National (West Indies) | Northern Transportation Company |
| Steamships Limited | Limited |
| Canadian Overseas Telecommunication | Northwest Territories Power Com- |
| Corporation | mission |
| Canadian Wheat Board | Polymer Corporation Limited |
| Central Mortgage and Housing Corporation | Prince Edward Island Car Ferry |
| Crown Assets Disposal Corporation | Trans-Canada Air Lines |
| Canadian Commercial Corporation |  |

The figures pertaining to this group (Table 4) are published in aggregate only, in order to preclude (as required under the Statistics Act) any possibility of disclosure as to the operation of a particular enterprise.

## 1.-Classified and Erempt Employees of the Federal Government, by Month, Years Ended Mar. 31, 1953 and 1954

Nore.-Includes departments, boards, commissions, etc., listed in Table 3, but excludes certain Federal Government enterprises, figures for which are given in Table 4.

| Fiscal Year and Month | Total Classified | Exempt |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Prevailing Rate | Casual | Ships' Crews | Total Exempt |
| 1952-53- | No. | No. | No. | No. | No. |
| April... | 116,763 | 23,552 | 11,786 | 1,908 | 37,246 |
| Msy.. | 117,799 | 23,745 | 11,984 | 2,050 | 37,779 |
| June. | 119,569 | 25,013 | 13,278 | 2,013 | 40,304 |
| July. | 121,363 | 24,894 | 15,127 | 2,010 | 42,031 |
| August | 120,870 | 24,804 | 16,175 | 2,005 | 42,984 |
| September | 126,1091 | 19,690 | 15,963 | 1,918 | 37,571 |
| October. | 128,162 | 19,032 | 14,727 | 1,702 | 35,461 |
| November | 129,040 ${ }^{2}$ | 18,533 | 12,776 | 1,497 | 32,806 |
| December | 129, 136 | 17,916 | 11,758 | 1,542 | 31,216 |
| January. | 129,553 | 19,348 | 11,464 | 1,613 | 32,425 |
| February | 130,340 | 20,9143 | 10,3784 | 1.564 | 32,856 |
| March... | 131,167 | 22,189 | 10,405 | 1,665 | 34,259 |
| 1953-54- |  |  |  |  |  |
| April. | 130,999 | 22,154 | 10,912 | 1,955 | 35,021 |
| May. | 131,057 | 23,667 | 11,728 | 2,130 | 37,525 |
| June. | 131,482 | 23,428 | 12,726 | 2,158 | 38,312 |
| July. | 131,627 | 25,602 | 16,001 | 2,197 | 43,800 |
| August. | 131,835 | 23,615 | 15,178 | 2,072 | 40,865 |
| September | 131, 714 | 23,692 | 14,955 | 2,050 | 40,697 |
| October. | 132,714 | 23,048 | 14,212 | 2,145 | 39,405 |
| December | 135,009 | 22,717 | 11,654 | 2,192 | 37,289 36,396 |
| January | 135,411 | 22,465 | 12,358 | 1,874 | 36,697 |
| February | 135,884 | 22,245 | 10,861 | 1,770 | 34,876 |
| March. | 137,270 | 20,414 | 11,261 | 2,601 | 34,276 |

${ }^{1}$ Includea 4,595 RCMP constables previously classified under Prevailing Rate.
${ }^{2}$ Includes 337 statutory employees for the first time. ${ }^{2}$ Includes, for the first time, 2,146 employees for services of Public Works not previously reported but for which there was an average of 2,211 persons for April 1952 to January 1953. ${ }^{4}$ Includes, for the first time, 86 employees for services of Public Works not previously reported, but for which there was an average of 412 persons for April 1952 to January 1953.

## 2.-Earnings of Classified and Exempt Employees of the Federal Government, by Month, Years Ended Mar. 31, 1953 and 1954

Norz.-Includes departments, boards, commissions, etc., listed in Table 3, but excludes certain Federal Government enterprises, figures for which are given in Table 4.

| Fiscal Year and Month | Total Classified | Exempt |  |  |  | Additional Overtime Earnings ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Prevailing Rate | Casual | Ships' <br> Crews | Total Exempt | Classified | Exempt |
|  | \$ | \$ | \% | \$ | $\delta$ | \$ | \% |
| 1952-53- |  |  |  |  |  |  |  |
| April. | 27,234,878 | 4,721,793 | 2,129,844 | 380,932 | 7,232,569 |  |  |
| May.. | 27,430,360 | 4,734,015 | 2,188,159 | 417, 307 | 7,339,481 | $\cdots$ |  |
| June. | 27,822,964 | 5,038,809 | 2,275,070 | 428,999 | 7,742,878 |  | $\cdots$ |
| July... | 28, 107, 395 | $5,480,864$ | 2,620,049 | 441,752 | $8,542,665$ |  |  |
| August.... | $28,071,475$ $29,410,7212$ | 5,181, 524 $4,076,940$ | $2,725,562$ $2,692,089$ | 437,613 417,894 | 8,344,699 |  |  |
| October. | 29,214,6913 | $4,076,940$ $3,773,820$ | $2,692,089$ $\mathbf{2 , 4 1 0 , 7 8 1}$ | 417,894 376,819 | $7,186,923$ $6,561,420$ |  | $\cdots$ |
| November | 30,301,659 | 3,648,965 | 2,192,930 | 351,989 | 6,193,884 |  |  |
| December. | 30,386, 738 | 3,809,667 | 2,079,928 | 369,660 | $6.259,255$ |  |  |
| January. | 30, 615,759 | 4,154,935 | 2,164,803 | 379,842 | 6,699,580 |  |  |
| Mebruary | 30,723,305 | 3,939,859 ${ }^{4}$ | 1,904,9445 | 353,400 | 6,198,203 | . |  |
| march... | 30,871,702 | 4,273,383 | 1,991,290 | 377,634 | 6,642,307 | $\cdots$ |  |

For footnotee, see end of table, p. 114.

## 2．－Earnings of Classified and Exempt Employees of the Federal Government， by Month，Years Ended Mar．31， 1953 and 1954－concluded

| Fiscal Year and Month | Total Classified | Exempt |  |  |  | Additional Overtime Earnings ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Prevailing Rate | Casual | Sbips＇ Crews | Total Exempt | Classified | Exempt |
|  | \＄ | \＄ | \＄ | \＄ | \＄ | \＄ | \＄ |
| 1953－54－ |  |  |  |  |  |  |  |
| April． | 30，909，319 | 4，520，126 | 1，933，437 | 494，905 | 6，948，468 | 8，187 | 125，923 |
| May． | 30，879，035 | $4,865,220$ | 2，007，985 | 480， 207 | 7，353，412 | 217，767 | 171，884 |
| June． | 30，950，340 | 4，614，133 | 2，183，216 | 493，170 | 7，290，519 | 86，482 | 378，262 |
| July． | 31，177，008 | 5，262，904 | 2，831，831 | 512,049 | 8，606，784 | 227，247 | 273，878 |
| August． | 31，334，757 | 4，633，538 | 2，604，647 | 478，446 | 7，716，631 | 214，301 | 139，994 |
| September | 31，381，574 | $4.874,808$ | 2，701，864 | 475， 811 | 8，052，483 | 157，668 | 207，569 |
| October． | 31，836，865 | $4,781,467$ |  | 508，400 | 7，872，250 | 225,816 | 266，304 |
| Novembe | 31，881，163 | 4，854，869 | 2，355，074 | 529，046 | 7，738，989 | 120，147 | 229，516 |
| December | 32，123，7786 | 4，798，317 | 2，164，051 | 494，483 | 7，456，851 | 255，575 | 230，015 |
| January． | 34，756，0767 | 4，506，934 | 2，010，388 | 467，649 | 6，984，971 | 253，761 | 273，169 |
| February | 34，819， 104 | $4,461,519$ $4,301,871$ | 1，961，051 | 428，373 | 6，850，943 | 1，386，940 ${ }^{3} 8$ | 217，786 |
| March．． | 35，075，058 | 4，301，871 | 2，116，765 | 444，933 | 6，863，569 | 338，007 | 198，631 |

[^40] constables previously classified under Prevailing Rate．
${ }^{2}$ Includes $\$ 1,190,940$ earned by 4,595 RCMP
${ }^{3}$ Includes earnings of 337 statutory em－ ployees for the first time． 4 Includes，for the first
earnings amounting to $\$ 168,226$ for services of Public Works not previously reported，but for which there was an average of $\$ 190,018$ for April 1952 to January 1953 not previously reportudes，for the first hime，earnings amounting to 815,243 for services of Pubnic Work ${ }^{6}$ Excludes increases granted to classified employees，which were not available for December．${ }^{7}$ In－ cludes increases．
${ }^{8}$ Includes Post Office Christmas rush overtime payments．

## 3．－Federal Government Employment for the TMonth of March， 1953 and 1954，and Earnings for the Years Ended Mar．31， 1953 and 1954，classified by Department and Principal Branch or Service

Note．－Excludes Federal Government enterprises，figures for which are given in Table 4.

| Department， Branch or Service | 1953 |  |  |  | 1954 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Classified |  | Exempt |  | Classified |  | Exempt |  |
|  | Em－ ployees | Earn－ ings | Em－ ployees | Earn－ ings | Em－ ployees | Earn－ ings | Em－ ployees | Earn－ ings |
|  | No． | \＄＇000 | No． | \＄＇000 | No． | \＄＇000 | No． | \＄＇000 |
| Agriculture－ |  |  |  |  |  |  |  |  |
| General Services．．．．．．．．． | － 212 | $644 \cdot 0$ $4,852 \cdot 3$ | 20 | $93 \cdot 1$ 397.6 | 1．392 | $651 \cdot 5$ $5,009 \cdot 3$ | 19 158 | $68 \cdot 0$ $401 \cdot 6$ |
| Science Service．．．．．．${ }_{\text {Experimental Farms }}$ | 1，360 | 4，852－3 | 200 | $397 \cdot 6$ | 1，390 | 5，009•3 |  |  |
| ice. | 901 | 3，123．6 | 969 | 2，347－9 | 926 | 3，363•9 | 992 | 2，530．0 |
| Production Service．．．．．．． | 1，584 | 5，159•6 | 34 | 77.3 | 1，581 | 5，537－3 | 71 | $155 \cdot 2$ |
| Marketing Service．．．．．．．． | 931 | 3，283－7 | 2 | $7 \cdot 1$ | 987 | 3，314－3 | 2 | $12 \cdot 3$ |
| Rehabilitation Services （PFRA and MMRA，etc．） | 442 | 1，708．0 | 636 | 1，581．7 | 474 | 1，644－8 | 692 | 2，059－9 |
| Agricultural Prices Sup－ port Act． | 28 | $75 \cdot 1$ | － | － | 31 | 90.8 | － | － |
| Totals，Agriculture | 5，458 | 18，846－4 | 1，862 | 4，504－8 | 5，610 | 19，611．9 | 1，934 | 5，227．0 |
| Auditor General＇s Office－ General Services． Statutory ${ }^{1}$ ． | 144 | $539 \cdot 8$ 6.2 | 二 | 二 | 140 1 | $549 \cdot 6$ $15 \cdot 0$ | － | 二 |
| Totals，Auditor General．． | 145 | $546 \cdot 1$ | － | － | 141 | 564－6 | － | － |
| Office of Chief Electoral Officer－ General Services Statutory ${ }^{1}$ | 21 1 | $73 \cdot 1$ 4.3 | 二 | 二 | 19 1 | 93.3 12.0 | 二 | 二 |
| Totals，Electoral Officer．． | 22 | $77 \cdot 4$ | － | － | 20 | $105 \cdot 3$ | － | － |

For footnotes，see end of table，p． 118.
3.-Federal Government Employment for the Month of March, 1953 and 1954, and Earnings for the Years Ended Mar. 31, 1953 and 1954, classified by Department and Principal Branch or Service-continued

| Department, Branch or Service | 1953 |  |  |  | 1954 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Classified |  | Exempt |  | Classified |  | Exempt |  |
|  | Employees | Earnings | Employees | $\begin{aligned} & \text { Earn- } \\ & \text { ings } \end{aligned}$ | Employees | Earnings | Employees | Earnings |
| Citizenship and Immigra-tion- <br> General Services. <br> Citizenship. <br> Immigration Branch. <br> Indian Affairs Branch- <br> General Services. <br> Schools-day and residential. <br> National Gallery of Canada. | No. | \$ 000 | No. | \$'000 | No. | \$'000 | No. | \$'000 |
|  |  |  |  |  |  |  |  |  |
|  | 71 | $203 \cdot 1$ | - | 24-1 | 85 | 248.4 | - | - |
|  | 102 | 264-7 | 37 |  | 107 | $287 \cdot 6$ | - |  |
|  | 1,559 | 4,546.5 | 375 | $155 \cdot 6$ | 1,520 | $4,772 \cdot 8$ | 383 | 468.2 |
|  | 596 | 1,580.1 | - | $7 \cdot 1$ | 586 | 1,679.8 | - | - |
|  | 591 | 1,511•3 | 115 | $107 \cdot 2$ | 626 | 1,595•7 | 125 | $128 \cdot 6$ |
|  | 26 | $127 \cdot 4$ | - | - | 30 | 100.6 | - | - |
| Totals, Citizenship and Immigration. | 2,945 | 8,233-3 | 490 | $294 \cdot 0$ | 2,954 | 8,684-9 | 508 | 596.8 |
| Civil Service Commission. <br> Defence Production. | 578 | 1,606.9 | - | - | 570 | 1,758.7 | - | - |
|  | 1,678 | 4,743-8 | - | - | 1,522 | 4,901-3 | - | - |
| External AffairsGeneral Services. Representation Abroad. International Joint Commission. $\qquad$ <br> Totals, External Affairs. |  |  |  |  |  |  |  |  |
|  | 594 | 1,817.7 | - | - | 629 | 1,833.8 | - | - |
|  | 416 | 1,487•8 | 365 | 484.7 | 411 | 1,734-2 | 414 | 628.3 |
|  | 20 | 84.6 | - | - | 20 | $90 \cdot 3$ | - | - |
|  | 1,030 | 3,390-2 | 365 | $484 \cdot 7$ | 1,060 | 3,658-3 | 414 | 628.3 |
| Finance- <br> General Services Comptroller of the Treasury. |  |  |  |  |  |  |  |  |
|  | 503 | 1,438.5 | - | - | 496 | 1,489.0 | - | - |
|  | 4,130 | 10,643•4 | - | - | 4,145 | 10,891.0 | - | - |
| Administration of Acts- | 17 | 61.2 | - | - | 15 |  |  |  |
| Royal Canadian Mint.... | 226 | $721 \cdot 0$ | - | - | 215 | $735 \cdot 2$ | 二 |  |
| Other................... | 144 | $404 \cdot 3$ | - | - | 165 | $437 \cdot 0$ | 二 | - |
| Halifar Relief Commission. |  |  |  |  |  |  |  |  |
|  | 6 | 16.2 | 7 | $25 \cdot 2$ | 5 | $13 \cdot 7$ | 8 | $22 \cdot 7$ |
| Canadian Farm Loan Board............... | 120 | $384 \cdot 1$ | 1 | $5 \cdot 2$ | 127 | $418 \cdot 1$ | - | $7 \cdot 0$ |
| Commodity Prices Stabilization Corporation ${ }^{2}$. |  |  |  |  | 127 | $418 \cdot 1$ | - | 7.0 |
|  | 3 | $7 \cdot 6$ | - | - | - | - | - | - |
| Totals, Finance.......... | 5,149 | 13,676-2 | 8 | $30 \cdot 4$ | 5,168 | 14,065-8 | 8 | 29.7 |
| Fisheries- ${ }_{\text {General Services }}$ |  |  |  |  |  |  |  |  |
|  | 900 | 2,622.5 | 495 | 1,463.0 | 800 | 2,611.0 | 575 | 1,993-3 |
| Fisheries Research Board. | 325 | 1,038.5 | 39 | 149.1 | 343 | 1,132-7 | 25 | 1, $152 \cdot 2$ |
| International Commissions. | 46 | 188.1 | 10 | $49 \cdot 1$ | 43 | 184.0 | 4 | $26 \cdot 1$ |
| Newfoundland Fisheries |  |  | 10 | 49.1 | 43 | $184 \cdot 0$ | 4 | $20 \cdot 1$ |
| Board. Newfoundland Bait Service. $\qquad$ | - | - | - | - | 4 | $14 \cdot 9$ | - | - |
|  | 31 | $85 \cdot 2$ | 29 | 39.6 | 27 | $77 \cdot 6$ | 26 | $106 \cdot 3$ |
| Totals, Fisheries......... | 1,302 | 3,834-2 | 573 | 1,700-8 | 1,217 | 4,020-2 | 630 | 2,277.9 |
| Governor General and Lieutenant-GovernorsGeneral Services. Statutory ${ }^{1}$. $\qquad$ |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | 16 |  | - | - | 12 | 45.1 | - | - |
|  | 12 | 59.2 | - | - | 12 | $142 \cdot 1$ | - | - |
| Totals, Governor General, etc. | 28 | 111-3 | - | - | 24 | 187.2 | - | - |
| Insurance. | 94 | $342 \cdot 6$ | - | - | 94 | $362 \cdot 0$ | - | - |

For footnotes, see end of table, p. 118.

## 3.-Federal Government Employment for the Month of March, 1953 and 1954, and Earnings for the Years Ended Mar. 31, 1953 and 1954, classified by Department and Principal Branch or Service--continued



For footnotes, see end of table, p. 118.

## 3.-Federal Government Employment for the Month of March, 1953 and 1954, and Karnings for the Years Ended Mar. 31, 1953 and 1954, classified by Department and Principal Branch or Service-continued



For footnotes, see end of table, p. 118.

## 3．－Federal Government Employment for the Month of March， 1953 and 1954，and Earnings for the Years Ended Mar．31， 1953 and 1954，classified by Department and Principal Branch or Service－concluded

| Department， Branch or Service | 1953 |  |  |  | 1954 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Classified |  | Exempt |  | Classified |  | Exempt |  |
|  | Em－ ployees | Earn－ ings | Em－ ployees | Earn－ ings | Em－ ployees | Earn－ ings | Em－ ployees | Earn－ ings |
| Royal Canadian Mounted <br> Police－ <br> General Services <br> Other． | No． | \＄＇000 | No． | 8＇000 | No． | \＄＇000 | No． | \＄＇000 |
|  | 849 4,724 | $1,561 \cdot 8$ $8,580 \cdot 2$ | 396 | 6，873．8 | 903 4,748 | $1,839 \cdot 8$ $15,110 \cdot 1$ | 461 | 1，075 2 |
| Totals，Royal Canadian Mounted Police． | 5，573 | 10，141．9 | 396 | 6，873．8 | 5，651 | 16，949．9 | 461 | 1，075－2 |
| Secretary of State $\qquad$ Office of the Custodian． $\qquad$ | 522 | 1，703．0 | － | － | 554 | 1，870．0 | － | － |
|  | 72 | 288.4 | － | － | 54 | $263 \cdot 7$ | － | － |
| Trade and Commerce－ General Services．．． <br> Dominion Bureau of Sta－ tistics． <br> Board of Grain Commis－ sioners． <br> Canadian Government <br> Elevators．．．．．．．．．．．．．．．．．． <br> Totals，Trade and Com－ merce．．．．．．．．．．．．．．．．．．．．．． | 953 | 3，272－6 | 241 | 437．7 | 973 | 3，433－7 | 271 | 467－3 |
|  | 1，659 | 4，505．9 | － | － | 1，405 | 3，985－0 | － | － |
|  | 833 | 2，398．8 | － | $97 \cdot 5$ | 826 | 2，577－3 | － | － |
|  | 169 | $364 \cdot 9$ | 69 | $83 \cdot 5$ | 170 |  | 54 | $165 \cdot 4$ |
|  | 3，614 | 10，542．4 | 310 | $618 \cdot 7$ | 3，374 | 10，478－4 | 325 | $632 \cdot 7$ |
| Transport－ |  |  |  |  |  |  |  |  |
| Genersl Services．．．．．．．．． | 424 | 1，301－2 | －7 | 1750．7 | 480 | 1，441．5 | $\overline{7}$ | － |
| Canal Services．．．．．．．．．．． | 1，018 | 2，959•7 | 721 | 1，759•7 | 1，051 | 2，887．4 | ${ }^{725}$ | 2，090．0 |
| Marine Services Air Services－ | 1，941 | 3，183．0 | 1，159 | 3，340－0 | 1，944 | 3，315－1 | 1，598 | 3，769•8 |
| Administration．．．．．．．．．． | ＋240 | 566.3 5847.7 | 138 | 259.7 193.7 | \％ 63 | $467 \cdot 5$ 5.870 .1 | ${ }_{136}$ | $300 \cdot 6$ |
| Telecommunications．．．．． | 1,939 1,189 | 5，847•7 $3,518 \cdot 2$ | 138 43 | 193.7 101.0 | 1,873 1,308 | $5,870 \cdot 1$ $3,970 \cdot 7$ | 136 46 | $300 \cdot 6$ $124 \cdot 5$ |
| Civil Aviation Division． | 1，399 | 4，225－4 | 1，091 | 2，736．9 | 1，631 | 4，831－6 | 839 | 2，593．1 |
| Air Transport Board．．．．． | 52 | 188.8 | － | － | 53 | $193 \cdot 0$ | － | － |
| Board of Transport Com－ missioners－ General Services． Statutory ${ }^{2}$ | 158 | $632 \cdot 3$ $22 \cdot 1$ | － | 二 | 167 | 685.8 53.1 | 二 | 二 |
| Canadian Maritime Com－ mission | 30 | 116.1 | － | － | 30 | 121－3 | － | － |
| mission．．．．．．．．．．．．． Totals，Transport．．．．．．． | 8，394 | 22，561－0 | 3，152 | 8，391．0 | 8，604 | 23，837．1 | 3，344 | 8，878．0 |
| Veterans Affairs－General Services．．Treatment Services |  |  |  |  |  |  |  |  |
|  | 2，756 | 8，089－8 | 2 | $4 \cdot 5$ | 2，657 | 7，817．8 |  |  |
|  | 8，284 | 21，702－4 | 1，552 | 1，955．5 | 8，215 | 22，404－1 | 1，560 | 2，124－2 |
| Canadian Pension Com－ mission－ <br> General Services $\qquad$ Statutory ${ }^{1}$ <br> Veterans＇Land Act． $\qquad$ |  |  |  |  |  |  |  |  |
|  | 434 | 1，425－1 | － | － | 415 | 1，467．2 | － | － |
|  | $\begin{array}{r}14 \\ \hline\end{array}$ | 1， 54.2 | － | － | 14 | 130．0 | 二 | － |
|  | 1，176 | 3，796．5 | － | － | 1，125 | 3，824－7 | － |  |
| Totals，Veterans Affairs ．． | 12，664 | 35，068．0 | 1，554 | 1，960．0 | 12，424 | 35，643－8 | 1，560 | 2，128．6 |
| Grand Totals．．．．．．．．．．．． | 131，167 | 350，858－ 1 | 34，259 | 85，005．8 | 137，274 | 387，679－7 | 33，926 | 90，041－3 |

${ }^{1}$ First reported for November 1952．${ }^{2}$ First reported for October $1952 . \quad{ }^{3}$ Field parties of varying numbers of employees reported earnings of $\$ 947,736$ and $\$ 987,981$ for the years ended Mar．31， 1953 and 1954，respectively．$\quad$ First reported for August $1952 . \quad 5$ In addition，earnings of a varying number of employees of post offices with annual revenues of less than $\$ 20,000$ amounted to $\$ 15,728,959$ and $\$ 15,962,851$ for the years ended Mar．31， 1953 and 1954，respectively．${ }^{6}$ Casual employees for the Christmas rush numbering 33,743 earned $\$ 1,651,650$ in the year ended Mar．31，1953，and 36,070 earned $\$ 1,850,950$ in the year ended Mar．31， $1954 . \quad{ }^{7}$ Included under operations．
4.-Employees of Federal Government Enterprises ${ }^{1}$ and Their Earnings, by Month, Years Ended Mar. 31, 1953 and 1954

| Month | 1952-53 |  | 1953-54 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Employees | Earnings | Employees | Earnings |
|  | No. | \$ | No. | * |
| April. | 140,433 | 35,547, 548 | 145,394 | 39,009,033 |
| Mune. | 146,969 146,628 | $37,264,865$ $36,891,749$ | 152,295 | 41,669,967 |
| July.. | 149, 122 | 38,944,678 | 155,177 | 41,606, 734 |
| August. | 149,541 | 38,005,750 | 156,865 | 42,013,127 |
| September | 146,499 | 36,973,769 | 156,061 | 41,777, 157 |
| October. | 144,094 | 37,610,974 | 151,997 | 40,832,615 |
| November | 141,444 | 35,275,011 | 146, 633 | 39,020,850 |
| January.. | 142,709 | 39,964,380 | 144, 125 | 39,612,047 |
| February | 145,048 | 38,497,242 | 144,900 | 40,104,523 |
| March. | 143,438 | 37,665,412 | 139,473 | 38,165,250 |

4 See text on p. 112.

## PART V.-GANADA'S EXTERNAL RELATIONS

The growth of Canada's international status is reflected in the development of the Department of External Affairs. A review of the organization and development of that Department is given in the 1952-53 Year Book, pp. 101-104.

## Section 1.-Diplomatic Representation as at July 31, 1954

Norz.-For changes in this listing subsequent to July 31, 1954, see, Canadian Representatives Abroad and Representatives of Other Countries in Canada, published quarterly and obtainable from the Queen's Printer, Ottawa. Price, 25 cents.
1.-Canadian Representation Abroad

| Country and Year Representation Established | Present Status of Representative | Address | Present Representative | Date <br> Letter of Credence Presented |
| :---: | :---: | :---: | :---: | :---: |
| Argentina........ 1941 | Ambassador........ | Bartolome Mitre, 478, Buenos Aires. | Major - Gbnbral The Hon. L. R. LaFlèche, D.S.O. | $\begin{gathered} \text { Aug. } 19, \\ 1952 \end{gathered}$ |
| Australia........ 1939 | High Commissioner | State Circle, Canberra.. | Mr. W. A. Irwin........ | $\begin{gathered} \text { Aug. 7, } \\ 1953 \end{gathered}$ |
| Austris.......... 1952 | Minister. | Strauchgasse 1, Vienna.. | Mr. George L. Magann | (nominated) |
| Belgium......... 1939 | Ambassador | 35, rue de la Science, Brussels. | Mr. Charles Pierre Hébert. | $\begin{gathered} \text { Jan. 14, } \\ 1954 \end{gathered}$ |
| Brazil........... 1941 | Ambassador. | Avenida President Wilson, 165, Rio de Janeiro. | $\begin{aligned} & \text { Mr. Sydney D. Pierce, } \\ & \text { O.B.E. } \end{aligned}$ | $\begin{gathered} \text { Oct. } 27, \\ 1953 \end{gathered}$ |
| Ceylon.......... 1953 | High Commissioner | 6 Gregory's Road, Cinnamon Gardens, Colombo. | Mr. J. J. Hurley, O.B.E., E.D. | $\underset{1953}{\text { Aug. } 5,}$ |
| Chile............ 1942 | Ambassador. | Avenids General Bulnes 129, Santiago. | Mr. Leon Mayrand.... | $\underset{1951}{\operatorname{May}} 17 \text {, }$ |
| Colombia........ 1953 | Ambassador......... | Rm. 613 Edificio Faux, Avenida Jimenez de Quesada 7-25, Bogota. | Mr. E. Turcotte....... | $\begin{gathered} \text { Apr. } 7, \\ 1953 \end{gathered}$ |
| Cubs............ 1845 | Ambsssador. | Edificio Ambar Motors, Avenida Menocal No. 16, Havana. | Mr. H. A. Scort........ | $\begin{gathered} \text { Jan. 15, } \\ 1952 \end{gathered}$ |

1.-Canadian Representation Abroad-continued

| Country and Year Representation Established | Present Status of Representative | Address | Present Representative | Date Letter of Credence Presented |
| :---: | :---: | :---: | :---: | :---: |
| Czechoslovakia.. 1943 | Chargé d'Affaires ad interim. | Krakowska 22, Prague, 2 M | Mr. G. Bernard Summers. | $\begin{gathered} \text { Mar. 29, } \\ 1954 \end{gathered}$ |
| Denmark........ 1946 | Ministe | 4 Trondhjems, Copen- | Mr. E. D. McGreer. . . | $\begin{array}{r} \text { Apr. } 4, \\ 1952 \end{array}$ |
| Finland.......... 1949 | Minister | Borgmăstarbrinken 3-C.32, Helsinki. | Mr. W. D. Matthews. | Oct. 29, 1952 |
| France........... 1928 | Ambassador....... 7 | 72 avenue Foch, Paris XVI. | Mr. Jean Désy, Q.C.... | $\begin{gathered} \text { Jsn. 19, } \\ 1954 \end{gathered}$ |
| Germany ........ 1950 | Ambassador....... | Zittelmann Strasse 22, Bonn. | Mr. C. S. A. Ritchie... | $\begin{gathered} \text { May } 25, \\ 1954, \end{gathered}$ |
| Greece........... 1943 | Ambassador........ | 31, avenue Vassilissis Sofias, Athens. | Mr. T. W. L. MacDermot. | (nominated) |
| Iceland.......... 1949 | Minister | c/o Canadian Legation, Fridtjof Nansens Plass 5, Oslo, Norway. | Mr. Chester A. RonNING. | $\underset{1954}{\text { July }_{2},}$ |
| India. ............ 1947 | High Commissioner | 4 Aurangzeb Road, New Delhi. | Mr. E. Reid. | $\begin{gathered} \text { Nov. } 14, \\ 19521 \end{gathered}$ |
| Indonesia........ 1953 | Ambassador........ | Tanah Abang Timur No. 2, Djakarta. | $\begin{aligned} & \text { Mr. G. R. C. Heasman, } \\ & \text { O.B.E. } \end{aligned}$ | $\begin{array}{r} \text { June 2, } \\ 1953 \end{array}$ |
| Ireland. ......... 1940 | Ambassador........ | 92 Merrian Square West, Dublin. | Hon. W. F. A. Turgeon, Q.C. | $\begin{gathered} \text { July 17, } \\ 1950 \end{gathered}$ |
| Italy............ 1947 | Ambassador........ | Via Saverio Mercadante 15, Rome. | Mr. P. DUPUY, C.M.G.. | June 13, 1952 |
| Japan............. 1929 | Ambassador........ | 16 Omote - Machi, 3 Chrome, Minato - Ku, Tokyo. | The Hon. R. W. Mayhew, P.C. | $\underset{1953}{\mathrm{Jan}^{2} .15,}$ |
| Luxembourg. .... 1945 | Minister | c/o Canadian Embassy, 35, rue de la Science, Brussels, Belgium. | Mr. Charles Pierre Hébert. | $\underset{1954}{\text { Jan. }}$ |
| Mexico........... 1944 | Ambassador........ | Edificio Internacional, Paseo de la Reforma, No. 1, Mexico City. | Mr. Jules Léger.. | $\begin{gathered} \text { Oct. 23, } \\ 1953 \end{gathered}$ |
| Netherlands. . . . 1939 | Ambassador........ | Sophialaan 1A, The Hague. | Mr. T. A. Stone. . . . | $\begin{gathered} \text { Sept. } 15 \text {, } \\ 1952 \end{gathered}$ |
| New Zealand. ... 1940 | High Commissioner | Government Life Insurance Bldg., Customs Quay, Wellington. | Mr. E. H. Norman.... | $\begin{gathered} \text { July } 21, \\ 1953 \end{gathered}$ |
| Norway. . . . . . . 1943 | Minister | Fridtjof Nansens Plass 5, Oslo. | Mr. Chester A. Ronning. | $\underset{1954}{\mathrm{Apr}, 24,}$ |
| Pakistan......... 1950 | Acting High Commissioner. | Metropole Hotel, Victoria Road, Karachi. | Mr. J. H. Cleveland. | $\begin{gathered} \text { Mar. } 17, \\ 1954 . \end{gathered}$ |
| Peru.............. 1944 | Ambassador. | Edificio Boza, Plaza San Martin, Lima. | Mr. E. Vamlancourt... | $\begin{gathered} \text { Sept. } 27, \\ 1950 \end{gathered}$ |
| Poland........... 1943 | Chargé d'Affaires ad interim. | 31 Ulica Katowicka, Saska Kepa, Warsaw. | Mr. T. LeM. Carter... | $\begin{array}{r} \text { May 8, } \\ 1952 \end{array}$ |
| Portugal......... 1952 | Minister. | $\begin{aligned} & \text { Avenida da Praia da } \\ & \text { Vitoria No. 48-1 }, ~ \\ & \text { Lisbon. } \end{aligned}$ | Hon. W. F. A. Turgeon, Q.C. | Feb. 6, 1952 |
| Spain............ 1953 | Ambassador. | Edificio Espana Avenida de José Antonio 88, Madrid. | It.-Gen. Maurice Pope, C.B., M.C. | $\begin{gathered} \text { Dec. } 10, \\ 1953 \end{gathered}$ |

[^41]1.-Canadian Representation Abroad-continued

| Country and Year Representation Established | Present Status of Representative | Address | Present Representative | Date <br> Letter of Credence Presented |
| :---: | :---: | :---: | :---: | :---: |
| Sweden.......... 1947 | Minister. . . . . . . . . . | Strandvagen 7-C, Stockholm. | Mr. W. D. Matthews.. | $\underset{1952}{\text { Nov. }^{8}}$ |
| Switzerland...... 1947 | Minister............ | 88 Kirchenfeldatrasse, Berne. | Mr. Grorge L. Magann | $\underset{1954}{\mathrm{Apr}, 13}$ |
| Turkey.......... 1947 | Ambassador........ | Mudafasi Hukuk Caddesi, No. 19, Cankays, Ankara. | Mr. H. O. Moran, O.B.E. | Dec. 30, |
| Union of South 1940 Africa. | High Commissioner | 24 Barclays Bank Bldg., Church Square, Pretoria. | Mr. E. W. T. Gml...... | $\underset{1954}{\text { July }^{16},}$ |
| Union of Soviet 1943 Socialist Republics. | Ambassador........ | 23 Starokonyushenny Pereulok, Moscow. | Mr. John B. Watkins. . | $\underset{1954}{\text { Mar. }} \text {, }$ |
| $\begin{array}{ll} \text { United } & 1880 \\ \text { Kingdom. } & \end{array}$ | High Commissioner | Canada House, Trafalgar Square, London, S.W.1. | Mr. N. A. Robertson.. | $\begin{array}{r} \text { June 1, } \\ 1952^{i} \end{array}$ |
| United States 1927 of America. | Ambassador........ | 1746 Massachusetts Avenue, Washington, D.C. | Mr. Arnold D. P. Heeney, Q.C. | $\underset{1953}{\text { Aug. } 3,}$ |
| Uruguay......... 1952 | Ambassador........ | Victoria Plaza Hotel, Montevideo. | Major - General The Hon. L. R. LaFlècere, D.S.O. | Jan. 9, |
| Venezuels........ 1952 |  | Edificio Pan-American, Puente Urapal, Candelaria, Caracas. | Mr. H.G. Norman, C.M.G. | ${ }_{1953}{ }^{\text {Jan. }} 15,$ |
| Yugoslavia. . . . . 1943 |  | Proliterskih Brigada 69, Belgrade. | Mr. J. S. Macdonald... | Oct. 23, 1951 |

OTHER MISSIONS

| Canadian Military Mission (1946). | Head of Mission.... | Perthshire Block, Olympic Stadium, Headquarters Berlin, (British Sector). | Mr. C. S. A. Ritchie. . | $\underset{1954}{\mathrm{May} 28,}$ |
| :---: | :---: | :---: | :---: | :---: |
| Canadian Delegation to the North Atlantic Council (1952) and Organizstion for European Economic Co-operation (1950). | Representative..... | 77, rue d'Auteuil, Paris XVI. | Mr. L. Dana Wrlareas. | $\begin{gathered} \text { Aug. } 1, \\ 1953 \end{gathered}$ |
| Permanent Delegation of Canads to the United Nations (1848). | Permanent Delegate | Rm. 504, 620 Fifth Ave., New York 20, N.Y. | Mr. David M. Johnson. | $\begin{gathered} \text { Nov. } 14, \\ 1951 \end{gathered}$ |
| Permanent Delegation of Canada to European Office of the United Nations (1948). | Permanent Delegate | La Pelouse, Palais des Nstions, Geneva. | Mr. Hector Allard.... | $\begin{gathered} \text { Nov. } 20, \\ 1953 \end{gathered}$ |

[^42]
## 1.-Canadian Representation Abroad-concluded

| Country and Year Representation Established | Present Status of Representative | Address | Present <br> Representative |
| :---: | :---: | :---: | :---: |
| CONSULATES |  |  |  |
| Brazil. . . . . . . . . 1947 | Consul. . . . . . . . . . . . | Rua 7 de Abril 252, Saō Paulo. | - |
| United States of 1948 America. | Acting Consul General. | 532 Little Bldg., 80 Boylston St., Boston 16, Mass. | Mr. J. L. Delisles. |
| * 1947 | Consul General..... | Suite 800, Daily News Bldg., 400 W. Madison St., Chicago 6, Ill. | Mr. D. S. Cole. |
| * 1948 | Consul........ | 1035 Penobscot Bldg., Detroit 26, Mich. | - |
| 41953 | Consul General..... | Associated Realty Bldg., Los Angeles, Cal. | Mr. Leslie G. Chance, C.B.E. M.C. |
| " 1952 | Consul. | 201 International Trade Mart Bldg., New Orleans, La. | Mr. G. A. Newman. |
| $4 \quad 1943$ | Consul General.. | 620 Fifth Ave., New York, N.Y. | Hon. Ray Lawson, O.B.E. |
| * 1947 | Honorary ViceConsul. | 443 Congress St., Portland, Maine. | Mr. A. Lafleur. |
| " 1948 | Consul General. | 400 Montgomery St., San Francisco 4, Cal. | Mr. C. C. Eberts. |
| 4 1953 | Consul General | 1407 Tower Bldg., 7th Ave. at Olive Way, Seattle, Wash. | Mr. C. Norman Senior. |
| Republic of the 1949 Philippines. | Consul General. . . . | Ayala Bldg., Juan Luna St., Manila. | Mr. F. H. Palmgr, M.C. |

## 2.-Representation of Other Countries in Canada

| Country and Year Representation Established | $\begin{aligned} & \text { Present Status } \\ & \text { of } \\ & \text { Representative } \end{aligned}$ | Address | Present Representative |
| :---: | :---: | :---: | :---: |
| Argentina......... 1941 | Ambassador. | 193 Sparks Street, Ottawa.... | His Excellency Dr. Lucas Mario Galignina. |
| Australia......... 1940 | High Commissioner | 100 Sparks Street, Ottawa | His Excellency Sir Douglas Copland, K.B.E., C.M.G. |
| Austria........... 1952 | Charge d'Affaires ad interim. | 445 Wilbrod Street, Ottawa... | Dr. Waither Peingipp. |
| Belgium.......... 1937 | Ambassador........ | 168 Laurier Avenue East, Ottawa. | His Excellency Fernand Mư̂Ls. |
| Brazil............ 1941 | Ambassador | 102 Carling A venue, Ottawa... | His Excellency Hertor Lyra. |
| Chile............. 1942 | Ambassador........ | Suite 215, 56 Sparks Street, Ottawa. | His Exceleency General Teodoro Ruiz Diez. |
| Chins............ 1942 | Ambassador........ | 201 Wurtemburg Street, Ottawa. | His Excrllency Liu Chier. |
| Colombia........ 1953 | Ambassador......... | Apt. 16, The Roxborough, Ottawa. | His Excellency Carlos Martinez-Apabicto. |
| Cuba.............. 1945 | Ambassador........ | 400 Holland Avenue, Ottawa. . | His Excellency Delyin H. Pupo Y Proenza. |

2.-Representation of Other Countries in Canada-continued

| Country and Year Representation Established | $\begin{aligned} & \text { Present Status } \\ & \text { of } \\ & \text { Representative } \end{aligned}$ | Address | Present Representative |
| :---: | :---: | :---: | :---: |
| Czechoslovakia... 1942 | Chargé d'Affaires ad interim. | 171 Clemow Avenue, Ottawa.. | Mr. Jaroblav Skacil. |
| Denmark......... 1946 | Minister | 451 Daly Avenue, Ottawa..... | His Excellency O. Sehestid. |
| Dominican Republic. $\quad 1954$ | Ambassador | Chateau Laurier Hotel, Ottawa. | His Excellency Raparl Paino Pichardo. |
| Finland. . . . . . . 1948 | Charge d'Affaires... | 140 Wellington Street, Ottawa. | Mr, H, R. Martola. |
| France. . . . . . . . 1928 | Ambassador. | 42 Sussex Street, Ottawa...... | His Excellency Hubert Guerin. |
| Germany......... 1951 | Ambassador. | 580-582 Chapel Street, Ottawa. | His Excellency Dr. Werner DANKwort. |
| Greece. . . . . . . . . 1942 | Ambassador | Chateau Laurier Hotel, Ottawa. | His Excellency Raoul BibicaRosetti. |
| Iceland........... 1948 | Minister. | Chateau Laurier Hotel, Ottawa. | His Excellency Thor Thors. |
| India.............. 1947 | High Commissioner | 200 MacLaren Street, Ottawa. | His Excrllency R. R. Saksena. |
| Ipdonesia......... 1953 | Ambassador. | 160 Metcalfe Street, Ottawa... | His Excellency Dr. Usman SAstroamidjoyo. |
| Ireland........... 1939 | Ambassador. | 140 Wellington Street, Ottawa. | His Exceluency Sean Murpey. |
| Iarael............. . 1953 | Minister | 45 Powell Avenue, Ottawa.... | His Excellency Michabl Saul Comat. |
| Italy............. 1947 | Ambassador | 384 Laurier Avenue East, Ottawa. | Hys Excellency Corrado Baldoni. |
| Japan............. 1928 | Ambassador. | 88 Metcalfe Street, Ottawa... | His Excellency Koto Matsudaira. |
| Luxembourg. . . . 1949 | Minister | Chateau Laurier Hotel, Ottawa. | His Excellency Hugues Le Gallats. |
| Mexico. . . . . . . . 1944 | Chargé d'Affaires ad interim. | 88 Metcalfe Street, Ottawa.. | Dr. Ignacio D. Silva. |
| Netherlands...... 1939 | Ambassador. | 12 Marlborough Avenue, Ottawa. | His Excellency A. H. J. Lovink. |
| New Zealand..... 1942 | High Commissioner | 107 Wurtemburg Street, Ottawa. | His Excellency T. C. A. Hislop, C.M.G. |
| Norway......... . 1942 | Minister | 140 Wellington Street, Ottawa. | His Exclllency Erlina S. Bent. |
| Pakistan......... 1949 | High Commissioner | 505 Wilbrod Street, Ottawa... | His Excellency Mirza Osman Ali Baig. |
| Peru.............. 1944 | Ambassador | 539 Island Park Drive, Ottawa | His Excellency Grrman Frrnandez-Concha. |
| Poland........... 1942 | Charge d'Affaires... | 183 Carling Avenue, Ottawa.. | Mr, E. Markowbic. |
| Portugal. . . . . . . . 1952 | Minister | 285 Harmer Avenue, Ottaws. . | His Excellency Dr. Luib Esteves Fernandes. |
| Spain............. 1953 | Ambassador | 149 Daly Avenue, Ottawa..... | His Excbllency Mariano de Yturralde y Orbegoso. |
| Sweden........... 1943 | Minister | 720 Manor Road, Rockcliffe Park, Ont. | His Excellency Dr. Klas Böōk. |
| Switzerland...... 1946 | Minister | 5 Marlborough Avenue, Ottawa. | $\underset{\text { Hef. }}{\text { Hercellency Dr. Victor }}$ |

2.-Representation of Other Countries in Canada-concluded

| Country and Year Representation Established | Present Status of Representative | Address | Present Representative |
| :---: | :---: | :---: | :---: |
| Turkey........... 1944 | Ambassador | 197 Wurtemburg Street, Ottawa. | His Excellency Ahmet Cavat Ustün. |
| Union of South 1938 Africa. | High Commissioner | 9 Rideau Gate, Ottawa. | His Excellency Wentzel Christoffel du Plessis. |
| Union of Soviet 1942 Socialist Republies. | Ambassador. | 285 Charlotte Street, Ottawa. | His Exceilency Dmitri S. Chuvarin. |
| United Kingdom.. 1928 | High Commissioner | Earnscliffe, Ottawa.......... | His Excbllency Lieut.-Genbral Sir Archibald Nye, G.C.S.I.,G.C.M.G., G.C.I.E., K.C.B., K.B.E., M.C. |
| United States of 1927 America. | Ambassador........ | 100 Wellington Street, Ottawa. | His Excellency R. Douglas Stcart. |
| Uruguay.......... 1948 | Ambassador | 36 Marlborough Avenue, Ottawa. | His Excellency Dr. Cyro Ginmbruno. |
| Venezuela........ 1953 | Ambassador. | Chateau Laurier Hotel, Ottawa. | His Excellency Fernando Paz Cabtillo. |
| Yugoslavia....... 1942 |  | 17 Blackburn Avenue, Ottawa. | His Excellency Dr, Rajko Diermanovic. |

## Section 2.-International Activities*

## Subsection 1.-Canada and Commonwealth Relations, 1953-54 $\dagger$

One of the most important of Commonwealth relations, that of almost continuous consultation between Commonwealth countries on international issues, continued in many forms throughout 1953. The exchanges of views that are conducted with the minimum of formality and organization, although unspectacular, are an invaluable and vital part of Commonwealth relations.

The flexible nature of the constitutional arrangements between member countries and the continuous process of evolution to which they are subject was manifested in a change in the Royal Style and Titles. It had been agreed at a meeting of Commonwealth Prime Ministers at London in December 1952 that Her Majesty's title, though retaining a common element, might vary according to the country concerned. The Title adopted by Canada was embodied in a Statute passed by the Parliament of Canada in February 1953, which was presented to Her Majesty for approval and signature on May 28. For Canada, the Royal Style and Title is now "Elizabeth the Second, by the grace of God of the United Kingdom, Canada and Her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith". The Canadian Proclamation was simultaneous with the Proclamations by the other Commonwealth countries. The common element of the new titles is the recognition of the Queen as Head of the Commonwealth. This is symbolic of the common history, ideals and interests which bind the countries of the Commonwealth together as a free association of independent member nations.

[^43]The Coronation of Queen Elizabeth II, which brought together representatives of the Parliaments and Legislatures of the Commonwealth from all over the world, provided a striking occasion for the demonstration of the strength of that feeling which binds together the diverse nations and peoples of the Commonwealth. The Canadian delegation to the Coronation included the Prime Minister and other Cabinet Ministers, Leaders of the Opposition in the House of Commons and the Senate, Speakers of the Senate and the House of Commons, the Chief Justice, and representatives of Canadian ex-servicemen's organizations. Arrangements for the Coronation were co-ordinated by the Coronation Commission, consisting of representatives of Commonwealth countries meeting at-London. In Canada, the Government was advised by the Coronation Committee of Canada on all Coronation matters of special concern to this country. At posts abroad, Canadian diplomatic and consular representatives united with their colleagues from other Commonwealth nations in arranging celebrations.

Following the Coronation, Commonwealth Prime Ministers held a series of meetings at which they reviewed the international situation and held informal talks on matters of particular interest to two or more countries. The communique issued at the end of the meetings stated: "The discussions which the Prime Ministers have held have once more demonstrated the concord which exists between all the Governments and peoples of the Commonwealth, despite their varying interests and circumstances, in their approach to problems of the world today."

These meetings continued a long series of exchanges that have taken place through the years. Previous meetings had discussed such important matters as peace settlements, developments in China and Korea, and economic problems.

One outstanding example of practical Commonwealth co-operation continued in Korea, where the Commonwealth Division, consisting of combat forces from the United Kingdom, Canada, Australia and New Zealand, and a medical unit from India, which had acquitted itself with distinction, was maintained on guard after the Armistice of July 27, 1953. The nations of the Commonwealth, like many other members of the United Nations, have been concerned over the destruction of life and property in Korea, and are contributing to its relief and rehabilitation.

In respect of economic matters, although difficulties caused by the shortage of raw materials abated, other problems persisted. The most important continued to be the financial difficulties of the Sterling Area, which raised urgent questions for all members of the Commonwealth, not excepting Canada, the only non-sterling member. At a meeting of Commonwealth Finance Ministers held at London in January 1952, measures to meet the situation were discussed and important steps were later initiated by the countries concerned to arrest further deterioration in their own positions. In November of that year, the Prime Ministers of the Commonwealth countries reviewed the position and produced a plan for a collective approach to freer trade and payments. Their proposals were later discussed with the United States and Western European Governments. During the period under review, substantial progress in the position of the Sterling Area was achieved. Progress is reflected in an improvement in the balance of payments, the expansion of trade, and an expansion of development schemes. In January 1954, Commonwealth Finance Ministers meeting at Sydney, Australia, reviewed the existing position in the light of these developments and re-affirmed their faith in the collective approach to freer trade and payments.

A continuing and deep-rooted economic problem arises out of the backward agricultural and industrial condition of many countries of southeast Asia. It was realized that, if ignored, this condition, worsened by the destruction and impoverishment in that area during World War II, would undermine the promise that these countries achieve a healthy and continuous development along democratic lines. The 1950 Colombo Conference, therefore, urged the necessity of the more industrially advanced countries giving assistance to the nations of that area, and fashioned the Colombo Plan, which continues to play an active part as one of the most promising contributions towards building up the free world and enabling it to stand against totalitarianism.

International tension, besides adversely affecting the world's economic development during recent years, has also made it necessary to devote to strengthening the defences of Commonwealth countries resources that would normally have been used to increase trade and prosperity. The world-wide distribution of the Commonwealth countries has made essential the organization of their defences on a regional basis providing for full co-operation with friendly foreign countries. For example, Canada and the United Kingdom, as members of the North Atlantic Treaty Organization, have continued to work together in co-operation with the other members of NATO.

Commonwealth co-operative arrangements also exist in other fields. Canada is represented on such standing groups as: the Executive Council of the Commonwealth Agricultural Bureaux; the Commonwealth Economic Committee; the Commonwealth Shipping Committee; the Commonwealth Telecommunications Board; the Commonwealth Air Transport Council; the Commonwealth Advisory Aeronautics Research Council; the Commonwealth Liaison Committee; the Commonwealth Committee on Mineral Resources and Geology; the Imperial Institute; and the Imperial War Graves Commission. These bodies form useful means of exchanging information and views on special economic, scientific or technical questions and of working out recommendations for the consideration of the governments concerned.

Canada's first High Commissioner to Ceylon arrived at Colombo in August 1953, thus completing the nation's diplomatic representation in Commonwealth countries.

Constitutional developments in United Kingdom colonial territories attracted some attention during 1953. These included a conference at London on federation in the West Indies, the establishment of the Federation of Rhodesia and Nyasaland, and progress towards more complete self-government in Nigeria, the Gold Coast, and other colonial territories.

Despite difficulties and problems the Commonwealth association has, during the period covered by this survey, continued to serve as one of the most effective means of international discussion and co-operation, based in large measure on common traditions, similar political institutions and common ideals.

## Subsection 2.-Canada and the United Nations

The most important development in the period Apr. 1, 1953 to Mar. 31, 1954, was the conclusion of a Korean Armistice on July 26, 1953. The armistice agreement was a document signed by military commanders and was intended to establish provisions of the armistice and make possible a final peace settlement. Commenting on the signing of the Armistice, the Prime Minister of Canada paid tribute to the

Armed Forces of the United Nations that had fought in Korea and recalled that a brigade of Canadian soldiers, as well as three destroyers of the Royal Canadian Navy and elements of the Royal Canadian Air Force, had been in operation since early in the fighting. He described Canada's attitude to the Korean situation as follows:-

> "When in the summer of 1950 the United Nations intervened in Korea, it did so for the sole purpose of resisting aggression against the Republic of Korea. This objective has now been achieved. An armistice drawn up in honourable terms has now been signed. It is the earnest hope of the Canadian Government that this armistice in Korea will be observed scrupulously by all concerned and will lead to a political settlement in that ravaged peninsula and eventually to a general settlement of outstanding issues in the whole of the Far East."

The Hon. L. B. Pearson, President of the seventh session of the General Assembly, announced the convening of the General Assembly to prepare for the calling of the political conference recommended in the armistice terms. This political conference was to deal with "the withdrawal of foreign forces from Korea, the peaceful settlement of the Korean question, etc." The armistice agreement established a military demarcation line separating the two sides, and it called for the creation of a Military Armistice Commission to supervise the implementation of the agreement and of a Neutral Nations Supervisory Commission to supervise the movement of men and goods on both sides and to investigate violations,

When the Assembly met in August 1953, much of its time was devoted to a resolution sponsored by Canada, the United Kingdom, Australia and New Zealand, recommending the participation of India in the political conference. This resolution did not have sufficient support to pass at the plenary meeting stage and, at the request of India, was withdrawn. A principal resolution passed reaffirmed that "the objectives of the United Nations remained the achievement by peaceful means of a unified, independent and democratic Korea under a representative form of government and the full restoration of international peace and security in the area".

To arrange a political conference, the United States sent a number of messages to the Peking and North Korean régimes. In late October, discussions on the proposed political conference began at Panmunjom. These discussions, involving the time, place and composition of the proposed conference as well as the status of Soviet participation, were broken off on Dec. 12 over accusations made by the Communist side against the United States.

The prisoners held by the Neutral Nations Repatriation Commission were released to the United Nations Command just prior to Jan. 23, 1954, and, on that date, they were declared to be free men. India proposed that the General Assembly be reconvened to consider the Korean question but there were not sufficient member states in favour for the proposal to obtain the requisite majority. Canada notified the Secretary-General and the Indian Government that it thought reconvening of the General Assembly in the existing circumstances was inadvisable.

The next major development in the Korean question came at the conclusion of the meeting of the Foreign Ministers of the United States, the United Kingdom, France and the Soviet Union at Berlin, Germany, in mid-February. In a communique they announced that agreement had been reached on a conference opening
at Geneva, Switzerland, on Apr. 26, 1954, of representatives of the Big Four, the Peking régime, the two Koreas and other countries whose armed forces had participated in the Korean conflict. At the close of the period under review, Canada had agreed to participate in this conference and general preparations were going forward.

The General Assembly, 1953-54.-Although most of the Korean developments took place outside the United Nations proper during this period, the eighth session of the General Assembly, which opened in mid-September and recessed early in December 1953, was concerned with a range of important problems. At the opening of the Assembly, the Hon. L. B. Pearson, as Chairman of the Canadian Delegation, said that the Assembly was meeting at a time when many thought that the successful negotiation of some of the outstanding differences between the two major power groupings might be possible. This possibility, he said, arose mainly from the fact that in recent years a large part of the free democratic world had learned to co-operate in purpose, policy and action for the defence of peace. As it turned out, the eighth session of the Assembly was somewhat of a transitional stage between the conclusion of a Korean armistice and whatever international relationships were to be established in its wake. It could not be said that the eighth session was marked by any basic change in Soviet attitudes. Acrimonious debate took place on several questions influenced by East-West tensions. These included: reports of Communist atrocities in Korea, the fate of World War II prisoners, and charges of bacteriological warfare and forced labour. The Assembly also considered the problems of Chinese representation, on which it postponed decision, and admission of new members on which no further decision was made.

The eighth session concerned itself also with a number of problems relating to the progress of certain areas toward self-government. A highly controversial issue in this field-and one that was much to the fore in debates on the situation in Tunisia and Morocco-was the extent to which the duty of the United Nations, under the Charter, to concern itself with questions of human rights and selfdetermination of peoples should have a bearing on the interpretation of Charter provisions which place domestic matters outside the Assembly's competence. Canada has long held the view that the domestic jurisdiction clause should not be so interpreted as to render meaningless other important provisions of the Charter, and that the Assembly's essential role should be to develop goodwill on both sides from which agreed solutions might be achieved.

One or more Commonwealth countries were involved in three important items on the agenda: treatment of Indians in South Africa; racial policies in South Africa, and the status of South West Africa. On the first, the Assembly reconstituted the Good Offices Commission which in the past had vainly endeavoured to arrange negotiations between the parties concerned. The Assembly's decision on racial policies involved the re-affirmation of previous resolutions concerning human rights and fundamental freedoms and the re-establishment of the Commission set up in 1952 to study this problem. On these two issues, Canada made clear its concern regarding allegations that human values were being disregarded, and joined with those seeking solutions that would be in keeping with the importance attached to human rights in the Charter and yet would not represent too broad an interpretation of the domestic jurisdiction clause.

The question of disarmament received careful attention at the Assembly. Under a resolution approved by 54 members (including Canada), with none against and only the Soviet bloc abstaining, the Disarmament Commission was asked to continue its work with a view to ending the deadlock between the Western Powers and the Union of Soviet Socialist Republics. Interest in the problem was greatly heightened at the conclusion of the eighth session by a proposal put forward by President Eisenhower that governments principally involved should make contributions of fissile materials to an international agency for peaceful purposes. In connection with this proposal, the President specifically endorsed the Assembly resolution that called for the establishment of a special sub-committee of the Disarmament Commission consisting of representatives of the powers principally involved, which would seek in private an acceptable solution to disarmament problems. The Prime Minister of Canada welcomed the President's "imaginative and constructive approach to what is perhaps the greatest problem of the day" Subsequently, the Big Four Foreign Ministers agreed at the Berlin Conference in mid-February upon a declaration to the effect that the solution of international controversies would be aided by agreement on disarmament and that an exchange of views along the lines of the General Assembly resolution should be held. Meetings for this purpose were convened some weeks later. Canada is a member of the Disarmament Commission and was also appointed to the sub-committee.

Canada shared in the Assembly decision to renew the Expanded Program of Technical Assistance to which she had given a total of $\$ 2,400,000$, including a contribution of $\$ 800,000$ for 1953. For 1954 a recommendation was made to Parliament that up to $\$ 1,500,000$ be contributed to the Program, subject to adequate amounts being given by other countries. Attention was also given to the related problems of increasing the flow of public and private capital for financing economic development. In accordance with a suggestion put forward by the United States, member states of the United Nations, including the United Kingdom and Canada, undertook to ask their peoples, when sufficient progress had been made in internationally supervised world-wide disarmament, to devote a portion of the resulting savings to a United Nations Fund for Economic Development. Decisions were also taken about various other important programs including reconstruction work in Korea, relief and rehabilitation for Palestine refugees, welfare programs for mothers and children under the United Nations Children's Fund (which was established on a continuing basis) and the work of the United Nations High Commissioner for Refugees. To all of these, Canada has made contribution of considerable size.

The Assembly discussed possible preparations for consideration to be given in 1955 to a conference to review the United Nations Charter and instructed the Secretary-General to undertake certain tasks in this direction. Canada took the position that there might be some benefit in re-examining the Charter but that, in the present international climate, unwarranted hopes of reduction in international tensions through changes in the Charter should not be encouraged.

The Palestine Problem.-Beginning in the autumn of 1953, the Security Council was concerned with problems relating to the Palestine question. In late 1953 and early 1954, various armed clashes took place between Israel and its neighbours and feelings ran very high. There was a resulting impairment of the machinery for maintaining peaceful conditions that had been established with the signing of the armistice agreements between Israel and her individual Arab neighbours. At
the end of. the period under review, the Security Council had on its agenda items relating to alleged attacks, and also was considering whether or not to review the Palestine problem in general. The Security Council also gave brief attention to the Trieste question. Canada was not a member of the Security Council during this period but followed developments very closely.

Economic and Social Affairs.-Through the Economic and Social Council and its related bodies, the United Nations continued to help promote higher standards of living and to concern itself with international problems in the economic, social and health fields. Many of the issues in the fields of technical assistance, aid for refugees, child welfare and a number of others were handled initially in the Economic and Social Council and then passed to the Assembly for final decision.

In the early part of 1954, the Commission on Human Rights passed an important milestone in its work by completing the two international draft Covenants on Human Rights that had been under consideration for five years. One of the draft Covenants is on civil and political rights and the other on economic, social and cultural rights. Canada made clear in a statement on the Covenants that, "in the absence of a satisfactory federal-state clause, Canada could not become a party to the Covenants owing to the nature of its Constitution which divides legislative powers concerning human rights between the national parliament and the provincial legislatures". The possibility existed, however, that the next session of the General Assembly would decide to include a reservations clause in the Covenants.

Specialized Agencies.-Closely linked with the work of the Economic and Social Council in the Technical Assistance Program and in other fields have been the undertakings of the ten Specialized Agencies. These are separate intergovernmental bodies that work in close harmony with the United Nations. Canada has ratified the Convention for an Intergovernmental Maritime Consultative Organization (IMCO) which will concern itself with technical matters relating to international shipping. It is expected that this body will come into being at an early date.

Despite the many vicissitudes, Canada's support of the United Nations remained strong. The Secretary of State for External Affairs, the Hon. L. B. Pearson, summed this up on United Nations Day as follows:-
"We have learned in the long hard years since the Charter was signed that it is easier to produce a blueprint than to complete a structure for peace. The United Nations has had failures and disappointments, but it has also had its achievementspolitical, economic, social and humanitarian. The achievements should hearten us, and the difficulties become a challenge which should spur us to greater effort in the cause of international co-operation for peace and progress."

## Subsection 3.-Canada and the North Atlantic Treaty

Within less than two years of the end of World War II in 1945 and the establishment of the United Nations, people's hopes of a lasting peace gave place to growing anxiety. The United Nations Security Council, which had been given responsibility for maintaining world-wide security, was deliberately prevented by the Soviet representatives from fulfilling this function. The Soviet Union maintained its armed forces after the war at a level that insured to itself a preponderance of military strength in Europe. The Soviet Government blocked attempts by the Western Powers to reach a peace settlement in Europe and Communist. Parties
were used as an instrument of Soviet policy to sabotage Western European efforts at economic recovery and political co-operation. Under these circumstances, the countries of the Atlantic Community felt themselves in grave peril of Soviet aggression and Communist subversion and they therefore took special collective measures under the United Nations Charter to maintain peace. The Prime Minister of Canada, the Rt. Hon. Louis Stephen St. Laurent, was one of the first to foresee this development. In 1947, when Secretary of State for External Affairs, he said before the United Nations General Assembly that nations might be forced to seek greater safety "in an association of democratic, peace-loving states willing to accept more specific international obligations in return for a greater measure of national security"

The first step in this direction was taken in the spring of 1948 when Belgium, France, Luxembourg, The Netherlands and the United Kingdom signed the Brussels Treaty establishing Western Union. On Apr. 4, 1949, as a result of negotiations between these countries, Canada and the United States, the North Atlantic Treaty was signed at Washington. This Treaty was accepted by all major groups of opinion in Canada and was passed without a single dissenting vote in Parliament.

The original signatories of the Treaty were Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, The Netherlands, Norway, Portugal, the United Kingdom and the United States. In September 1951 it was agreed that Greece and Turkey should be invited to accede to the Treaty and they were admitted in February 1952. In May 1952, on the same day the European Defence Community Treaty was signed at Paris by Belgium, France, Italy, Luxembourg, The Netherlands and Western Germany, a Protocol to the North Atlantic Treaty was signed under which all NATO countries extended to the members of the EDC the guarantees of the North Atlantic Treaty in return for reciprocal obligations to be undertaken by all members of the EDC. As of May 31, 1954, this Protocol has been ratified by the United States, Turkey, Portugal, Greece and The Netherlands. The Canadian Parliament approved it in June 1952 but ratification was postponed while awaiting the action of other governments, more immediately concerned, regarding it.

The North Atlantic Treaty and the Organization.-The terms of the Treaty and the organization of the Council and subordinate committees are dealt with in the 1954 Canada Year Book, pp. 113-115.

Annual Review.*-The North Atlantic Council continued in permanent session at Paris under the chairmanship of the Secretary-General, Lord Ismay. In 1953, Mr. A. D. P. Heeney was succeeded by Mr. L. D. Wilgress as Permanent Representative of Canada to the Council. The Council met in Ministerial Session in September 1953 and April 1954 under the Chairmanship of M. Bidault, French Foreign Minister.

At the September meeting the Council, after reviewing the defence program of the member countries, reached agreement on the level of NATO forces to be achieved and maintained over the next three years; the goals for the end of 1954 were firm commitments while those for 1955 and 1956 were provisional and for planning purposes. The broad lines of future NATO defence planning to meet the threat of aggression over an extended period were agreed upon. The Ministers also had a full exchange of views on the international situation both in formal and in informal discussions. They concluded, first, that there was no real evidence that

[^44]the basically hostile Soviet policy that had brought NATO into being had been abandoned and, second, that the policy of the NATO countries must therefore be to pursue the twin aims of building the defensive and economic strength and the political unity of the Atlantic Community while at the same time seeking to negotiate on outstanding differences wherever possible.

The meeting in April 1954 was attended by the Foreign Ministers of member governments and its primary purpose was to examine the current international situation and the implications for NATO of recent developments. The Ministers found no evidence that the ultimate aims of the Soviet Union had altered and they therefore agreed, in view of the increasing military strength of the Soviet Union and its satellites, upon the need for continuing efforts, vigilance and unity. The Ministers also adopted, on a Canadian proposal, a procedure designed to develop further the habit of political consultation in the Council. The Council expressed its gratification at the far-reaching steps that had been taken by the United Kingdom and the United States, in public declarations made earlier that month, to ensure close and enduring co-operation with the European Defence Community.

In February 1954, the Council appointed Admiral Jerauld Wright, U.S.N., as Supreme Allied Commander Atlantic to succeed Admiral Lynde D. McCormick.

Canadian Contributions to NATO.-Canada continued in 1953-54 to support NATO with contributions of armed forces to the unified NATO commands, with end-item assistance to other NATO countries and with financial contributions to common budgets.*

The 27th Canadian Infantry Brigade Group in Germany was replaced during 1953 by the 1st Canadian Infantry Brigade Group. The Canadian air contribution of 12 jet fighter squadrons to SACEUR $\dagger$ was completed in 1953 ahead of schedule. The Canadian contribution of 42 vessels to SACLANT $\ddagger$ remained unchanged.

For the year ended Mar. 31, 1953, a total of $\$ 324,000,000$ was appropriated for Mutual Aid and for 1953-54 Parliament was asked to approve an appropriation of $\$ 300,000,000$. Under this program such items as ammunition, military vehicles, radar and radio apparatus, minesweepers and jet aircraft were furnished to other NATO countries both from reserve stocks and, in increasing proportion, direct from current production. In addition, airmen from NATO countries were trained in Canada as part of the Mutual Aid Program. By the end of 1953, 925 pilots and 1,605 navigators from Belgium, Denmark, France, Italy, Norway and the United Kingdom had completed training under this scheme; 965 trainees, including airmen from Turkey and Portugal, were undergoing training in early 1954 and it was planned to offer training for 1,200 airmen each year over the next three years.

The 1953-54 estimates provided for expenditures of $\$ 15,150,000$ to cover Canada's share of the cost of NATO common infrastructure programs during the year, $\$ 1,750,000$ for Canada's contribution to the budgets of the NATO Military Headquarters, and $\$ 183,000$ for the Canadian contribution to the budget of the NATO Civilian Headquarters.

## Subsection 4.-Canada and the Colombo Plan

The Colombo Plan for Co-operative Economic Development in South and Southeast Asia was conceived at the Commonwealth Meeting on Foreign Affairs held at Colombo, Ceylon, Jan. 9-14, 1950. Although the Colombo Plan was initiated

[^45]by Commonwealth governments, it is not exclusively a Commonwealth program. It is designed to assist in the economic development of all countries and territories in the general area of south and southeast Asia.

The Consultative Committee, an intergovernmental body which meets from time to time to review the progress of the Colombo Plan and to consider policy matters in connection with its implementation, now counts as members Australia, Burma, Cambodia, Canada, Ceylon, India, Indonesia, Laos, Nepal, New Zealand, Pakistan, the United Kingdom (and its territories in the area, such as Malaya, Singapore and Sarawak) and Viet-Nam, as well as the United States which is also engaged in a substantial program of economic aid in the same region. To develop the technical assistance side of the Plan, a Council for Technical Co-operation has been set up at Colombo to which Canada has appointed a permanent representative. The Technical Co-operation Program, though an integral part of the Colombo Plan, is designed to supplement the technical assistance activities of the United Nations and the specialized agencies in the area.

Up to Mar. 31, 1954, the Canadian Parliament approved annual contributions totalling $\$ 76,600,000$ for capital and technical assistance to governments in south and southeast Asia. The Estimates submitted to Parliament for 1954-55 include provision for a further contribution of $\$ 25,400,000$.

Capital assistance has so far been provided to India, Pakistan and Ceylon. The Canadian contribution has consisted primarily of direct assistance to various development projects (e.g., power-generating plant, transportation equipment, fishing boats, and surveys of resources). It has also included goods required in these countries which the recipient governments have been able to use as a means of raising some of the money needed to meet local costs of development programs (e.g., wheat, flour, copper, aluminum, and equipment required by state governments or public corporations). Canadian aid has been helping these countries in both ways, to develop their economies and raise their standards of living.

Under the Technical Assistance Program up to Mar. 31, 1954, about 177 persons had been received for training in Canada in a great variety of technical fields and 46 Canadian experts had been retained for service in Colombo Plan countries in such fields as fisheries, refrigeration, marine biology, agriculture, soil erosion, vocational training and the maintenance of tractors and agricultural machinery.

The Consultative Committee on the Colombo Plan held its fifth meeting at New Delhi, India, in October 1953, which was attended by a Canadian delegation led by the Hon. James Sinclair, Minister of Fisheries. A published Report* outlines the progress made so far and indicates the plans for the future. It contains separate sections describing the activities of each member of the Colombo Plan as either contributing or receiving countries.

The annual Policy Session of the Council for Technical Co-operation was also held at New Delhi during October. Its survey of developments in the technical assistance field is appended to the report of the Consultative Committee.

At the invitation of the Canadian Government, the next meetings of the Consultative Committee and of the Council for Technical Co-operation will be held at Ottawa in the autumn of 1954.

[^46]
## CHAPTER III.-POPULATION*

## CONSPECTUS

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Nors.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

The records accumulated at the decennial censuses of Canada since Confederation in 1867 to the latest census of 1951 make a valuable contribution to the demographic history of the nation. Each successive decade has added to the vast scope of the material; the detailed statistical analyses and the numerous monographs and studies available under the several aspects of demography and agriculture have made the census a most important statistical measure of accomplishment and progress. An outline of the history of the census is given in the 1947 Year Book, pp. 96-97.

The main legal reason for a periodic census under the constitution of Canada is to determine representation in the House of Commons; this, according to the British North America Act, is based on population (see pp. 61-62). The payment of provincial subsidies on a per capita basis is adjusted annually on population estimated from census detta. In view of this, each person is counted as belonging to the locality of his regular domicile rather than to the place where he may be at the date of enumeration.

The modern nation-wide census, however important this redistribution purpose, has a much wider sphere of usefulness. It constitutes, through the data collected directly from the people, a true measure of the social and economic progress of the country and can, therefore, be used in the regulation and general administration of public affairs, social security, rehabilitation programs, etc.

Basic figures from the 1951 Census have been summarized under the respective headings of this Chapter. More detailed information and extended analyses may be obtained from Census publications.

## Section 1.-Growth of the Population

The population history of Canada, from the first census in 1666 when 3,215 persons were enumerated to the 1951 Census when the figure was $14,009,429$, reveals an outstanding rate of population growth. Each decade, of course, contributed to this growth but the ten-year periods 1901-11, 1911-21 and 1941-51 merit particular mention. In the decade 1901-11, Canada's population increased by $34 \cdot 2$ p.c., the largest growth in the nation's history. Immigration was the main

[^47]factor in this gain, $1,800,000$ persons having entered the country during the period. Despite World War I with its accompanying population losses through casualties, emigration and the wartime influenza epidemic, Canada's population increased by 21.9 p.c. in the 1911-21 decade.

The Census of 1951 showed the population of Canada to be $14,009,429$, representing an increase of $2,502,774$ or $21 \cdot 8$ p.c. over the 1941 figure of $11,506,655$. Newfoundland's entry into Confederation accounted for 361,416 of this increase. Excluding Newfoundland, the population in 1951 totalled 13,648,013, an increase of $2,141,358$ or $18 \cdot 6$ p.c. over the 1941 population of the nine provinces and the territories. This numerical increase was the largest on record and the percentage increase was exceeded only in the 1901-11 and 1911-21 decades. The population increase in the 1941-51 decade is all the more remarkable when consideration is given to the fact that immigration was greatly restricted during the war years. With the resumption of immigration in the post-war years, however, Canada had a net gain of about 424,000 in population through immigrant arrivals over the decade. The period was characterized also by high birth rates, and the natural increase was just under $2,000,000$ for the ten-year period.

## 1.-Numerical and Percentage Distribution of Population, by Province, Decennial Census Years 1871-1951

Nore.-The populations of the Prairie Provinces in 1906, 1916, 1926, 1936 and 1946 are shown in the 1951 Year Book, p. 131. Intercensal estimated populations from 1867-1904 will be found in the 1936 Year Borok, p. 141; from 1905-30 in the 1946 edition, p. 127; from 1932-40 in the 1952-53 edition, p. 143; and from 1942.54 in Table 2, p. 137, of the present edition.

| Province or Territory | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 | 1931 | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Numerical Dibrribution |  |  |  |  |  |  |  |  |
| N'f'ld. | 1. | ${ }^{1}$ | 1 | 1 | 1 | 1 | 1. | 1 | 361,416 |
| P.E.I. | 94,021 | 108,891 | 109,078 | 103,259 | 93,728 | 88,615 | 88.038 | 95,047 | 98,429 |
| N.S. | 387,800 | 440,572 | 450,396 | 459.574 | 492,338 | 523,837 | 512,846 | 577,962 | 642,584 |
| N.B | 285,594 | 321,233 | 321,263 | 331.120 | 351,889 | 387,876 | 408,219 | 457,401 | 515,697 |
|  | 1, 191,516 | 1,359,027 | 1,488,535 | 1,648,898 | 2,005,776 | 2,360,510 | 2,874,662 | 3,331,882 | 4,055,681 |
|  | 1,620,851 | 1,926,922 | 2,114,321 | 2,182,947 | 2,527,292 | 2,933,662 | 3,431,683 | $3,787,655$ | 4,597,542 |
| Man | 25,228 | 62,260 | 152,506 | 255, 211 | 461,394 | 610,118 | 700,139 | 729,744 | 776,541 |
| Sask. |  | ... | ... | 91, 279 | 492,432 | 757,510 | 921,785 | 895,992 | 831,728 |
| Alta |  |  |  | 73.022 | 374,295 | 588, 454 | 731,605 | 796,169 | 939,501 |
| Yukon | 36,247 | 49,459 | 98,173 | 178.657 27.219 | 392,480 | 524,582 | 694,263 | 817,861 | 1,165,210 |
| N.W.T. | 48,000 | 56,446 | 98,967 | 27,219 20,129 | 8,507 | 4,143 8,143 | 4,216 9,316 | 4,914 12,028 | 9,096 16,004 |
| Canads.... | 3,689, | 32 | 4,833,239 | ,371, | 7,206,643 | 8,787,94 | 0,376,786 | 1,506,655 | 4,009,429 |
|  | Prrcentage Dibtribution |  |  |  |  |  |  |  |  |
| N'f'ld......... |  |  |  |  |  |  |  |  | 2.58 |
| P.E.I. | $2 \cdot 55$ | $2 \cdot 52$ | $2 \cdot 25$ | 1.92 | i. 30 | i. 01 | 0.85 | 0.83 | 0.70 |
| N.S. | 10.51 | $10 \cdot 19$ | 9.32 | 8.56 | 6.83 | 5.96 | 4.94 | $5 \cdot 02$ | 4.59 |
| N.B. | 7-74 | $7 \cdot 43$ | $6 \cdot 65$ | 6.16 | 4.88 | $4 \cdot 41$ | 3.94 | 3.97 | 3-68 |
| Que. | $32 \cdot 30$ | 31.42 | $30 \cdot 80$ | 30.70 | 27.83 | 26.86 | $27 \cdot 70$ | 28.96 | 28.95 |
| Ont. | 43.94 | 44.56 | 43.74 | $40 \cdot 64$ | 35.07 | 33.39 | 33.07 | 32.92 | $32 \cdot 82$ |
| Man.......... | $0 \cdot 68$ | 1-44 | $3 \cdot 16$ | 4.75 | 6.40 | 8.94 | 6.75 <br> 8 | 8.34 | 5.54 |
| Alta. | ... | $\cdots$ | $\cdots$ | 1.70 | 6.84 | $8 \cdot 62$ | 8.88 | $7 \cdot 79$ | $5 \cdot 94$ |
| B.C. | 0.98 | 1.14 | 2.03 | ${ }_{3} \cdot 3$ | 5.19 | 6.70 | 6.69 | 6.92 | 6.71 |
| Yukon |  |  |  | 0.51 | 0.12 | 0.05 | ${ }_{0} 0.04$ | 0.04 | ${ }_{0} 0.06$ |
| N.W. | 1.30 | 1.30 | 2.05 | $0 \cdot 37$ | 0.09 | 0.09 | 0.09 | 0-10 | $0 \cdot 11$ |
| Canada.... | 100.00 | 100.00 | 100.00 | $100 \cdot 00$ | $100 \cdot 00$ | 100.00 | 100.00 | 100.00 | 100.00 |

[^48]
## Section 2.-Intercensal Estimates and Movement of Population

Intercensal estimates of the population have many uses. They constitute a base for vital statistics rates, per capita figures of production and trade, and other analyses. More recently, they have proved useful for estimates of labour force and other population characteristics of data collected in sample surveys.

Estimates are constructed in the first place for the total population of Canada and for each province. It is a requirement that these be made available about the date to which they apply, June 1 of each year. As final figures on the components of population changes are not ready at that date, the numbers of births, deaths and immigrants are partly filled in by extrapolation so that a preliminary figure is secured for the June to May interval. To avoid a cumulative error the calculation, in effect, starts anew with the latest preceding census for each year's estimates and uses the most up-to-date figures then available. To the census figures are added the births of the intervening years and the deaths are subtracted. Immigrants are added and emigrants are subtracted. On the last item of this calculation there is least information; it is possible to ascertain from United States immigration figures the number of Canadians entering the United States and sometimes the number of those going to the United Kingdom but data are not available for other countries.

The program of population estimates calls for two figures to be given in respect of each year: one based on preliminary materials, as described above, necessarily involving an extrapolation of birth, death and immigration returns, and the other on final figures subject to no further change. The latter can be made available only when the last item of information has been secured and this last item is the succeeding decennial census. With the release of the 1951 Census totals, the estimates were revised for the decade 1941-51.

Since estimates for successive years are independently calculated back to the latest census, the best estimate of the balance of population change is not obtained by subtracting the figure for one year from that for the year following. Much interest attaches to the year-to-year balance and the following statement is presented, which gives all available data on that point.

|  | Calendar-Year Data ${ }^{1}$ |  |  |  | Estimated Population as at June $1^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Births | Deaths | Natural <br> Increase | Immigration |  |
| 1941. | 255,317 | 114,639 | 140,678 | 9,329 | 11,490,000 |
| 1942. | 272,313 | 112,978 | 159,335 | 7,576 | 11,637,000 |
| 1943. | 283,580 | 118,635 | 164,945 | 8,504 | 11,778,000 |
| 1944. | 284,220 | 116,052 | 168,168 | 12,801 | 11,929,000 |
| 1945. | 288,730 | 113,414 | 175,316 | 22,722 | 12,055,000 |
| 1946. | 330,732 | 114,931 | 215,801 | 71,719 | 12,268,000 |
| 1947. | 359.094 | 117,725 | 241,369 | 64,127 | 12,527,000 |
| 1948. | 347,307 | 119,384 | 227,923 | 125,414 | 12,799,000 |
| 1949. | 366,139 | 124,047 | 242,092 | 95,217 | 13,423,000 |
| 1950. | 371,071 | 123,789 | 247, 282 | 73,912 | 13,688,000 |
| 1951. | 380,101 | 125,454 | 254,647 | 191,391 | 13,984,000 |
| 1952. | 402.527 | 125.950 | 276,577 | 164,498 | $14,405,000^{2}$ |
| 1953. | 416,825 | 127,381 | 289,444 | 168,868 | 14,756,000 ${ }^{2}$ |

[^49]
## 2.-Estimates of Population, by Province, Intercensal Years 1941-54

Nors.-At every census the previous post-censal eatimates, made at June 1 each year, are adjusted to the newly recorded population figures. Figures for all provinces for 1941 and 1951 and for the Prairie Provinces for 1946 are census figures. Figures for $1867-1904$ will be found in the 1936 Year Book, p. 141, for 1905-30 in the 1946 edition, p. 127, and for 1931-40 in the 1952-53 edition, p. 143.

${ }^{1}$ Eatimates for Newfoundland prior to union with Canada, which took place on Mar. 31, 1949, are not included in Cansada totals.

The traditional movement of population on the North American Continent from east to west has not been apparent in Canadian statistics for recent years. The most spectacular changes are shown in the Prairie Provinces and in Britist Columbia. The three Prairie Provinces lost by migration about 250,000 people between 1931 and 1941 and somewhat more from 1941 to 1951. British Columbia gained at the rate of about 8,000 a year during the 1930 's and at about 23,000 a year during the 1940 's. On an absolute basis, Ontario received more people than British Columbia but in relation to its larger population this growth was only one-third as important. Quebec's net change was negligible relative to its population. Nova Scotia gained during the 1930's but lost in the 1940's, the Maritime Provinces as a whole losing considerably over the two decades.

## 3.-Numerical Changes in the Populations of the Provinces through Interprovinclal Migration, 1931 to 1941 and 1941 to 1951

| Province | $\begin{gathered} 1931 \\ \text { to } \\ 1941 \end{gathered}$ | $\begin{gathered} 1941 \\ \text { to } \\ 1951 \end{gathered}$ |
| :---: | :---: | :---: |
|  | No. | No. |
| Prince Edward Island. | -3,000 | -12.000 |
| Nova Scotia... | +8.000 | $-39.000$ |
| New Brunswick | $-10.000$ | -42.000 |
| Onebec. | -2.000 | -12.000 |
| Matario. | +77.000 | +305.000 |
| Searkatchewan. | - 488.000 | -61.000 |
| Alberta. | -42.000 | -7.000 |
| British Columbia | $+82.000$ | +231.000 |

## Section 3.-Density of Population

The land area and density of the population per square mile is given by province in Table 4 for the census years 1921-51. It will be noted that the figures for 1951 include the Province of Newfoundland, and this fact should be kept in mind in comparisons with earlier censuses.

## 4.-Land Areas and Density of Population, by Province, Decennial Census Years 1921-51

| Province or Territory | Land Area in Sq. Miles | Population, 1921 |  | Population, 1931 |  | Population, 1941 |  | Population, 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | $\begin{aligned} & \text { Per } \\ & \text { Sq. } \\ & \text { Mile } \end{aligned}$ | Total | Per Sq. Mile | Total | Per <br> Sq. <br> Mile | Total | Per Sq. Mile |
|  | No. <br> 147,994 | No. | No. | No. | No. | No. | No. | No. <br> 361,416 | No. 2.44 |
| Prince Edward Island | 2,184 | 88,615 | $40 \cdot 57$ | ,038 | $40 \cdot 31$ | 47 | 43.52 |  | 2.44 45.07 |
| Nova Scotia. | 20,743 | 523,837 | $25 \cdot 25$ | 512.846 | 24.72 | 577,962 | 27.86 | 642,584 | 30.98 |
| New Bruns | 27,473 | 387,876 | $14 \cdot 12$ | 408,219 | 14.86 | 457,401 | 16.65 | 515,697 | 18.77 |
| Quebec | 523.860 | $2,360,510$ | $4 \cdot 51$ | 2,874,662 | $5 \cdot 49$ | 3,331,882 | 6.36 | 4,055,681 | $7 \cdot 74$ |
| Ontario | 348,141 | 2,933,662 | 8.43 | 3,431,683 | 9.86 | 3,787,655 | 10.88 | 4,597,542 | 13.21 |
| Manitob | 219,723 | 610,118 | $2 \cdot 78$ | 700.139 | $3 \cdot 19$ | 729,744 | $3 \cdot 32$ | 776,541 | $3 \cdot 53$ |
| Saskatch | 220,182 | 757,510 | 3-44 | 921,785 | $4 \cdot 19$ | 895,992 | $4 \cdot 07$ | 831,728 | $3 \cdot 78$ |
| Alberta | 248,800 | 588,454 | $2 \cdot 37$ | 731,605 | 2.94 | 796,169 | $3 \cdot 20$ | 939,501 | $3 \cdot 78$ |
| British Colum | 359,279 | 524,582 | $1 \cdot 46$ | 694,263 | 1.93 | 817,861 | $2 \cdot 28$ | 1,165,210 | $3 \cdot 24$ |
| Canada (Exclusive of the Territories). | 2,118,379 | 8,775,164 | 4.45 ${ }^{2}$ | 10,363,240 | 5-26 ${ }^{2}$ | 11,489,713 | $5.83{ }^{2}$ | 13,981,329 | $6.60{ }^{3}$ |
| Yukon Territory | 205,346 | 4,157 | 0.02 | 4,230 | 0.02 | 4,914 | 0.02 | 9,096 | 0.04 |
| Northwest Territories.. | 1,253,438 | 8,143 | $0 \cdot 01$ | 9,316 | 0.01 | 12,028 | 0.01 | 16,004 | 0.01 |
| Canada | 3,577,163: | 8,787,949 | $2 \cdot 56{ }^{6}$ | 10,376,786 | $3 \cdot 035$ | 11,506,655 | $3.36{ }^{5}$ | 14,009,429; | 3.923 |

[^50]
## Section 4.-Rural and Urban Population

Before 1951, the population residing within the boundaries of all incorporated cities, towns and villages of a province was classified by the Census as urban and the remainder as rural. Since the laws governing incorporation vary among provinces there was no uniform line of demarcation between the rural and urban population throughout Canada. In the 1951 Census, the aggregate size of population within a given area rather than provincial legal status was the main criterion for the ruralurban classification. The population residing in cities, towns and villages of 1,000 or over, whether incorporated or unincorporated, as well as the population of all parts of census metropolitan areas was defined as urban and that outside such localities as rural.

Table 5 presents the rural and urban population, by province or territory, for 1951. The rural is further classified by farm and non-farm residence and the urban by size of locality.
5. - Rural Population classifled by Farm and Non-farm, and Urban Population classified by Size Group, by Province, Census 1951

| Province <br> or Territory | Rural |  |  | Urban |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Farm ${ }^{1}$ | Nonfarm | Total | $\begin{aligned} & 1,000 \\ & \text { to } \\ & 9.999 \end{aligned}$ | $\begin{gathered} 10,000 \\ \text { to } \\ 29.989 \end{gathered}$ | $\begin{aligned} & 30,000 \\ & \text { to } \\ & 09,999 \end{aligned}$ | $\begin{gathered} 100,000 \\ \text { or } \\ \text { Over } \end{gathered}$ | Total ${ }^{2}$ |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland.... | 15,456 | 191,165 | 206,621 | 100,375 | - 85 | 52,873 | - | 154,795 |
| P. E. Island....... | 46,757 | 26.987 | 73,744 | 8,798 | 15,887 |  |  | 24, 685 |
| Nova Scotis | 112,135 | 185.618 | 297, 753, | 166.121 | 61,802 | 116.906 |  | 315,811 |
| New Brunswi | 145,771 | 154,915 | 300.686 | 86,906 | 76.430 | 20,779 | 1,185,536 | 2,697,318 |
| Ontario | 678,043 | 668.400 | 1, 316,443 | 714.343 | 463,404 | 764,448 | 1,307,751 | 3,251,099 |
| Manitoba | 214,435 | 122,526 | 336,961 | 93,965 | 109, 036 |  | 235,710 | 439,580 |
| Saskatchewan | 308, 279 | 180,979 | 579,258 | 86,379 | 41,504 | 124,587 |  | 252,470 |
| Alberta | 339,955 | 149.871 | 489.826 | 120.700 | 39,311 |  | 288,691 | 449,675 |
| British Columbia.. | 109,019 | 261,820 | 371.739 | 157.333 | 180.240 | 109,707 | 344,833 | 793,471 |
| Yukon Territory.. | 44 | 6.458 | 6.502 | 2.591 | 二 | - | - | 2,594 2 2 |
| N.W.T............ | 28 | 13,252 | 13,290 | 2,724 | - | - |  | 2,724 |
| Canada.. | 2,827,732 | 2,553,444 | 5.381,176 | 2,290,674 | 1,492,137 | 1,466,848 | 3,362,521 | 8,628,253 |

[^51]THE FIFTEEN METROPOLITAN AREAS OF CANADA (SHOWING CITY PROPER AND SATELLITE COMMUNITIES) CENSUS OF 1951 LES QUINZE ZONES MÉTROPOLITAINES• DU CANADA CITÉ PROPREMENT DITE ET AGGLOMÉRATIONS SATELLITES RECENSEMENT DE 1951


LIST OF SATELLITE COMMUNITIES FOR EACH METROPOLITAN AREA
LISTE des agglomérations satellites pour chaque zone métropolitaine


## Section 5.-Population of Counties and Census Divisions

Population totals for counties and census divisions for census years 1901-51 are given in the 1952-53 Year Book, pp. 137-141. Further details, including populations of the subdivisions of counties, may be found in Ninth Census of Canada 1951, Vol. I.

## Section 6.-Population of Incorporated Urban Centres

The growth of Canadian cities with populations of over 30,000 from 1941 to 1951, together with the years of their incorporation as cities, is shown in Table 6. All incorporated cities, towns and villages having populations of 1,000 or over in 1951 are listed in Table 9.

## 6.-Incorporated Cities with Populations of over 30,030 at the 1951 Census and Comparable Data for 1941

Note.--Incorporated cities in which a Board of Trade exists are indicated by an asterisk ( ${ }^{*}$ ), and those in which there is a Chamber of Commerce by a dagger ( $\dagger$ ).

| City and Province | Year of Incorporation as City | Population |  | City and Province | Year of Incorporation as City | Population |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1941 | 1951 |  |  | 1941 | 1951 |
|  |  |  |  |  |  | No. | No. |
| ${ }^{*}$ Brantiord, Ont. | 1877 | $31.948$ | $36,72=$ | -Regina, Sask. |  | 58,245 | 71,319 |
| *Calgary, Alta. | $1893$ | 88,904 | 129,060 | $\dagger$ St. Catharines, On | $1876$ | 30,275 | 37,984 |
| $\dagger$ Edmonton, Alta | 1904 | 93,817 | 159,631 | *Saint John, N.B.. | 1785 | 51,741 | 50,779 |
| $\dagger$ Fort William, On | 1907 | 30,585 | 34,947 | *St. John's, N'i'l | 1888 | $\begin{gathered} 44,6034 \\ 18.734 \end{gathered}$ | 52,873 |
| ${ }^{\text {- Halifax, }}$ H.S.S | 1841 1846 | 70,488 166,337 | 808,381 | -Sarnia, Ont..... | 1914 1906 | 18,734 43,027 | 34,697 53,268 |
| $\dagger$ Hull, Que.... | 1875 | 32,947 | 43,483 | †Sault Ste. Marie, O | 1912 | 25,794 | 32,452 |
| $\dagger$ Kingston, On | 1846 | 30,126 | 33,459 | tSherbrooke, Que | 1875 | 35,965 | 50.543 |
| ${ }^{-}$Kitchener, On | 1912 | 35,657 | 44,867 | *Sudbury, Ont | 1930 | 32, 203 | 42,410 |
| $\dagger$ London, Ont. | 1855 | 78,134 | 25,343 | *Sydney, N.S. | 1904 | 28,305 | 31.317 |
| - Montreal, Que | 1832 | 903,007 | 1,021,520 | $\dagger$ Three Rivers, | 1857 | 42,007 | 46,074 |
| †Oshawa, Ont | 1924 | $26,813$ | 41,545 | * Toronto, Ont. | 1834 | 667,457 | 675,754 |
| -Ottawa, Ont. | 1854 | ${ }_{1}^{154,951}$ | 202,045 | *Vancouver, B. | 1886 | 275,353 | 344,833 |
| Outremont, Q <br> $\dagger$ Peterborough | 1915 1905 | 30,751 25,350 | 30,057 38,272 | $\dagger$ Verdun, Que. Victoria, B.C. | 1912 1862 | 67,349 44,068 | 77,391 |
| $\dagger$ Port Arthur, | 1907 | 24,426 | 31,161 | +Windsor, Ont | 1892 | 105,311 | 120,049 |
| ${ }^{\text {* Quebec, Que..... }}$ | 1832 | 150,757 | 164,016 | ${ }^{*}$ Winnipeg, Man. | 1873 | 221,960 | 235.710 |

${ }^{1}$ Census taken by the Newfoundland Government in 1945; 1941 figure not available.
For census purposes, metropolitan areas have been established for groups of urban communities that are in close economic, geographic and social relationship. The total population of each of the census metropolitan areas in 1951, with the comparable figure from the 1941 Census covering the same area as in 1951, is shown in Table 7. In this table the metropolitan area has been named after the largest city of each urban group.

## 7.-Populations of Census Metropolitan Areas, 1951, compared with Populations of Same Areas in 1941

| Metropolitan Area | Population. |  | Metropolitan Area | Population |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1941 | 1951 |  | 1941 | 1951 |
|  | No. | No. |  | No. | No. |
| Calgary, Alta.. | 93,021 | 139, 105 | Saint John, N.B... | 70,927 | 78,337 |
| Edmonton, Alta | 97,842 98636 | 173,075 | St. John's, N'f'ld.. | 909,928 | 67,749 |
| Hamilton, Ont. | 98,636 197,732 | 133,931 259,685 | Toronto, Ont. ${ }^{\text {Vancouver, B.C }}$ | 909,928 377,447 | 1.117 .470 530.728 |
| London, Ont. | 91.024 | 121,516 | Victoria, B.C. | 75,560 | 104,303 |
| Montreal, Que | 1,145,282 | 1,395,400 | Windsor, Ont. | 123,973 | 157, 672 |
| Ottawa, Ont. | 226,290 224,756 | 281,908 274,827 | Winnipeg, Man. | 299,937 | 354,069 |

The distribution of the population of incorporated urban centres in Canada by size groups is given in Table 8 for the census years 1931, 1941 and 1951.
8.-Populations of Incorporated Cities, Towns and Villages, by Size, Census
Years 1931, 1941 and 1951

| Group | $1931{ }^{1}$ |  |  | $1941{ }^{1}$ |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Places | Population | P.C. of Total Pop. | Places | Population | P.C. of Total Pop. | Places | Population | P.C. of Total Pop. |
| Over 500,000. | No. | $\begin{gathered} \text { No. } \\ 1,449,784 \end{gathered}$ | 13.97 | No. | $\begin{gathered} \text { No. } \\ 1,570,464 \end{gathered}$ | $13 \cdot 65$ | No. | $\begin{gathered} \text { No. } \\ 1,697,274 \end{gathered}$ | 12-11 |
| Between- $400,000 \text { and } 500,000$ | - | - | - | - | - | - | - | - |  |
| 300,000 and 400,000 | - | - | - | - | - | - | 1 | 344,833 | 2.46 |
| 200,000 and 300,000 | 2 | 465,378 | $4 \cdot 48$ | 2 | 497,313 | $4 \cdot 32$ | 3 | 646,076 | $4 \cdot 61$ |
| 100,000 and 200,000 | 3 | 413,013 | 3.98 | 4 | 577,356 | $5 \cdot 02$ | 4 | 572,756 | $4 \cdot 09$ |
| 50.000 and 100,000 | 7 | 470,443 | $4 \cdot 53$ | 7 | 508,808 | $4 \cdot 42$ | 9 | 588,436 | $4 \cdot 20$ |
| 25,000 and 50,000 | 10 | 339,521 | $3 \cdot 27$ | 19 | 605, 805 | $5 \cdot 26$ | 24 | 802,380 | 5.73 |
| 15,000 and 25,000 | 23 | 457.292 | 4.41 | 20 | 377,505 | $3 \cdot 28$ | 34 | 636,713 | $4 \cdot 54$ |
| 10,000 and 15,000 | 23 | 275,944 | $2 \cdot 66$ | 24 | 296.195 | $2 \cdot 57$ | 29 | 347,410 | $2 \cdot 48$ |
| 5,000 and 10,000 | 68 | 458,784 | 4.42 | 74 | 510.429 | $4 \cdot 44$ | 100 | 720,077 | $5 \cdot 14$ |
| 3,000 and 5,000 | 71 | 273,276 | $2 \cdot 63$ | 91 | 348,709 | 3.03 | 119 | 457,492 | $3 \cdot 27$ |
| 1,000 and 3,000 | 324 | 557,466 | $5 \cdot 37$ | 337 | 561,019 | $4 \cdot 88$ | 409 | 698,092 | $4 \cdot 98$ |
| Under 1,000. | 1.072 | 411.157 | $3 \cdot 96$ | 1.060 | 398,813 | 3.47 | 1,049 | 429,683 | 3.07 |
| Totals. | 1,605 | 5,572,058 | 53.70 | 1,640 | 6,252,416 | 54.34 | 1,783 | 7,941,222 | 56.68 |

${ }^{1}$ Newfoundland not included.
Of the 1,783 incorporated urban centres in Canada at the date of the latest Census, June 1, 1951, 734 had a population of 1,000 or over. These are listed alphabetically by province in Table 9, with their 1951 populations and comparative figures for 1941.

## 9.-Incorporated Cities, Towns and Villages having Populations of $\mathbf{1 , 0 0 0}$ or over, by Province, Census 1951 compared with 1941

| Province and Incorporated Centre | $1945{ }^{\text {t }}$ | 1951 | Province and Incorporated Centre | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland- | No. | No. | Nova Scotia- | No. | No. |
| Bay Roberts. | $\cdots$ | 1,222 | Amherst. | 8,620 | 9,870 |
| Carbonear... | $\ldots$ | 3,351 | Antigonish | 2,157 | 3,196 |
| Channel-Port aux Basque |  | 2,634 | Berwick. | 962 | 1,045 |
| Corner Brook East..... |  | 3,445 | Bridgetown. | 1,020 | 1,038 |
| Corner Brook West. | 5,464 | 6,831 | Bridgewate | 3,445 1 | 4,010 |
| Curling. | .. | 3.559 2.655 | Canso, Cl , Harkour | 1,418 | 1,020 |
| Deer Lake | . | 2.655 1.078 | Clark's Harbour | 10,847 | 15,037 |
| Frand Bank | 2,329 | 1.078 2,148 | Dartmouth | 10,847 1,657 | 15,047 2,047 |
| Harbour Grace | 2.065 | 2,331 | Dominion | 3,279 | 3,143 |
| Lewisporte.... |  | 1,218 | Glace Bay. | 25,147 | 25,586 |
| St. Anthony | 1,109 | 1.380 | Halifax. | 70,488 | 85.589 |
| St. John's. | 44,603 | 52.873 | Hantsport. | 907 | 1,131 |
| St. Lawrence | , | 1.451 | Inverness. | 2,975 | 2,360 |
| Wabana. |  | 6,460 1 | Kentville. | 3,928 <br> 3,170 | 4.240 3.535 |
| Wesleyville ............ | 968 2.772 | 1.304 3,674 | Liverpool. | 3,170 1,084 | 1,225 |
| Windsor................. | 2.772 | 3.674 | Louisburg. | 1.012 | 1,120 |
|  | 1941 | 1951 | Lunenburg | 2.856 | 2,816 |
|  |  |  | Mahone Bay | 1.025 | 1,019 |
| Prince Edward IslandCharlottetown........... |  | 15,887 | Middleton | 1.172 1,057 | 1,506 1,212 |
|  |  |  | $\stackrel{\text { Mulgrave... }}{ }$ | 1.057 9.210 | 1,212 9.933 |
| Montague. | 769 1,114 | 1,068 $\mathbf{1 , 1 8 3}$ | New Glasgow | 9.210 9.302 | 19.938 10.423 |
| Souris...... | 1,114 | 6,547 | North Sydney. | 6,836 | 7,354 |

[^52]9.-Incorporated Cities, Towns and Villages having Populations of $\mathbf{1 , 0 0 0}$ or over, by Province, Census 1951 compared with 1941-continued

| Province and Incorporated Centre | 1941 | 1951 | Province and Incorporated Centre | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nova Scotia-concluded | No. | No. | Quebec-continued | No. | No. |
| Oxford | 1,297 | 1,466 | Bourlamaque.... | 1,545 | 2,460 |
| Parrsboto | 1,971 | 1,906 | Bromptonville. | 1,672 | 2,025 |
| Pictou. | 3,069 | 4,259 | Brownsburg... | 3.105 | 3,238 |
| Port Hawkesbury | 1,031 | 1,034 | Buckingham. | 4.516 | 6,129 |
| Shelbarne. | 1,605 | 2,040 | Cabano..... | 2,031 | ${ }_{1}^{2,594}$ |
| Springhill | 7,170 | 7,138 | Cadiliac... | 1.989 1,329 | 1,514 |
| Stellarton | 5,351 | 5,575 1,018 | Cap de la Made | 11,961 | 18,667 |
| Sydney | 28,305 | 31,317 | Causapscal.... | 1,545 | 2,609 |
| Sydney Mines | 8,198 | 8,410 | Chambly Bassin. | 1,423 | 2,160 |
| Trenton....... | 2,699 | 3,089 | Chambly Canton. | 1,185 | 1,636 |
| Truro. | 10,272 | 10,756 | Chambord. | 1,029 | 1,070 |
| Westville | 4,115 | 4,301 | Chandler. | 1,858 | 2,326 |
| Windsor | 3,436 | 3,439 | Charlemagne. | 1,150 | 1,856 |
| Wolfville | 1,944 | 2,313 | Charlesbourg | 2,789 | 5,734 |
| Yarmouth | 7,790 | 8,106 | Charny.... | 2,831 1,425 | 3,300 2,240 |
| New Brunswick- |  |  | Chicoutimi. | 16,040 | 23.111 |
| Bathurst......... | 3,554 | 4.453 | Clermont. | 1 | 2,027 |
| Campbeliton | 6,748 | 7,754 | Coaticook | 4,414 | 6,341 |
| Chatham. | 4,082 | 5,223 | Contrecceur | 1,043 | 1,435 |
| Dalhousie | 4,508 | 4,939 | Cookshire. | 877 | 1,209 |
| Dieppe. |  | 3,402 | Cote-St-Luc | 776 | 1,083 |
| Edmundston | 7,096 | 10.753 | Courville | 2,011 | 3,138 |
| Fredericton. | 10,062 | 16.018 | Cowansvi | 3,486 | 4,431 |
| Grand Fall | 1,806 | 2,365 | Danville. | 1,332 | 2,092 |
| Hartiand. | 847 | 1,000 | DeLéry. | 816 | 1,194 |
| Marysville | 1,651 | 2,152 | Deschaillons-sur-St. La | 1,078 | 1,185 |
| Milltown | 1,876 | 2,267 | Deschênes. | 284 | 1,169 |
| Moncton. | 22,763 | 27,334 | Disraeli.. | 1,338 | 2,145 |
| Newcastle. | 3,781 | 4,248 | Dolbeau. | 2,847 | 4,307 |
| St. Andrews | 1,167 | 1,458 | Donnacon: | 3,064 | 3,663 |
| St. George. | 1,169 | 1,263 | Dorion. | 1,292 | 2,413 |
| St. Leonard | 1,095 | 1,419 | Dorval. | 2,048 | 5,293 |
| St. Stephe | 3,306 | 3,769 | Drummondville | 10,555 | 14.341 |
| Sackville. | 2,488 | 2.873 | Drumamondville |  | 1,275 |
| Saint John | 51,741 | 50.779 | Duparquet. | 1,384 | 1,485 |
| Shediac. | 2.147 | 2,010 | East Angus. | 3,501 | 3,714 |
| Shippegan | 1 | 1,181 | Farnham.. | 4,055 | 4,926 |
| Sunny Br | 1,368 | 2,048 | Ferme-Neuv | 811 | 1,660 |
| Sussex. | 3.027 | 3.224 | Fort Coulon | 1,072 | 1,431 |
| Woodstock | 3,593 | 3,996 | Gaspe... | 924 | 1,692 |
|  |  |  | Gatinea | 2,822 | 5,771 8,097 |
| Quebec- |  |  | Giffard | 4,909 14,197 | 8,097 21,989 |
| Amos. | 2,862 | 4,265 | Grand 'Mër | 8,608 | 11,089 |
| Amqui ${ }^{\text {i }}$ | 1,593 | 2,599 | Greenfield P | 1,819 | 3,379 |
| Arthab | 1,883 | 2,321 | Grenville. | 737 | 1,069 |
| Arvida | 4,581 | $11.078{ }^{2}$ | Hampstead | 1,974 | 3,260 |
| Asbesto | 5.711 | 8,190 | Hébertville Station | 950 | 1,038 |
| Aylmer | 3,115 | 4,375 | Hudson. | 731 | 1,283 |
| Bagotville | 3,248 | 4,136 | Hull. | 32,947 | 43,483 |
| Baie Comcau. | 1,548 | 3.972 | Huntingdo | 1,952 | 2,806 |
| Baje de Shawinizan | 1,255 | 1,223 | lbervilie. | 3,454 | 5,185 |
| Baie St. Paul. | 3,500 | 3,716 | Jacques-Cartie |  | 22,450 |
| Beaconsfield | 706 | 1,888 | Joliette.. | 12.749 | 16.064 |
| Beauceville | 899 | 1,149 | Jonquière | 13,769 | 21,618 |
| Beauceville E | 1,251 | 1,573 | Kénogami | 6.579 | 9,895 |
| Beauharnois. | 3,550 | 5,694 | Knowlton. | 972 | 1,094 |
| Beauport. | 3.725 | 5,390 | Labelle. | 709 | 1,003 |
| Beauport | 587 | 1.096 | L'Abord-A-Plouff | 1.773 | 4,604 |
| Bedford | 1,697 | 2,073 | Lac-au-Saumon | 1.703 | 1,622 |
| Beebe Plai | 1,024 | 1,352 | Lachine. . | 20,051 | 27,773 |
| Belleterre | 1. | 1,011 | Lachute | 5,310 | 6,179 |
| Belceil. | 2.008 | 2,992 | Lacolle. | 874 | 1,055 |
| Bernierville | 1.638 | 1,959 | Lac St. Louis | 819 | 1,300 |
| Berthierville | 2.634 | 3,325 | La Guadeloupe ${ }^{\text {S }}$ | 627 | 1,321 |
| Bic. ${ }^{\text {Black La }}$ | 1,117 | 1,086 | La Malbaie | 2,324 | 2,466 |
| Black La | 2,276 | 2,800 | La Pérade | 1,014 | 1,111 |
| Bouchervil | 1,047 | 1,583 | Laprairi | 2,936 | 4.058 |

9.-Incorporated Cities, Towns and Villages having Populations of $\mathbf{1 , 0 0 0}$ or over,
by Province, Census 1951 compared with 1941 -continued

| Province and Incorporated Centre | 1941 | 1951 | Province and Incorporated Centre | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Quebee-continued | No. | No. | Quebec-continued | No. | No. |
| La Providen | 1,924 | 2,693 | Rivière-du-Moulin. | 1,561 | 2,685 |
| Lasalle. | 4,651 | 11,633 | Roberval | 3,220 | 4,897 |
| La Sarre | 2,167 | 2,744 | Rock Island | 1,395 | 1.646 |
| L'Assompt | 1,829 | 2,688 | Rouyn | 8,808 | 14,633 |
| La Tuque. | 7.919 | 9.538 | Ste. Agathe-des-Monts | 3,308 | 5,169 |
| Laurentides | 1,342 | 1,465 | St. Alexis - de - la - Grande - |  |  |
| Lauzon | 7.877 | 9.643 | Baie..... | 2,230 | 2,974 |
| Laval-des-Rapides | 3,242 | 4,998 | St. Ambrois | 458 | 1.032 |
| Laval W........ | 542 | 1.935 | Ste. Anne-de-Beaupre | 1,783 | 1,827 |
| Le Moyne |  | 4.078 | Ste. Anne-de-Bellevue | 3,006 | 3,342 |
| Lennoxville. | 2,150 | 2,895 | Ste. Anne-de-Chicout | 1,540 | 3,966 |
| L'Epiphanie | 1,941 | 2.462 | St. Basile South |  | 1,347 |
| Lévis... | 11.991 | 13.162 | St. Casimir. | 1,307 | 1,334 |
| Longueuil | 7,087 | 11.103 | St. Césaire | 1,209 | 1,658 |
| Loretteville | 2.564 | 4,382 | St. Coeur-de | 661 | 1,061 |
| Louiseville | 3,542 | 4.088 | Ste. Croix | 841 | 1,080 |
| Luceville | 701 | 1,059 | St. Cyrille. | 723 | 1,189 |
| Macamic | 645 | 1,123 | St. Emilien | 1,018 | 1,651 |
| Mackayvill |  | 6,494 | St. Eustache | 1,564 | 2,615 |
| Magog | 9.034 | 12,423 5 | St. Eustache- | 1,472 | 3,211 2,656 |
| Maniwak | 2,320 | 3,835 | St. Felix-de-Valo | 1,130 | 1,201 |
| Marieville | 2,394 | 3,117 | Ste. Foy |  | 5,236 |
| Masson. | 1,226 | 1,475 | St. Gabriel-de-Brandon | 1,632 | 2,661 |
| Matane | 4.633 | 6,345 | Ste. Geneviève-de-Pierre- |  |  |
| McMaster | 1,097 | 1,509 | fonds...... | 489 | 1,322 |
| Mégantic. | 4,560 | 6,164 | St. Georges (Champlain Co.) | 753 | 1,143 |
| Mistassini | 1,294 | 2,298 | St. Georges (Beauce Co. ${ }^{3}$. ${ }^{\text {d }}$ | 1,945 | 2,657 |
| Montebell | 1,266 | 1,397 | St. Georges W.(Beauce Co.) |  |  |
| Mont Joli. | 3,533 | 4,938 | St. Hilaire. | 17.798 | 20,236 |
| Mont Lauri | 2,661 4,585 | 4,701 5,844 | St. Hyacinth | 17,798 1,634 | 10,236 1,729 |
| Montmagny | 4,585 5,393 | 5,844 5,817 | St. Jacques | 13,644 | 19,305 |
| Montmoren | 903,007 | 1,021,520 | St. Jean-de-Boischatel. | 882 | 1,297 |
| Montreal E | 2,355 | 4,513 | St. Jérôme (Lac St. Jean Co.) | 1,469 | 1,480 |
| Montreal N | 6.152 | 14,081 | St. Jérôme (Terrebonne Co.) | 11,329 | 17,685 |
| Montreal S. | 1,441 | 4,214 | St. Joseph (Beauce Co.) .... | 1,892 | 2,417 6,576 |
| Montreal W | 3,474 | 3,721 | St. Joseph (Drummond Co.) | 5,556 | 6,576 |
| Mount Roya | 4,888 | 11,352 | St. Joseph (St. Hyacinthe |  |  |
| Napierville. | 990 | 1,356 1,430 |  | 1,021 6,449 | 7,975 |
| Naudville. Nicolet... | 3,751 | 1,430 4,084 | St. Joseph-d Alma.......... | 6,449 |  |
| Noranda | 4,576 | 9,672 | Bleue .................... | 1.082 | 1,334 |
| Normandi | 1,029 | 1,675 | St. Joseph-de-Sor | 2,207 1,059 | 1,349 1,453 |
| Notre-Dame-d'Héber | 1,025 | 1,285 <br> 2516 | St. Jovite.. | 1,059 6,417 | 1.453 8,615 |
| Notre-Dame-de-Lorett |  | 2,516 1,144 | St. Lambert | 6,417 | 20.426 |
| Notre-Dame-de-Port | 1,015 | 1,144 1,364 | St. Marc-de | 2,118 | 2.351 |
| Notre-Dame-du-Lac <br> Ormstown | 887 | 1,233 | Ste. Marie. | 1,736 | 2.431 |
| Outremon | 30,751 | 30,057 | St. Michel (Montreal Island) | 2,956 | 10,539 |
| Papineau | 1,023 | 1,024 | St. Pacôme................. | 1,254 | 1.197 |
| Parent. . | 1 | 1,255 | St. Pascal | 1,265 | 1,736 |
| Pierreville | 1,302 | 1,448 | St. Pie. | 1,009 | 1,182 |
| Plessisville | 3,522 | 5,094 | St. Pierre (Montreal Island) | 4,061 | 4,976 3 |
| Pointe-a-Gatineal | 2.230 | 3,874 | St. Raymond. | 2,157 | , 139 |
| Pointe-au-Pic. | 1,083 | 1,105 | St. Remi... | 1,431 | 1,038 |
| Pointe-aux-Trembles | 4,314 4,536 | 8,241 8,753 | Ste. Rosalie | 2,292 | 3,660 |
| Pointe Claire. | 4,536 | 8,413 <br> 2,41 | St. Sauveur-des | 2,295 | 1,066 |
| Pont Rouge. | 1,865 1,342 | 2,413 5,129 | St. Simeor. . ${ }^{\text {Ses-M. }}$ | 858 | 1,103 |
| Pont Viau | 3,243 | 3,937 | Ste. Thècle. | 904 | 1.468 |
| Price... | 2,321 | 2,810 | Ste. Théres | $\begin{array}{r}4,659 \\ \hline\end{array}$ | 7,038 |
| Princeville | $\begin{array}{r}1,145 \\ 150 \\ \hline\end{array}$ | 164,016 |  | 2,115 | 2,220 |
| Quebec. | 150,757 3,619 | 164,016 7,295 | Scotstown | 1,273 | 1,350 |
| Quebec | 1,236 | 1,912 | Senneterre. |  | 1,68 |
| Richelieu | 773 | 1,129 | Sept-lles | 20,325 | 26,903 |
| Richmond | 3,082 1,222 | 1,571 1,579 | Shawinigan-S | 2,282 | 6,637 |
| Rigaud. | 7,009 | 11,565 | Shawville.................... | 892 | 1,159 |
| Rimous | 8,713 | 9,425 | Sherbrooke | 35,965 | 50,543 |

${ }^{1}$ Not incorporated in 1941.
1941. 4St. Joseph in 1941.
9.-Incorporated Cities, Towns and Villages having Populations of $\mathbf{1 , 0 0 0}$ or over, by Province, Census 1951 compared with 1941-continued

| Province and Incorporated Centre | 1941 | 1951 | Province and Incorporated Centre | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Quebec-concluded | No. | No. | Ontario-continued | No. | No. |
| Sillery........... | ${ }^{1}$ | 10,376 | Cochrane. | 2,844 | 3,401 |
| Sorel. . | 12,251 | 14.961 | Colborne. | 994 | 1,108 |
| Sutton. | 1,118 | 1,389 | Collingwood | 6,270 | 7,413 |
| Tadoussac | 766 | 1,064 | Coniston. | 2,245 | 2,292 |
| Témiscaming | 2,168 | 2,787 | Copper Cliff | 3,732 | 3,974 |
| Templeton. | 949 | 1,717 | Cornwall.... | 14,117 | 16,899 |
| Terrebonne | 2,209 | 3.200 | Crystal Beach | 618 | 1,204 |
| Thetford Mine | 12,716 | 15,095 | Delhi. | 2,062 | 2,517 |
| Three Rivers. | 42,007 | 46.074 | Deseronto | 1,261 | 1,522 |
| Thurso. | 1,295 | 1.973 | Dresden. | 1.662 | 2,052 |
| Trois Pis | 2,176 | 3.537 | Dryden. | 1,641 | 2,627 |
| Val-d'Or | 4,385 | 8,685 | Dundas. | 5,276 | 6,846 |
| Vallée Jonction ${ }^{2}$ | 1,175 | 1,279 | Dunnville | 4,028 | 4.478 |
| Valleyfield (Salaberry-d | 17,052 | 22,414 | Durham | 1,700 | 1,839 |
| Varennes. | 781 | 1,104 | Eastview | 7,966 | 13,799 |
| Verchères | 906 | 1,201 | Eganville | 1,088 | 1.326 |
| Verdun. | 67,349 | 77,391 | Elmira | 2,012 | 2,589 |
| Victoriaville | 8,516 | 13,124 | Elora | 1,247 | 1,348 |
| Ville-Marie | 1,001 | 1,316 | Engleha | 1,262 | 1,585 |
| Warwick | 1.504 | 2,094 | Essex. | 1,935 | 2,741 |
| Waterioo | 3,173 | 4,054 | Exeter. | 1,589 | 2,547 |
| Waterville | 844 | 1,205 | Fenelon | 1,158 | 1,304 |
| Weedon Ce | 599 | 1,066 | Fergus. | 2,832 | 3,387 |
| Westmount | 26,047 | 25,222 | Fonthil | 1,000 | 1,412 |
| Windsor. | 3,368 | 4,714 | Forest. | 1,570 | 1.790 |
|  |  |  | Forest Hil | 11,757 | 15,305 |
| Ontario- |  |  | Fort Erie | 6,595 | 7,572 |
| Acton | 2,063 | 2.880 | Fort Frances | 5,897 | 8,038 |
| Alexandri | 2,175 | 2,204 | Fort Willia | 30,585 | 34,947 |
| Alliston | 1,733 | 1,987 | Frankford | 1,144 | 1,393 |
| Almont | 2,543 | 2,672 | Galt. | 15,346 | 19,207 |
| Amherstburg | 2,853 | 3,638 | Gananoque | 4,044 | 4,572 |
| Arnprior | 3,895 | 4,381 | Georgetown | 2.562 | 3,452 |
| Arthur | 937 | 1,088 | Geraldton. | 2,979 | 3,227 |
| Aurora | 2,726 | 3,358 | Goderich. | 4,557 | 4,934 |
| Aylmer | 2,478 | 3,483 | Gravenhurs | 2,122 | 3,005 |
| Bancrot | 1,094 | 1,334 | Grimsby | 2,331 | 2,773 |
| Barrie, | 9,725 | 12,514 | Guelph. | 23,273 | 27,386 |
| Barry's Bay | 1,198 | 1,218 | Hagersville | 1,455 | 1,746 |
| Beamsville. | 1.309 | 1,712 | Haileybury | 2,268 | 2.346 |
| Beaverton | 934 | 1,048 | Hamilton. | 166,337 | 208,321 |
| Belle Rive | 999 | 1,431 | Hanover | 3,290 | 3,533 |
| Belleville. | 15,710 | 19,519 | Harrist | 1,305 | 1,494 |
| Blenheim | 1,952 | 2,459 | Harrow | 1,166 | 1,519 |
| Blind Rive | 2,619 | 2,512 | Havelock | 1,113 | 1,132 |
| Bobcaygeon | 1,002 | 1,207 | Hawkesbury | 6,263 | 7,184 |
| Bowmanville | 4.113 | 5,430 | Hearst... | 995 | 1,723 |
| Bracebridge | 2,341 | 2,684 | Hespele | 3,058 | 3,862 |
| Bradford. | 1,033 | 1,483 | Humberston | 2,963 | 3,895 |
| Brampton | 6.020 | 8,389 | Huntsville | 2,800 | 3,286 |
| Brantiord | 31,948 | 36.727 | Ingersoll. | 5,782 | 6,524 |
| Bridgeport | ${ }^{2}$ | 1,137 | Iroquois. | ${ }^{956}$ | 1,086 |
| Brighton | 1,651 | 1.967 | Iroquois Falls | 1,302 | 1,342 |
| Brockville | 11,342 | 12,301 | Kapuskasing. | 3,431 | 4,687 |
| Burlington........ | 3,815 | 6,017 | Keewatin. | 1.481 | 1,634 |
| Burlington Beach |  | 2,827 | Kemptville | 1.232 |  |
| Caledonia.... | 1,401 | 1.681 | Kenora | 7.745 | 8,695 |
| Capreol | 3,018 1,641 | 3,235 2,002 | Kincardin | 2,507 30,126 | 2,672 33,459 |
| Cardinal | 1,641 | 2,002 1,782 | Kingston | 30,126 | 33,459 |
| Carleton Place | 4,305 | 4.725 | Kitchener | - 35,657 | 2,631 |
| Casselman. | 1,021 | 1,158 | Lakefield | 1,349 | 48,867 |
| Chatham. | 17,369 | 21,218 | La Salle. | , 951 | 1,854 |
| Cheimsfo | ${ }^{905}$ | 1,210 | Leamington | 5,858 | 6,950 |
| Chesley. | 1,701 | 1,672 | Leaside.. | 6.183 | 16,233 |
| Chestervi | 1,067 | 1,094 | Levack | 895 | 1,833 |
| Clinton... | 1,385 1,896 | 1,762 2,547 | Lindsay. | 8.403 | 9,603 |
| Cobalt. | 2,376 | 1,547 2,230 | Listowel...... | 3.013 1.088 | 3,469 1,397 |
| Cobourg. | 5,973 | 7,470 | London. | 78,134 | 95,343 |

9.-Incorporated Cities, Towns and Villages having Populations of $\mathbf{1 , 0 0 0}$ or over, by Province, Census 1951 compared with 1941-continued

| Province and Incorporated Centre | 1941 | 1951 | Province and Incorporated Centre | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario-continued | No. | No. | Ontario-concluded | No. | No. |
| Long Branch.... | 5,172 | 8,727 | Stirling. | 990 | 1.100 |
| Madoc | 1.188 | 1,240 | Stoney Creek | 1,007 | 1,922 |
| Markdale | 870 | 1.007 | Stoufiville. | 1.253 | 1,695 |
| Markhan | 1.204 | 1.606 | Stratiord. | 17,038 | 18,785 |
| Marmora | 1.106 | 1,117 | Strathroy | 3,016 | 3,708 |
| Mattawa | 1,971 | 3.097 | Streetsville | 709 | 1,139 |
| Meaford | 2.662 | 3,178 | Sturgeon Fall | 4,576 | 4,962 |
| Merritton | 2,993 | 4.714 | Sudbury | 32,203 | 42,410 |
| Midland | 6,800 | 7,206 | Sutton. | 1,051 | 1,168 |
| Milton. | 1,964 | 2,451 | Swansea | 6,988 | 8,072 |
| Milverto | 1,015 | 1,055 | Tavistock | 1.066 | 1,094 |
| Mimico | 8,070 | 11,342 | Tecumseh | 2.412 | 3,543 |
| Mitchel | 1,777 | 1,979 | Thessalon | 1,316 | 1,595 |
| Morrisburg | 1,575 | 1,858 | Thorold. | 5,305 | 8,397 |
| Mount Fore | 1,892 | 2,291 | Tilbury | 2,155 | 2,682 |
| Napanee. | 3,405 | 3,897 | Tillsonburg | 4,002 | 5,330 |
| New Hamburg | 1,402 | 1,738 | Timmins. | 28,790 | 27,743 |
| New Liskeard | 3.019 | 4,215 | Toronto. | 667,457 | 675,754 |
| Newmarke | 4,026 | 5,356 | Trenton | 8,323 | 10,085 |
| New Toron | 9,504 | 11, 194 | Tweed. | 1,343 | 1,562 |
| Niagara. | 1,541 | 2,108 | Uxbridge | 1,406 | 1,785 |
| Niagara Fa | 20.589 | 22,874 | Vankleek | 1,435 | 1,480 |
| North Bay | 15,599 | 17,944 | Walkerton. | 2,679 | 3,264 |
| Norwich | 1,268 | 1,439 | Wallaceburg | 4,986 | 7.688 |
| Oakville | 4,115 | 6.910 | Waterdown | 910 | 1,347 |
| Orangev | 2.718 | 3.249 | Waterford | 1,342 | 1,745 |
| Orillia. | 9.798 | 12.110 | Waterloo | 9,025 | 11,991 |
| Oshawe | 26,813 | 41,545 | Watford | 1,076 | 1.201 |
| Ottawa | 154,951 | 202,045 | Welland | 12,500 | 15,382 |
| Owen Sound | 14,002 | 16,423 | West Lor | 728 | 1,031 |
| Palmerston | 1,418 | 1,573 | Weston. | 5,740 | 8,677 |
| Paris. | 4,637 | 5,249 | Wheatley | 785 | 1,021 |
| Parry Soun | 5,765 | 5,183 | Whitby. | 5,904 | 7, 267 |
| Pembroke | 11, 159 | 12,704 | Wiarton | 1,749 | 1.955 |
| Penetanguish | 4,521 | 4,949 | Wincheste | 1,049 | 1,201 |
| Perth. | 4,458 | 5,034 | Windsor. | 105,311 | 120.049 |
| Peterboro | 25.350 | 38,272 | Wingham | 2,030 | 2.642 |
| Petrolia. | 2,801 | 3,105 | Woodbridge | 1,044 | 1,699 |
| Picton. | 3,901 | 4,287 | Woodstock | 12,461 | 15,544 |
| Point Edwar | 1,363 | 1,838 |  |  |  |
| Port Arthur | 24,426 | 31,161 | Manitobs- |  |  |
| Port Colborn | 6,993 | 8,275 | Altona. | 1,161 | 1,438 |
| Port Credit. | 2,160 | 3,643 | Beauséjour | 1,161 | 1,376 1,015 |
| Port Dalhousio | 1.723 | 2,616 2,440 | Boissevain | 817 17.383 | 1,015 20,598 |
| Port Dover | 1,968 1,395 | 2,440 1,558 | Brandon. <br> Brookland | 17,383 2,240 | 10,698 2,915 |
| Port Hope | 5,055 | 6,548 | Carman. | 1,455 | 1,867 |
| Port Perry | 1,245 | 1,721 | Dauphin. | 4,662 | 6,007 |
| Portsmout | 3,135 | 3,411 | Flin Flon. |  | 9,899 |
| Port Stanle | 1,177 | 1,491 | Gimli. | 853 | 1,324 |
| Prescott... | 3,223 | 3,518 | Killarney. | 1,051 | 1,262 |
| Preston. | 6,704 | 7,619 | Minnedosa | 1,636 | 2,085 |
| Rainy Rive | 1,205 | 1,348 7,360 | Morden. | 1,427 | 1,862 |
| Renfrew.... | 5,511 1,345 | 7,360 $\mathbf{2 , 1 6 4}$ |  | $\begin{array}{r}1953 \\ 2,292 \\ \hline\end{array}$ | 1,193 |
| Richmond Hidgetown. | 1,345 1,944 | 2,164 2,365 | Nortage la P | 7,187 | 8.511 |
| Ridgetown Riverside. | 1,944 4.878 | 2,214 <br> 15 | Powerview. | 1 | 1,075 |
| Rockeliffe Park | 1,480 | 1,595 | Rivers. | 802 | 1,209 |
| Rockland... | 2,040 | 2,348 | Roblin. | 765 | 1,055 |
| St. Catharine | 30,275 | 37,984 | Russell. | 783 | 1,100 |
| St. Mary's. | 3,635 | 3.995 | St. Boniface | 18,157 | 26.342 |
| St. Thomas. | 17.132 | 18,173 | Selkirk. | 4,915 | 6,218 |
| Sarnia. | 18,734 | 34,697 | Souris. | 1,346 | 1,584 2,155 |
| Sault Ste. Mar | 25,794 | 32,452 | Steinbach |  | 2,154 |
| Seaforth. | 1,608 | 2,184 1,184 | Swan River | 1,129 | 2,290 |
| Shelburne | 6,037 | 7,269 | The Pas.... | 3,181 | 3,376 |
| Sioux Lookout | 1,756 | 2,364 | Transcona | 5,495 | 6,752 |
| Smith's Falls. | 7.159 | 8,441 | Tuxedo.. | 735 | 1,627 |
| Smooth Rock Falls. | +953 | 1,102 1 | Virden | $\begin{array}{r}1,619 \\ \hline 957\end{array}$ | 1,746 1,331 |
| Southampton. | 1,085 | 1,280 | Winnipeg. | 221,960 | 235,710 |

[^53]9.-Incorporated Cities, Towns and Villages having Populations of 1,000 or over,
by Province, Census 1951 compared with 1941-concluded

| Province and Incorporated Centre | 1941 | 1951 | Province and Incorporated Centre | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Saskatebewan- | No. | No. | Alberta-concluded | No. | No. |
| Assiniboia ... | 1,349 | 1.938 | McLennan | ${ }^{2}$ | 1,074 |
| Battleford | 1,317 | 1,319 | Medicine Hat | 10,571 | 16.364 |
| Biggar | 1.930 | 2.214 | Olds | 1,337 | 1,617 |
| Canora. | 1,200 | 1,568 | Peace River | 873 | 1,672 |
| Estevan | 2,774 | 3,935 | Pincher Creek | 99.4 | 1,456 |
| Eston. | 726 | 1,301 | Ponoka... | 1,306 | 2,574 |
| Gravelbourg | 1,130 | 1,197 | Raymond | 2,089 | 2,279 1.538 |
| Grentell... | 857 547 | 1,007 1,115 | Redeliffi.. | 1,111 2,924 | 1.538 7.575 |
| Hudson Bay | 547 1.767 | 1,115 2,435 | Red Deer | 2,924 | 7,575 1,306 |
| Humboldt. | 1,767 1,349 | 2.435 $!.564$ | Redwater.......... | 800 | 1,147 |
| Kamsack.... | 1,792 | 2.327 | St. Albert. ....... | 697 | 1,129 |
| Kindersley | 990 | 1,755 | St. Paul. . | 1.018 | 1,407 |
| Lloydminster ${ }^{1}$ | 1,624 | 3.938 | Stettler | 1,295 | 2,442 |
| Maple Creek. | 1,085 | 1.638 | Taber | 1,331 | 3,042 |
| Meadow Lake | 971 | 1.956 | Three Bills | 706 | 1.026 |
| Melfort. | 2,005 | 2.919 | Vegreville | 1,698 | 2,223 |
| Melville | 4,011 | 4,458 | Vermilion | 1,408 | 1,982 |
| Moose Jaw | 20,753 | 24.355 | Vulcan | 732 | 1,040 |
| Moosomin | 1,096 | 1.235 | Wainwrigh | 980 | 1,996 |
| Nipawin. | 1,344 | 3.050 | Westlock | 590 | 1,111 |
| North Battleford | 4,745 | 7,473 | Wetaskiw | 2,318 | 3,824 |
| Prince Albert. | 12,508 | 17, 149 |  |  |  |
| Regina. | 58,245 | 71,319 | British Columbia- |  |  |
| Rosetown | 1,470 | 1,865 | Alberni | 1,807 | 3.323 |
| Rosthern | 1,149 | 1.183 | Armstrong. | 977 | 1,126 |
| Saskatoo | 43,027 | 53,268 | Campbell River |  | 1,986 |
| Shaunav | 1,603 | 1,825 | Castlegar |  | 1,329 |
| Sutherlan | 888 | 1,329 | Chilliwack | 3.675 | 5,663 |
| Swift Curre | 5.594 | 7,458 | Courtenay | 1,737 | 2,553 |
| Tisdale. | 1.237 | 2,141 | Cranberry Lake. |  | 1,350 |
| Unity. | 682 | 1,248 | Cranbrook | 2,568 | 3,621 |
| Wadena | 679 | 1,081 | Creston. | 1,153 | 1,626 |
| Watrous | 1, 138 | 1,228 | Dawson Cree | 518 | 3,589 |
| Weyburn | 6,179 | 7.148 | Duncan. | 2,189 | 2,784 |
| Wilkie. | 1,252 | 1.580 | Fernie | 2,545 | 2,551 |
| Wynyard | 1.080 | 1.326 | Grand Forks | 1,259 | 1,646 |
| Yorkton. | 5577 | 7.074 | Hope | 515 | 1,668 |
| Alberta- |  |  | Kamloop | 5,959 5,118 | 8,099 8,517 |
| Athabasca | 578 | 1.068 | Kimber le |  | 5,933 |
| Barrhead. | 399 | 1.243 | Ladysmith | 1.706 | 2,094 |
| Beverly | 981 | 2,159 | Lake Cowicha | 2 | 1,628 |
| Black Diam | 890 | 1,154 | Merritt | 940 | 1,251 |
| Blairmore | 1,731 | 1,933 | Mission City | 1,957 | 2,668 |
| Bonnyville | 603 | 1.139 | Nanaimo | 6,635 | 7,196 |
| Bowness. |  | 2.922 | Nelson. | 5.912 | 6,772 |
| Brooks | 888 | 1,648 | New Westminster | 21.967 | 28,639 |
| Calgary. | 89.904 | 129,060 | North Kamloops. |  | 1,979 |
| Camrose | 2.598 | t. 131 | North Vancouver | 8.914 | 15,687 |
| Cardston | 1,864 | 2487 | Oliver |  | 1,000 |
| Claresholm | 1,265 | 1,608 | Penticton | ${ }^{3}$ | 10.548 |
| Coleman | 1,870 | 1,961 | Port Alberni. | 4,584 | 7,845 |
| Didsbury | 892 | 1,180 | Port Coquitlan | 1.539 | 3,232 |
| Drumheller | 2,748 | 2,601 | Port Moody. | 1,512 | 2,246 |
| Edmonto | 93,817 | 159.631 | Prince George | 2,027 | 4,703 |
| Edson. | 1.499 | 1,956 | Prince Rupert | 6,714 | 8,546 |
| Forest Lawn | 899 | 1,079 | Quesnel..... | ${ }^{6} 653$ | 1,587 |
| Fort Saskatche | 903 | 1,076 | Revelstoke | 2,106 | 2,917 |
| Grande Prair | 1,724 | 2,664 | Rossland | 3,657 | 4,604 |
| Hanna. | 1.622 | 2,027 | Salmon Arm | 836 | 1,201 |
| High Prair |  | 1.141 | Smithers. | 759 | 1,204 |
| High Rive | 1.430 | 1,888 | Trail. | 8.392 | 11,430 |
| Innisfail.... | 1.223 | 1,417 | Vancouve | 275,353 | 344, 833 |
| Jasper Place |  | $\begin{array}{r}9,139 \\ 2 \\ \hline 177\end{array}$ | Vernon. | 5.209 | 7,822 |
| Leduc. |  | 1,842 | Westvi |  | -3,507 |
| Lethbridg | 14,612 | 22,947 |  |  |  |
| Macleod. | 1,912 | 1. 260 | Yukon Territory - |  |  |
| Magrath. | 1,207 | 1320 | Whitehorse . | 754 | 2,594 |

[^54]${ }^{2}$ Not incorporated in 1941.
${ }^{2}$ Penticton District Muni-

## Section 7.-Sex and Age Distribution

Sex.-The sex distribution of the Canadian people has been characterized since early colonial times by a preponderance of males, although this condition has been greatly modified in more recent years. In 1666, during the early years of settlement by French immigrants, 63.3 p.c. of the population were males. In 1784 , when British immigration to Canada was commencing, there were 54,064 males and 50,759 females and by the middle of the nineteenth century there were 449,967 males to $440,29 \pm$ females in Lower Canada and 499,067 males to 452,937 females in the more newly settled Upper Canada. Since Confederation, the newer sections of Canada-the west and the northwest-have shown the greatest excess of males.

From 1871 to 1941, for Canada as a whole, the proportion of males never dropped below 51 p.c. of the total population, whereas for Western Canada it varied between 53 p.c. and 59 p.c. By 1951, however, the proportion of males to the total population had dropped to $50 \cdot 6$ p.c. for Canada as a whole.

## 10.-Sex Distribution of the Population, by Province, Decennial Census Years 1921-51

Note.-Figures for the Censuses of 1871, 1881, 1891, 1901 and 1911 are given in the 1948-49 Year Book, p. 150 .

| Province <br> or Territory | 1921 |  | 1931 |  | 1941 |  | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Fermale | Male | Female | Male | Fermale | Male | Female |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland. | 44,887 | 43.728 | 45,392 | 42.646 | 49,228 | 45.819 | 185,143 50,218 | 176,273 48,211 |
| Nova Scotia... | 266,472 | 257,365 | 263,104 | 249,742 | 296,044 | 281,918 | 324,955 | 317,629 |
| New Brunswick | 197,351 | 190,525 | 208,620 | 199,599 | 234,097 | 223,304 | 259,211 | 256,486 |
| Quebec. | 1,179,651 | 1,180,859 | 1,447,326 | 1,427,336 | 1,672,982 | 1,658,900 | 2,022,127 | 2,033,554 |
| Ontario. | 1,481,890 | 1,451,772 | 1,748,844 | 1,682,839 | 1,921,201 | 1,866,454 | 2,314,170 | 2,283,372 |
| Manitoba. | 320,567 | 289,551 | 368,065 | 332,074 | 378,079 | 351,665 | 394,818 | 381,723 |
| Saskatchew | 413,700 | 343,810 | 499,935 | 421,850. | 477,563 | 418,429 | 434,568 | 397, 160 |
| Alberta. | 324,208 | 264,246 | 400, 199 | 331,406 | 426,458 | 369,711 | 492.192 | 447,309 |
| British Columb | 293,409 | 231,173 | 385,219 | 309,044 | 435,031 | 382,830 | 596,961 | 568,249 |
| Yukon | 2,819 | 1,338 | 2,825 | 1,405 | 3,153 | 1,761 | 5,457 | 3,639 |
| N.W.T. | 4,204 | 3,939 | 5,012 | 4,304 | 6.700 | 5,328 | 9,053 | 6,951 |
| Canada | 4,529,643 | 4,258,306 | 5,374,541 | 5,002,245 | 5,900.536 | 5,606,119 | 7,088,873 | 6,920,556 |

${ }^{1}$ Includes 485 members of the Royal Canadian Navy recorded separately.
Age.-The age distribution of a population is fundamental to most, if not all, other analyses, for the age factor influences employment, marriage, birth rates and death rates, education, immigration, criminology and a multitude of events and activities that are of great importance in the national life.

Immigration has a strong influence on age distribution: it does not directly affect the very young sections of the population except to a small degree, but it immediately affects the age groups between the 'teens' and the 'twenties' and its effects are carried to the older groups as time goes by. Thus, the influence of the
very heavy immigration of the early years of the century (1900-11) is indicated by the fact that, in $1901,175 \cdot 9$ persons per 1,000 of the total population were in the age group 20-29 years and 131-3 persons per 1,000 in the group 30-39 years; a decade later, $190 \cdot 7$ per 1,000 were in the former group and $142 \cdot 9$ in the latter. Since immigration slowed down very decidedly after the outbreak of war in 1914, the influence of these earlier accretions to the population has crept through the upper age groups year by year until it has now reached those of the population in their 'fifties'.

Between 1931 and 1941 a more pronounced general ageing of the population is shown, a result of almost non-existent immigration and a lower birth rate-factors that were emphasized during the depression years. In 1921, the number per 1,000 of total population between 40 and 59 years of age was 183; it was 201 in 1931 and 209 in 1941. Greater proportional increases, however, are shown by the group 60 years of age or over; this group represented 75 per 1,000 of the total population in 1921, 84 in 1931 and no less than 102 per 1,000 in 1941.

In 1951, there were $203 \cdot 2$ persons per 1,000 of total population between 40 and 59 years of age and $113 \cdot 7$ in the group 60 years of age or over. However, there were $222 \cdot 7$ persons per 1,000 of total population in the under 10 years of age group in 1951 as compared with $182 \cdot 3$ in 1941, 212.7 in 1931 and $240 \cdot 0$ in 1921.

Table 11 shows the population of Canada classified by five-year age groups and sex for the census years 1931, 1941 and 1951. The provincial distribution from the 1951 Census, by specified age'groups, is shown in Table 12.
11.-Male and Female Populations by Age Group, Census Years 1931, 1941 and 1951


[^55]12.-Age Distribution of the Population, by Province, Census 1951

| Province or Territory | 0-4 | 5-9 | 10-14 | 15-19 | 20-24 | 25-34 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Newfoundland. | 58,831 | 46,433 | 36,126 | 30,403 | 26,718 | 48,871 |
| Prince Edward Island | 13, 213 | 10,358 | 9,294 | 8,296 | 6,557 | 12,739 |
| Nova Scotia...... | 82.540 | 68.816 | 58,131 | 51,533 | 46,275 | 93, 276 |
| New Brunswick | 74,869 | 59,504 | 49,541 | 42,850 | 36,559 | 72,167 |
| Quebec. | 541,524 | 463,444 | 361,140 | 337,501 | 340,902 | 629,310 |
| Ontario. | 514,722 | 399,292 | 325, 300 | 315,685 | 352,360 | 738,282 |
| Manitoba | 89.977 | 72,594 | 60.143 | 57,188 | 58,752 | 120,780 |
| Saskatchew | 99,855 | 81,782 | 73,615 | 68.482 | 62,613 | 122,602 |
| Alberta. | 116,846 | 93.063 | 76,897 | 73,941 | 75,527 | 148, 666 |
| British Columbia | 125,886 | 99,892 | 78,609 | 70,230 | 79,824 | 182,370 |
| Yukon Territory | 1,319 | . 809 | ${ }^{5} 26$ | 435 | 934 | 2,115 |
| Northwest Territories | 2,527 | 1,838 | 1,461 | 1,428 | 1,620 | 2,771 |
| Canada. | 1,722,109 | 1,397,825 | 1,130,783 | 1,057,972 | 1,088,641 | 2,173,949 |
|  | 35-44 | 45-54 | 55-64 | 65-69 | $70+$ | Total |
|  | No. | No. | No. | No. | No. | No. |
| Newioundland. | 41,417 | 27,883 | 21,244 | 9,071 | 14,419 | 361,416 |
| Prince Edward Island. | 11,641 | 8,985 | 7,639 | 3,268 | 6,439 | 98,429 |
| Nova Scotia. | 82,912 | 57,822 | 46,354 | 19,440 | 35,485 | 642,584 |
| New Brunsw | 61,576 | 44,147 | 35,451 | 14,286 | 24,747 | 515,697 |
| Quebec. | 518,290 | 375,657 | 255.816 | 93,161 | 138,936 | 4,055,681 |
| Ontario. | 643,139 | 515,607 | 392,792 | 155,097 | 245, 266 | 4,597,542 |
| Manitoba | 105,984 | 78,852 | 66,803 | 27,347 | 38,121 | 776,541 |
| Saskatchewan | 107,217 | 79,188 | 69,161 | 29,103 | 38.110 | 831,728 |
| Alberta | 123,480 | 92,480 | 71,658 | 29,439 | 37,504 | 939,501 |
| British Columbia | 168,819 | 124,693 | 108,750 | 52,927 | 73,210 | 1,165,210 |
| Yukon Territory | 1.313 | 750 | 428 | 186 | 281 | 9,096 |
| Northwest Territories. | 1,912 | 1,271 | 746 | 172 | 258 | 16,004 |
| Canad | 1,867,700 | 1,407,335 | 1,076,842 | 433,497 | 652,776 | 14,009,429 |

## Section 8.-Marital Status

Next to the sex and age distribution of a population, that of marital status is probably most fundamental from a vital, economic and social viewpoint. The number of married females between 15 and 45 years of age is a most significant factor in the fertility of a population; if the proportion of females in this group is small, the expected proportion of births will also be small. In $1951,64 \cdot 0$ p.c. of all married females were in the age group $15-44$ as compared with $61 \cdot 2 \mathrm{pc}$. in 1941 and $63 \cdot 5$ p.c. in 1931. This indicates a resumption of conditions favourable to the birth rate that prevailed from 1871 to 1921 but was arrested temporarily during the period of world-wide depression.

Although Canada has more single than married citizens, information from the 1951 Census shows that the nation's married population grew more than twice as fast as the single population in the decade between 1941 and 1951. With a total population increase of nearly 22 p.c., the number of single persons in Canada increased by 13.5 p.c., married by 32.2 p.c., widowed by 22.5 p.c. and divorced by $128 \cdot 0$ p.c. The entry of Newfoundland into Confederation accounted for 3.3 p.c. of the increase in single persons, $2 \cdot 9$ p.c. in married and widowed persons combined and 0.5 p.c. in divorced persons. Other striking statistics of marital status are the excess of married males over married females (largely owing to a preponderance of male immigrants whose wives had yet to join them), the great preponderance of widows compared with widowers and the large and increasing number of divorced persons.
13.-Marital Status of the Population, by Age Group and Sex, Census 1951


## Section 9.-Origins

A population composed of diverse racial stocks gives rise to political, economic and social problems quite different in nature from those of one with a small admixture of forcign elements, although, to the extent that certain racial stocks are more readily assimilated than others, the problems are mitigated. It is equally true that the different educational, moral, economic, religious and political backgrounds of a people of mixed origins lend variety and diversity to the national life.

The two basic stocks of the Canadian people are the French and the English: historically the French is much the older and, excepting at the time of the 1921 Census, has always exceeded in numbers any one of the basic British stocks.

For purposes of the census, a person's origin or cultural group is traced through his father. For example, if a person's father is German and his mother Norwegian, the origin is entered as "German". Wherever possible, the origin of a person is established by asking the language spoken by the person or by his paternal ancestor when he first came to Canada.

## 14.-Origins of the Population, Census Years 1931, 1941 and 1951

Nore.-Figures for the Decennial Censuses 1871-1921 are given in the 1948-49 Year Book, p. 154.

| Origin | 1931 | 1941 | 1951 | Origin | 1931 | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. |  | No. | No. | No. |
| British | 5,381,071 | 5,715,904 | 6,709,685 | Other European- |  |  |  |
| Englis | 2,741,419 | 2,968,402 | 3,630,344 | concluded |  |  |  |
| Irish... | 1,230,808 | $1,267,702$ | 1,439, 635 | Norwegian..... | 93.243 | 100.718 | 119,266 |
| Scottish | 1,346.350 | 1,403,974 | 1,547,470 | Polish........... | 145,503 | 167,485 | 219,845 |
| Other............ | 62,494 | 75,826 | 92,236 | Roumanian | 29,056 | 24,689 | 23,601 |
|  |  |  |  | Russian. | 88,149 | 83,708 | 91,279 |
|  |  |  |  | Swedish ......... | 81,306 | 85,396 | 97,780 |
|  |  |  |  | Ukrainian. | 225,113 | 305,929 | 395,043 |
|  |  |  |  | Yugoslavic........ | 16,174 | 21,214 | 21,404 |
| Other European..French......... | $\begin{aligned} & \mathbf{4}, 753,242 \\ & 2,927,990 \end{aligned}$ |  | 6,872,889 | Other............. | 9,392 | 9,787 | 35,616 |
|  |  | 3,483,038 | 4,319.167 |  |  |  |  |
| Austrian. | 27,585 | 37,715 | 32,231 |  |  |  |  |
| Belgian.......... |  | 29,711 | 35,148 | Asiatic............ | $\begin{aligned} & 84,548 \\ & 46,519 \end{aligned}$ | $\begin{aligned} & \mathbf{7 4 , 0 6 4} \\ & 34,627 \end{aligned}$ | 72,827 |
| Czech and |  |  |  | Chinese........... |  |  |  |
| Slovak........ | 30,401 | 42.912 | 63,959 | Japanese. <br> Other. | 23,342 | ${ }^{23,149}$ | 18,636 |
| Danish........... | 34,118 43,885 | 37,439 41,683 | 42,671 43,745 |  | 14,687 | 16,288 |  |
| German......... | 473, 544 | 464,682 | 619,905 | Other Origins..... | 157,935 | 189,723 | 354,023 |
| Greek. |  | 11,692 | 13,86060,460 |  |  |  |  |
| Hungarian | 40,582 | 54,598 |  | Native Indian and Eskimo | 128,890 | 125,521 |  |
| Icelandic. | 19,382 | 21,050 | 23,307 |  |  |  | $\begin{array}{r} 165,607 \\ 18,020 \end{array}$ |
| Italian. | 98, 173 | 112,625 | 152,245 | Negro............ | 19,456 | 22,174 |  |
| Jewish..... | $\begin{array}{r} 15,726 \\ 5,876 \\ 148,962 \end{array}$ | $\begin{array}{r} 177,241 \\ 7,789 \\ 212,863 \end{array}$ | $\begin{aligned} & 181,670 \\ & 16,224 \\ & 264,267 \end{aligned}$ | Other and not stated. <br> Totals | 9,579 | 42.0281 | 170,401 |
| Netherlander..... |  |  |  |  |  |  |  |
|  |  |  |  |  | 10,376,786 | 11,506,655 | 14,009,429 |

${ }^{1}$ Includes 35,416 half-breeds.

## Section 10.-Religious Denominations

At each census the numbers of persons attached to any religious denomination, as reported by the persons enumerated, have been recorded. The distribution of the principal denominations for the census years 1931, 1941 and 1951 is given in Table 15.

## 15.-Principal Religious Denominations of the Population, Census Years 1931, 1941 and 1951

Nore.-More detailed figures for the Decennial Censuses 1871-1921 are given in the 1948-49 Year Book, p. 155.

| Religious Denomination | 1931 | 1941 | 1951 |  | Religious Denomination | 1931 | 1941 | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | o. | p.c. |  | No. | No. | No. | p.c. |
| Adventist. | 16,058 | 18,485 | 21,398 | 0.2 | Pentecostal.. | 26,349 | 57,742 | 95,131 | 0.7 |
| Baptist.... | 443,944 | 484,465 | 519,585 | $3 \cdot 7$ | Presbyteriad | 872,428 | 830,597 | 781,747 | $5 \cdot 6$ |
| Christian | 18,499 | 20,261 | 20,795 | $0 \cdot 1$ | Roman ${ }_{\text {Catholic.... }}$ | 4,102,960 | 4,806,431 | 6,089,496 | $43 \cdot 3$ |
| England in |  |  |  |  | Army ${ }_{\text {, }}$.... | 30,773 | 33,609 | 70,275 | 0.5 |
| Canada..... | 1,639,075 | 1,754,368 | 2,060,720 | 14.7 | Ukrainian |  |  |  |  |
| Evangelical Church | 22,239 | 37,064 | 50,900 | 0.4 | (Greek) | 186,879 ${ }^{2}$ | 185,948 ${ }^{2}$ | 190,831 | 1.4 |
| Greek | 22,230 |  |  |  | United |  |  |  |  |
| Orthodox... | 102,529 | 139,845 | 172,271 | 1.2 | Church of |  |  |  |  |
| Jewish...... | 155.766 | 168.585 | 204, 836 | 1.5 | Canada. | 2,021,065 | 2,208,658 | 2,867, 271 | 20.5 2.0 |
| Lutheran ... | 394,920 | 401,836 | 444,923 | $3 \cdot 2$ | Other. ...... | 232,424 | 221,879 | 280,424 | 2.0 |
| Mennonite ${ }^{\text {1 }}$.. | 88,837 | 111,554 | 125.938 32.888 | 0.9 0.2 |  |  |  |  |  |
| Mormon..... | 22,041 | 25,328 | 32,888 | $0 \cdot 2$ | Totals. | 10,376,786 | 11,506,655 | 14,009,429 | $100 \cdot 0$ |

[^56]${ }^{2}$ Includes "Other Greek Catholic".

## Section 11.-Countries of Birth

The census collects information on both country of birth of immigrant arrivals in Canada and province of birth of the native-born. For persons born outside of Canada the country of birth, as constituted at the date of the census, is recorded. Table 16 gives the total population by countries of birth for the census years 1931, 1941 and 1951.

## 16.-Countries of Birth of the Population, Census Years 1931, 1941 and 1951

Notg.-Figures for the Decennial Censuses 1871-1921 are given in the 1948-49 Year Book, p. 158.

| Country of Birth | 1931 | 1941 | 1951 | Country of Birth | 1931 | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Canada. <br> United Kingdom <br> Other Commonwealth. | No. | No. | No. |  | No. | No. | No. |
|  | 8,069,261 | $9,487,808$ <br> 960,125 | $\begin{array}{r} 11,949,518 \\ 912,482 \end{array}$ | Europe-concl. <br> Union of Soviet |  |  |  |
|  | 1,138,942 ${ }^{1}$ |  |  |  |  |  |  |
|  |  |  |  | lies ${ }^{2}$, ${ }_{\text {Scandinavian }}$ | 133,869 | 124,402 | 188,292 |
| Europe. | 75,888 714,462 | 45,644 653.705 | 801.618 | Scandinavian <br> countries ${ }^{2}$ | 90,042 | 72,473 | 64,522 |
| Belgium | 17,033 | 14.773 | 17,251 | Central European |  |  |  |
| Finland | 30,354 | 24,387 | 22,035 | countries ${ }^{\text {a }}$........ | 317,350 | 309, 360 | 305, 192 |
| France. | 16,756 | 13,795 | 15,650 | Other Europe...... | 11, 002 | 9.810 | 38,143 |
| Germany | 39,163 | 28,479 5 | 42,693 |  | 60,608 | 44,443 312 | 37,145 |
| Greece. | 5, 579 | 5,871 | 8.594 | United States...... | 344, 574 | 312,473 | 282010 |
| $\stackrel{\text { Italy }}{\text { Netherlands }}$ | 42.578 10,736 | 40,432 9,923 | 57,789 41,457 | Other countries.... | 3,051 | 3,512 | 6,089 |
|  |  |  |  | Totals | 10,376,78 | 506,65 | 009,429 |

[^57]
## Section 12.-Languages and Mother Tongues

Official language is not to be confused with mother tongue. Mother tongue is the language a person first spoke in childhood and still understands; official language (a term used herein for census purposes) refers only to the English and French languages. The numbers of persons speaking one, both or neither of the official languages are given in Table 17, classified by province.

## 17.-Population Speaking One, Both or Neither of the Official Languages, by Province, Census 1951

Nore.-Infants are classed as speaking the language of the home.

| Province or Territory | Population Speaking- |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | English Only | French Only | English and French | Neither English nor French |
|  | No. | No. | No. | No. |
| Newfoundland. ..... | 356,377 | 153 | 3,990 | 896 |
| Prince Edward Island | 88,743 | 914 | 8,745 | 27 |
| New Brunswick | 318,560 | 100,712 | -96,095 | 330 |
| Quebec. | 462,813 | 2,534,242 | 1,038,130 | 20,496 |
| Ontario.. | 4,115,584 | 78,974 | - 359,965 | 43,019 |
| Manitoba. | 685,914 | 7,869 | 58,441 | 24,317 |
| Alberta. | 767,248 | 4,656 | 40,789 | 19,035 |
| British Columbia | 868,696 $1,112,937$ | 5,922 | 40,785 | 24,098 |
| Yukon Territory. | 1,112,337 | 727 10 | $\begin{array}{r}39,433 \\ \hline 519\end{array}$ | 12,113 |
| Northwest Territories | 6,929 | 171 | 1,031 | 7,873 |
| Canada. | 9,387,395 | 2,741,812 | 1,727,447 | 152,775 |

Mother tongue spoken is dealt with in Table 18, which shows that $1,659,770$ persons, at June 1, 1951, had neither English nor French as mother tongue.
18.-Mother Tongues of the Population, Census 1951

Norz.-Infants are classed as speaking the language of the home.

| Mother Tongue | Number | Percentage of Total | Mother Tongue | Number | Percentage of Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| English. | 8,280,809 | $59 \cdot 11$ | Lithuanian. | 12,307 | 0.09 |
| French. | 4,068, 850 | 29.04 | Magyar.... | 42,402 | 0.30 |
| Chinese. | 23,289 | 0.20 | Netherlander. | 87,935 | 0.63 |
| Danish. | 15,714 | $0 \cdot 11$ | Norwegian. | 43,831 | 0.31 |
| Estonian | 8,784 | 0.06 | Polish....... | 129,238 | 0.92 |
| Finnish. | 31,771 | 0.23 | Roumanian. | 10,105 | 0.07 |
| Flemish. | 12,623 | 0.09 | Russian. ....... | 39,223 | 0.28 |
| Gaelic. | 13,974 | $0 \cdot 10$ | Serbo-Croatian. | 11,031 | 0.08 |
| German | 329,302 | $2 \cdot 35$ | Slovak.. | 45,516 | 0.32 |
| Greek. | 8,036 | 0.06 | Swedish.. | 36,096 | 0.26 |
| Icelandic. | 11,207 | 0.08 | Syrian and Arabic. | 5,475 | 0.04 |
| Indian and Eskimo. | 144,787 | 1.03 | Ukrainian........ | 352,323 | 2.51 |
| Italian. | 92,244 |  |  | 103,593 | 0.74 |
| Japanese. | 17,599 | 0.12 0.05 | Other | 19,356 | $0 \cdot 14$ |
| Lettish |  |  | Tota | 14,009,429 | 100.00 |

## Section 13.-Dwellings, Households and Families

A fairly complete summary of the principal statistics on dwellings, households and families recorded at the 1951 Census is given in the 1954 Year Book, pp. 139-145. More detailed information may be found in Vol. III of the 1951 Census. The subject is only briefly covered in this Section.

Dwellings and Households.*-The 1941 Census of Housing was based on a 10 -p.c. sample of dwellings situated within the nine provinces. For the 1951 Census, the size of the sample was increased to 20 p.c. and the coverage included Newfoundland but, as in 1941, did not extend to the Yukon and Northwest Territories. For comparison purposes, Newfoundland is omitted from the 1951 figures in Table 19.

Table 19 shows that the increase in the number of dwellings during the 1941-51 decade was 11 p.c. higher than the increase in population, thus reducing the number of persons per dwelling from $4 \cdot 3$ to $4 \cdot 0$. Definitional changes between 1941 and 1951 are partly responsible for the relatively larger increase in dwellings, particularly of the apartment and flat type. Since owned dwellings increased by $49 \cdot 1$ p.c. and rented dwellings by only $4 \cdot 2$ p.c., it would appear that many people who were tenants in 1941 have since bought homes, and that most new homes were built for owners rather than for tenant occupancy.

[^58]19.-Dwelling Characteristics, Census Years 1941 and 1951
(Ercludes Newfoundland and the Territories)

| Item | 1941 | 1951 | Increase 1941-51 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | p.c. |
| Population. | 11,489,713 | 13,622,913 | 2,133,200 | 18.6 |
| Occupied Dwellings ${ }^{1}$ | 2,575,744 | 3,338,315 | 762,571 | 29.6 |
| Single detached.. | 1,853,454 | 2,216,275 | 362,821 | $19 \cdot 6$ |
| Apartments and flata. | 533,034 | 881,245 | 348,211 | 65-3 |
| Single attached... | 189,256 | 240,795 ${ }^{2}$ | 51,539 | $27 \cdot 2$ |
| Owned....... | 1,459,357 | 2,175,415 | 716.058 | $49 \cdot 1$ |
| Rented. | 1,116,387 | 1,162,900 | 46,513 | $4 \cdot 2$ |
| Rooms per dwelling | 5-5 | $5 \cdot 3$ | ... | ... |
| Persons per dwelling. | $4 \cdot 3$ | $4 \cdot 0$ | ... | ... |

${ }^{1}$ Exclusive of hotels, institutions, carmps, etc.
${ }^{2}$ Includes auto-trailers, houseboats, tents and other miscellaneous types.

The statistics of Table $\mathbf{2 0}$ reflect the high level of prosperity throughout the decade in both urban and rural areas. In 1951 a higher percentage of homes had indoor plumbing, electricity and furnace heating, and had such conveniences as mechanical refrigerators, electric vacuum cleaners, telephones, radios and passenger automobiles. There was a sharp drop in the number of homes needing major repair. Washing machines are not shown in Table 20 because there are no comparable 1941 figures but, in 1951, $72 \cdot 5$ p.c. of the dwellings possessed a powered type of washing machine. Though much of this advance may be attributed to general prosperity, part of the explanation of the trend is to be found in the increasing urbanization of the Canadian population and the availability of modern conveniences to rural areas.
20.-Housing Characteristics, Census Years 1941 and 1951
(Excludes Newfoundland and the Territories)

| Characteristics | 1941 |  | 1951 |  | Increase 1941-51 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ | No. | $\begin{gathered} \text { P.C. } \\ \text { of } \end{gathered}$ | No. | P.C. |
| Occupied Dwellings- <br> In need of major repair. Crowded dwellings ${ }^{1}$ | $\begin{aligned} & 695,736 \\ & 148,418 \end{aligned}$ | $27 \cdot 0$$18 \cdot 4$ | $\begin{aligned} & 450,625 \\ & 175,995 \end{aligned}$ | 13.516.0 | $-245,111$27,577 | $-35 \cdot 2$18.6 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Dwellings with- |  |  |  |  |  |  |
| Electric lighting | 1,780,667 | 69.1 | 2,929,450 | 87.8 | 1,148,783 | 64.5 |
| Furnace heating | 1,997,588 | 38.7 | 1,632,275 | 48.9 | -634,687 | $63 \cdot 6$ |
| Running water. | 1,558,586 | $60 \cdot 5$ | 2,503,080 | 75.0 | 944,484 | $60 \cdot 6$ |
| Flush toilet ${ }^{2}$... | 1,342,198 | 52.1 | 2,170,815 | 65.0 | 828.617 | 61.7 |
| Bath or shower ${ }^{2}$. | 1,169,760 | $45 \cdot 4$ | 1,926,455 | 57.7 | 756,695 | $64 \cdot 7$ |
| Electric or gas range.... | 1,019,421 | 39.6 | 1,696,130 | 50.8 | 676,709 | 66.4 |
| Electric or gas refrigeration | 538,535 | 20.9 | 1,589,625 | $47 \cdot 6$ | 1,051,090 | 195.2 |
| Electric vacuum cleaner. | 624,178 | $24 \cdot 2$ | 1,409,090 | 42.2 | 784,912 | $125 \cdot 8$ |
| Telephone. | 1,037, 298 | $40 \cdot 3$ | 2,013,640 | $60 \cdot 3$ | 976.342 | $94 \cdot 1$ |
| Padio.............. | $1,002,889$ $\mathbf{8 4 4 , 5 9 1}$ | 77.8 36.7 | 3,086,695 | 92.5 | 1,033, 806 | $54-1$ |
| Passenger automob | 944,591 | 36.7 | 1,435,925 | 43.0 | 491,334 | $52 \cdot 0$ |
| Owner-occupied non-farm dwellings reporting a mortgage. | 275,623 | $31 \cdot 2$ | 515,035 | $30 \cdot 9$ | 239,412 | 86.9 |
| Monthly Rent of Tenant-Occupiod Nonfarm Dwellings- <br> Under $\$ 30^{2}$. <br> \$30-\$59. <br> $\$ 80$ or over $\qquad$ | $\begin{array}{r} 738,294 \\ 221,189 \\ 24,034 \end{array}$ | $\begin{array}{r} 75 \cdot 1 \\ 22 \cdot 5 \\ 2 \cdot 4 \end{array}$ | $\begin{aligned} & 501,540 \\ & 437,315 \\ & 162,265 \end{aligned}$ |  |  | -32.197.9575.1 |
|  |  |  |  | $\begin{aligned} & 45 \cdot 5 \\ & 39 \cdot 8 \\ & 14 \cdot 7 \end{aligned}$ | $\begin{array}{r} -236,751 \\ 216,626 \\ 138,231 \end{array}$ |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

[^59]${ }^{2}$ For exclusive use of household. ${ }^{3}$ Includes "rent-

Families.*-The number of families increased at a greater rate during the 1941-51 decade than the general population, with the result that the average number of persons per family dropped from $3 \cdot 9$ to $3 \cdot 7$. Table 21 shows that families with no children or with one or two children increased proportionately at the expense of families with three or more children. It is also interesting to note that the increase in number of families was greater than the increase in the number of children in families. This does not necessarily indicate a trend in the birth rate. Other factors have an important bearing, such as the ageing of the population, the great increase in the marriage rate during the years just prior to the 1951 Census, and the tendency for young people to leave the family home for employment elsewhere.

[^60]
## 21.-Family Characteristics, Census Years 1941 and 1951 <br> (Excludes Newfoundland and the Territories)

| Item | 1941 | 1951 | Increase 1941-51 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | p.c. |
| Population. | 11,489,713 | 13,622,913 | 2,133,200 | 18.6 |
| Families. | 2,525,299 | 3,207,587 | 682,288 | 27.0 |
| Persons per family. | ${ }^{3 \cdot 9} 92$ | ${ }_{357}^{3.7}$ | ${ }_{684} \mathbf{- 0 . 2}$ | 14.2 |
| Children in families | 4,692,571 | 5.357,344 | 664,773 | 14.2 |
| Percentage of families with- | p.c. | p.c. |  |  |
| No children at home..... | 31.2 | 32.5 | ... | ... |
| $1-2$ children. | $41 \cdot 1$ | $43 \cdot 4$ | ... | ... |
| 3-4 children. | 17.0 | 16.5 | ... | .. |
| 5 or more children. | $10 \cdot 7$ | $7 \cdot 6$ | ... | ... |

## Section 14.-The Blind and Deaf Population

Information was obtained in the 1951 Census for totally blind or deaf persons. Persons blind in one eye, for example, were not recorded as blind and partially deaf persons, such as those able to hear with the help of a mechanical aid, were not included. Table 22 shows the number and proportion of totally blind and deaf persons per 10,000 population in each province and territory. More detailed information on this subject is contained in Vol. II of the 1951 Census.

## 22.-Number of Blind and Deaf Persons and Proportion per 10,009 Population, by Province, 1951

| Province or Territory | Number |  |  | Number per 10,000 Population |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Blind | Deaf | Blind and Deaf | Blind | Deaf | Blind and Deaf |
| Newfoundland. | 513 | 497 | 27 | $14 \cdot 2$ | 13.8 | 0.7 |
| Prince Edward Island. | 104 | 88 | 4 | $10 \cdot 6$ | 8.9 | 0.4 |
| Nova Scotia.......... | 943 | 747 | 43 | $14 \cdot 7$ | 11.6 | 0.7 |
| New Brunswick | 744 | 554 | 33 | 14.4 | 10.7 | 0.6 |
| Quebec...... | 3.734 | 5,139 | 199 | $9 \cdot 2$ | 12.7 | 0.5 |
| Ontario.. | 4,173 | 3,897 | 200 | $9 \cdot 1$ | 8.5 | 0.4 0.4 |
| Manitoba. | 712 | 596 628 | 32 | $9 \cdot 2$ | $7 \cdot 7$ 7.6 | 0.4 |
| Saskatchewan. | 590 613 | 628 556 | 29 21 | $7 \cdot 1$ 6.5 | 7.6 5.9 | 0.3 0.2 |
| Alberta.......... | 613 972 | 556 907 | 21 68 | 6.5 8.3 | 5.9 7.8 | ${ }_{0.6}$ |
| ${ }_{\text {Yukon }}$ Territory | 972 8 | 9 4 | 68 | 8.8 | $4 \cdot 4$ |  |
| Northwest Territories........ | 18 | 3 | - | $11 \cdot 2$ | 1.9 | - |
| Canada. | 13,124 | 13,616 | 656 | 9.4 | 9.7 | 0.5 |

## Section 15.-Census of the Prairie Provinces

The Census and Statistics Act of 1905 and the Statistics Act of 1918 (replaced by the Statistics Act, 1948) provided for a census of population and agriculture for the Provinces of Manitoba, Saskatchewan and Alberta, to be taken in 1906 and every tenth year thereafter, in addition to the nation-wide decennial census.

The latest Prairie Provinces census was taken as of June 1, 1946, and the results are summarized in the 1948-49 Year Book, pp. 162-171, and in the 1951 Year Book, pp. 130-132. More detailed information is contained in the census volumes of the 1946 Census of the Prairie Provinces.

## Section 16.-The Indians and Eskimos of Canada

The Indians.*-Entry of native tribes into North America probably began as early as $\mathbf{1 5 , 0 0 0}$ years ago, according to the findings of archæologists. It is believed that roving bands of hunters, driven from their lands in northeastern Asia, crossed into North America by way of Bering Strait. Ethnic origins of the Indians appear to have varied. Though differences in language were many and varied somewhat from tribe to tribe, religious background and traditions seemed to stem from practically the same source.

There are ten linguistic groups of Indians in Canada, of which four are east of the Rocky Mountains-Algonkian, Athapaskan, Iroquoian and Siouan-and six are west of the Rockies-Kootenayan, Salishan, Wakashan, Tsimshian, Haida, and Tlinkit. Indians of Algonkian stock are the most numerous and are scattered throughout the area from the Atlantic seaboard to the Rocky Mountains. Included in the Algonkian stock are such tribes as the Micmacs of the Maritimes, the Montagnais of Quebec and the Ojibwas, Crees and Blackfeet who live in the Prairie Provinces. The Iroquoian stock, which includes the Hurons, is found mainly in Ontario and Quebec, while tribes of Sioux are located in the Prairie Provinces. The Northwest and Yukon Territories are the usual homelands of the Athapaskan.

According to the 1951 Census, there were 155,874 persons of Indian origin in Canada, distributed by province and sex as follows:-

| Province | Male | Female | Total | Province | Male | Female | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland | 184 | 174 | 358 | Saskatchewan. | 25 | 10,985 | 22,250 |
| P. E. IRland | ${ }^{136}$ | ${ }_{1}^{121}$ | ${ }^{257}$ | Alberta | 10,743 | 10,420 | 21,163 |
| Nowa Brotis |  | 1,338 | 2,717 | British Colur | .14, 632 | 13,876 | 28,478 |
| Quebec. | 7,556 | 7,075 | 14,631 | N.W. | 1.913 | 1,925 | ${ }^{1,533}$ |
| Ontario. | 19,025 | 18,345 | 37,370 |  |  | 1,925 | 3,838 |
| Manitoba. | 10,642 | 10,382 | 21,024 | Canada. | .79,343 | 76,531 | 155,874 |

These figures include all persons with a paternal ancestor of Indian race, many of whom have long been assimilated and have lost their identity as Indians. The number of persons considered as Indians under Indian legislation is placed (1949) at 136,407 . They are divided into about 600 Bands and live on 2,200 or more reserves set aside for their use and benefit.

[^61]Administration.-The primary function of the Indian Affairs Branch, under the Citizenship and Immigration Act and the Indian Act, is to administer the affairs of the Indians of Canada in a manner that will enable them to become increasingly self-supporting and independent. The functions of the Branch include the management of Indian reserves and surrendered lands, trust funds, welfare projects, relief, .amily allowances, education, descent of property, rehabilitation of Indian veterans on reserves, Indian treaty obligations, enfranchisement of Indians and other matters.

The Indian Act currently in effect was drafted following inquiry into Indian affairs by a Special Joint Committee of the Senate and the House of Commons during 1946, 1947 and 1948, and subsequent conferences with representative Indian groups. Proclaimed Sept. 4, 1951, the new Act succeeds an Act that was first consolidated in 1876 and amended from time to time.

The Indian Act provides a measure of self-government on reserves through Band councils chosen according to tribal custom or under an elective system of secret ballot. The various expenditures of Band funds, with few exceptions, require the consent of the Band council, comprising a chief and councillors. The right to vote in Band elections and other votes is extended to all members of a Band, men and women, who have reached the age of twenty-one years. A number of Indian women have been elected to office since the new Act came into force. Secrecy of voting has been provided under election regulations. The powers of Band councils to make by-laws correspond in a general way with those exercised by councils in a rural municipality.

Indians who are veterans of World Wars I or II and their wives may vote in federal elections. Indians who live off the reserve, under certain circumstances, also have the right to vote, while Indians who live on the reserve may vote if they waive exemption to taxation on personal property such as earnings or other incomes received on the reserve. Indians may sue and be sued, subject to provisions of the Indian Act which exempts from seizure real and personal property held on the reserve.

Enfranchisement, the removal of all legal distinction between Indians and other members of the community, is provided for under the Indian Act. An enfranchised Indian is no longer subject to the provisions of the Act. In order to facilitate enfranchisement of Indian Bands, agreements may be entered into with provincial or municipal authorities to provide financial assistance to indigent, infirm, or aged members of the enfranchised Band.

The nomadic existence followed by Bands of Indian hunters is gradually giving way to a more stable way of life. Many Indians are profitably engaged in the fishing industry on the British Columbia coast; Indians across Canada are being encouraged to engage in agricultural pursuits and are prominent in many other trades and occupations. For example, the reputation of the Indians from the Caughnawaga Reserve, near Montreal, as skilful structural steel workers is known throughout North America.

The Indian Affairs Branch takes a census of the Indian population under its jurisdiction at five-year intervals. The figures for 1949 given in Tables 23 and 24 are the latest available.

## 23．－Indian Population，classified by Age Group and Sex，by Province， Departmental Census， 1949

| Province or Territory | Under <br> 7 Years |  | 7 Years and Under 16 |  | $\begin{aligned} & 16 \text { Years and } \\ & \text { Under } 21 \end{aligned}$ |  | 21 Years and Under 70 |  | $\begin{aligned} & 70 \text { Years or } \\ & \text { Over } \end{aligned}$ |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | $\left\lvert\, \begin{gathered} \mathrm{Fe} \\ \text { male } \end{gathered}\right.$ | Male | $\begin{aligned} & \mathrm{Fe} \\ & \text { male } \end{aligned}$ | Male | $\mathrm{Fe}-$ male | Male | $\mathrm{Fe}-$ male | Male | $\begin{aligned} & \mathrm{Fe} \\ & \text { male } \end{aligned}$ | Male | $\mathrm{Fe}-$ male |
|  | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． |
| Prince Edwa | 24 | 20 | 33 | 33 | 16 | 9 | 68 | 58 | 6 |  |  | 26 |
| Nova Scoti | 273 | 243 | 292 | 302 | 123 | 132 | 635 | 544 | 50 | 47 | 1，373 | 1，268 |
| New Brunswi | 239 | 237 | 253 | 245 | 102 | 111 | 479 | 414 | 33 | 26 | 1，106 | 1，033 |
| Quebec | 1，587 | 1，642 | 1，611 | 1，655 | 844 | 839 | 3，832 | 3，407 | 293 | 260 | 8，167 | 7，803 |
| Ontari | 3，347 | 3，351 | 3，323 | 3，346 | 1，758 | 1，745 | 8,274 | 7，996 | 711 | 720 | 17，413 | 17，158 |
| Manitobe | 2，023 | 1，992 | 1，963 | 2，024 | 943 | 832 | 3，823 | 3,349 3 | 295 | 305 | 9，047 | 8，502 |
| Saskatche | 1，853 | 1，869 | 1，795 | 1，866 | 854 | 811 | 3.416 | 3，347 | 246 | 251 | 8，164 | 8，144 |
| Alberta | 1，681 | 1，708 | 1，626 | 1，570 | 693 | 675 | 2，844 | 2，541 | 201 | 266 | 7，045 | 6，760 |
| British Columbia | 3，147 | 3，144 | 3，003 | 3，149 | 1，423 | 1，412 | 6，332 | 5，245 | 550 | 531 | 14，455 | 13，481 |
| Yukon Territory | 158 | 171 | 147 | 163 | 67 | 73 | 333 | 286 | 25 | 72 | 730 | 713 |
| Northwest Territories．． | 396 | 338 | 375 | 393 | 189 | 181 | 923 | 842 | 63 | 72 | 1，946 | 1，826 |
| Totals． | 14，728 | 14，715 | 14，421 | 14，746 | 7，012 | 6，820 | 30，959 | 28，029 | 2，473 | 2，504 | 69，593 | 66，814 |

24．－Religious Denominations of the Indian Population，Departmental Census， 1949

| Province or Territory | $\begin{aligned} & \text { Church } \\ & \text { of } \\ & \text { England } \end{aligned}$ | Baptist | United Church | Presby－ terian | Roman Catholic | Other Christian Beliefs | Abori－ ginal Beliefs | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No． | No． | No． | No． | No． | No． | No． | No． |
| Prince Edward Island． | 二 | 二 | 二 | 二 | ${ }_{2} 273$ | － | － | ${ }_{2}^{273}$ |
| Nova Scotia． | $\sim$ | 二 | － | － | 2,641 2,139 | － | 二 | 2,641 2,139 |
| Quebec．． | 3，100 | － | 451 | － | 12，120 | 152 | 147 | 15，970 |
| Ontario． | 10，529 | 1，514 | 6，436 | 611 | 12，065 | 1，110 | 2，306 | 34，571 |
| Manitoba． | 5，735 | 12 | 4，586 | 731 | 6，251 | 118 | 116 | 17，549 |
| Saskatchewan | 4，980 | － | 1，682 | 184 | 8，402 | 25 | 1，035 | 16，308 |
| Alberta． | 1，963 | 127 | 1，708 | － | 9，768 | $\square$ | 239 | 13，805 |
| British Columbia | 5，561 | － | 5，623 | － | 15，977 | 775 | － | 27，936 |
| Yukon Territory ．．．．． | 1，191 | 二 | － | － | ${ }_{3} 210$ | 18 | 24 | 1，443 |
| Northwest Territories． | 668 |  |  |  | 3，104 | － | － | 3，772 |
| Totals． | 33，727 | 1，653 | 20，486 | 1，526 | 72，950 | 2，198 | 3，867 | 136，407 |

25．－Indian Lands and Property，by Class and Province，Year Ended Mar．31， 1954

| Province or Territory | Land |  |  |  | Property |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under Wood | Cleared but not Culti－ vated | Under Culti－ vation |  | Private Houses | Church－ <br> es | Council <br> Houses | Saw－ mills |
|  | acres | acres | acres | acres | No． | No． | No． | No． |
| Prince Edward Island．． | 1，721 | 820 | 200 | 2，741 | 53 | 1 | 1 | － |
| Novs Scotis．．．．．．．．．．．．．． | 24，988 | 1，493 | 818 | 19，492 | 528 | 10 | 1 | 2 |
| New Brunswick．．．．．．．．．．．． | 33，089 | 1，126 | 292 | 37.727 | 432 | 6 | 3 | 1 |
| Quebec．．．．．．．．．．．．．．．．．．．．． | 138，258 | 11，595 | 5，852 | 179，632 | 2，111 | 23 | 4 | 2 |
| Ontario．．．．．．．．．．．．．．．．．．．．． | 1，174，322 | 105，833 | 39，659 | 1，559，349 | 5，753 | 112 | 52 | 27 |
| Manitoba．．．． | 308，881 | 153，740 | 27，885 | 1524，424 | 3，730 | 73 | 18 | 14 |
| Saskstchewan | ${ }_{5421,971}$ | 593,086 757,306 | 170,079 159 | 1，204，562 | 3，275 | 58 35 | 19 | 4 |
| Aritish Columbia．．．．．．．．．．． | 542,862 401,834 | 757,306 | 159，432 | 1，516，622 | 3，159 | 35 | 18 | 3 |
| Yukon and Northwest ${ }^{\text {che．}}$ | 401，834 | 260，654 | 40，218 | 820，988 | 6，724 | 156 | 84 | 28 |
| Territories． | 3，854 | 50 | 13 | 5，459 | 175 | 1 | 1 | － |
| Totals． | 3，091，780 | 1，885，703 | 444，448 | 5，870，996 | 25，940 | 475 | 201 | 81 |

Education.-The proportion of Indians who have become satisfactorily adjusted to modern conditions is, of course, greater among those who have taken full advantage of the Federal Government's educational program. Residential schools are available to Indian children from broken homes, orphans or those who, because of isolation or the nomadic way of life of their parents, would otherwise be unable to attend school. For children who can live at home, the Federal Government operates day schools in Indian communities. Alternatively, where conditions are favourable, arrangements are made with local educational authorities for Indian children to attend non-Indian schools. An increasing number of Indian children in the elementary grades have been admitted to schools where other children are enrolled and the majority of Indian children attending secondary school and college classes are educated in association with non-Indians. The Federal Government pays the charges for school fees and books, necessary transportation and, for some students who must live away from home, part or all of the cost of room and board.

Similar assistance is given to Indian young people to encourage them to obtain vocational and professional training. Of those who have qualified as school teachers, 52 are now serving in Indian schools. Indians have qualified in medicine, dentistry, nursing, agriculture and other professions. Preference in appointment to positions in the Indian service is given to qualified Indians.

In the year ended Mar. 31, 1954, there were 461 Indian schools in operation, comprising 67 residential schools, 360 regular day schools, 22 seasonal schools and 12 hospital schools. The enrolment in residential schools was 11,090 and in all other schools, 17,084 . Enrolment by province was: P.E.I., 47; N.S., 627; N.B., 400; Que., 2,444; Ont., 6,566; Man., 4,045; Sask., 3,791; Alta., 3,697; B.C., 5,793; Y.T., 269; and N.W.T., 495.

## 26.-Enrolment and Average Attendance at Indian Schools, Years Ended Mar. 31, 1945-54

| Year | Residential Schools |  | Day Schools |  | All Schools |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Enrolment | Average Attendance | Enrolment | Average <br> Attend- <br> ance | Enrolment | Attendance |  |
|  |  |  |  |  |  | No. | P.C. of Enrolment |
| 1945. | 8,865 | 8,006 | 7,573 | 5,159 | 16,438 | 13,165 | 80.1 |
| 1946. | 9,149 | 8,264 | 9,656 | 6,779 | 18,805 | 15,043 | $80 \cdot 0$ |
| 1947. | 9,304 | 8,192 | 10,318 | 7,449 | 19,622 | 15,641 | 79.7 |
| 1948. | 8,986 | 7,863 | 11,115 | 8,296 | 20,101 | 16,159 | 80.3 |
| 1949. | 9,368 | 8,345 | 12,615 | 10,414 | 21,983 | 18,759 | $85 \cdot 3$ |
| 1950. | 9,316 | 8,593 | 14,093 | 12,060 | 23,409 | 20,653 | 88.2 |
| 1951. | 9,357 | 8,779 | 15,514 | 13,526 | 24,871 | 22,305 | 89.7 |
| 1952. | 9,844 | 9,175 | 15,746 | 13,673 | 25,590 |  |  |
| 1953. | 10,112 11,090 | 9,309 9,516 | 15,837 17,084 | 13,826 14,541 | 25,949 28,174 | 23,135 24,057 | $89 \cdot 2$ $85 \cdot 4$ |
| 1954. | 11,090 | 9,516 | 17,084 | 14,541 | 28,174 | 24,057 | $85 \cdot 4$ |

In addition to pupils in Indian schools there were 2,360 Indian children enrolled in elementary grades in provincial and private schools and 1,021 in secondary schools, making a total enrolment of Indians in educational classes of 31,555 . In the year ended Mar. 31, 1954, there were 1,621 Indians receiving secondary and bigher education.

Welfare.-During 1953, 21,306 Indian families received \$3,846,650 in family allowances on behalf of 62,571 children. These payments contributed substantially to a better balanced diet and better clothing for Indian children. Approximately $\$ 3,000,000$ is paid annually to Indians in the form of blind persons' allowances, old age assistance and old age security payments. When necessary, the Government provides direct relief assistance to Indians in the form of food, fuel, clothing and household equipment. The Indian Affairs Branch also makes arrangements for private foster-home and institutional placement of children, juvenile delinquents, cripples, and unemployable and aged adults; assistance is also provided for unmarried mothers and for the rehabilitation of disabled Indians.

Increasing emphasis is being placed on the importance of the suitable placement of children requiring protection and upon the importance of preventive work in the field of juvenile delinquency.

Policy and procedure regarding provision of special foods as a preventive measure against tuberculosis has been revised providing for substantial increases in the scale of rations allowed. Apart from the humanitarian aspect, the revised policy has as its aim a reduction in the number of new cases. A well-nourished body is not an easy victim of disease.

Improvement in housing conditions has been achieved in recent years through the efforts of the Indians themselves, as a result of expenditures from appropriation of Indian Band funds, and through Veterans' Land Act benefits. Costs of house repairs during the year ended Mar. 31, 1953, amounted to approximately $\$ 221,890$ and the value of new houses built on the various reserves was estimated at $\$ 880,168$. Revolving Fund loans are available for the purchase of farm machinery, implements, gas and oil, fencing materials, seed grain, live stock and similar essentials, and also for payment of wages and repairs to buildings and vehicles.

Fur Conservation.-During 1953 the fur-development program, undertaken in co-operation with the various provinces, was continued. Beaver production in Saskatchewan, Manitoba and Ontario increased, approximately 173,000 pelts, with an estimated value of $\$ 1,631,000$, being taken. In addition, about $1,097,000$ muskrats having a value of $\$ 1,013,000$ were trapped in Manitoba and Saskatchewan. Indian participation in the three provinces from the trapping of these fur-bearers was valued at about $\$ 1,832,000$. In the Province of Quebec, nine fur preserves with a total area of approximately 150,000 sq. miles are set aside exclusively for Indian trappers under joint management by the Indian Affairs Branch and the Quebec Department of Fish and Game. Five reserves are in production and one in partial production. During 1953, these areas produced over 13,000 beaver, which brought more than $\$ 247,000$ to the Indian trappers.

Eight full-time supervisors are employed across Canada to assist the Indians to derive the fullest possible benefits from hunting and trapping.

The Eskimos.*-The Eskimos are only a fragment of the total population of Canada, numbering, according to the 1951 Census, only 9,607 persons. However, they are part of the human resources of the country and as such are entitled to the benefits of Canadian citizenship and to assistance in adapting themselves to changing conditions. They, together with the Indians, represent the original inhabitants of Canada and their ingenuity and resourcefulness are illustrated by the fact that they

[^62]have maintained their existence against a harsh unrelenting climate in a region where food, being almost entirely fish or animal, requires great skill to obtain and is most unpredictable in its availability. Advancing civilization has, however, brought many problems to Canada's northernmost citizens, who have been literally translated from the Stone Age to the Atomic Age in a period of 40 to 50 years, and to these problems the Federal Government has been giving increasing attention.

The Northern Administration and Lands Branch of the Department of Northern Affairs and National Resources is responsible for the administration of Eskimo affairs. The Department of National Health and Welfare is responsible for health and medical services. Royal Canadian Mounted Police detachments throughout the north undertake field duties for both Departments. In fact, the problems involved in looking after a sparse Eskimo population scattered over about 900,000 sq. miles of territory requires the continuous co-operation of all northern inhabitantsteachers, missionaries, traders, doctors, nurses, radio operators and weatherstation personnel. Administrative contact is maintained by radio and through the Eastern Arctic Patrol which carries representatives of the Administration and other government departments on an annual inspection tour. Officers of the Administration also make periodic visits to Arctic posts by air.

Family allowances are paid to Eskimos in kind from a list designed to supplement rather than to supplant the normal native diet. Eskimos also enjoy the full benefits of old age security and old age assistance payments and of allowances for blind persons.

Missions, assisted by Government grants, operate hospitals at Aklavik, Chesterfield Inlet and Pangnirtung, and the Department of National Health and Welfare has nursing stations at Coppermine, Fort Chimo, Coral Harbour, Port Harrison, Cape Dorset and Lake Harbour. Tuberculosis and other medical surveys are carried out from year to year and treatment, where necessary, is provided either at the hospitals within the territory or at larger institutions outside.

An Arctic Division has been established by the Department of Northern Affairs and National Resources to study and deal expressly with Eskimo problems. This Division has the benefit of the advice of a continuing advisory committee composed of representatives of organizations, government and private, concerned with the Eskimos. Efforts are being made to encourage self-sufficiency of the Eskimo by better utilization of the existing resources of the country and the development of small local industries such as whaling, fishing, boat-building, manufacture of clothing, eiderdown collecting and art handicrafts. Eskimos in over-populated or depleted areas are being encouraged and assisted to move to areas where game is more plentiful or where employment may be found. A fund has been established from which loans may be made to assist Eskimos to carry out approved projects for the betterment of their economy.

Since 1945 the.Government has built eight schools primarily for Eskimo children. They are located at centres spread from the Mackenzie delta in the west to northern Quebec-Aklavik, Tuktoyaktuk, Coppermine, Chesterfield Inlet, Coral Harbour, Cape Dorset, Port Harrison and Fort Chimo. Missions, assisted by government grants, also operate schools in many Eskimo settlements as well as two industrial homes, one at Chesterfield Inlet and the other at Pangnirtung, where aged and physically handicapped Eskimos are cared for. Considerable attention has been given in recent years to the study and conservation of the wildlife resources upon
which the Eskimo depends for his livelihood. Game preserves have been established where only natives may hunt and trap and encouragement is given to the observance of hunting practices designed to conserve the supply of game and fish.

## Section 17.-Statistics of World Population

The figures in the following table are from the United Nations Statistical Yearbook 1953 and, except where otherwise indicated, are official mid-year estimates for 1952. Area figures include inland waters.
27.-Areas and Populations of the Countries or Areas of the World, 1952

| Continent and Country | Area . | Population | Continent and Country | Area | Population |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Africa | sq. miles | '000 | Africs-concl. | sq. miles | '000 |
| Self - governing Territories- |  |  | Trust TerritoriesCameroons ( Br . Adm |  |  |
| Egypt........ | 386,101 ${ }^{1}$ | 21,425 | Cameroons ( Br . Adm.) | 34,080 169,498 | 1,400 |
| Eritrea ${ }^{2}$ | 47,877 | 1,000 ${ }^{3}$ | Rusnds - Urundi (Belg. |  |  |
| Ethiopia | 409,267 | 15,0004 | Adm.) ............... | 20,916 | 4,070 |
| Liberis. | 43,000 | 1,5105 | Somaliland (Ital. Adm.). | 198,276 | 1,280 |
| Libya. | 679,360 | 1,1503 | Tanganyika (Br. Adm.).. | 362,675 | 7,944 |
| Union of South Africa.... | 472,667 | 12,912 | Togoland (Br. Adm.).... | 13,041 21,236 | 410 1,030 |
| Non-self-governing Territories and Dependencies BelgiumBelgian Congo | 904,994 | 11,763 | Former Mandated Territory (Un. of S. Afr.) -South-West Africa. | 1,236 317,713 | 1,030 $424{ }^{3}$ |
| France- <br> Algeria. <br> Comoro Islands. | 846,126 834 | 9,140 1664 | Condominium-Anglo-Egyptian Sudan.. | 967,453 | 8,766 |
| French Equatorial Africa | 969,114 | 4,440 | International Administra- |  |  |
| French West Africa...... | 1,831,084 | 17,363 ${ }^{\text {d }}$ | tion- |  |  |
| Madagascar. | 1,227,738 | 4,3694 | Tangier. | 135 | 170 |
| Moroceo. | 150,888 | 8,0547 |  |  |  |
| Tunisia. | 60,166 | 3,600 |  |  |  |
| Portugal- |  |  | America, North |  |  |
| Angols. | 481,352 | 4,168 |  |  |  |
| Cape Verde Islands..... | 1,557 | 158 | Self-governing |  |  |
| Mozambique........... | 297,732 | 5,846 | Territories- |  |  |
| Sáo Tomé and Principe.. | $\begin{array}{r}13,948 \\ \hline 72\end{array}$ | 523 59 | Costa Rica... | 3,84,695 | 14,850 |
|  |  |  | Cuba. | 44,218 | 5,4694 |
| Epain- |  |  | Dominican Repub | 18,816 | 2,236 |
| Morocean Protectorate- |  |  | El Salvador. | 13,176 | 1,986 |
| Northern Zone.......... | 7,589 | 1,013 | Gustemala | 42,042 | 2,8904 |
| Southern Zone........... | 10,0003 | $13^{3}$ | Haiti..... | 10,714 | 3,200 |
| North African Possessions. ..................... | $82^{3}$ | 142 | Honduras. Mexico... | 43,277 760,375 | 1,513 |
| Bpanish Guines | 10,831 | 202 | Nicaragua | 57,143 | 1,0884 |
| Spanish West Africa...... | 115,396 ${ }^{\text {p }}$ | $52^{2,89}$ | Panama. . . . <br> United State | $\begin{array}{r} 29,141 \\ 3,022,275 \end{array}$ | $\begin{gathered} 841 \\ 156.9817,0 \end{gathered}$ |
| United Kingdom- |  |  |  |  |  |
| Basutoland...... | 11,715 | 583 | Non-eelf-governing Terri- |  |  |
| Bechuanalsnd.... | 274,981 | 292 | tories and Dependencies- |  |  |
| Gold Coast. | 4,003 $.78,799$ | $285^{2}$ | Denmark- |  |  |
| Keoys .................... | 224,952 | 5,760 | Greenland. | $840,001^{10}$ | 24 |
| Mauritius and dependencies. | 809 | 4984 | France |  |  |
| Nigeria............ | 339,157 | 29,600 | Guadeloupe.............. | 687 | 27811 |
| Northern Rhodesia | 290,309 | 1,980 | Martinique... $7 . . . . . .$. | 425 | $262_{5}^{11}$ |
| Nyagaland. | 48,442 | 2,463 | St. Pierre and Miquelon. | 93 | 5 |
| Seychelles................. |  | $3^{51}$ | Netherlands- |  |  |
| gierra Leone. | 27,924 | 2,000 ${ }^{4}$ | Netherlands Antilles.. | 366 | $122^{3}$ |
| Somaliland Protectorate | 67,997 | 5003 |  |  |  |
| 8oathern Rhodesia...... | 150,327 | 2,233 | United Kingdom- |  |  |
| Uraziland | 6,704 | 202 | Bermuda... . . . . . . . . . . | 21 | 388.12 |
| Zanzibar and Pemba........ | 93,977 1,020 | 5. 272 | Britigh Honduras....... | 8,867 12.498 |  |

For footnotes, see end of table, p. 163.
27.-Areas and Populations of the Countries or Areas of the World, 1952-continued

| Continent and Country | Area | Population | Continent and Country | Area | Population |
| :---: | :---: | :---: | :---: | :---: | :---: |
| America, North-concl. | sq. miles | '000 | Asia-concl. | sq. miles | '000 |
| Non-self-governing Territories and Dependenciesconcl. <br> United States- |  |  | Non-self-governing Territories and Dependencies -France- <br> French India | 193 | 3274 |
| Alaska. | 586,378 | 1827,13 |  |  |  |
| Canal Zone | 553 | 587,12 | Nether |  |  |
| Puerto Rico | 3,435 | 2,2407,13 | New Gui | 159,375 | 700 |
| Virgin Islands........... | 133 | 247,12 |  |  |  |
|  |  |  | Portugal- |  |  |
| America, South |  |  | Macau......... | , 520 | 188 640 |
| Self - governing Terri- |  |  | Portuguese Timor | 7,332 | 453 |
| tories-- |  |  |  |  |  |
| Argentina. | 1,084,362 | 18,056 | United Kingdom- |  |  |
| Bolivia. | 424,163 | 3,089 | Aden Colony.. | 80 | 1003 |
| Brazil. | 3,288,050 | 54,477 | Aden Protectorate | 121,996 | 800 |
| Chile. | 286,397 | 5,932 | British Borneo... | 78,682 | $968{ }^{3}$ |
| Colombis | 439,520 | 11,768 | Cyprus. | 3,572 | 498 |
| Ecuador | 106,178 | 3,350 | Federation of Malaya... | 50,598 | 5,506 |
| Paraguay | 157,047 | 1,464 | Hong Kong. | 391 | 2,25012 |
| Peru.. | 506,190 | 8,864 | Singapore... | 292 | 1,080 |
| Uruguay | 72,172 | 2,35314 |  |  |  |
| Venezuela,............... | 352,143 | 5,28015 | Former Mandated Territory (U.K.)Palestine ${ }^{24}$. | $230^{3}$ | $291{ }^{3}$ |
| Non-self-governing Territories and Dependencies-France- <br> French Guians. | 35,135 | 2911 |  | $\begin{array}{r} 40 \\ 1,291 \end{array}$ | ${ }^{25} 953$ |
|  |  |  | Military Government (U.S.)- |  |  |
|  |  |  | Bonin Islands |  |  |
| Netherlands* |  |  | Ryukyu Islands. |  |  |
|  | 55,144 | $277{ }^{3}$ |  |  |  |
| United KingdomBritish Guiana. Falkland Islands | $\begin{array}{r} 82,997 \\ 4,618 \end{array}$ | $\stackrel{444}{ } 2^{3}$ | Europe |  |  |
|  |  |  | Self - governing Terri- |  |  |
| Asia |  |  | tories- |  |  |
|  |  |  | Albania.................. | 11,100 | 1,2463 ${ }_{5}$ |
| Self - governing Terri- |  |  | Andorra................. | [175 | 6,949 |
|  | 251,000 ${ }^{3}$ | 12,0004 | Austria. | 32,715 11,779 | 8,7067 |
| Bahrain................... | 231 | 112 | Bulgaria................. | 42,796 | 7,390 ${ }^{\text {² }}$ |
| Bhutan................... | 19,0003 | $300^{3}$ | Czechoslovakia........... | 49,354 | $12,340^{22}$ |
| Burma.................... | 261,747 | 18,859 | Denmark ${ }^{26}$. . . . . . . . . . . ${ }^{\text {. }}$ | 16,578 | 4,334 |
| Ceylon. . . . . . . . . . . . . . | 25,331 | 7,941 | Finland ................. | 130,120 | 4, 691 |
| China ${ }^{15}$. | 3,759,191 | 463,5004 | France ${ }^{27} . . . . . . . . . . . . . .$. | 212,736 | 42, $4201^{3.7}$ |
| India ${ }^{17}$ | 1,269,597 | 367,000 | Germany................ |  |  |
| Indochina. | 272,356 | $30,500^{3}$ | Greece................... | 51,182 35,912 | 9,460 |
| Indonesia | 575,894 629,345 | 78,163 19,559 |  | 35,912 39,768 | 9,4148 |
| Iran.. | 629,345 168,114 | 19,559 $5,100^{6}$ | Iceland Ireland, Republic of...... | 39,768 27,136 | 2,948 |
| Iraq.. | 168,114 8,108 | 5,1007 | Ireland, Republic of...... | 116,225 | 46,865 |
| Japan. | 142,202 | 85,500 | Liechtenstein............. | 61 | 14 |
| Jordan ${ }^{18}$ | 37,264 | 1,3204 | Luxembourg . . . . . . . . . . | 998 | $302^{7}$ |
| Korea. | 85,248 | 25,12019 | Monaco. |  | 21 |
| Kuwait | 8,000 | 150 | Netherlands............. | 12,50550 | ${ }_{\substack{10,377 \\ 3,377}}$ |
| Lebanon. | ${ }^{115}$ | 1,320 | Norway | 125,065 120,359 | ${ }_{24}{ }^{3,97273}$ |
| Maldive Islands.......... |  | 86 | Poland. | 120,359 35,579 | 8,549 |
| Mongolian People's Republic | 626,000 ${ }^{\text {a }}$ | 9003 | Portugal... | 91,700 | 16,3003 |
| Muscat and Oman......... | 82,008 | 550 | San Marino | $24^{3}$ | 13 |
| Nepal. | 54,054 | 7,0003 | Spain. | 194,232 | 28,306 |
| Pakistan. | 364,363 | 75,84220 | Sweden | 169,932 | 7,125 ${ }^{\text {4, }}$ |
| Philippines | 115,600 | 20,631 | Switzerland. ........22 | 15,944 | 4,815 ${ }^{7}$ |
| Qatar. | $8,500^{3}$ | 7.20 | Turkey (in Europe) ${ }^{22}$..... | 9,068 | 1,626 ${ }^{31}$ |
| Saudi Arabia | 617,762 | 7,000 | United Kingdom ${ }^{11}$...... | 58,341 | 43,940 |
| Syria. | 70,014 | 3,38121 | England and Wales....... |  |  |
| Thailand. | 197,659 5,792 | 19.80 | Scotland................ |  | 5,114 |
| Turkey (in Asia) ${ }^{2}$ | 287,11875,290 | $\begin{array}{r} 19,308^{23} \\ 4,500^{14} \end{array}$ | Vatican City <br> Yugoslavia. | $99,182$ | $16,72{ }^{13}$ |
| Yemen. |  |  |  |  |  |

27.-Areas and Populations of the Countries or Areas of the World, 1952-concluded


[^63]
# CHAPTER IV.-IMMIGRATION AND CITIZENSHIP 

\author{

CONSPECTUS <br> |  | Page |
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Nots.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

## PART I.--IMMIGRATION AND EMIGRATION Section 1.-Immigration*

A brief summary of the history of immigration is given in the 1948-49 Year Book, pp. 172-173. The following special article gives a picture of Canada's postwar achievements in the field of immigration.

## POST-WAR IMMIGRATION

Canada is now well past the one-million mark in numbers of newcomers who, since the end of World War II, have chosen this country as their new place of permanent residence. As of June 30, 1954, the total number of immigrants entering since Jan. 1, 1946, was 1,043,911.

Historically, heavy immigration into Canada and periods of general progress in all fields of economic activity have often gone hand in hand. From 1900 to 1913, for example, immigrants entered Canada at a yearly average rate of nearly 200,000 . During World War I, the yearly flow dropped to little more than 71,000 . The prosperity of the 1919-30 period saw immigration increase to an annual flow of more than 123,000 but the depression of the 1930's resulted in drastic reduction to an average of approximately 16,000 annually. During World War II only slightly more than an annual average of 12,000 immigrants were received, but in the post-war years of expansion the annual average climbed to 120,000 -an average monthly rate of 10,000 and a daily average of more than 329 .

Almost one-third of these newcomers arriving in the Jan. 1, 1946 to June 30 , 1954 period were British immigrants from overseas countries. Those of English origin numbered 207,325 , Scottish 33,239 , Irish 71,837 and Welsh 6,500, making a total of 318,901 . Immigrants from overseas of northern European origins totalled 298,274, of whom 20,766 were French, 102,232 Netherlanders and 131,545 were of Germanic and Austrian origin. Those from the United States numbered 74,808 . Of the remaining 351,928 , there were 103,317 of Italian origin, and 58,785 were of Polish ethnic origin.

[^64]Among the immigrants were 165,697 displaced persons and refugees, whose move to Canada was dictated initially by the motive of finding a country in the free world in which they could start life afresh. The great majority of the $1,043,911$, however, emigrated to Canada only after serious consideration of all the factors involved in leaving situations that offered a certain amount of security and in pitting their skills and energies to the building of a new life with a more rewarding future.

Ontario drew by far the largest number of immigrants; on arrival, 542,542 immigrants gave that Province as their intended destination. Quebec absorbed 205,308 of the newcomers and British Columbia received the next largest group, 92,124 . Other provinces received the following numbers: Alberta, 82,052; Manitoba, 53,020; Saskatchewan, 32,000; Nova Scotia, 20,577; New Brunswick, 11,644; Prince Edward Island, 2,332; and Newfoundland, 1,867. Four hundred and forty-five of the immigrants were bound for the Yukon or for the Northwest Territories.

Males out-numbered females among the immigrants by approximately 83,000 in the post-war flow-males numbered 563,300 and females 480,611 . Most numerous among the adults were those in the age-group $30-39$ who totalled 91,756 , those in the $20-24$ group numbered 87,707 and those in the $25-29$ group 84,442 . Children 14 years of age and under numbered 115,077 .

Workers among the newcomers totalled 565,782 and with them came 478,129 dependants including 217,471 wives and 247,675 children. The other dependants were mainly aged parents.

The largest individual group among the $1,043,911$ immigrants were skilled workers who, by filling vacancies for which Canadians could not be found and training young native-born workers to perform more complex operations, have helped to maintain and to accelerate Canada's industrial tempo. The approximate total of skilled workers was 142,000 . About 128,000 immigrants went directly into jobs on Canadian farms and a high percentage of them have remained on the land. It is estimated that 10,000 have now succeeded in taking over Canadian farms either as outright owners or as tenants with agreements to purchase, which indicates the value accruing from the immigration of people with agricultural background.

Some 35,000 immigrants were listed in the managerial and professional category and this group included many of those who have succeeded in establishing business undertakings fostered by the combination of skills brought with them from their homelands and the will to succeed in this country. The sizes of these businesses, located in all parts of the country, range from an industry employing more than 4,000 workers to small-scale undertakings employing two or three to thirty or forty.

The impact on the Canadian economy of $1,000,000$ new Canadians has been tremendous, comparable to that which would result from the sudden addition to the country of a province with a population considerably larger than that of Alberta as established by the 1951 Census. For example, during 1953 alone, immigrants brought with them to Canada an estimated $\$ 75,000,000$, increasing to $\$ 415,000,000$ the total of capital imported directly through immigration since Jan. 1, 1946.

At the date of the 1951 Census, 62,160 households had been established throughout Canada by post-war immigrant arrivals; 24,000 of these households were in homes owned by the newcomers and 7,000 of them were mortgage-free. Of the household unite, 43,000 had either gas or electric ranges, 32,000 were equipped with power washing machines, and 52,000 had radios. Mechanical refrigeration
served 26,000 households, and 18,000 units operated electric vacuum cleaners. One out of every three householders owned an automobile. Estimates of food costs in Canada on the basis of urban food expenditure sample surveys, indicate that the average food expenditure per person, weekly, is about $\$ 6.70$. Thus the $1,000,000$ new consumers spend approximately $\$ 6,700,000$ each week or $\$ 350,000,000$ annually for food alone. Consider also the purchase of clothing, furniture, farm machinery and other products on the Canadian market by $1,000,000$ immigrants, and some conception of the magnitude of their tangible contribution to domestic trade and industry may be obtained.

Immigrants have also made rich contributions to Canada's musical and artistic life. They are to be found in responsible positions in hospitals and laboratories, adding their skill and knowledge to the processes of healing. In Canadian universities and schools, immigrant students are gaining their share of scholarships and prizes for academic merit. These contributions cannot be measured in terms of dollars and cents; their full value will be recognized more by future generations than they are by Canadians of the present day.

Immigration Policy and Operation.-The post-war immigrants were brought to Canada through a flexible immigration policy administered for the Federal Government by the Immigration Branch of the Department of Citizenship and Immigration. The regulations established by authority of the recently revised Immigration Act give right of entry only to British subjects, United States citizens, and citizens of France provided they are of good health and character and have sufficient means to maintain themselves until they are established in this country. All others, with the exception of Asians, whose admission is covered by established procedures, are admissible if they are found to be suitable and desirable. Suitability and desirability are established in part by social, economic and labour conditions in this country. Prospective immigrants should be of a type that will become readily integrated into the community and that will be able to assume the duties and responsibilities of Canadian citizenship within a reasonable time after admission.

To implement these regulations, the Immigration Branch maintains examining officers at 20 overseas posts: at London, Liverpool, Glasgow and Belfast in the United Kingdom; at Dublin, Republic of Ireland; and at Paris, Brussels, Berne, The Hague, Oslo, Copenhagen, Stockholm, Helsinki, Hanover, Karlsruhe, Linz, Rome, Athens, New Delhi and Hong Kong. Personnel at these posts are continually advised of economic conditions and settlement possibilities in Canada and, through a system of rotation and training, are returned to Canada from time to time for cross-country tours which enable them to keep up with developments. Specially trained officers are directly engaged in placement and settlement work in Canada, and close liaison is maintained between overseas posts and the various immigration offices in Canada. There are 344 ports of entry on both coasts and along the International Boundary to handle the immigration movement and, in addition, the heavy tourist traffic.

## Subsection 1.-Immigration Policy and Administration

The subject of immigration policy and the administration thereof is dealt with briefly in the special article above.

## Subsection 2.-Immigration Statistics

Table 1 presents statistics of immigratign to Canada from 1909 to 1953. Analyses showing country of last permanent residence, sex, age, marital status, birthplace, origin, nationality, destination and occupation for recent years are given in Tables 2 to 8.
1.-Immigrant Arrivals, 1909-53

Nons.-Figures for 1852-93 are given in the 1942 Year Book, p. 153, and for 1894-1908 in the 1948-49 edition, p. 175.

| Year | Arrivals | Year | Arrivals | Year | Arrivals | Year | Arrivals | Year | Arrivals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. |  | No. |  | No. |  | No. |  | No. |
| 1909. | 173,694 |  | 41,845 | 192 | 158,886 | 1936 | 11,643 | 1945 | .72 |
| 1910 | 286,839 | 1919 | 107,698 | 193 | 166,783 | 1937 | 15,101 | 1946. | ,719 |
| 1911. | 331,288 | 1920 | 138,824 | 1929 | 164,993 | 1938 | 17,244 | 1947 | 64,127 |
| 1912 | 375,756 | 192 | 91,728 | 1930 | 104,806 | 1939 | 16,994 | 1948 | 125, |
| 1913. | 400,870 | 1922 | 64,224 |  | 27,530 |  | 11,324 | 1949 | 5,217 |
| 1914 | 150,484 |  | 133,729 |  | 29,591 | 19 | 9,329 | 1950 | 73,912 |
| 1915.. | 36,665 | 192 | 124,164 | 1933 | 14,382 | 19 | 7,576 | 1951 | 194,391 |
| 1916.... | 55,914 | 1925. | 84,907 | 1934. | 12,476 | 1943. | 8,504 | 1952. | 164,498 |
| 1917.. | 72,910 |  | 135,982 |  | 11,277 | 1944.... | 12,801 | 195 | 168,868 |

## IMMIGRANT ADMISSIONS BY COUNTRY OF LAST PERMANENT RESIDENCE 1946-53



## 2.-Immigrant Admissions, by Country of Last Permanent Residence, 1949-53

Nors.- Comparable figures for 1946-48 are given in the 1951 Year Book, p. 143, and figures in less detail for 1939-45 in the 1950 edition, p. 186.

| Country | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| British Isles- | No. | No. | No. | No. | No. |
| England, | 14,414 | 9.077 | 21,155 | 31,776 | 31,929 |
| Northern Ireland | 1,058 | 626 | 1,154 | 2,671 | 4,255 |
| Scotland | 4,926 | 2,802 | 8,885 | 10,025 | 9,683 |
| Wales............ | 339 2,301 | 164 | 365 3.494 | ${ }^{588}$ | ${ }^{707}$ |
|  |  |  |  |  |  |
| Totals, Commo | 23,038 | 14,880 | 35,053 | 48,533 | 50,812 |
| Republic of Ireland. | 927 | 452 | 640 | 947 | 2,121 |
| Continental Europe- |  |  |  |  |  |
| Czechoslovakia. | 2,815 | 1,698 | 3,385 | 514 | 27 |
| France.. | 1,163 | 1,399 | 8,279 | 5,395 | 4,045 |
| Germany | 2,941 | 3,815 | 29,196 | 25,716 | 34, 193 |
| Italy. | 7,728 | 8,993 | 23,426 | 20,651 | 23,704 |
| Netherlands | 6,828 | 7.169 | 19,266 | 21,068 | 20,341 |
| Poland. | 20,091 | 9,747 | 14,245 | 3,358 | 136 |
| Union of Soviet Socialist Republics ${ }^{1}$ | 9,578 | 5.467 | 10,155 | 1,969 | 69 |
| Other European countries.... | 10,593 | 9,626 | 37,430 | 19,253 | 17,750 |
| United States ${ }^{2}$ | 7,756 | 7,821 | 7,755 | 9.333 | 9,407 |
| Other countries, | 1,759 | 2,845 | 5,561 | 7,761 | 6,263 |
| Totals, All Countries. | 95,217 | 73,912 | 194,391 | 164,498 | 168,868 |

[^65]Sex, Age and Marital Status.-Of the total immigrants 18 years of age or over entering Canada in 1953, 55 p.c. were males. Before 1931, adult male immigrants normally exceeded females in number, but from 1931 to 1946 female immigrants out-numbered male immigrants almost consistently, particularly in 1945 and 1946 when the wives of Canadian service men were coming in. From 1947 to 1950 adult males again exceeded females by from 10 to 27 p.c., in 1951 by 80 p.c., in 1952 by 24 p.c. and in 1953 by 21 p.c.

Throughout the years the sex distribution of immigrants under 18 years of age has been fairly even. In 1953, of the 44,174 persons in this class, 38,321 were under 15 years of age.

Of the total male immigrants in 1953,39 p.c. were married and 60 p.c. single, the remainder being widowed or divorced; the percentages for married and single female immigrants were 45 and 50 , respectively.

## 3.-Sex Distribution of Immigrants as Adult Males, Adult Females, and Children, 1944-53

Note.-Figures for 1930-43 are given in the 1946 Year Book, p. 183.

| Year | Adult <br> Males | Adult Females | Under 18 Years |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Males | Females |  |
|  | No. | No. | No. | No. | No. |
| 1944. | 2,391 | 6,253 | 2,103 | 2,054 | 12,801 |
| 1945. | 4,259 | 11,620 | 3,442 | 3,401 | 22,722 |
| 1946. | 9,934 | 40,818 | 10,549 | 10,418 | 71,719 |
| 1947. | 27,281 | 24,787 | 6,154 | 5,905 | 64,127 |
| 1948. | 52,986 39,044 | 45,191 32,957 | 14,104 12,118 | 13,133 11,098 | 125,414 95,217 |
| 1950. | 30,700 | 24,172 | 10,287 | 8,753 | 73,912 |
| 1951. | 95,818 | 53,239 | 24,348 | 20,986 | 194,391 |
| 1952. | 66,083 | 53,443 | ${ }^{23,766}$ | 21,206 | 164,498 |
| 1953.. | 68,269 | 56,425 | 23,153 | 21,021 | 168,868 |

4.-Sex and Marital Status of Immigrant Arrivals, by Age Group, 1952 and 1953


Birthplace.-British-born immigrants to Canada in 1953 numbered 47,662 and made up 28 p.c. of the total immigration; the increase over 1952 amounted to 6 p.c. Immigrants born in Continental Europe totalled 106,387, constituting an increase of 1 p.c. over the previous year. They accounted for 63 p.c. of the total immigration compared with 64 p.c. in 1952. Of the $106,387,25-2$ p.c. were born in Germany, $22 \cdot 6$ p.c. in Italy and 18.7 p.c. in The Netherlands. The number of United States-born immigrants in 1953 was slightly lower than in 1952, accounting for 4.4 p.c. of the total as compared with 4.6 p.c. in the previous year.

## 5.-Birthplaces of Immigrant Arrivals, 1951-53

Nore.-Figures for 1942-50 are given in the corresponding table of previous Year Books beginning with the 1948-49 edition.

| Country of Birth | 1951 | 1952 | 1953 | Country of Birth | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Commonwealth- | No. | No. | No. | Continent of Asla- | No. | No. | No. |
| British Isles- |  |  |  | China. | 2,967 | 2,510 | 2,045 |
| England. | 18,723 | ${ }_{\text {26, }}^{2621}$ | 26,943 4,438 | Israel |  | 539 | 345 |
| Scotland.. | 9,199 | 10,611 | 40,101 | Japan. | 719 | 34 539 | 69 545 |
| Wales. | 635 | 1,049 | 978 |  |  |  |  |
| Lesser Isles | 99 | 137 | 158 | Continent of Europe- |  |  |  |
| Other Com |  |  |  | Austria. | 4.091 | 3,112 | 4,168 |
| Africa (British). | 196 | 330 | 702 | Czechosl | 4,401 | 1,893 | 1,594 |
| Australia....... | 462 | 667 | 1,002 | Denmark |  | 2,030 | 1,531 |
| Canada | 719 | 795 | 686 | Finland |  | 2,276 | 1,207 |
| India | 369 | 468 | 533 | France. | 7,198 | 4,505 | 3 3,292 |
| New Zealand | 199 | 227 | 311 | Germany | 24,257 | 20,423 | 26,788 |
| West Indies (Bri | 584 | ${ }^{673}$ | 845 | Greece | 2,758 | 1,542 | 1,947 |
| Other. | 1,754 | 938 | 965 | Hunga | 2,099 | 1,999 | 1,737 |
|  |  |  |  | Italy, | 23,806 | 20,930 | 24,059 |
| Republic of Ireland. | 938 | 1,516 | 2,805 | Lithuania | 2,679 | ${ }_{898}^{1.545}$ | ${ }_{402}^{705}$ |
| Continent of Africa (other than British) |  |  |  | Netherlan | 18,781 | 20,850 | 19, 933 |
| (other than British).. | 234 | 287 | 304 | Norway ${ }^{\text {Poland }}$.............. | 925 | ${ }^{1,193}$ | 6. 922 |
| Continent of North |  |  |  | Roumania | 12,930 | 2,057 | 2084 |
| America- |  |  |  | Switzerland | 1,337 | 1,518 | 1,024 |
| Central America. |  | 31 | 34 | Union of Soviet Socialist |  |  |  |
| Mexico...... |  | 121 | 131 | Republics ${ }^{1}$ | 4,489 | ${ }_{3}^{2,769}$ | ${ }_{3}^{1,531}$ |
| Onited Stat | 5,982 | 7,603 <br> 109 | 7,388 82 | Yugoslavia | - ${ }^{5,651}$ | 3,106 | 3,543 2,191 |
|  |  |  |  |  |  |  |  |
| Continent of South America | 350 | 501 | 633 | Grand Totals. | 194,3912 | 164,4983 | 168,8684 |

[^66]${ }^{2}$ Includes 8 born at sea and 302 others not stated. 4 born at sea and 230 others not stated. $\quad$ Includes 8 born at sea and 430 not stated.

Origin.-Of the 51,962 immigrants of British stock entering Canada in 1953, 59.7 p.c. were English, 21.8 p.c. Scottish, 16.7 p.c. Irish and 1.8 p.c. Welsh. Immigrants of Continental European stocks, who together numbered 114,075 and accounted for $67 \cdot 6$ p.c. of the total, were $31 \cdot 8$ p.c. German, $21 \cdot 5$ p.c. Italian, $18 \cdot 2$ p.c. Netherlanders, 3.8 p.c. Jewish, 3.4 p.c. French, $3 \cdot 1$ p.c. Austrian and 2.9 p.c. Polish.

## 6.-Origins of Immigrant Arrivals, 1951-53

Note.-Figures for 1926-50 are given in the corresponding table of previous Year Books beginning with the 1939 edition.


[^67]6.-Origins of Immigrant Arrivals, 1951-53-concluded

| Origin | 1951 | 1952 | 1953 | Origin | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. |  | No. | No. | No. |
| Continental Europeaneoncl. |  |  |  | Other-concluded Chinese | 2,708 | 2,320 | 1,936 |
| Scandinavian-concl. |  |  |  | East Indian............ | 99 | 172 | 140 |
| Norwegian.... | 1,036 | 1,371 | 1,097 | Indian (American)...... | 26 | 20 | 14 |
| Swedish.............. | 949 | 686 | 612 | Japanese................ | 3 | 7 | 49 |
| Spanish ${ }^{\text {d }}$. | 701 | 356 | 294 | Mexican | 17 | 12 | 7 |
| Swiss ${ }^{\text {d }}$ | 1,096 | 1,314 | 863 | Negro.. | 165 | 163 | 264 |
| Ukrainian | 6,949 | 2,859 | 957 | Persian................. | 72 | 11 | 20 |
| Yugoslavic ${ }^{3}$ | 4,175 | 2,205 | 2,041 | Syrian ${ }_{\text {Turkish }}$................. | 229 19 | 142 19 | 227 36 |
| Totals, Continental European | 155,597 | 113,461 | 114,075 | Not state | 22 | 49 | 46 |
|  |  |  |  | Totals, Other........ | 3,433 | 3,165 | 2,831 |
| $\underset{\text { Arabian }}{\text { Other }}$ |  | 73 | 18 | Grand Totals. |  |  |  |
| Arabian.. |  |  |  |  | 194,391 | 164,498 | 168,868 |

${ }^{1}$ Included with German. $\quad{ }^{2}$ Includes Austrian. $\quad{ }^{3}$ Includes a small number of minor groupe. 4 Reported as "Swiss" origin but evidently one of the constituent races such as German, French, Italian, etc.

Nationality.-The nationalities of immigrants entering Canada during the years 1951, 1952 and 1953 are shown in Table 7.

## 7.-Nationalities of Immigrant Arrivals, 1951-53

Norz.-Figures for $1930-50$ are given in the corresponding table of previous Year Books beginning with the 1936 edition.

| Nationality | 1951 | 1952 | 1953 | Nationality | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. |  | No. | No. | No. |
| African (not British) | 42 | 63 | 53 | Lithuanian. | 1,373 | 727 | 251 |
| Albanian............. | 58 | 17 | 16 | Mexican. | 30 | 58 | 67 |
| Argentinian | 20 | 57 | 108 | Netherlander | 19,137 | 21,182 | 20,506 |
| Armenian. | 9 | 7 | 3 | Norwegian. | 916 | 1,202 | 908 |
| Austrian. | 3,628 | 2,867 | 4,224 | Paraguayan | 16 | 33 | 14 |
| Belgian. | 3,086 | 1,477 | 1,540 | Persian. | 18 | 15 | 17 |
| Brazilian | 27 | 28 | 18 | Peruvian | 3 | 3 | 4 |
| British. | 34,790 | 45,685 | 49,036 | Polish. | 20,408 | 7,709 | 2,870 |
| Bulgarian | 395 | 120 | 50 | Portuguese | 42 | 82 | 247 |
| Central America | 16 | 20 | 20 | Roumanian | 2,344 | 1,127 | 656 |
| Chilean. | 9 | 11 | 14 | Russian. | 3,744 | 1,437 | 495 |
| Chinese. | 2,689 | 2,269 | 1,897 | Spanish American | 40 | 46 | 48 |
| Czechoslo | 3,905 | 1,180 | 465 | Spanish | 552 | 152 | 138 |
| Danish | 4,666 | 2,040 | 1,536 | Swedish | 796 | 511 | 494 |
| Ecuadorian |  |  |  | Swiss. | 1,267 | 1,515 | 1,007 |
| Estonian. | 4,748 | 883 | 362 | Syrian. | 263 | 252 | 202 |
| Finnish | 3,949 | 2,272 | 1,220 | Turkish | 54 | 56 | 33 |
| French. | 6,811 | 4,511 | 3,368 | Ukrainian | 705 | 557 | 310 |
| German | 25,813 | 24,410 | 33,337 | United States | 6,904 | 8,638 | 8,395 |
| Greek | 2,802 | 1,619 | 2,012 | Uruguayan. | 5 | 3 | 2 |
| Hungarian | 5,210 | 1,542 | 809 | Venezuelan. | 9 | 38 | 35 |
| Icelandic. | 17 | 33 | 52 | West Indian (not | 48 | 40 | 27 |
| Irish Republica | 669 | 1,138 | 2,401 | Yugoslavic. | 5,573 | 2,880 | 2,549 |
| Israeli. | 333 | 1,385 | 2,014 | Other. | 183 | 309 | 315 |
| Italian. | 23,432 | 20,851 |  |  |  |  |  |
| Latvian. | 2,830 | 1,433 |  | Tot | 194,391 | 164,498 | 168,868 |

Intended Destination and Occupation.-Experience has shown that not all immigrants reach the province of intended destination or follow intended occupation. Table 8 gives intended destination and occupation as stated by the immigrants entering Canada in 1953. Of the total immigrants, 43 p.c. were dependent wives and children, 10 p.c. were classed as farm workers, 16 p.c. as manufacturing, mechanical and construction workers, 6 p.c. as general labourers and 5 p.c. were in the professional class.

Of the total female immigrants, aside from dependent wives and children who accounted for 66 p.c., domestic servants comprised the largest part of the service occupational class which was_followed by the clerical and professional classes.

| Intended Occupation | Intended Destination |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Canada |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N＇i＇ld． |  | P．E．I． |  | N．S． |  | N．B． |  | Que． |  | Ont． |  | Man． |  | Sask． |  | Alta． |  | B．C． |  | $\begin{array}{\|c\|} \text { Yukon } \\ \text { and } \\ \text { N.W.T. } \end{array}$ |  |  |  |  |
|  | M． | F． | M． | F． | M． |  | M． | F． | M． | F． | M． | F． | M． | F． | M． | F． | M． | F． | M． | F． | M． | F． | M． | F． | Total |
| Managerial（Owners，mana－ gers，officials） | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． |
|  | 11 | $\rightarrow$ |  |  | 10 |  | 12 | － | 271 | 13 | 531 | 27 | 26. | 2 | 19 | 1 | 94 | 8 | 143 | 7 | 1. | － | 1，118 | 58 | 1，176 |
| Professional－ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Accountants and auditors．．． | 3 | － | － | － | 1 | 1 | 1 | － | 77 | 6 | 173 | 12 | 10 | － | 5 | － | 20 | 1 | 32 | 1 | － | － | 322 | 21 | 343 |
| Architects．．．．．．．．．．．．．．．． | － | － | － | － | 2 |  |  | － | 31 | 5 | 66 | 3 | 2 | － | 2 | － | 5 | － | 17 | － | － | － | 125 | 8 | 133 |
| Chemists（other than phar－ ＇macists）． | 1 | － | － | － | 1 | － | 1 | － | 66 | 6 | 127 | 11 | 6 | 1 | 1 | － | 14 | － | 11 | 1 | － | － | 228 | 19 | 247 |
| Dentists．．．．．．．．．．．．．．．．．．． |  | － | － | － | － | － | － | － | 7 | 5 | 14 | － | － | － | － | － | 2 | － | 3 | 1 | － | － | 26 | 6 | 32 |
| Draughtsmen and designers | 2 | － | － | － | 8 | － | 3 | － | 172 | 18 | 403 | 33 | 11 | 1 | － | 3 | 24 | － | 26 | 3 | － | － | 649 | 58 | 707 |
| Aeronautical engineers．．．．．． | 1 | － | － | － | 1 | － | － | － | 42 | 1 | 98 | － | 2 | － | 1 | － | － | － | 10 | － | － | － | 155 | 1 | 156 |
| Chemical engineers．．．．．．．． | ， | － | － | － | 1 | － | － | － | 16 | ， | 43 | － | － | － | － | －－ | 3 | \％ | 7 | － | － | － | 70 |  | 70 |
| Civil engineers（and other prof．engineers，$n, e, g$ ．） | 1 | － | － | － | 3 | － | 1 | － | 158 | － | 262 | 1 | 6 | － | 4 | － | 36 | － | 47 |  |  | － | 518 | 1 | 519 |
| Forestry engineers．．．．．．．．．． |  | － | 二 | － | － | － | － | － | 15 | － | 14 | $-1$ | － | － | 1 | － | 4 | －1 | 47 3 | 二 | － | － | 518 | 1. | 27 |
| Electrical engineers．．．．．．． | 1 | － | － | － | 4 | － | 1 | － | 114 | － | 218 | － | 8 | － | 2 | － | 13 | － | 27 | － | － | － | 388 | － | 388 |
| Mechanical engineers． | 8 | － | － | － | 4 | － | 1 | － | 127 | － | 267 | － | 9 | － | 5 | － | 30 | － | 32 | － | － | － | 483 | － | 483 |
| Metallurgical engineers．．．．． | － | － | － | － | － | － | － | － | 2 | － | 9 | － | － | － | － | － | － | － | 1 | － | － | － | 12 | － | 12 |
| Mining engineers．．．．．．．．． | － | － | － | － | 1 | － | － | － | 10 | － | 27 | － | 1. | － | 2 | － | 8 | － | 8 | － | 1 | － | 58 | － | 58 |
| Laboratory technicians and | 3 |  | －${ }^{\text {²}}$ |  |  |  | 1 |  |  |  |  |  |  |  | 1 |  |  |  |  |  |  |  |  | 68 | 237 |
| $\underset{\text { Nurses．．．．．．．．．．．．．．．．．．．．．．．．}}{\text { assistants }}$ | － | 29 | － | 2 | 2 | 10 | 1 | －4 | 12 | 218 | 100 | 742 | 4 5 | 65 | 1 | 26 | 9 | 97 | 10 | 85 | － | － | 169 | 1，278 | 1,354 |
| Physicians and surgeons．．．． | 15 | 1. | 2 | － | 8 | － | 4 | － | 57 | 11 | 95 | 21 | 21 | 2 | 25 | 3 | 36 | 6 | 29 | 3 | － | － | 292 | 1， 47 | 1,339 |
| Teachers and professors． | 7 | 7 | － | 1 | 4 | 9 | 6 | 2 | 67 | 75 | 128 | 134 | 15 | 15 | 8 | 11 | 25 | 28 | 47 | 49 | 1 | － | 308 | 331 | 639 |
| Other professional workers． | 22 | 8 | 5 | － | 34 | 11 | 19 | 14 | 533 | 234 | 1，106 | 313 | 70 | 24 | 72 | 4 | 260 | 64 | 221 | 77 | 7. | 3 | 2，349 | 752 | 3，101 |
| Totals，Professional． | 64 | 45 | 7 | 4 | 74 | 31 | 39 | 20 | 1，539 | 586 | 3，192 | 1，314 | 170 | 110 | 130 | 48 | 495 | 208 | 535 | 227 | 9 | 3 | 6，254 | 2，591 | 8，845 |
| Clerical－ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Stenographers and typists．． | － | 3 | － | － | － | 14 | － | 10 | 15 | 448 | 36 | 1，193 | 1. | 39 | － | 20 | 3 | 81 | 4 | 162 | － | 2 | 59 | 1，972 | 2，031 |
| Other clerical workers．．．．． | 12 | 8 | 3 | 1 | 19 | 13 | 7 | 4 | 570 | 348 | 1，377 | 1，199 | 76 | 40 | 19 | 24 | 142 | 80 | 205 | 159 | 1 | 1 | 2，431 | 1，877 | 4，308 |
| Totals，Clerical． | 12 | 11 | 3 | 1 | 19 | 27 | 7 | 14 | 585 | 796 | 1，413 | 2，392 | 77 | 79 | 19 | 44 | 145 | 161 | 209 | 321 | 1. | 3 | 2，490 | 3，849 | 6，339 |
| Transportation－ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Air pilots，captains and |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| mates，railway conductors， locomotive engineers，etc．． | 5 |  | － | － | 6 | － | 3 | － | 46 | － | 89 | 1 | 2 | － | 2 | － | 11 | － | 27 | － | 1 | － | 192 | 1 | 193 |
| Other transport workers．．． | 9 | 1 | － | － | 33 | － | 5 | － | 228 | 2 | 788 | 8 | 52 | － | 16 | － | 90 | － | 125 | 5 | 2 | － | 1，348 | 16 | 1，364 |
| Totals，Transportation． | 14 | 1 | － | － | 39 | － | 8 | － | 274 | 2 | 877 | 9 | 54 | － | 18 | － | 101 | － | 152 | 5 | 3 | － | 1，540 | 17 | 1，557 |


8.-Intended Destinations and Occupations of Immigrants Admitted to Canada, 1953-concluded


Totals, Workers..........
Dependants-
Wives..
Children
Others.
Totals, Dependants.


Deportations.-The Immigration Act provides for the deportation of persons seeking admission who are unable to comply with existing requirements. Provision is also made under the Act for the deportation of persons in Canada who become undesirable.

## 9.-Admissions Refused and Deportations, by Cause and Nationality, 1951-53

Nore.-Figures for 1903-39 are given in the corresponding table of previous Year Books; those for 1940-49 are given in the 1951 edition, p. 150; those for 1950 in the 1954 edition, p. 166.

| Cause and Nationality | Refused Admission |  |  | Cause and Nationality | Deportations After Admission ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 | 1953 |  | 1951 | 1952 | 1953 |
|  | No. | No. | No. |  | No. | No. | No. |
| From Overseas- |  |  |  | Cause |  |  |  |
| Cause |  |  |  | Mental and medical............ | 40 | 54 | 85 |
| Mental and medical........... | 15 | 36 | 39 | Public charges................. | 14 | 23 | 14 |
| Civil. ......................... | 269 | 478 | 398 | Criminality . . . . . . . . . . . . . . | 85 | 102 | 121 |
|  |  |  |  | Misrepresentation and stealth.. | 286 | 330 | 309 |
|  |  |  |  | Other causes.................. | 36 | 70 | 66 |
|  |  |  |  | Accompanying deported persons | - | 1 | 11 |
| Nationality |  |  |  |  |  |  |  |
| British....................... | 103 | 134 | 133 | Nationality |  |  |  |
| Other......................... | 181 | 380 | 304 | British....................... | 190 | 215 | 237 |
| Totals from Overseas. . . . | 284 | 514 | 437 | United States | 70 | 82 | 92 |
| From United States.......... | 4,829 | 3,600 | 2,013 | Other. | 201 | 283 | 277 |
| Grand Totals, Refusals..... | 5,113 | 4,114 | 2,450 | Grand Totals, Deportations | 461 | 580 | 606 |

${ }^{1}$ Includes deserting seamen deported.
Returning Canadians.-The numbers of Canadians who returned to Canada during the years 1947 to 1953 after having resided in the United States were as follows: 1947, 8,$970 ; 1948,5,678 ; 1949,4,050 ; 1950,3,518 ; 1951,3,635 ; 1952,4,707$; and $1953,4,606$.

## Section 2.-Emigration

Emigration from Canada is an important factor tending to offset to some extent both present and past immigration activities. The movement to the United States of native-born Canadians as well as of Europeans who originally migrated to Canada attained considerable proportions at certain periods. The figures of Table 10, showing the numbers of persons entering the United States from Canada during the years 1944-53, were obtained from the Immigration and Naturalization Service of the United States Department of Justice. No Canadian statistics on emigration are available.
10.-Persons Entering the United States from Canada, Years Ended June 30, 1944-53

| Year | Immigrant Aliens from Canads | U.S. Citizens Returning from Cansda | Persons <br> Deported from Canada | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |
| 1944. | 9,821 | 4,743 | 69 | 14,633 |
| 1945. | 11,079 | 5,138 | 188 | 16,405 |
| 1946. | 20,434 | 6,769 | 414 | 27,617 |
| 1947. | 23,467 | 5,003 | 589 | 29.059 |
| 1948. | 24,788 | 4,946 | 512 | 30,246 |
| 19491. | 25,156 | 5,787 | 425 476 | 31,368 |
| 1950. | 21,885 | 3,859 | 476 | 26,220 |
| 1951. | 25,880 | 4,303 | 315 | 30,498 |
| 1952. | 33,354 36,283 | 4,012 $\mathbf{2 , 8 4 6}$ | 343 351 | 37,709 39,480 |
| 1953. | 36,283 | 2,846 | 351 | 39,480 |

${ }^{1}$ Newfoundland included from 1949.

## PART II.-GANADIAN CITIZENSHIP*

An outline of early naturalization procedure and events leading to the passing of the Canadian Citizenship Act is given in the 1951 Year Book, pp. 153-155.

## Section 1.-The Canadian Citizenship Act

The Canadian Citizenship Act came into force cn Jan. 1, 1947, its purpose being to give a clear definition of Canadian citizenship and to provide an underlying community of status for all the people of Canada, helping to bind them together as Canadians. Since Jan. 18, 1950, the administration of Canadian citizenship has been the responsibility of the Department of Citizenship and Immigration. The provisions of the Act with the changes occasioned by the 1953 amendments are outlined in the following paragraphs.

Natural-Born Canadian Citizens.-The Act defines the status of naturalborn Cansdians before and after the coming into force of the Act, including persons born in and outside of Canada and those born on a Canadian ship or aircraft. A person born outside of Canada out of wedlock is a Canadian citizen if his mother was born in Canada, or on a Canadian ship or aircraft, or was a British subject with Canadian domicile, and had not become an alien. A person born outside of Canada of a Canadian parent before Jan. 1, 1947, is not a Canadian citizen unless, at the commencement of the Act, he had been admitted to Canada for permanent residence, or was a minor. If he were born on or after Jan. 1, 1947, he is not a Canadian citizen unless, within a two-year period following his birth, or within such extended period as may be authorized in special cases by the Minister of Citizenship and Immigration, his birth is registered with an official Canadian representative abroad, or with the Minister. In addition, a person who is a Canadian citizen born abroad ceases to be a Canadian citizen upon the date of the expiration of three years after the day on which he attains the age of 21 years, unless he has his place of domicile in Canada on such date or has, before such date and after attaining the age of 21 years, filed, in accordance with the regulations, a declaration of retention of Canadian citizenship. A Canadian citizen, whether he is abroad or at home, may obtain a certificate of proof of his Canadian citizenship upon payment of a fee of $\$ 1$.

[^68]British Subjects, Commonwealth Citizens, Citizens of the Republic of Ireland and Canadian Citizens.-The Citizenship Act states that a Canadian citizen is a British subject. Before the passage of the Act, he could not, officially, describe himself as a Canadian citizen because the official designation for a Commonwealth citizen was British Subject. Now, he may officially call himself a Canadian. The authority for this procedure is found in Sect. 3 of the Act, which reads:-
"Where a person is required to state or declare his national status, any person who is a Canadian citizen under this Act shall state or declare himself to be a Canadian citizen and his statement or declaration to that effect shall be a good and sufficient compliance with such requirement."

Non-Canadian British subjects continue to have the right to vote in federal, provincial and municipal elections, but they are not Canadian citizens until they have lived five years in Canada. Those who had that residence (Canadian domicile) on Jan. 1, 1947, are Canadian citizens, and those who attain it after that date must apply for certificates of citizenship before being granted the status of Canadian citizens. Citizens of the Republic of Ireland, who are not British subjects, have the same rights, in Canada, as a British subject.

Canadian Citizens other than Natural-Born.-Under the Act, persons naturalized in Canada before Jan. 1, 1947, and British subjects who had Canadian domicile at the commencement of the Act are Canadian citizens. The Act also defines the status as Canadian citizens of women and children, other than naturalborn, and the manner in which they would have acquired Canadian citizenship.

Reinstatement of Persons of Canadian Origin Naturalized Outside of Canada.-By the amendment of July 20, 1950, the Minister may, in his discretion, grant a certificate of citizenship to a person who was a natural-born Canadian, or who was a British subject of Canadian origin, and who lost such status by naturalization outside of Canada or for any reason other than marriage. The qualifications include continuous residence in Canada for a period of one year immediately preceding the date of the application as well as certain other requirements.

Status and Procedure of Non-Canadians to Canadian Citizenship.Any person who is not a Canadian citizen or is not otherwise a British subject may file his application for citizenship with the court of the county or district in which he resides if he has met the following requirements:-
(1) He must have acquired Canadian domicile as defined in the Immigration Act, which states in part, "Canadian domicile is required for the purposes of this Act by a person having his place of domicile for at least five years in Canada after having been landed in Canada". There are three important exceptions to the requirements of Canadian domicile [Sect. 10 (1) (c) of the Canadian Citizenship Act]: (a) under certain circumstances, a person who has served outside of Canada in the Canadian Armed Forces; (b) the wife of a Canadian citizen, provided she has been legally admitted to Canada for permanent residence; and (c) a person who had a place of domicile in Canada for 20 years immediately before the first of January 1947 and was not under an order of deportation on that date.
(2) He must have lived in Canada for at least a year immediately before the date of his application.
(3) He must be of good character.
(4) He must have an adequate knowledge of the English or French language. There is one exception to this requirement: a person who has lived in Canada for 20 years or more is not required to have a knowledge of either language.
(5) He must have an adequate knowledge of the responsibilities and privileges of Canadian citizenship.
(6) He must intend to make his permanent home in Canada.
(7) He must be at least 21 years old or the spouse of and reside in Canada with a Canadian citizen.

The filing of a Declaration of Intention is no longer a requirement under the Act. If, however, a person, who has been legally landed, wishes to file such a Declaration he may do so, using the prescribed form. The Declaration may be filed with the clerk of the court of the county or district where the declarant lives; with a citizenship officer, or with the Registrar of Canadian Citizenship, Ottawa. There are no restrictions with respect to age.

When the judge has given his decision, the papers and the decision are forwarded to the Minister of Citizenship and Immigration who may, in his discretion, grant a certificate of citizenship. When a certificate is granted, it is forwarded to the clerk of the court, who then notifies the applicant to appear in court for the purpose of taking the Oath of Allegiance and Declaration of Renunciation of Foreign Allegiance and receiving his certificate of citizenship.

If the application is rejected by the court or by the Minister, the applicant must wait two years before filing a new application.

Status of Married Women.-A Canadian woman does not lose Canadian citizensbip upon marriage to an alien, and a non-Canadian woman does not become a Canadian citizen upon marriage to a Canadian citizen. In the former case, she may file with the Minister a Declaration of Renunciation of Canadian Citizenship if she has acquired her husband's nationality, and she thereupon ceases to be a Canadian citizen. In the latter case, a non-Canadian woman must apply to the court for a certificate of citizenship. If she is a citizen of another Commonwealth country, she may apply direct to the Minister. The one concession as to qualifications is a residence of only one year in Canada.

A woman of Canadian origin who ceased to be a British subject by reason only of her marriage to an alien prior to Jan. 1, 1947, may regain her status and be granted a certificate of citizenship upon application direct to the Department of Citizenship and Immigration. She need not be a resident of Canada and no special qualifications are required.

Status of Minors, Foundlings, Posthumous Births, etc.-The Minister may, in his discretion, grant a certificate of citizenship to a minor child of a person who is a Canadian citizen, other than a natural-born Canadian citizen, on the application of the said person, provided he or she is the responsible parent of the child and further provided that the child has been lawfully admitted to Canada for permanent residence and, if 14 years of age or more, has an adequate knowledge of the English or the French language.

The Minister may also grant a certificate to a minor in any special case whether or not the conditions required by the Act have been complied with. Every foundling, who is or was first found as a deserted infant in Canada, shall, until the contrary is proved, be deemed to have been born in Canada. Where a child is born after the death of his father, the child shall, for the purposes of definition of natural-born Canadian citizens, be deemed to have been born immediately before the death of the father.

Children of Diplomatic Representatives in Canada.-The amendment of July 20, 1950 (effective Jan. 1, 1947), excludes from the status of natural-born Canadian citizens the children born in Canada of parents who, at the time of the birth, are the diplomatic or consular representatives of foreign countries in Canada, or who are employees in the service of such representatives and citizens of the countries represented.

Adopted or Legitimated Persons.-Effective July 20, 1950, the Act provides that certificates of Canadian citizenship may be granted to adopted or legitimated persons who have been admitted to Canada for permanent residence if the adopter, or the legally recognized father, is a Canadian citizen.

Certificate in Case of Doubt.-A certificate may be granted for the purpose of removing any doubts as to whether the person to whom it is granted is a Canadian citizen, and it is specifically provided that the granting of the certificate shall not be deemed to establish that the person to whom it is granted was not previously a Canadian citizen.

Protection of Status Prior to the Canadian Citizenship Act.-Sect. 44 of the Act provides that, notwithstanding the repeal of the Naturalization Act and the Canadian Nationals Act, the Canadian Citizenship Act is not to be construed or interpreted as depriving any person who is a Canadian national, a British subject or an alien as defined in the said Acts, or in any other law in force in Canada, of the national status he possessed at the time of the coming into force of this Act.

Loss of Canadian Citizenship.-Canadian citizenship may be lost for the following reasons:-
(1) A Canadian citizen who, when outside of Canada and not under disability (minor, lunatic or idiot), acquires, by a voluntary and formal act other than marriage, the nationality or citizenship of a country other than Canada. This does not apply if that country is at war with Canada at the time of acquisition but, in such a case, the Minister may order that he cease to be a Canadian citizen. The purpose of this is to hold the person, if deemed necessary, to his obligations as a Canadian.
(2) A Canadian citizen who, under the law of another country, is a national or citizen of such country and who serves in the armed forces of such country when it is at war with Canada. This does not apply if the Canadian citizen became a national or citizen of such country when it was at war with Canada.
(3) A Canadian citizen who, when in Canada, acquires voluntarily the citizenship of a foreign country (other than by marriage) may be deprived of his Canadian citizenship by Order of the Governor in Council, on recommendation of the Minister.
(4) A Canadian citizen, other than natural-born or one who has served in the Armed Forces of Canada in time of war, who resides outside of Canada for ten consecutive years without maintaining substantial connection with Canada, loses his citizenship automatically, but the period of absence may, upon application, be extended beyond the ten years for good and sufficient cause.
Loss of Citizenship by Revocation-A pplicable Only to Naturalized Persons.-The citizenship of a Canadian citizen, other than a natural-born Canadian citizen, may be revoked by the Governor in Council for such reasons as trading or communicating with an enemy country during time of war; disaffection or disloyalty while out of Canada or who, while in Canada, has, by a court of competent jurisdiction, been convicted of any offence involving disaffection or disloyalty; obtaining a certificate of naturalization or Canadian citizenship by false representation or fraud; residence outside of Canada for not less than six years (without maintenance of substantial connection) since becoming a Canadian citizen or being naturalized in Canada; residence for not less than two years (without maintenance of substantial connection) in a foreign country of which he was a national or citizen at any time prior to his becoming a Canadian citizen or being naturalized in Canada.

Loss of Citizenship by Revocation-Applicable to Both Natural-Born and Naturalized Persons.-The Governor in Council may, in his discretion, order that any person shall cease to be a Canadian citizen if, upon a report from the Minister of Citizenship and Immigration, he is satisfied that such person has, when not under a disability, (1) taken or made an oath, affirmation, or other declaration of allegiance to a foreign country, or (2) made a declaration renouncing his Canadian citizenship.

Loss of Citizenship in Relation to Women.-In the case of marriage, a woman who is a Canadian citizen does not lose the status of a Canadian citizen unless, having on marriage acquired her husband's nationality, she makes a declaration renouncing her Canadian citizenship.*

## Section 2.-Canadian Citizenship Statistics

Citizenship of the Total Population.-Results of the 1951 Census show that 96.9 p.c. of all the people in Canada were Canadian citizens, that 0.7 p.c. were citizens of other Commonwealth countries, 1.7 p.c. of European countries, 0.1 p.c. of Asiatic countries, 0.5 p.c. of the United States and 0.1 p.c. of other countries. Table 1 shows the 1951 population classified by country of allegiance and origin. According to this table, 98.0 p.c. of the persons of British Isles origins and 99.7 p.c. of those of French origin owed allegiance to Canada. Corresponding percentages for other European and Asiatic origins were $89 \cdot 3$ p.c. and $78 \cdot 7$ p.c., respectively.
1.-Population Classified by Country of Allegiance and Origin, 1951

| Origin | Country of Allegiance |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Canada | Other Commonwealth Countries | United States | Europesn Countries | Other Countries ${ }^{1}$ |  |
|  | No. | No. | No. | No. | No. | No. |
| British Isles ${ }^{2}$. | 6,577,849 | 95,567 | 34,229 | 1,524 | 516 | 6,709,685 |
| French.. | 4,304,972 | 763 | 8,370 | 4.896 | 166 | 4,319,167 |
| Other European. | 2,279,704 | 6,609 | 22,025 | 229,311 | 16.073 | 2,553,722 |
| German. | 586, 597 | ${ }_{6}^{631}$ | 8,203 | 21,739 | 2,825 | 619,995 |
| Italian.. | 126,767 | 1,640 | 878 | 22,712 | 248 | 152,245 |
| Jewish........ | 161,968 | 1,475 | 2,811 | 12,305 | 3,111 | 181,670 |
| Netherlanders | 227,552 | 312 | 2,327 | 33,032 | 1,044 | 264,267 |
| Polish..................... | 179,960 | 661 | 845 | 36,890 | 1,489 | 219,845 |
| Rusgian. . . . . . . . . . . . . . | 83.643 | 181 | 459 | 6,451 | 545 | 91,279 |
| Scandinavian ${ }^{3}$ | 268,904 | 311 | 4,218 | 9,426 | 165 | 283,024 |
| Ukrainian | 366,160 | 225 | 305 | 25,069 | 3.284 | 395,043 |
| Other.. | 278,153 | 1,173 | 1,979 | .61,687 | 3.362 | 346,354 |
| Asiatic. | 57,325 | 417 | 220 | 104 | 14,761 | 72,827 |
| Native Indian and Eskimo. | 165,359 | 45 | 169 | 17 | 17 | 165,607 |
| Other and not stated. | 182,730 | 670 | 3,987 | 638 | 396 | 188,421 |
| Totals, All Origins..... | 13,567,939 | 101,071 | ©5,*00 | 236,490 | 31,929 | 14,009,429 |

[^69]Citizenship Certificates Issued.-In 1953, 22,593 Canadian Citizenship Certificates were issued, 22,102 in English and 491 in French. Corresponding figures for 1952 were 20,506 certificates, 20,135 in English and 371 in French.

During 1953, the Canadian Citizenship Registration Branch recorded 2,402 certificates of registration of births abroad, 24,757 declarations of intention filed with the courts, 141 declarations of retention of citizenship and 44 declarations of

[^70]resumption of Canadian citizenship. Certificates issued free to persons who had had active military service numbered 672. Corresponding figures for 1951 were 1,563 registrations of births abroad, 13,323 declarations of intention, 143 declarations of retention of citizenship, 76 declarations of resumption of citizenship and 1,646 certificates issued free to persons who had had active military service.
2.-Citizenship Certificates Issued, by Status of Recipient, 1951-53

| Under 1947 Act | Classification | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: |
|  |  | No. | No. | No. |
| Sect. 34 (1) (i) | Certificates of Proof of Status- | 1,771 |  |  |
|  | Canadian citizens by birth........ | 1,771 3,643 | 2,630 3,420 | 2,078 3,826 |
|  | British subjects with 5 years domicile before Jan. | 1,647 | 2,208 | 1,339 |
|  | Women, through marriage. | 1,317 | 1,495 | 1,806 |
| Sect. 10 (2) <br> Sect. 10 (1) <br> Sect. 10 (5) <br> Sect. 11 (3) <br> Sect. 10 (3) | British subjects with 5 years domicile after Jan. 1, 1947....... | 841 | 1,941 | 3,113 |
|  | Aliens................................................ | 9,359 | 6,275 | 8,277 |
|  | Minors whose parents have been granted Certificat Minors under special circumstances............... | 1,067 39 | 1,614 37 | 1,231 |
|  | Women who regained lost Canadian citizenship through marriage. | 1,006 | 678 | 668 |
| Sect. 10 (4) | Canadians who regained lost status by naturalization outside |  |  |  |
| Sect. 11 (1) <br> Sect. 11 (2) | Doubtful cases who have been now awarded Certificates. | 227 6 | 177 | $\begin{array}{r}135 \\ 16 \\ \hline\end{array}$ |
|  | Adopted and legitimated persons........................... | 14 | 27 | 27 |
|  | Totals | 20,937 | 20,506 | 22,593 |

Characteristics of Persons Granted Citizenship in 1953.-Detailed statistics showing the characteristics of aliens* (non-British subjects) granted citizenship certificates became available for the first time in 1952; such characteristics included age, marital status, occupation, period of immigration, residence, as well as previous nationality. The characteristics of British subjects granted certificates were also recorded and certain of these are shown separately for 1953 in Tables 3 to 7.

Of the total non-British subjects granted citizenship in $1953,47 \cdot 3$ p.c. had immigrated to Canada after the end of World War II and 40 p.c. had immigrated before 1931. Regionally, these new Canadians were distributed as follows: 1.9 p.c. in the Atlantic Provinces, 16.9 p.c. in Quebec, 44.6 p.c. in Ontario, 20.3 p.c. in the Prairie Provinces and $16 \cdot 2$ p.c. in British Columbia. Just over 82 p.c. of them resided in urban centres as compared with 62 p.c. of the total population at the date of the 1951 Census.

More than 60 p.c. of the non-British subjects naturalized in 1953 were males. Young persons under 20 years of age constituted 7 p.c. of the total, 48 p.c. were 20 to 44 years of age, 37 p.c. were 45 to 65 years of age and 8 p.c. were over 65 . Almost one-quarter of them formerly owed allegiance to Poland and about two-thirds of these persons were males, the majority of whom were recent arrivals in Canada. The next largest group formerly owed allegiance to China, and most of that group had been in Canada for many years.

About 19 p.c. of the males were employed in manufacturing occupations, 12 p.c. in service fields, 11 p.c. in agriculture, 11 p.c. in labouring occupations and 10 p.c. in proprietary and managerial occupations. About 73 p.c. of the females were homemakers.

[^71]
## 2.-Persons Granted Citizenship Certificates in 1953, classified by Period of Immigration to Canada and by Province of Residence

| Residence | Total British Subjects | Non-British Subjects |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Period of immigration |  |  |  |  | $\left\lvert\, \begin{gathered} \text { Born } \\ \text { in } \\ \text { Csnads } \end{gathered}\right.$ | Total |
|  |  | $\begin{array}{\|c\|} \hline \text { Before } \\ 1921 \end{array}$ | $\begin{aligned} & 1921- \\ & 1930 \end{aligned}$ | $\begin{aligned} & 1931- \\ & 1940 \end{aligned}$ | $\begin{aligned} & 1941- \\ & 1950 \end{aligned}$ | $\begin{aligned} & 1951- \\ & 1953 \end{aligned}$ |  |  |
| Residing in Canads- | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland. .... | 10 | - | 4 | 6 | 3 | 1 | 1 | 15 |
| Prince Edward Island. ................ | 11 | 1 | 3 | 2 | 3 | ${ }_{2}^{2}$ | 1 | 12 |
| Nova Scotia. | 71 45 | 23 7 | 13 6 | 5 | 53 19 | 22 3 | 1 | 122 |
| Quebec....... | 483 | 284 | 438 | 134 | 673 | 80 | 93 | 1,702 |
| Ontario. | 1,853 | 454 | 769 | 299 | 2,532 | 315 | 128 | 4,497 |
| Manitoba | 81 | 130 | 199 | 41 | 157 | 18 | 46 | 591 |
| Saskatchewan | 41 | 165 | 189 | 29 | 89 | 61 | 19 | 552 |
| Alberta....... | 151 | 176 | 294 | 88 | 206 | 86 | 57 | 907 |
|  | 695 | 586 | 305 | 75 | 371 | 215 | 84 | 1,636 |
| Yukon and Northwest Territories. . | 10 |  | 9 | 3 | 2 |  | - | 14 |
| Totals, Residing in Canads. | 3,451 | 1,826 | 2,229 | 688 | 4,108 | 803 | 435 | 10,089 |
| Residing Outside of Canads | 3 | - | - | - | 1 | 1 | 17 | 19 |
| Totals, Persons Naturalized. . . . | 3,454 | 1,825 | 2,229 | 658 | 4,109 | 804 | 452 | 10,108 |

${ }^{1}$ Canadian-born who lost their citizenship by marriage; this applies to fermales only.
4.-Persons Granted Citizenship Certificates in 1953, by Sex and Age Group

| Age Group | British Subjects |  | Non-British Subjects |  | Age Group | British Subjects |  | Non-British Subjects |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Fernales | Males | Females |  | Males | Females | Males | Females |
| Years | No. | No. | No. | No. | Years | No. | No. | No. | No. |
| 0-4........ | 5 | 3 | 24 | 11 | 45-49. | 126 | 146 | 660 | 523 |
| 5-9........ | 67 | 58 | 47 | 29 | 50-54....... | 79 | 98 | 610 | 441 |
| 10-14. | 49 | 43 | 77 | 41 | 55-59....... | 54 | 55 | 508 | 282 |
| 15-19. | 44 | 44 | 415 | 121 | 60-64....... | 38 | 48 | 495 | 204 |
| 20-24. | 87 | 97 | 446 | 229 | 65-69....... | 21 | 32 | 352 | 123 |
| 25-29........ | 307 | 357 | 600 | 374 | 70-74........ | 6 | 12 | 174 | 52 |
| 30-34........ | 437 | 300 | 715 | 412 | 75+ | 4 | 4 | 52 | 23 |
| 35-39....... | 248 202 | ${ }_{171}^{212}$ | 503 680 | 422 463 |  |  |  |  |  |
|  | 202 | 171 | $6 \times 0$ | 463 | Ages...... | 1,774 | 1,680 | 6,358 | 3,730 |

5.-Persons Granted Citizenship Certificates in 1953, by Sex and Occupation

| Occupation | British Subjects |  | Non-British Subjects |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females |
|  | No. | No. | No. | No. |
| Proprietary and managerial. | 169 | 10 | 623 | 21 |
| Professional... | 359 | 81 | 382 | 120 |
| Clerical.......... | 128 | 210 | 146 | 157 |
| Transportation and communicat | 135 | 3 | 164 | 5 |
| Service...... | 150 | 75 | 788 | 176 |
| Agricultaral. | 27 | 75 | 719 | 176 12 |
| Fishing, trapping, logging | 8 | - | 50 | - |
| Mining...................... | 6 |  | 94 |  |
| Constructuriong and mechanical. | 289 86 | 50 | 1,179 | 184 |
| Labourers, not in primary indust | 18 | 二 | 359 702 | 1 |
| Homemskers.................. | 18 | 1,041 | 702 | 2.743 |
| No occupation (including students, | 64 | 1,046 | 191 | 2.76 |
| Children under 14. | 112 | 98 | 127 | 71 |
| Not atated ${ }^{1}$. | 79 | 48 | 632 | 139 |
| Totals, All Oceupations | 1,774 | 1,680 | 6,358 | 3,750 |

[^72]
## 6.-Persons Granted Citizenship Certificates in 1953, by Sex and Country of Birth



## 7.-Persons Granted Citizenship Certificates in 1953, by Country of Former Allegiance

| Country of Former Allegiance | No. | Country of Former Allegiance | No. | Country of Former Allegiance | No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| British countries....... | 3,454 | Germany .............. | 371181 | Peru.....................$~$ | 2,3282 |
|  |  |  |  |  |  |
| Albania. | 8 | Haiti. |  | Portugal.............. |  |
| Austria. | 191 | Hungar | 294 |  | 237 |
| Belgium | 158 |  | 3 | Spain. | 101 |
| Bolivia. | 1 | Israel. | 16 | Sweden...... |  |
| Bulgaria | 15 | Japan. | 155 | Syria................... | 10 |
| China. | 2,044 | Latvia. | 138 | Turkey................ | 8640 |
| Cuba. | 2,011 | Lebanon. | 8 | United States. . . . . . . |  |
| Czechoslovakia | 424 | Liechtenstein......... | 1 |  | 640 328 |
| Danzig. | 1 | Lithuania............. | 199 |  | $\begin{array}{r}245 \\ 524 \\ \hline\end{array}$ |
| Denmar | 132 98 | ${ }_{\text {Mexico }}^{\text {Netherlands }}$. | ${ }_{3}^{1}$ | Stateless............ Unknown.......... |  |
| Finland | 16589 | Norway <br> Palestine. | 316315 | All Countries...... |  |
| Franc |  |  |  |  | 13,562 |

# CHAPTER V.-VITAL STATISTICS* 

## CONSPECTUS

|  | PAGI |  | $\mathrm{PaGE}_{220}$ |
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Notr.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

This Chapter of the Year Book is intended to provide a broad summary of the main trends in the registration of births, marriages, and deaths in Canada during the past 30 years, to compare the principal Canadian vital statistics rates or indices with those for other countries and to provide lay readers and students of demography, public health, sociology and other related fields with basic Canadian vital statistics data. Detailed data are available from regular DBS annual reports, notably Vital Statistics (Preliminary Report) and Vital Statistics of Canada. Certain unpublished data are also available on request. The history of the collection of vital statistics in Canada is covered in the 1948-49 edition of the Year Book, pp. 185-188.

Births and deaths are classified by place of residence (births are classified according to the residence of the mother) and marriages by place of occurrence.

The population data upon which the rates shown in this Chapter are computed are contained in Chapter III (Population) and in the several DBS reports relating to census and intercensal estimates of population.

In comparing the birth, death and marriage rates by provinces, it is important to bear in mind that part of the differences observed may be caused by differences in the sex and age distribution of their populations. Similarly, changes in these rates may be owing partly to changes in this distribution. These remarks apply also to international comparisons of birth, death and marriage rates.

## Section 1.-Summary of Vital Statistics

Table 1 gives a summary of the principal vital statistics of the provinces of Canada from 1921 when the system of collection of national statistics was initiated and Table 2 shows certain vital statistics for urban centres having at least 10,000 population at the date of the 1951 Census.

[^73]

This Chart shows the age-sex distribution of the population at the 1941 and 1951 Censuses, as an illustration of how that distribution may change within a short period of time. Such changes can have a very significant effect on vital statistics rates.

## 1.-Summary of Principal Vital Statisties, by Province, 1921-52

(Exclusive of the Territories)

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{2}{*}{Province and Year} \& \multicolumn{2}{|l|}{Live Births} \& \multicolumn{2}{|l|}{Deaths} \& \multicolumn{2}{|l|}{Natural Increase} \& \multicolumn{2}{|l|}{Infant Mortality \({ }^{1}\)} \& \multicolumn{2}{|l|}{\begin{tabular}{l}
Maternal \\
Mortality
\end{tabular}} \& \multicolumn{2}{|l|}{Marriages} \\
\hline \& No. \& Rate \({ }^{2}\) \& No. \& Rate \({ }^{\text {a }}\) \& No. \& Rate \({ }^{2}\) \& No. \& Rate \({ }^{2}\) \& No. \& Rate \({ }^{3}\) \& No. \& Rate \({ }^{2}\) \\
\hline \multicolumn{13}{|l|}{Newfoundland-} \\
\hline Av. 1921-25. \& 6,986 \& 26.7 \& 3,665 \& 14.0 \& 3,321 \& 12.7
11.4 \& \& \& \begin{tabular}{|c}
50 \\
33
\end{tabular} \& \(7 \cdot 1\) \& 1,481 \& 5.7
6.1 \\
\hline \begin{tabular}{ll} 
" \& \(1926-30\). \\
\hline \& \(1931-35\).
\end{tabular} \& 6,756 \& 25.1 \& 3,684 \& \(13 \cdot 7\)
12 \& 3,072 \& 11.4
10.6 \& 779 \& 115 \& \begin{tabular}{l}
33 \\
34 \\
\hline
\end{tabular} \& 4.9 \& 1,632
1,708 \& 6.
6. \\
\hline " 1936-40 \& 7,638 \& 25.8 \& 3,681 \& 12.4 \& 3,957 \& 13.4 \& 754 \& 99 \& 40 \& \(5 \cdot 3\) \& 2,208 \& 7. \\
\hline " 1941-45 \& 9,292 \& 29.8 \& 3,681 \& 11.8 \& 5,611 \& 18.0 \& 852 \& 92 \& 39 \& \(4 \cdot 2\) \& 2,967 \& 9.5 \\
\hline * 1946-50. \& 12,352 \& 36-2 \& 3,179 \& 9-3 \& 9,173 \& 26.9 \& 754 \& 61 \& 25 \& \(2 \cdot 0\) \& 2,711 \& \(8 \cdot 0\) \\
\hline 1946. \& 12,033 \& 36.5 \& 3,427 \& \(10 \cdot 4\) \& 8,606 \& 26.1 \& 887 \& 4 \& 27 \& 2 -2 \& 3,067 \& - 3 \\
\hline 1947 \& 12,646 \& 37.5 \& 3,325 \& \(9 \cdot 9\) \& 9,321 \& 27.6 \& 790 \& 62 \& 29 \& \(2 \cdot 3\) \& 2,917 \& 8.7 \\
\hline 1948 \& 11,634 \& 33.8 \& 3,108 \& 9.0 \& 8,526 \& 24.8 \& 685 \& 59 \& 22 \& \(1 \cdot 9\) \& 2,610 \& \(7 \cdot 6\) \\
\hline 1949 \& 12,281 \& \(35 \cdot 6\) \& 2,868 \& \(8 \cdot 3\) \& 9,413 \& \(27 \cdot 3\) \& 651 \& 53 \& 24 \& \(2 \cdot 0\) \& 2,445 \& \(7 \cdot 1\) \\
\hline 1950 \& 13,164 \& 37.5 \& 3,168 \& \(9 \cdot 0\) \& 9,996 \& 28.5 \& 758 \& 58 \& 21. \& \(1 \cdot 6\) \& 2,515 \& \(7 \cdot 2\) \\
\hline 1951 \& 11,738 \& \(32-5\) \& 3,004 \& 8.3 \& 8,734 \& 24.2 \& 637 \& 54 \& 25 \& \(2 \cdot 1\) \& 2,517 \& \(7 \cdot 0\) \\
\hline 1952. \& 12,561 \& \(33-6\) \& 2,773 \& \(7 \cdot 4\) \& 9,788 \& 26.2 \& 572 \& 46 \& 25 \& \(2 \cdot 0\) \& 2,730 \& 7-3 \\
\hline \multicolumn{13}{|l|}{P. E. Island-} \\
\hline \& 1,965 \& 22.6 \& 1,085 \& 12.5 \& 880 \& \(10 \cdot 1\) \& 152 \& 77 \& 9 \& \(4 \cdot 6\) \& 473 \& \(5 \cdot 4\) \\
\hline 1926 \& 1,735 \& 19.7 \& 969 \& 11.0 \& 766 \& 8.7 \& 122 \& 70 \& 8 \& \(4 \cdot 6\) \& 473 \& \(5 \cdot\) \\
\hline " 1931-35 \& 1,961 \& 21.8 \& 1,001 \& 11.1 \& 960 \& 10.7 \& 131 \& 67 \& 10 \& \(5 \cdot 1\) \& 496 \& \(5 \cdot\) \\
\hline " 1936-40 \& 2,054 \& 21.9 \& 1,080 \& 11.5 \& 974 \& 10.4 \& 142 \& 69 \& 10 \& \(4 \cdot 9\) \& 623 \& \(6 \cdot 6\) \\
\hline " 1941 \& 2,180 \& 23.7 \& 964 \& 10.5 \& 1.216 \& \({ }^{13-2}\) \& 114 \& 52 \& 9 \& \(3 \cdot 9\) \& 686 \& 7.5 \\
\hline * 1946 \& 2,869 \& \(30 \cdot 5\) \& 922 \& 9.8 \& 1,947 \& 20.7 \& 114 \& 40 \& 4 \& \(1 \cdot 3\) \& 677 \& \(7-2\) \\
\hline 1946. \& 2,793 \& 29-7 \& 874 \& 9-3 \& 1,919 \& \(20-4\) \& 97 \& 35 \& 6 \& \(2 \cdot 1\) \& 837 \& . 9 \\
\hline 1947 \& 2,992 \& 31.8 \& 1,020 \& 10.9 \& 1,972 \& 20.9 \& 135 \& 45 \& 6 \& \(2 \cdot 0\) \& 676 \& - 2 \\
\hline 1948 \& 2,842 \& \(30 \cdot 6\) \& 887 \& \(9 \cdot 5\) \& 1,955 \& \(21 \cdot 1\) \& 97 \& 34 \& 3 \& \(1 \cdot 1\) \& 635 \& -8 \\
\hline 1949 \& 2,831 \& \(30 \cdot 1\) \& 924 \& \(9 \cdot 8\) \& 1,907 \& 20.3 \& 135 \& 48 \& \& 0.4 \& 619 \& \(6 \cdot 6\) \\
\hline 1950 \& 2,885 \& 30-1 \& 903 \& \(9 \cdot 4\) \& 1,982 \& 20.7 \& 105 \& 36 \& 3 \& 1.0 \& 616 \& \(6 \cdot 4\) \\
\hline 1951. \& 2,651 \& 27.1 \& 904 \& \(9 \cdot 2\) \& 1,747 \& 17-9 \& 90 \& 34 \& 1 \& 0.4 \& 583 \& \(5 \cdot 9\) \\
\hline 1952 \& 2,703 \& 26-2 \& 916 \& \(8 \cdot 9\) \& 1,787 \& 17-3 \& 83 \& 31 \& 4 \& 1.5 \& 613 \& - 0 \\
\hline \multicolumn{13}{|l|}{Nora Scoth-} \\
\hline Av. 1921-25. \& 12,119 \& 23.4 \& 6,519 \& 12.6 \& 5,600 \& 10.8 \& 1,139 \& 94 \& 70 \& 5-8 \& 3,186 \& \(6 \cdot 1\) \\
\hline " \({ }_{\text {c }}\) 1928-30. \& 11,016 \& 21.4 \& 6,362 \& 12.4 \& 4,653 \& \(9 \cdot 0\) \& 934 \& 85 \& 61 \& \(5 \cdot 5\) \& 3,224 \& 6-3 \\
\hline " 1931-35. \& 11,486 \& 21.9 \& 6,073 \& 11.6 \& 5,414 \& \(10 \cdot 3\) \& 840 \& 73 \& 59 \& \(5 \cdot 1\) \& 3,522 \& \(6 \cdot 7\) \\
\hline " 1936-40. \& 12,060 \& 21.7 \& 6,126 \& 11.0 \& 5,934 \& \(10 \cdot 7\) \& 782 \& 65 \& 48 \& \(4 \cdot 0\) \& 4,796 \& \(8 \cdot 6\) \\
\hline " 1941-45. \& 15,146 \& 25.2 \& 6,326 \& 10.5 \& 8,820 \& 14.7 \& 870 \& 57 \& 41 \& \(2 \cdot 7\) \& 6.302 \& 10.5 \\
\hline 1946-50. \& 17,994 \& 28.9 \& 6,042 \& 9-7 \& 11,952 \& 19-2 \& 760 \& 42 \& 22 \& \(1 \cdot 2\) \& 5,525 \& \(8 \cdot 9\) \\
\hline 1946 \& 17,914 \& 29.5 \& 6,046 \& \(9 \cdot 9\) \& 11,868 \& \(19 \cdot 6\) \& 822 \& 46 \& 28 \& \(1 \cdot 6\) \& 6,549 \& 10.8 \\
\hline 1947 \& 19,265 \& 31.3 \& 6,009 \& \(9 \cdot 8\) \& 13,256 \& 21.5 \& 840 \& 44 \& 20 \& \(1 \cdot 0\) \& 5,861 \& \(9 \cdot 5\) \\
\hline 1948 \& 17,791 \& 28.5 \& 6,097 \& \(9 \cdot 8\) \& 11,694 \& \(18 \cdot 7\) \& 695 \& 39 \& 19 \& \(1 \cdot 1\) \& 5,093 \& \(8 \cdot 1\) \\
\hline 1949 \& 17,739 \& 28.2 \& 5,980 \& \(9 \cdot 5\) \& 11,759 \& 18.7 \& 750 \& 42 \& 20 \& 1.1 \& 5,058 \& \(8 \cdot 0\) \\
\hline 1950 \& 17,262 \& 27.1 \& 6,078 \& \(9 \cdot 5\) \& 11,184 \& \(17 \cdot 6\) \& 693 \& 40 \& 21 \& \(1 \cdot 2\) \& 5,065 \& \(7 \cdot 9\) \\
\hline 1951. \& 17,125 \& 26.6 \& 5,812 \& \(9 \cdot 0\) \& 11,313 \& \(17 \cdot 6\) \& 594 \& 35 \& 12 \& \(0 \cdot 7\) \& 5,094 \& \(7 \cdot 9\) \\
\hline 1952. \& 17,951 \& 27.5 \& 5,756 \& \(8 \cdot 8\) \& 12,195 \& 18.7 \& 615 \& 34 \& 14 \& 0.8 \& 5,390 \& \(8 \cdot 3\) \\
\hline \multicolumn{13}{|l|}{New Brunswiek-} \\
\hline " 1926-30. \& 10,327 \& 25.8 \& 5,019 \& 12.5 \& 5,308 \& 13.2 \& 1,040 \& 101 \& 64 \& \(4 \cdot 6\) \& 2,970 \& . \\
\hline " 1931-35 \& 10,440 \& 24.9 \& 4,710 \& 11.3 \& 5,730 \& \(13 \cdot 6\) \& 857 \& 82 \& 57 \& \(5 \cdot 5\) \& 2,737 \& \(6 \cdot 5\) \\
\hline "/ 1936-40. \& 11,105 \& 25.1 \& 5,040 \& 11.4 \& 6,065 \& 13.7 \& 913 \& 82 \& 54 \& \(4 \cdot 9\) \& 3,801 \& \(8 \cdot 6\) \\
\hline " 1941-45. \& 13,037 \& 28.2 \& 5,050 \& 10.9 \& 7.987 \& \(17 \cdot 3\) \& 960 \& 74 \& 42 \& \(3 \cdot 2\) \& 4,433 \& \(9 \cdot 6\) \\
\hline " 1946 \& 16,878 \& 34.0 \& 4,886 \& \(9 \cdot 8\) \& 11,992 \& 24.2 \& 1,015 \& 60 \& 23 \& \(1 \cdot 4\) \& 4.864 \& \(9 \cdot 8\) \\
\hline 1946. \& 16,274 \& \(34 \cdot 0\) \& 4.866 \& \(10 \cdot 2\) \& 11,408 \& 23.8 \& 1,066 \& 66 \& 34 \& \(2 \cdot 1\) \& 5,866 \& 12.3 \\
\hline 1947 \& 17,771 \& 36.4 \& 4.832 \& \(9 \cdot 9\) \& 12,939 \& 26.5 \& 1,041 \& 59 \& 25 \& 1.4 \& 5,189 \& \(10 \cdot 6\) \\
\hline 1948 \& 17,279 \& 34-7 \& 4.959 \& 10.0 \& 12,320 \& 24.7 \& 1,047 \& 61 \& \({ }^{23}\) \& \(1 \cdot 3\) \& 4,640 \& 9-3 \\
\hline 1949 \& 16,673 \& \(32 \cdot 8\) \& 4.876 \& 9-6 \& 11,797 \& 23.2 \& 993 \& 60 \& 18 \& \(1 \cdot 1\) \& 4.251 \& \(8 \cdot 4\) \\
\hline 1951 \& 16.393 \& \(32 \cdot 0\) \& 4,895 \& \(9 \cdot 6\) \& 11,498 \& \begin{tabular}{l}
22.4 \\
21 \\
\hline
\end{tabular} \& 927 \& 57 \& 15 \& \(0 \cdot 9\) \& 4.376 \& 8 \\
\hline 1952. \& 16,691 \& 31.7 \& 4,647 \& 8.8 \& 12,044 \& 22.9 \& 729 \& 44 \& 19 \& \(1 \cdot 1\) \& 4,276 \& 8.1 \\
\hline \multicolumn{13}{|l|}{Quebee -} \\
\hline Av. 1921-25. \& 87,032 \& 35.5 \& 33,339 \& \(13 \cdot 6\) \& 53,693 \& 21.9 \& 10,834 \& 124 \& 338 \& \(3 \cdot 9\) \& 17,529 \& \(7 \cdot 1\) \\
\hline " 1926-30 \& 82,771 \& 30.5 \& 36,645 \& 13.5 \& 46,126 \& 17.0 \& 10,518 \& 127 \& 433 \& \(5 \cdot 2\) \& 18,731 \& 6.9 \\
\hline u

1931-35
1936 \& 78,888 \& 26.6 \& 32,796 \& 11.0 \& 46,092 \& $15 \cdot 6$ \& 7,757 \& 98 \& 405 \& $5 \cdot 1$ \& 17,089 \& $5 \cdot 8$ <br>

\hline | " |
| :---: |
| $\sim$ | \& 78,509 \& $24 \cdot 6$ \& 33,221 \& 10.4 \& 45,288 \& 14-2 \& 6,470 \& 82 \& 400 \& $5 \cdot 1$ \& 27,111 \& 8.5 <br>

\hline " 1941 \& 97,906 \& 28.4 \& 34,273 \& $9 \cdot 9$ \& 63,633 \& 18.5 \& 6,690 \& 68 \& 318 \& $3 \cdot 2$ \& 33,126 \& $9 \cdot 6$ <br>
\hline ${ }^{\text {a }} 1946$ \& 115,496 \& $30 \cdot 4$ \& 33,723 \& 8.9 \& 81,773 \& 21.5 \& 6,205 \& 54 \& 227 \& $2 \cdot 0$ \& 34,874 \& 9-2 <br>
\hline 1946. \& 111,285 \& $30 \cdot 7$
31.1 \& 33,690
33,708 \& $9 \cdot 3$
9.1 \& 77,595 \& 21.4 \& 6,110
685 \& 55 \& 229 \& 2 -1 \& 36,650 \& $10 \cdot 1$ <br>
\hline 1948 \& 114,709 \& 31.1
30.3 \& 33,708
33,603 \& 9.1
8.9 \& 81,845
81,106 \& $22 \cdot 0$

21.4 \& \begin{tabular}{l}
6,583 <br>
6.211 <br>
\hline

 \& 

57 <br>
54 <br>
\hline
\end{tabular} \& 259 \& $2 \cdot 2$ \& 35,494

34,646 \& $9 \cdot 6$ <br>
\hline 1949 \& 116.824 \& $30 \cdot 1$ \& 34, 107 \& $8 \cdot 8$ \& 82,717 \& 21.3 \& 6,031 \& 52 \& 234 \& $2 \cdot 0$ \& 33,485 \& $8 \cdot 6$ <br>
\hline 1950 \& 119,111 \& 30.0 \& 33,507 \& $8 \cdot 4$ \& 85,604 \& 21.6 \& 6,091 \& 51 \& 182 \& $1 \cdot 5$ \& 34,093 \& $8 \cdot 6$ <br>
\hline 1951.
1952. \& 120.930 \& 29.8 \& 34,900 \& $8 \cdot 6$ \& 86,030 \& 21.2 \& 5,821 \& 48 \& 180 \& 1.5 \& 35, 704 \& 8.8 <br>
\hline 1952 \& 126.416 \& $30 \cdot 3$ \& 34,854 \& 8.4 \& 91,562 \& 21.8 \& 6,332 \& 50 \& 155 \& 1.2 \& 35,374 \& 8.5 <br>
\hline
\end{tabular}

[^74]${ }^{2}$ Per 1,000 population.
${ }^{2}$ Per 1,000 live births.
1.-Summary of Principal Vital Statistics, by Province, 1921-52-continued

${ }^{1}$ Under one year of age.
${ }^{2}$ Per 1,000 population.
${ }^{3}$ Per 1,000 live births.
1.-Summary of Principal Vital Statisties, by Province, 1921-52-concluded

| Province and Year | Live Births |  | Deaths |  | Natural Increase |  | Infant Mortality ${ }^{1}$ |  | Maternal Mortality |  | Marriages |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Rate ${ }^{2}$ | No. | Rate ${ }^{2}$ | No. | Rate ${ }^{2}$ | No. | Rate ${ }^{3}$ | No. | Rate ${ }^{3}$ | No. | Rate ${ }^{2}$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Av. 1921-25 | 247,538 | $27 \cdot 4$ | 101,264 | 11.2 | 146,277 | 16.2 | 24,337 | 98 | 1,226 | 5.0 | 66,078 | $7 \cdot 3$ |
| 1936-39 | 236,521 | 24.1 | 101,925 | 11.1 | 127,596 | 13.0 | 22,083 | 93 | 1,339 | 5.7 | 71,886 | 7.3 |
| 1831- | 228,352 | 21.5 | 103,502 |  | 124,750 | 11.7 | 17,101 | 75 | 1,153 | $5 \cdot 0$ | 68,594 | 6.5 |
| " 1936 | 228,757 |  | 109,514 |  | 119,253 | 10.7 | 14,701 | 64 | 1,043 | 4.6 | 96,824 | 8.7 |
| " 1911-45 | 276,832. | 23.5 | 115,144 |  | 161,688 | 13.7 | 15,093 | 55 | 791 | 2.9 | 113,936 | 9.7 |
| " 1946-50 | 351,869 | 27.4 | 115,975 |  | 231,894 | 18.1 | 15,620 | 4 | 5\%3 | 1.5 | 125,687 | 9.8 |
| 1416. | 230,732 |  | 114,931 |  | 215,801 | 17.6 | 15,434 | 47 | 595 | 1.8 | 134,488 | 10.9 |
| 197 | 359,094 | 38.7 | 117,725 | 9.4 | 241,309 | 19.3 | 16,336 | 45 | 554 | 1.5 | 177,311 | 10.2 |
| 1948 | 347,307 | 27.1 | 119,384 |  | 227,923 | 17-8 | 15,164 | 44 | 510 | 1.5 | 123,314 | 9.6 |
| 194 | 366,139 | 27.3 | 124,017 |  | 242,092 | 18.1 | 15,843 | 43 | 536 | 1.5 | 123,877 | 9.2 |
| 1550 | 371,074 | 27.1 | 123,789 |  | 247,282 | 18.1 | 15,324 | 41 | 420 | $1 \cdot 1$ | 12,845 | 9.1 |
| 1551 | 380,101 | 27.21 | 13,454 |  | 254,647 | 18.2 | 14,584 | 38 | 405 | $1 \cdot 1$ | 128,230 | 9.2 |
| 1552. | 402,527 | $27 \cdot 9$ | 125,950 |  | 276,577 | 19.2 | 15,383 | 38 | 374 | $0 \cdot 5$ | 128,301 | 8.9 |

[^75]2.-Summary of Principal Vital Statisties for Urban Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over, ${ }^{1}$ 1916-52

| Province and Urban Centre | Births |  |  | Deaths |  |  | Natural Increase |  |  | Infant Deaths |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Av. } \\ & \text { 1946- } \\ & 1950 \end{aligned}$ | $1951$ | 1952 | $\begin{aligned} & \text { Av. } \\ & \text { 1946- } \\ & 1950 \end{aligned}$ | 1951 | 1952 | $\begin{aligned} & \text { Av. } \\ & \text { 1946- } \\ & 1950 \end{aligned}$ | 1951 | 1952 | $\begin{aligned} & \text { Av, } \\ & 1946- \\ & 1950 \end{aligned}$ | 1952 | $\left\lvert\, \begin{gathered} \text { Rate } \\ \text { per } \\ 1,000 \\ \text { Live } \\ \text { Births } \\ 1952 \end{gathered}\right.$ |
| NewfoundlandSt. John's. $\qquad$ | $\begin{aligned} & \text { No. } \\ & 1,572 \end{aligned}$ | $\begin{aligned} & \text { No. } \\ & 1,646 \end{aligned}$ | $\begin{aligned} & \text { No. } \\ & 1,834 \end{aligned}$ | No. 2 | No. 541 | No. 504 | No. 2 | $\begin{aligned} & \text { No. } \\ & 1,105 \end{aligned}$ | $\begin{aligned} & \text { No. } \\ & 1,330 \end{aligned}$ | No, 89 | No. 89 | No. 49 |
| P. E. IslandCharlottetown. | 497 | 461 | 481 | 205 | 190 | 205 | 292 | 271 | 276 | 17 | 12 | 25 |
| Nova ScotiaDartmouth. |  |  |  |  |  |  | 391 |  |  | 16 |  | 10 |
| Glace Bay | 782 | 671 | 713 | 226 | 209 | 228 | 556 | 494 | 503 485 | 40 | 37 | 52 |
| Halifar. | 2,366 | 2,242 | 2,447 | 749 | 676 | 717 | 1,617 | 1,566 | 1,730 | 80 | 63 | 26 |
| New Wateriord | 354 | , 357 | 262 | 94 | 93 | 86 | 260 | - 264 | 1.76 | 22 | 21 | 58 |
| Sydney. | 1,011 | 1,048 | 1,032 | 307 | 283 | 247 | 704 | 765 | 785 | 46 | 22 | 21 |
| Truro.. | 333 | 292 | 296 | 104 | 103 | 82 | 229 | 189 | 214 | 15 | 6 | 20 |
| New Branswick- |  |  |  |  |  |  |  |  |  |  |  |  |
| Edmundston. | 385 | 390 | 402 | 70 | 79 | 62 | 315 | 311 | 340 | 21 | 15 | 37 |
| Fredericton. | 442 | 437 | 465 | 140 | 163 | 149 | 302 | 274 | 316 | 14 | 12 | 26 |
| Moncton............... | 769 | 723 | 802 | 219 | 254 | 202 | 550 | 469 | 600 | 31 | 17 | 21 |
| Saint John. | 1,595 | 1,395 | 1,481 | 638 | 539 | 574 | 957 | 856 | 907 | 77 | 44 | 30 |
| Quebee- |  |  |  |  |  |  |  |  |  |  |  |  |
| Arvida... | 388 | 370 | 393 | 46 | 36 | 46 | 342 | 334 | 347 | 19 | 20 | 51 |
| Cap de la Madeleine.. | 518 | 648 | 706: | 115 | 140 | 122 | 403 | 508 | 584 | 29 | 19 | 27 |
| Chicoutimi.......... | 972 | 958 | 973 | 195 | 204 | 209 | 777 | 754 | 764 | 59 | 71 | 73 |
| Drummondville...... | 471 | 536 | 501 | 103 | 153 | 133 | 368 | 383 | 368 | 22 | 33 | 66 |
| Granby | 683 | 758 | 873 | 154 | 158 | 160 | 529 | 600 | 713 | 27 | 23 | 26 |
| Grand'Mere | 329 | 363 | 412 | 82 | 90 | 73 | 247 | 273 | 339 | 15 | 19 | 46 |
| Hull.................. | 1,390 | 1,489 | 1,502; | 359 | 377 | 446 | 1,031 | 1,112 | 1,056 | 78 | 111 | 74 |
| Jacques-Cartier........ |  |  | 864 |  |  | 202 |  |  | 1,662 |  | 71 | 82 |
| Jonquie.re. | 436 833 | 483 899 | 473 | 162 | 182 | 187 | 274 | 301 | 286 | 26 | 17 | 36 |
| Lachine. . | ${ }_{657} 8$ | 692 | ${ }_{7} 94$ | ${ }_{213}^{14}$ | 163 | ${ }_{231}^{157}$ | 688 | 736 473 | 783 503 | 56 | 54 16 | 57 |
| Lasalle. | 257 | 389 | 422 | 59 | 81 | 89 | 198 | 473 308 | 503 33 | 21 | 17 | 40 |
| Lévis. | 357 | 323 | 336 | 127 | 132 | 115 | 230 | 191 | 221 | 14 | 18 | 54 |
| Longueuil | 312 | 342 | 346 | 89 | 91 | 100 | 223 | 251 | 246 | 16 16 | 14 | 40 40 |
| Magog. . | 4071 | 443 | 422 | 104 | 88 | 119 | 303 | 3551 | 3031 | ${ }_{21}$ | 16 | 38 |

[^76]2.-Summary of Principal Vital Statistics for Urban Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over, ${ }^{1}$ 1946-52-continued

| Province and <br> Urban Centre | Births |  |  | Deaths |  |  | Natural Increase |  |  | Infant Deaths |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Av. } \\ & 1946- \\ & 1950 \end{aligned}$ | 1951 | 1952 | $\begin{aligned} & \text { Av. } \\ & 1946- \\ & 1950 \end{aligned}$ | 1951 | 1952 | $\begin{aligned} & \text { Av. } \\ & 1946- \\ & 1950 \end{aligned}$ | 1951 | 1952 | $\begin{aligned} & \text { Av. } \\ & 1946 \text { - } \\ & 1950 \end{aligned}$ | 1952 | Rate <br> per <br> 1,000 <br> Live <br> Births <br> 1952 |
| Quebec-concluded | No. |  | No. |  |  |  | No. |  | No. | No. | No. | No |
| Montreal. ${ }^{\text {Montreal }}$ North... | 24,535 | 26,439 420 | 27,495 | 9,877 | 10,115 | 10,076 95 | 14, 658 |  | 17,419 <br> 395 | 1,062 | 1,001 26 | 36 53 |
| Montreal North | 154 | 420 226 | 490 220 | 42 | 88 69 | 62 | 112 | 157 | 158 | 12 | 26 | 53 |
| Outremont. | 335 | 295 | 276 | 279 | 256 | 274 | 56 | 39 | 2 | 7 | 7 | 25 |
| Quebec | 4,275 | 4,195 | 4,256 | 1,709 | 1,720 | 1,755 | 2,566 | 2,475 | 2,501 | 321 | 348 | 82 |
| Rimous | 381 | 404 | 421 | 93 | 89 | 93 | 288 | 315 | 328 | 21 | 27 | 64 |
| Rouyn. | 455 | 602 | 570 | 80 | 92 | 90 | 375 | 510 | 480 | 20 | 33 | 58 |
| St. Hyacint | 530 | 587 | 602 | 253 | 270 | 219 | 277 | 317 | 383 | 25 | 16 | 27 |
| St. Jean. | 500 | 543 | 620 | 143 | 187 | 171 | 357 | 356 | 449 | 19 | 28 | 45 |
| St. Jérôme | 560 | 595 | 604 | 134 | 137 | 137 | 426 | 458 | 467 | 31 | 26 | 43 |
| St. Laurent | 380 | 722 | 770 | 105 | 161 | 135 | 275 | 561 | 635 | 15 | 21 | 27 |
| St. Michel. | 214 | 331 | 406 | 36 | 62 | 65 | 178 | 269 | 341 | 10 | 16 | 39 |
| Shawinigan Falls | 883 | 860 | 858 | 181 | 191 | 184 | 702 | -669 | 674 | 42 | 31 |  |
| Sherbrooke. | 1,459 | 1,719 | 1,731 | 434 | 497 | 439 | 1,025 | 1,222 | 1,292 | 87 | 78 | ${ }^{45}$ |
| Sillery. |  |  | 258 |  |  | 57 |  |  | 201 |  | 5 | - |
| Sorel. | 470 | 449 | 503 | 153 | 143 | 121 | 317 | 306 | 382 | ${ }_{21}^{27}$ | 29 | - 58 |
| Thetford Mines | 449 | 541 | 543 | 142 | 133 | 140 | 307 | 408 | 403 | 21 | 27 | 50 |
| Three Rivers | 1,300 | 1,443 | 1,414 | 411 | 436 | 366 | 889 | 1,007 | 1,048 | 84 | 70 | 50 |
| Valley field. | 677 | 724 | 733 | 170 | 183 | 183 | 507 | 541 | 550 | 30 | 331 | 45 |
| Verdun. | 1,771 | 1,730 | 1,842 | 566 | 572 | 576 | 1,205 | 1,158 | 1,266 | 61 | 41 | 22 |
| Victoriaville | 409 | 450 | 447 | 108 | 142 | 124 | 301 | 308 | 323 | 29 | 32 | 72 |
| Westmount. | 292 | 254 | 284 | 294 | 294 | 286 | 2 | -40 | -2 | 9 | 13 | 46 |
| Ontario- |  |  |  |  |  |  |  |  |  |  |  |  |
| Barrie. | 324 | 328 | 391 | 125 | 143 | 122 | 199 | 185 | 269 | 18 |  |  |
| Belleville. | 483 | 515 | 548 | 202 | 193 | 208 | 281 | 322 | 340 | 18 | 17 | 31 |
| Brantiord | 972 | 936 | 958 | 405 | 422 | 404 | 567 | 514 | 554 | 39 | 35 | 37 |
| Brockville | 336 | 283 | 301 | 155 | 139 | 149 | 181 | 144 | 152 | 14 | 12 | 40 |
| Chatham. | 518 | 587 | 553 | 218 | 224 | 224 | 300 | 363 | 329 | 19 | 13 | 24 |
| Cornwall | 572 | 514 | 527 | 183 | 199 | 150 | 388 | 315 | 377 | 26 | 19. | ${ }_{50}^{36}$ |
| Eastview | 409 | 492 | 563 | 82 | 80 | 87 | 327 | 412 | 476 | 18 | 28 | 50 |
| Forest Hill | 193 | 209 | 239 | 93 | 104 | 111 | 100 | 105 | 128 | 5 | 4 | 17 |
| Fort Willis | 918 | 951 | 968 | 299 | 347 | 301 | 619 | 604 | ${ }^{667}$ | 30 | 11 | 27 |
| Galt. | 436 | 454 | 474 | 191 | 185 | 201 | 245 | 269 | 273 | 14 | 11 | 23 34 |
| Guelph. | 650 | 698 | 705 | 277 1.837 | + 287 | 276 1 | - 3711 | 411 3,112 | 3, 597 | 135 | 183 | 34 34 |
| Hamilton | 4,548 | 5,102 | 5,581 | $\begin{array}{r}1,837 \\ \hline 396\end{array}$ | 1,990 | 1,984 430 | 2,711 | 3,112 493 | 3,597 | 135 28 | 183 31 | 33 27 |
| Kingston. | 953 | 1913 | 1,164 | 396 366 | 420 344 | 430 | 5557 | 493 814 | 734 <br> 898 | 30 | 41 | 31 |
| Kitchene | 1,032 | 1,158 | 1,310 | 366 69 | 344 96 | 412 95 | 666 241 | 814 | 898 | 8 | 1 | 27 |
| Leaside. | 1 2,279 | 2,316 | 2,405 |  | 96 1,033 | 1,053 | 1,273 | 1,320 | 1,352 | 76 | 58 | 24 |
| London. | 2,279 | 2,353 | 2,405 | 1,006 | 1,033 | 1,053 | 1,273 | 1,320 | 1,352 | 76 8 | 88 | 24 |
| Mimico. | 252 | 300 | 305 | 81 | 100 | 89 | 171 | 137 | ${ }_{167} 16$ | 8 | 8 | 26 |
| New Toronto. | 207 | 214 | 244 | 64 | 77 | 77 | 143 | 137 | 167 330 | 17 |  |  |
| Niagara Falls | 620 |  | 556 | 237 | 242 | 226 | 383 | 299 306 | 330 <br> 337 | 17 | 27 | ${ }_{53}^{36}$ |
| North Bay. | 480 | 496 | 513 | 171 | 190 | 176 | 309 | 306 | 337 237 | 18 | 11 | 32 |
| Orillia... | 336 | 382 | 344 | 130 | 157 | . 117 | 206 | 225 | 227 | 16 | 44 | 38 |
| Oshawa. | 727 | 941 | 1,172 | 258 | 320 | 310 | 469 | ${ }^{621}$ | -862 | 168 | 44 | 38 |
| Ottawa | 4,332 | 5,011 | 5,197 | 1,764 | 1,946 | 2,077 | 2,568 | 3,065 | 3,120 230 | 168 17 | 200 13 | 38 31 |
| Owen Sound | 418 | 406 | 414 | 174 | 234 | 184 | 244 | 172 | ${ }_{284}^{230}$ | 17 19 | ${ }_{22}^{13}$ | 51 |
| Pembroke. | 361 | 399 | 420 | 132 | 111 | 136 | 229 | 288 | 284 | 19 | 28 | 25 |
| Peterborough | 1,031 | 1,071 | 1,116 | 359 304 | 370 | 341 354 | 4872 | 401 | 775 | 30 | 17 | 18 |
| Port Arthur. | 786 | 826 334 | 969 367 | 304 95 | 108 | 35 9 | 211 | 226 | ${ }_{268}$ | 6 | 14 | 38 |
| Port Colborne. |  | 334 857 | 367 930 | $\begin{array}{r}95 \\ \hline 45\end{array}$ | ${ }_{358}^{108}$ | 377 | 529 | 499 | 553 | 29 | 23 | 25 |
| St. Catharines. | 874 | 844 | 413 | 239 | 238 | 209 | 184 | 206 | 204 | 19 | 12 | 29 |
| St. Thomas. | 620 | 937 | 1,212 | 229 | 248 | 301 | 391 | 689 | 911 | 18 | 41 | 34 |
| Sault Ste. Mar | 849 | 891 | 1,003 | 289 | 285 | 288 | 560 | 606 | 715 | 38 | 25 | 25 |
| Stratford. | 420 | 437 | 450 | 241 | 215 | 217 | 179 | 222 | 233 | 16 | 15 | 33 |
| Sudbury. | 1,344 | 1,550 | 1,657 | 294 | 307 | 316 | 1,050 | 1,243 | 1,341 | 61 | 70 | 42 |
| Timmins. | 867 | 814 | 852 | 202 | 220 | 211 | 665 | 594 | 641 | 38 | 32 | 38 |
| Toronto. | 14,344 | 14,033 | 14,472 | 7,820 | 7,700 | 7,695 | 6,524 | 6,333 | 6,777 | 435 | 379 | 26 |
| Trenton. | 343 | 331 | 363 | 99 | 90 | 99 | 244 174 17 | ${ }_{1}^{241}$ | 264 | 8 | - | 31 |
| Waterlo | 262 | 293 | 351 | 88 | 110 | 100 | 174 257 | 306 | 333 | 8 | 9 | 19 |
| Welland |  | 3,158 | 462 3,098 |  |  | 1,118 | 1,888 | 2,065 | 1,980 | 114 | 95 | 31 |
| Windsor. | 2,945 | - ${ }_{342}$ | 3,098 398 | 1,047 | ${ }_{1} 162$ | ${ }_{1} 165$ | 177 |  | 233 | 10 | 13 | \| 33 |
| Woodstock | 334 | 342 | 398 | 157 | 162 | 165 | 177 | 180 | 233 | 10 | 13 | 3 |

2.-Summary of Principal Vital Statisties for Urban Centres of $\mathbf{1 0 , 0 0 9}$ Population or Over, ${ }^{1}$ 1946-52-concluded

| Province and Urban Centre | Births |  |  | Deaths |  |  | Natural Increase |  |  | Infant Deaths |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Av. } \\ & 1946- \\ & 1950 \end{aligned}$ | 1951 | 1952 | $\begin{aligned} & \text { Av. } \\ & 1946- \\ & 1950 \end{aligned}$ | 1951 | 1952 | $\begin{aligned} & \text { Av. } \\ & 1946 \text { - } \\ & 1950 \end{aligned}$ | 1951 | 1952 | $\begin{aligned} & \text { Av. } \\ & 1946- \\ & 1950 \end{aligned}$ | 1952 | Rate per 1,000 Live Births 1952 |
| Manitoba- | No. | No. |  | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Brandon.. | 442 | 459 | 528 | 195 |  | 193 | 247 | 249 | 335 | 19 | 11 | 21 |
| St. Boniface | 657 5.200 | 720 5,323 | 698 5.561 | - 179 | 189 2,346 | 2,320 | 478 2,946 | 531 2,977 | 508 3,241 | 22 | 15 | 21 |
| Saskatchewan- |  |  |  |  |  |  |  |  |  |  |  |  |
| Mocee Jaw..... | 613 | 614 | 691 | 237 | 292 | 273 | 376 | 322 | 418 | 24 | 18 | 26 |
| Prince Albert | 481 | 533 | $552^{\prime}$ | 134 | 122 | 159 | 347 | 411 | 393 | 23 | 24 | 43 |
| Regina... | 1,665 | 1,803 | 1.911. | 493 | 545 | 554 | 1,172 | 1,258 | 1,357 | 58 | $\stackrel{47}{5}$ | 25 |
| Saskatoon. | 1,393 | 1,534 | 1.614 | 435 | 488 | 564 | 958 | 1,046 | 1,050 | 57 | 51 | 32 |
| Alberta- |  |  |  |  |  |  |  |  |  |  |  |  |
| Calgary.. | 2,968 | 3,649 | 4.059 | 1,094 | 1,146 | 1,232 | 1,874 | 2,503 | 2,827 | 100 | 107 | 26 |
| Edmonton | 4,122 | 5,089 | 5,949 | 1,037 | 1,152 | 1,319 | 3,085 | 3,937 | 4,630 | 130 | 162 | 27 |
| Lethbridge. | 567 | 701 | 716 | 167 | 184 | 170 | 400 | 517 | 546 | 18 | 16 | 22 |
| Medicine Hat. | 397 | 398 | 421 | 139 | 140 | 166 | 258 | 259 | 255 | 14 | 5 | 12 |
| British Columbia- |  |  |  |  |  |  |  |  |  |  |  |  |
| New Westminster. | 587 | 523 | 565 | 257 | 238 | 273 | 330 | 285 | 292 | 15 | 12 | 21 |
| North Vancouver. | 312 | 569 | 699 | 184 | 214 | 184 | 328 | 355 | 515 | 10 | 18 | 26 |
| Penticton.. |  | 40 | 235 |  |  | 79 |  |  | 176 |  | 8 | 31 |
| Trail... | 349 | 404 | 358 | 69 | 70 | 76 | 280 | 334 | 312 | 7 | 10 | 26 |
| Vancoover | 7,367 | 7.456 | 7.806 | 3,903 | 3,975 | 4,186 | 3,464 | 3,481 | 3,620 | 190 | 180 | 23 |
| Victoria. | 1,148 | 1,084 | 1,052 | 749 | 750 | 756 | 399 | 334 | 296 | 26 | 23 | 22 |

${ }^{1}$ As at the 1951 Census.

## Section 2.-Births

International Comparisons.-A comparison of the birth rates in Canada and the provinces with those in other countries is shown in Table 3.

## 3.-Birth Rates per 1,060 Population in Selected Countries compared with Canada and the Provinces, 1952

(Source: Monthly Bulletin of Statistics of the United Nations and other official publications. Provisional data are used where certain final figures are not available.)

| Country or Province | Birth Rate | Country or Province | Birth Rate | Country | Birth Rate |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mexico. | 43-9 | Canada-concluded |  | Netherlands | 22.4 |
| Venezuela.................. | 43.7 | Manitoba......... | 26.0 | Ireland...... | 21.8 |
| Ceylon..................... | 39.5 | Ontario. | 26.0 | Northern Ireland | 20.9 |
| Chile.................... | $33 \cdot 6$ | British Columbia....... | 24.9 | Spain... | 20.8 |
| Yugoslavis................ | 29.7 |  |  | France ${ }^{\text {a }}$. | $19 \cdot 2$ |
|  |  |  | 26.8 26.0 | Norway | 18.7 17.8 |
| Canada. |  | Japan. . . . . . . . . . . . . Pera. | 26.0 25.9 | Denmark | 17.8 17.7 |
| Newfoundland.......... | $33 \cdot 6$ | Union of South Africs | 25.9 | Scotland | 17.7 17.6 |
| New Brunswick........ | 31.7 | (Whites).............. | 25.9 | Switzerland | 17.4 |
| Quebec. ................. | 30.3 | New Zealand | 24.8 | Belgium... | 16.8 |
| Alberta................. | $30 \cdot 0$ | Portugal. | 24.7 | Western Germany | 15.7 |
| Nova Scotia. | 27.5 | United States | 24.6 | Sweden......... | 15.5 |
| Saskatchewan | 26.8 26.2 | Australia | 23.3 | England and Wale | 15.3 |
| Prince Edward Island.. | 26.2 | Finland. | $23 \cdot 1$ | Austria........... | 14.8 |

[^77][^78]Canadian Births.-In Canada, the birth rate in 1921 was 29 per 1,000 population. As a rate of 35 per 1,000 is very high for countries of modern western civilization, the Canadian birth rate had probably not fallen far or for long before 1921. It fell continuously until 1937 when it was 20 per 1,000 but then, owing to economic recovery and the War, it rose to 22 in 1940, to 24 in 1943 and reached its highest point in 1947 at $28 \cdot 7$. As was the case in most other countries, there was a slight decline in 1948 but the Canadian rate remained remarkably steady at just over 27 for the four years 1948 to 1951 . However, it rose to $27 \cdot 9$ in 1952 when, for the first time, more than 400,000 births were registered. The birth rates in the provinces followed the same general trend with a similar increase in the 1952 rate.

It has always been assumed that the Province of Quebec has had the highest birth rate in Canada, but Table 1 shows that since the late 1930's or early 1940's Newfoundland and New Brunswick have had higher birth rates than Quebec. In 1952 Newfoundland had a crude rate of $33 \cdot 6$, New Brunswick 31.7 and Quebec $30 \cdot 3$; British Columbia had the lowest rate at $24 \cdot 9$. However, these crude rates are based on total population and therefore do not reflect the fertility of the women who are of reproductive age in the different provinces. A more accurate measure of fertility is the rate based on the number of married women in the population in the reproductive age group, 15 to 49 . The following are birth rates per 1,000 married women in the age group 15 to 49 , by province:-

| Newfoundland......... 220 | Quebec................. 193 | Alberta............... 160 |
| :---: | :---: | :---: |
| Prince Edward Island... 186 | Ontario................ 138 | British Columbia....... 130 |
| Nova Scotia........... 162 | Manitoba............... 147 | Canada (Exclusive of |
| New Brunswick. . . . . . . 200 | Saskatchewan.......... 155 | the Territories)....... 160 |

On this basis, Newfoundland still had the highest birth rate, followed by New Brunswick and Quebec, and British Columbia had the lowest rate.

Sex of Live Births.-Wherever birth statistics have been collected, they have shown an excess of male over female births. No conclusive explanation of this excess has yet been given. Nevertheless it is so much of an accepted statistical fact that a proper ratio of male to female births has become one of the criteria of complete registration. The number of males to every 1,000 females born in Canada in 1941-52 varied between 1,051 and 1,067 . In 1952 there were 1,064 males born for every 1,000 females. Variations in the provincial sex ratios are due to chance variation because of the relatively small number of births involved-the smaller the total number of births, the greater the chance of wide sex-ratio variations from year to year.
4.-Sex Ratio of Live Births, by Province, 1921-52

| Province and Year | Male | Female | $\begin{gathered} \text { Males } \\ \text { to } 1,000 \\ \text { Females } \end{gathered}$ | Province and Year | Male | Female | Males <br> to 1,000 <br> Females |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. |  | No. | No. | No. |
| Newfoundland....... 1951 | 5,984 | 5,754 | 1,040 | Nova Scotia. . . . . . 1921 | 6,695 | 6,326 | 1,058 |
| 1952 | 6,443 | 6,118 | 1,053 | 1931 | 5,931 | 5,684 | 1,043 |
| P. E. Island......... ${ }_{1931}^{1921}$ | $\begin{array}{r}1,073 \\ \hline 098\end{array}$ | 1,083 | -991 | 1941 | 7,074 | 6,829 | 1,036 |
| 1931 | 1.998 1,078 | 881 971 | 1,132 1,110 | 1951 | 8,842 | 8,283 | 1,067 |
| 1951 | 1,373 | 1,278 | 1,074 | 1952 | 9,872 | 8,676 | 1,069 |

4.-Sex Ratio of Live Births, by Province, 1921-52-concluded

| Province and Year | Male | Female |  | Province and Year |  | Male | Female | $\begin{gathered} \text { Males } \\ \text { to } 1,000 \end{gathered}$ Females |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. |  |  | No. | No. | No. |
| New Brunswick. ... 1921 | 5,942 | 5,523 | 1,076 | Saskatchewan. | 1921 | 11,620 | 10.873 | 1,069 |
| New Branwick.... 1931 | 5,548 | 5,253 | 1.056 |  | 1931 | 10,942 | 10,389 | 1,053 |
| 1941 | 6,200 | 6,072 | 1,021 |  | 1941 | 9,472 | 8,992 | 1,053 |
| 1951 | 8.190 | 7,885 | 1,039 |  | 1951 | 11,107 | 10,626 | 1,045 1,065 |
| 1952 | 8,429 | 8,262 | 1,020 |  | 1952 | 11,659 | 10,946 | 1,065 |
| Quebec.............. 1921 | 46,705 | 42,044 | 1,111 | Alberta. | 1921 | 8,493 | 8,068 | 1,053 |
| 1931 | 43,051 | 40,555 | 1,062 |  | 1931 | 8,938 | 8,314 | 1,075 |
| 1941 | 45,905 | 43,304 | 1,060 |  | 1941 | 8,882 | 8,426 | 1,054 |
| 1951 | 62,160 | 58,770 | 1,058 |  | 1951 | 13,760 | 13,243 | 1,039 |
| 1952 | 65,265 | 61,151 | 1,067 |  | 1952 | 14,969 | 14,136 | 1,059 |
| Ontario.............. 1921 |  | 35,845 | 1,069 | British Columbia. | 1921 | 5,549 | 5,104 | 1,087 |
| Ontario............. 1931 | 35, 609 | 33,600 | 1,060 |  | 1931 | 5,350 | 5,054 | 1,059 |
| 1941 | 37,254 | 35,008 | 1,064 |  | 1941 | 7,694 | 7,344 | 1,048 |
| 1951 | 59,220 | 55,607 | 1,065 |  | 1951 | 14,418 | 13,659 | 1,056 |
| 1952 | 63,986 | 59,905 | 1,068 |  | 1952 | 15,413 | 14,414 | 1,069 |
| Manitoba........... 1921 | 9,455 | 9,023 | 1,048 | Canada (Exclusive | 1981 | 133,839 | 123,889 | 1,080 |
| (anitoba........ 1931 | 7,255 | 7,121 | 1,019 | of the Territories) | 1931 | 123,622 | 116,851 | 1,058 |
| 1941 | 7.616 | 7,196 | 1.058 |  | 1911 | 131,175 | 124,142 | 1,057 |
| 1951 | 10,374 10,630 | 9,568 10,147 | 1,084 |  | 1951 | $\underset{207,474}{195,48}$ | 184,673 195,053 | 1,058 |
| 1952 | 10,630 | 10,147 | 1,048 |  | 1952 | 207,474 | 195,053 | 1,064 |

Hospitalized Births.-In 1952 over 81 p.c. of all Canadian births occurred in hospital. Although the proportions of hospitalized births have increased steadily since 1921 in all provinces, these proportions still vary widely. The existence of prepaid or provincially sponsored hospital, maternity or medical-care plans in some provinces, the unavailability of hospital facilities in others, particularly in remote rural areas, and preference for home delivery in some local areas are among the factors accounting for provincial variations in this respect. The noticeable increases in hospitalized births within recent years in those provinces that previously had the lowest proportions may be partly the result of increased hospital services and facilities being provided in those areas.

## 5.-Percentage of Live Births Hospitalized, by Province, 1931-52

(Exclusive of Newfoundland and the Territories)

| Year | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1931. | 11.2 | 19.0 | 12.1 | $7 \cdot 3$ | 38.2 | 43.6 | 32.5 | 47.8 | 65.0 | 26.8 |
| 1941. | 32.7 | 50.4 | 30.8 | 17.6 | 67.5 | $73 \cdot 6$ | 63.2 | 77-1 | 87.3 | 48.9 |
| 1949. | 81.2 | 82-2 | 66.4 | 44.4 | 89.2 | 89.9 | 93.9 | $95 \cdot 6$ | 96.7 | 74-3 |
| 1950. | 84.3 | 84.9 | 67.8 | 47.8 | $90 \cdot 4$ | 91.1 | 94.6 | 95.8 | 96.9 | 76.0 |
| 1951. | 88.3 | 87.2 | $70 \cdot 7$ | 53.0 | $93 \cdot 1$ | 93.1 | $95 \cdot 2$ | $93 \cdot 6$ | $97 \cdot 3$ | $79 \cdot 1$ |
| 1952. | 87.1 | 88.8 | 74.0 | 56.7 | 94.6 | 93.7 | 96.4 | 96.4 | 97.5 | 81.5 |

Births in Urban Centres.-Table 2 shows the number of births, regardless of where they occurred, to mothers residing in urban centres of over 10,000 population. (Pp. 189-191.)

Illegitimacy.-In 1952 less than 4 p.c. of the live births in Canada were illegitimate. This percentage is low compared with that of many countries of the world. In the 5 -year period $1926-30$ it was 3 p.e., whereas the average of the ten years 1943-52 was just over 4 p.c. The apparent increase was partly the result of more complete registration of illegitimate births brought about by the co-operation of provincial registration officials and social welfare agencies.

## 6.-Illegitimate Live Births and Percentages of Total Live Births, by Province, 1921-52

(Exclusive of the Territories)

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada ${ }^{\text {a }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Illegrtimate Live Birtirs |  |  |  |  |  |  |  |  |  |  |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Av. 1921-25.. | $\cdots$ | 46 | 457 | 245 | $\cdots$ | 1,658 | 407 | 291 | 321 | 152 |  |
| " 1926-30.. | 168 | 42 | 558 | 299 | 2,334 | 2,196 | 501 | 489 | 479 | 240 | 7,138 |
| ${ }^{4}$ 1931-35.. | 205 | 74 | 652 | 373 | 2,431 | 2,707 | 501 | 651 | 613 | 330 | 8,333 |
| " 1936-40.. | 246 | 83 | 766 | 415 | 2,539 | 2,939 | 506 | 663 | 643 | 475 | 9,030 |
| " 1941-45.. | 406 | 107 | 1,074 | 591 | 3,003 | 3,751 | 597 | 673 | 852 | 889 | 11,536 |
| " 1946-50.. | 441 | 152 | 1,244 | 754 | 3,382 | 4,256 | 766 | 914 | 1,202 | 1,516 | 14,375 |
| 1951. | 417 | 138 | 1,147 | 643 | 3,650 | 3,807 | 771 | 971 | 1,272 | 1,633 | 14,449 |
| 1952........... | 315 | 118 | 1,041 | 648 | 3,913 | 3,920 | 952 | 994 | 1,310 | 1,857 | 15,068 |
|  | Percentages of Total Live Births |  |  |  |  |  |  |  |  |  |  |
| Av. 1921-25. | . | 2-3 | $3 \cdot 8$ | $2 \cdot 2$ | .. | $2 \cdot 3$ | $2 \cdot 5$ | $1 \cdot 3$ | $2 \cdot 1$ | 1.5 |  |
| 1926-30. | $2 \cdot 5$ | $2 \cdot 4$ | $5 \cdot 1$ | $2 \cdot 9$ | 2.8 | $3 \cdot 2$ | $3 \cdot 5$ | $2 \cdot 3$ | $3 \cdot 0$ | $2 \cdot 3$ | $3 \cdot 0$ |
| " 1931-35. | $3 \cdot 1$ | $3 \cdot 8$ | $5 \cdot 7$ | $3 \cdot 6$ | $3 \cdot 1$ | $4 \cdot 2$ | $3 \cdot 7$ | $3 \cdot 2$ | 3.7 | $3 \cdot 3$ | $3 \cdot 6$ |
| " 1936-40. | $3 \cdot 2$ | $4 \cdot 0$ | 6.4 | 3.7 | $3 \cdot 2$ | $4 \cdot 6$ | 3.7 | $3 \cdot 6$ | 3.9 | 3.9 | 3.9 |
| " 1941-45. | $4 \cdot 4$ | $4 \cdot 9$ | $7 \cdot 1$ | $4 \cdot 5$ | $3 \cdot 1$ | $4 \cdot 8$ | 3.8 | $3 \cdot 6$ | $4 \cdot 5$ | $5 \cdot 0$ | $4 \cdot 2$ |
| " 1946-50. | $3 \cdot 6$ | $5 \cdot 3$ | 6.9 | $4 \cdot 5$ | 2.9 | $4 \cdot 0$ | $4 \cdot 0$ | $4 \cdot 2$ | $4 \cdot 9$ | $5 \cdot 9$ | $4 \cdot 1$ |
| 1951. | $3 \cdot 6$ | $5 \cdot 2$ | 6.7 | $4 \cdot 0$ | $3 \cdot 0$ | $3 \cdot 3$ | 3.9 | $4 \cdot 5$ | $4 \cdot 7$ | 5.8 | 3.8 |
| 1952. | $2 \cdot 5$ | $4 \cdot 4$ | $5 \cdot 8$ | 3.9 | $3 \cdot 1$ | $3 \cdot 2$ | $4 \cdot 6$ | $4 \cdot 4$ | $4 \cdot 5$ | 6.2 | 3.7 |

${ }^{1}$ Figures for Newfoundland are included for 1949-52 only.
Stillbirths.-The rate of stillbirths has been falling since 1926, though not equally in all provinces. The rate of stillbirths to unmarried mothers has always been considerably higher than that for married mothers, and consequently higher than the over-all rate; but this difference has been disappearing in recent years.

## 7.-Stillbirths and Rates per 1,000 Live Births, by Province, 1921-52

(Exclusive of the Territories)

| Year | Born to All Mothers |  |  |  |  |  |  |  |  |  |  | Born to Unmarried Mothers ${ }^{2}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |  |  | P.C. of Total |
| Av. 1921-25.. <br> u $1926-30 .$. <br> " $1931-356 . .$. <br> u 1936. <br> u $1941-45 .$. <br>  $196-50 .$. | Stulbibtes |  |  |  |  |  |  |  |  |  |  |  |  |
|  | No. | No. | No. 457 | No. 1 No. $\mid$ No. $\mid$ No. |  |  |  | No. $\mathrm{N}^{\text {No. }} \mathrm{N}^{\text {No. }}$ |  |  | No. 8,403 | No. ${ }^{\text {No. }}$ |  |
|  |  | 43 | 365 | 288 | 2,212 | 2,761 | 479 | 551 | 467 | 297 | 7,458 | $3{ }^{3} 6$ | $4 \cdot 77$ |
|  | 141 | 67 | 401 | 283 | 2,337 | 2,284 | 383 | 488 | 421 | 247 | 6,930 | 381 |  |
|  | 162 | 61 | 334 | 302 | 2,386 | 2,008 | 340 | 393 | 359 | 248 | 6,410 | 337 | $5 \cdot 26$ |
|  | 191 | 50 | 388 |  | 2,786 | 1,988 | 345 | 348 | 327 | 309 | 6,838 | 355 | $5 \cdot 20$ |
|  | 215 | 54 | 358 | 295 320 | 2,898 | 2,020 | 349 | 350 | 385 | 352 | 7,177 | 343 |  |
| $\begin{aligned} & 1951 . . . . . . . . . . . . . . . . . ~ \\ & 1952 . . . . \end{aligned}$ | 189226 | 5645 | 319 | 293281 | 2,7682,805 | 1,9752,085 | 340361 | 303314 | 402399 | 365375 | $\begin{aligned} & 7,010 \\ & 7,260 \end{aligned}$ | 327 4.79 <br> 341 4.85 |  |
|  |  |  | 369 |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | Rat | ES PER | 1,000 I | Lre B | Rths |  |  |  |  | ,000 mate irths ${ }^{2}$ |
| Av. 1921-25.. | 19.0 | 29.124.8 | $37 \cdot 7$ | 26.0 | $\begin{aligned} & 30-5 \\ & 26-7 \end{aligned}$ | $\begin{aligned} & 43 \cdot 1 \\ & 40 \cdot 2 \end{aligned}$ | $\begin{aligned} & 32 \cdot 9 \\ & 33 \cdot 3 \end{aligned}$ | 27.925.9 | $\begin{aligned} & 27.0 \\ & 29 \cdot 3 \end{aligned}$ | 28.7 <br> 28.7 | 33.9 | 49.9 |  |
| - ${ }^{\text {1926-30. }}$ |  |  | 33.1 | 27.4 |  |  |  |  |  |  | 31.5 |  |  |
| " 1931-35. | 21.1 | 34.2 | 34.9 | 28.9 | $29 \cdot 6$ | 35.1 | 28.0 | 24.0 | 25.4 | $24 \cdot 7$ | $30 \cdot 3$ |  |  |
| " 1936-40. | $\begin{aligned} & 21 \cdot 2 \\ & 20.5 \end{aligned}$ | 29.7 | $27 \cdot 7$ | $25 \cdot 4$ | $30 \cdot 4$ | 31.2 | 25.2 | 21.0 | 22.0 | 20.5 | 28.0 |  |  |
| ${ }^{4}$ 1941-45. |  | $\begin{aligned} & 22 \cdot 8 \\ & 18.9 \end{aligned}$ | $25 \cdot 6$ | $22 \cdot 6$ | 28.5 | $25 \cdot 6$ | 21.8 | 18.9 | 17.4 | 17.5 | 24.7 |  |  |
| " 1946-50. | $\begin{aligned} & 20 \cdot 5 \\ & 17.4 \end{aligned}$ |  | 19.9 | 19.0 | 25.1 | 19.2 | 18.1 | 16.0 | 15.9 | $13 \cdot 6$ | $20 \cdot 2$ |  |  |
| 1951. | $\begin{aligned} & 16.1 \\ & 18 \cdot 0 \end{aligned}$ | $\begin{aligned} & 21.1 \\ & 16.6 \end{aligned}$ | $18 \cdot 6$ | 18.2 | 22.9 | 17.2 | $17 \cdot 0$ | 13.9 | 14.9 | 13.0 | $18 \cdot 4$ |  |  |
| 1952. |  |  | $20 \cdot 6$ | 16.8 | $22 \cdot 2$ | 16.8 | $17 \cdot 4$ | 13.9 | 13.7 | 12.6 | $18 \cdot 0$ |  |  |

${ }^{1}$ Figures for Newfoundland are included for 1951 and 1952 only.
2 Exclusive of Newfoundland.
Multiple Births.-Approximately one confinement in 85 in Canada results in the birth of more than one child. In the period 1926-52 there have been 87,057 such confinements, of which 86,267 were twins and 780 were triplets. There have been nine sets of quadruplets and one set of quintuplets, the Dionne quintuplets who were born in 1934.

The proportion of stillbirths is higher among multiple than among single births. It is about twice as high for twins and between three and five times as high for triplets.
8.-Single and Multiple Births, Live and Stillborn, 1950-52
(Exclusive of the Territories)

| Confinements and Births | Numbers |  |  | Percentages |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 | 1951 | 1952 | 1950 | 1951 | 1952 |
| Confinements - |  |  |  |  |  |  |
| Single.. | 369,578 | 378,246 | 400,496 | 98.8 | 98.8 | 98.9 |
| Twin... | 4,285 | 4,377 | 4,587 | 1.1 | 1.1 | 1.1 |
| Triplet.... | 34 | 37 | 39 | -- | -- | - |
| Totals, Confinements | 373,897 | 382,660 | 405,122 | $100 \cdot 0$ | $100 \cdot 0$ | 109.0 |

## 8.-Single and Multiple Births, Live and Stillborn, 1950-52-concluded

(Exclusive of the Territories)

| Confinements and Births | Numbers |  |  | Percentages |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 | 1951 | 1952 | 1950 | 1951 | 1952 |
| Births-Single- |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Live........................ | 362,712 | 371,539 | 393,597 | 98-1 | 98.2 | 98.3 |
| Stillborn....................... | 6,866 | 6,707 | 6,899 | $1 \cdot 9$ | 1.8 | 1.7 |
|  |  |  |  |  |  | 96-2 |
| Stillborn........................ | 309 | 296 | 352 | $3 \cdot 6$ | 3.5 | 3.8 |
| Triplet- |  |  |  |  |  |  |
| Live. . . . . . . . . . . . . . . . . . . | 98 | 104 | 108 | 96.1 | 93.7 | 92.3 |
| Stillborn....................... | 4 | 7 | 9 | $3 \cdot 9$ | $6 \cdot 3$ | 7.7 |
| Quadruplet- |  |  |  |  |  |  |
| Live........................ | - | - | - | 二 | 二 | - |
| Totals, Births. | 378,250 | 387,111 | 409,787 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |
| Live.............................. | 371,071 | 380,101 | 402,527 | 98.1 | 98.2 | $98 \cdot 2$ |
| Stillborn........................... | 7,179 | 7,010 | 7,260 | 1.9 | 1.8 | 1.8 |

Fertility Rates.*-Sex and age distribution of the population is an important factor in determining birth, death and marriage rates. Since more than 95 p.c. of children are born to women between the ages of 15 and 50 , as was noted earlier, variations in the proportion of women of these ages to the population as a whole will cause variations in the birth rates of different countries or regions, even though the fertility of women at each age may be the same. Measures of fertility which are independent of the sex and age distribution of the population have, therefore, been devised. The best known of these are age-specific fertility rates and reproduction rates.

Ages of Parents.-Ages of the parents is an important variable in any analysis of birth statistics. The numerical and percentage distribution of legitimate live births by the ages of the parents is given for 1941, 1951, and 1952 in Table 9 , of illegitimate live births by the age of the mother in Table 10, and of stillbirths by the age of the mother in Table 11, as well as the average ages of the parents for each year shown.

Besides the fertility rates at each age, three other factors help, in the main, to determine the average age of parents having children: firstly, the average age of potential parents, at any point in time, that is, of the population between the ages of 15 and 50 ; secondly, the average age of couples at marriage; and thirdly, the proportions of first and second births to total births. Other things being equal, a high proportion of first and second births will result in a lower average age of parents. In 1930-32, first and second births were 43 p.c. of the total births. By the period 1945-48, first and second births together were 57 p.c. of the total. This change is very great and accounts for the lower average age of parents in the latter period. However, by 1952 the proportion of first and second births had declined to about 53 p.c.

[^79]These tables illustrate other significant facts: that the average age of fathers of legitimate children is about four years higher than the average age of mothers; that the average age of mothers of illegitimate children is four to five years lower than the average age of mothers of legitimate children-in 1930-32 the difference was six years (the fact that about 70 p.c. of illegitimate children are born to mothers under 25 years of age accounts for this difference); and that the average age of mothers of stillborn children is higher than that of the live born. Further, Table 11 shows that the rate of stillbirths per 1,000 live births increases with the age of the mother. It is over three times as high among mothers of 40-44 years and over four times as high among mothers of $45-49$ years as it is among mothers at the ages of 20-24.

## 9.-Legitimate Live Births, by Age of Parent, 1941, 1951 and 1952

(Exclusive of Newioundland and the Territories)

10.-Iliegitimate Live Births, by Age of the Mother, 1941, 1951 and 1952
(Exclusive of Newfoundland and the Territories)

| Age Group of Mother | 1941 |  | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | p.c. | No. | p.c. | No. | p.c. |
| Under 20 years. | 2,762 | 29.9 | 4,463 | 33.0 | 4,575 | $32 \cdot 2$ |
| 20-24 | 3,666 | 39.7 | 4,984 | 36.9 | 5,308 | $37 \cdot 4$ |
| 25-29 " | 1,633 | 17.7 | 2,265 | 16.8 | 2.392 | 16.9 |
| 35-39 | 661 368 | 7.2 4.0 | 1,061 557 | 7.8 4.1 | 1,128 | 7.9 4.1 |
| 40-44 ${ }^{\text {a }}$ | 124 | 1.3 | 173 | 1.3 | 192 | 1.4 |
| 45-49 | 16 | 0.2 | 15 | 0.1 | 17 | $0 \cdot 1$ |
| 50 years or over. | 1 | -- | , | -. | - |  |
| Totals, Stated Ages. | 9,231 | 100.0 | 13,519 | 100.0 | 14,192 | $100 \cdot 0$ |
| Ages not stated. | 870 |  | 513 | ... | 561 | ... |
| Totals, All Ages | 10,101 | $100 \cdot 8$ | 14,052 | $100 \cdot 0$ | 14,753 | $100 \cdot 0$ |
| A verage agea of mothers. | 23.9 |  | $23 \cdot 8$ |  | 23.9 |  |

## 11．－Stillbirths，by Age of the Mother，together with Rates per $\mathbf{1 , 0 0 0}$ Live Births， 1941， 1951 and 1952

（Exclusive of Newfoundland and the Territories）

| Age Group of Mother | Stillbirths |  |  |  |  |  | Rates per 1,000 Live Births |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1941 |  | 1951 |  | 1952 |  | 1941 | 1951 | 1952 |
|  |  | p．c． |  | p．c． | No． | p．c． |  |  |  |
| Under 20 years． | 383 | $5 \cdot 6$ | 412 | $6 \cdot 1$ | 371 | $5 \cdot 3$ | $22 \cdot 6$ | 16.9 | $14 \cdot 3$ |
| 20－24＂． | 1，486 | 21.8 | 1，485 | 21.9 | 1，470 | 21.1 | 21.0 | $14 \cdot 7$ | $13 \cdot 6$ |
| 25－29＂ | 1，862 | 27.3 | 1，714 | 25.3 | 1，800 | 25.8 | 24.5 | 15.3 | 15.4 |
| 30－34＂ | 1，442 | 21.1 | 1，405 | $20 \cdot 7$ | 1，523 | 21.8 | 28.8 | 18.8 | 18.9 |
| 35－39＂ | 1，081 | $15 \cdot 8$ | 1，192 | 17.6 | 1，181 | 16.9 | 37.4 | $28 \cdot 6$ | 27.2 |
| 40－44＂ | 496 | 7．3 | 503 | $7 \cdot 4$ | 566 | $8 \cdot 1$ | 48.2 | 39.5 | 42.9 |
| 45－49＂ | 74 | $1 \cdot 1$ | 63 | 0.9 | 61 | $0 \cdot 9$ | 69.5 | $61 \cdot 2$ | 60.9 |
| 50 years or over． | 3 | －－ | 1 | －－ | ， | －－ | －－ | －－ | －． |
| Totals，Stated Ages．．．． | 6，827 | 100．0 | 6，775 | $100 \cdot 0$ | 6，974 | $100 \cdot 0$ | $\ldots$ | ．．． | ．．． |
| Ages not stated | 55 | ．．． | 46 | ．．． | 60 | ．．． | ．．． | ．．． | ．．． |
| Totals，All Ages． | 6，882 | 100．0 | 6，821 | $100 \cdot 0$ | 7，034 | $100 \cdot 0$ | 27.0 | 18.5 | 18.0 |
| Average ages of mothers． | 29.9 |  | $30 \cdot 0$ |  | $30 \cdot 2$ |  | ．．． | ．．． | ．．． |

Order of Birth．－Table 12 shows the order of birth of all live－born children according to the age of the mother．About 28 p．c．of live－born children in 1952 were first children．Among the illegitimate about 70 p．c．were the first born．

## 12．－Order of Birth of Live－Born Children，by Age of Mother， 1952

（Exclusive of Newfoundland and the Territories）

| Order of Birth of Child | Age of Mother |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 15 | 15－19 | 20－24 | 25－29 | $30-34$ | 35－39 | 40－44 | $\begin{gathered} 45 \\ \text { or } \\ \text { Over } \end{gathered}$ | $\begin{gathered} \text { Age } \\ \text { Not } \end{gathered}$ <br> Stated | $\underset{\text { Ages }}{\text { All }}$ |
|  | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． |
| 1st child． | 112 | 19，949 | 50，085 | 27，001 | 9，642 | 3，329 | 744 | 31 | 568 | 111，461 |
| 2nd＂ | 2 | 4，863 | 33，222 | 33，638 | 16，663 | 5，758 | 1，083 | 55 | 77 | 95，361 |
| 3rd＂ | － | 849 | 15，533 | 25，344 | 17，621 | 7，296 | 1，387 | 70 | 46 | 68，146 |
| 4th＂ | － | 113 | 6,201 | 14，950 | 12，682 | 6，394 | 1，448 | 75 | 26 | 41,889 24,572 |
| 5 th＂ | － | 14 | 2，057 | 8，061 | 8，151 | 4，939 | 1，269 | 69 | 12 | 24,572 15,540 |
| 6th＂ | － | 4 | 573 | 4，345 | 5，617 | 3，776 | 1，156 | 62 | 7 | 15，540 |
| 7th＂ | － | 1 | 160 | 2，136 | 3，874 | 2，871 | 989 | 78 | 7 | 10，116 |
| 8th＂ | － | － | 38 | $\begin{array}{r}1,064 \\ \hline\end{array}$ | 2,715 1,650 | 2，425 | 880 803 | 89 | 3 | 7,214 4,926 |
| 9th ${ }_{\text {10th }}$ | 二 | 二 | 15 3 | 389 139 | 1,650 1,005 | 2,004 1,576 | 803 747 | 64 55 | 1 | 4,926 3,527 |
| 10th＂ | 二 | － | 3 3 3 | 139 45 | 1,005 537 | 1,576 1,119 | 747 656 | 55 65 | 1 | 3,527 2,426 |
| 12th＂．． | 二 | 二 | 3 | 20 | 266 | 1，793 | 584 | 56 | 3 | 1，722 |
| 13th＂ | － | － | － | 9 | 119 | 457 | 478 | 78 | 1 | 1，142 |
| 14th＂ | － | － | － | 1 | 42 | 287 | 339 | 53 | － | 722 |
| 15th＂ | － | － | － | 4 | 16 | 174 | 272 | 47 | － | 513 |
| 16th＂ | － | － | － | － | 8 | 109 | 151 | 23 | － | 291 |
| 17th＂ | － | － | － | － | 3 | 55 | 95 | 14 | 1 | 168 |
| 18th＂ | － | － | － | 二 | 2 | 24 | 49 | 15 | － | 90 47 |
| 19th＂${ }_{\text {20th }}$ or over．．．．． | 二 | － | 二 | 二 | －1 | 10 8 | 26 27 | 10 5 | 二 | 47 40 |
| 20t stated．．．．．．． | 二 | － | 4 | 6 | 4 | 3 | 2 |  | 34 | 53 |
| Totals． | 114 | 25，793 | 107，894 | 117，152 | 80，618 | 43，407 | 13，185 | 1，014 | 789 | 389，966 |

## Section 3.-Deaths

Declines in the death rate have been recorded in many countries during the past twenty years. Crude death rates should be used with caution in comparing the mortality levels of different populations, for they are affected by differences in the age composition of the population as well as by differences in the levels of mortality.

## Subsection 1.-General Mortality

International Comparisons.-A comparison of the death rates in Canada and the provinces with those in certain other countries is shown in Table 13. It will be noted that the death rate for Canada is among the lowest in the world and that the majority of the provinces have lower rates than most other countries.

## 13.-Death Rates per 1,000 Population in Selected Countries compared with Canada and the Provinces, 1952

(Source: Monthly Bulletin of Statistics of the United Nations and other official publications. Provisional data are used where certain final figures are not available.)

| Country or Province | Death Rate | Country or Province | Death Rate | Country | Death Rate |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Netherlands | $7 \cdot 3$ | Ontario. | $9 \cdot 3$ | Northern Ireland. | 10.8 |
| Norway. | $8 \cdot 3$ | British Columbi | 10.1 | Venezuela. | 10.8 |
| Unjon of South Africa |  | Denmark. | $9 \cdot 0$ | England and Wale | 11.3 |
| (Whites). | $8 \cdot 6$ | Japan. | 9-0 | Portugal. | 11.8 |
| Canada. | 8.7 | Australia | 9.4 | Austria | 11.9 |
| Newfoundland | 7.4 | Finland. | 9.5 | Ireland. | 11.9 |
| Alberta | $7 \cdot 6$ | United States | $9 \cdot 6$ | Belgium | 12.0 |
| Saskatchew | 7.9 | Sweden | $9 \cdot 6$ | Ceylon. | 12.0 |
| Manitoba | 8.2 | Spain. | 9.7 | Sootland | 12.0 |
| Quebec. | 8.4 | Switzerl | 9.9 | France ${ }^{1}$ | 12-3 |
| New Brunswic | 8.8 | Italy. | $10 \cdot 0$ | Chile. | 13.8 |
| Nova Scotia......... | 8.8 | Peru. | 10.1 | India ${ }^{2}$. | 13.8 |
| Prince Edward Island. . | 8.9 | Western German | 10.5 | Merico | 14.9 |

[^80]Canadian Mortality.-Since 1931, the Canadian death rate has fluctuated between $10 \cdot 3$ and 8.7 per 1,000 of the population, declining in recent years and reaching a record low of 8.7 in 1952. As shown in Table 1, pp. 187-189, this decline has been apparent in all provinces but in varying degrees. The generally low rates in the Prairie Provinces are partly the result of their younger average population and the uniformly higher rate in British Columbia is the result of the increasing proportion of people in the older age groups.

Sex and Age Distribution of Deaths.-Despite reductions in infant mortality over the past 25 or 30 years, more deaths still occur in the first year of life than in any other single year. Of the 107,000 deaths occurring in $1926,31,000$ or almost 30 p.c. were of children under five years of age, and three-quarters of those were of children under one year of age. In 1952, of the nearly 126,000 deaths, almost 18,000 or a little over 14 p.c. were of children under five years and five-sixths of those were under one year. Most of the reduction took place among children over one month of age but there was a notable decrease as well in all childhood ages up to five years.

Tremendous reductions have taken place in the mortality pattern since the early 1920's, with the most important reductions in the childhood and early adult ages. In 1926, over 19 p.c. of all male deaths were of persons five to 45 years of age; in 1952 , these accounted for about 11 p.c. of total deaths. The reduction in mortality among females in this age group is equally remarkable, the proportion dropping from 22 p.c. to 10 p.c. Death rates for males up to age 45 have been roughly halved during the past 25 years; those for females, in the same ages, have been reduced as much as three to four times.

These reductions in the mortality rates in early and middle years of life have, of course, had the effect of increasing the number of people in the older age groups and of raising the average age of the population as a whole. As a natural consequence, much larger proportions of deaths are now occurring at the older ages. Further, the reductions in rates will eventually raise the average age at death. In 1921, the average age at death of males was $39 \cdot 0$ years and of females $41 \cdot 1$ years; by 1952 this had advanced to $55 \cdot 8$ and $58 \cdot 2$, respectively. These trends are indicated clearly in Table 14.
14.-Distribution of Deaths, by Age and Sex, 1921, 1931, 1941, and 1952

| Age Group |  | $1921{ }^{1}$ |  | 1931 |  | 1941 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male \| Female |  | Male \| Female |  | Male | \| Female | Male \| Female |  |
|  |  | Number |  |  |  |  |  |  |  |
| Under 5 years. |  | 10,827 | 8,303 | 14,511 | 11,226 | 10,666 | 8,014 | 10,281 | 7,691 |
| 5-9 |  | 1,166 | 879 | 1,241 | ${ }^{11} 963$ | . 888 | ${ }^{670}$ | 726 | 500 |
| 10-14 | " ${ }^{\text {a }}$. | 674 | 611 | 821 | 806 | 787 | 536 | 485 | 295 |
| 15-19 |  | 866 | 741 | 1,311 | 1,132 | 1,118 | 823 | 747 | 341 |
| 20-24 | " | 947 | 946 | 1,502 | 1,453 | 1,332 | 1,039 | 1,031 | 488 |
| 25-29 | " | 1,046 | 1,035 | 1,388 | 1,414 | 1,317 | 1,173 | 1,014 | 599 |
| 30-34 | " | 1,002 | 1,051 | 1,301 | 1,432 | 1,211 | 1,148 | 1,100 | 775 |
| 35-39 | " | 1,263 | 1,223 | 1,512 | 1,574 | 1,497 | 1,242 | 1,344 | 977 |
| 40-44 | " | 1,254 | 1,073 | 1,888 | 1,493 | 1,744 | 1,464 | 1,820 | 1,239 |
| 45-49 | " | 1,345 | 1,066 | 2,314 | 1,738 | 2,416 | 1,817 | 2,510 | 1,634 |
| $50-54$ | " | 1,492 | 1,288 | 2,855 | 1,993 | 3,355 | 2,227 | 3,687 | 2,115 |
| 55-59 | " | 1,727 | 1,337 | 3,057 | 2,246 | 4,394 | 2,851 | 4,850 | 2,752 |
| 60-64 | " | 2,121 | 1,652 | 3,583 | 2,855 | 5,288 | 3,483 | 6,462 | 3,784 |
| 65-69 | " | 2,277 | 1,976 | 4,249 | 3,348 | 6,057 | 4,412 | 8,197 | 5,004 |
| 70-74 | " | 2,550 | 2,184 | 4,867 | 4,073 | 6,495 | 4,981 | 8,713 | 6,494 |
| 75-79 | " | 2,378 | 2,135 | 4,368 | 4,029 | 6,421 | 5,461 | 8,227 | 6,578 |
| 80-84 | " | 1,833 | 1,799 | 3,206 | 3,215 | 5,020 | 4,906 | 6,310 | 5,796 |
| 85 years | over | 1,643 | 1,912 | 2,555 | 2,998 | 3,846 | 4,540 | 5,216 | 6,168 |
| Totals, All Ages. |  | 36,411 | 31,311 | 56,529 | 47,988 | 63,852 | 50,787 | 72,720 | 53,230 |
|  |  | Percentage |  |  |  |  |  |  |  |
| Under 5 years. . . . . . . . . . . . . . . . |  | $29 \cdot 8$ | 26.5 | $25 \cdot 7$ | $23 \cdot 4$ | 16.7 | 15.8 | $14 \cdot 1$ | 14.5 |
|  |  | $3 \cdot 2$ | $3 \cdot 1$ | $2 \cdot 2$ | $2 \cdot 0$ | 1.4 | 1.3 | 1.0 | 0.9 |
| 10-14 | " | $1 \cdot 9$ | $2 \cdot 0$ | 1.5 | 1.7 | 1.2 | 1.1 | 0.7 | 0.6 |
| 15-19 | " | $2 \cdot 4$ | $2 \cdot 4$ | $2 \cdot 3$ | $2 \cdot 4$ | 1.8 | $1 \cdot 6$ | $1 \cdot 0$ | 0.6 |
| 20-24 | " | $2 \cdot 6$ | $3 \cdot 0$ | $2 \cdot 7$ | $3 \cdot 0$ | $2 \cdot 1$ | $2 \cdot 0$ | 1.4 | 0.9 |
| 25-29 | " | $2 \cdot 9$ | $3 \cdot 3$ | $2 \cdot 5$ | $2 \cdot 9$ | $2 \cdot 1$ | $2 \cdot 3$ | 1.4 | 1.1 |
| 30-34 | " | $2 \cdot 7$ | $3 \cdot 4$ | $2 \cdot 3$ | $3 \cdot 0$ | 1.9 | $2 \cdot 3$ | 1.5 | 1.5 |
| 35-39 | " | $3 \cdot 5$ | $3 \cdot 9$ | $2 \cdot 7$ | $3 \cdot 3$ | $2 \cdot 3$ | $2 \cdot 4$ | 1.8 | 1.8 |
| 40-44 | " | $3 \cdot 4$ | $3 \cdot 4$ | $3 \cdot 3$ | $3 \cdot 1$ | $2 \cdot 7$ | $2 \cdot 9$ | $2 \cdot 5$ | $2 \cdot 3$ |
| 45-49 | " | $3 \cdot 7$ | $3 \cdot 4$ | $4 \cdot 1$ | 3.6 | 3.8 | $3 \cdot 6$ | 3.5 | 3.1 |
| 50-54 | " | $4 \cdot 1$ | $4 \cdot 1$ | $5 \cdot 0$ | $4 \cdot 2$ | 5-3 | 4.4 | $5 \cdot 1$ | $4 \cdot 0$ |
| 55-59 | " | $4 \cdot 7$ | $4 \cdot 3$ | $5 \cdot 4$ | 4.7 | 6.9 | 5.6 | $6 \cdot 7$ | 5.2 |
| 60-64 | " | $5 \cdot 8$ | $5 \cdot 3$ | 6.3 | $5 \cdot 9$ $7 \cdot 0$ | 8.3 9.5 | $6 \cdot 9$ 8.7 | 8.9 11.3 | 7.1 9.4 |
| $65-69$ $70-74$ | " | $6 \cdot 2$ | $6 \cdot 3$ $7 \cdot 0$ | 7.5 8.6 | 7.0 8.5 | 9.5 10.2 | 8.7 9.8 | 12.0 | 12.4 |
| 75-79 | " | $6 \cdot 5$ | 6.8 | $7 \cdot 7$ | $8 \cdot 4$ | 10.1 | 10.7 | 11.3 | $12 \cdot 4$ |
| 85 years or over... .................. |  | $5 \cdot 0$ | $5 \cdot 7$ | $5 \cdot 7$ | 6.7 | 7.9 | $9 \cdot 7$ | 8.7 | $10 \cdot 9$ |
|  |  | $4 \cdot 5$ | $6 \cdot 1$ | $4 \cdot 5$ | $6 \cdot 2$ | 6.0 | $8 \cdot 9$ | $7 \cdot 2$ | $11 \cdot 6$ |
| Totals, All Ages |  | 100.0 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |

[^81]14-Distribution of Deaths, by Age and Sex, 1921, 1931, 1941, and 1952-concluded

| Age Group | $1921{ }^{1}$ |  | 1931 |  | 1941 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | \|Female | Male | \|Female | Male | Female | Male | \|Female |
|  | Rate per 1,000 Population |  |  |  |  |  |  |  |
| Under 5 years. | 28.9 | 22.7 | 26.8 | 21.2 | 20.0 | $15 \cdot 5$ | 11.3 | 8.8 |
| 5-9 ${ }^{\text {u }}$. | $3 \cdot 1$ | $2 \cdot 7$ | $2 \cdot 2$ | $1 \cdot 7$ | 1.7 | $1 \cdot 3$ | 1.0 | 0.7 |
| 10-14 « | $2 \cdot 1$ | 1.9 | $1 \cdot 5$ | $1 \cdot 5$ | $1 \cdot 4$ | $1 \cdot 0$ | 0.8 | 0.5 |
| 15-19 " | $3 \cdot 1$ | $2 \cdot 7$ | $2 \cdot 5$ | 2-2 | $2 \cdot 0$ | $1 \cdot 5$ | 1.4 | $0 \cdot 6$ |
| 20-24 * | $3 \cdot 7$ | 3-7 | $3 \cdot 2$ | $3 \cdot 2$ | $2 \cdot 6$ | $2 \cdot 0$ | 1.9 | 0.9 |
| 25-29 | $4 \cdot 0$ | $4 \cdot 1$ | $3 \cdot 4$ | $3 \cdot 8$ | $2 \cdot 7$ | $2 \cdot 5$ | 1.8 | $1 \cdot 0$ |
| 30-34 | $3 \cdot 8$ | $4 \cdot 5$ | 3-5 | $4 \cdot 2$ | $2 \cdot 8$ | $2 \cdot 8$ | $2 \cdot 1$ | 1.4 |
| 35-39 " | $4 \cdot 7$ | 5-5 | $4 \cdot 2$ | $4 \cdot 8$ | $3 \cdot 8$ | $3 \cdot 4$ | $2 \cdot 6$ | 1.9 |
| 40-44. " | $5 \cdot 6$ | $5 \cdot 9$ | $5 \cdot 4$ | $5 \cdot 0$ | 5.0 | $4 \cdot 5$ | 3.9 | 2.8 |
| 45-49 « | $7 \cdot 3$ | $7 \cdot 1$ | $7 \cdot 2$ | $6 \cdot 6$ | $7 \cdot 3$ | $6 \cdot 0$ | $6 \cdot 3$ | 4.4 |
| 50-54 « | $9 \cdot 8$ | 10-2 | 10-7 | $9 \cdot 0$ | $10 \cdot 6$ | $8 \cdot 1$ | $10 \cdot 6$ | 6.4 |
| 55-59 " | 15.2 | 13.5 | $15 \cdot 4$ | $13 \cdot 4$ | 16.0 | 12.3 | 16.3 | 9.6 |
| 60-64 " | 21.9 | 19.7 | $22 \cdot 9$ | $20 \cdot 7$ | 24-2 | 18.5 | 24.5 | 15.4 |
| 65-69 « | $33 \cdot 4$ | $33 \cdot 2$ | 35.2 | $30-3$ | 37-3 | $30 \cdot 4$ | $35 \cdot 6$ | - 23.9 |
| 70-74 « | 56.9 | 52.8 | 55.0 | $49 \cdot 1$ | 58.5 | 47.0 | $52 \cdot 3$ | 40.4 |
| 75-79 | $89 \cdot 4$ | 80.9 | 87.4 | 82.9 | $95 \cdot 7$ | 79.7 | $83 \cdot 3$ | $66 \cdot 4$ |
| 80-84 | $133 \cdot 8$ | 122.4 | $134 \cdot 1$ | $127 \cdot 1$ | $147 \cdot 6$ | $131-2$ | $132 \cdot 6$ | $109 \cdot 6$ |
| 85 years or over. | 228.2 | $224 \cdot 9$ | 228.1 | $212 \cdot 6$ | 241.9 | $229 \cdot 3$ | 223.9 | $204 \cdot 2$ |
| Tetals, All Ages | 10.9 | $10 \cdot 2$ | 10.5 | 9.6 | 10.8 | $9 \cdot 1$ | 10.0 | $7 \cdot 5$ |
| Average age at death. | $39 \cdot 0$ | 41-1 | $43 \cdot 1$ | 44.8 | 51.5 | $53 \cdot 4$ | 55.8 | 58.2 |

${ }^{1}$ Exclades the Province of Quebec.
Deaths in Urban Centres.-In Table 2 (pp. 189-91) deaths are classified by place of residence of the decedent. Death rates in urban centres vary only slightly from those of their respective provinces. However, owing to the influx of young people from the rural areas, the age distribution of the population in urban centres is often more favourable to a low death rate than that of the province as a whole.

Causes of Death.-Table 15 shows the deaths in Canada, grouped according to the International Abbreviated List of 50 Causes. About 80 p.c. are in the following groups of causes: diseases of the heart and arteries, cancer, accidents, diseases of early infancy, the respiratory diseases - tuberculosis, pneumonia and influenza - and nephritis.

The rise in the average age at death has already been noted (p. 200). Causes of death that mainly affect children and young adults have declined. Diphtheria, for example, has been almost wiped out and tuberculosis has been greatly reduced. On the other hand, the ageing of the population increases the proportion of deaths from certain causes that affect older people. Thus, cancer and the diseases of the cardio-vascular-renal systems now account for a substantially larger proportion of all deaths than formerly.

These trends indicate the remarkable success that has attended the attack by health authorities on the infective and contagious diseases which in the past have constituted such a great hazard in the early and young adult years of life. They have similarly served to emphasize the emergence of the chronic and degenerative conditions of later life as the targets towards which the public health programs of the future will be directed. In effect, Canada has shared the experience of most western nations in exchanging a high mortality in younger life for high morbidity in older age groups.

Table 16 shows the comparison of deaths by causes, in Canada for the years 1950 to 1952 and the Chart on p. 206, "Major Causes of Death", shows graphically the death rates for the major cause groups.

92428-14
15.-Deaths and Rates per $\mathbf{1 0 0 , 0 0 0}$ Population, according to the

| International List No. |  |  | Cause of Death | Newfoundland |  | Prince <br> Edward Island |  | Nova Scotia |  | New <br> Brunswick |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Abbreviated List | Detailed List |  | No. | Rate | No. | Rate | No. | Rate | No. | Rate |
| 1 | B 1 | 001-008 | Tuberculosis of respiratory system. | 134 | 35.8 | 19 | 18.4 | 69 | $10 \cdot 6$ | 82 | 6 |
|  | B 2 | 010-019 | Tuberculosis, other forms.. | 41 | 11.0 | 5 | 4.9 | 25 | 3.8 | 18 | 3.4 |
|  | B 3 | 020-029 | Syphilis and its sequelæ... | 6 | 1.6 | 1 | $1 \cdot 0$ | 10 | 1.5 | 13 | 2.5 |
|  | B 4 | 040 | Typhoid fever.. | 1 | $0 \cdot 3$ | - | - | 1 | 0.2 | 1 | $0 \cdot 2$ |
|  | B 5 | 043 | Cholera. |  | - | - | - |  | - |  | - |
|  | B 6 | 045-048 | Dysentery, all forms....... | 1 | 0.3 | - | - | - | - | 2 | 0.4 |
|  | B 7 | 050-051 | Scarlet fever and streptococcal sore throat. |  | - | 2 | 1.9 |  | - | 2 | $0 \cdot 4$ |
|  | B 8 | 055 | Diphtheria............... |  | - | - | - | 1 | 0.2 |  | - |
|  | B 9 | 056 | Whooping coug | 5 | $1 \cdot 3$ |  | - | 1 | 0.2 | 5 | 1.0 |
| 10 | B10 | 057 | Meningococcal infections... | 2 | 0.5 | 2 | 1.9 | 5 | 0.8 | 11 | $2 \cdot 1$ |
| 11 | B11 | 058 | Plague. | - | - | - | - |  | - 0. |  | - |
| 12 | B12 | 080 | Acute poliomy | - | - | 2 | 1.9 |  | 0.9 | 11 | $2 \cdot 1$ |
| 13 | B13 | 084 | Smallpox. | 13 | 3.5 | - | - 3.8 |  | -1.4 |  | 1.0 |
| 14 | B14 | 085 | Measles...... | 13 | 3.5 |  | $3 \cdot 9$ |  | $1 \cdot 4$ | 5 | 1.0 |
| 15 | B15 | 100-108 | Typhus and other rickettsial diseases. | - | - | - | - |  | - |  | - |
| 16 | B16 | 110-117 | Malaria. | - | - | - | - | 1 | $0 \cdot 2$ |  | - |
| 17 | B17 | $\left\|\begin{array}{l} 042,044,049 \\ 052-054,059- \\ 074,081-083, \\ 086-096,120- \\ 138 \end{array}\right\|$ | All other diseases classified as infective and parasitic. | 7 | 1.9 | 1 | $1 \cdot 0$ | 12 | 1.8 |  | 1.7 |
| 18 | B18 | 140-205 | Malignant neoplasms, including neoplasms of lymphatic and hæmatopoietic tissues.. | 346 | $92 \cdot 5$ | 142 | 137.9 | 847 | 129.7 | 643 | $122 \cdot 2$ |
| 19 |  | $\begin{array}{r} (140-200,202, \\ 203,205) \end{array}$ | $\left\{\begin{array}{c}\text { Cancer, excluding Hodg. } \\ \text { kin's disease, leukæmia } \\ \text { and aleukæmia........... }\end{array}\right.$ | 341 | $91 \cdot 2$ | 184 | 130.1 | 825 | 128.3 | 612 | 116.9 |
| 20 |  | (201) | Hodgkin's disease. | $t$ | 0.3 |  | 1.0 |  | 0.9 | 8 | 0.6 |
| 21 |  | (204) | Leukæmia and aleukæmia.. | 4 | $1 \cdot 1$ | 7 | 6.8 | 16 | 2.5 | 28 | 5.3 |
| 22 | B19 | 210-239 | Benign and unspecified neoplasms. | 12 | $3 \cdot 2$ |  | 3.9 | 14 | $2 \cdot 1$ | 15 | $2 \cdot 9$ |
| 23 | B20 | 260 | Diabetes mellitus. | 16 | $4 \cdot 3$ | 13 | $12 \cdot 6$ | 67 | $10 \cdot 3$ | 56 | $10 \cdot 6$ |
| 24 | B21 | 290-293 | Anæmias. | 11 | $2 \cdot 9$ | 2 | 1.9 | 24 | 3.7 | 21 | 4.0 |
| 25 | B22 | 330-334 | Vascular lesions affecting central nervous system.. | 300 | $80 \cdot 2$ | 136 | $132 \cdot 0$ | 750 | 114.9 | 492 | $93 \cdot 5$ |
| 26 | B23 | 340 | Non-meningococcal meningitis. | 12 | $3 \cdot 2$ |  | $1.9$ | 10 | 1.5 | 11 | $2 \cdot 1$ |
| 27 | B24 | 400-402 | Rheumatic fever... | 3 | 0.8 |  |  |  |  |  | 1.1 |
| 28 | B25 | 410-416 | Chronic rheumatic heart disease. $\qquad$ | 39 | 10.4 | 5 | 4.9 | 83 | 12.7 | 38 | 7.2 |
|  | B26 | 42C-422 | Arteriosclerotic and degenerative heart disease. | $293$ | 78.3 | 210 | $203 \cdot 9$ |  | $209 \cdot 6$ | 1,057 | 201.0 |

[^82]International Abbreviated List of 50 Causes, by Province, 1952

15.-Deaths and Rates per $\mathbf{1 0 0 , 0 0 0}$ Population, according to the


[^83]International Abbreviated List of 50 Causes, by Province, 195\%-concluded

| Quebec |  | Ontario |  | Manitobs |  | Saskatchewan |  | Alberta |  | British Columbia |  | Canada ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Rate | No. | Rate | No. | Rate | No. | Rate | No. | Rate | No. | Rste | No. | Rate |  |
| 554 | 13.3 | 431 | $9 \cdot 0$ | 144 | 18.0 | 106 | $12 \cdot 6$ | 155 | 16.0 | 160 | $13 \cdot 4$ | 1,873 | 13.0 | 30 |
| 1,508 | 36-1 | 1,527 | $32 \cdot 0$ | 177 | $22 \cdot 2$ | 231 | 27.4 | 210 | $21 \cdot 6$ | 564 | 47-1 | 4,737 | $32 \cdot 9$ | 31 |
| 393 | 9.4 | 225 | $4 \cdot 7$ | 72 | $9 \cdot 0$ | 51 | 6.0 | 67 | $6 \cdot 9$ | 84 | $7 \cdot 0$ | 1,033 | 7.2 | 32 |
| 372 | $8 \cdot 9$ | 164 | $3 \cdot 4$ | 52 | 6.5 | 72 | $8 \cdot 5$ | 47 | 4.8 | 46 | $3 \cdot 8$ | 864 | 6.0 | 33 |
| 1,270 | 30.4 | 1,274 | 26.7 | 245 | 30.7 | 299 | 35.5 | 298 | $30 \cdot 7$ | 436 | $36 \cdot 4$ | 4,389 | $30 \cdot 5$ | 34 |
| 145 | $3 \cdot 5$ | 163 | 3-4 | 35 | 4.4 | 24 | $2 \cdot 8$ | 28 | $2 \cdot 9$ | 46 | $3 \cdot 8$ | 506 | $3 \cdot 5$ | 35 |
| 162 | 3-9 | 263 | $5 \cdot 5$ | 40 | $5 \cdot 0$ | 36 | 4-3 | 45 | $4 \cdot 6$ | 121 | $10 \cdot 1$ | 712 | $4 \cdot 9$ | 36 |
| 80 | 1.9 | 86 | 1.8 | 11 | 1.4 | 13 | 1.5 | 15 | $1 \cdot 5$ | 18 | 1.5 | 248 | 1.7 | 37 |
| 232 | 5-6 | 253 | $5 \cdot 3$ | 41 | $5 \cdot 1$ | 47 | $5 \cdot 6$ | 61 | $6 \cdot 3$ | 83 | 6.9 | 789 | $5 \cdot 5$ | 38 |
| 600 | 14.4 | 330 | 6.9 | 49 | $6 \cdot 1$ | 64 | 7-6 | 79 | $8 \cdot 1$ | 73 | $6 \cdot 1$ | 1,337 | $9 \cdot 3$ | 39 |
| 189 | $4 \cdot 5$ | 239 | $5 \cdot 0$ | 28 | 3 -5 | 26 | $3 \cdot 1$ | 27 | $2 \cdot 8$ | 93 | $7 \cdot 8$ | 652 | $4 \cdot 5$ | 10 |
| 1.576 | 37.8 | 575 | 12-1 | 95 | 11.9 | 89 | $10 \cdot 6$ | 74 | $7 \cdot 6$ | 162 | 13.5 | 2,791 | 19.4 | 41 |
| 171 | 4-1 | 246 | $5 \cdot 2$ | 36 | 4.5 | 61 | 7-2 | 53 | $5 \cdot 5$ | 61 | 5•1 | 719 | $5 \cdot 0$ | 42 |
| 155 | 3.7 | 100 | $2 \cdot 1$ | 11 | $1 \cdot 4$ | 13 | $1 \cdot 5$ | 15 | 1.5 | 18 | 1.5 | 374 | 2-6 | 43 |
| 955 | 22.9 | 807 | 16.9 | 125 | 15.7 | 107 | 12.7 | 164 | 16.9 | 174 | 14.5 | 2,623 | 18.2 | 4 |
| 954 | 22.9 | 931 | 19.5 | 133 | 16.7 | 143 | $17 \cdot 0$ | 196 | $20 \cdot 2$ | 192 | 16.0 | 2,846 | 19.8 | 45 |
| 399 | $9 \cdot 6$ | 144 | $3 \cdot 0$ | 26 | $3 \cdot 3$ | 41 | $4 \cdot 9$ | 32 | $3 \cdot 3$ | 26 | $2 \cdot 2$ | 753 | $5 \cdot 2$ | 45 |
| 1.716 | 41.1 | 1,043 | 21.9 | 155 | 19.4 | 197 | 23.4 | 240 | 24.7 | 243 | $20 \cdot 3$ | 4,120 | 28.6 | 47 |
| 584 | 14.0 | 363 | $7 \cdot 6$ | 134 | 16.8 | 71 | $8 \cdot 4$ | 139 | $14 \cdot 3$ | 119 | 9.9 | 2,127 | 14.8 | 48 |
| 3,064 | 73.4 | 3.072 | 64.5 | 579 | 72.6 | 536 | $63 \cdot 6$ | 570 | 58.8 | 947 | 79.0 | 9,849 | 68.4 | 49 |
| 939 | 22.5 | 1,041 | 21.8 | 116 | 14.5 | 127 | $15 \cdot 1$ | 196 | 20-2 | 220 | 18.4 | 2.947 | 20.5 | 50 |
| 1,329 | 31.8 | 1,887 | 39.6 | 281 | 35-2 | 300 | $35 \cdot 6$ | 393 | 40.5 | 740 | 61.8 | 5,594 | 38.8 | 51 |
| 139 | $3 \cdot 3$ | 440 | $9 \cdot 2$ | 62 | $7 \cdot 8$ | 61 | $7 \cdot 2$ | 94 | 9.7 | 182 | $15 \cdot 2$ | 1.050 | $7 \cdot 3$ | 52 |
| 30 | 0.7 | 61 | 1-3 | 16 | 2.0 | 4 | 0.5 | 7 | 0.7 | 19 | $1 \cdot 6$ | 153 | $1 \cdot 1$ | 53 |
| 4,854 |  | 41,462 |  | 6,552 |  | 6,025 |  | 7,345 | 757 -2 | 12,080 | $1,008 \cdot 3$ | 25,950 | 874-3 | 54 |

MAJOR CAUSES OF DEATH

16.-Deaths and Rates per 100,60 Population according to the International Abbrevisted List of 50 Causes, 1950-52
(Exclusive of the Territories)


[^84]
## 16.-Deaths and Rates per $\mathbf{1 0 0 , 0 0 0}$ Population according to the International Abbreviated List of 50 Causes, 1950-52-concluded

(Exclusive of the Territories)

| International List No. |  | Cause of Death | Number of Deaths |  |  | Rates per 100,000 Population |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Abbreviated List | Detailed List |  | 1950 | 1951 | 1952 | 1950 | 1951 | 1952 |
| B44 | 769-776 | Other diseases peculiar to early infancy and immaturity (unqualified) | 4,280 | 3,950 | 4,120 | 31-3 | 28.2 | $28 \cdot 6$ |
| B45 | 780-795 | Senility without mention of psychosis, ill-defined and unknown causes. | 2,614 | 2,236 | 2,127 | $19 \cdot 1$ | 16.0 | 14.8 |
| B46 BE47 BE48 BE49 BE50 | ResidualE810-E835E800-E802E840-E962E963, E970--E979E964, E965E980-E999 | All other diseases .................. | 10,447 | 10,057 | 9,849 | $76 \cdot 3$ | 71.9 | 68.4 |
|  |  | Motor-vehicle accidents............. | 2,289 | 2,662 | 2,947 | 16.7 | $19 \cdot 0$ | $20 \cdot 5$ |
|  |  | All other accidents.. | 5,273 | 5,372 | 5,594 | 38.5 | 38.4 | 38.8 |
|  |  | Suicide and self-inflicted injury... | 1,060 | 1,033 | 1,050 | 7 | 4 | $7 \cdot 3$ |
|  |  | Homicide and operations of war.... | 135 | 155 | 153 | $1 \cdot 0$ | $1 \cdot 1$ | 1.1 |
|  |  | Totals, All Causes......... | 123,789 | 125,454 | 125,950 | 904-4 | 897 - 1 | 874.3 |

## Subsection 2.-Infant Mortality

International Comparisons.-The completeness of registration of live births and infant deaths varies from country to country and there is some evidence that the under-registration of deaths is proportionately greater for infants than for other ages. The reliability of the basic data should, therefore, be kept in mind when comparing the rates. Despite these variations, the Canadian rate as well as the rates for some of the provinces appear to be considerably higher than those for many other countries of the world.

## 17.-Infant Mortality per 1,000 Live Births in Selected Countries compared with Canada and the Provinces, 1952

(Source: Monthly Bulletin of Statistics of the Uniled Nations and other official publications. Provisional data are used where certain final figures are not available.)


[^85]Canadian Infant Mortality.-Table 1, pp. 187-189, shows the striking improvement that has taken place in the rate of infant mortality during the past 25 years. Of the $1,155,000$ children born in 1950-52, approximately 45,000 died and 62,000 lived to their first birthday who would have died at the rate prevailing in the period 1926-30.

As illustrated in Table 18, infant mortality of males is 25 to 30 p.c. higher than that of females for Canada as a whole, with wider variations for the individual provinces. As pointed out earlier, there were between 1,051 and 1,067 males born to every 1,000 females in the 1941-52 period. Because male infant mortality is higher, the excess of males is reduced drastically by the end of the first year. For example, in 1950-52, 593,810 male children were born compared with 559,889 female children, an excess of 33,921 or $6 \cdot 6$ p.c.; 25,882 male children died during their first year compared with 19,329 female children, that is, 6,553 more. The excess of males at one year of age was thus reduced to 27,368 or $5 \cdot 6$ p.c.

As indicated in Tables 1 and 18, infant mortality rates vary considerably from province to province. One of the principal causes of these variations appears to be the different proportions of births that take place in hospital or under proper medical care (see also p. 193). Along with increased hospitalization has come better and more widespread pre-natal and post-natal care. Other factors have also been important, particularly the supervision of water supplies, improved sanitation, the pasteurization of milk and the use of antibiotics.
18.-Distribution of Infant Deaths, by Sex and Province, 1921-52

| Province and Year | Males | $\underset{\text { males }}{\mathrm{Fe}}$ | $\begin{array}{\|c\|} \text { Rate } \\ \text { per } \\ 1,000 \\ \text { Male } \\ \text { Live } \\ \text { Births } \\ \hline \end{array}$ | $\begin{gathered} \text { Rate } \\ \text { per } \\ 1,000 \\ \text { Fe- } \\ \text { male } \\ \text { Live } \\ \text { Births } \end{gathered}$ | Province and Y |  | Males | Females | $\begin{gathered} \text { Rate } \\ \text { per } \\ 1,000 \\ \text { Male } \\ \text { Live } \\ \text { Births } \end{gathered}$ | Rate per 1,000 Fe- male Live Births |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. |  |  |  |  | No. | No. |  |  |
| Newfoundland....... 1950 | 408 | 350 | 60 | 55 | Manitoba. | 1921 | 868 | 665 | 92 | 74 |
| 1951 | 361 | 276 | 60 | 48 |  | 1931 | 535 | 389 | 74 | 55 |
| 1952 | 318 | 254 | 49 | 42 |  | 1941 | 447 | 341 | 59 | 47 |
| P. E. Island........ 1921 |  |  |  |  |  | 1951 | 369 | 289 | 36 | 30 |
| P. E. Island. ........ 1931 | 78 | 50 | 78 | 57 |  | 1952 | 364 | 283 | 34 | 28 |
| 1941 | 102 | 61 | 95 | 63 | Saskatchewan.. | 1921 | 1,048 | 766 | 90 | 70 |
| 1951 | 60 | 30 | 44 | 23 |  | 1931 | 851 | 612 | 78 | 59 |
| 1952 | 48 | 35 | 34 | 27 |  | 1941 | 531 | 415 | 56 | 46 |
|  |  |  |  |  |  | 1951 | 353 | 323 | 32 | 30 |
| Nova Scotia......... ${ }_{1931}^{1921}$ | 738 | 573 | 110 | 91 |  | 1952 | 431 | 356 | 37 | 33 |
| 1931 1941 | 510 | 404 | 86 | 71 |  |  |  |  |  |  |
| 1941 | 545 | 363 | 77 | 53 | Alberta. | 1321 | 808 | 583 | 95 | 72 |
| 1951 1952 | 344 | 250 | 39 | 30 |  | 1931 | 675 | 522 | 76 | 63 |
| 1952 | 365 | 250 | 39 | 29 |  | 1941 | 506 | 373 | 57 | 44 |
| New Brunswick. .... 1921 |  |  |  |  |  | 1951 | 531 | 358 | 39 | 27 |
| New Brunswick. .... 1921 | 565 | 379 | 125 | 101 |  | 1952 | 515 | 364 | 34 | 26 |
| 1941 | 515 | 421 | 83 | 69 | British Columbia. | 1921 | 343 | 259 | 62 | 51 |
| 1951 | 472 | 363 | 58 | 46 |  | 1931 | 292 | 222 | 55 | 44 |
| 1952 | 433 | 296 | 51 | 36 |  | 1941 | 316 | 236 | 41 | 32 |
| Quebec.............. 1931 |  |  |  |  |  | 1951 | 487 | 352 | 34 | 27 |
| Quebec.............. 1941 | 5,417 | 4,026 <br> 2,854 | 126 85 | 99 66 |  | 1952 | 480 | 390 | 31 | 27 |
| 1951 | 3,335 | 2,486 | 54 | 42 |  |  |  |  |  |  |
| 1952 | 3,664 | 2,668 | 56 | 44 |  |  |  |  |  |  |
| Ontario............. 1921 | 3,918 | 2,845 | 102 | 79 | Canada (exclusive | 1921 | 8,558 | 6,335 8,693 | 98 | 77 |
| 1931 | 2,744 | 2,089 | 77 | 62 | of the Territories) | 1941 | 8,788 | 6,448 | 67 | 52 |
| 1941 | 1,910 | 1,384 | 51 | 40 |  | 1951 | 8,322 | 6,262 | 43 | 34 |
| 1951 | 2,010 | 1,535 | 34 | 28 |  | 1952 | 8,787 | 6,516 | 42 | 33 |
| 1952 | 2.169 | 1,620 | 34 | 27 |  |  |  |  |  |  |

[^86]

Infant Mortality in Urban Centres.-Because of the relatively small numbers of infant deaths in individual cities and towns, the rates for these centres usually vary widely from year to year. As is evident from Table 2 (pp. 189-191), many cities and towns have, however, maintained consistently low rates as compared with the national rate or the rate for the province in which they are situated.

Causes of Infant Deaths.- Of the 15,303 infant deaths in 1952, almost 15 p.c. were due to congenital malformations; 14 p.c. to immaturity; over 10 p.c. each to pneumonia among infants over four weeks of age and injury at birth; and about 8 p.c. to post-natal asphyxia and atelectasis. These specific causes accounted for 57 p.c. of the total infant deaths. The Chart, "Leading Causes of Infant Deaths", shows the relative importance of the major causes of infant death, and the Chart, "Infant Deaths", shows the comparative numbers of children dying at each month of age. Table 19 shows infant deaths by cause and province and Table 20 gives comparative totals for each cause for the years 1950-52.




[^87]
## 20.--Infant Mortality and Rates per $\mathbf{1 0 0 , 0 0 0}$ Live Births, by Cause, 1950-52

(Exclusive of the Territories)

| International List No. | Cause of Death | Number of Deaths |  |  | Rates per 100,000 Live Births |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1950 | 1951 | 1952 | 1950 | 1951 | 1952 |
| 001-019 | Tuberculosis. | 73 | 67 | 41 | 20 | 18 | 10 |
| 020-029 | Syphilis..... | 18 | 9 | 7 | 5 | 2 | 2 |
| 045-048 | Dysentery............................... | 40 | 27 | 24 | 11 | 7 | , 6 |
| 050 | Scarlet fever............................ |  | 2 | 2 | 1 | 1 |  |
| 052 | Erysipelas. | - | 4 | 1 | 1 | 1 | $\stackrel{1}{1}$ |
| 055 | Diphtheria. | 8 | $-13$ | 1 | 1 |  |  |
| 056 | Whooping cough. | 236 | 139 | 104 | 64 | 37 | 26 |
| 057 | Meningococcal infections | 38 | 33 | 40 | 10 | 9 | 10 |
| \% 085 | Measles... | 60 | 70 | 73 | 16 | 18 | 18 |
| 140-239 | Diseases of thymus | 98 | 79 | 65 | 26 | 11 | 12 |
| 340 | Meningitis (non-meni | 164 | 132 | 145 | 44 | 35 | 16 |
| 391, 392 | Otitis media | 238 | 201 | 251 | 64 | 53 | 62 |
| 470-475 | Acute upper respiratory infection | 78 | 65 | 73 | 21 | 17 | 18 |
| 480-483 | Influenza. | 301 | 440 | 316 | 81 | 116 | 79 |
| 490-493 | Pneumonia (4 weeks and over) | 1,701 | 1,527 | 1,604 | 458 | 402 | 398 |
| 500-502 | Bronchitis. | 108 | 121 | 102 | 29 | 32 | 25 |
| 560-570 | Hernia and intestinal obstruc | 107 | 103 | 107 | 29 | 27 | 27 |
| 571 | Gastro-enteritis and colitis....... | 858 | 802 | 877 | 231 | 211 | 218 |
| 572 | Chronic enteritis, and ulcerative colitis. | 5 |  | 3 | 1 | 1 | 1 |
| 750-759 | Congenital malformations. | 1,856 | 2,063 | 2,226 | 500 | 543 | 553 |
| 760, 761 | Injury at birth............ | 1,587 | 1,461 | 1,532 | 428 | 384 | 381 |
| 762 | Post-natal asphyxia and atelectasis. | 1,076 | 1,160 | 1,314 | 290 | 305 | 326 |
| 763 | Pneumonia of newborn (under 4 weeks). | 456 | 423 | 483 | 123 | 111 | 120 |
| 764 | Diarrhcea of newborn (under 4 weeks).. | 232 | 185 | 214 | 63 | 49 | 53 |
| 765-768 | Other infections of the newborn......... | 51 | 51 | 56 | 14 | 13 | 14 |
| 769 | Antenatal toxæmia. | 212 | 175 | 171 | 57 | 46 | 42 |
| 770 | Erythroblastosis.. | 299 | 336 | 366 | 81 | 88 | 91 |
| 771 | Hæmorrbagic disease of newborn....... | 103 | 105 | 130 | 28 | 28 | 32 |
| 772 | Nutritional maladjustment.............. | 177 | 157 | 161 | 48 | 41 | 40 |
| 773 | Ill-defined diseases peculiar to early infancy. | 1,210 | 1,059 | 1,125 | 326 | 279 | 279 |
| 774-776 | Immaturity...................... | 2,279 | 2,117 | 2,164 | 614 | 557 | 538 |
| 795 | Ill-defined and unknown causes. | 367 | 274 | 275 | 99 | 72 | 68 |
| E810-E825 | Motor-vehicle traffic accidents. | 11 | 12 | 19 | 3 | 3 | 5 |
| E900-E904 | Accidental falls......... | $\stackrel{21}{21}$ | 12 | 10 | 8 | 3 |  |
| E921 E916 | Accidents caused by fire. ........... | 29 | 28 | 30 | 8 | 7 |  |
| E921, E922 | Inhalation and ingestion of food or other object. | 221 | 223 | 235 | 60 | 59 | 33 |
| E924, E925 | Accidental mechanical suffocation...... | 136 | 132 | 131 | 37 | 35 | 33 |
|  | Other accidental and violent deaths.... | 60 | 54 | 64 | 16 | 14 | 16 |
|  | Other specified causes.................. | 770 | 691 | 715 | 208 | 182 | 178 |
|  | Totals, All Causes. | 15,324 | 14,584 | 15,303 | 4,130 | 3,837 | 3,802 |

${ }^{1}$ Less than one per 100,000 live births.

## Subsection 3.-Maternal Mortality

As indicated in Table 1, pp. 187-189, the number of mothers who die in pregnancy and childbirth has been greatly reduced during the past two decades. Although the number of births has been much greater in recent years, the number of maternal deaths has declined steadily since about 1930 (when there were 1,215 deaths and a rate of almost five deaths for every 1,000 live births) to 349 in 1952. Since 1945, the rate of maternal mortality has dropped below two per 1,000 live births and was under one per 1,000 live births in 1952. Mortality among unmarried mothers is higher than among married mothers.

Age at Death.-Table 21 shows the distribution of maternal deaths by age groups and average age at death. The latter is slightly more than two years higher than the average age of all mothers at the time of childbirth. The rates per 1,000 live births by age groups show that age is a most important factor in maternal mortality. Though all the rates are much lower than they used to be, the inequalities between the age groups remain (see Chart, "Maternal Deaths"). The rate at 30-34 years is more than twice as high as the rate at 20-24 years, and at 40-44 years it is
over eight times as high. The higher rate for the "under 20 " age group, compared with the age group 20-24, is owing to the high proportion of illegitimate children born to young mothers in the "under 20 " group.

## 21.-Maternal Mortality and Rates per 1,060 Live Births, by Age Group, 1931, 1941 and 1952

(Exclusive of Newfoundland and the Territories)



Causes of Maternal Deaths.-Tables 22 and 23 show, by cause, the numbers and rates of maternal deaths per 100,000 live births. Until a decade ago, puerperal sepsis and toxxmias of pregnancy were by far the most important causes. Since 1936, the rate for puerperal sepsis has been reduced by almost 95 p.c. owing in large measure to the use of sulpha and other antibiotics. Although there has been a reduction of over 70 p.c. since 1936 in the maternal death rate from toxæmias of pregnancy, this group still remains a major cause of maternal deaths, second only to complications of delivery.
22.-Maternal Mortality and Rates per $\mathbf{1 0 0 , 0 0 0}$ Live Births, by Cause and by Province, 1952

${ }^{1}$ Exclusive of the Territories.
23.-Maternal Mortality and Rates per 100,000 Live Births, by Cause, 1950-52
(Exclusive of the Territories)

| International List No. | Cause of Death | Number of Deaths |  |  | Rate per 100,000 Live Births |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1950 | 1951 | 1952 | 1950 | 1951 | 1952 |
| $\begin{array}{r} 640,641 \\ 642 \\ 643 \\ 644 \\ 645 \\ 646-649 \\ 650.652 \\ 651 \\ 660 \\ 670 \end{array}$ | Infections of the genito-drinary tract during pregnancy | 1 | 1 |  | 1 | 1 |  |
|  | Toxemias of pregnancy . ............................... | 90 | 111 | 97 | 24 | 29 | 2 |
|  | Placenta previa noted before delivery | 11 | 4 | 3 | 3 | 1 |  |
|  | Other hemorrhage of pregnancy..... | 5 | 3 | 4 | 1 | 1 |  |
|  | Ectopic pregnancy .... | 19 | 13 | 13 | 5 | 3 |  |
|  | Other complications of pregnancy | 9 | 16 | 13 | ${ }_{2}^{2}$ | 4 |  |
|  | Abortion without mention of sepsis.................. | 24 | 22 | 13 | 6 | 6 |  |
|  | Abortion with sepsis. . . . . . | 26 | 29 | 30 | 7 | 8 |  |
|  | Delivery without complication....................... | 7 | 6 | 9 | 2 | 2 | 2 |
|  | Delivery complicated by placenta previa or antepartum hemorrhage. | 44 | 43 | 34 | 12 | 11 |  |
| 671 | Delivery complicated by retained placents........... | 10 | , | 10 | 3 | 2 |  |
|  | Delivery complicated by other postpartum hamorrhage. | 48 | 38 | 23 | 13 | 10 |  |
| 673, 674 | Delivery complicated by abnormality of bony pelvis or malposition of foetus. | 14 | 13 | 12 | 4 | 3 |  |
| 675 | Delivery complicated by prolonged labour of other origin. | 12 | 14 | 12 | 3 | 4 |  |
| 676, 677 | Delivery with lisceration or other traums............. | 9 | 15 | 16 | 2 | 4 |  |
|  | Delivery with other complications of childbirth.... | 14 | 13 | 15 | 4 | 3 |  |
| 680 | Puerpersl urinary infection without other sepsis.. |  | 1 | - | - |  | - |
| 682-681 | Sepsis of childbirth and the puerperium............ | 12 | 13 | 10 | 3 | 3 |  |
|  | Puerperal phlebitis, thromboeis, pyreris, pulmonary embolism. | 26 | 25 | 28 | 7 | 7 |  |
| $\begin{aligned} & 685,686 \\ & 687-689 \end{aligned}$ | Paerperal eclampeia and toxemia | 23 | 9 | 12 | 6 | 2 |  |
|  | Other and unspecified complications of the puerperium. | 16 | 10 | 17 | 4 | 3 |  |
|  | Totals, All Puerperal Ca | 420 | 405 | 374 | 113 | 107 | 93 |

${ }^{1}$ Less than one per 100,000 live births.

## Section 4.-Natural Increase

In 1926-30, the rate of natural increase in Canada (excess of births over deaths) was 13 per 1,000 population. Owing partly to the depression, the birth rate declined more than the death rate and the rate of natural increase fell to $9 \cdot 7$ in 1937. Since then the rate has increased to $12 \cdot 6$ in 1940-42, $14 \cdot 6$ in 1945, $17 \cdot 6$ in 1946 and $19 \cdot 3$ in 1947. The rates of $17 \cdot 8$ in 1948, $18 \cdot 1$ in $1949,18 \cdot 1$ in $1950,18 \cdot 2$ in 1951, and $19 \cdot 2$ in 1952 were lower owing to increases in total deaths in recent years.

Table 24 shows that the rates of natural increase in the provinces followed generally the rate for Canada as a whole. In earlier years, Saskatchewan and Quebec had the highest rates. The high rates in all the Prairie Provinces were owing partly to their relatively younger populations and consequent low death rates. In Quebec, on the other hand, the death rate in 1926-30 was high; it has declined steadily since. Owing to high birth rates, Newfoundland and New Brunswick have had the highest rates of natural increase in Canada in recent years. (See Chart, "Birth, Death and Natural Increase Rates", p. 218.)

The rates are generally higher for females than for males because death rates for males are higher than for females. In the western provinces particularly, the fact that the ratio of males to females in the total population is higher than in other parts of Canada tends to lower the rate of natural increase.

In a country such as Canada with a fairly young population and where immigration has been large, an excess of males is to be expected but the higher rate of natural increase for females may gradually reduce this excess. The trend is towards an eventual excess of females in the total population as there now is in most European countries - unless immigration raises the male ratio.

24.-Natural Increase and Rates per $\mathbf{1 , 0 0 0}$ Population, by Sex and Province, 1921-52

| Province and Year |  | Excess of Births Over Deaths | Rate per 1,000 Population | Males |  | Females |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number |  | $\begin{aligned} & \text { Rate } \\ & \text { per } 1,000 \\ & \text { Males } \end{aligned}$ | Number | Rate per 1,000 Females |
| Newfoundland.................... 1951 |  |  | 8,734 | 24.2 | 4,369 | 23.6 | 4,365 | 24.8 |
|  |  | 9,788 | 26.2 | 4,942 | $25 \cdot 7$ | 4,846 | 26.7 |
| Prince Edward Island. | 1921 | 947 | 10.7 | 454 | $10 \cdot 1$ | 493 | $11 \cdot 3$ |
|  | 1931 | 967 | 10.9 | 517 | 11.4 | 450 | $10 \cdot 6$ |
|  | 1941 | 915 | $9 \cdot 6$ | 483 | 9.8 | 432 | $9 \cdot 4$ |
|  | 1951 | 1,747 | 17.9 | 872 | 17.4 | 875 | 18.2 |
|  | 1952 | 1,787 | $17 \cdot 3$ | 902 | $17 \cdot 2$ | 885 | $17 \cdot 5$ |
| Nova Scotia. | . 1921 | 6,601 | $12 \cdot 6$ | 3,323 | 12.5 | 3,278 | $12 \cdot 7$ |
|  | 1931 | 5,647 | 11.0 | 2,836 | 10.8 | 2,811 | 11.3 |
|  | 1941 | 6,989 | $12 \cdot 1$ | 3,335 | 11.3 | 3,654 | 13.0 |
|  | 1951 | 11,313 | $17 \cdot 6$ | 5,596 | 17.2 | 5,717 | 18.0 |
|  | 1952 | 12,195 | $18 \cdot 7$ | 6,022 | 18.2 | 6,173 | $19 \cdot 1$ |
| New Brunswick. | . 1921 | 6,055 | 15.9 | 3,084 | 16.0 | 2,971 | 15.9 |
|  | 1931 | 6,157 | $15 \cdot 1$ | 3,099 | 14.9 | 3,058 | 15-3 |
|  | 1941 | 7,088 | 15.5 | 3,396 | 14.5 | 3,692 | 16.5 |
|  | 1951 | 11,202 | 21.8 | 5,522 | 21.3 | 5,680 | $22 \cdot 1$ |
|  | 1952 | 12,044 | 22.9 | 5,768 | 21.8 | 6,276 | $24 \cdot 0$ |
| Quebec. | . 1921 | 55,316 | 23.4 | 29,431 | 24.9 | 25,885 | 21.9 |
|  | 1931 | 49,119 | 17.1 | 24,984 | 17.3 | 24,135 | 16.9 |
|  | 1941 | 54,871 | 16.5 | 27,561 | 16.5 | 27,310 | 16.5 |
|  | 1951 | 86,030 | 21.2 | 42,961 | 21.2 | 43,069 | 21.2 |
|  | 1952 | 91,562 | 21.9 | 45,555 | $21 \cdot 8$ | 46,007 | $22 \cdot 0$ |
| Ontario. | . 1921 | 39,601 | 13.5 | 20,245 | $13 \cdot 7$ | 19,356 | $13 \cdot 3$ |
|  | 1931 | 33,504 | 9.8 | 16,472 | $9 \cdot 4$ | 17,032 | $10 \cdot 1$ |
|  | 1941 | 33,036 | $8 \cdot 7$ | 15,705 | 8.2 | 17,331 | 9.3 |
|  | 1951 | 70,846 | 15.4 | 34,737 | $15 \cdot 0$ | 36,109 | $15 \cdot 8$ |
|  | 1952 | 79,489 | 16.7 | 38,914 | 16.2 | 40,575 | $17 \cdot 2$ |
| Manitoba. | . 1921 | 13,090 | 21.5 | 6,491 | $20 \cdot 2$ | 6,599 | 22.8 |
|  | 1931 | 9,057 | 12.9 | 4,239 | 11.5 | 4,818 | 14.5 |
|  | 1941 | 8,317 | 11.4 | 3,834 | $10 \cdot 1$ | 4,483 | $12 \cdot 7$ |
|  | 1951 | 13,207 | 17.0 | 6,388 | 16.2 | 6,819 | 17.9 |
|  | 1952 | 14,225 | 17.8 | 6,713 | 16.5 | 7,512 | $19 \cdot 1$ |
| Saskatchewan. | . 1921 | 16,897 | $22 \cdot 3$ | 8,542 | $20 \cdot 6$ | 8,355 | 24.3 |
|  | 1931 | 15,265 | 16.5 | 7,499 | $15 \cdot 0$ | 7,766 | 18.4 |
|  | 1941 | 12,006 | 13.4 | 5,651 | 11.8 | 6,355 | $15 \cdot 2$ |
|  | 1951 | 15,293 | 18.4 | 7,192. | 16.6 | 8,101 | 20.4 |
|  | 1952 | 15,980 | 18.9 | 7,559 | $17 \cdot 2$ | 8,421 | $20 \cdot 9$ |
| Alberta. | . 1921 | 11,621 | $19 \cdot 7$ | 5,635 | 17.4 | 5,986 | $22 \cdot 6$ |
|  | 1931 | 11,950 | 16.4 | 5,843 | 14.6 | 6,107 | 18.4 |
|  | 1941 | 10,923 | $13 \cdot 7$ | 5,016 | 11.8 | 5,907 | $16 \cdot 0$ |
|  | 1951 | 19,836 | 21.1 | 9,331 | $19 \cdot 0$ | 10,505 | $23 \cdot 5$ |
|  | 1952 | 21,760 | $22 \cdot 4$ | 10,408 | 20.5 | 11,352 | 24.6 |
| British Columbia. |  |  |  |  |  |  |  |
|  | 1931 | 4,290 6,533 | 6.2 8.0 | 1,604 | 4.2 5.4 | 2,686 4,191 | 8.7 10.9 |
|  | 1951 | 16,439 | 14.1 | 7,107 | 11.9 | 9,332 | 16.4 |
|  | 1952 | 17,747 | 14.8 | 7,971 | 13.0 | 9,776 | 21.2 |
| Canada (exclusive of the Territories). | 1921 | 156,573 | 17.8 | 80,154 | 17.7 | 76,419 | 18.0 |
|  | 1931 | 135,956 | 13.1 | 67,093 | 12.5 | 68,863 | 13.8 |
|  | 1941 | 140,678 | 12.2 | 67,323 | . 11.4 | 73,355 | 13.1 |
|  | 1951 | 254,647 | 18.2 | 124,075 | 17.5 | 130,572 | 18.9 |
|  | 1952 | 276,577 | 19.2 | 134,754 | 18.5 | 141,823 | $20 \cdot 0$ |

Natural Increase in Urban Centres.-The classification of births and deaths by place of residence makes it possible to compile the natural increase in the population of urban centres; the figures are presented in Table 2, pp. 189-191.

## Section 5.-Marriages and Divorces

## Subsection 1.-Marriages

International Comparisons.-Table $\mathbf{2 5}$ shows the marriage rates in Canada and the provinces in comparison with those of other countries.

## 25.-Marriage Rates per 1,000 Population in Selected Countries compared with Canada and the Provinces, 1952

(Source: Monthly Bulletin of Statistics of the United Nations and other official publications. Provisional data are used where certain final figures are not available.)

| Country or Province | $\underset{\text { Rate }}{\text { Marriage }}$ | Country or Province | $\underset{\text { Rate }}{\text { Marriage }}$ | Country | $\begin{gathered} \text { Marriage } \\ \text { Rate } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Yugoslavia............ | 10.5 | Canada-concluded |  | Japan....... | 7.9 |
| Union of South Africa |  | New Brunswick...... | $8 \cdot 1$ | Portugal.... | 7.8 |
| (Whites) | 10.21 | Newfoundland. ${ }^{\text {a }}$. . | $7 \cdot 3$ | Switzerland. | 7.8 |
| United States........... | $10 \cdot 0$ | Prince Edward Island | 6.0 | Belgium. . | 7.7 |
| Western Germany...... | $9 \cdot 4$ |  | $8 \cdot 6$ | Spain... | 7.7 7.4 |
| Canada. | 8.9 | Australia............... | $8 \cdot 6$ | France. | $7 \cdot 3$ |
| Alberta. | 9.8 | Netherlands | 8.4 | Italy.. | $7 \cdot 0$ |
| Ontario. | $9 \cdot 5$ | Austria................ | $8 \cdot 2$ | Northern Irelan | 6.8 |
| British Columbia.... | $9 \cdot 2$ | Denmark............. | 8.2 | Ceylon... | $6 \cdot 6$ |
| Manitoba............ | 8.9 | Norway............... | 8.2 8.1 | Mexico... | $6 \cdot 1$ |
| Quebec. | $8 \cdot 5$ | Scotland. | 8.0 | Ireland. | $5 \cdot 3$ |
| Nova Scotia | 8.3 | England and Wales.... | 7.9 | Venezuela | 4.8 |
| Saskatchewan | $8 \cdot 2$ | Finland............... | $7 \cdot 9$ | Peru. | 2.9 |

${ }^{1} 1951$.
As a rule, marriage rates vary with the level of economic prosperity. In Canada, England and the United States, the number of marriages was exceptionally high in 1940-42, decreased in 1943 and 1944 but increased in 1945 and 1946, reaching peak rates in the immediate post-war years.

Canadian Marriages.-Table 26 shows the number of marriages and the marriage rates per 1,000 population in Canada and the provinces. Percentages of brides and bridegrooms, according to place of birth, are also given. In 1952, for the country as a whole, about 84 p.c. of the grooms were born in Canada- 69 p.c. in the province in which they were married. Almost 88 p.c. of the brides were born in Canada- 75 p.c. in the province in which they were married. However, there are wide variations from this pattern as between provinces; as might be expected, in the older Atlantic Provinces and Quebec there is a greater tendency to marry native, or native and province-born partners than in the other provinces.
26.-Marriages and Marriage Rates, by Province, with Percentage Distribution of Bridegrooms and Brides by Nativity, 1921-52

| Province and Year | Total Marriages | Rate per 1,000 Population | Born in Province Where Married |  | Born in Other Provinces |  | BornOutsideCanada |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Grooms | Brides | Grooms | Brides | Grooms | Brides |
|  | No. |  | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Newfoundland. . . . . . . . . . 1951 | 2,517 | $7 \cdot 0$ | $85 \cdot 2^{1}$ | 96.71 | $2 \cdot 41$ | 1.91 | 12.41 | 1.41 |
| 1952 | 2,730 | $7 \cdot 3$ | 87.51 | $97 \cdot 0^{1}$ | $2 \cdot 11$ | $1 \cdot 01$ | $10 \cdot 3^{1}$ | $2 \cdot 11$ |
| Prince Edward Island. ..... 1921 | 518 | $5 \cdot 8$ | $92 \cdot 3$ | 94.6 | $5 \cdot 0$ | 1.9 | $2 \cdot 7$ | 3.5 |
| Prian 19 | 490 | $5 \cdot 6$ | 89.4 | 91.8 | 5.1 | $4 \cdot 1$ | $5 \cdot 5$ | $4 \cdot 1$ |
| 1941 | 673 | $7 \cdot 1$ | 78.8 | $86 \cdot 6$ | 15.0 | $9 \cdot 4$ | $6 \cdot 2$ | $4 \cdot 0$ |
| 1951 | 583 | $5 \cdot 9$ | $82 \cdot 3$ | $91 \cdot 1$ | 12.9 | 6.0 | 4.8 | 2.9 |
| 1952 | 613 | 6.0 | 81.4 | 91.5 | 13.9 | $5 \cdot 4$ | $4 \cdot 7$ | $3 \cdot 1$ |

For footnote, see end of table.
26.-Marriages and Marriage Rates, by Province, with Percentage Distribution of Bridegrooms and Brides by Nativity, 1921-52-concluded

| Province and Year |  | Total Marriages | Rate per 1,000 Popolation | Born in Province Where Married |  | Born in Other Provinces |  | BornOutside Canada |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Grooms |  | Brides | Grooms | Brides | Grooms | Brides |
|  |  |  | No. |  | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Nova Scotia. | . 1921 | 3,550 | 6.8 | 76-3 | 81.3 | $6 \cdot 4$ | 4.5 | 17.3 | 14.2 |
|  | 1931 | 3,394 | $6 \cdot 6$ | $80-3$ | 86.7 | $5 \cdot 4$ | $3 \cdot 6$ | $14 \cdot 3$ | 9.7 |
|  | 1941 | 6,596 | 11.4 | $73 \cdot 2$ | 83.8 | 16-8 | 9.5 | 10.0 | $6 \cdot 7$ |
|  | 1951 | 5,094 | 7.9 | 78-2 | 86.7 | 15.9 | 9.0 | 6.0 | $4 \cdot 3$ |
|  | 1952 | 5,390 | $8 \cdot 3$ | 77-2 | 86.3 | 16.5 | 10.0 | $6 \cdot 3$ | $3 \cdot 7$ |
| New Brunswick. | . 1921 | 3,173 | $8 \cdot 4$ | 73.4 | 78.0 | 10-1 | $8 \cdot 4$ | 16.5 | $13 \cdot 6$ |
|  | 1931 | 2,544 | 6-2 | 77.7 | 81.8 | $10 \cdot 1$ | $9 \cdot 2$ | 12.2 | 9.0 |
|  | 1941 | 4,941 | 10.8 | 78.5 | 84.4 | 13.3 | 9.7 | 8.2 | $5 \cdot 9$ |
|  | 1951 | 4,386 | $8 \cdot 5$ | 80.0 | 86.9 | $10 \cdot 1$ | 6.7 | 9.8 | $6 \cdot 4$ |
|  | 1952 | 4,276 | $8 \cdot 1$ | 78.7 | 85.2 | 10-7 | $7 \cdot 5$ | 10.6 | 7-3 |
| Quebec. | . 1931 | 16,783 | 5.8 | 79.7 | 83.4 | 4.2 | 3.7 | 16.0 | 13.0 |
|  | 1941 | 32,782 | 9.8 | 86.1 | $89 \cdot 3$ | 6.7 | $5 \cdot 9$ | 7-2 | 4.8 |
|  | 1951 | 35,704 | 8.8 | 86.7 | 89.5 | $6 \cdot 1$ | $5 \cdot 5$ | $7 \cdot 2$ | $5 \cdot 0$ |
|  | 1952 | 35,374 | $8 \cdot 5$ | 84.9 | 87.9 | $6 \cdot 1$ | $5 \cdot 6$ | $9 \cdot 1$ | $6 \cdot 4$ |
| Ontario. | . 1921 | 24,871 | $8 \cdot 5$ | 63.6 | $66 \cdot 7$ | $5 \cdot 6$ | 4.7 | 30.8 | 28.6 |
|  | 1931 | 23,771 | 6.9 | 57.4 | $63 \cdot 4$ | 7.7 | 7.7 | 34.9 | 28.8 |
|  | 1941 | 43,270 | 11.4 | 89.2 | 89.0 | 4.2 | 4.5 | 6.7 | 6.5 |
|  | 1951 | 45,198 | 9.8 | 65.9 | 72.4 | 14.6 | 12.2 | 19.5 | 15.4 |
|  | 1952 | 45,251 | $9 \cdot 5$ | $63 \cdot 6$ | $70 \cdot 0$ | 14.4 | $12 \cdot 2$ | 22.0 | $17 \cdot 8$ |
| Manituba. | . 1921 | 5,310 | 8.7 | 26.4 | 37-2 | 18.1 | $14 \cdot 1$ | 55.5 | $48 \cdot 7$ |
|  | 1931 | 4,888 | 7.0 | $41 \cdot 6$ | $55 \cdot 7$ | $10 \cdot 9$ | $9 \cdot 2$ | 47.5 | 35.1 |
|  | 1941 | 8.305 | 11.4 | 63.0 | 73.7 | $17 \cdot 4$ | $15 \cdot 0$ | 19.6 | 11.4 |
|  | 1951 | 7.366 | 9.5 | 67.9 | $75 \cdot 1$ | 15-4 | 13.3 | 16.8 | 11.6 |
|  | 1952 | 7,128 | 8.9 | 64.7 | 74-3 | 18.1 | 13.8 | $17 \cdot 3$ | 11.9 |
| Saskatchewan. | . 1921 | 5,101 | 6.7 | 7.1 | $15 \cdot 6$ | 31.4 | 28.1 | 61.5 | 56.3 |
|  | 1931 | 5,700 | 6.2 | 27.6 | 48-3 | $22 \cdot 5$ | 16.9 | 49.9 | 34.7 |
|  | 1941 | 7.036 | $7 \cdot 9$ | $64 \cdot 7$ | 79.1 | 16-1 | 10.0 | 19.1 | 10.9 |
|  | 1951 | 6.805 | $8 \cdot 2$ | 78.3 | 86.4 | 10.7 | 6.4 | 11.1 | $7 \cdot 2$ |
|  | 1952 | 6,944 | $8 \cdot 2$ | $77 \cdot 6$ | 87-4 | 12.0 | $5 \cdot 9$ | $10 \cdot 4$ | $6 \cdot 6$ |
| Alberta. | . 1921 |  |  | $7 \cdot 0$ | 14.2 | 26.2 | 25.1 | 66.8 | $60 \cdot 7$ |
|  | 1931 | 5,142 | 7.0 | 22.1 | 38.5 | 19.4 | $17 \cdot 6$ | 58.5 | 43.9 |
|  | 1941 | 8.470 | $10 \cdot 6$ | 50.0 | $63-4$ | 23.9 | 19.9 | 26-2 | 16.8 |
|  | 1951 | 9,305 | 9.9 | 56.0 | $67 \cdot 4$ | 25.7 | $19 \cdot 6$ | 18.3 | 13.0 |
|  | 1952 | 9,514 | 9.8 | 53.4 | $65 \cdot 2$ | 26.0 | 19.8 | 20.5 | 15.0 |
| British Columbia. | . 1921 | 3,889 | 7.4 | 13.7 | 18.3 | 22.6 | 20.5 | 63.7 | 61.2 |
|  | 1931 | 3,879 | $5 \cdot 6$ | 22.2 | $30 \cdot 6$ | 21.1 | 24.7 | $56 \cdot 7$ | 44.7 |
|  | 1911 | 9,769 | 11.9 | 35.9 | 43.5 | $35 \cdot 6$ | 37.1 | 28.5 | 19.4 |
|  | 1951 | 11,272 | 9.7 | 35.5 | 41.6 | 43.1 | 43.0 | 21.3 | 15.5 |
|  | 1952 | 11,081 | $9-2$ | 34.9 | 40.0 | $41 \cdot 6$ | 42.4 | 23.4 | 17.5 |
| Canada (exclusive of the |  |  | $8 \cdot 9$ | 46.9 | 52.8 | 13.0 | 11.3 | 40.1 | 36.7 |
| Territories). | 1931 | 66,591 | 6.4 | 56.7 | 64.9 | 10.8 | 9.2 | 33.3 | 26.6 |
|  | 1941 1551 | 121,842 128,239 | 10.6 | 76.8 | 81.5 | 11.4 | 10.1 | 11.7 | 8.4 |
|  | 1551 1552 | 128,230 | 9.2 8.9 | 70.51 68.71 | 76.51 75.91 | (15.11 ${ }_{\text {15.11 }}$ | 12.81 ${ }_{12.81}$ | 11.51 16.21 | 10.61 |
|  |  | 120,361 |  | 68.27 | $75 \cdot 0$ | 15.1 ${ }^{1}$ | $12 \cdot 8^{1}$ | $16 \cdot{ }^{1}$ | 12.21 |

${ }^{1}$ Excludes "not stated" birthplace.
${ }^{2}$ Excludes the Province of Quebec.
Age and Marital Status of Bridegrooms and Brides.-Over 91 p.c. of the marriages in 1952 were between persons who had not previously been married; 5 p.c. of the brides and grooms had been widowed, and more than 3 p.c. of the marriages were of divorced persons. The average age at marriage of bachelors is lower
than 27 years and that of spinsters lower than 24. The average age of widowers and widows at the time of re-marriage is double that of bachelors and spinsters. Nine out of ten spinsters married in 1952 were under 30 years of age- 7 out of 10 under 25 years-and 8 out of 10 bachelors were under 30 and about one-half of the total were under 25 years of age as shown in Table 27.
27.-Numbers and Percentages of Bridegrooms and Brides, by Age and
Marital Status, 1952
(Exclusive of the Territories)

| Age Group | Bridegrooms |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Numbers |  |  |  | Percentages |  |  |  |
|  | Bachelors | Widowers | $\begin{gathered} \mathrm{Di-} \\ \text { vorced } \end{gathered}$ | Total | Bachelors | Widowers | $\underset{\text { vorced }}{\mathrm{Di}}$ | Total |
| Under 20 years. | 6,56254,83433,91011,9124,9352,4211,223676383178171 | 31 | 114 | 6,56354,979 | 5.646.8 | 0.5 | $2 \cdot 5$ | 5.142.9 |
|  |  |  |  |  |  |  |  |  |
|  |  | 205 | 706 | 34,821 | 28.9 | $3 \cdot 2$ | 15.4 | $27 \cdot 1$$10 \cdot 3$ |
|  |  | 352506 | 1,007 984 | 13,271 | $10 \cdot 2$ | $5 \cdot 4$ | $22 \cdot 0$ |  |
|  |  |  |  | 3,754 | ${ }_{2 \cdot 1}^{4 \cdot 2}$ | 7.89.4 | 21.515.8 | $10 \cdot 3$ 5.0 |
|  |  | 609 | 724 |  |  |  |  | $2 \cdot 9$ |
|  |  | 703 | 515 | 2,441 | 1.0 | 10.8 | 11.2 | 1.91.3 |
|  |  | 753 | 266166 | 1,695 | $0 \cdot 6$ | 11.6 | 5.8 |  |
|  |  | 843 |  | 1,3921,103 | 0.30.2 | 13.0 | $3 \cdot 6$ | 1.3 1.1 |
|  |  | 859 | 66 |  |  | $13 \cdot 2$ | 1.4 | 0.9 1.4 |
|  |  | 1,644 | 32 | 1,847 | $0 \cdot 1$ | $25 \cdot 3$ | 0.7 | 1.4 |
| Totals, Stated Ages.... | 117,205 | 6,505 | 4,581 | 128,291 | 100.0 | $100 \cdot 0$ | $100 \cdot 0$ | 100.0 |
| Ages not stated. ............ <br> Totals, All Ages. | 10 | - | - | 10 | ... | ... | ... | ... |
|  | 117,215 | 6,505 | 4,581 | 128,301 | 91.4 | $5 \cdot 1$ | $3 \cdot 6$ | $100 \cdot 0$ |
| Average ages............. | $26 \cdot 5$ | $54 \cdot 2$ | $38 \cdot 6$ | 28.3 | ... | ... | ... | ... |
|  | Brides |  |  |  |  |  |  |  |
|  | Numbers |  |  |  | Percentages |  |  |  |
|  | Spinsters | Widows | Divorced | Total | Spinsters | Widows | $\mathrm{Di}-$ vorced | Total |
| Under 20 years............ | 31,596 | 10 | 11 | 31,617 | 26.9 | 0.2 |  | 24.6 |
|  | 55,123 18,765 | $145$ | $\begin{array}{r} 381 \\ 1,018 \end{array}$ | 55,649 | $\begin{aligned} & 47 \cdot 0 \\ & 16 \cdot 0 \end{aligned}$ | $\begin{aligned} & 2.2 \\ & 6.6 \end{aligned}$ | 8.7 23.2 | 43.4 15.8 |
| $30-34$ " $\quad$ ¢........... | 6,313 | 727 | 1,065 | 20,216 8,105 | 16.0 5.4 | 11.1 | $24 \cdot 2$ | 6.33.4 |
| $35-39$ " $\quad \cdots \cdots \ldots \ldots$. | 2,795 | 779829 | 818 | 4,392 | $2 \cdot 4$ | 11.9 |  |  |
| $40-44$ " | 1,372 |  | 544 | 2,745 | $1 \cdot 2$ | $12 \cdot 7$ | $12 \cdot 4$ | 3.1 2.1 |
| 45-49 " | 691 | 742 | 316 | 1,878 | 0.6 | $13 \cdot 3$ | $7 \cdot 2$ | 1.51.00.70.50.7 |
| $50-54$ " $\ldots . . . . . . .$. | 358 |  | 143 | 1,243 | $0 \cdot 3$ | 11.3 | $3 \cdot 3$ |  |
| $55-59$ " $\ldots \ldots \ldots .$. | 185 | 687 | 65 | 937 | $0 \cdot 2$ | $10 \cdot 5$ | 1.5 |  |
| $60-64$ " | 90 | 561 756 | 18 13 | 669 836 | 0.1 0.1 | 8.6 11.6 | 0.4 0.3 |  |
| 65 years or over. | 67 | 756 | 13 | 836 | $0 \cdot 1$ | 11.6 | $0 \cdot 3$ |  |
| Totals, Stated Ages.... | 117,355 | 6,540 | 4,392 | 128,287 | 100.0 | 100.0 | 100.0 | 100.0 |
| Ages not stated. | 14 | - | - | 14 | ... | ... | ... | ... |
| Totals, All Ages . . . . . . . | 117,369 | 6,540 | 4,392 | 128,301 | $91 \cdot 5$ | $5 \cdot 1$ | $3 \cdot 4$ | $100 \cdot 0$ |
| Average ages. | 23.7 | $47 \cdot 6$ | 34.9 | $25 \cdot 3$ | ... | ... | $\cdots$ | $\cdots$ |

Religious Denominations of Brides and Bridegrooms.-The distribution of brides and bridegrooms by religious denominations is roughly the same as that for the population as a whole. Table 28 shows the very strong influence that religion has on marriage. About 71 p.c. of all marriages are between persons of the same religious denomination; among those of Jewish faith, it was 94 p.c. in 1952; among Roman Catholics 89 p.c.; United Church 62 p.c.; and Eastern Orthodox 58 p.c.

## 28.-Marriages, by Religious Denominations of Contracting Parties, 1952

(Exclusive of the Territories)

| Denomination of Bridegroom | Denomination of Bride |  |  |  |  |  |  |  |  |  | Total Marriages | Per-centage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Church } \\ \text { of } \\ \text { Eng. } \\ \text { land } \end{gathered}$ | $\begin{aligned} & \text { Bap- } \\ & \text { tist } \end{aligned}$ |  | Jew- ish | Latheran | Pres-byterisn | Roman Catholic ${ }^{1}$ | United Church | Other Sects | Not Stated |  |  |
| Church of <br> England........ | No. <br> 8,414 <br> 655 | No. | No. |  | No. | No. | No. | No. | No. | No. | No. |  |
|  |  | $\begin{array}{r} 659 \\ 2,057 \end{array}$ | 94 |  | 371 | 879 | 1,785 | 3,780 | $536$ | $3$ | 16,529 | 12.9 |
| Baptist... |  |  | 21 |  | 148 | 211 | 420 | 844 | 243 |  | 4,602 | $3 \cdot 6$ |
| Eastern Orthodox |  | 22 | 1,135 |  | 83 |  |  | 189 | 70 | - | 2,065 | $1 \cdot 6$ |
| Jewish. |  | 3 |  | 1,778 |  |  |  |  | 25 | - | 1,933 | 1.5 |
| Luther |  | 142 |  | 1 | 2,876 | 0 | 9 |  | 280 | - | , 389 | $4 \cdot 2$ |
| Presbyt | 1,062 | 26 |  |  | 168 | 2,115 | 630 | 1,374 | 214 | - | 5,8 | 4-6 |
| Roman Cat | 1,733 | 35 |  |  |  | 79 | ,589 | 2,014 | 730 | 5 | 57,980 | $45 \cdot 2$ |
| United Chu | 3,594 | 85 |  |  | 1 | 1,128 |  | 15.383 | 784 |  | 24,531 | 19.1 |
| Other sects | 9 | 30 |  |  | 323 | 4 | 941 | 983 | 5,859 | 2 | 9,363 | $7 \cdot$ |
| No | 10 |  |  |  |  |  |  |  |  |  | 38 |  |
| Totals | 16,769 | 4,662 | 1,8i3 | 1,845 | 3,364 | 5,185 | 58,457 | 25,369 | 8,744 | 28 | 128,301 | $100 \cdot 0$ |
| Percentages | 13-1 | $3 \cdot 6$ | $1 \cdot 5$ | 14 | $4 \cdot 2$ | $4 \cdot 0$ | $45 \cdot 6$ | 19.8 | 6.8 |  | $100 \cdot 0$ | 71 |

[^88]
## Subsection 2.-Dissolutions of Marriage (Divorces)

For many years after Confederation, the number of divorces granted in Canada was small. There were fewer than 20 divorces in every year before 1900, 21 in 1903, 51 in 1909 and 60 in 1913. These numbers represent less than one per 1,000 of the yearly number of marriages.

After the end of World War I in 1918 the number of divorces increased. The generally unsettled conditions and the long separation of men on Active Service from their wives may have contributed to this increase. Changes in law and procedure may also have been a further factor-at present, Quebec and Newfoundland are the only provinces in which applicants for divorce must secure a private Act of Parliament. The number of divorces increased from 11 in 1900 to a peak of 8,199 in 1947, declining gradually after that year until in 1951 they numbered 5,263 . The number rose again to 5,634 in 1952 and 6,055 in 1953.
29.-DissoIutions of Marriage (Divorces), by Province, 1900-53

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | North Territ | vest <br> ries | B.C. | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. |  | No. | No. |
| 1900.... | . | - | 1 | 1 | 1 | 2 | 1 | 1 |  | 4 | 11 |
| 1901.... |  | - | 10 | - | - | 2 | - |  |  | 7 | 19 |
| 1902.... |  | - | 9 | 1 | - | 2 | - |  |  | 3 | 15 |
| 1903.... | $\cdots$ | - | 8 | 4 | 1 | 2 | 1 | 1 |  | 4 | 21 |
| 1904.... | $\cdots$ | - | 6 | 2 | 1 | 5 | - |  |  | 5 | 19 |
| 1905.... | . | - | 6 | 2 | 3 | 2 | 2 | 2 |  | 18 | 35 |
|  |  |  |  |  |  |  |  | Sask. | Alta. |  |  |
| 1906.... | . | - | 5 | 1 | 3 | 10 | - | - | 1 | 17 | 37 |
| 1907..... | $\cdots$ | - | 8 | 3 | 1 | 3 | 1 | - | - | 9 | 25 |
| 1908.... | - | - | 5 | 5 | - | 8 | - | - | - | 12 | 30 |
| 1909.... | . | - | 8 | 5 | 4 | 8 | 2 | 1 | 1 | 22 | 51 |
| 1910.... | . | - | 13 | 6 | 2 | 14 | 3 | 1 | - | 12 | 51 |
| 1911.... |  | - | 10 | 6 | 4 | 13 | 3 | - | 2 | 19 | 57 |
| 1912..... |  | - | 4 | 4 | 3 | 9 | 1 | 1 | 2 | 11 | 35 |
| 1913.... |  | 1 | - | 4 | 4 | 20 | 6 | 1 | 4 | 20 | 60 |
| 1914..... | $\cdots$ | - | 10 | 12 | 7 | 18 | 2 | 2 | 4 | 15 | 70 |
| 1915..... | . | - | 13 | 6 | 3 | 10 | 1 | 1 | 3 | 16 | 53 |
| 1916.... |  | - | 14 | 11 | 1 | 18 | 2 | 2 | 1 | 18 | 67 |
| 1917.... | - | - | 8 | 6 | 4 | 10 | - | 1 | 2 | 23 | 54 |
| 1918.... | . | - | 24 | 10 | 2 | 10 | - | 1 | 2 | 65 | 114 |
| 1919. | - | - | 36 | 13 | 4 | 46 | 88 | 3 | 36 | 147 | 373 |
| 1920.... | . | - | 45 | 15 | 9 | 89 | 42 | 20 | 112 | 136 | 468 |
| 1921..... | . | - | 41 | 13 | 10 | 96 | 122 | 59 | 89 | 128 | 558 |
| 1922..... | * | - | 35 | 12 | 6 | 91 | 97 | 35 | 129 | 138 | 543 |
| 1923.... | . | - | 22 | 19 | 10 | 102 | 81 | 44 | 88 | 139 | 505 |
| 1924..... | . | - | 42 | 15 | 13 | 113 | 77 | 26 | 118 | 136 | 540 |
| 1925 ... | - | - | 30 | 15 | 13 | 119 | 79 | 43 | 101 | 150 | 550 |
| 1926..... | . | - | 19 | 12 | 10 | 111 | 85 | 50 | 154 | 167 | 608 |
| 1927..... | . | - | 29 | 17 | 13 | 181 | 101 | 62 | 148 | 197 | 748 |
| 1928.... | .. | - | 28 | 13 | 24 | 213 | 79 | 57 | 173 | 203 | 790 |
| 1929..... | $\cdots$ | - | 30 | 21 | 30 | 207 | 89 | 71 | 147 | 222 | 817 |
| 1830. | . | - | 19 | 27 | 41 | 204 | 114 | 64 | 151 | 255 | 875 |
| 1931..... | . | 1 | 36 | 20 | 38 | 91 | 94 | 55 | 157 | 208 | 700 |
| 1932.... | . | - | 35 | 26 | 27 | 343 | 114 | 66 | 150 | 245 | 1,006 |
| 1933.... | . | - | 27 | 12 | 24 | 307 | 116 | 48 | 138 | 258 | 930 |
| 1934..... | . | - | 33 | 17 | 38 | 365 | 126 | 67 | 170 | 306 | 1,122 |
| 1935.... | . | 2 | 52 | 36 | 28 | 491 | 145 | 68 | 225 | 384 | 1,431 |
| 1936.... | . | - | 41 | 38 | 40 | 519 | 179 | 84 | 218 | 451 | 1,570 |
| 1937.... | . | 2 | 36 | 53 | 43 | 607 | 200 | 112 | 259 | 520 | 1,832 |
| 1938.... | . | 2 | 51 | 39 | 83 | 824 | 205 | 126 | 271 | 625 | 2,226 |
| 1939.... | . | - | 64 | 40 | 50 | 747 | 181 | 133 | 272 | 581 | 2,068 |
| 1940..... | $\cdots$ | - | 60 | 52 | 62 | 916 | 206 | 125 | 274 | 674 | 2,369 |
| 1941.... | . | 1 | 68 | 87 | 48 | 949 | 242 | 146 | 311 | 609 | 2,461 |
| 1942.... | * | 2 | 70 | 69 | 71 | 1,185 | 284 | 209 | 375 | 824 | 3,089 |
| 1943.... | $\cdots$ | 2 | 73 | 114 | 90 | 1,243 | 277 | 174 | 413 | 877 | 3,263 |
| 1944.... | . | 3 | 93 | 781 | 108 | 1,471 | 316 | 226 | 484 | 1,009 | 3,788 |
| 1945.... | , | 2 | 158 | $171{ }^{1}$ | 177 | 1,940 | 405 | 282 | 575 | 1,366 | 5,076 |
| 1946..... | . | 4 | 260 | 382 | 290 | 2,639 | 636 | 505 | 962 | 2,005 | 7,683 |
| 1947..... | . | 18 | 207 | 236 | 348 | 3,509 | 665 | 509 | 881 | 1,826 | 8,198 |
| 1948.... | - | 49 | $78{ }^{2}$ | 211 | 292 | 3,107 | 477 | 333 | 651 | 1,683 | 6,881 |
| 1949.... | - | 20 | 1812 | 202 | 350 | 2,396 | 411 | 289 | 594 | 1,491 | 5,934 |
| 1950.... | - 5 | 13 | 199 | 194 | 234 | 2,228 | 309 | 280 | 534 | 1,377 | 5,373 |
| 1951.... | 4 | 10 | 187 | 156 | 289 | 2,102 | 361 | 226 | 589 | 1,339 | 5,263 |
| 1952.... | 3 | 9 | 188 | 200 | 309 | 2,202 | 338 | 223 | 630 | 1,532 | 5,634 |
| 1953.... | 9 | 15 | 185 | 181 | 273 | 2,719 | 374 | 218 | 603 | 1,478 | 6,055 |

${ }^{1}$ No fall term of court held in 1944; cases held over till January 1945.
${ }^{2}$ By a new rule adopted in August 1948, a decree nisi became absolute at the end of three months and as a result a number of divorces did not become effective until the following year.

## Section 6.-Vital Statistics of the Yukon Territory and the Northwest Territories

The vital statistics of Yukon Territory and the Northwest Territories have been collected since 1924. These statistics are not presented with those of the ten provinces in the tables of this Chapter because the figures for some of the early years are not considered complete in that the personal particulars frequently are not available, the small and varying population of each year is not accurately known and, as some areas are accessible only during the summer months, complete returns are not available sufficiently early in the calendar year for inclusion in the national totals for routine publication. A summary of the principal vital statistics for these Territories is presented in Table 30.

## 30.-Vital Statistics of the Yukon and Northwest Territories, 1926-52

Nots.-Figures for 1944-52 are by place of residence; for previous years by place of occurrence.

| Year | Yukon Territory |  |  | Northwest Territories |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Births | Marriages | Deaths | Births | Marriages | Deaths |
|  | No. | No. | No. | No. | No. | No. |
| Av. 1926-30... | 33 | 14 | 54 | 158 | 24 | 185 |
| ${ }^{\text {u }}$ 1931-35. | 49 | 24 | 61 | 190 | 41 | 137 |
| " 1936-40. | 67 | 36 | 72 | 228 | 72 | 177 |
| " 1941-45. | 105 | 60 | 96 | 383 | 95 | 332 |
| " 1946-50. | 254 | 73 | 91 | 626 | 139 | 372 |
| 1941.. | 72 | 36 | 67 | 314 | 82 | 306 |
| 1942. | 96 | 36 | 108 | 369 | 109 | 222 |
| 1933 | 99 | 67 | 120 | 403 | 94 | 304 |
| 194. | 136 | 94 | 100 | 316 | 66 | 349 |
| 1945. | 123 | 69 | 87 | 511 | 122 | 478 |
| 1946. | 146 | 66 | 80 | 593 | 177 | 347 |
| 1947. | 224 | 61 | 77 | 625 | 111 | 376 |
| 1949. | 274 | 77 | 112 | 645 | 117 | 370 |
| 1950. | 309 316 | 76 84 | 86 99 | 644 | 134 154 | 434 332 |
| 1951. | 342 | 68 | 85 | 649 | 110 | 284 |
| 1952.. | 390 | 73 | 94 | 642 | 100 | 341 |

## Section 7.-Canadian Life Tables

Three official life tables for Canada have been published: the first was calculated on the basis of the deaths of 1930-32 and the census population of 1931; the second on the basis of the deaths of 1940-42 and the census population of 1941 and the third was based on the Census of 1951 and deaths during 1950-52. In addition, tables have been computed for Canada as a whole for the years 1945 and 1947 based on estimated populations by sex and age and the deaths recorded as having occurred during those years. The life table values for 1951 are given in abbreviated form in Table 31.

Life tables give a summary of the health and general conditions of survival of the population in a conventional, standard form. A hypothetical number ( 100,000 ) of births of each sex is assumed as a starting point. The life tables show how, on the basis of the mortality rates at each age in the given years, these 100,000 of each
sex are reduced in number by death. For example, during the year 1951, of 100,000 males born, 4,325 died in their first year, so that 95,675 survived to one year of age; 326 died in their second year, so that 95,349 survived to two years of age; and so on. At 100 years of age, only 90 of the original 100,000 would have survived. The probability of death at each age is the ratio between the number of deaths and the population at each age. Finally, the expectation of iife is the average number of years which a person might expect to live if the mortality rates in the given years remained constant.
31.-Canadian Life Table, 1951

| Age | Males |  |  |  | Females |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number Living at Each Age | Number Dying Between Each Age and the Next | Probability of Dying Before Reaching Next Birthday | Expectation of | Number Living at Each Age | Number Dying Between Each Age and the Next | Proba- <br> bility of <br> Dying <br> Before <br> Reaching <br> Next <br> Birthday | Expectation of |
| At birth $\qquad$ <br> 1 year $\qquad$ <br> 2 years. $\qquad$ | 100,000 | $\begin{array}{r} 4,325 \\ 326 \end{array}$ | $\begin{array}{r} \cdot 04325 \\ \cdot 00341 \end{array}$ | $\begin{aligned} & 66 \cdot 33 \\ & 68 \cdot 33 \end{aligned}$ | $\begin{array}{r} 100,000 \\ 96,577 \end{array}$ | 3,423 | -03423 | 70.83 |
|  | 95,675 |  |  |  |  |  | .00299 | 72.33 |
|  | 95,349 |  | $.00180$ | $67 \cdot 56$ | 96,289 | 288 | -00154 | 71.55 |
| 3 " | 95,177 | 172 | $.00159$ | 66.68 | 96,141 | 148 | . 00114 | $70 \cdot 66$ |
| $4 \quad 1$ | 95,026 | . 00118 |  | 65.79 | 96,031 | 110 | -00092 | 68.74 |
| 5 " | 94,914 | .00101 |  | 64.86 | 95,943 | 318 | -00079 | 68.80 |
| 10 " | 94,480 | -00077 |  | 60.15 | 95,625 |  | . 00052 | $64 \cdot 02$ |
| 15 " | 94,083 | -00112 |  | $55 \cdot 39$ | 95,363 | 262 | . 00067 | $59 \cdot 19$ |
| 20 " | 93,437 | -00172 |  | 50.76 | 94,992 | 371 | -00091 | 54-41 |
| 25 " | 92,586 | -00182 |  | 46.20 | 94,527 | 465 | . 00106 | $49 \cdot 67$ |
| 30 " | 91,752 | -00189 |  | $41 \cdot 60$ | 93,993 | 534 | -00129 | 44.94 |
| 35 " | 90,824 | -00227 |  | 37.00 | 93,311 | 682 | . 00177 | $40 \cdot 24$ |
| 40 " | 89,649 | -00328 |  | 32.45 | 92,354 | 1,395 | -00257 | $35 \cdot 63$ |
| 45 " | 87,877 | 1,72 |  | 28.05 | 90,959 |  | -00387 | 31.14 |
| 50 " | 85,084 | 2,793 .00853 |  | 23.88 | 88,911 | 2,048 | . 00560 | 26.80 |
|  |  | 4,322 $\cdot 01348$ |  |  |  | 2,884 | -00834 |  |
| 55 " | 80,762 |  |  | 20.02 | 86,027 | 4,238 |  | 22.61 |
| 60 " | 74,444 | -02071 |  | 16.49 | 81,789 | 6,264 | -01308 | 18.64 |
| 65 " | 65,815 | 8,029 .03004 |  | 13.31 | 75,525 |  | -02040 | 14.97 |
| 6 |  |  |  |  | 8,949 |  |  |  |
| 70 " | 55,020 | 10,795 -04435 |  |  | 10.41 | 66,576 | 12,626 | -03308 | 11.62 |
| 75 " | 41,835 | 13,185 .06938 |  | 7.89 | 53,950 | . 05567 |  | 8.73 |
|  |  | 14,842 $\quad 10846$ |  | 5.84 |  | 16,238 | -09222 | 6.38 |
| 80 " | 26,993 |  |  | 37,712 | 16,944 |  |  |  |
| 85 " | 13,510 | 13,483 -16353 |  |  |  | $4 \cdot 27$ | 20,768 | -14637 4.57 |  |
| 90 " | 4,667 | 8,843 $\cdot 23667$ <br> , 718  |  | $3 \cdot 10$ | 7,937 | 12,831 | -22183 3.24 |  |
| 00 . |  |  |  |  |  | 6,181 |  |  |
| 95 " | 949 |  |  | $2 \cdot 24$ | 1,756 | 1,585 | -32229 2.27 |  |
| 100 " | 90 | . 44550 |  | $1 \cdot 60$ | 171 |  | . 45146 | 1.59 |

Mortality rates at all ages for males have almost consistently been higher than for females. Males have the highest risk of mortality as compared with females during their first year of life, from their late 'teens to early 30 's and from age 50 to 65 . For both boys and girls the risk of mortality drops rapidly during childhood and is lowest at about age 10, increases gradually to about age 40 for males and about 50 for females and then rises steeply with advancing age. At the mortality rates in the 1951 Life Table (see Table 31), about 15,000 males would have died before reaching age 50 as compared with only about 11,000 females, while only 55,000 of the original group of 100,000 males would have survived to age 70 as compared with about 66,500 women.

In 1951, life expectancy at birth reached new high records of 66.3 years for males and 70.8 for females, comparable to the expectancy for other countries of the world with highly developed medical and public health care. Once a child has passed its first year of life, however, its life expectancy increases appreciably. At one year of age a male child at present mortality risks may, on the average, expect to live an additional $68 \cdot 3$ years and a female $72 \cdot 3$ years, representing for an infant boy a gain of two full years more than its expectation at birth and 1.5 more years for an infant girl. The expectation of life of a 15 -year-old boy is $55 \cdot 3$ more years; of a 15 -year-old girl $59 \cdot 2$ years. At age 25 it is about 46 years for men and almost 50 for women and at age $70,10 \cdot 4$ for men and $11 \cdot 6$ for women.
32.-Expectation of Life, 1931, 1941 and 1951


Table 32 summarizes the life expectancy figures extracted from the Canadian Life Tables for 1931, 1941 and 1951. During this period life expectancy at birth increased from 60 to over 66 years for men and from 62 to $70 \cdot 8$ years for women. This is a gain for males of $3 \cdot 4$ years since 1941 compared with a gain of almost

3 years in the previous decade; females on the other hand gained 4.5 years since 1941 compared with $4 \cdot 2$ years in the preceding decade. Thus, since 1931, $6 \cdot 3$ years have been added to male life expectancy, while female longevity has been lengthened by 8.7 years.

The increases in life expectancy have been predominantly at the younger ages, particularly in infancy, and diminishing with advanced age. For example, since 1931, $2 \cdot 6$ years have been added to the life expectancy of a 5 -year-old male, $1 \cdot 7$ years to a 20 -year-old, almost half a year to a 40 -year-old and a bare quarter year to a 60 -year-old as compared with $6 \cdot 3$ years for a newborn male. During this period, life expectancy for a 5 -year-old female gained $5 \cdot 6$ years; for a 20 -year-old $4 \cdot 7$ years, 2.7 years for a 40 -year-old and 1.5 years for a 60 -year-old as compared with $8 \cdot 7$ years for a newborn female.

Longevity has improved for both sexes but more so and at all ages for females, whereas there has been only slight improvement for males beyond middle life. Briefly the rapid decline in the death rate for infants of both sexes is continuing, with slower declines with advancing age, so that relatively stationary death rates have been established from about 50 onwards for males and from about 80 for females.

The fact that such a pattern exists is important in interpreting the results of these life tables. It must be remembered that the arbitrary population of 100,000 of each sex has been subjected here to the mortality rates in effect in 1950-52, and their life expectancy computed as if those death rates at each age were to prevail during their life time. Actually the theoretical 200,000 infants born in 1950-52 will most probably have a pattern of survival and life expectancy quite different from that of the present life table since they will spend most of their lives under conditions of public health and medical care which in all likelihood will be superior to those prevailing in 1950-52.

The improvement in life expectancy, particularly among children and adolescents is owing mainly to the substantial reduction, in recent years, of mortality from infectious diseases; on the other hand, diseases associated with middle and old age are much less amenable to control. It is therefore unlikely that improvement in life expectancy in the future will be comparable to that of the last two decades. As roughly 12 p.c. of all annual deaths occur among infants, and an additional 70 p.c. among persons over 50 , any further improvement must come as the result of further declines in mortality from conditions associated with childbirth and early infancy, further control of infectious diseases, prevention of accidents, and advances in combatting diseases associated with middle and old age, such as cardio-vascular-renal conditions and cancer.

## Section 8.-Communicable Diseases

Statistics and information on communicable diseases can be found under "Notifiable Disease Statistics", Chapter VI, Public Health, Welfare and Social Security, on pp. 246-249.

## CHAPTER VI.-PUBLIC HEALTH, WELFARE AND SOCIAL SECURITY

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Nors.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p$. 1 of this nolume.

A special article on the development of public health, welfare and social security in Canada appears in the 1952-53 Year Book, pp. 224-229. That article outlines the evolution of provincial and municipal administration, the development of federal responsibility, and governmental expenditure in the fields of health, welfare and social security. A special article dealing in detail with the National Health Grant Program appears at pp. 215-223 of the 1954 edition. For net general and capital expenditures on health and welfare and total spent, by level of governments, for the years 1947-53 see chart on the following page.

## PART I.-PUBLIC HEALTH*

The planning, supervising and financing of public health and medical care services in Canada rest mainly with the provinces though the actual administration of services is conducted, in most provinces, by municipal and other local authorities. The Federal Government provides consultative and specialist services, assists in the financing of provincial health activities through the National Health Grant Program, and also maintains services for special groups such as veterans and Indians. The functions of the Federal Government are described in Section 1, provincial and municipal health activities are reviewed in Section 2, and hospital statistics are given in Section 4.

[^89]

## Section 1.-Federal Health Activities

Federal participation in health matters is largely centred in the Department of National Health and Welfare, with certain important programs being administered by the Department of Veterans Affairs, which provides medical and hospital care to veterans chiefly for disabilities resulting from war service; the Department of National Defence, responsible for the health of the Armed Forces; the Medical Division of the National Research Council, which administers grants for medical research; and the Dominion Bureau of Statistics, responsible for the collection and compilation of health statistics. The Department of Agriculture has certain responsibilities in connection with food production.

Under the Department of National Health and Welfare Act of 1944, the Department is responsible for the administration of certain statutes, for research in health matters, for the carrying out of international health obligations undertaken by Canada and, in co-operation with the provinces, for the preservation and improvement of public health.

Under the Quarantine Act, the Department maintains a maritime and aerial navigation quarantine service against entry of infectious diseases; it advises on the administration of sections of the Immigration Act dealing with health, and conducts, in Canada and overseas, the medical examination of applicants for
immigration. It also provides care for sick mariners as required under Part V of the Canada Shipping Act, and has certain national and international responsibilities with regard to the pollution of boundary and other waters.

Under the Food and Drugs Act, the Proprietary or Patent Medicine Act and the Opium and Narcotic Drug Act, the Department is responsible for the control of the safety and purity of food and drugs; the registration, preparation and sale of proprietary or patent medicines; and control of the import, export and distribution of narcotic drugs.

The Department advises on the visual eligibility of applicants for blindness allowances and co-operates with the provinces in the provision of surgical or remedial treatment for selected recipients of these allowances; it is responsible for supervision of health conditions for persons employed on federal public works, as provided under the Public Works Health Act, and maintains a program for the conservation and promotion of the health of civil servants and other Federal Government employees. Medical advisory services are provided for the Department of Transport in all matters pertaining to the safety, health and comfort of air crew and passengers.

The National Health Grant Program.*-The National Health Grant Program, introduced in 1948, provides for the payment of federal grants to the provinces for the development of health and hospital services; at the present time 12 grants are available.

Since the inception of the program the provinces have steadily increased their utilization of the grants. The annual amounts of expenditure in each fiscal year have been as follows: $1948-49, \$ 7,600,000 ; 1949-50, \$ 15,500,000 ; 1950-51, \$ 18,700,000$; 1951-52, $\$ 23,900,000$; 1952-53, $\$ 27,300,000$; and $1953-54, \$ 29,500,000$. Between 1948 and 1953, expenditures amounted to $53 \cdot 1$ p.c. of the funds available; figures below show that the proportion for 1953-54 was $60 \cdot 2$ p.c.

[^90]| Grant | Amount Available ${ }^{\text {I }}$ | Amount <br> Expended | Percentage Expended ${ }^{2}$ |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | p.c. |
| Cancer control. | 3,598,795 | 2,363,488 | $65 \cdot 7$ |
| Crippled children | 519.898 | 4,49,213 | 86.4 |
| General public health | 7,215,000 | 5,081,778 | $70 \cdot 4$ |
| Hospital construction. | 19,850,6513 | $9,114,164$ | 45.9 |
| Mental health. | 6,203.652 | 5,193,141 | $83 \cdot 7$ |
| Professional training. | 516.300 | 699,782 | 135.5 |
| Public health research | 512.900 | 436,654 | 85.1 |
| Tuberculosis control..... | 4,239,531 | 4,460,766 | $105 \cdot 2$ 86.3 |
| Child and maternal healith | 518.099 500.000 | 447,339 114,342 | 86.3 22.9 |
| Laboratory and radiological servicesi | 500.000 $4,329.000$ | 114,342 764,740 | 22.9 17.7 |
| Medical rehabilitation4. | 500,000 | 58,522 | 11.7 |
| Totals. | 48,503,826 | 29,183,929 | 60.2 |

[^91]Under the Program up to the end of the fiscal year 1953-54, aid for construction was approved for 49,000 beds, over 6,000 bassinets, approximately 6,400 nurses' beds and space in community health centres and combined laboratories exceeding 3,000 bed equivalents. Approximately 6,500 health workers had been trained or were undergoing special training, and more than 4,800 additional health workers had been employed with federal grant assistance. Preventive and treatment services across the country had been greatly extended, health facilities had been aided by the purchase of additional technical equipment and a significant increase in health research had been made possible.

Federal Grants to Non-governmental Organizations.-Grants are paid directly to the following non-governmental agencies engaged in health work: the Canadian Red Cross Society, the Canadian Tuberculosis Association, the Victorian Order of Nurses, the St. John Ambulance Association, the Canadian Paraplegic Association, the Canadian Mental Health Association, the Health League of Canada, the Canadian Public Health Association, the Canadian National Institute for the Blind, L'Association Canadienne-Française des Aveugles, L'Institut Nazareth de Montréal, the Montreal Association for the Blind and the Canadian Ophthalmological Society.

Federal grants are also provided under the National Health Grant Program to assist in the operation of special treatment services carried out in a number of provinces by voluntary organizations, such as the Canadian Arthritis and Rheumatism Society and various agencies engaged in the rehabilitation of crippled children.

Medical Care of Indians and Eskimos.-Health services for Indians and Eskimos are administered by the Department of National Health and Welfare. In 1953, 20 hospitals, 42 nursing stations and 61 other health centres were operated by the Department which also reimburses, on a per diem basis, the mission and other non-federal hospitals that provide accommodation for Indians and Eskimos. Full-time departmental medical officers serve the larger Indian reserves and parttime officers serve the smaller bands. In some cases, fees are paid to local physicians for services to Indians.

Consultative and Co-ordinating Services.-The principal co-ordinating agency in the health field in Canada is the Dominion Council of Health, which is composed of the Deputy Minister of National Health who serves as chairman, the chief health officer of each province and five other persons. The Council advises the Minister of National Health and Welfare on the formulation of policy. It is largely responsible for the development of a co-operative health program and for the establishment of services by the Federal Government to assist the provincial health departments. Federal-provincial committees of the Council deal with specific aspects of public health.

Certain Divisions of the Department provide technical information and advice concerning the evaluation of programs and procedures and the establishment of standards in various health fields, and conduct surveys in research and development both independently and in co-operation with other departments and agencies. These Divisions include Blindness Control, Child and Maternal Health, Occupational Health, Nutrition, Mental Health, Dental Health, Epidemiology, Hospital Design, the Laboratory of Hygiene, Information Services, and Research.

## Section 2.-Provincial and Municipal Health Activities

Health services in the provinces are administered in different ways but provincial functions commonly include central planning and administration; the operation of special programs affecting the entire province in such fields as cancer, mental health, tuberculosis and laboratories; consultant service to local authorities; the administration of regulations governing local services; the provision of basic services in areas without municipal organization; and participation in the work of local health units in areas where that type of administration has been developed.

At the local level, responsibility for services varies widely, but municipalities in most provinces provide a range of basic public health services and participate in the casts of hospital care for indigents. In recent years there has been a rapid growth of health services in smaller centres and rural areas through the organization of health units with full-time staff serving counties or other combinations of local government areas. This type of organization, which concentrates on a generalized health program that includes public health nursing, sanitary inspection, communicable disease control, child, maternal and school hygiene and health education, has been introduced in most provinces; financial and administrative responsibility is shared by the provincial and local authorities involved. Despite a trend towards greater provincial participation in these local units, many remain under local administration as do the highly developed health departments found in the larger cities. Outside of fully organized health-unit areas, municipalities usually appoint part-time medical officers and other personnel while the provincial authorities assume responsibility in the areas lacking municipal organization.

Newfoundland.-Health measures in Newfoundland are centrally administered by a Department of Health. Its main functions include the operation of tuberculosis, venereal disease and other communicable disease control programs, nutrition and sanitary inspection services, and the provision of prepaid medical, hospital and nursing care throughout large areas of the Island.

The Provincial Tuberculosis Dispensary at St. John's provides free diagnostic and treatment services, and acts as a centre for tuberculosis control. The Province subsidizes additional tuberculosis control services conducted in northern areas by the International Grenfell Association and the Notre Dame Bay Memorial Hospital, and assists X-ray surveys by the Newfoundland Tuberculosis Association, which maintains a number of mobile X-ray units.

Provincially administered venereal disease facilities include one central clinic in St. John's and part-time clinics at various cottage hospitals throughout the Province. Free treatment services and drugs for venereal disease are available to all persons attending the central clinic, all cottage hospital subscribers and medical indigents.

A school health program includes educational work and such nutritional activities as the distribution of chocolate milk-powder and cod-liver oil. Public dental services for school children are made available through a provincial clinic at St. John's, and a sea-borne dental clinic in the Bonne Bay area, operated by the Junior Red Cross.

The Department of Health operates a general hospital, two tuberculosis sanatoria and a hospital for mental and nervous diseases. Hospitals operated by voluntary organizations receive per diem payments for departmental cases and, in certain outlying areas, substantial provincial grants.

The "cottage hospital" scheme operates on a voluntary prepayment basis and is designed to provide hospital service to approximately 150,000 and domiciliary medical care to about 100,000 of the population of outlying areas. Services are provided through 17 small provincially operated hospitals having a total capacity of about 430 beds; most of them are equipped with laboratory and X-ray facilities. Medical officers and nursing stations in adjoining communities supplement these services. In most cottage hospital areas, prepayment of $\$ 15$ annually for the head of each family and $\$ 7 \cdot 50$ for single adults entitles subscribers to out-patient diagnosis and treatment, to home visits by the doctor and to hospitalization, as required. When necessary, hospitalized cases may be referred to the general hospital at St. John's or to hospitals outside the Province. Hospitalization for maternity is provided only in complicated cases. In three areas, additional premium pay'ments are required to purchase medical services outside of hospitals. In districts not served by doctors, nursing services are provided on payment of a small annual fee. In general, the cost of medical and hospital care for indigents is borne by the Province, but beneficiaries under such programs as federal Old Age Security are usually required to pay premiums in cottage hospital areas.

Prince Edward Island.-The Health Branch of the Department of Health and Welfare includes Divisions of Public Health Nursing, Nutrition, Sanitary Engineering, Dental Health, Laboratories, Venereal Disease Control, Cancer Control, Tuberculosis Control, Mental Health and Vital Statistics.

Generalized public health nursing services are conducted by ten district nurses, and sanitary services are provided by three inspectors under the direction of a public health engineer. Free dental treatment is available for needy children at permanent clinics in Charlottetown and Summerside and for children in Grade I classes in rural areas through two mobile units. Laboratory facilities are being decentralized through the establishment in the larger hospitals of branches that remain under the supervision of the Central Laboratory at Charlottetown. A provincial venereal disease clinic is operated at Charlottetown.

Free diagnostic services for tuberculosis are made available through two stationary clinics and a mobile unit operated by the Division of Tuberculosis Control; in addition a mobile X-ray unit is provided by the Tuberculosis League. At the Provincial Sanatorium at Charlottetown, treatment services though not unqualifiedly free, are heavily subsidized by the Province; rehabilitation training and employment-placement services are provided. The Sanatorium contains a special treatment unit for poliomyelitis patients with residual paralysis; the Province pays one-half the cost of hospital care, physiotherapy and special nursing services.

Free diagnostic services for cancer are given at a clinic located at Charlottetown. Hospitalization for diagnosis is provided without charge for a period of three days for indigent cancer patients. A mental health diagnostic clinic has been opened at Charlottetown, and a speech therapy service has been established for school children with speech and hearing impairments.

Per diem grants are made to general hospitals for all patients and the Province also defrays the cost of operating the Falconwood Mental Hospital and the Provincial Infirmary.

Nova Scotia.-The principal Divisions of the Department of Public Health are Laboratories, Neuropsychiatry, Hospitals, Vital Statistics, Dental Hygiene, Nutrition, Nursing Service and Sanitary Engineering. In addition, a provincial
program of generalized public health services is administered through eight local health divisions, each staffed by public health nurses and sanitary inspeectors under the supervision of a full-time divisional medical health officer. The City of Halifax operates its own Health Department.

Laboratory services, including bacteriological and other examinations and milk and water analyses, have been improved and extended through the work of the Provincial Central Laboratory at Halifax and branch laboratories at Sydney and Kentville. Laboratory tests and field investigations are also conducted by the Section of Industrial Hygiene in the Division of Laboratories.

Field services for the detection of tuberculosis and venereal disease are mainly provided through eight provincially administered local health divisions. In addition, the Department maintains 12 clinics for the free treatment of venereal disease, and conducts mass tuberculosis X-ray surveys in co-operation with the Nova Scotia Tuberculosis Association. Free treatment for tuberculosis is provided in three provincial sanatoria and the municipal sanatorium at Halifax.

Community mental health services include clinics at Sydney and Digby, and an in-patient and out-patient psychiatric service at the Victoria General Hospital, Halifax. Institutional facilities for mental patients include one active treatment mental hospital operated by the Department of Public Health, a training school for mental defectives maintained by the Department of Welfare and 17 county homes administered by local government authorities.

Three provincial mobile dental clinics provide treatment for children in rural areas. A cancer clinic and a treatment clinic for poliomyelitis form part of the service at the provincially owned Victoria General Hospital. All approved general hospitals receive a provincial per diem subsidy for each patient.

Recipients of blind persons' allowances and mothers' allowances are eligible for limited medical services from the Medical Society of Nova Scotia, including physician's care in the home and office but excluding hospital attendances, surgery, and medical aids or appliances. Under the Hospital Act of Nova Scotia, persons in any of the public-assistance categories as well as other indigents are entitled to receive hospitalization as a municipal responsibility.

New Brunswick.-The Health Branch of the Department of Health and Social Services includes the following Divisions: Hospital Services and Cancer Control, Laboratories, Public Health Nursing, Communicable and Venereal Disease Control, Tuberculosis Control, Maternal and Child Health, Dental Health, Mental Health, and Sanitary Engineering.

Medical health officers and most public health nurses are employed by the Province while other local health services are provided through 16 local sub-districts, each corresponding to a county and each having a board of health composed of members appointed by municipal councils. Responsibility for the various local public health functions is divided between the Province and the boards of health. Usually, from two to four sub-districts are serviced by a district medical health officer assisted by public health nurses. Certain locally administered nursing services are subsidized by the Province.

Pathological, bacteriological, serological and chemical tests are provided by the Provincial Laboratories at Saint John and Fredericton which also supervise the distribution of vaccines, sera and bacteriologicals, including free immunizing
agents, drugs for the treatment of venereal diseases and insulin for indigent diabetics. A Mobile Hygiene Laboratory conducts analyses of milk and of water during the summer months.

Free diagnostic services for tuberculosis are provided by district medical health officers in eight centres, and by a central clinic operated by the New Brunswick Tuberculosis Association at Saint John. The Health Department supervises and provides free treatment in two privately operated, one municipal and two provincially owned sanatoria. One clinic for the treatment of venereal disease is operated at Saint John.

Ten cancer diagnostic clinics provide free diagnosis and free tissue-examination service. X-ray and radium treatments are provided without charge in four of the larger hospitals to patients who come under the supervision of the cancer clinics. Acute and immediate post-paralytic cases of poliomyelitis also receive free hospital treatment and grants are made to the Junior Red Cross to provide free treatment for other crippling conditions in children.

A mental health program includes the operation of three preventive and diagnostic clinics and provides special psychiatric training for teachers on regular school staffs in the larger centres. Hospitalization for mental illness is available in the provincial hospitals at Lancaster and Campbellton.

Provincial per diem grants are paid, on behalf of all patients, to approved general hospitals.

Quebec.-The Ministry of Health maintains the following Divisions: County Health Units, Sanitary Engineering, Epidemiology, Laboratories, Demography, Psychiatric Hospitals, Public Charities, Industrial Hygiene, Nutrition, Venereal Disease, Tuberculosis, Health Education, and Medical Services to Settlers.

The Division of County Health Units supplies services through 67 county and multi-county health units covering more than 60 p.c. of the population of the Province. The maintenance and operation of these units, each with a full-time medical health officer assisted by public health nurses and sanitary inspectors, is the responsibility of the Ministry of Health, with small local financial contributions. In addition, full-time health departments operated by the larger cities serve more than one-third of the provincial population. Drugs supplied by the Provincial Department to physicians and health units include vaccines, sera, streptomycin for sanatoria patients and penicillin for venereal disease. Laboratory services, including bacteriological and other analyses, are available to physicians and health units at the Central Laboratory, Montreal.

The Province organizes tuberculosis clinics in rural areas and gives assistance to city agencies operating clinics or dispensaries for prevention, case-finding and treatment. BCG immunization against tuberculosis, administered to new-born infants in hospitals and available to children generally through the health units, is a special feature of the control program. The Department supervises tuberculosis sanatoria and mental institutions, which are operated chiefly under private and religious auspices; in these, the majority of patients receive care without charge.

The Medical Services to Settlers Division provides free nursing and physician services to residents of isolated areas. The staff consists of salaried nurses and parttime physicians paid on a fee-for-service basis. Services given include obstetrical care, examinations, vaccinations and immunizations, and emergency medical care.

No specially organized program of medical care exists for public assistance recipients in Quebec, although free care to indigents is available from a variety of dispensaries, clinics and other charitable agencies. Under the provisions of the Public Charities Act, free public hospital care is provided to persons unable to pay, with about 50 p.c. of the cost assumed by the Province, 15 p.c. by the responsible municipality and the remainder by the recognized agency providing the service.

Ontario.-The Department of Health carries on public health services through the following Divisions: Health Units, Public Health Nursing, Maternal and Child Hygiene, Dental Services, Epidemiology, Venereal Disease Control, Tuberculosis Prevention, Industrial Hygiene, Laboratories, Medical Statistics, Mental Health and Ontario Hospitals, Nursing, Public and Private Hospitals, and Sanitary Engineering.

Local public health services are available to more than one-quarter of the population through 27 health units administered locally but with consultative services and financial support supplied by the Department. Elsewhere, local services are organized through full- or part-time municipal health departments, and by the Province in unorganized territory. Provincial grants are made to local boards of health for school dental services and venereal disease clinics. Special grants are made to hospitals for the treatment of first admission poliomyelitis patients.

Public health legislation affecting water supplies, milk and food and other environmental sanitation is administered by the Department. Maternal and child health care is provided through clinics and, in addition, any expectant mother may receive one free pre-natal examination. Systematic dental examinations for children combined with instruction in dental hygiene have been initiated in four local health units and two city health departments; school dental treatment services are provided by various municipalities. In northern areas, two railway dental cars operated by the Province and three mobile units maintained by the Red Cross provide educational and treatment services in less-populated districts.

The Central Laboratory, eleven regional laboratories, six subsidized associated laboratories and one mobile unit carry out bacteriological and other examinations for clinics, hospitals and private physicians. Biologicals and other materials for the prevention and control of communicable diseases, insulin for indigent diabetics and streptomycin for tubercular patients are distributed free of charge by the Department. Chest clinics, held in more than 200 centres, are financed mainly through funds of local tuberculosis associations and the Department. The Province pays the major portion of the cost of maintaining patients in 14 sanatoria operated by voluntary groups. Cancer control services are administered by the Ontario Cancer Treatment and Research Foundation and provincial grants are given to this organization to subsidize diagnosis and treatment in eight regional centres. Care is provided for the mentally ill in 17 institutions operated by the Province, these include special units for mental defectives, epileptics, the tubercular and the criminally insane. Community mental health services such as psychiatric wards in general hospitals, travelling clinics and child guidance centres have been widely developed by general and mental hospitals, municipal health departments and other agencies. The Ontario Alcoholism Treatment and Research Foundation operates a special treatment centre for alcoholics.

A formal arrangement between the Province and the Ontario Medical Association makes limited medical services available to the recipients of all types of public assistance, including former means-test old age pensioners now receiving the universal pension, and persons receiving old age assistance, blindness allowances, mothers' allowances, and unemployment relief. New applicants for the universal old age pension may qualify under the medical plan on a means-test basis. Recipients of Ontario's disabled persons' allowances (for permanently disabled persons 18 to 65 years of age) have also been included since the inauguration of this new category program in July 1952. The medical program includes the services of a physician in his office or the patient's home, necessary consultations, home confinements, certain diagnostic services and emergency drugs. With the exception of unemployment relief cases where the costs are shared equally by the Province and the responsible municipality, the Province assumes the costs of such services which are paid on a fee-for-service basis from a special fund.

Provincial per diem grants, which vary according to hospital size, are paid to all public hospitals on the basis of public-ward bed days. Special per diem grants are also made by municipalities on behalf of hospitalized indigent residents, including public assistance recipients.

Manitoba.-The Health Branch of the Department of Health and Public Welfare includes Sections of Extension Health Services, Preventive Medical Services, Environmental Sanitation, Laboratory Services and the Division of Psychiatric Services.

Local preventive health services including health and laboratory and X-ray units are operated by the Health Extension Section which recovers part of the costs from the municipalities served. Public health services, currently covering approximately one-third of the Province's population, are provided through 13 full-time units, each comprising a variable number of municipalities; another third of the population is covered by Winnipeg's health service facilities. In three health-unit areas, prepaid diagnostic X-ray and laboratory facilities have been organized. Outside the health-unit areas, the Provincial Nursing Service provides certain public health services. Mobile clinics provide dental services for children in rural areas.

Under a system of district organization for hospital facilities, 34 hospital districts have been established; all but two contain at least one general hospital augmented in many cases by one or more medical nursing units. Municipal prepayment plans for medical care operate in a number of medical-care districts.

Provincial mental institutions are operated at Winnipeg, Selkirk and Brandon and a school for the mentally defective at Portage la Prairie. Community mental health services are also conducted, including out-patient services at mental hospitals and child guidance clinics.

Provincially operated clinics provide preventive and treatment services for venereal disease. Tuberculosis control is administered by the Sanatorium Board of Manitoba and services include diagnostic and travelling clinics, chest X-ray. surveys and a rehabilitation program. The Province assists in the program by maintaining a Central Registry of Tuberculosis and a follow-up service for discharged patients carried out by public health nurses. The cost of hospitalization and treatment in sanatoria is met by provincial grants. The Manitoba Cancer Relief and Research Institute, which is subsidized by the Province, administers all cancer activities. A free cancer biopsy service is available and diagnostic
services are provided to medically indigent rural residents. Radium and X-ray treatments are available without charge to rural residents and at a nominal charge to residents of Greater Winnipeg.

Laboratory services are provided through provincial laboratories at Winnipeg and Brandon. In addition, the Department distributes, to doctors, hospitals and government agencies, penicillin and other drugs for the treatment of venereal disease, insulin and other biologicals for indigents and antibiotics for tubercular patients.

The Provincial Government contributes a grant of one dollar per diem to hospitals and sanatoria for all public-ward patients and lump-sum grants to teaching hospitals.

Public assistance recipients in Manitoba are eligible for limited medical, dental and optical care, on a means-test basis, with the major share of the cost of services assumed by the responsible municipality. Hospital care is provided on a similar basis, municipalities making a per diem payment for persons with local residence, in addition to the provincial per diem grants. The Province assumes the cost of medical and hospital care provided to some indigents who are unable to establish local residence.

Saskatchewan.-The Saskatchewan Department of Public Health has five main Branches: Regional and Preventive Health Services, Medical and Hospital Services, Psychiatric Services, Research and Statistics, and Administrative Services. The Health Services Planning Commission functions as an advisory and planning agency on major policy and administrative matters in the Department.

The Regional and Preventive Health Services Branch includes Divisions of Communicable Disease Control, Child Health, Venereal Disease Control, Nursing Services, Dental Health, Nutrition and Sanitation. These Divisions organize province-wide programs and provide consultative services to local health personnel. The Communicable Disease Control Division distributes free vaccines and sera, and supervises immunization programs. Four clinics for diagnosis and treatment are maintained by the Venereal Disease Control Division. Field services for venereal disease, tuberculosis, mental health and other public health programs are supplied by the Nursing Services Division. Public health laboratory services and the free distribution of certain drugs and biologicals are carried out by the Provincial Laboratories.

The Regional Health Services Branch is also responsible for the organization of health regions which are administered by locally elected health boards although staff is appointed and financial assistance is provided by the Province. Eight of the proposed regions are currently in operation. In addition to the general public health services provided in all regions, the Swift Current Health Region has a prepaid medical-care plan including general practitioner, specialist and diagnostic care for all residents, and limited dental services for children. The plan is financed by personal and property taxes with some Provincial Government contributions. Dental health programs for children have been launched in two other regions.

The Medical and Hospital Services Branch is responsible for the operation of the Saskatchewan Hospital Services Plan, administers the program of medical services to public assistance recipients, supervises the operations of the municipal doctor programs and the Air Ambulance Service, and administers a rehabilitation program for crippled children and poliomyelitis patients through the Physical

Restoration Division. In addition to free hospital care, complete medical as well as dental and optical services, including some auxiliary services, are provided to the recipients (including spouses) of the universal old age pension who were formerly in receipt of the old age means-test pension or who can qualify for the provincial supplementary allowance. Persons and their dependants receiving blindness or mothers' allowances, social aid cases and provincial wards are also eligible. Drugs are provided subject to deterrent charges paid by patients of 20 p.c. of the cost. The Provincial Government meets the expenses under the medical program and, for most of these cases, the hospital insurance tax as well. Provincial subsidies of 25 cents per capita per annum and equalization grants are paid to about 100 municipalities with municipal doctor contracts.

The Psychiatric Services Branch supervises psychiatric hospitals and administers community psychiatric services including clinics. Free care and treatment is given for all mentally ill and mentally defective persons requiring hospitalization. The tuberculosis control program, operated by the Saskatchewan Anti-tuberculosis League, includes preventive and treatment services, the latter financed by provincial per diem grants and municipal levies. The Saskatchewan Cancer Commission co-ordinates all cancer-control measures and operates publicly financed consultative, diagnostic and treatment clinics at Saskatoon and Regina.

Under the Saskatchewan Hospital Services Plan, which is a universal compulsory hospital-insurance scheme, most residents are eligible for in-patient publicward care by the annual prepayment of a personal tax of $\$ 15$ by all persons 18 years of age or over or self-supporting, and of $\$ 5$ for each dependant under 18 years of age, with a maximum family tax of $\$ 40$. Additional funds are provided by the Province, as needed, from general revenue, including, since April 1950, one-third of the proceeds of a 3-p.c. sales tax.

Alberta.-The Department of Public Health includes Divisions of Communicable Diseases and Health Units, Public Health Education, Hospital and Medical Service, Municipal Hospitals, Laboratory, Public Health Nursing, Social Hygiene, Sanitary Engineering, Cancer Services, Mental Health, Tuberculosis Control, Health Entomology, Nutrition Services and Vital Statistics.

For the provision of local health services, the Province is divided into healthunit districts. The units are administered, with Departmental supervision and financial aid, by local boards of health composed of members appointed by local governments. Fourteen units are directed by full-time medical health officers and two units by public health nurses. Outside the health-unit areas, the Department operates a district nursing service in outlying communities and is generally responsible for health services in unorganized territory. The larger cities have their own full-time health departments.

Free services regularly provided through Departmental clinics include diagnosis and treatment for venereal disease, medical examination for cancer, mental guidance and psychiatric examinations, X-ray examinations and tests for tuberculosis at stationary and travelling clinics, and mobile X-ray units. Provincial laboratory services at Edmonton and Calgary are available to all doctors and approved hospitals, and sera and biologicals are distributed for preventive work.

On the recommendation of provincial cancer clinics, surgical, X-ray and radium treatment, and hospitalization up to a limit of seven days for diagnostic purposes are provided by the Department. There are four provincial institutions for the mentally ill and one for mental defectives. Sanatoria care and treatment are provided without
charge for all resident tubercular patients and out-patient pneumothorax services are also available. The Department bears the cost of hospital and medical care for rheumatoid arthritic patients under 25 years of age and provides all residents suffering from poliomyelitis with medical, surgical and hospital care and rehabilitation services. Provision has been made to extend treatment services to cerebral palsy patients. All maternity patients satisfying resident requirements may be hospitalized for a 12 -day period at provincial expense, and a provincial grant is authorized to assist those who receive maternity services at home.

By agreement with the Alberta College of Physicians and Surgeons and the Dental Association, medical, optical and some dental services are provided to all persons (and dependants) on the universal old age pension who were formerly in receipt of the means-test pension or who can qualify for the provincial supplementary allowance, as well as recipients of old age assistance or blindness or mothers' allowances. The Province assumes the cost involved and also reimburses the municipalities for 60 p.c. of their expenditure on any medical care provided to local indigents. An agreement exists with the Associated Hospitals of Alberta under which public assistance recipients receive standard public-ward care and necessary drugs, for which the Province pays reduced per diem rates.

A municipal hospital program provides standard hospitalization for nearly all the population of the Province. The plan is operated at the local level, under provincial supervision, with costs distributed among the patient, the municipality and the Provincial Government. The patient is charged $\$ 2$ per day and the municipality meets the remainder of agreed charges for public-ward care and extra services. The Provincial Government then reimburses the municipality for onehalf of this amount.

British Columbia.-The Health Branch of the Department of Health and Welfare consists of three bureaux, two located at Victoria and one at Vancouver. The Bureau of Local Health Services at Victoria includes Divisions of Health Units, Public Health Nursing, Public Health Engineering, Environmental Management, and Preventive Dentistry. The Central Administration Bureau, also at Victoria, includes Vital Statistics and Public Health Education. The Divisions of Tuberculosis Control, Venereal Disease Control and Laboratories form the Bureau of Special Preventive and Treatment Services, located at Vancouver.

The provision of local public health services is on a health-unit basis. These units are administered and staffed by the Province but are jointly financed by the Province and the local municipalities concerned. Sixteen units, covering 50 p.c. of the population, are in operation. In isolated areas, Public Health Nursing Districts, staffed by public health nurses and sanitary inspectors, are forerunners of fully organized health units. The cities of Vancouver and Victoria have their own health departments.

Special provincial public health services include tuberculosis clinics which provide free diagnostic and consultative service, venereal disease clinics which offer free diagnosis and treatment, and maternal and child health clinics operated by public health nurses which provide immunization and pre-natal and post-natal advice. Branch laboratories are maintained in various parts of the Province through which immunizing agents are distributed free of charge to doctors, health officers and public health nurses. Children's preventive dental programs, provincially subsidized, have been organized in four local health units. In addition, child dental clinics with local dentists participating are established in 43 communities, the
costs being met equally by the community and the Province. In connection with mental health services, the Province operates stationary and travelling child-guidance clinics. A clinic of psychological medicine at the provincial hospital at Essondale functions as an investigatory and active treatment centre for short-term patients.

Provisions for the treatment and control of cancer, which include a treatment centre and a nursing home at Vancouver, consultative clinics located throughout the Province and a free province-wide biopsy service, are the responsibility of the British Columbia Cancer Foundation, an official agent of the Provincial Government. The Province pays the operating costs of the Foundation and helps finance voluntary programs concerned with the physical rehabilitation of paraplegics and cerebral palsied children, the care and treatment of arthritics, and the maintenance of bloodtransfusion services.

Institutions for the care of tubercular and mental patients and infirmaries for persons with incapacitating disabilities are operated by the Province. Indigents are hospitalized in these institutions at public expense while other patients pay if financially able. Rehabilitation services are available to tubercular and mental patients.

Full medical, dental and optical care, prescribed drugs and some auxiliary services are provided to all persons (and their dependants) receiving the universal old age pension who were formerly on the means-test old age pension or who can qualify for the provincial supplementary allowance, and to recipients (including dependants) of old age assistance, blindness or mothers' allowances, local relief and to certain child wards. The Provincial Government assumes the costs of hospitalization for all such persons. Where they hold municipal residence, the Province assumes 80 p.c. of the cost of the medical program, the remainder being shared by all municipalities on a population basis.

Public-ward hospital services are available to all provincial residents through a public hospital-care program administered by the Hospital Insurance Service. Before 1954, the plan was financed mainly by flat-rate premiums, but costs now are met from general revenues and part of the provincial sales tax. Payment of $\$ 1$ for each day of hospitalization, with no maximum, is required of patients.

## Section 3.-Health Statistics

Compared with the well established and highly standardized vital and institutional statistics, other national health statistics are still in an early developmental stage in Canada as well as in most other countries. Only in recent years, with recognition of the increase in life span and the impact of the aging of the population, has it become generally understood that mortality and communicable disease statistics can no longer serve as the sole yardstick by which to measure a nation's health. Though many infectious diseases have been effectively controlled, other diseases, particularly those characteristic of an older population, cause much illness and disability, requiring a large volume of health services, without becoming immediately fatal and thus without being adequately reflected in mortality statistics.

A good deal of valuable statistical material exists in some provinces regarding certain aspects of their health services. Nationally, the only source available so far on general illness, health services, and personal expenditure for health care is the Canadian Sickness Survey 1950-51. Statistics on causes of death are shown in the Chapter on Vital Statistics, pp. 204-5, and statistics of hospitals, mental and tuberculosis institutions are dealt with in Section 4 of this Chapter. Other health statistics collected nationally, deal with notifiable diseases, illness among some 100,000 federal Civil Servants, and home nursing services. Following are some details on the Canadian Sickness Survey and notifiable disease reporting.

Canadian Sickness Survey 1950-51.-The Canadian Sickness Survey, carried out during a twelve-month period commencing in the autumn of 1950, sought to give estimates of the incidence and prevalence of illness and accidents of all kinds, the amount of medical, nursing and other health care received, and the volume of family expenditures for the various types of health services. It was the first nation-wide study of prevalence of illness in the general population of Canada.

Begun by the Department of National Health and Welfare the survey was carried out by the 10 provincial health departments with funds from the federal National Health Program.

The survey was planned and organized jointly by the Dominion Bureau of Statistics and the Department of National Health and Welfare in consultation with the provinces whose health departments gave full co-operation.

The survey method consisted of personal visits, by specially trained enumerators, to a sample of approximately 10,000 households distributed throughout each of the 10 provinces in metropolitan, small urban and rural areas. Less than 5 p.c. of these households refused to participate in the survey. Of the remaining households over 80 p.c. of the individuals involved remained in the sample throughout the survey period. All information, including particulars of income, housing and environment, was obtained by direct interview of a household informant, usually the housewife. Though the starting dates for the survey varied somewhat in different provinces, a total of 14 monthly visits was made to most of the households in the sample. On the first visit the enumerator introduced the survey and left a special calendar designed to help the informant keep a detailed day-to-day record of current sickness and expenditures for each member of the household. During each of the succeeding twelve months, the enumerator interviewed the informant and recorded the sickness experienced by each person since the previous visit. The final visit was made to review the information recorded throughout the whole survey period. Uniformity of practice in the 10 provinces was maintained by frequent consultation among the agencies involved, by uniform instructions to the enumerators and by the use of three standard record forms-a Household Record, an Individual Sickness Record and an Expenditures Form. Auxiliary schedules, also standardized, were used to record permanent physical disabilities and also health services which were desired but not obtained.

The sample was designed to obtain estimates within a sampling error of 20 p.c. for events occuring at least once among every 50 persons in the population during the year. Indications are that for a large proportion of the estimates the error will be substantially smaller. Area sampling was used for the survey. As a first stage six domains (regions) of study were established consisting of four single provinces and two groups of three provinces each. Within each domain of study three types of area were considered-metropolitan, urban and rural. Within these areas multi-stage sampling was adopted. In metropolitan centres, all of which were included in the sample, and in some of the sampled urban areas, the first stage of sampling was the block; the second stage, the household. In other urban areas systematic sampling from a list of households was used. Rural areas were divided into primary sampling units and grouped into strata. Within each stratum one primary sampling unit was selected and multi-stage sampling applied. The first stage was the selection of clusters or segments within the primary sampling unit and the second stage was the selection of households within the chosen clusters.

In designing the sample extensive use was made of population, social and economic data obtained from 1941 Census material. Similarly, the results of the 1951 Census, which was taken at about the mid-point of the survey period, provided the necessary distributions concerning persons and families for the calculation of national and provincial figures. The basic survey units for data on illness were the individual persons; the units for expenditures on health services included families, as defined in the Census, together with certain single persons whether living alone or with other families as roomers or relatives.

Data on certain aspects of the survey are still being processed. The following is a brief abstract from the available preliminary information regarding the three main features of the survey: volume of sickness, volume of medical care received, and family expenditures for health care and services.

Estimated Volume of Sickness during the Survey Year.-The survey distinguishes three broad groups of severity, not in a clinical sense of seriousness but in its effect on the patient's capacity to go about his usual activity. These groups are: (1) confined to bed (bedfastness), (2) inability (disability) to continue usual activity (e.g., work, going to school, homemaking, etc.), and (3) any complaint, whether severe or only very minor such as headache. It must be kept in mind that the information was obtained from lay informants mostly by lay enumerators. Following are the average days of sickness per person as estimated from the survey data:

ESTIMATED AVERAGE DAYS OF SICKNESS PER PERSON DURING SURVEY YEAR

| Group | Both Sexes | Male | Female |
| :---: | :---: | :---: | :---: |
|  | No. of Days |  |  |
| Confined to bed (home or hospital) | $5 \cdot 6$ | $5 \cdot 0$ | 6.2 |
| Disability... | 11.9 | $12 \cdot 1$ | 11.7 |
| Any complaint.. | $51 \cdot 4$ | 44-6 | 58.4 |

ESTIMATED AVERAGE DAYS OF SICKNESS PER PERSON, BY AGE

Age
In Bed

No. of Days $\frac{\text { Disability }}{$|  Any  |
| :---: |
|  Complaint  |}

| Under 15 years. | 5-3 | $10 \cdot 4$ | 34-9 |
| :---: | :---: | :---: | :---: |
| 15-24 years. | $3 \cdot 8$ | $8 \cdot 4$ | $32 \cdot 1$ |
| 25-44 " | 4.8 | $9 \cdot 3$ | $53 \cdot 6$ |
| 45-64 | 6.2 | $15 \cdot 3$ | 70.9 |
| 65 years or over | 12.0 | 26.8 | 101.9 |
| All ages. | $5 \cdot 6$ | 11.9 | $51 \cdot 4$ |

Volume of Physicians' and Dentists' Services.-The survey did not cover physicians' visits at the hospital and, therefore, these visits are not included in the following statements. The statement on dentists' visits shows only the number of visits and does not reflect the type of service performed.

ESTIMATED RATE PER 1,000 POPULATION OF PHYSICIANS' SERVICES

|  | Type | Both Sexes | Male | Female |
| :---: | :---: | :---: | :---: | :---: |
| Office and home calls. |  | 1,650 | 1,320 | 1,990 |
| Office calls. . |  | 1,130 | 910 | 1,360 |
| Home calls. |  | 520 | 410 | 630 |
| Out-patient hospital cl | nic visi | 150 | 160 | 140 |

ESTIMATED RATE PER 1,000 POPULATION OF PHYSICIANS' SERVICES, BY AGE

| Age | Home and Office Calls | Office Calls | Home Calls | Out-patient Clinic Visits |
| :---: | :---: | :---: | :---: | :---: |
| Under 15 years. | 1,120 | 700 | 420 | 100 |
| 15-24 years. | 1,300 | 970 | 330 | 110 |
| 25-44 ${ }^{\prime \prime}$ | 1,880 | 1,440 | 440 | 170 |
| 45-64 ${ }^{\text {c }}$ | 2,100 | 1,450 | 650 | 200 |
| 65 years or over | 2,530 | 1,280 | 1,250 | 240 |
| All Agrs.. | 1,650 | 1,130 | 520 | 150 |



## ESTIMATED RATE PER 1,000 POPULATION OF DENTISTS' VISITS



Health Care Expenditures.-The chart below shows the estimated classification of the family dollar expended for health care by the type of service. The percentage figures refer only to actual payments made by family members during the survey year, and do not include payments made from public funds or contributions from third parties such as employers' contributions to prepayment plans.


Notifiable Disease Statistics.-Morbidity reporting procedures for notifiable diseases are carried out at three levels: local, provincial and federal. The primary legislative and regulatory power in the field of communicable disease control, as in most other health matters, rests with the provinces. Cases of notifiable diseases are reported to the local Medical Health Officer, who in turn reports to the provincial department of health. The provincial department transmits to the Dominion Bureau of Statistics a weekly summary report showing total cases for the province as a whole and for each city of 10,000 population or over.

The Dominion Council of Health, which consists of the Deputy Minister of National Health, the Deputy Ministers of Health of each of the provinces, and certain lay appointees, provides an opportunity for an exchange of information on reportable disease practices followed in the various provinces, as well as for reaching common understanding or agreement on co-ordinated or uniform requirements or procedures, where such is deemed desirable.

The federal Department of National Health and Welfare is keenly interested in matters of communicable disease control. Through its various consultative services and through the National Health Grants Program, practical, as well as financial, assistance is available to the provinces for developing services and control
programs, and for carrying out special morbidity or epidemiological investigations. For example, the Division of Epidemiology receives weekly telegraphic reports from the provinces on cases of poliomyelitis during epidemic periods and is prepared to render practical assistance in establishing control measures or in co-operating in the investigation of unusual epidemiological features. The National Health Grants Program includes specific grants for venereal disease and tuberculosis control, the latter being apportioned to provinces on a formula based on 50 p.c. for population and 50 p.c. for the average number of deaths from tuberculosis in the previous five-year period. A variety of other communicable disease control programs or research studies are assisted under the General Public Health Grant and the Public Health Research Grant. In considering the justification and approval of such projects, the Department relies to a great extent on information regarding incidence acquired through the notifiable diseases reporting system.

The Dominion Bureau of Statistics compiles and publishes weekly and annual reports on the incidence of notifiable diseases. It also supplies the provinces with weekly report forms and Notification of Venereal Infection forms. The weekly summary published by the DBS shows data for the current week, previous week (adjusted for reporting of delayed cases and change of diagnosis), five-year median, cumulative number of cases from the beginning of the calendar year, and the weekly number of cases for certain diseases reported in the United States. Generally speaking, the figures refer to new cases reported at the place where first diagnosed. The printed reports are released on Thursday of each week, 11 days after the end of the report week (Saturday). This amount of time is necessary to allow for the transmission and compilation of the reports from the local level to the provincial and federal departments. These weekly summaries are issued to provincial departments of health and other health agencies in Canada and abroad.

The postal regulations permit the free transmission through the mails of notifiable disease reports, collected by provincial departments, which are also intended, by agreement under Section 9 of the Statistics Act, for the use of the Dominion Bureau of Statistics. This means that all reports of a statistical nature can be forwarded by the Post Office Department from the field through provincial departments to the DBS free of postage. A free supply of report forms to the physicians and their free transmission through the mail are important steps toward removing obstacles to complete reporting.

Monthly epidemiological reports, showing reported cases and deaths, were sent to the League of Nations, Geneva, from 1924 to 1940. Current weekly reports and corrected annual figures are supplied to the World Health Organization, Geneva, and the Pan American Sanitary Bureau, Washington, D.C.

Through the courtesy of the United States Public Health Service an exchange of data on notifiable diseases was instituted in January 1942 between the United States and Canada. This service consists of the exchange of the Weekly Communicable Disease Summary and the Weekly Morbidity and Mortality Report of the National Office of Vital Statistics, Department of Health, Education and Welfare, Washington, D.C., for similar reports of the Dominion Bureau of Statistics.

The limitations of data on notifiable diseases are well known to those in the field and are being taken into consideration: they are mainly, incompleteness of reporting, particularly in regard to certain diseases, and variations of reporting practices and procedures. Nevertheless, the figures have always been valuable as indicating the trend of occurrence of these diseases.

## 2.--Reported Cases of Selected Notifiable Diseases and Rates per $\mathbf{1 0 0 , 0 0 0}$ Population, 1926-53

| Year | Diphtheria | Poliomyelitis (All Types) | Smallpox | Tuberculosis <br> (All Types) | Typhoid and Paratyphoid Fever |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Numbers of Cabes |  |  |  |  |
| Av. 1926-30. | 8,301 | 661 | 2,189 | 5,743 | 3,270 |
| Av. 1931-35. | 3,294 | 637 | 273 | 8,287 | 2,410 |
| Av. 1936-40. | 2,777 | 1,202 | 90 | 9,322 | 1,760 |
| Av. 1941-45. | 2,917 | 800 | 9 | 12,926 | 1,195 |
| 1946. | 2,535 | 2,527 | 2 | 15,263 | 921 |
| 1947. | 1,550 | 2,291 | - | 13,739 | 697 |
| 1948. | 898 | 1,168 | - | 12,363 | 565 |
| 1949. | 806 | 2,458 | - | 13,097 | 761 |
| $1950 .$. | 421 | 911 | - | 12,429 | 718 |
| $1951 .$. | 190 | 2,568 4,755 | - | 11,152 10,506 | 559 509 |
| 1953.... | 132 | 8,878 | - | 10,572 | 457 |
|  | Rates per 100,000 Population ${ }^{1}$ |  |  |  |  |
| Av. 1926-30...... | 84.5 | 6.7 | 22.3 | 58.5 | $33 \cdot 3$ |
| Av. 1931-35.. | 31.1 | 6.5 | $2 \cdot 6$ | 78.1 | 22.7 |
| Av. 1936-40. | $24 \cdot 9$ | 10.8 | 0.8 | 83.7 | $15 \cdot 8$ |
| Av. 1941-45. | 24.9 | 6.8 | $0 \cdot 1$ | 109.7 | $10 \cdot 1$ |
| 1946. | 20.7 | 20.6 | 2 | $124 \cdot 4$ | 7.5 |
| 1947. | 12.4 | $18 \cdot 3$ | - | 109.7 | $5 \cdot 6$ |
| 1948... | $7 \cdot 0$ | $9 \cdot 1$ | - | 96.6 | 4.4 |
| 1949... | 6.0 | $18 \cdot 3$ | - | 97.6 | 5.7 |
| 1950... | $3 \cdot 1$ | 6.7 | 二 | $90 \cdot 8$ | 5.2 |
| 1951. | 1.8 | 18.4 | 二 | 79.7 72.9 | $4 \cdot 0$ 3.5 |
| 1952........ | 1.3 0.9 | $33 \cdot 0$ 60.2 | - | $72 \cdot 9$ 71.6 | $3 \cdot 5$ $3 \cdot 1$ |

${ }^{1}$ Based on official estimates of population (see p. 137).
${ }^{2}$ Less than 0.1 per 100,000 population.

## 3.-Reported Cases of Selected Notifiable Diseases, and Rates per $\mathbf{1 0 0 , 0 0 0}$ Estimated Population, by Province, 1953

| $\begin{aligned} & \text { Int. } \\ & \text { List } \\ & \text { No. } \end{aligned}$ | Disease | N'f'ld. P | P.E.I. | N.S. | N.B. | Que. | Ont. |  | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Nubmers of Caszs |  |  |  |  |  |  |  |  |  |  |
| 087 | Chickenpox | 162 | 266 | 1,918 | 58 | 9,657 | 20,872 | 1,507 | $2,816$ | $, 333$ |  | 7,458 |
| 055 | Diphtheria. | 3 | 1 |  | 3 | 70 |  |  |  |  |  | , 132 |
| 045-048 | Dysentery ${ }^{1}$ |  | 9 |  |  | 133 | 176 |  |  |  |  | 1,042 |
| 046 | Amacillary |  | $\stackrel{8}{17}$ |  |  | 14 119 | 166 | 28 | 48 |  |  |  |
| $\begin{aligned} & 045 \\ & 082 \end{aligned}$ | Encephalitis, infec | - | 17 | 6 | - | 119 | 166 10 | 28 12 | 12 |  |  |  |
| 480-483 | Influenza, epidemic ${ }^{3}$ | 12 | 2,935 | 4,934 | 42 | - | 859 | 259 | 48 | 213 |  | 10,110 |
| 085 | Measles... | 322 | 337 | 2,543 | 49 | 8,984 | 22,237 | 2,845 | 5,586 7 | 7,327 | 7,641 | 57,871 |
| $057 \cdot 0$ | Meningitis, meningococcal. | 14 | - | , 10 | 16 | 39 | 97 | 2, 36 | 40 |  |  | 301 |
| 089 | Mumps... $\ldots . . . . . . . . . .$. | 112 | 202 | 2,426 | 323 | 6,166 | 14,778 | 1,042 | 1,514 1 | 1,665 | 8,069 | 36,297 |
| 080 | Poliomy yelitis, epidemic. ${ }^{\text {a }}$ | 233 | 11 | 31 336 | 88 | 488 | 2,239 | 2,317 | 1,202 1 | 1,472 |  | 8,878 9,745 |
| 086 | Rubella(German measles) ${ }^{4}$ | 538 |  | 336 61 | 119 | 648 3.592 | 2,624 | 45 494 | 714 903 | 4,159 1,956 | 1,095 | 9,745 14,054 |
| ${ }_{084}^{050}$ | Scarlet feve Smallpox.. | 538 | 3695 | 61 | 473 | 3,592 | 3,448 | 494 |  |  |  |  |
| 001-019 | Tuberculosi | 467 | 63 | $151{ }^{6}$ | $628{ }^{\circ}$ | 4,094 | 1,412 | 878 | $576^{7}$ | 795 | 1,508 | 10,572 |
| 001,002 | Pulmonar | 450 | 98 | 137 | 619 | 3,957 | 8 | 871 | 406 | 719 | 1,350 | 8,547 |
| 003-019 | Non-pulmonary | 17 | 25 | 11 | 6 | 187 | ${ }^{8}$ |  | 130 | 76 | 158 |  |
| 040, 041 | Typhoid and paratyphoid. | 17 | - | -2 | 31 | 294 89 | 51 19 |  | 11 2 |  |  | 457 134 |
| - 0244 | Undulant fever ${ }^{9}$... | 497 | 38 |  | 218 | 4,821 | 3,174 | 1,350 |  |  |  | 18,207 |
| $020-039$ $020-029$ | Venereal disea Syphilis.... | 497 91 | 14 | 186 | 58 | 1,872 | 3, 738 | 1,350 | 1, 117 | 158 | , 287 | 2,898 |
| 030-035 | Gonorrhcea | 406 | 24 | 481 | 165 | 3,549 | 2,432 | 1,261 | 1,363 | 2,570, | 3,039 | 15,290 |
| 036-039 | Other venereal diseases ${ }^{10}$ Whooping cough. | ${ }_{10}$ | 70 |  | 29 | 3,920 | 1,570 | 212 | 390.1 |  | 718 | $\begin{array}{r} 19 \\ 9,387 \end{array}$ |

For footnotes, see end of table.

## 3.-Reported Cases of Selected Notifiable Diseases, and Rates per $\mathbf{1 0 0 , 0 0 0}$ Estimated Population, by Province, 1953-concluded

| List. <br> No. | Disease | N'fld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Rates per 100,000 Population ${ }^{11}$ |  |  |  |  |  |  |  |  |  |  |
| 087 | Chicken | 42.3 | $250 \cdot 9$ | $289 \cdot 3$ | 10.8 | 226-2 | 426-2 | $186 \cdot 3$ | $327 \cdot 1$ | $332 \cdot 6$ | 558.5 | 321.6 |
| 055 | Diphtheris | 0.8 | 0.9 | 0.9 | 0.6 | $1 \cdot 6$ |  | $0 \cdot 5$ |  |  | 0.7 | 0.9 |
| 045-048 | Dysentery' |  | 17.9 | - | - | $3 \cdot 1$ |  | $3 \cdot 5$ | 5.9 | 4.6 | 47-9 | 7-1 |
| 046 | Amoebic. |  |  | - | - | 0.3 | $0 \cdot$ | - | 0.8 | 0.2 | 0.1 |  |
| 045 | Bacillary |  | 16.0 | - 0.9 |  | 2-8 |  | 5.5.5 | $5 \cdot 6$ | 4.4 | 47.8 | 6.8 |
| $\begin{array}{r} 082 \\ 480-483 \end{array}$ | Encephalitis, infe |  |  | 744.2 | 7.8 |  |  | 1.5. |  | 21-3 | $65 \cdot 7$ | 68.5 |
| 085 | Measlea. | 84.1 | 317-9 | 383.6 | 9.1 | 210.4 | $454 \cdot 1$ | 351 -7 | 648.8 | 731.2 | $621-2$ | 392.2 |
| 057.0 | Meningitis, meningococcal. | 3.7 | - | 1.5 | $3 \cdot 0$ | 0.9 |  | 4-4 | $4 \cdot 6$ | $0 \cdot 7$ | $3 \cdot 4$ | $2 \cdot 0$ |
| 089 | Mumps.. | 29.2 | $190 \cdot 6$ | 365.9 | $60 \cdot 3$ | $144 \cdot 4$ | 301 - 8 | 128.8 | 175-8 | 166-2 | 656.0 | 246.0 |
| 080 | Poliomyelitis, epidemic | 60.8 | 10-4 | 4.7 | 16-4 | 11.4 |  | 286-4 | $139 \cdot 6$ | 146-9 | 64-8 | 60.2 |
| 086 | Rubella (German measles) ${ }^{4}$ | $1 \cdot 3$ |  | 50.7 | 22.2 | 15-2 |  | 5-6 | 82.9 | $415 \cdot 1$ | 89.0 | 66.0 |
| 050 | Scarlet fever | 140.5 | $348.1{ }^{3}$ | $9 \cdot 2$ | 88.2 | 84.1 |  | 61.1 |  |  | $180 \cdot 5$ | 95-2 |
| $\begin{array}{r} 081 \\ 001-019 \end{array}$ | Tuaberculosi | 121.9 | $\overline{59} \cdot 4$ | $\overline{22} \cdot 8$ | 117.2s | $\overline{95} \cdot 9$ |  | 108.5 |  |  |  | $71 \cdot 6$ |
| 001, 002 | Pulmonary | 117-5 | 35.8 | 20.7 | 115.5 | 98.7 | 8 | 107.7 | $47 \cdot 2$ | 71.8 | 109 - $\delta$ | 57.9 |
| 003-019 | Non-pulmonar | $4 \cdot 4$ | 23.6 | 1-7 | $1 \cdot 1$ | 5-2. |  | 0.9 | $15 \cdot 1$ | 7-6 | 12.8 | 5.8 |
| 040, 041 | Typhoid and paratyphoid. | $4 \cdot 4$ |  | $0 \cdot 3$ | $5 \cdot 8$ | 6-9 |  |  |  | 1.8 | $2 \cdot 7$ | $3 \cdot 1$ |
| 044 | Undulant fever | - | 0.9 | - | $0 \cdot 7$ | $2 \cdot 1$ |  | 1.5 |  | $0 \cdot 2$ | 0.4 | 0.9 |
| 020-039 | Venereal disen | 129.8 | 35.8 | 93.5 | 40.7 | 112.9 | 64.8 | $166 \cdot 9$ | $172 \cdot 0$ | 271.8 | 267-1 | 123.4 |
| 020-029 | Syphilis. | 25.8 | 15.2 | 20.5 | 9.9 | 29.8 |  | 10.8 | $15 \cdot 6$ | 15.3 | 19.5 | 19.6 |
| 030-035 | Gonorrhce | 106.0 | $22 \cdot 6$ | 72.5 | 50.8 | $85 \cdot 1$ |  | 155.9 | 158.8 | $256 \cdot 6$ | 247 -1 | 103-6 |
| $\begin{array}{r} 036-039 \\ 056 \end{array}$ | Other venereal diseases ${ }^{10}$ Whooping cough. | 2.6 | 66.0 | 0.5 <br> 206.6 | $5 \cdot 4$ | 91.8 | - $32 \cdot 1$ | - $\begin{gathered}0.8 \\ 26-2\end{gathered}$ | $0 \cdot 1$ 45.3 | 109.8 | 0.7 58.2 | 0.1 63.6 |

[^92]
## Section 4.-Hospital Statistics*

This Section presents a brief outline of hospital conditions in Canada. $\dagger$ For statistical purposes, hospitals are divided into three general classifications: hospitals, tuberculosis institutions and mental institutions. It is because mental illness and tuberculosis are major public health problems that statistics for hospitals treating these conditions are prepared independently of those for other hospitals. Hospitals, excluding mental and tuberculosis institutions, are classified on the basis of admission policy into public, private or federal. Public hospitals are further classified as "general" and "special" hospitals. Thus, statistics are collected for five groups of hospitals: public, private, federal, mental and tuberculosis.

The total number of hospitals reporting, classified by ownership and province, is shown in Table 4. Table $\mathbf{5}$ classifies reporting public hospitals by type of service. Table 6 gives the capacity of hospitals reporting and Table 7 presents summary statistics of reporting public and private hospitals for a period of five years.

[^93]
## 4.-Reporting Hospitals, classified by Ownership and Province, 1952

| Ownership | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | $\begin{gathered} \text { Yukon } \\ \text { and } \\ \text { N.W.T } \end{gathered}$ | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Federal. | - | - | - | - | 2 | 3 | 3 | - | 1 | 3 | - | 521 |
| Provincial. | 3 | 1 | 6 | 3 | 11 | 17 | 6 | 10 | 9 | 11 | - | 77 |
| Municipal. | - | - | 24 | 4 | - | 20 | 40 | 117 | 55 | 3 | - | 263 |
| Lay. | - | 5 | 29 | 16 | 38 | 129 | 14 | 7 | 5 | 59 | - | 302 |
| Religious. | - | 2 | 10 | 15 | 82 | 41 | 16 | 27 | 37 | 26 | 7 | 263 |
| Private. | - | - | 6 | 2 | 63 | 47 | 7 | 9 | 7 | 50 | 2 | 193 |
| Totals. | 3 | 8 | 75 | 40 | 196 | 257 | 86 | 170 | 114 | 152 | 9 | 1,150 ${ }^{1}$ |

${ }^{1}$ Includes 40 federal hospitals, figures for which are not available by provinces.

## 5.-Reporting Public Hospitals, classified by Type of Service and Province, 1952

| Type of Service | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| General ${ }^{1}$. | - | 7 | 43 | 30 | 81 | 159 | 64 | 150 | 95 | 85 | 7 | 721 |
| Special ${ }^{1}$. | - | - | 3 | 2 | 21 | 17 | 4 | 4 | 3 | 2 | - | 56 |
| Mental ${ }^{2}$. | 1 | 1 | 18 | 1 | 15 | 20 | 4 | 4 | 6 | 5 | - | 75 |
| Tuberculosis ${ }^{2}$. | 2 | 1 | 5 | 5 | 19 | 16 | 7 | 3 | 3 | 11 | - | 72 |
| Totals | 3 | 9 | 69 | 38 | 136 | 212 | 79 | 161 | 107 | 103 | 7 | 924 |

${ }^{1}$ Excludes federal hospitals.
${ }^{2}$ Includes federal hospitals.
6.-Beds and Bassinets in Reporting Hospitals, classified by Type and Province, 1952

| Type of Hospital | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | $\begin{gathered} \text { Yukn } \\ \text { N.W. } \end{gathered}$ | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General- |  |  |  |  |  |  |  |  |  |  |  |  |
| Beds.. | - | 640 | 2,956 | 1,837 | 13,262 | 19,609 | 3,670 | 5,113 | 5,545 | 6,766 | 418 | 59,816 |
| Bassinets........ | - | 136 | 557 | 311 | 1,747 | 3,543 | 769 | 936 | 1,000 | 1,002 | 18 | 10,019 |
| Special- <br> Beds | - | - | 132 | 105 | 4,150 | 2,642 | 847 | 13 | 187 | 141 | - | 8,217 |
| Bassinets | - | - | 76 | 15 | 265 | 160 | - | 13 | 30 | 55 | - | 614 |
| Private- |  |  |  |  |  |  |  |  |  |  |  |  |
| Beds.... | 二 | - | 19 17 | 48 16 | 917 297 | 858 141 | 141 | 19 | 94 14 | 1,228 15 | 2 | ${ }^{3,331}$ |
| $\begin{gathered} \text { Mental- } \\ \text { Beds.... } \end{gathered}$ | 530 | 250 | 2,672 | 1,100 | 16,280 | 15,415 | 2,557 | 2,928 | 3,506 | 3,653 | - | 48,891 |
| Tuberculosis-1 Beds. | 700 | 150 | 857 | 922 | 4,830 | 4,261 | 1,264 | 803 | 1,088 | 1,473 | - | 16,348 |
| Totals, All <br> Hospitals- ${ }^{2}$ | 1,230 |  |  |  |  |  |  |  |  |  |  |  |
| Bassinets. | 1,230 | 136 | 650 | ${ }^{142}$ | 2,309 | 3,844 | 781 | ${ }_{968}$ | 1,014 | 1,072 | 20 | 11,166 |

${ }^{1}$ Excludes 2,153 tuberculosis beds in general hospitals.
${ }^{2}$ Excludes federal hospitals.
7.-Summary Statistics of Reporting Public and Private Hospitals, 1948-52

| Item | 1918 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Fublic Hospitas- | No. | No. | No. | No. | No. |
| Hospitals reporting. | 696 | 738 | 761 | 778 | $7 \% 7$ |
| Bed capacity ${ }^{\mathbf{1}} \ldots .$. | 68,003 | 71,210 | 75,691 | 79,339 | 78.666 |
| Patients under care ${ }^{\text {a }}$ | 1,714,874 | 1,829,236 | 1,900,628 | 2,012,773 | 2,107,880 |
| Patient days during year². | 19,198,398 | 20,221,160 | 21,189,308 | 21,920,099 | 22,331,887 |
| Frivate Hospitals- |  |  |  |  |  |
| Hospitals reporting.................... | 209 | 194 | 225 | 220 | ${ }_{3} 187$ |
| Bed capacity ${ }^{1}$..... | 3,997 | 3,722 | 4,593 | 4,638 | 3,884 |
| Patients under care ${ }^{2}$ | 61,530 | 63,052 | 70,577 | 67,486 | 60,432 |
| Patient days during year ${ }^{2}$. | 923,779 | 877,054 | 1,029,935 | 1,076,207 | 992,425 |

${ }^{1}$ Includes bassinets. ${ }^{2}$ Includes newborn.

## Subsection 1.-Statistics of Public Hospitals

Movement of patients and number of personnel in public hospitals are summarized in Table 8, and revenues and expenditures in Table 9.

## 8.-Movement of Patients and Number of Personnel of Reporting Public Hospitals, by Prorince, 1952

| Item | Newfoundland | Prince <br> Edward Island | Nova Scotis | New Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Hospitals reporting. . . . . . . | - | 7 | 46 | 32 | 102 | 176 |
| Movement of Patients-1 |  |  |  |  |  |  |
| Admissions. | - | 15,007 | 94,243 | 79,987 | 401,469 | 706,148 |
| Total under care.......... | - | 15,414 | 96,766 | 81.670 | 413,599 | 724,281 |
| Discharges................ | - | 14,755 | 91,963 | -8,306 | 390,463 | 686.143 |
| Deaths................ |  | . 354 | 2,170 | 1,715 | 10,686 | 19,505 |
| Patient days during year.. | - | 147,576 | 910,343 | 709,598 | 5,512,398 | 7,525,313 |
| Personnel ${ }^{\text {a }}$ |  |  |  |  |  |  |
| Salaried doctors, fulltime. | - | 1 | 13 | 7 | 113 | 149 |
| Interns.......... | - |  | 74 | 17 | 495 | 644 |
| Graduate nurses | - | 89 | 799 | 508 | 2.720 | 7.342 |
| Student nurses. | - | 121 | 620 | 644 | 2.925 | 4,883 |
| Other personnel | - | 323 | 1,800 | 1,455 | 12.172 | 19.722 |
| Totaks, Personne | - | 334 | 3,306 | 2,631 | 18,425 | 32,790 |
|  | Manitoba | Saskatchewan | Alberta | British Columbia | $\begin{gathered} \text { Yukon } \\ \text { and } \\ \text { N.W.T. } \end{gathered}$ | Canada |
|  | No. | No. | No. | No. | No. | No. |
| Hospitals reporting....... | 68 | 154 | 98 | 87 | 7 | 77 |
| Movement of Patients- |  |  |  |  |  |  |
| Admissions............. | 134.434 | 194,369 | 209,829 | 218,120 | 1,421 | 2,055,027 |
| Total under care..........\| | 137,498 | 199,220 | 214,183 | 223,516 | 1,733 | 2,107,880 |
| Discharges............... | 131, 140 | 190,604 | 206,156 | 212,095 | 1,338 | 2,002,963 |
| Deaths.................. | r $\begin{array}{r}3,072 \\ 1,343,634\end{array}$ | 1,962,883 | 3,469 | 5,729 | . 50 | \% 50.633 |
| Patient days during year.. | 1,343,634 | 1,962, ${ }^{\text {a }}$ | 1,846,361 | 2,261,094 | 112,792 | 22,331,887 |
| Personnel - |  |  |  |  |  |  |
| Salaried doctors, full- |  |  |  |  |  |  |
| time. | 53 79 | 3 46 | 20 99 | 35 150 | 二 | 1, $\begin{array}{r}394 \\ 1.604\end{array}$ |
| Graduate nurses | 817 | 1,265 | 1,298 | 2.438 | 23 | 17,299 |
| Student nurses............ | 74 | 1,259 | 1,183 | 1,281 |  | 13,690 |
| Other personnel | 3.258 | 4,183 | 3,844 | 5.828 | 122 | 52,787 |
| Totak, Personnel......; | 5,011 | 6,756 | 6,44 | 9,732 | 145 | 85,3i4 |

[^94][^95]9.-Finances of Reporting Public Hospitals, by Province, 1952

${ }^{1}$ Includes newborn. $\quad{ }^{2} 54$ public hospitals reporting other information did not report finances.

## Subsection 2.-Statistics of Mental Institutions

Data on movement of patients and personnel number for the 75 mental institutions that reported to the Dominion Bureau of Statistics in 1952 are given in Table 10. Table 11 presents revenue and expenditure for 65 of those institutions; financial statistics were not reported by three municipal hospitals in Nova Scotia, two provincial hospitals in Quebec, one federal and one private hospital in each of Ontario and Quebec, and one psychiatric hospital in Saskatchewan.

Government and municipal payments made up 84.8 p.c. of all the revenue received by mental institutions and salaries accounted for 56.1 p.c. of the total maintenance expenditure. New buildings and improvements took $12 \cdot 0$ p.c. of the expenditure in 1952. Prince Edward Island, with only one institution reporting, was the only province showing no expenditure for this item. Ontario's outlay amounting to $\$ 5,070,039$, accounted for 20.8 p.c. of all its 1952 expenditure for this purpose.

## 10.-Movement of Patients and Number of Personnel of Reporting Mental Institutions, by Province, 195\%

| Item | Nfld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Institutions reporting | 1 | 1 | 18 | 1 | 15 | 20 | 4 | 4 | 6 | 5 | - | 75 |
| Morement of Pati-ents- |  |  |  |  |  |  |  |  |  |  |  |  |
| Admissions (excluding transfers). | 322 | 182 | 818 | 677 | 5,936 | 6,240 | 924 | 1,496 | 1,185 | 3,147 |  | 20,957 |
| Patients under care. | 698 | 292 | 2,558 | 1,736 | 17,856 | 20,798 | 3,465 | 4,911 | 3,721 | 4,977 | - | 61,012 |
| Separations (excluding transfers) | 241 | 171 | 820 | 448 | 5,744 | 5,594 | 819 | 1,492 | 1,018 | 2,918 | - | 19,265 |
| Patients at Dec. 31, 1952................. | 779 |  | 2,586 | 1,965 | 18,048 | 21,444 | 3,570 | 4,915 | 3,888 | 5,206 | - | 62,704 |
| Personnel- |  |  |  |  |  |  |  |  |  |  |  |  |
| Medical staff, fulltime (including interns) | ${ }_{4}$ | - | 8 | 9 | 81 | 144 | 18 | 31 | 19 | 34 | - | 348 |
| Medical staff, parttime (including interns) |  | 2 | 14 | 2 | 27 | 46 | 13 | 7 | 10 |  |  | 121 |
| Registered nurses. | 22 | 2 | 34 | 15 | 297 | 511 | 22 | 18 | 43 | 43 |  | 1.007 |
| Other nurses. | 179 | 48 | 248 | 182 | 1,572 | 3,140 | 470 | 764 | 617 | 1,327 |  | 8,547 |
| Other personnel..... | 133 | 51 | 308 | 143 | 1,529 | 1,864 | 310 | 519 | 482 | 515 |  | 5,854 |
| Tetals, Personnel. . | 238 | 163 | 612 | 351 | 3,566 | 5,705 | 833 | 1,339 | 1,171 | 1,919 | - | 15,877 |

11.-Finances of $\mathbf{6 5}$ Reporting Mental Institutions, by Province, 1952

| Item | Newfoundland | Prince Edward Island | Nova Scotia | New <br> Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Revenue- <br> Government and municipal payments. <br> Paying patients. $\qquad$ <br> Other sources. $\qquad$ | \$ | \$ | \$ | \$ | \$ | \$ |
|  | 1,144,193 | 243,428 | 1,376,244 | 1,159,712 | 7,899,770 | 20,721,387 |
|  | 1, 37, 106 | 65,991 | - 299,947 | 157,811 | 1,443,337 | 3,219,700 |
|  | 2.302 |  | 68,442 | 2,731 | 855.151 | 502,638 |
| Totals, Revenue......... | 1,183, 601 | 303,419 | 1,744,653 | 1,320,254 | 10,198,258 | 24,443,725 |
| Frpenditure- |  |  |  |  |  |  |
| Salaries (net)............ | 494,220 | 123,627 | 773,158 | 687.269 | 3,994,302 | 12,083, 220 |
| Provisions (food)......... | 355,531 | 86,982 | 553,696 | 321,797 | 2,439,804 | 3,058,649 |
| penditure......... | 317,567 | 95. 510 | 547.553 | 298,490 | 3,008,549 | 4.217.256 |
| Totals, Maintenance Expenditure................. | 1,167,318 | 309,419 | 1,874,407 | 1,307,556 | 9,532,655 | 19,359,125 |
| New buildings and improvements. Other expenditure.......... | 16,283 | 二 | 208,506 7,967 | 12,698 | $\begin{aligned} & 780.271 \\ & 304,237 \end{aligned}$ | 5,070,039 |
| Totals, Non-maintenance Expenditure............. | 16,283 | - | 216,473 | 12,698 | 1,084,503 | 5,070,039 |
| Totals, Expenditure | 1,183,601 | 309,419 | 2,080,880 | 1,220,254 | 10,617,163 | 24,429,164 |

11.-Finances of 65 Reporting Mental Institutions, by Province, 1952-concluded

| Item | Manitoba | Saskatchewan | Alberta | British Columbia | $\begin{aligned} & \text { Yukon } \\ & \text { and } \\ & \text { N.W.T. } \end{aligned}$ | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | \$ |
| Revenue- <br> Government and municipal payments.......... | 2,460,545 | 4,969,524 | 4,786,169 | 6,097,000 | - | 50, 857,972 |
| Paying patients........... | 334,658 | 203,664 | 675,950 | 767,787 | - | 7,205,951 |
| Other sources....... |  | 307,123 | 68,834 | 25,455 | - | 1,919,123 |
| Totals, Revenue | 2,881,650 | 5,480,311 | 5,530,953 | 6,890,242 | - | 59,983,046 |
| Expenditure- |  |  |  |  |  |  |
| Salaries (net)............ | 1,472,318 | 3,236,475 | 2,512,194 | 3,615,577 | - | 28,992,360 |
| Provisions (food)......... | 661,856 | 657,412 | 732,354 | 1,524,120 |  | 10,392,201 |
| penditure. | 581,944 | 951,161 | 565,386 | 1,589,778 | - | 12,266,494 |
| Totals, Maintenance Expenditure. | 2,716,118 | 4,845,048 | 3,809,934 | 6,729,475 | - | 51,651,055 |
| New buildings and improvements. Other expenditure. $\qquad$ | $\begin{array}{r} 35,138 \\ 15,000 \end{array}$ | 124,475 | $\begin{aligned} & 867,725 \\ & 752,065 \end{aligned}$ | 79,456 | 二 | $\begin{aligned} & 7,194,591 \\ & 1,079,269 \end{aligned}$ |
| Totals, Non-maintenance Expenditure. | 50,138 | 124,475 | 1,619,790 | 79,456 | - | 8,273,860 |
| Totals, Expenditure | 2,766,256 | 4,969,523 | 5,429, 224 | 6,808,931 | - | 59,924,915 |

## Subsection 3.-Statistics of Tuberculosis Institutions

Table 12 shows that, of 18,501 beds in tuberculosis institutions, $21 \cdot 7$ p.c. were located in Federal Government sanatoria and in tuberculosis units of the Federal Government and general public hospitals. Movement-of-patients statistics in Table 13 include data from these hospitals and units but the financial statistics given in Table 14 are for public sanatoria only.
12.-Bed Complement of Tuberculosis Institutions and Units, by Province, 1952

| Item | N''ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Public sanatoria. | No. 700 | No. 150 | $\begin{array}{r} \hline \text { No. } \\ 857 \end{array}$ | $\begin{gathered} \text { No. } \\ 922 \end{gathered}$ | No. 4,610 | No. 4,087 | No. 788 | No. 803 | No. 600 | No. 973 | No. | No. $14,490$ |
| Federal Government sanatoria. | - | - | - | $\cdots$ | 220 | 174 | 476 | - | 488 | 500 | - | 1,858 |
| Units in public hospitals. | 88 | - | 198 | - | 728 | - | - | - | - | 10 | 363 | 1,387 |
| Units in Federal Government hospitals.. | - | - | 150 | 94 | 231 | 151 | 15 | 25 | - | 100 | - | 766 |
| Totals, Bed Complement. ........ | 788 | 150 | 1,205 | 1,016 | 5,789 | 4,412 | 1,279 | 828 | 1,088 | 1,583 | 363 | 18,501 |

13.-Movement of Patients, Personnel and Facilities of Tuberculosis Institutions and Cnits, ${ }^{1}$ by Province, 1952

| Item | New- <br> foundland | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Movement of Patients- Admissions ........... | 345 | 178 | 1,919 | 1,566 | 6,442 | 3,973 |
| Discharges ${ }^{\text {a }}$. | 309 | 163 | 1,893 | 1,495 | 6.009 | 3,808 |
| Deaths................... | 17 | 19 | 56 | 52 | 438 | 255 |
| Patients under care. ...... | 755 | 324 | 2,790 | 2,405 | 11,558 | 8,234 |
| Collective stay in days... | 148,707 | 51,290 | 319,496 | 319,649 | 1,897,582 | 1,556,950 |
| Personnel- |  |  |  |  |  |  |
| Salaried doctors. | 12 | 3 | 22 | 22 | 209 | 90 |
| Graduate nurses. | 55 | 19 | 83 | 79 | 338 | 398 |
| Other personnel. | 420 | 101 | 566 | 408 | 2,119 | 2,264 |
| Totals, Personnel. | 487 | 123 | 671 | 509 | 2,666 | 2,752 |
| Hospital Pacilities- |  |  |  |  |  |  |
| X-ray... | 2 | - | 4 | 1 | 14 | 6 |
| Clinical laboratory....... | 2 | - | 3 | 1 | 14 | 8 |
| Physiotherapy........... | - | 1 | 1 | - | 6 | 2 |
|  | Manitoba | Saskatchewan | Alberta | British Columbia | $\begin{gathered} \text { Yukon } \\ \text { and } \\ \text { N.W.T. } \end{gathered}$ | Cansda |
|  | No. | No. | No | No. | No. | No. |
| Morement of Patients- |  |  |  |  |  |  |
| Admissions............... | 1.37 | 875 | 903 | 1,506 | 169 | 19,453 |
|  | 1,536 | 781 | 745 | 1,2s2 | 96 | 18,117 |
| Deaths. | 82 | 37 | 7 | 145 | 27 | 1,205 |
| Patients under care. | 2,729 | 1,608 | 1,800 | 2,541 | 325 | 35,369 |
| Collective stay in days... | 423,009 | 283,306 | 348,752 | 505,657 | 65,231 | 5,919,629 |
| Personnel- |  |  |  |  |  |  |
| Salaried doctors.. | 31 | 19 | 31 | 45 | - | 487 |
| Graduate nurses. | 59 | 70 | 139 | 232 | - | 1.471 |
| Other persomel........... | 773 | 473 | 580 | 1,097 | - | 8,801 |
| Totals, Personnel........ | 862 | 562 | 750 | 1,377 | - | 10,759 |
| Hospltal Faclities - |  |  |  |  |  |  |
| X-ray.................... | 5 | 1 | 2 | 2 | - | 37 |
| Clinical laboratory....... | 6 | 1 | 2 | 3 | - | 40 |
| Physiotheraps............ | 2 | 1 | 1 | 1 | - | 15 |

${ }^{1}$ Includes 94 out of 106 operating institutions, representing 95.9 p.c. of total bed complement.
${ }^{2}$ Includes deaths. $\quad{ }^{2}$ Sanstoria only.

## 14.-Finances of Public Tuberculosis Sanatoria, by Province, 1952

(Exclusive of Federal Government sanatoria)

| Item | Newfoundland | Prince Edward Island | Nova Scotia | New <br> Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sanatoria reporting . . . . . . . . | No. ${ }_{2}$ | No. 1 | No. 4 | No. ${ }^{4}$ | No. $18$ | No. 14 |
|  | 8 | \$ | \$ | \$ | \$ | \$ |
| Revenue- |  |  |  |  |  |  |
| Government and municipal grants and payments. Paying patients. | 1,284,477 | 233,807 41,494 | 1,483,517 | $\begin{array}{r} 1,709,341 \\ 37 \end{array}$ | $5,848,656$ 377,247 889 | $\begin{array}{r} 6,660,277 \\ 262,345 \end{array}$ |
| Other sources | - |  | 6,404 |  |  | $1,413,358$ |
| Totals, Revenue...... | 1,284,477 | 284,110 | 1,489,921 | 1,746,323 | 7,065,244 | 8,335,980 |
| Expenditure- |  |  |  |  |  |  |
| Salaries and wages........ | 570,228 | 151,933 |  |  |  |  |
| Supplies................. | 783,559 104,613 | 112,216 24,772 | 734,746 30,404 | 609,643 390,118 | 2,916,037 $1,571,077$ | $2,473,960$ $1,341,656$ |
| Totals, Expenditure... | 1,458,400 | 288,921 | 1,489,917 | 1,753,999 | 7,657,108 | 8,185,495 |
| Cost per patient day ${ }^{1}$...... | $6 \cdot 63$ | $5 \cdot 63$ | 6.54 | 7.00 | $4 \cdot 79$ | 5-58 |
|  | Manitoba | Saskatchewan | Alberta ${ }^{2}$ | British Columbia ${ }^{2}$ | $\begin{gathered} \text { Yukon } \\ \text { and } \\ \text { N.W.T. } \end{gathered}$ | Canada |
| Sanatoria reporting. ....... | No. | No. | No. | No. | No. | No. |
|  | 4 | 3 | 2 | 6 | - | 58 |
|  | \$ | 8 | \$ | 8 | \$ | § |
| Revenue- <br> Government and municipal grants and payments Paying patients. <br> Other sources. $\qquad$ $\qquad$ | $\begin{array}{r} 1,174,469 \\ 39,409 \\ 87,726 \end{array}$ | 2, 113,416 | $\begin{array}{r} 1,319,628 \\ 826 \\ 61,718 \end{array}$ | $\begin{array}{r} 3,339,106 \\ 202,067 \end{array}$ | 二 | $\begin{array}{r} 25,166,694 \\ 721,358 \\ 2,698,335 \end{array}$ |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Totals, Revenue...... | 1,301,604 | 2,155,383 | 1,382,172 | 3,541,173 | - | 28,586,387 |
| Expenditure- |  | $\begin{array}{r} 1,132,857 \\ 492,796 \\ 466,522 \end{array}$ | $\begin{array}{r} 906,648 \\ 398,872 \\ 76,646 \end{array}$ | $\begin{array}{r} 1,795,192 \\ 856,803 \\ 889,177 \end{array}$ | 二 | $\begin{array}{r} 14,274,725 \\ 9,851,028 \\ 5,058,166 \end{array}$ |
| Salaries and wages........ | 698,989 472,396 |  |  |  |  |  |
| Other expenditure......... | 163,181 |  |  |  |  |  |
| Totals, Expenditure... | 1,334,566 | 2,092,175 | 1,382,166 | 3,541,172 | - | 29,183,919 |
| Cost per patient day ${ }^{1} \ldots \ldots$. | $5 \cdot 34$ | $7 \cdot 38$ | $7 \cdot 25$ | 11.23 | - | $5 \cdot 91$ |

${ }^{1}$ Excludes perquisites, out-patient expenditure and non-operating expenditure. ${ }^{2}$ Includes all institutions operated by the Provincial Division of Tuberculosis Control.

## Subsection 4.-Statistics of Federal Government Hospitals

Hospitals operated by the Federal Government are conducted for special purposes connected with departmental administration, such as care of war veterans and members of the Armed Forces, quarantine and care of immigrants and lepers, care of Indians, etc. Table 15 gives a composite picture of the activities of Federal Government departments in the hospital field in 1952.
15. Summary Statistics of Federal Government Hospitals, 1952

| Itern | DepartmentofVeteransAffairs | $\begin{array}{\|c\|} \text { Department } \\ \text { of } \\ \text { National } \\ \text { Defence } \end{array}$ | Department of Nationsl Health and Welfare |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Indian <br> Health <br> Services | Quarantine and Sick Mariners |  |
|  | No. | No. | No. | No. | No. |
| Hospitals reporting ${ }^{1} . \ldots \ldots \ldots . . . . . . . . . . .$. | 18 | 8 | 10 | 6 | 42 |
| Beds- |  |  |  |  |  |
| General. | 7,151 | 850 | 348 | 128 | 8,477 |
| Tuberculosis. | + 406 | - | 17 | 175 | 598 |
| Mental. | 1,550 667 | 二 |  | 34 | 1,550 701 |
| Totals, Beds. | 9.7\%4 | 850 | 365 | 337 | 11.326 |
| Fersonnel- |  |  |  |  |  |
| Salaried doctors. | 115 | 52 | 16 | 9 | 192 |
| Graduate nurses. | 1,533 | 121 | 49 | 51 | 1,754 |
| Other personnel. | 7,166 | 347 | 92 | 108 | 7,713 |
| Totals, Personnel. | 8,814 | 520 | 157 | 168 | 9,659 |
| Faclities- |  |  |  |  |  |
| Laboratory. | 13 |  | 7 | 3 | 31 |
| Radiology. | 14 | 8 | 6 | 1 | 29 |
| Physiotherapy | 17 | 8 | 1 | 2 | 28 |
| Out-patient service | 12 | 8 | 10 | 3 | 33 |
| Movement of Patients- |  |  |  |  |  |
| In hospital at beginning of year........ | 7,445 | 279 | 227 | 206 | 8,157 |
| Admissions. | 50,543 | 13,528 | 5,450 | 1,507 | 71,028 |
| Totals under care | 57,988 | 13,807 | 5.677 | 1,713 | 79,185 |
| Discharges. | 49,054 | 13,508 | 5,345 | 1,473 | 69,380 |
| Deaths. | 1,907 | 9 | 132 | 30 | 2,078 |
| In hospital at end of year | 7,027 | 290 | 200 | 210 | 7,727 |
| Live births during year.. | - |  | 668 | - | 668 |
| Patient days during year. | 2,849,933 | 172,852 | 158,480 | 77,717 | 3,258,982 |
| Average daily number of patients. | 7,786-7 | $472 \cdot 2$ | 433.0 | 212-3 | 8,904-3 |
| Percentage occupancy. | 79.7 | 55.6 | $118 \cdot 6$ | 63.0 | 78.6 |

[^96]
## PART II.-PUBLIC WELFARE AND SOCIAL SECURITY*

Responsibility for social welfare in Canada has rested in large part on the provinces which, in turn, have delegated an important share of this responsibility to the municipalities. While constitutional authority has not changed, except with respect to unemployment insurance and old age pensions, the financial participation of the Federal Government has been greatly extended in the past two decades in the provision of income maintenance payments.

The creation of the Department of National Health and Welfare in 1944 established for the first time in the Federal Government a department in which public welfare is a major responsibility. The Department is charged with the administration of federal Acts relating to welfare which are not assigned by law

[^97]to other departments. In addition to the general promotion of social welfare, the Welfare Branch of the Department administers the family allowances program, the old age security program and the federal aspects of old age assistance, allowances for blind persons and the new program of aid to disabled persons. Grants to the provinces to promote physical fitness were introduced in 1943, but the Act providing for them was repealed in June 1954.

Unemployment insurance is administered by the Unemployment Insurance Commission; welfare and health services for veterans by the Department of Veterans Affairs; and the welfare of Indians and Eskimos by the Department of Citizenship and Immigration and the Department of Northern Affairs and National Resources, respectively.

Administration and financial responsibility in other fields of welfare, such as mothers' allowances, child protection and general assistance or relief, are left entirely to the provinces and their local subdivisions.

## Section 1.-Federal Government Programs

## Subsection 1.-Family Allowances

The Family Allowances Act was introduced in 1944 as a basic social security measure designed to assist in providing equal opportunity for all Canadian children. The allowances involve no means test and are paid entirely out of the Federal Consolidated Revenue Fund. They are not part of taxable income, although persons with children eligible for family allowances obtain a smaller income tax exemption for such children than for children not so eligible.

Allowances are payable in respect of every child under the age of 16 years who was born in Canada or has been a resident of the country for one year, or whose father or mother was domiciled in Canada for three years immediately prior to the birth of the child. Monthly payment is made normally to the mother although any person who substantially maintains the child may be paid the allowance on his behalf. The allowances are paid at the monthly rate of $\$ 5$ for each child under 6 years; $\$ 6$ for each child from 6 to 9 years; $\$ 7$ for each child from 10 to 12 years; and $\$ 8$ for each child from 13 to 15 years. The allowances are paid by cheque, except for Eskimo children and a group of Indian children for whom payment is made largely in kind because of lack of exchange facilities in remote areas and the need for education in the use of nutritive foods.

If it is satisfactorily shown to the authorities that the allowances are not being spent for the purpose outlined in the Act, payment may be discontinued or made to some other person or agency on behalf of the child. Allowances are not payable for any child who fails to comply with provincial school regulations or on bebalf of a girl who, although she is under 16 years of age, is married.

Family allowances are administered by the National Director of Family Allowances of the Department of National Health and Welfare through Regional Directors in offices located in each provincial capital. A Welfare Section in each regional office deals with welfare questions arising out of the administration of allowances. A Supervisor of Welfare Services advises each Regional Director and reports through him to the Chief Supervisor of Welfare Services, who acts in a similar advisory capacity to the National Director. The actual preparing and issuing of the cheques is the responsibility of the treasury division of each regional office which reports to the Chief Treasury Officer of the Department of Finance with the Department of National Health and Welfare.

The Regional Director for the Yukon and Northwest Territories, located at Ottawa, is responsible for payments to families in those areas. Close co-operation is maintained with the Departments of Citizenship and Immigration and of Northern Affairs and National Resources which are responsible for the welfare of Indians and Eskimos, respectively (see Population Chapter, pp. 159 and 160).

## 1.-Family Allowance Statistics, by Province, Years Ended Mar. 31, 1952-54

| Province or Territory | Iear <br> Ended <br> Mar. 31- | Families Receiving Allowance in March | Children for Whom Allowance Paid in March | Average <br> Number of Children per Family in March | Average <br> Allowance- |  | Net <br> Total <br> Allowances <br> Paid During <br> Fiscal Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{aligned} & \text { per } \\ & \text { Family } \end{aligned}$ | $\begin{aligned} & \text { per } \\ & \text { Child } \end{aligned}$ |  |
| Newfoundland........... |  | No. | No. | No. | \$ | \$ | \$ |
|  | 1952 1953 | 52,552 53,800 | 150,995 157,280 | 2.87 2.92 | $17 \cdot 11$ $17 \cdot 43$ | 5.96 5.96 |  |
|  | 1953 1954 | 53,800 55,102 | 157,280 163,292 | 2.92 2.96 | $17 \cdot 43$ 17.70 | 5.96 5.97 | $11,038,874$ $11,497,719$ |
| Prince Edward Island.... | 1952 | 13,248 | 34,698 | $2 \cdot 62$ | 15.73 | 6.01 | 2,495,987 |
|  | 1953 | 13,207 | 35,060 | $2 \cdot 65$ | 15.99 | 6.02 | 2,522,830 |
|  | 1954 | 13,205 | 35,441 | $2 \cdot 68$ | 16.22 | $6 \cdot 04$ | 2,558,097 |
| Nova Scotia............ | 1952 | 93.051 | 222,664 | $2 \cdot 39$ | $14 \cdot 43$ | 6.03 | 15,949,541 |
|  | 1953 | 94,414 | 227,698 | 2.41 | 14.56 | 6.04 | 16,297,170 |
|  | 1954 | 95,715 | 233,076 | $2 \cdot 43$ | 14-73 | 6.05 | 16,716,374 |
| New Brunswick.......... | 1952 | 73,167 | 195,355 | $2 \cdot 67$ | 15.99 | 5.99 | 13, 592,907 |
|  | 1953 | 74,426 | 201,240 | $2 \cdot 70$ | 16-23 | $6 \cdot 00$ | 14, 287,535 |
|  | 1954 | 75.189 | 205,:55 | 2-74 | 16.50 | 6.03 | 14,700,819 |
| Quebec................. | 1952 | 542,651 | 1,454,369 | $2 \cdot 68$ | 16.08 | 6.00 | 102,883, 812 |
|  | 1953 | 564,219 | 1,507,272 | $2 \cdot 67$ | 16-12 | 6.03 | 107,084,124 |
|  | 1954 | 585,050 | 1,562,685 | 2-67 | 16.20 | 6.06 | 111,441,301 |
| Ontario.................. | 1952 | 651,272 | 1,327,304 | 2.04 | 12.20 | 5.98 | 93,207,144 |
|  | 1953 | 681,870 | 1,405,125 | 2.06 | $12 \cdot 35$ | $5 \cdot 99$ | 98,303,868 |
|  | 1954 | 712,592 | 1,489,030 | $2 \cdot 09$ | $12 \cdot 54$ | $6 \cdot 00$ | 104, 409, 819 |
| Manitoba. | 1952 | 110,466 | 235,347 | $2 \cdot 13$ | 12.78 | 6.00 | 16,703,467 |
|  | 1953 | 113,329 | 244,376 | 2 -16 | 12.93 | 6.00 | 17,283,660 |
|  | 1954 | 116,238 | 253,803 | $2 \cdot 18$ | $13 \cdot 11$ | 6.00 | 17,979,854 |
| Saskatchewan........... | 1952 | 119,006 | 267,625 | $2 \cdot 25$ | $13 \cdot 64$ | 6.06 | 19,424,562 |
|  | 1953 | 120,781 | 2;2,958 | $2 \cdot 26$ | 13-73 | 6.07 | 19,723,352 |
|  | 1954 | 198.753 | 281,344 | $2 \cdot 27$ | $13 \cdot 80$ | $6 \cdot 07$ | 20,244,540 |
| Alberta..... . . ....... | 1952 |  |  | $2 \cdot 16$ | 12.99 | 6.01 | 21,573,430 |
|  | 1953 | 147,006 | 320,934 | $2 \cdot 18$ | $13 \cdot 12$ | $6 \cdot 01$ | $22,575,584$ |
|  | 1954 | 154,258 | 339,803 | $2 \cdot 20$ | $13 \cdot 24$ | 6.01 | 23,958,080 |
| British Columbia........ | 1952 | 166.734 | 329,130 | 1.97 | 11.81 | $5 \cdot 98$ | 23,063,643 |
|  | 1953 | 173,993 | 347.610 | 2.00 | 12.02 | $6 \cdot 02$ | 24,399, 859 |
|  | 1954 | 181.241 | 367,834 | $2 \cdot 03$ | 12.26 | 6.04 | 25,904,496 |
| Yukon and Northwest Territories. |  |  |  |  |  |  |  |
|  | 1952 | 4.077 | 9.053 | $2 \cdot 22$ | $13 \cdot 26$ | $5 \cdot 97$ | 649,273 |
|  | 1953 | 4.296 | 9,619 | $2 \cdot 24$ | 13.67 | $6 \cdot 10$ | 680, 828 |
|  | 1954 | 4.366 | 9,951 | $2 \cdot 28$ | 13.94 | $6 \cdot 11$ | 702,801 |
| Canada.... . . . .. . | 1952 | 1,966,721 | 4,530,186 | 2.30 | 13.82 | 6.09 | 320,457,673 |
|  | 1958 | 2,041,311 | 4,729,172 | 2.32 | 13.94 | 6.02 | 334,197,685 |
|  | 1954 | 2,116,769 | 4,912,044 | $2 \cdot 33$ | 14.08 | 6.03 | 350,113,902 |

[^98]
## Subsection 2.-Old Age Security*

Under the Old Age Security Act (R.S.C. 1952, c. 200), effective January 1952, a universal pension of $\$ 40$ a month is payable by the Federal Government to all persons aged 70 or over, subject only to a residence qualification. Residence requirement is 20 years immediately preceding commencement of pension with certain temporary absences allowed. Where the applicant has not so resided for the complete 20 years, the periods of absence may be made up by having been present in Canada, prior to the 20-year period, for double the periods of absence; for these persons, there is a further requirement of one year's residence immediately preceding the commencement of the pension.

Payment of the pension is suspended when the pensioner leaves Canada. On his return, the pension may be resumed and, in the case of absences not exceeding six months, payment may then be made retroactively for as many as three months of absence in any calendar year.

The program is financed on a pay-as-you-go basis. Payment of the pension is made from the Consolidated Revenue Fund and charged to the Old Age Security Fund account. The income of the Old Age Security Fund is derived from three sources. First, there is a 2-p.c. tax on personal taxable income, that is, on income less exemptions and deductions; the maximum tax per person is $\$ 60$ per annum. The fund also receives the amount collected by a special 2 -p.c. tax on corporate taxable income and the proceeds of a 2-p.c. sales tax. Temporary loans may be made to the Old Age Security Fund, subject to repayment as directed. Operations of the Fund for the first three years are shown in Table 2.

[^99]
## 2.-Operations of the Old Age Security Fund, Years Ended Mar. 31, 1952, ${ }^{1} 1953$ and 1954

| Item | Year Ended Mar. 31- |  |  |
| :---: | :---: | :---: | :---: |
|  | $1952^{1}$ | 1953 | 1954 |
| Revenue | - 8 | \$ | 8 |
| Taxes- |  |  |  |
| Individual income............. ............. . .... .. | 100,000 | 45,250,000 | $90.700,000$ |
| Corporation income. | 2,000,000 | 36,850,000 | 55,600,000 |
| Sales............... | 24,297,979 | 141,558,292 | 146, 832,886 |
| Grant from Consolidated Revenue. | 49.668,855 | - | - |
| Loan from Consolidated Revenue. | - | 99,483, $322^{2}$ | 45,837,905 |
| Totàls, Revenue...... . . . . . . . | 76,066,885 | 323,141,614 | 338,970,791 |
| Expenditure |  |  |  |
| Totals, Expenditure (Benefit Payments)................. | 76,066,835 | 323,141,614 | 338,970,791 |

[^100]The program is administered by the National Director of Old Age Security of the Department of National Health and Welfare through the ten regional offices established in connection with the payment of family allowances. The two programs are administered largely by the same personnel.

Persons in receipt of old age assistance who reach age 70 are transferred to the universal pension rolls without further action on their part. Other persons make application to the Regional Director located at their provincial capital. The Regional Director for the Yukon and Northwest Territories is located at Ottawa.

In Alberta, British Columbia and Saskatchewan, the provincial governments make supplementary payments to recipients of old age security who qualify under a means and residence test. In Alberta and British Columbia the allowance cannot exceed $\$ 15$ per month; in Saskatchewan, it is a flat $\$ 2.50$ per month. In some provinces and in the Yukon, recipients of the pension who are in special need may also receive relief.

## 2.-Old Age Security Statistics, by Province, Years Ended Mar. 31, 1952, ${ }^{1} 1953$ and 1954

| Province and Year | $\begin{gathered} \text { Pensioners } \\ \text { in } \\ \text { March } \end{gathered}$ | Pensions Paid (net) | Province or Territory and Year | $\begin{gathered} \text { Pensioners } \\ \text { in } \\ \text { March } \end{gathered}$ | Pensions Paid (net) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland- | No. | \$ | Manitoba- | No. | \$ |
| Newroundland- | 14,177 | 1,697,080 | Manitoba- 19521... | 37,826 | 4,457,480 |
| 1953. | 14,792 | 6,995,760 | 1953. | 40,489 | 19,019,960 |
| 1954. | 15,343 | 7,242,820 | 1954. | 42,592 | 20,052,895 |
| Prince Edward Island- |  |  | Saskatchewan- |  |  |
| 19521.................... | 6,338 | 754,720 | 19521. | 37,153 | 4,399,120 |
| 1953. | 6.553 | 3,155,700 | 1953. | 40,553 | 19,037,305 |
| 1954. | 6,669 | 3,203,780 | 1954. | 42,505 | 20,111,120 |
| Nova Scotia- |  |  | Alberta- |  |  |
| 19521. | 34, 832 | 4,124,080 | $1952{ }^{1}$. | 36,637 | 4,333,120 |
| 1953. | 36,150 | 17, 259,287 | 1953. | 40,203 | 18,745,260 |
| 1954 | 36,961 | 17,702.4\% | 1954................... | 42,868 | 20,137, 730 |
| New Brunswick- |  |  | British Columbia- |  |  |
| $1952{ }^{19}$ | 24.540 | 2,935,240 | $1952{ }^{1}$ | 72,225 | 8,543,040 |
| 1953. | 25.689 | 12.254,680 | 1953. | 79,464 | 36,802,800 |
| 1954. | 26,288 | 12,606,600 | 1954 | 85,191 | 39,880, 100 |
| Quebec- $1952$ |  |  | Yukon and N.W.T.- |  |  |
| 1953. | 147,833 | 69,570,127 |  | 447 | 28,040 |
| 1954. | 152,682 | 72,032,527 | 1954. | 469 | 225,520 |
| Ontario- |  |  | Canada- |  |  |
| $1952{ }^{1}$. | 238,925 | 28.194 .920 | 19521. | 643,013 | 76,066,834 |
| 1953. | 253.954 | 120.053 .015 | 1953. | 686,127 | 323,141,614 |
| 1254. | 264,831 | 125.735.222 | 1954................... | 216,399 | 338,970,791 |

${ }^{1}$ Program in effect for last three months only of the fiscal year.

## Subsection 3.-Government Annuities*

Under the Government Annuities Act (R.S.C. 1952, c. 132) passed in 1908, the Federal Government carries on a service to assist Canadians to make provision for old age. The Act is administered by the Minister of Labour.

[^101]A Canadian Government annuity is a fixed yearly income purchased from and paid by the Government of Canada. The annuity is payable in monthly instalments for life, or for life and guaranteed for a period of years. The minimum annuity is $\$ 10$ and the maximum $\$ 1,200$ a year or the actuarial equivalent if the annuity is to reduce by the amount of payments under the Old Age Security Act. Annuity contracts may be deferred or immediate. Deferred annuities are purchased by periodic or single premiums. Immediate annuity contracts provide immediate income. Annuities may now be arranged to reduce by $\$ 40$ per month at age 70 , to fit in with payments under the Old Age Security Act.

The property and interest of the annuitant are neither transferable nor attachable. In the event of the death of the annuitant before a deferred annuity vests, all money paid is refunded with interest to the purchaser or his legal representative. Provision is made in the Act for group annuity contracts, whereby employers may contract for the purchase of annuities on behalf of their employees, or associations on behalf of their members, the purchase money being derived partly from wages and partly from employer contributions. Group annuity plans now in effect cover a variety of industries and many municipal corporations throughout Canada. Annuities arising from individual contracts are taxable as to the interest portion of the annuity payment and the return-of-capital portion is exempt; annuities arising from approved pension plans are fully taxable but the employee and the employer are entitled to tax exemption year by year on their annual contributions to the pension plan.

From Sept. 1, 1908, the date of the inception of the system, to Mar. 31, 1954, the total number of annuity contracts and certificates issued, excluding replacements, was 368,690 . On the latter date, 64,405 annuities were being paid amounting to $\$ 30,281,536$ annually, and 261,277 deferred annuities were being purchased. The total amount of purchase money received up to Mar. 31, 1954, was $\$ 837,667,308$.

Up to Mar. 31, 1954, 949 corporations, institutions and associations, as compared with 940 up to Mar. 31, 1953, had entered into agreements with the Government to purchase annuities. Under these agreements, 147,523 employees or members were holding certificates for purchase of deferred annuities as compared with 137,537 one year earlier. The number of certificates issued under groups in the year 1953-54 was 13,161 as compared with 13,634 in the previous year.

## 4.-Government Annuities Contracted and Purchase Money Received, Years Ended Mar. 31, 1935-54

Nore.-Figures for 1909 to 1934 will be found in the 1942 Year Book, p. 873.

| Year | $\begin{gathered} \text { Contracts } \\ \text { and } \\ \text { Certificates } \end{gathered}$ | Purchase Money Received | Year | $\begin{gathered} \text { Contracts } \\ \text { and } \\ \text { Certificates } \end{gathered}$ | Purchase Money Received |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | 8 |  | No. | \$ |
| 1935. | 3,930 | 13,376,400 | 1945. | 15,796 | 33,076,436 |
| 1936. | 6,357 | 21,281,981 | 1946. | 25,538 | 46, 954, 536 |
| 1937. | 7,806 | 23,614,824 | 1947 | 43,585 | 72,009,764 |
| 1938. | 5.724 | 13,550,483 | 1948. | 40,945 | 75,067,827 |
| 1939. | 8,518 | 18,189,319 | 1949. | 36,332 | 64,311,116 |
| 1940. | 9,014 | 20,001,533 | 1950. | 21,078 | $63,133,242$ |
| 1941. | 11,994 | 18,803,645 | 1951. | 21,775 | 59,648,323 |
| 1942..... ........ . . | 8,593 | 19,630,645 | 1952. | 17,038 | 57,548,671 |
| 1943. | 9,608 19,354 | 20,415,365 $26,600,098$ |  | 18,433 18,466 | $62,787,282$ $64,380,327$ |
| 1944......... ..... | 19,354 | 26,600,098 | 1954. | 18,466 | 64,380,327 |

## 5.-Government Annuities Fund Statements, Years Ended Mar. 31, 1950-54

| Itern | 1950 | 1951 | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Assets | \$ | \$ | \$ | \$ | \$ |
| Fund at beginning of fiscal year. | 501, 337,659 | 563,132.111 | 620.398, 995 | 675,931.703 | 736,540,927 |
| Receipts during the year, less payments.. | 61,444.452: | 57.216.884 | 55.532.708 | 60,609,224 | 61,913,087 |
| Fund at end of fiscal year. | 563,182.111! | 620.398,995; | 675,931.503 | 736.540.927 | 798,454,014 |
| Liabilities |  |  |  |  |  |
| Value of outstanding contracts. | $563,182,111$ | 620,398,995 | 675,931,703 | 736,540,922, | 798,454,014 |
| Receipts |  |  |  |  |  |
| Immediate annuities | 8,500,020 | 6,954,048 | 4,437,155 | 5, 523,356 | 5,620,132 |
| Deferred annuities | 55, 165, 127 | 53,101,159 | 53,438,891. | 57.347 .618 | 59,580.358 |
| Interest on fund. | 20,504,145 | 22,680,245 | 24,671.66S | 26,994.535 | 29,306.356 |
| Amount transferred to maintain reserve.. | 1,255.772 | 659,787 | 940.138 | \% 43.616 | 98,911 |
| Totals, Receipts. | 85,425,061 | 83,325,239 | 83,487,852 | $90,909,125$ | 94,605,757 |
| Payments |  |  |  |  |  |
| Payments under vested annuity contracts. | 22,031,613 | 23,964, 819 | 25,820,310 | 27,693,728 | 29,749,159 |
| Return of premiums with interest........ | 1,417,094 | 1,806,652 | 1,807,459 | 2,222,482 | 2,123,349 |
| Return of premiums without interest..... | 531,905 | 406,884 | 327, 375 | 383,691 | 820,162 |
| Totals, Payments | 23,980,612 | 26,178,355 | 27,955,144 | 30,299,901 | 32,692,570 |

6.-Numbers and Values of Annuity Contracts, as at Mar. 31, 1953 and 1954

| Classification | 1953 |  |  | 1954 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contracts | $\begin{gathered} \text { Amount } \\ \text { of } \\ \text { Annuities } \end{gathered}$ | Value, at Mar. 31, of Contracts in Force | Contracts | $\begin{aligned} & \text { Amount } \\ & \text { of } \\ & \text { Annuities } \end{aligned}$ | Value, at Mar. 31, of Contracts in Force |
|  | No. | \$ | \$ | No. | \$ | $\delta$ |
| Immediate ordinary........ | 25,355 | 9,839,736 | 91, 521.234 | 27,096 | 10,555. 922 | 96,652,531 |
| Immediste guaranteed....... | 31,521 | 16,277,276 | 186, 165, 210 | 32.489 | 17,177,733 | 193,635,041 |
| Immediate last survivor.... | 4,362 | 2,101,000 | 28,204, 383 | 4,354 | 2,111,219 | 28,072,800 |
| Immediate reducing st age | - | - |  | 473 | 436,762 | 3,923,440 |
| Delerred | 246.724 | 2 | 430,650,100 | 261,277 |  | 476,170,202 |
| Totals. | 207,962 | 28,218,012 | 736,540,927 | 325,682 | 30,281,536 | 798,454,014 |

${ }^{1}$ Undetermined.

## Subsection 4.-Other Federal Government Programs

Unemployment Insurance and National Employment Service.-In 1940, by an amendment to the British North America Act, the Federal Government was given jurisdiction in the field of unemployment insurance and the Unemployment Insurance Act was passed, establishing a national system of unemployment insurance which is outlined in Chapter XVIII.

The National Employment Service is operated in conjunction with the unemployment insurance scheme. It is administered through local employment and claims offices and supervised by the Department of Labour. Statistics of positions offered and placements made are given in Chapter XVIII.

Prairie Farm Assistance.-The Prairie Farm Assistance Act is administered by the Department of Agriculture; a description of the legislation is given in Chapter IX.

Welfare Services for Indians and Eskimos.-The welfare of Indians and Eskimos is administered by the Department of Citizenship and Immigration and the Department of Northern Affairs and National Resources, respectively; this field is covered in the Population Chapter, pp. 159 and 160.

## Section 2.-Federal-Provincial Programs

Subsection 1.-Old Age Assistance

The Old Age Assistance Act (R.S.C. 1952, c. 199), effective January 1952, provides for federal financial aid to the provinces for assistance, not exceeding $\$ 40$ a month, to persons aged 65 or over subject to a residence qualification of at least 20 years. The payment of old age security commencing at age 70, makes old age assistance effective from ages 65 to 69 . Within the limits of the federal Act each province is free to fix the amount of the maximum assistance payable, the maximum income allowed and other conditions of eligibility. The Federal Government's contribution per recipient cannot exceed 50 p.c. of $\$ 40$ per month or of the assistance paid, whichever is less.

For an unmarried person the total income allowed, including assistance, cannot exceed $\$ 720$ a year; for a married couple, $\$ 1,200$ a year; where the spouse is blind within the meaning of the Blind Persons Act, the total income of the couple cannot exceed $\$ 1,320$ a year. The exact pension payable in each case depends on the amount of outside income and the resources of the applicant and his spouse. To be eligible for assistance the applicant must not be in receipt of an allowance under the Blind Persons Act or the War Veterans Allowance Act. The applicant must have resided in Canada for at least 20 years immediately preceding the commencement of the assistance, but may have certain temporary absences; where the applicant has not so resided for the 20 years he must have been physically present in Canada, prior to the 20 years, for a total period equal to twice the total of the absences during the 20 years.

Implementation of the program in any province is contingent upon the province passing enabling legislation and signing an agreement with the Federal Government. The program became effective in January 1952 in all areas except Newfoundland, Yukon Territory and the Northwest Territories where the effective date was Apr. 1, 1952. The maximum assistance is $\$ 40$ per month in all provinces and territories, except in Newfoundland where it is $\$ 30$ per month.

Administrative responsibility for the program is vested in the province; the provincial plan for such administration must be approved by, and cannot be changed except with the consent of, the Governor in Council. Assistance is paid by the province with federal reimbursement made through the Department of National Health and Welfare. The Old Age Assistance Division of that Department administers the federal aspects of the program.

In Alberta, British Columbia and the Yukon Territory, the provincial or territorial governments make supplementary payments to recipients of old age assistance who qualify under a means and residence test. In Alberta and British Columbia the allowance cannot exceed $\$ 15$ per month, while in the Yukon it cannot exceed $\$ 10$ per month. In some provinces, recipients of old age assistance who are in special need may also receive relief.

## 7.-Old Age Assistance Statisties, by Province, Years Ended Mar. 31, 1952, ${ }^{1} 1953$ and 1954

| Province or Territory and Year | Recipients in Month of March | Average Amount of Assistance Monthly | P.C. of Recipients to Population Age 65-69² | Federal <br> Government Contribution During Year |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | p.c. | \$ |
| Newfoundland......................... ${ }^{19532}$ | $\begin{aligned} & \mathbf{5 , 0 3 7} \\ & \mathbf{5 , 1 2 4} \end{aligned}$ | $\begin{gathered} 29 \cdot 14 \\ 29 \cdot 21 \end{gathered}$ | $\begin{aligned} & 55-35 \\ & 55-70 \end{aligned}$ | $\begin{aligned} & 833,898 \\ & 896,429 \end{aligned}$ |
| Prince Edward Island.................... 19521 | $\begin{aligned} & 305 \\ & 551 \\ & 594 \end{aligned}$ | $\begin{aligned} & 21 \cdot 72 \\ & 24 \cdot 07 \\ & 25 \cdot 88 \end{aligned}$ | $8 \cdot 97$ $16 \cdot 21$ 16.97 | $\begin{array}{r} 6,532 \\ 66,313 \\ 85,986 \end{array}$ |
| Nova Scotia............................ $1952^{1}$ <br>  1953 <br>  1954 | $\begin{aligned} & 2,271 \\ & 4,789 \\ & \mathbf{5 , 1 7 3} \end{aligned}$ | $34 \cdot 09$ $33 \cdot 49$ $33 \cdot 47$ | $11 \cdot 53$ $24 \cdot 56$ 26.53 | $\begin{array}{r} 95,673 \\ 893,059 \\ 1,028,756 \end{array}$ |
| New Brunswick...................... 19521 | 3,237 $\mathbf{5 , 3 7 1}$ $\mathbf{5 , 7 5 6}$ | $36-91$ $36 \cdot 83$ $36-93$ | $22 \cdot 64$ $37 \cdot 30$ $39 \cdot 42$ | $\begin{array}{r} 165,638 \\ 1,113,921 \\ 1,248,339 \end{array}$ |
| Quebec.................................. $195{ }^{1953} 1$ | $\begin{aligned} & 12,267 \\ & 30,490 \\ & 32,391 \end{aligned}$ | 38.61 37.59 37.50 | $12 \cdot 80$ $31-18$ $32 \cdot 39$ | $\begin{array}{r} 690,081 \\ 6,927,593 \\ 7,187,259 \end{array}$ |
| Ontario......................................19521 1953 1954 | $\begin{aligned} & 12,697 \\ & 20,401 \\ & 21,587 \end{aligned}$ | $37 \cdot 28$ $36 \cdot 95$ 36.83 | $\begin{array}{r} 8 \cdot 04 \\ 12 \cdot 75 \\ 13 \cdot 36 \end{array}$ | $\begin{array}{r} 672,512 \\ 4,586,572 \\ 4,726,153 \end{array}$ |
| Manitobs.................................. 19524 | 1.239 4.400 4.838 | $38 \cdot 45$ $38 \cdot 03$ $37 \cdot 77$ | $\begin{array}{r} 4 \cdot 47 \\ 15 \cdot 71 \\ 17 \cdot 16 \end{array}$ | $\begin{array}{r} 106,690 \\ 1,036,021 \\ 1,112,322 \end{array}$ |
| Saskatchewan............................. 1952 1953 1954 195 | 2,497 4,206 4,584 | $36 \cdot 93$ $36 \cdot 65$ 36.71 | 8.55 $14 \cdot 35$ 15.81 | $\begin{array}{r} 133,393 \\ 997,396 \\ 1,017,535 \end{array}$ |
| Alberta..................................... $1952{ }^{1953} 1$ | $\begin{aligned} & 2,954 \\ & 4,688 \\ & 5,014 \end{aligned}$ | $37 \cdot 36$ $36 \cdot 96$ $36 \cdot 60$ | 9.88 $15 \cdot 68$ 16.60 | $\begin{array}{r} 144,051 \\ 967,948 \\ 1,107,190 \end{array}$ |
| British Columbia.......................... 19521 | $\begin{aligned} & 4,134 \\ & 7,685 \\ & 8,144 \end{aligned}$ | $\begin{aligned} & 38 \cdot 28 \\ & 37 \cdot 56 \\ & 37 \cdot 72 \end{aligned}$ | $\begin{array}{r} 7 \cdot 80 \\ 14 \cdot 55 \\ 15 \cdot 60 \end{array}$ | $\begin{array}{r} 262,668 \\ 1,701,854 \\ 1,863,052 \end{array}$ |
| Yukon Territory............................. 19533 ${ }_{1954}^{10}$ | $\square_{4}$ | $\overline{40 \cdot 00}$ | $\overline{2 \cdot 15}$ | - 880 |
| Northwest Territories...................... ${ }_{1954}^{19533^{2}}$ | $\begin{aligned} & 57 \\ & 64 \end{aligned}$ | $\begin{aligned} & 38 \cdot 68 \\ & 38 \cdot 40 \end{aligned}$ | $\begin{aligned} & 33 \cdot 14 \\ & 37 \cdot 21 \end{aligned}$ | $\begin{array}{r} 4,257 \\ 14,251 \end{array}$ |
|  | $\begin{aligned} & \mathbf{4 1 , 6 0 1} \\ & \mathbf{8 7 , 6 1 5} \\ & \mathbf{9 3 , 2 7 3} \end{aligned}$ | $\begin{aligned} & 37.47 \\ & 36.57 \\ & 36.50 \end{aligned}$ | $\begin{array}{r} 9.45 \\ 19.74 \\ 20.80 \end{array}$ | $\begin{array}{r} 2,277,238 \\ 19,128,837 \\ 20,288,152 \end{array}$ |

[^102]
## Subsection 2.-Allowances for the Blind

The Blind Persons Act (R.S.C. 1952, c. 17), effective January 1952, provides for financial aid to the provinces toward the provision of allowances not exceeding $\$ 40 \mathrm{a}$ month to blind persons aged 21 or over, subject to a residence qualification of at least 10 years. Within the limits of the federal Act, each province is free to fix the amount of the maximum allowance payable and the maximum income allowed. The Federal Government's contribution per recipient cannot exceed 75 p.c. of $\$ 40$ per month or of the allowance paid, whichever is less.

For an unmarried person, the total income allowed, including the allowance, cannot exceed $\$ 840$ a year; for an unmarried person with one or more dependent children, $\$ 1,040$; for a married couple, $\$ 1,320$ a year; where the spouse is also blind within the meaning of the Blind Persons Act, the total income of the couple cannot exceed $\$ 1,440$ a year. The exact allowance payable in each case depends on the amount of outside income and the resources of the applicant and his spouse. To be eligible for an allowance the applicant must not be in receipt of assistance under the Old Age Assistance Act, of an allowance under the War Veterans Allowance Act, of a pension under the Old Age Security Act or of a pension in respect of blindness under the Pensions Act. The applicant must have resided in Canada for at least 10 years immediately preceding the commencement of the allowance but may have certain temporary absences; where the applicant has not so resided for the 10 years, he must have been physically present in Canada, prior to the 10 years, for a total period equal to twice the total of the absences during the 10 years.

Implementation of the program in any province is contingent upon the province passing enabling legislation and signing an agreement with the Federal Government. The program became effective in January 1952 in all provinces and in the Yukon and Northwest Territories.

Administrative responsibility for the program is vested in the province; the provincial plan for such administration must be approved by, and cannot be changed except with the consent of, the Governor in Council. The allowances are paid by the province with federal reimbursement made through the Department of National Health and Welfare. The Old Age Assistance Division of that Department administers the federal aspects of the program.

In Alberta, British Columbia, Saskatchewan and the Yukon Territory, the provincial or territorial governments make supplementary payments to recipients of allowances for the blind who qualify under a means and residence test. In Alberta and British Columbia the allowance cannot exceed $\$ 15$ per month; in Saskatchewan it is a flat $\$ 2.50$ per month; in the Yukon it cannot exceed $\$ 10$ per month. In some provinces recipients of the allowance who are in special need may also receive relief.

## 8.-Statisties of Allowances for the Blind, by Province, Years Ended Mar. 31, 1952, ${ }^{1} 1953$ and 1954



[^103]A description of the pensions payable to blind persons under the Old Age Pensions Act 1927, repealed in 1951, will be found in the 1951 Year Book, pp. 234-235. The final statistics of operations under that program are given in the 1952-53 Year Book, p. 267.

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$$

## Subsection 3.-Allowances for Disabled Persons

In June 1954, Parliament passed the Disabled Persons' Act under which the Federal Government will provide financial aid to the provinces for allowances, not exceeding $\$ 40$ a month, to totally and permanently disabled persons aged 18 or over, subject to a residence qualification of at least 10 years. It is anticipated that the Act will become effective in January 1955. Within the limits of the Federal Act each province is free to fix the maximum amount of assistance payable, the maximum income allowed and other conditions of eligibility. The Federal Government's contribution per recipient cannot exceed 50 p.c. of $\$ 40$ per month or of the assistance paid, whichever is less.

The allowance is not available to a person in receipt of an allowance under the Blind Persons Act, assistance under the Old Age Assistance Act, an allowance under the War Veterans Allowances Act, a pension under the Old Age Security Act, or to any person who is receiving money or assistance by way of mothers' allowances.

Further conditions of eligibility require that an applicant may not be a patient in a tuberculosis sanatorium, a mental institution, a home for the aged, an infirmary or an institution for the care of incurables. Except as prescribed in the regulations, the applicant may not be a patient or resident in a hospital, a nursing home or in a private, charitable or public institution. For an unmarried person, total income including the allowance may not exceed $\$ 720$ a year and for a married couple, $\$ 1,200$ a year; where the spouse is blind within the meaning of the Blind Persons Act, the total income of the couple may not exceed $\$ 1,320$ a year.

Except for certain temporary absences, an applicant must have resided in Canada for at least 10 years immediately preceding the commencement of the allowance; an applicant who does not have 10 years' residence must have been in Canada prior to the 10 years for a total period equal to twice his absences during the 10 years. The provincial authority must suspend the payment of the allowance when, in its opinion, the recipient unreasonably neglects or refuses to comply with or to avail himself of training, rehabilitation or treatment measures or facilities provided by or available in the province.

Implementation of the program in any province is contingent upon the province passing enabling legislation and signing an agreement with the Federal Government. Nine of the ten provinces had indicated by June 1954 their intention of participating in the program.

## Subsection 4.-National Physical Fitness Program

A fitness and recreational program was introduced by the National Physical Fitness Act in October 1943. The Act, which established a National Council to promote the well-being of the people of Canada through fitness and recreational activities, was administered by the Department of National Health and Welfare. Under this Act, the Federal Government made available to the provinces an amount not exceeding $\$ 232,000$ annually on a per capita basis for the promotion of fitness and recreation programs. Financial assistance was given only to those provinces that signed specific agreements with the Federal Government and to the extent to which they matched it dollar for dollar up to the maximum available. During 1953-54, seven provinces-Nova Scotia, New Brunswick, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia-and the Northwest Territories
participated in the program. The amounts made available to the individual provinces are given in the 1954 Canada Year Book, p. 253. National Fitness Scholarships were awarded annually to provide financial assistance to professionally qualified Canadians with three years' successful experience who desired to improve their professional qualifications.

The Physical Fitness Act was repealed in June 1954 but commitments in respect to agreements already made with the provinces were provided for under the repealing Act. The Physical Fitness Division, through which the Act was administered, continues to function within the Department of National Health and Welfare.

The Division provides consultative services on all aspects of fitness and recreation at the request of federal and provincial departments and national organizations. It acts as a clearing house for the latest information on fitness, recreation, community centres, physical education, athletics, sports and games, theatre arts and related activities. It operates a preview library service for visual aids. In addition, it maintains liaison with national associations and comparable organizations in other countries. To an increasing extent during the past few years, the Division has given direct assistance to provincial authorities by the provision of professional consultant services regarding organization and specialized instruction for leadership training courses at the regional and provincial level. These services augment those provided by provincial fitness and recreation offices, particularly in those specialized fields where the province is unable to provide services of its own.

## Subsection 5.-Training Programs

Under the Vocational Training Co-ordination Act of 1942 (R.S.C. 1952, c. 286), the Federal Department of Labour, in co-operation with the provincial governments, carries on various training projects. Details of these schemes will be found in Chapter XVIII, Section 6.

## Section 3.-Provincial Programs

## Subsection 1.-Mothers' Allowances

All provinces have statutory provision for allowances to enable certain needy mothers to remain at home to care for their dependent children. The total cost of this assistance is paid from provincial funds, except in Alberta where a portion of each allowance is charged to the municipality of residence.

Subject to the conditions of eligibility, which vary from province to province, the allowances are payable to applicants who are widowed or whose husbands are mentally incapacitated and, except in Alberta, to those whose husbands are physically disabled and unable to support their families. They are also payable, except in Nova Scotia, to deserted wives who meet specified conditions; in several provinces to mothers who have been granted a divorce or legal separation and in some to unmarried mothers. Adoptive mothers and foster mothers are also eligible under certain circumstances. The age limit for children is 16 years except in Manitoba where it is 15 years and in Newfoundland where it is 17 years. Provision is made in most provinces to extend payment for a specified period if the child is attending school and six provinces continue to pay allowances on behalf of physically and mentally handicapped children for from two to five years.

In all provinces applicants must satisfy conditions of need and residence but both the amount of outside income and resources allowed and the length of residence required prior to application vary considerably, the latter, for example, from one year in Saskatchewan, Ontario and Newfoundland to five years in Quebec. All provinces require that the applicant be resident at the time of application and that the child or children live with the recipient, and most provinces require that they continue to live in the province while in receipt of an allowance. Nationality is a condition of eligibility in six provinces. The applicant must be a British subject, the wife or widow of a British subject or her child must be a British subject, except in Quebec and New Brunswick, where Canadian citizenship is required.

In each province the relevant Act is administered by public welfare authorities. Most provinces have a mothers' allowances board or commission which makes the final decision regarding eligibility and the amount of allowance granted or acts in an advisory capacity. In some provinces local advisory committees are also appointed. Rates of benefit as of June 1954 are given in the following paragraph.

In Newfoundland, the maximum allowance for a mother and one child is $\$ 25$ a month, with $\$ 5$ for each additional child and for a disabled father at home; the maximum for a family is $\$ 65$ a month, with supplementary assistance of up to $\$ 20$ monthly if necessary for proper care and maintenance. In Prince Edward Island a mother with one child may receive up to $\$ 25$ a month, with up to $\$ 5$ for each additional child; the family maximum is $\$ 50$ monthly. In Nova Scotia a monthly maximum of $\$ 80$ for a family is fixed by statute; the amount payable to a mother and one child is determined by family need. An amendment to the Act, to become effective January 1955, provides that an allowance not exceeding $\$ 40$ per month may be paid on behalf of a disabled child 16 years or older who is not yet eligible for an allowance under the federal-provincial Disabled Persons Act. In New Brunswick the family maximum is $\$ 80$ a month, with $\$ 35$ for a mother and one child and $\$ 7.50$ for each additional child. An additional $\$ 10$ may be granted for rent if it is needed and if the allowance is below the family maximum. The maximum allowance in Quebec for a mother and one child is $\$ 35$ in a district where the population is under 5,000 and $\$ 40$ where it is 5,000 or over. An additional $\$ 1$ per month is paid for each of the second, third, fourth and fifth children, $\$ 2$ for the sixth and seventh, and $\$ 3$ for the eighth and subsequent children. An extra $\$ 5$ is allowed when the mother is unable to work or when a disabled father is living at home. Ontario pays a maximum of $\$ 50$ a month for a mother and one child, with $\$ 10$ for each additional child and for a disabled father at home. A foster mother with one child may receive up to $\$ 24$ per month, with two children up to $\$ 48$, and $\$ 10$ for each additional child. The allowance may be increased up to $\$ 20$ a month where need is shown and a winter fuel allowance, not exceeding $\$ 24$ monthly, is also granted. The maximum monthly allowance in Manitoba for a mother and one child is $\$ 51$. There is an additional $\$ 10$ paid for a child aged one to six years, $\$ 13$ for a child seven to 11 years, and $\$ 15.50$ for a child 12 to 14 years; $\$ 17.25$ is paid for a disabled father in the home. The family maximum is $\$ 167$ plus winter fuel for seven months, with supplementary assistance of up to $\$ 25$ monthly in special circumstances. In Saskatchewan the maximum allowance for a family is $\$ 85$ a month, with $\$ 35$ being paid for a mother and one child, $\$ 10$ for a second child, $\$ 5$ for each subsequent child and $\$ 10$ for a disabled father at home. A foster parent with one child may receive up to $\$ 25$ a month, with an additional $\$ 10$ for a second child and $\$ 5$ for each additional child. Supplementary assistance under the social aid program may be granted by the local municipality and the costs are shared equally by the province
and the municipality. The allowance in Alberta may not exceed $\$ 50$ per month for a mother with one child or $\$ 60$ if her other income does not exceed $\$ 120$ a year, $\$ 20$ for the second child, $\$ 15$ for the third and $\$ 10$ for each subsequent child. $A$ maximum of $\$ 145$ is set for a family with nine or more children. Supplementary aid in the form of public assistance may be granted, where necessary, by the municipality of residence, with the Province reimbursing 60 p.c. of the cost. In British Columbia the maximum monthly mothers' allowance set by statute is $\$ 12.50$ for a mother with one dependent child, and $\$ 7.50$ for each additional child and for a disabled father living at home. Supplementation from social allowance funds brings the actual maximum monthly payments to $\$ 69.50$ per month for a mother and one child and $\$ 14$ for each additional child and for a disabled father living at home. Extra expenditure may be met through social allowance funds, and a nutrition allowance is available for tubercular patients and their families.
9.-Mothers' Allowances, by Province, as at Mar. 31, 1952-54 ${ }^{1}$

| Province and Year ${ }^{1}$ | Families Assisted | Children <br> Assisted | Benefits Paid ${ }^{2}$ | Province and Year ${ }^{1}$ | Families Assisted | Children <br> Assisted | Benefits Paid ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland- | No. | No. | \$ | Ontario- | No. | No. | \$ |
| 1952.......... | 3,267 | 7,996 | 1,261,541 | 1952.............. | 7,748 | 16,843 | 6,037,618 |
| 1953. | 3,017 | 7,875 | 1,217,401 | 1953...... ......... | 7,621 | 16,798 | 6,431,229 |
| 1954 | 3,031 | 8,204 | 1,227,696 | 1954. | 7,059 | 16,782 | 6,219,337 |
| P. E. Istand- |  |  |  | Manitoba- |  |  |  |
| 1952. | 225 | 627 | 59,668 | 1952. | 932 | 2,482 | 783.184 |
| 1953 | 256 | 665 | 64,738 | 1953 | 1,005 | 2,591 | 866.156 |
| 1954. | 261 | 665 | 66,413 | 1954 | 1,099 | 2,848 | 1,006,507 |
| Nova Scotia- |  |  |  | Saskatchewan- |  |  |  |
| 1952. | 1,996 | 5,988 |  |  | 2,573 | 6,033 | 1,111,310 |
| 1953 | 2,405 | 6,667 | 1,405,7652 | 1953. | $\stackrel{2}{2}$, 124 | 5,815 | 1,328,884 |
| 1954 | 2,313 | 5,975 | 1,444,934 | 1954. | 2.272 | 5,925 | 1,217,309 |
| New Brunswick- 1952.......... | 1,848 | 5,292 | - | Alberta- 1952 | 1,488 | 3,229 | 895,643 |
| 1953. | 2.066 | 5,947 | 1,295,263 | 1953. | 1,524 | 3,360 | 1,048,772 |
| 1954 | 2,096 | 6,059 | 1,273.836 |  | 1,609 | 3,632 | 1,112,803 |
| Quebee - |  |  |  | British Columbia- |  |  |  |
| 1952. | 13,750 | 38,500 | 5,502,571 | 1952............... |  | 1,064 | 286,4404 |
| 1953. | 15,442 | 43,238 | 7,482,521 | $1953 . \ldots . . . . . . . . . . \mid$ | 470 | 1,009 | 260,8764 |
| 1954. | 16,242 | 45,478 | 7,621,430 | 19545 ............. | 426 | 953 | 247,0004 |

[^104]
## Subsection 2.-Provincial Welfare Services

The care and protection of neglected and dependent children, care of the aged, social assistance or relief, and other special services outlined in the following summary are governed by provincial legislation, although in many areas responsibility for services rests with municipal or voluntary organizations. Though the programs and the methods of financing vary considerably, most provinces share the costs of some or all of the municipal services in organized areas and assume the total cost in unorganized territories. The medical services available to social assistance recipients are described at pp. 229-242. Mothers' allowances are dealt with in the immediately preceding subsection, old age assistance at pp. 264-265, and allowances for the blind at pp. 266-267.

Newfoundland.-Provincial welfare services are administered by the Department of Public Welfare through a number of regional welfare centres.

Child Care and Protection.-Child welfare has developed largely as a public service and is administered by the Child Welfare Division. Neglected children, made wards of the Director, are placed in foster or adoptive homes or in institutions. The Department pays for the maintenance of wards, grants subsidies for children admitted to orphanages administered by religious organizations, and contributes towards the cost of educating blind and deaf-mute children in institutions at Halifax, N.S., and Montreal, Que. The Division operates an Infants' Home providing shortterm care.

In 1953, a Division of Corrections was established to deal with both juvenile delinquents and adult offenders and, for the present, to administer correctional institutions for boys and girls. The Corrections Act, 1953, provides for the establishment of a Youth Guidance Authority, an Adult Guidance Authority and classification centres.

Care of the Aged.-The Province maintains a Home for the Aged and Infirm at St. John's and also pays a per diem rate for needy old people in the Salvation Army Home and in approved boarding homes.

Social Assistance.-Under the Dependents' Allowances Act, the Province grants assistance to needy unemployables not eligible for other forms of statutory assistance. Aid for certain needy able-bodied persons is provided under the Health and Public Welfare Act.

Prince Edward Island.-The Department of Health and Welfare is responsible for the administration of provincial welfare services.

Child Care and Protection.-Under the Children's Protection Act, neglected or delinquent children may be placed under the guardianship of the Director of Child Welfare or an approved child welfare agency. The children are placed in foster or adoptive homes, boarding homes or children's institutions under the inspection of the Director. Provincial grants are made to child welfare agencies and to the two private orphanages, one Protestant and one Roman Catholic. Juvenile Courts are under the Attorney General's Department, and juvenile delinquents are cared for at the expense of the Department of Health and Welfare in correctional institutions of the neighbouring provinces.

Care of the Aged.-The aged and infirm are cared for in Falconwood Mental Hospital and in two provincial infirmaries.

Social Assistance.-The Department provides direct social assistance in rural areas and, by agreement, assumes 50 p.c. of the cost of assistance granted by the City of Charlottetown and the incorporated towns and villages. The Department also operates a province-wide program of financial aid to families where the breadwinner is suffering from tuberculosis and is unable to support the family.

Nova Scotia.-Provincial welfare services are administered by the Department of Public Welfare through a number of regional offices.

Child Care and Protection.-The Child and Family Welfare Branch administers the child-protection legislation including the inspection of institutions and the licensing of foster and maternity homes. Neglected children may be made wards of the Director of Child Welfare or of approved Children's Aid Societies. Each Society receives annually a provincial grant of up to $\$ 2,000$; a sum equal to 50 p.c. of funds received through private campaigns or from municipalities for general
operating expenses; and an additional grant of not less than $\$ 1,000$, the maximum determined on a per capita basis. The Province and municipality of residence contribute towards the maintenance of each ward placed in a foster home or institution, unless a court order for support is made against the parents.

The Branch operates the Nova Scotia Training School for mentally defective children and the Nova Scotia School for Boys for juvenile delinquents. It is also responsible for the operation of the six Juvenile Courts and the supervision of their probation staffs. The municipality of residence is responsible for the maintenance of children in reformatories although the Province may contribute also if the reformatory complies with specified standards.

Care of the Aged.-The aged are cared for in municipal or county homes, in homes operated by religious or private organizations and in private boarding homes where the municipality of residence may contribute to the cost of maintenance. Homes for the aged are subject to provincial inspection but they do not receive direct assistance from the Province.

Social Assistance.-Relief to unemployables is a local responsibility.
New Brunswick.-The Department of Health and Social Services administers provincial welfare legislation.

Child Care and Protection.-Under the Children's Protection Act, administered by the Minister of Health and Social Services, responsibility for protection and placement services is largely delegated to Children's Aid Societies throughout the Province. Guardianship of a neglected child may be vested in a Society, the Director of Child Welfare or in the Court. Orphanages are operated by religious, private or, in some cases, municipal organizations. With a few exceptions, boarding homes must be licensed and are subject to the provincial inspection required for all childcaring institutions. The Province and the municipality of residence each contributes towards the maintenance of wards committed to an institution, and the Province also reimburses municipalities for one-half of the cost of maintaining wards placed in foster homes, up to a prescribed maximum. The Department may place blind or deaf-mute children in special schools at Halifax, N.S., and Montreal, Que. Juvenile Courts are under the Attorney-General's Department and delinquent boys may be placed in the Provincial Industrial School for Boys which reports to the Minister of Health and Social Services.

Care of the Aged.-Homes for the aged are operated under municipal, religious, fraternal or private auspices and are subject to provincial inspection but they receive no direct financial support from the Province.

Social Assistance.-Relief to unemployables is a local responsibility.
Quebec.-Major responsibility for the administration of provincial welfare measures is shared by the Department of Health and the Department of Social Welfare and Youth. The former administers the Quebec Public Charities Act which embodies the Government's policy of granting subsidies to religious and private institutions where they exist rather than creating public services. Grants are made to these institutions on a per diem basis, with the Province, the municipality of residence and the institution sharing the cost of maintenance of indigent persons admitted for care. The Department of Social Welfare and Youth is responsible for preventive and rehabilitative work among neglected and dependent children
and for grants to recreation and welfare agencies, in addition to certain important educational functions. Social Welfare Courts are, however, under the jurisdiction of the Department of the Attorney-General.

Child Care and Protection.-Needy or abandoned children are generally cared for in institutions such as orphanages, nurseries and other homes, assisted under the Quebec Public Charities Act, although there is an increasing use of foster homes by child welfare agencies. However, children who are found by a Social Welfare Court or other court to be particularly exposed to moral or physical dangers may be admitted to recognized youth protection schools under the Youth Protection Schools Act, 1950, administered by the Department of Social Welfare and Youth. Municipalities of residence are required by law to contribute 50 p.c. of the operating and maintenance costs of these schools but, in practice, the Province pays approximately 87 p.c. of all expenses and the entire cost of new construction. The Social Welfare Courts, which in 1950 replaced Juvenile Courts, have statutory responsibility in connection with child and youth protection and certain other provincial programs and also serve as Family Courts.

Children who have been exposed to tuberculosis but who have not been infected are placed with rural families under the supervision of the Department of Health in co-operation with child-welfare agencies.

Care of the Aged.-Institutional care for indigent old people is provided under the Quebec Public Charities Act through private institutions. Under the same Act, family welfare agencies administer home allowances to needy old people who do not require institutional care.

Social Assistance.-Financial aid is not provided to needy families in Quebec but institutional care for indigents is available under the Quebec Public Charities Act. The Department of Colonization operates a program whereby families in need are settled on the land in newly opened districts and granted financial aid until they become self-supporting. In these areas, a disability pension scheme is linked to a program of free medical services.

Ontario.-Provincial welfare services are administered by the Department of Public Welfare. The Province is divided into 17 welfare districts with a supervisor in charge of each district.

Child Care and Protection.-Three major child welfare Acts were amended and consolidated in a single new Child Welfare Act in 1954. The Act is administered by the Child Welfare Branch which supervises the local Children's Aid Societies to which responsibility for the care and protection of neglected and dependent children is delegated. Annual provincial grants to these Societies include token grants based upon the quality and level of services provided in addition to grants equal to 25 p.c. of the amounts raised through voluntary effort. In addition the Province reimburses the municipalities of residence in amounts not exceeding 25 p.c. of the net cost of maintaining children made wards of Children's Aid Societies. The Province also reimburses a municipality to the same extent where it has made payments under an agreement with a Children's Aid Society for the temporary care and shelter of non-wards. Children's institutions are governed by provisions of the Charitable Institutions Act and day nurseries by the Day Nurseries Act. The Province makes per diem grants for children in charitable institutions and pays one-half of the operating and maintenance costs of municipal day nurseries. Juvenile Courts are under the Attorney-General's Department, while training schools for juvenile offenders are operated by the Department of Reform Institutions.

Care of the Aged.-Municipalities are required by law to provide institutional care for the aged, with the Province contributing 50 p.c. of the net operating and maintenance costs and 50 p.c. of the costs of approved new construction or approved additions and extensions. Both public and private institutions are subject to provincial regulations and inspection and, under certain circumstances, charitable institutions may receive a small per diem grant for each person maintained. Grants are made available to limited-dividend housing corporations to assist in the construction and equipment of low-rental housing projects for elderly persons.

Social Assistance.-Under the Unemployment Relief Act, the Province reimburses municipalities, up to a prescribed maximum, for 50 p.c. of their expenditures on relief to needy unemployables and on incapacitation allowances and rehabilitative measures for single, needy, handicapped residents. In unorganized areas the program is administered and financed by the Department. The Soldiers' Aid Commission extends emergency assistance and advice to former service men and their families. Under the Disabled Persons' Allowances Act, assistance of up to $\$ 10$ per month is granted to permanently and totally disabled persons.

Manitoba.-The Public Welfare Division of the Department of Health and Public Welfare is responsible generally for provincial welfare services.

Child Care and Protection.-The Director of Public Welfare administers the child welfare legislation. Included in this administration is the supervision of Children's Aid Societies and of child-caring institutions. The Provincial Public Welfare Division carries on these services directly through a decentralized program of district offices in a large area of the Province. In the remainder of the Province, the Director supervises the four non-denominational Children's Aid Societies in their respective territories. Neglected children may be made wards of the Director of Public Welfare or of a Children's Aid Society. Municipalities are responsible for the maintenance of wards but the Province reimburses them for a portion of these costs from the $\$ 500,000$ annual fund distributed among the municipalities in proportion to their relief and child welfare expenditures. Under agreements between the Province and the Children's Aid Societies, payment of annual provincial grants is conditional on the provision of a basic level of service and the collection of equivalent voluntary contributions; payments are made in accordance with a formula based on the number and cost of social workers per 100,000 population in a representative area where the Division directly administers child welfare services.

The Division provides foster-home care and supervision for mental defectives placed in the custody of the Director of Public Welfare and, with the Division of Psychiatry, operates a home for mentally defective girls. The Attorney-General's Department is responsible for Juvenile Courts and operates a boys' home and a girls' home for delinquents.

Care of the Aged.-Institutions and nursing homes for the aged and infirm are supervised and licensed by the Department under public health legislation.

Social Assistance.-Municipalities are responsible for assistance to needy residents, but these expenses, as well as ward maintenance costs, are partly reimbursed by the Province from the $\$ 500,000$ annual social assistance fund which is allocated on a pro rata basis. In addition, whenever the costs of social assistance and ward maintenance to any municipality exceed in a year a sum equivalent to four mills of the equalized assessment of such municipality, the Province reimburses 60 p.c. of the excess. The Province is responsible for aid to persons without municipal residence as well as for general assistance in unorganized territory.

Saskatchewan.-Provincial welfare services are administered by the Department of Social Welfare and Rehabilitation.

Child Care and Protection.-The Department provides welfare services for children throughout the Province, with the exception of Saskatoon where certain responsibilities are delegated to the Children's Aid Society. Children found to be neglected are, by court order, made wards of the Minister and are placed in foster homes, adoptive homes or institutions. A portion of the maintenance costs of wards, except of children born out of wedlock, is paid by the municipality of residence. The Branch operates two institutions for the temporary care of wards. It also operates a program of non-ward care and a program for unmarried mothers.

The Corrections Branch of the Department is responsible for both adult and juvenile correctional services, supervises probation and parole services for juvenile delinquents and administers the Saskatchewan Boys' School and the provincial gaols. The Juvenile Court is presided over by a judge who devotes his time exclusively to cases of juvenile delinquency. Juveniles are discharged from correctional institutions only by parole. A Youth Guidance Authority supervises the discharging of juveniles from probation, from institutions and from parole.

Care of the Aged.-The Department operates three homes for the aged, and licenses and supervises all privately operated homes. Maintenance, where necessary, may be arranged under the social-aid program. The Nursing Homes and Housing Branch is responsible for planning to meet future needs of the aged and for cooperating with other governmental organizations in the fields of institutional care and housing for the aged.

Social Assistance and Special Services.-The costs of assistance to needy persons are shared equally by the municipalities and the Department, but the Province pays the entire cost for transients and for persons in unorganized areas. The Rehabilitation Branch provides training and placement services for the handicapped; one-half the cost of this training is borne by the Province and one-half by the municipality of residence. It is also responsible for the rehabilitation of minority groups and operates a farm where the Métis-persons of mixed Indian and white stock who do not qualify under the Indian Act-are instructed in modern methods of farming while being paid for their work. Three schools are conducted for Métis children.

The Department administers the Provincial Housing Act which empowers the Province to enter into public housing projects under Sect. 35 of the National Housing Act, and to stimulate construction of low-rental housing projects by limiteddividend housing corporations.

Alberta.-The Department of Public Welfare is responsible for the administration of provincial welfare measures. It has branches at the four larger centres, and inspectors are located in suitable areas throughout the Province.

Child Care and Protection.-The care of children who are made wards of the Government under court orders or by agreement is under the control of the Child Welfare Commission. These children may be placed in foster homes or in licensed boarding homes or institutions. Permanent wards may also be placed in adoptive homes. The cost of maintenance of wards is paid by the Province which recovers 40 p.c. of such cost from the municipality of residence. The Home Investigating Committee is responsible for the inspection and the licensing, where required, of all homes and institutions in which children are given care. The Attorney-General's Department administers legislation regarding juvenile delinquency.

Care of the Aged.-The Province reimburses municipalities for 50 p.c. of cost incurred for the maintenance of needy, aged or infirm persons in municipally licensed homes. These homes must meet a specified standard before a licence is given and they are inspected periodically by officials of the Department of Public Welfare.

Social Assistance.-Municipalities are responsible for assistance to indigent residents but the Province is authorized to make grants to the municipalities of up to 60 p.c. of the value of the assistance. The Province pays the total cost of assistance granted to transients and to residents of unorganized districts, subject to a refund of 40 p.c. from the districts, through the Department of Municipal Affairs. Families may be assisted through settlement on suitable farm lands. The Single Men's Division maintains two hostels and one welfare centre to care for unemployable, single, homeless men without municipal domicile. Single ex-service men are cared for at Calgary and Edmonton without being placed in institutions. The Province has also established nine Métis colonies where settlers have extensive fishing, hunting and trapping rights, and are encouraged to engage in lumbering, agriculture and stock-raising. Educational services are provided and governmentoperated stores sell goods at cost price.

Widows and Disabled Persons Pensions.-Under the Widows Pension Act, widows aged 60 to 64 years, inclusive, may receive pensions of up to $\$ 40$ per month. Wives of husbands committed to hospital under the Mental Diseases Act and wives who have been deserted without reasonable cause for a specified period are also eligible if within the age group. To be eligible, applicants must meet certain conditions of need and residence and must not be in receipt of a mothers' or blind persons' allowance.

The Disabled Persons Pension Act provides for the payment of pensions of up to $\$ 10$ per month to persons suffering from a chronic disability and unable to accept gainful employment.

British Columbia.-The administration of provincial welfare services by the Social Welfare Branch of the Department of Health and Welfare is decentralized through district and municipal offices in six regions covering the whole Province. Generalized field service is provided by provincial social workers. The staff of the Social Welfare Branch is also responsible for welfare services required in connection with a number of programs operated by the Health Branch.

Cities and municipalities of over 10,000 population must have their own social welfare departments to administer the social assistance program and to provide case-work services. The Province pays 50 p.c. of the salaries of municipal social workers or, where more than one is needed, matches the municipal appointees worker for worker. Smaller municipalities may have their own or amalgamated social welfare departments or they may pay for the services of the Social Welfare Branch.

Child Care and Protection.-The Child Welfare Division administers legislation governing the protection of children, including adoptions, and provides direct services except at Vancouver and Victoria where it supervises the Children's Aid Societies. Municipalities are responsible for the costs of maintaining wards, but the Province reimburses them to the extent of 80 p.c. of such expenditure and pays the entire cost for children in unorganized areas. The Province pays the total maintenance cost of wards who are children of unmarried mothers. Child-caring institutions, boarding homes and day nurseries are licensed and supervised. The Social Welfare Branch administers an industrial school for delinquent boys and one for delinquent girls. Family case-work and rehabilitative supervision of children
released from the schools are carried on in co-operation with the Psychiatric Division and the probation service of the Juvenile Courts, which are under the jurisdiction of the Attorney-General's Department.

Care of the Aged.-The Social Welfare Branch operates the Provincial Home which provides care for aged men. In addition, the Province operates Provincial Homes for the Aged under the mental health program administered by the Provincial Secretary's Department, as well as the Provincial Infirmary for chronic care under the B.C. Hospital Insurance Service. The Province also contributes 33 p.c. of the capital cost of construction of municipal nursing homes, and licenses and supervises municipal and private nursing homes and boarding homes. The maintenance of needy residents, where necessary, is shared with the municipalities on an 80-20 basis. The Province assumes the total cost for provincial charges.

Social Assistance.-The social assistance program is administered by the Director of Welfare and supervised by the Family Division. It includes allowances to indigent individuals or families, counselling services, occupational training and the maintenance costs of nursing-home or boarding-home care. The Province reimburses the municipalities 80 p.c. of the cost of basic and certain supplementary social assistance payments to indigent municipal residents and assumes the total cost of assistance granted for those without municipal residence.

## Subsection 3.-Workmen's Compensation

In all ten provinces, legislation is in force providing for compensation for injury to a workman by accident arising out of and in the course of employment or by a specified industrial disease. A summary of provincial workmen's compensation legislation is given in Chapter XVIII.

## Subsection 4.-Care of Dependent and Handicapped Persons

Statistics of charitable and benevolent institutions are compiled every five years. The Census of 1951 covered the 1950 activities of 533 institutions, 490 being residential institutions and 43 being day nurseries. Summary statistics are given in the 1954 Year Book, pp. 263-264.

## PART III.-NATIONAL VOLUNTARY HEALTH AND WELFARE ACTIVITIES

A number of national voluntary agencies carry on important work in the provision of health and welfare services, planning and education. These agencies, some of which are described below, supplement the services of the federal and provincial authorities in many fields and play a leading role in stimulating public awareness of health and welfare needs and in promoting action to meet them.

Canadian Welfare Council.-The Council, established in 1920, is a national association of organizations and individual citizens in partnership to secure comprehensive, well-administered social services of high quality for the Canadian people. It furnishes authoritative information, technical advice and field service in the main areas of social welfare and provides a means of co-operative planning and action by serving as a link between the public and private agencies. Member organizations include community chests and councils, private social agencies, various federal, provincial and municipal departments and other groups and individuals active in the fields of health, welfare and education.

The policies and programs of the Council are determined by its members with the help of a nationally representative elected board of governors. Aided by professional staff, the members work together through Divisions of Child and Family Welfare, Recreation, Public Welfare, Delinquency and Crime, and Community Chests and Councils. Other aspects of social welfare are dealt with by special committees and departments, including the Department of French-speaking Services.

Some subjects to which the Council is giving study are: labour, Canadian adoption laws as a step towards improved adoption procedure in all provinces, needs of the aged, public assistance, residence and settlement legislation, rehabilitation of the disabled, health insurance and civil defence. A large number of surveys on a variety of subjects have been requested by agencies, communities and provinces. Council publications include the periodicals Canadian Welfare and Bien-être social canadien, an annual directory of Canadian welfare services, and division bulletins, pamphlets and reports.

Canadian Conference of National Voluntary Health and Welfare Organizations.-The Conference, set up in 1949, provides national health and welfare agencies with a clearing-house and a medium for exchange of experience and for joint study and action with a view to increasing co-operation in matters of common concern.

Canadian National Institute for the Blind.-The Institute, founded in 1918, provides extensive rehabilitative services for blind persons and carries on an active program for the prevention of blindness. Its services include home teaching of touch reading and writing, handicrafts, occupational training and placement, welfare services and financial assistance. It operates factories to afford employment for blind men and women and controls tobacco stands, news stands and industrial cafeterias managed by the sightless. Field services are provided through over 30 district offices staffed by field workers and teachers, most of whom are blind. The Institute maintains a national library of Braille and recorded literature, operates several residences and gives financial support to recreational clubs for blind persons. In the preventive field, it operates eye clinics, arranges treatments and distributes literature. The Institute is supported by government grants and voluntary subscriptions.

The Canadian Red Cross Society.-The peacetime program of the Society consists of eight major services. The operation of outpost hospitals and of a bloodtransfusion service are important projects in nearly all provincial divisions. Nutrition and visiting homemaker's services, and instruction in swimming and water safety are carried on in most branch areas. In addition, relief is supplied in times of national and international disaster, craft training and recreational centres are operated for hospitalized war veterans, and a national inquiry bureau traces persons for the purpose of reuniting families and friends.

The Canadian Junior Red Cross promotes health and good citizenship in schoolroom branches across Canada. As part of its program, the Junior Red Cross Crippled Children's Fund is maintained to assist in providing treatment for handicapped children.

The Victorian Order of Nurses for Canada.-The Victorian Order of Nurses is a voluntary public health agency, national in scope and having as its primary object the care of the sick in their own homes. Care is given, under medical direction,
by visiting nurses to medical, surgical and maternity patients, a large percentage of whom would otherwise be without skilled nursing services. Patients are expected to pay the cost of the home visits, but fees are scaled according to family income and service is never refused because of inability to pay.

Part-time nursing service is given in industrial plants where the number of employees does not warrant full-time employment of a nurse. In smaller centres where the Order provides the only public health nurse, the program is usually enlarged to include school nursing, assistance at immunization clinics and child health centres, and other public health services.

The Health League of Canada.-The Health League of Canada is a voluntary association devoted to health education. Through the media of press, radio, posters, pamphlets, motion pictures and the public platform, the League keeps the public informed concerning the health value of milk pasteurization, immunization procedures for preventable diseases, proper nutritional habits, sanitary work practices by public food-handlers and organized health programs for industrial workers. The League supplements its year-round program with the annual sponsoring of a National Health and a National Immunization Week.

The Order of St. John.-The primary purpose of the Order is to teach first aid and home nursing to citizens of Canada irrespective of age, race and creed, and to provide trained and organized personnel to help in time of emergency. The Canadian branch was organized in 1895 and, since that time, more than $1,250,000$ persons have been trained and have passed examinations in various subjects. The Order has its headquarters and national offices at Ottawa, branches in every province and local centres in hundreds of cities, towns and villages throughout Canada. There are two subsidiary branches, the St. John Ambulance Association and the St. John Ambulance Brigade, the first devoted to teaching and the second to rendering voluntary public assistance as required. The Order has been selected as the official organization to train civil defence workers in basic and advanced first aid.

The Canadian Arthritis and Rheumatism Society.-The Canadian Arthritis and Rheumatism Society was incorporated in 1948 for the purpose of reducing morbidity and mortality from arthritic and rheumatic diseases. Its objectives include the raising of funds to support research, the education of professional personnel and of the general public, and the promotion and organization of treatment facilities. A Medical Advisory Board composed of leading physicians, surgeons and scientists advises on the research program, professional education and public relations.

Divisions of the Society are organized in nearly every province. Arthritis clinics sponsored by the Society have been established in 30 hospital out-patient departments and, in addition, 44 mobile physiotherapy units provide treatment and consultations to those unable to leave home.

The Canadian Mental Health Association.-The Canadian Mental Health Association operated between the years 1918 and 1950 as the National Committee for Mental Hygiene. The Association carries on a continuous educational campaign for the general public on various aspects of mental health and, in co-operation with the University of Toronto, conducts a mental health liaison course for selected
teachers from all provinces. Provincial branches seek to promote a better understanding of the problems of mental illness and the need for community participation in mental health services. The program of the Association also includes factfinding surveys of current mental health services and research studies of specific aspects of mental illness and social behaviour.

Other National Health Organizations.-Additional voluntary agencies are engaged in a variety of health activities including financial support and operation of educational programs, research and training, and the provision of treatment. These activities may be directed towards the general public or towards specific categories of ill or disabled persons, such as the paraplegics. Some organizations, such as those dealing with the blind and the deaf, are interested in the welfare as well as the health problems of the groups served. Organizations of professional medical and related personnel, in particular of public health personnel, assist in the development of agencies and in guiding their activities.

## PART IV.-VETERANS HEALTH AND WELFARE SERVICES* Section 1.-The Department of Veterans Affairs

The great majority of veterans have now been assimilated into civilian life and the work of the Department of Veterans Affairs has settled into a well-defined pattern, its major functions being concerned with medical treatments and allowances, payment of pensions, welfare work, rehabilitation of the disabled and land settlement. The Department maintains 18 district offices and two sub-district offices in Canada as well as a district office at London, England. The administration of the Veterans' Land Act is conducted through eight district offices and 35 regional offices. Travelling settlement officers operate from the regional offices and serve the veterans settled throughout Canada.

The basis of administration of the Department of Veterans Affairs, established in 1944, is dealt with in the 1946 Year Book, pp. 1053-54. The work of the Department as it developed year by year is outlined in subsequent editions and is brought up to Mar. 31, 1954, in the following Sections.

## Section 2.-Medical, Dental and Prosthetic Services

Medical Services.-It is the policy of the Department to give veterans the most modern medical treatment possible. Where a Departmental hospital is situated in proximity to a medical school, close co-operation is maintained between the two. Veterans hospitals are actively engaged in undergraduate and postgraduate teaching, and members of the medical faculties are employed in the hospitals with other specialists. Eleven hospitals have received approval by the Royal College of Physicians and Surgeons of Canada for advanced post-graduate teaching in internal medicine and general surgery. Seven of these are also approved for advanced post-graduate teaching in specialties. The majority of the consultant staffs at Departmental hospitals are employed on $x$ part-time basis and are also engaged in medical teaching.

Professional and other members of the university staffs are employed as consultants and advisers in the same way as medical consultants. Thus, the Department receives expert advice in nursing, pathology, medical social services and other medical sciences.

[^105]Special centres for the investigation and treatment of arthritis, paraplegia, tuberculosis, etc., are active in the larger hospitals. Where Departmental facilities are not available, veterans with service-related disabilities receive treatment and hospitalization through the doctor of their choice.

During the year ended Mar. 31, 1954, 114 research projects were in progress, of which 70 were continuing and 44 were initiated during the year. Chief among these projects may be mentioned clinical research on atherosclerosis. The ultracentrifuge, located in Montreal, acts as the hub for several projects and receives specimens for analysis from all over Canada. A program of research into the problems of the ageing veteran has also been started and advice is being received from a special panel of experts. It is hoped to discover a practical means of assessing physiological age and to obtain valuable information regarding reasons for premature ageing. Research on the effects of ACTH and Cortisone on various conditions is continuing as are various follow-up studies of a clinical nature.

At Mar. 31, 1954, the Department was operating 9,974 beds in 19 separate institutions. Twelve were active treatment hospitals with 9,082 beds; two Health and Occupational Centres for convalescents with 365 beds; four Veterans' Homes with 327 beds, and one Tuberculosis Sanatorium with 200 beds.

On July 1, 1954, an amended Sect. 13 of the Veterans Treatment Regulations came into force, extending eligibility for treatment in DVA hospitals for nonpensioned conditions to a much larger group of veterans. Overseas veterans and those in receipt of disability pensions are now eligible for treatment for almost any non-pensioned condition, subject to facilities being available, if their annual incomes, less deductions for dependants, do not exceed $\$ 2,500$. Annual income means income for the six months prior to admission to hospital plus the estimated income for the succeeding six months. Formerly only those veterans whose adjusted incomes did not exceed $\$ 1,200$ were eligible.

Treatment is free for those veterans whose adjusted incomes do not exceed $\$ 720$, but those with higher incomes are required to pay a part of the cost of hospitalization, the amount charged varying with their incomes but not exceeding a fixed and limited amount in any 12 -month period. In addition to charges made in respect of income, these veterans may be required to pay for hospitalization from resources-cash, bonds or negotiable securities-or a combination of both. These liquid assets, however, may not be reduced below $\$ 500$ for a single man or $\$ 1,000$ for a married veteran for periods of hospitalization of 30 days or less. The figures increase progressively for longer periods until they reach $\$ 1,000$ and $\$ 2,000$, respectively, for 80 or more days of treatment.

All veterans have been eligible since 1950, under Sect. 23 of the Regulations, for treatment in DVA hospitals for non-pensioned conditions by guaranteeing the full cost of their hospitalization. During the year ended Mar. 31, 1954, approximately 2,500 veterans took advantage of this privilege.

Dental Services.-The number of dental treatments given during the years ended Mar. 31, 1941-54, were:-

| Year ended Mar. 31- | Trealments |  | Year ended Mar. 31- | Treatments |
| :---: | :---: | :---: | :---: | :---: |
|  | No. |  |  | No. |
| 1941. | 99,590 | 1948. | ........... .... | 1,191,218 |
| 1942. | 73,113 | 1949. |  | 218,173 |
| 1943. | 102,554 | 1950. |  | 158,149 |
| 1944. | 66,562 | 1951. |  | 128,206 |
| 1945. | 249,170 | 1952. |  | 103,242 |
| 1946 | 509,703 | 1953. |  | 103,255 |
| 1947............... | 2,700,052 | 1954. | ........ .... ... . | 126,531 |

Prosthetic Services.-The Prosthetic Services Branch of the Department of Veterans Affairs supplies, by manufacture or procurement, all orthopædic and surgical appliances prescribed by the Treatment Services Branch. The maintenance and renewal of such prostheses for all eligible cases is also the concern of the Branch. A large modern centre at Sunnybrook Hospital, Toronto, together with 11 district centres and five visiting centres in the principal cities, extends the manufacturing, maintenance and fitting service across the country. This system ensures a standardization of parts of major prostheses, a control of quality of supplies and availability of service at all times.

A Research and Development Section at Toronto is constantly at work on improvements and, in co-operation with the manufacturing services, conducts the field-testing of new developments. Close contact is maintained with the National Research Council and with research committees in the United States and the United Kingdom.

During the year ended Mar. 31, 1954, 61,843 persons were supplied with appliances or accessories compared with 61,488 during the previous fiscal year. Total issues during these two years numbered 119,963 and 117,375, respectively.

Vetcraft Shops.-The Department operates Vetcraft Shops at Toronto and Montreal giving sheltered employment to disabled veterans. These shops manufacture poppy emblems and wreaths for sale by the Canadian Legion on Remembrance Day. An average of 47 veterans and 24 homeworkers are employed. Production value was approximately $\$ 230,500$ for the 1953 campaign.

## Section 3.-Pensions and Allowances

The Canadian Pension Commission.-The Commission administers the Pension Act and the Civilian War Pensions and Allowances Act and reports to Parliament through the Minister of Veterans Affairs. The Head Office of the Commission is at Ottawa and representatives, known as Pension Medical Examiners, are located at each District Office of the Department.

It is the responsibility of the Commission to adjudicate upon claims for injury or disease resulting in disability or death during service with the Navy, Army or Air Force of Canada, and to consider claims for the supplementation of awards to Canadians who suffered disability or death while serving in the Armed Forces of the United Kingdom or its allies in World War I or World War II.

The Pension Act.-Under the Pension Act (R.S.C. 1952, c. 207 and amend-ments):-
(1) Pensions payable to veterans of the Fenian Raid and Northwest Rebellion under authority of Orders in Council are supplemented to the Canadian scale.
(2) Pensions payable by Great Britain on account of Canadians who served in the South Airican War are supplemented to the Canadian scale.
(3) Pensions for peacetime service prior to World War I payable under Orders in Council are supplemented to the Canadian scale.
(4) Pensions are paid in respect of service in World Wars I and II for injury or disease or the aggravation thereof resulting in disability or death attributable to or incurred during service.
(5) Pensions for peacetime service between World Wars I and II and subsequent thereto are paid when the injury or disease or aggravation thereof resulting in disability or death arose out of or was directly connected with service.
(6) Special provision was made for the Canadian Army Special Force and for those who had served in a theatre of operations prior to November 1, 1953.

In previous issues of the Year Book information is given regarding the development of Canadian pension legislation and yearly statistics regarding numbers and liability. As at Mar. 31, 1954, pensions in force were as follows:-

| Payable | Pensions | Liability |
| :---: | :---: | :---: |
|  | No. | $\leqslant$ |
| To dependants.. | 33,538 | 33,691,738 |
| For disability. | 159,133 | 91,507,288 |
| Totals. | 192,671 | 125,199,026 |

The pension paid for a total disability to a former member of the Armed Forces of the rank of major and below, with a wife and two or more children, amounts to a personal pension of $\$ 125$ monthly, an additional $\$ 45$ for his wife, $\$ 20$ for the first child, $\$ 15$ for the second, and $\$ 12$ for each additional child. If he is helpless and in need of attendance, he is granted a helplessness allowance, which might vary from a minimum of $\$ 480$ to a maximum of $\$ 1,400$ per annum depending on the amount of attendance required. In the case of the blind, where the attendance required is not constant, the helplessness award is $\$ 960$ per annum.

A pensioned widow of a deceased member of the forces who held the rank of major or lower rank receives $\$ 100$ per month, with $\$ 40$ for the first child, $\$ 30$ for the second and $\$ 24$ for each additional child. If she remarries, she is granted one year's pension as a final payment and pension usually continues for her children. Pension for a boy expires when he reaches the age of 16, and for a girl at 17. However, it may be continued to the age of 21 if the child is making satisfactory progress in a course of education approved by the Commission.

During the 1953-54 Session of Parliament the Pension Act was amended to provide additional pension for legally adopted children, for the wives of World War I pensioners married after Apr. 30, 1951, and before May 1, 1954, and for housekeepers of divorced pensioners with minor children. Widows of deceased pensioners who were not eligible only because their marriage to the pensioner was contracted after Apr. 30, 1951, may now be considered for pension if the marriage was contracted prior to May 1, 1954. Awards of helplessness allowance, which heretofore could not be paid during the period the pensioner was cared for under the jurisdiction of DVA, may now be paid if the pensioner is receiving out-patient treatment and is otherwise qualified. None of these benefits was made retroactive.

Civilian War Pensions and Allowances Act.-This Act extends pension legislation to a number of civilian groups whose work was closely associated with the World War II war effort, including merchant seamen, auxiliary services personnel, fire fighters who served in the United Kingdom, special constables with the Royal Canadian Mounted Police, overseas welfare workers, etc.

Veterans' Bureau.-The Veterans' Bureau, staffed by Pensions Advocates, most of whom are lawyers, was established in 1930 to assist those seeking war disability or dependant's pension in presenting their claims to the Canadian Pension Commission (see 1947 Year Book, p. 1142). This service is also given to persons applying for pension under the Civilian War Pensions and Allowances Act. There are District Pensions Advocates in all district offices of the Department and the service they provide is free of charge. Most applications for pension are handled in this way and, as at Mar. 31, 1954, the Bureau had approximately 6,200 active claims in hand.

During the 1953-54 fiscal year the Bureau was asked to assist in the preparation of ex-prisoner-of-war claims for compensation for maltreatment. As a result of this assignment, pensions advocates participated in the presentation of 3,100 claims before the War Claims Commission.

## Section 4.-Rehabilitation of Veterans

The Veterans' Welfare Services Branch of the Department of Veterans Affairs is responsible for the administration of benefits available to discharged members of the Forces under the terms of the Veterans Rehabilitation Act, the War Service Grants Act, and the Veterans Benefit Act. The Branch renders assistance to veterans and advises them in social problems through the Social Service Section. It does not, however, duplicate any service that is already available to a veteran as a citizen.

War Service Grants Act.-The War Service Grants Act (R.S.C. 1952, c. 289) was amended by setting Dec. 31, 1954, as the last date for World War II veterans to apply for gratuities, except for veterans with overseas service who can demonstrate unusual reasons for delay in applying. The period during which application may be made for re-establishment credit was extended to Jan. 1, 1960, or 15 years after discharge, whichever is the later, and dependent children were included among those to whom the unused credit of a deceased veteran can be made available. Another amendment permits the use of re-establishment credit to obtain veterans insurance after the cut-off date for the purchase of veterans insurance has expired.

War Service Gratuities.-The amounts expended as gratuities under the War Service Grants Act up to Mar. 31, 1954, are shown in Table 1.
1.-Gratuity Payments under the War Service Grants Act, Years Ended
Mar. 31, 1945-5!

| Year and Service | Navy | Army | Air Force | Miscellaneous | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1915- | \$ | 8 | \$ | \$ | \$ |
| Forces. | 973,958 | 14,663, 621 | 3,468,852 | - | 19, 106, 431 |
| Forces. | 27,277,979 | 121,003,582 | 64,157,016 | - | 212,438,577 |
| Canadian Fire Fighters | 27,27,079 |  | - | 161,760 | 161,760 |
| Auxiliary Services... | 180 | 58,646 | 36,116 |  | 94,942 |
| Forces. | 17,766,529 | 170,658,329 | 32,949,430 | - | 221,374,288 |
| Auxiliary Services. | 365 | 254,616 | 98,475 | - | 353,456 |
| 1847-48- |  |  |  |  |  |
| Forces........... | 940,778 | 11,386,313 | C - 5,108 | - | 12,327,091 |
| Auxiliary Services 1988-19- | - | 315,046 | Cr. 5,198 | - | 309,848 |
| Forces. | 140,907 | 589,132 | 226,686 | - | 956,725 |
| Auxiliary Services | 130,007 | 35,563 | 226.68 | - | 35,563 |
| Forces. | 37.595 | 133,117 | 168,582 | - | 339,294 |
| Auxiliary Services | 37.505 | 9,483 |  |  | 9,483 |
| Netherlands ... | - |  | - | 91,737 | 91,737 |
| Forces. | 21,318 | 76.348 | 344,717 | - | 442,383 |
| 1951-52- |  |  |  |  | 12,383 |
| Forces. | 9,708 | 128,058 | 124.366 | - | 262,132 |
| 130ecial Force. | 1,340 | 18,208 |  | - | 19,548 |
| Forces. | - | - | - | - | 112,437 |
| Specisa Force | 600,036 | 2,769,829 | 26,567 | - | 3,396,432 |
| Forces. |  |  |  | - |  |
| Special Force. | 289,441 | 2,161,760 | 25,646 | - | 2,476,846 |
| Total......... . | ... | ... | ... | ... | 475,695,574 |

Re-establishment Credits.-Up to Mar. 31, 1954, 775,574 veterans reestablishment credit accounts had been closed, authorization having been given for the complete disposal of the credit. As of that date a cumulative total of $\$ 291,910,226$ had been authorized for the various purposes listed in Table 2 and, in addition, $\$ 59,722,406$ had been written off as the veterans concerned had chosen the alternative benefit of training, or had made application to settle under the Veterans' Land Act. Approximately 79 p.c. of the total re-establishment credit approved was used for homes. The expenditures made to Mar. 31, 1954, resulted from 2,036,654 approved applications for use of the credit.
2.-Re-establishment Credits Paid, by Required Purpose, Years Ended Mar. 31, 1953 and 1954, with Cumulative Totals to Mar. 31, 1954

| Purpose | 1953 | 1954 | $\begin{gathered} \text { Cumulative } \\ \text { Total to } \\ \text { Mar. 31, } \\ 1954 \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Homes- | 8 | 8 | 8 |
| Purchased under National Housing Act. | 64,320 | 50,147 | 3,245,324 |
| Purchased other than under National Housing Act....... | 478,147 | 383,337 | 31,804,504 |
| Repairs, etc. | 391,133 | 329,284 | 15,931,701 |
| Furniture and equipment | 4,627,488 | 4,116,749 | 174,785,145 |
| Reduction of mortgage... | 60,578 | 60,259 | 4,373,989 |
| Totals, Homes. | 5,621,666 | 4,939,776 | 230,140,663 |
| Business- |  |  |  |
| Purchase of a business. | 16,566 | 14,123 | 3,655,013 |
| Working capital. | 403,823 | 381, 256 | 24,507,104 |
| Tools and equipment. | 744,130 | 606,928 | 25,059,457 |
| Totals, Business. | 1,164,519 | 1,002,307 | 53,221,574 |
| Miscellaneous- |  |  |  |
| Insurance, annuities, etc..... | 382,159 | 324,522 | 7,833,310 |
| Special equipment for training | 39,748 | 33,549 | 642,066 |
| Clothing..................... | 19,925 | 25,792 | 72,613 |
| Totals, Miscellaneous. | 441,832 | 383,863 | 8,547,989 |
| Grand Totals. | 7,228,017 | 6,325,946 | 291,910,226 |

Casualty Rehabilitation.-The Casualty Welfare Division, whose function is to provide vocational guidance, training, assistance in securing suitable employment and vocational after-care, maintains a register of all those veterans whose disabilities in relation to other factors, such as education, previous employment experience and personality, constitute a serious problem in occupational adjustment.

There were, up to Mar. 31, 1954, 39,587 registrations with this Division, of which 6,100 were still active cases. The registration, according to the type of disability, is shown in the following statement:-

| Type of Disability | Active Cases | Closed Cases |
| :---: | :---: | :---: |
|  | No. | No. |
| Armputation. | 246 | 2,067 |
| Neuro-muscular and skeletal system disabilities. | 1,372 | 10,942 |
| Total and partial loss of hearing or sight........ | 296 | 2,618 |
| Neurological cases........................ . . | 287 | 1,211 |
| Heart and vascular system | 308 | 3,324 |
| Respiratory disabilities,......... | 2,653 | 8,223 |
| Mental and emotional disabilities. | 654 | 4,345 |
| Totals. | 6,100 | 33,487 |

Among the national agencies with which the Department is in continuous liaison in connection with casualty welfare are: the Army, Navy and Air Force Veterans Association; the Canadian Legion, BESL; the Canadian National Institute for the Blind; the Canadian Paraplegic Association; the Canadian Red Cross Society; the Canadian Tuberculosis Association; the National Society of the Deaf and Hard of Hearing; and Var Amputations of Canada.

During the fiscal year ended Mar. 31, 1954, the total number of registrants increased by 1,502 cases but the number of active cases decreased by 562. Progress in the rehabilitation of the cases between Mar. 31, 1953 and Mar. 31, 1954, was as follows:-

| Status | Mar. 51, 1959 | $\underline{\text { Mar. 51, } 1954}$ |
| :---: | :---: | :---: |
|  | No. | No. |
|  |  |  |
| Employed. | 31,267 | 31,607 |
| Unemployed. | 669 | 912 |
| Receiving treatment, training or | $\stackrel{2,887}{ }$ | ${ }_{2}^{2,719}$ |
| Rehabilitation not feasible | 2,088 1,174 | 2,319 1,228 |
| Cloeed on WVA | ${ }^{1,174}$ | 1,228 |
| Totals. | $\overline{38,085}$ | 39,587 |

Social Service.-The Social Service Section is staffed by professionally qualified social workers who act as consultants to Veterans Welfare Officers dealing with social problems of veterans and their dependants and handle the more complex problems directly. They also have the responsibility of training staff in social welfare principles and methods. The Section maintains close liaison with a wide variety of health and welfare agencies, both public and private, to ensure that veterans and their dependants obtain from the community all possible assistance to which they may be entitled as citizens.

At the request of the Department of National Defence, the Department of Veterans Affairs inquires into home circumstances of members of the Armed Forces. These inquiries are designed to assist the Department of National Defence in making administrative decisions regarding applications for compassionate leave, posting and discharge, and to help the dependants by counselling and, where necessary, by referring them to community agencies.

This Service was created to meet needs arising out of the expansion of the Armed Forces caused by the Korean situation, but the cessation of fighting there has not materially affected the demand. During the year ended Mar. 31, 1954, 3,561 cases were referred by the Department of National Defence, compared with 3,700 in the previous fiscal year.

Rehabilitation of Older Veterans.-Through its "Older Veterans" Welfare Adviser and Counsellors, the Department of Veterans Affairs continues to keep before employers of Canada the advantages offered in the employment of older veterans, with the result that, out of a present population of 340,000 veterans of World War I whose average age is nearly 65 years, fewer than 13,000 are registered with the National Employment Service as unemployed.

In these efforts the Department works in close co-operation with the employer associations and the Department of Labour; a number of plants have been surveyed for the purpose of assessing openings available to older age groups and other surveys are under way or projected. Active liaison is maintained with the Canadian

Welfare Council in the study of problems of the aged and with the Sub-Committee of Older Workers National Advisory Committee on manpower problems and rehabilitation of the aged. Also, the closest co-operation with the Department on behalf of older veterans is provided by national veterans organizations through their country-wide network of local committees. Collectively, about 50,000 individual cases are assisted annually.

Assistance Fund.-New Assistance Fund Regulations were made by Order in Council P.C. 3730, dated Aug. 6, 1952, following the revision of the War Veterans Allowance Act. A veteran or a widow receiving an allowance under the Act, with no other income, may, if considered to be in need under the Regulations, be granted up to $\$ 120$ per annum from the Fund. Assistance is paid in the form of a continuing monthly grant in cases where income is insufficient to meet the cost of rent, fuel, food and health needs calculated according to the prescribed formula. In other cases, a single grant may be given to meet an emergency. Applicants are also assisted in obtaining financial aid from any other source to which they may be entitled, and to utilize all available community health and welfare resources.

During the year ended Mar. 31, 1954, District Committees awarded $\$ 155,334$ in single payments and $\$ 192,127$ in continuing monthly grants, a total of $\$ 347,461$. Of 3,526 applicants during this period, 3,189 or 90 p.c. were assisted. In addition, 1,251 persons who applied in the previous year were assisted without making a further application.

Educational Assistance.-Assistance for the university training of veterans is provided under the Veterans Rehabilitation Act as outlined in the 1948-49 Year Book, pp. 321-322. Owing to the time limit of 15 months after discharge for commencing university training, the number of those beginning courses has diminished appreciably. The number being assisted during the academic year 1953-54 was approximately 630 of whom 55 were veterans of the Korean Force. This compares with 1,400 assisted in 1952-53 of whom 50 were from the Korean Force, 8,000 assisted in 1951-52, 8,000 in 1950-51, 15,000 in 1949-50, and a peak of 24,000 in 1948-49.

In addition to university training, about 640 veterans and merchant seamen received vocational training under the Veterans Rehabilitation Act during the 1953-54 fiscal year. Correspondence courses are also available to veterans-and to non-veterans who are arthritics, in TB sanatoria or provincial reform institu-tions-and to members of the Armed Forces. During the year ended Mar. 31. 1954, a total of 9,188 registrations for these courses were received, of which about twothirds were from veterans.

The Educational Assistance Act (Children of War Dead) became effective July 1, 1953. The purpose of this legislation is to make it financially possible for pensioned sons and daughters of men who have died as a result of war service to proceed with educational training beyond the secondary school level. An eligible student may receive a monthly allowance of $\$ 25$ while actually in full-time intramural attendance at an educational institution in Canada requiring high school graduation (or equivalent) for admission. Tuition and other fees on behalf of these students are payable in the same way, and under the same conditions, as for World War II or Korean Force veterans receiving educational training. Since the inception of this assistance, in July 1953, 306 applications for benefit have been approved.

Rehabilitation Benefits, Korean Force Veterans.-During the 1953-54 Session of Parliament, the Veterans Benefit Act was amended by including therein the regulations pertaining to benefits for those who served in the Korean theatre of war. Honourably discharged veterans of the Korean Force are eligible for the benefits available to veterans of World War II.

To be eligible for these benefits, a serviceman must have served in, or departed for, the theatre of operations prior to July 27, 1953, which was the date of the "cease fire". The period of entitlement ends when the serviceman next returned to North America, or was posted outside the Korean theatre, or Oct. 31, 1953, whichever is the earlier.

The benefits provided are contained in the following Acts: War Service Grants Act; Veterans Rehabilitation Act; Pension Act; Veterans' Land Act; Veterans Insurance Act; Reinstatement in Civil Employment Act; Civil Service Act; Veterans Business and Professional Loans Act; Public Service Superannuation Act; Unemployment Insurance Act.

The privileges of the War Veterans Allowance Act have also been made available to the Korean veterans on the same basis as for veterans of World Wars I and II.

The Veterans' Land Act.-In the year ended Mar. 31, 1954, 4,047 veterans were approved (net) for settlement under the Act (R.S.C. 1952, c. 280). Of this number 76 p.c. were small holders and the others were full-time farmers, commercial fishermen and settlers on Crown lands. This has been the settlement trend during recent years. At the end of March 1954, 65,140 veterans had been approved for financial assistance, involving a commitment of public funds amounting to $\$ 312,866,658$. Active accounts numbered 58,460 , including 1,406 Indians who were assisted to settle on reservations. The difference represents veterans who had terminated their contracts for various reasons, but only 116 of these terminations were a result of foreclosure or, with the consent of the Advisory Board in the province concerned, by rescission of contract.

Included also in the terminations are the first five veterans to fulfil the terms of their contracts and earn their conditional grants. In all five cases, the veterans' contracts were prepaid in full and they received title to both the real estate and chattels which they were assisted to purchase under the Act.

The payment record of the veterans continued to be favourable. Only 2 p.c. of 27,054 settlers paying on an annual or semi-annual basis, mostly farmers and fishermen, had arrears exceeding $\$ 200$; and only one-tenth of 1 p.c. of 26,492 on a monthly basis, mainly small holders and a few fishermen, had arrears exceeding $\$ 100$.

Approximately 15,800 veterans were meeting their payments by prearranged systems of payment. This number was made up of 1,170 share-of-crop agreements in effect in the spring wheat areas of the Prairie Provinces, 5,466 pension orders and salary assignments, and 9,184 veterans using the post-dated cheque plan, introduced in 1952. In addition, 2,203 veterans had completely prepaid their contract debts.

Supervision activity during the year continued with the objective of assisting the settlers to achieve increased security through the more efficient use of their properties and resources. In this respect much constructive effort was put forth during the year to neutralize, as far as possible, the effect of narrowing margins in those farm enterprises where selling prices for produce continued weak.

Analysis of 11,697 consecutive reports on small-holding properties during the year demonstrated that the majority of these veterans are using their properties as Parliament intended. On the basis of this analysis, 85 p.c. of the 27,757
active small-holding accounts had vegetable gardens, and about one-half of the total were producing, either for home use or sale, food worth at least the amount of their payments to the Administration. About 25 p.c. derived secondary incomes averaging more than $\$ 350$ annually. The estimated value of the produce from all small holdings exceeded $\$ 6,500,000$. In addition to these tangible returns, the analysis showed that about 60 p.c. have maintained and developed their properties so that these have substantially increased in value.

## 3.-Summary of Settlement Status, Loans and Grants under the Veterans' Land Act, as at Mar. 31, 1954

| Item | Full-Time Farming | Small Holdings | Commercial Fishing | Provincial Lands | Federal Lands | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Qualified for settlement. No. | 31,250 | 44,433 | 1,075 | 5,360 | 423 | 82,541 |
| Approved for financial assistance. $\qquad$ No. | 25,938 | 31,966 | 947 | 4,530 | 353 | 63,734 |
| Amounts approved for land and permanent improvements....... | 98,647,581 | 157,393,167 | 2,837,973 | 4,302,503 | 759,987 | 263,941,211 |
| Amounts approved for stock and equipment. | 31,111,942 | 7,751,164 | 993,599 | 5,862,388 | 11,990 | 45,731,083 |
| Average amounts approved per veteran... | 5,003 | 5,166 | 4,046 | 2,244 | 2,187 | 4,859 |
| Average conditional grants per veteran... \$ | 1,950 | 1,387 | 1,748 | 2,244 | 2,187 | 1,686 |

In addition to the above, there were 1,406 Indian veterans on reserve lands for whom loans amounting to $\$ 1,826,797$ for land and improvements and $\$ 1,367,567$ for stock and equipment were approved.

New houses started during 1953-54 numbered 1,876 , an increase of 44 p.c. over the previous year. Alterations and additions to existing properties numbered approximately 1,500 , an increase of about 50 p.c. over $1952-53$. Virtually all of the latter and 84 p.c. of the former were undertaken by the veterans themselves who acted as their own contractors and, in addition, did much of the unskilled and semi-skilled construction work. The number of new houses, completed or under construction, from inception of the Act in 1942 to the end of the 1953-54 fiscal year, was 18,549 .

## 4.-Summary of House Construction under the Veterans' Land Act, as at Mar. 31, 1954

| Item | $\begin{gathered} \text { Full- } \\ \text { Time } \\ \text { Farming } \end{gathered}$ | Small Holdings | Commercial Fishing | Provincial Lands | Federal Lands | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Houses completed (from 1942). | 1.248 | 13,866 | 232 | 1,183 | 91 | 16,620 |
| Houses under construction. | 154 | 1,583 | 14 | 163 | 15 | 1,929 |
| Houses projected.................. . | 281 | 755 | 11 | 157 | 1 | 1,205 |
| Net Applications for New Housing. | 1,683 | 16,204 | 257 | 1,503 | 107 | 19,754 |

During the 1953-54 Session of Parliament the Veterans' Land Act was amended by adding to the former Act (now known as Part I) Parts II and III. Part II provides for technical, supervisory and financial assistance to eligible veterans of World War II and the Special Force considered competent to contract to build their own homes on suitable lots of any size. Construction courses may be provided for prospective veteran contractors who need training before undertaking such a
contract. To be eligible, a veteran must have had no benefits under Part I of the Act nor have received more than nine months of university training. The veteran must also be approved for a loan under the National Housing Act and, as a minimum down payment, must provide the Director with a lot worth at least $\$ 800$ or pay the difference between the appraised value and that amount. Maximum assistance of $\$ 8,000$ is made available in the form of interest-free advances as the work progresses. Upon completion of construction these advances are consolidated into a 25 -year, $5 \frac{1}{2}$-p.c. mortgage in favour of Central Mortgage and Housing Corporation or an approved lender, the proceeds of which are used to reimburse the VLA Revolving Fund of $\$ 15,000,000$ set up to finance operations. Under this Part of the Act, veterans receive no conditional grant, as under Part I, but they retain their right to re-establishment credit. Veterans also receive supervision during construction, free plans and drawings and legal services up to and including the deed and mortgage.

Part III provides for fully repayable, 5-p.c. loans up to $\$ 3,000$ for full-time farmers already settled or to be settled, or $\$ 1,400$ for small holders or commercial fishermen not yet settled, which may be authorized in addition to the assistance available under Part I. The loan may not be amortized over a longer period than the remainder of the veteran's existing contract under Part I. The veteran must contribute an amount equal to one-half of the loan, either in cash or equity in the form of excess payments or improvements to the property. Loans may be used to purchase land, erect buildings or effect improvements that will tend to increase production and promote soil conservation. With provision for these additional loans, maximum expenditures now possible under Parts I and III combined, when the veterans' contributions are included, amount to $\$ 10,500$ in the case of full-time farmers and $\$ 8,100$ in the case of small holders and commercial fishermen.

Veterans Insurance.*-The Veterans Insurance Act which came into force on Feb. 20, 1945, provides that the following persons may contract with the Government of Canada for life insurance, usually without medical examination, during the periods of eligibility shown:-

Eligibility arising out of Service in World War II:
(a) Veterans, and others deemed by Statute to be veterans.
(b) Members of the regular Forces who served during the War and were not discharged; Merchant Seamen if eligible to receive a special bonus or war service bonus; widows or widowers of veterans who did not have veterans insurance.

Eligibility arising out of Seroice in the Special Force since July 5, 1950:
(c) Persons who served on the strength of the Special Force in a theatre of operations and who have been discharged; members of the regular Forces who have had such service in a theatre of operations; persons who were pensioned under the Pension Act because of a disability attributable to such service.
(d) Widows of veterans described in (c).
(e) Widows of persons who would have been eligible on discharge but who died before discharge.

Applications must be approved by:
Dec. 31, 1954 or 10 years after discharge, whichever is later.

Dec. 31, 1954.

Oct. 31, 1958.

Oct. 31, 1958, or within three months after the veteran's death, whichever is the later.
Within three years after the death of the member of the Forces.

[^106]The amount of insurance may be any multiple of $\$ 500 \mathrm{up}$ to a maximum of $\$ 10,000$. The plans of insurance available are 10 -payment life, 15 -payment life, 20 -payment life, and life with premiums payable until age 65 or age 85 . The policies are non-participating.

Premiums on veterans insurance may be paid monthly, quarterly, semiannually or annually. They may be paid in cash or from re-establishment credit or by deduction from any pension granted under the Pension Act. The policy contracts include a waiver-of-premium disability provision. No extra premiums are charged for residence, travel or occupational hazards.

At the end of the second policy year a liberal cash value is available. It may by used alternatively to provide reduced paid-up insurance or extended term insurance. A veteran's insurance policy is not assignable, nor is a loan value granted.

The maximum amount of insurance money that will be paid in a lump sum at death is $\$ 2,000$; the balance must be paid to the beneficiary as an annuity certain or as a life annuity with or without a guaranteed period.

## 5.-Summary Statistics of Veterans Insurance, Years Ended Mar. 31, 1949-54

| Year Ended Mar. 31- | Insurance Issued <br> During Year |  | Insurance in Force at End of Year |  | Death Claims Approved During Year |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | No. | \$ | No. | \$ |
| 1949. | 4,615 | 14,074,500 | 22,293 | 63,836,743 | 91 | 245,500 |
| 1950. | 2,316 | 7,448,500 | 23,722 | 68,016,514 | 111 | 340,080 |
| 1951. | 3,247 | 10,718,000 | 25,917 | 75,020,885 | 130 | 400,500 |
| 1952. | 2,302 | 8,322,500 | 26,985 | 79,115,734 | 158 | 346,500 |
| 1953. | 2,167 | 7,849,000 | 27,731 | 81,826,281 | 186 | 530,000 |
| 1954. | 1,666 | 6,109,500 | 27,909 | 82,619,669 | 192 | 532,500 |

War Veterans Allowance Act.-This Act (R.S.C. 1952, c. 340) is administered by the War Veterans Allowance Board. The allowance provides assistance to veterans with service in a theatre of actual war or who, in lieu of such service, are in receipt of disability pensions and have reached the age of 60 , or earlier if their physical condition prevents them from earning their own living. Veterans who served in both World Wars I and II, but not in a theatre of actual war in either, are also eligible when they reach the age of 60 , or earlier if they become permanently unemployable. The allowance may also be paid to the widows of veterans who would themselves have been qualified, but in the case of widows it is payable at the age of 55 , or earlier if their physical condition makes the allowance necessary. The allowance is not paid as a right but is subject to certain financial tests.

The Act was completely revised in 1952, and the new rates and other changes, introduced at that time, are set forth in detail in the 1954 Year Book, pp. 275-276. A report on the Assistance Fund, introduced at the same time for War Veterans Allowance recipients, is given on p. 288.

As at Mar. 31, 1954, there were 43,446 WVA recipients including 10,706 widows. The liability for $1953-54$ was $\$ 27,725,852$.

## GHAPTER VII.-CRIME AND DELINQUENGY*

## CONSPECTUS

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Nors.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this polume.

## Section 1.-Canadian Criminal Law and Procedure $\dagger$

The system under which justice is administered in a State is never rigid. To have it so would be neither expedient nor indeed possible. A judicial system has to grow and adapt itself to the requirements of the people, and the exact limits of the powers of different legislative bodies require continued definition.

The criminal law of Canada has as its foundation the criminal common law of England built up through the ages and consisting first of customs and usages, and later expanded by principles enunciated by generations of judges. There is no statutory declaration of the introduction of English criminal law into those parts of Cansda that are now the provinces of New Brunswick, Nova Scotia and Prince Edward Island. Its introduction there depends upon a principle of the common law itself by which English law was declared to be in force in uninhabited territory discovered and planted by British subjects, except in so far as local conditions made it inspplicable. The same may be said of Newfoundland, although the colony dealt with the subject in a statute of 1837. In Quebec its reception depends upon a Royal Proclamation of 1763 and the Quebec Act of 1774. In each of the other provinces and in the Yukon and Northwest Territories the matter has been dealt with by statute.

The judicial systems of the provinces as they exist to-day are based upon the British North America Act of 1867. Sect. 91 of that Act provides that "The exclusive legislative authority of the Parliament of Canada extends to . . . the criminal law, except the constitution of courts of criminal jurisdiction but including the procedure in criminal matters". By Sect. 92 (14), the legislature of the province exclusively may make laws in relation to "the administration of justice in the province, including the constitution, maintenance and organization of provincial courts, both of civil and criminal jurisdiction and including procedure in civil matters in its courta". The Parliament of Canada may, however (Sect. 101), establish any

[^107]additional courts for the better administration of the laws of Canada. It should be noted that the Statute of Westminster, 1931, effected important changes particularly by abrogating the Colonial Laws Validity Act, 1865 (U.K.), and confirming the right of a dominion to make laws having extraterritorial operation. Particulars of the federal judiciaries are given in Chapter II, pp. 70-72, and provincial judiciaries are dealt with briefly at pp. 72-73; more detailed information on provincial judiciaries is given in the 1954 Year Book, pp. 48-55.

At the time of Confederation, each of the colonies affected had its own body of statutes relating to the criminal law. In 1869, in an endeavour to assimilate them into a uniform system applicable throughout Canada, Parliament passed a series of Acts some of which dealt with offences of special kinds, and others with procedure. Most notable of the latter was the Criminal Procedure Act, but other Acts provided for the speedy trial or summary trial of indictable offences, the powers and jurisdiction of justices of the peace in summary conviction matters and otherwise, and the procedure in respect of juvenile offenders.

Codification of the criminal law through a Criminal Code Bill founded on the English draft code of 1878, Stephen's Digest of Criminal Law, Burbidge's Digest of the Canadian Criminal Law, and the relevant Canadian statutes, was brought about by the Minister of Justice, Sir John Thompson, in 1892. This Bill became the Criminal Code of Canada and came into force on July 1, 1893. It must be remembered, however, that the Criminal Code was not exhaustive of the criminal law. It was still necessary to refer to English law in certain matters of procedure and it was still possible to prosecute for offences at common law. Moreover, Parliament has declared offences against certain other Acts, e.g., the Opium and Narcotic Drug Act, to be criminal offences and the same was done in the Defence of Canada Regulations and the Wartime Prices and Trade Board Regulations (neither now in force) promulgated under the authority of the War Measures Act.

It is often difficult to distinguish between "law" and "procedure" Procedure may be interpreted to relate simply to the organic working of the courts but, in a wider sense, it may also affect the rights or alter the legal relations arising out of any given state of facts. For present purposes, it will be useful to note that writers on jurisprudence describe law as being substantive or adjective. "Substantive law is concerned with the ends which the administration of justice seeks; procedural (adjective) law deals with the means and instruments by which these ends are to be obtained."*

With reference to the criminal law, the former may be taken to include the provisions concerning criminal responsibility, the definition of "offences" and the punishment for those offences, and the latter to include provisions for enforcement, e.g., powers to search and to arrest, for the modes of trial and for the proof of facts. Broadly speaking, the Criminal Code observes the distinction although it might appear that the provisions for preventive detention of habitual criminals and criminal sexual psychopaths partake of the nature of both classes.

In February 1952, a Royal Commission, appointed three years earlier for the purpose of making a complete revision of the Criminal Code, presented its report with a draft Bill. This has since been before successive sessions of Parliament and

[^108]received final passage on June 15, 1954. The new Code, in force on Apr. 1, 1955, effects changes in all the categories outlined above, but before making any commen upon them, there should be some mention of the system that existed under the repealed Code.

Offences under the Criminal Code were made either indictable or non-indictable, that is to say, punishable on summary conviction, instead of being, as under English law, felonies or misdemeanours. A few, for example, common assault and driving while intoxicated, were triable under either procedure.

Trial by jury was the accepted mode of trial of indictable offences, but this was subject to such exceptions that in practice the proportion of indictable offences so tried was very small. Over a few, a magistrate acting under Part XVI of the Code without a jury had absolute jurisdiction. In all but a few of the other cases the accused might choose summary trial before such a magistrate, or he might choose speedy trial, again without a jury, before a judge defined in Sect. 823 to include a judge of the county or district court and, in the Province of Quebec, a judge of the Sessions of the Peace or a district magistrate. However, this right to elect was subject to a prerogative of the Attorney General to require trial by jury where the offence charged was punishable by imprisonment for more than five years. The offences which did not permit this election were treason and treasonable offences, assaults on the Sovereign, mutiny, unlawfully obtaining and communicating official information, the taking of oaths to commit certain crimes, seditious offences, libels on foreign sovereigns, spreading false news, piracy, corruption of judicial officers or officers employed in prosecuting offenders, frauds on the government, breach of trust by public officers, municipal corruption, the selling of appointments to any office, murder, attempt to murder, conspiracy to murder, accessory after the fact to murder, manslaughter, rape, or attempt to commit rape, defamatory libel, combination in restraint of trade, conspiring or attempting to commit or being accessory after the fact to the other offences mentioned, also offences against the Canada Election Act including bribery or undue influence, personation or other corrupt practice.

Capital offences included treason as defined, murder, piracy in cases of violence, and rape. This is a drastic modification of the criminal law as it stood a century and a half ago. Further details of law and procedure are given in the 1951 Year Book, pp. 2.56-258.

Although the new Code effects changes in detail it continues the general features of the former system.

Turning now to the changes effected by the new Code, the following will indicate the most important, although by no means all of them.

With reference to the capacity to commit crime, the exemption of persons under 14 years of age from a charge of rape is expanded to include some other sexual offences. The law concerning infanticide, which had been the subject of some judicial criticism, has been modifird by definition, and provision is made whereby a justice holding a preliminary hearing may remand the accused woman for mental examination. However, if at her trial on such a charge it appears that
she caused the death of her child but it is not established that she was mentally disturbed within the definition, she is not entitled to be acquitted unless she establishes that her act was not wilful.

The following new offences are specified:-
(a) The giving of evidence by a witness in a judicial proceeding contradictory to evidence given by him in a previous judicial proceeding (Sect. 116).
(b) Trespass at night on property near to a dwelling house thereon (Sect. 162).
(c) The former Sect. 399, under which it was an offence to receive or retain anything obtained by crime, has been altered (Sect. 297) so as to make it an offence to have anything in possession knowing that it was so obtained.
(d) The fraudulent use of slugs or other material in machines that vend merchandise or services or collect fares or tolls has been made an offence (Sect. 397).
It will no longer be possible to lay charges at common law nor under English statutes nor under pre-confederation statutes or ordinances (Sect. 7). By way of complement to this provision certain common law offences have been codified, namely, indemnification of bail [Sect. 119(2)(d)], public mischief (Sect. 120), compounding of felony (Sect. 121), and common law conspiracy [Sect. 408(2)].

Treason has been redefined with emphasis on the security of the State, although the traditional elements of the offence are continued. The definition includes the communication of military or scientific information to an agent of a State other than Canada by a person who knows or ought to know that that other State may use it for purposes prejudicial to the safety or defence of Canada, a provision new in this context. Punishment of 14 years' imprisonment is prescribed for such spying in time of peace.

There is an important change in that criminal negligence has been made a distinct offence, the gravamen of which is a wanton or reckless disregard for the lives or safety of others (Sects. 191 to 193). Sect. 221 deals specially with this offence when committed in the operation of a motor-vehicle.

The former Sect. 206 relating to gross indecency has been made to apply to both sexes (Sect. 149).

Breach of contract continues to be a crime under certain circumstances, particularly in reference to public utilities. In this regard the former Sect. 499 has been redrawn with certain savings in the interests of organized labour (Sect. 365). The law with regard to wilful damage to property has been largely consolidated with similar saving clauses in Sects. 52 (sabotage) and 372.

Leaving aside the matter of capital punishment with the observation that the new Code does not continue it for the offence of rape, it may be said that minimum punishments are not prescribed except for thefts from the post office, driving a motor-vehicle while intoxicated or with impaired ability, and for criminal sexual psychopaths. With regard to these motoring offences the power to prohibit driving is made applicable to a person convicted of driving with impaired ability.

Except in cases of defamatory libel and in summary conviction matters, the courts are not empowered to order the payment of costs in criminal cases.

A general penalty in summary conviction matters has been provided [Sect. 694(2)] leaving it to the courts to apply it appropriately in individual cases.

The former Sect. 1081 provided that in certain instances a court could not suspend sentence without the consent of the Crown. This requirement has been eliminated.

Under the new Code a peace officer will be able to seize not only things mentioned in a search warrant but also things not so mentioned that "on reasonable grounds he believes have been obtained by or have been used in the commission of an offence" (Sect. 431). There is also a provision whereby a person interested in goods under seizure may obtain an order permitting him to examine them and to appeal against an order of forfeiture.

The former detailed provisions limiting the time in which prosecutions should be begun have largely disappeared. They are continued only with reference to treason [Sect. 48(1)], certain sexual offences [Sect. 184(4)] and summary conviction matters [Sect. 693(2)]. Sect. 672(2) prescribes a limitation for the bringing of penal actions.

A new provision (Sect. 671) will prevent the discharge of sureties under a recognizance by reason of the arrest of their principal for an offence committed while he is on bail.

With respect to evidence, there has been codification of a common law rule to require that on charges of rape and other sexual offences the judge must charge the jury that it is unsafe to convict on the evidence of the prosecutrix unless it is corroborated or unless they are satisfied of its truth beyond a reasonable doubt. Other changes in respect of corroborative evidence are that it is to be required in cases of incest but not upon charges of living on the avails of prostitution, of a householder permitting defilement, or of conspiracy to defile.

Provision to facilitate the proof of marriage in cases of bigamy is provided in Sect. 241. By Subsection (2) a certificate of marriage issued under the authority of law becomes prima facie evidence of the marriage or form of marriage to which it relates, without formal proof of signature.

It is perhaps with reference to trial procedure that the most far-reaching changes have been made. A rule of practice in England, not grounded in statute, whereby an accused may ask that outstanding offences be taken into consideration in passing sentence upon him, has been placed in the Code [Sect. 421(3)]. This will apply to permit that offences committed by the accused in one province may be taken into consideration in proceedings against him in another, provided that the Attorney General of the province first mentioned consents to this being done.

There is provision that an offence committed on a vehicle, vessel or aircraft during the course of a journey may be tried in any jurisdiction through or over which the journey proceeded (Sect. 419). This modifies the former Sect. 584(c).

The absolute jurisdiction of magistrates under Part XVI has been changed by taking out the cases of indecent assault which were formerly subject to it, and by adding to it the offences in respect of lotteries, and cheating at play.

There will be a right to elect for a non-jury trial in cases of spreading false news, fraud on government, breach of trust by public officer, municipal corruption and defamatory libel. This is the effect of removing these offences from the list of
offences specified on p. 295 (cf. Sect. 413 and the former Sect. 583). It should be noted too that a judge or magistrate trying an indictable offence will have power under the new Code to try an issue of insanity if the question arises before him. In this, Sects. 523 and 524 extend the provisions of the former Sects. 966 and 967.

There is an important change embodied in Sect. 9 which gives a right of appeal to a person summarily convicted of contempt of court.

It has been mentioned that a general penalty has been provided in summary conviction matters. It may be mentioned finally that punishment by imprisonment for indictable offences has been appropriated to a scale, namely, two years, five years, 10 years, 14 years, life.

Attention must be called to the fact that the subjects of capital and corporal punishment, as well as the law relating to lotteries, are being studied by a joint committee of the Senate and House of Commons, and that a Royal Commission has been appointed to consider questions of mental health in their relation to the criminal law.

## Section 2.-Adult Offenders and Convictions

The main interest in criminal statistics is concerned with those persons guilty of the more serious crimes. Such offenders are fewer than those who commit nonindictable offences but, from the standpoint of the protection of society, they are more important.

In 1949, the basis of the statistics of indictable crimes was changed from convictions to persons so that the figures for 1949 and subsequent years are not comparable with those for previous years. Where any person is prosecuted at the same hearing for several offences, one offence has to be selected for tabulation. The rule followed is to select that for which the proceedings were carried to the furthest stage-to conviction and sentence if the prisoner were tried on several charges; if there were several convictions, the offence selected is that for which the heaviest punishment was awarded; if the final result of proceedings on two or more charges were the same, the most serious offence (as measured by the maximum penalty allowed by the law) appears in the tables. Where a person was prosecuted for one offence and convicted of another (e.g., charged with murder and convicted of manslaughter), the case appears only under the offence for which he was convicted.

In the case of non-indictable offences, the figures continue to be based on convictions and are thus comparable with those for earlier years.

Statistics include only cases finally determined within the year. Cases not entirely disposed of within the year (e.g., tried but sentence postponed) are held over for the next year's report.

In 1950 the reporting year for criminal statistics was changed from the 12 months ended Sept. 30 to the calendar year. Also, figures for Newfoundland were included for the first time in 1951.

## Subsection 1.-Adults Convicted of Indictable Offences

During the year 19.52, the courts of Canada dealt with 35,086 adults charged with 51,125 indictable crimes, of whom 29,761 were found guilty of 41,591 offences. This was an increase of 2.7 p.c. over the number of persons convicted in 1951.

## 1.-Adults Convicted of Indictable Offences and Ratio per $\mathbf{1 0 , 0 0 0}$ Population 16 Years

 of Age or Over, by Province, 1951 and 1952| Province or Territory | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Persons Convicted | Ratio per 10,000 Population | Persons Convicted | Ratio per 10,000 Population |
|  | No. | No. | No. | No. |
| Newfoundland. | 490 | 23 | 534 | 24 |
| Prince Edward Island. | 109 | 17 | 89 | 14 |
| Nova Scotia. | 1,296 | 31 | 1,216 | 28 |
| New Brunswick | 746 | $\stackrel{23}{ }$ | . 782 | 24 |
| Quebec. . | 5,726 | 22 | 5,723 | 21 |
| Ontario... | 11,801 | 36 | 12,464 | 37 |
| Manitoba. . . | 1,565 | 29 | 1,633 | 29 |
| Saskatchewan. | 1,049 | 19 | 1,074 | 19 |
| Alberta. | 2,302 | 36 | 2,452 | 37 |
| British Columbia | 3,821 | 45 | 3,703 | 43 |
| Yukon and Northwest Territories. | 75 | 46 | 91 | 55 |
| Canada. | 28,980 | 30 | 29,761 | 30 |

Indictable offences are grouped into six classes. Class I covers crimes against the person; persons convicted of assaults of various kinds and obstructing police represented 81.7 p.c. of this group in 1952 . In that year, 18 persons were convicted of murder, three of attempted murder and 77 of manslaughter as compared with 15,7 and 92 , respectively, in 1951. The number of offenders in the class as a whole was 8.4 p.c. higher than in 1951.

Classes II, III, IV and V cover offences against property. Thieves predominate among the offenders in these classes though the number was slightly lower in 1952 than in 1951. Burglars and robbers whose serious crimes involve acts of violence are the next most numerous, and they increased by 4 p.c. in 1952 as compared with 1951. The number of persons who maliciously damaged property increased by $1 \cdot 9$ p.c. in the same comparison.

Miscellaneous offences are listed in Class VI. There were 367 offenders under the Opium and Narcotic Drug Act, of whom 316 were convicted of possessing heroin; 262 were males; and 327 were born in Canada. British Columbia courts convicted $69 \cdot 2$ p.c. of the drug offenders and Ontario courts $19 \cdot 1$ p.c.
2.-Adults Charged and Convicted of Indictable Offences, by Class of Offence, 1951 and 1952

| Class and Offence | 1951 |  |  | 1952 |  |  | IncreaseorDecreaseinPersonsConvicted |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Adults Charged | Adults Convicted |  | Adults Charged | Adults Convicted |  |  |
|  |  | M. | F. |  | M. | F. |  |
| Class I.-Offences against the Person- | No. | No. | No. | No. | No. | No. | p.c. |
| Abduction........................ .... | 24 | 13 | - 2 | 20 | 14 | - | $-2.7$ |
| Assault, common, aggravated and on police. | 4,551 | 3,298 | 193 | 5,042 | 3,640 | 234 | +11.0 |
| Offences against females ${ }^{\text {a }}$. . ${ }^{\text {a }}$............. | 1,154 | -823 | 30 | 1,183 | -852 | 25 | +2.8 |
| Manslaughter and murder. ............. | ${ }^{2} 26$ | 97 | 10 | -180 | 87 | 8 | $-11.2$ |
| Attempted murder; shooting and wounding. | 272 | 189 | 19 | 315 | 214 | 13 |  |
| Non-support, desertion | 103 | 77 | 11 | 165 | 133 | 7 | +59.1 |
| Other offences against the person...... | 412 | 332 | 21 | 362 | 297 | 19 | $-10.5$ |
| Totals, Class I | 6,742 | 4,829 | 286 | 7,267 | 5,237 | 306 | $+8.4$ |

[^109]
## 2.-Adults Charged and Convicted of Indictable Offences, by Class of Offence, 1951 and 1952-concluded

| Class and Offence | 1951 |  |  | 1952 |  |  | Increase or <br> Decrease in Persons Convicted |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Adults Charged | Adults Convicted |  | Adults Charged | Adults Convicted |  |  |
|  |  | M. | F. |  | M. | F. |  |
| Class II.-Offences against Property with Violence- <br> Burglary and robbery. <br> Totals, Class II. | No. | No. | No. | No. | No. | No. | p c. |
|  | 4,380 | 3,830 | 53 | 4,559 | 3,970 | 70 |  |
|  | 4,380 | 3,830 | 53 | 4,559 | 3,970 | 70 | $+4 \cdot 0$ |
| Class III.-Offences against Property without Violence- |  |  |  |  |  |  |  |
| Fraud, embezzlement and false pretences | 2,002 | 1,544 | 128 | 2,010 | 1,579 | 128 | +2.1 |
| Receiving stolen goods. | 1,081 | 815 | 48 | 1,055 | 779 | 64 | -2.3 |
| Theft..... | 11,222 | 9,051 | 820 | 11,216 | 8,953 | 826 | -0.9 |
| Totals, Class III. | 14,305 | 11,410 | 996 | 14,281 | 11,311 | 1,018 | -0.6 |
| Class IV.-Malicious Offences against Property- |  |  |  |  |  |  |  |
|  | 55 | 35 | 4 | 74 | 57 | 2 | +51.3 |
| Malicious damage to prop | 668 | 502 | 35 | 632 | 501 | 27 | -1.7 |
| Totals, Class IV. | 723 | 537 | 39 | 706 | 558 | 29 | +1.9 |
| Class V.-Forgery and Other Offences against the CurrencyOffences against currency................. Forgery and uttering forged documents. Totals, Class V. $\qquad$ |  |  |  |  |  |  |  |
|  | 21 | 17 | 1 | 10 |  | 2 | $-55.6$ |
|  | 613 | 516 | 58 | 661 | 569 | 61 | +9.8 |
|  | 634 | 533 | 59 | 671 | 575 | 63 | $+7.8$ |
| Class VI.-Offences not included in the Foregoing Classes- |  |  |  |  |  |  |  |
| Dangerous or reckless driving .......... | 1,708 | 1,510 | 25 | 1,003 | 851 | 19 | -43-3 |
| Driving ear while ability impaired. | $\stackrel{2}{2}$ | ${ }^{2}$ | 2 | 1,353 | 1,260 | 16 |  |
| Driving car while drunk............... | 2,192 | 1,917 | 30 | 1,727 | 1,482 | 25 | -22.6 |
| Opium and Narcotic Drug Act, offences against. | 424 | 238 | 115 | 441 | 262 | 105 | +4.0 |
| Gambling and lotteries... | 686 | 558 | 38 | 463 | 361 | 36 | -33.4 |
| Keeping bawdy houses and inmates.... | 214 | 34 | 131 | 321 | 116 | 158 | $+66.1$ |
| Various................................. | 2,173 | 1,648 | 164 | 2,294 | 1,802 | 131 | +6.7 |
| Totals, Class VI | 7,397 | 5,905 | 503 | 7,602 | 6,134 | 490 | + 3.4 |
| Grand Totals. | 34,181 | 27,044 | 1,936 | 35,086 | 27,785 | 1,976 | +2.7 |

[^110]

Table 3 shows that, in $1952,58 \cdot 7$ p.c. of the persons convicted of indictable offences had not gone beyond elementary school grades in education, $40 \cdot 0$ p.c. were 24 years of age or younger, $11 \cdot 3$ p.c. were 45 years of age or over, and $73 \cdot 8$ p.c. lived in urban centres. Of these offenders, $93 \cdot 4$ p.c. were males; $89 \cdot 8$ p.c. were born in Canada; $55 \cdot 2$ p.c. were unmarried; $23 \cdot 0$ p.c. were recorded as labourers; and $6 \cdot 9$ p.c. had no remunerative employment. These percentages changed very little from comparable percentages for 1951.

## 3.-Persons Convicted of Indictable Offences, classified by Occupation, Marital Status, Sex, Birthplace, ete., 1951 and 1952

| Item | 1951 | 1952 | Item | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Occupation- | No. | No. | Sex- | No. | No. |
| Agriculture. | 1,712 | 1.842 | Male. . . . . . . . . . . . . . . . . . . . | 27,044 | 27,785 |
| Armed Services | ${ }_{8}^{556}$ | 777 | Female........................... | 1,936 | 1,976 |
| Commercial and | 1,790 | 1.833 | Educational Status- |  |  |
| Construction.... | 3,086 | 3,270 | Enable to read or write......... | 915 | 847 |
| Finance and insurance | 78 | 91 | Elementary . . . . . . . . . . . . . . . . | 17,012 | 17,460 |
| Fishing, trapping and loggin | 1,484 | 1,608 | High Scho | 7,781 | 8,214 |
| Labourer.. | 6,861 | 6,839 | Superior. | 696 | 590 |
| Manufacturing and mechanical. | 3,290 | 3,118 | Not given | 2,576 | 2,650 |
| Sining... | 687 | 779 | Age- |  |  |
| Domestic | 681 | 599 | 16 to 19 years. | 5,537 | 5,429 |
| Personal. | 972 | 1,038 | 20 to 24 years. | 6,322 | 6,464 |
| Professional | 223 | 260 | 25 to 44 years. | 12,814 | 13,448 |
| Public and protective | 186 | 153 | 45 years or ove | 3,378 | 3,358 |
| Student | 527 | 465 | Not given. | 929 | 1,062 |
| Other................... | 138 | 97 |  |  |  |
| Transportation and communications | 3,090 | 3,208 | Birthplace Canada | 26,021 | 26,737 |
| Unemployed and retired | 1,896 | 2,043 | British Isles and other Common- |  |  |
| Not given...... | 885 | 949 | wealth. | 885 | 828 |
| Totals | 28,950 | 29,761 | Europe... | 1,082 | 1,196 |
|  |  |  | Asia. | 110 | 6 |
| Marital S |  |  | Other foreign countries.......... | 6 |  |
| Single. | 16,111 | 16,425 | Not given...................... | 437 | 532 |
| Married. | 10,889 | 11,052 |  |  |  |
| Widowed. | 378 151 | 386 | Residence- |  |  |
| Divorced | 151 579 | ${ }_{613}^{191}$ | Urban centres | 21,704 7,003 | 21,953 7,377 |
| Not given. | 872 | 1,094 | $\stackrel{\text { Not given.. }}{ }$ | + 273 | $\begin{array}{r}7,377 \\ \hline\end{array}$ |

${ }^{1}$ Includes housewives.
Female Offenders.-There were 1,976 female offenders convicted of indictable offences in 1952. The Provinces of Ontario, Manitoba, British Columbia, and the Yukon and the Northwest Territories showed an increase over the previous reporting period. Nearly 44.3 p.c. of the women convicted in 1952 were found guilty of theft and receiving stolen goods, and 11.8 p.c. were committed for assault. Eight women were convicted of manslaughter.
4.-Females Convicted of Indictable Offences, by Province, 1951 and 1952

| Province or Territory | Females Convicted |  | Females Convicted to Total Convictions |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 | 1951 | 1952 |
|  | No. | No. | p.c. | p.c. |
| Newfoundland. | 46 | 36 | $9 \cdot 4$ | 6.7 |
| Prince Edward Island | 3 | 1 59 | 2.8 | $1 \cdot 1$ |
| Nova Scotia......... | 74 | 59 | 5.7 | $4 \cdot 9$ |
| New Brunswick. | 25 | 25 | $3 \cdot 4$ | $3 \cdot 1$ |
| Quebec <br> Ontario | 349 742 | 344 822 | $6 \cdot 1$ $6 \cdot 3$ | $6 \cdot 0$ $6 \cdot 6$ |
| Manitoba | 742 167 | 188 | $6 \cdot 3$ 10.7 | 11.5 |
| Saskatchewan. | 62 | 61 | 5.9 | $5 \cdot 8$ |
| Alberta. | 178 | 146 | $7 \cdot 7$ | 6.0 |
| British Columbia. | 287 | 288 | 7.5 | 7.8 |
| Yukon and Northwest Territories | 3 | 6 | $4 \cdot 0$ | 6.7 |
| Canada | 1,936 | 1,976 | 6.7 | 6.6 |

Persons with Multiple Convictions.-Table 5 shows the number of persons having more than one conviction at a court appearance for the years 1948-52. Multiple convictions occur most of ten in cases of forgery and uttering, false pretences, theft, receiving stolen goods and burglary.

## 5.-Persons Convicted of More than One Offence at the Time of Trial compared with Persons Convicted of One Offence, 1948-52

Note.-Figures for years prior to 1951 are for the 12 months ended Sept. 30; those for 1951 and 1952 are for the calendar year.

| Item | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. |
| Persons Convicted of- |  |  |  |  |  |
| ${ }_{3}^{2}$ offences . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 2,260 590 | 2,593 814 | 1.769 507 | 1,669 562 | 2,409 759 |
| 4 " | 332 | 363 | 275 | 248 | 360 |
| 5 " | 154 | 195 | 174 | 162 | 186 |
| 6 " | 98 | 120 | 108 | 117 | 144 |
| 7 " | 56 | 63 | 70 | 75 | 106 |
| 8 " | 47 | 63 | 50 | 50 | 79 |
| 9 " | 42 | 46 | 46 | 26 | 51 |
| 10 " | 27 | 56 | 31 | 32 | 47 |
| 11 to 20 offences. | 93 | 107 | 88 | 84 | 139 |
| 21 offences or over | 25 | 30 | 14 | 28 | 50 |
| Totals, Convicted of More than One Offence. | 3,724 | 4,450 | 3,132 | 3,053 | 4,330 |
| Totals, Convicted of One Offence............. | 28,959 | 26,472 | 28,253 | 25,927 | 25,431 |
| Grand Totals | 32,683 | 30,922 | 31,385 | 28,980 | 29,761 |

Disposition of Cases and Recidivism.-Of all suspects before the courts for indictable crimes, 84.8 p.c. were adjudged guilty in 1952; the convictions against males ( $85 \cdot 2$ p.c.) constituted a higher percentage than those against females ( 79.8 p.c.) and varied greatly as between provinces. The Yukon and Northwest Territories together showed the highest percentage ( 100 p.c.) of convictions and Nova Scotia the lowest percentage ( 71.4 p.c.).
6.-Persons Charged and Convictions for Indictable Offences, by Province, 1951 and 1952

| Province or Territory | 1951 |  |  | 1952 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Charges | Convictions |  | Charges | Convictions |  |
|  | No. | No. | p.c. | No. | No. | p.c. |
| Newfoundland........ | 565 | 490 | 86.7 | 659 | 534 | 81.0 |
| Prince Edward Island. . | -112 | 109 1 | $97 \cdot 3$ $74 \cdot 8$ | 93 1,703 | 89 1.216 | $95 \cdot 7$ 71.4 |
| Nova Scotia .......... | 1,733 | 1,296 | 74.8 95.6 | 1,703 827 | 1,216 | $71 \cdot 4$ $94 \cdot 6$ |
| New Brunswick. | 180 6.357 | 746 5,726 | $95 \cdot 6$ $90 \cdot 1$ | 827 6,506 | -782 | 94.6 88.0 |
| Ouebec.. | 6,357 14,975 | 5,726 11,801 | $90 \cdot 1$ 78.8 | 6,506 15,495 | 5,723 12,464 | 880.4 |
| Manitoba. | 1,706 | 1,565 | 91.7 | 1.781 | 1,633 | 91.7 |
| Saskatchewan | 1.116 | 1,049 | 94.0 | 1,133 | 1,074 | $94 \cdot 8$ |
| Alberta | 2,426 | 2,302 | 94.4 | 2,642 | 2,452 | 92.8 |
| British Columbia | 4,333 | 3,821 | 88.2 | 4, 156 | 3,703 | $89 \cdot 1$ $100 \cdot 0$ |
| Yukon and N.W.T.. | 78 | 75 | 96.2 | 91 | 91 | $100 \cdot 0$ |
| Canada. | 34,181 | 28,980 | 84.8 | 35,086 | 29,761 | 84.8 |

In $1952,49 \cdot 0$ p.c. of the convicted persons were first offenders, $8 \cdot 2$ p.c. had previously been found guilty of an offence and 20.7 p.c. had two or more earlier convictions. Court records for the remaining $22 \cdot 1$ p.c. were not obtained.
7.-Persons Charged with Indictable Offences and Disposition of Cases, 1951 and 1952


Sentences.-The types of sentences were in much the same proportion in 1951 and 1952. In the latter year, $31-9$ p.c. of the persons convicted of indictable crimes were fined, $36 \cdot 2$ p.c. were sent to gaol without option of fine, $6 \cdot 4$ p.c. were committed to reformatories and 6.4 p.c. to penitentiaries, and 19.0 p.c. were given suspended sentences or put on probation. Five habitual criminals were given preventive detention. Eight persons received life sentences and 17 were given the death penalty.

## 8.-Sentences given for Indietable Offences, by Province, 1952 with Totals for 1951

| Sentence | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.WT | $\begin{gathered} \text { Canada } \\ 1952 \end{gathered}$ | $\begin{gathered} \text { Canada } \\ 1951 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Option of fine | 240 | 31 | 440 | 306 | 1,799 | 3,399 | 470 | 423 | 866 | 1,494 | 21 | 9,489 | 8,776 |
| GaolUnder one year. | 188 | 33 | 373 | 252 |  | 3,453 | 409 | 416 | 6 |  | 52 | 169 | 78 |
| One year or over | 21 | 2 | 18 | 8 | 374 | 293 | 175 | 97 | 297 | 326 | 2 | 1,613 | 1,479 |
| Reformatory | - | - | 8 | 7 | 38 | 1,699 | 59 | 9 | 13 | 71 | - | 1,904 | 1,705 |
| Penitentiary- <br> Two years and under five. | 8 | 6 | 85 | 59 | 614 | 429 | 62 | 28 | 149 | 201 | 1 | 1,642 | 1,605 |
| Five years or over. <br> Life. | $-1$ | - | 8 | $-^{1}$ | $\underline{110}$ | 89 6 | $-^{6}$ | 3 | 19 | 29 1 | 二 | 267 | 1,005 278 6 |
| Preventive detention. $\qquad$ | - | - | 1 | - | - | - | 2 | - | 1 | 1 |  | 5 | 1 |
| Death | - | - | 1 | - | 3 | 8 | - | - | 3 | 2 | - | 17 | 15 |
| Suspended sentence or other disposition. | 76 | 16 | 282 | 149 | 626 | 3,088 | 450 | 97 | 318 | 530 | 15 | 5,647 | 5,737 |
| Totals.. | 534 | 89 | 1,216 | 782 | 5,723 | 12,464 | 1,633 | 1,074 | 2,452 | 3,703 | 91 | 29,761 | 28,980 |

Court Proceedings.-In 1952, $62 \cdot 0$ p.c. of the persons tried by jury were convicted; speedy trials (by court after waiver of jury trial) brought convictions in 73.4 p.c. of the cases so tried and summary trials by magistrates ended in convictions in $86 \cdot 3$ p.c. of the cases.

Of persons charged on indictment, $90 \cdot 7$ p.c. were tried by magistrate or family and juvenile court judge, $6 \cdot 6$ p.c. in county and district courts and $2 \cdot 6$ p.c. in higher courts.

9．－Method of Trial of Persons Charged with Indictable Crimes showing Disposition of Cases，by Sex and by Province， 1952

| Method of Trial | New－ found－ land | Prince Edward Island | Nova Scotia | $\left\lvert\, \begin{gathered} \text { New } \\ \text { Brunswick } \end{gathered}\right.$ | Quebec | Ontario | Manitoba | Saskat－ <br> chewan | Alberta | British Columbia | $\begin{gathered} \text { Yukon } \\ \text { and } \\ \text { N.W.T. } \end{gathered}$ | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． |
| By Jury－ |  |  |  | 19 |  |  |  |  |  |  |  |  |
| Chred．．．．．．．．．．．．．．．．．．． $\mathrm{F}_{\text {F．}}$ | 1 | $-$ | 1 | $\frac{19}{1}$ | 12 | 16 | ${ }_{1}$ | $\underline{17}$ |  | 1 | 二 | ${ }_{30}$ |
| Acquitted．$\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots{ }_{\text {m }}^{\text {m }}$ ． | 1 | 二 | ${ }_{2}^{23}$ | 11 | ${ }_{42}^{1}$ | 116 | 9 | 8 | 5 | 56 | ＝ | ${ }_{20}^{271}$ |
| Detained because of insanity ．．．．M． | 1 | 二 | $\underline{-}$ | 二 | － | 1 | 1 | 二 | 2 | $\stackrel{2}{2}$ | 二 | 2 |
|  | － | － | － | － | － | 1 | 1 |  |  | － |  |  |
| $\left.\begin{array}{c}\text { Disagreement of Jury } \\ \text { Stay of Proceding } \\ \text { No Bill and Nolle Prosequi }\end{array}\right\} \cdots \cdots .$F． | 4 | ＝ | 2 | 5 | ${ }_{1}^{1}$ | $\stackrel{24}{2}$ | $\underline{1}$ | 二 | 二 | ${ }_{1}^{3}$ | 二 | 4 |
| By Speedy Trial－ <br> Convicted． | 3 |  |  |  |  |  |  |  |  |  |  | 1，658 |
| Acquitted．．．．．．．．．．．．．．．．．．．${ }_{\text {M．}}^{\text {F．}}$ | － | $\frac{1}{1}$ | 1 | －1 | ${ }^{35}$ | 22 | 5 | 2 | 3 | ${ }_{50}^{17}$ | 二 | 85 |
| Acquilled．．．．．．．．．．．．．．．．．．．． $\mathrm{F}_{\text {F．}}$ |  | － | ${ }_{2}$ | － | ${ }_{22}^{279}$ | 14 | ${ }_{3}^{25}$ | 1 | $\stackrel{24}{3}$ | ${ }_{4}$ | 二 | 49 |
| Detained because of insanity．．．．．M． | 二 | － | － | $\bigcirc$ | $\stackrel{1}{3}$ | 1 | $\bigcirc$ | － | $\checkmark$ | $\bigcirc$ | － | 1 |
| $\left.\begin{array}{l}\text { Stay of Proceedings } \\ \text { No Bill and Nolle Prosequi }\end{array}\right\} \cdots \cdots \frac{\mathrm{M}}{\mathrm{F}}$ ． | 二 | － | ＝ | 1 | 3 | 1 | 4 | － | 3 | 1 | － | ${ }_{3}^{13}$ |
| By Summary Trial－ |  |  |  |  |  |  |  |  |  |  |  |  |
| Convicted．．．．．．．．．．．．．．．．．．．．．．M． |  |  |  |  |  |  |  |  |  |  |  |  |
| Acquitted．．．．$\ldots \ldots \ldots \ldots \ldots \ldots{ }_{\text {M．}}^{\text {M．}}$ ． | 35 111 | $\frac{1}{3}$ | ${ }^{575}$ | 25 | 300 331 | 784 2,442 | 182 47 | 59 36 | 142 139 | 270 251 | $\underline{-}$ | ＋ $\begin{array}{r}1,881 \\ 3 \\ \hline\end{array}$ |
| ， | 8 | － | 46 | 1 | 43 | ${ }^{2}, 243$ | 4 | 6 | 14 | 39 | － | 404 |
| Detained because of insanity ．．．． $\mathrm{M}_{\mathrm{F}}$ ． | 二 | 二 | $\stackrel{9}{-}$ | $\underline{1}$ | 1 | 1 | 二 | $\underline{-}$ | 二 | $\underline{4}$ | － | ${ }_{2}$ |
|  | 二 |  | ＝ | 二 | 45 | 1 | 49 | － | － | 32 10 |  |  |
| Totals，Persons Charged | 659 | 93 | 1，703 | 827 | 6，506 | 15，495 | 1，781 | 1，133 | 2，642 | 4，156 | 91 | 35，086 |
| Totals，Persons Convicted | 534 | 89 | 1，216 | 782 | 5，723 | 12，464 | 1，633 | 1，074 | 2，452 | 3，703 | 91 | 29，761 |

10．－Persons Charged and Convicted of Indictable Crimes according to Trial Court， by Province， 1952

| Province or Territory | Persons Charged and Convicted by－ |  |  |  |  | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Police <br> Magis－ trate or Re－ corder＇s Court | Justice of the Peace |  | County <br> Court | Higher Court |  |
|  | No． | No． | No． | No． | No． | No． |
| Newfoundland．．．．．．．．．．．．．．．．．．．Charged Convicted | 612 493 | 二 | 30 30 | 3 3 | 14 8 | 659 534 |
| P．E．Island．．．．．．．．．．．．．．．．．．．．．Charged | $\begin{aligned} & 89 \\ & 85 \end{aligned}$ | － | 二 | 1 | 3 3 | 93 89 |
| Nova Scotia．．．．．．．．．．．．．．．．．．．．Charged | 1，524 | 二 | 3 3 | 109 | 67 42 | 1,703 1,216 |
| New Brunswick．．．．．．．．．．．．．．．．．Charged | 774 | 二 | 5 5 | 27 | 21 | 827 |
| Quebec．．．．．．．．．．．．．．．．．．．．．．．．．．．．．Charged | 4,919 4,481 | 1 | 361 356 | 1,050 754 | 175 131 | 6,506 5,723 |
| Ontario．．．．．．．．．．．．．．．．．．．．．．．．．．Charged | $\begin{aligned} & 14,469 \\ & 11,727 \end{aligned}$ | 二 | 40 36 | 587 457 | 399 244 | 15,495 12,464 |
| Manitoba．．．．．．．．．．．．．．．．．．．．．．．．Charged | 1,491 1,382 | 二 | 141 141 | 118 88 | 31 22 | 1,781 1,633 |
| Saskatchewan $\qquad$ Charged Convicted | $\begin{aligned} & 1,076 \\ & 1,033 \end{aligned}$ | 2 | 6 | 24 | 25 17 | 1,133 1,074 |
| Alberta．．．．．．．．．．．．．．．．．．．．．．．．．．Charged | $\begin{aligned} & 2,415 \\ & 2,261 \end{aligned}$ | 二 | 29 29 | 142 | 56 20 | 2,642 2,452 |
| British Columbia．．．．．．．．．．．．．Charged $\begin{gathered}\text { Convicted }\end{gathered}$ | 3,605 3,275 | 1 | 198 189 | 242 189 | 110 49 | 4,156 3,703 |
| Yukon and N．W．T．．．．．．．．．．．．．Charged | $\begin{aligned} & 90 \\ & 90 \end{aligned}$ | 1 | 二 | － | － | 91 91 |
| Canada . . . . . . . . . . ........ Charsed | $\begin{aligned} & 21,64 \\ & 26,601 \end{aligned}$ | 5 5 | $\begin{aligned} & 813 \\ & 795 \end{aligned}$ | $\begin{aligned} & 2,363 \\ & 1,748 \end{aligned}$ | $\begin{aligned} & 901 \\ & 549 \end{aligned}$ | $\begin{aligned} & 35,086 \\ & 29,761 \end{aligned}$ |

## Subsection 2．－Young Adult Offenders（16－24 Years）

Young men and women from 16 to 24 years of age formed $\mathbf{4 0 . 0}$ p．c．of the criminal population who committed indictable offences in 1952，although they com－ prised only 19.8 p．c．of the total population of 16 years of age or over．As this age group includes some of the most daring offenders，who may be already experienced criminals，as well as first offenders likely to be turned from crime by further educa－ tion and training，it seems worth while to give consideration to offenders in this group as distinct from offenders in the older age groups．

Almost 73 p．c．of the young offenders were tried in three provinces－Ontario （ 39.8 p．c．），Quebec（ 20.9 p．c．）and British Columbia（ $11 \cdot 7$ p．c．）； $45 \cdot 6$ p．c．of them were still under 20 years of age．
11.-Young Adult Offenders, by Age Group, Sex and Province, 1952

| $\begin{aligned} & \text { Age Group } \\ & \text { and } \\ & \text { Sex } \end{aligned}$ | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No, |
| 16-17 years.... ${ }^{\text {M }}$. |  |  | 97 5 | 72 2 |  | 933 53 | 100 51 | 118 | 237 20 | 305 6 | 5 | 2,384 154 |
| 18-19 " $\ldots \ldots . \mathrm{M}$. | 47 3 |  | 114 3 | 82 4 | 571 22 | $\begin{array}{r} 1,125 \\ 70 \end{array}$ | $\begin{array}{r} 140 \\ 22 \end{array}$ | $\begin{array}{r} 105 \\ 13 \end{array}$ | 229 18 | 286 24 | 4 | 2,712 179 |
| 20-24 " $\quad \cdots .$. | 126 |  | 287 10 | $\begin{array}{r} 142 \\ 5 \end{array}$ | $\begin{array}{r} 1,344 \\ 82 \end{array}$ | $\begin{array}{r} 2,412 \\ 140 \end{array}$ | $\begin{array}{r} 281 \\ 32 \end{array}$ | 199 | $\begin{array}{r} 540 \\ 35 \end{array}$ | $\begin{array}{r} 705 \\ 64 \end{array}$ | 23 2 | $\begin{array}{r} 6,078 \\ 386 \end{array}$ |
| Total | 235 |  | 516 | 307 | 2,489 | 4,733 | 626 | 448 | 1,079 | 1,390 | 34 | 11,893 |

Over one-third ( $36 \cdot 2$ p.c.) of the men guilty of manslaughter in 1952 and 31 of the 41 convicted of rape were under 25 years of age. Two-thirds ( $64 \cdot 6$ p.c.) of the men guilty of robberies and burglaries were in this group; 44.7 p.c. of those convicted of offences against property without violence, which includes all thefts; $74 \cdot 6$ p.c. of those responsible for stolen automobiles; $51 \cdot 1$ p.c. of those who maliciously damaged property; $45 \cdot 4$ p.c. of those found carrying offensive weapons and $54 \cdot 5$ p.c. of the prison escapers.

There were 719 young women offenders under 25 years of age in 1952, 80 fewer than in 1951. Nearly half of them (353) were guilty of theft and receiving stolen goods. Of the 105 women offenders convicted under the Opium and Narcotic Drug Act, 37 were in this group, as well as 34 of the 61 found guilty of forgery and uttering; 42 of the 49 female prison escapers were also young women.
12.-Young Adult Offenders Convicted of Indictable Offences, by Class of Offence and Sex, 1951 and 1952

| Class and Offence | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Male | Female |
|  | No. | No. | No. | No. |
| Class I.-Offences against the Person-Abduction | 8 | - | 8 | - |
| Assault, common and aggravated........ | 1,076 | 46 | 803 | 45 |
| Offences against fiemales ${ }^{1} . . . . . . .$. | 236 | 5 | 233 | 6 |
| Manslaughter and murder | ${ }_{2}^{23}$ | ${ }_{5}^{2}$ | 27 | 4 |
| Attempted murder; shooting and wounding. ....... | 58 | 5 | 57 |  |
| Non-support, desertion and cruelty to children...... Other offences against the person............... | 8 94 | 8 | 16 462 | ${ }_{18}^{2}$ |
| Totals, Class I. | 1,503 | 74 | 1,606 | 75 |
| Class II.-Offences against Property with ViolenceBurglary and robbery. | 2,532 | 30 | 2,565 | 39 |
| Totals, Class II | 2,532 | 30 | 2,565 | 39 |
| Class III.-Offences against Property without Violence- |  |  |  |  |
| Fraud, embezzlement and false pretences............ | 332 334 | ${ }_{21}^{52}$ | 379 339 | 46 26 |
| Receiving stolen goods........................................ | 4,463 | 364 | 4,337 | 327 |
| Totals, Class III | 5,129 | 437 | 5,055 | 399 |

For footnote, see end of table.
12.-Young Adult Offenders Convieted of Indietable Offences, by Class of Offence and Sex, 1951 and 1952 -concluded

| Class and Offence | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Male | Female |
|  | No. | No. | No. | No. |
| Class IV.-Malicious Oftences against PropertyArson. <br> Malicious damage to property | 17 270 | ${ }_{16}^{2}$ | 22 263 | 1 9 |
| Totals, Class IV | 287 | 18 | 285 | 10 |
| Class V.-Forgery and Other Offences against the Currency- <br> Offences against currency. <br> Forgery and uttering forged documents | 7 179 | $\overline{35}$ | 197 | 34 |
| Totals, Class $V$ | 186 | 35 | 138 | 35 |
| Class V1.-Other Offences- |  |  |  |  |
| Carrying unlawful weapons.. | 100 | 2 | 83 | 1 |
| Dangerons or reekless driving | 395 | 7 | 242 | 2 |
| Driving car while ability impaired | 2 | 2 | 212 | 2 |
| Driving car while drunk. . . . | 284 | 3 | 233 |  |
| Offences against public morals. | 33 | 41 | 5 | 11 |
| Opium and Narcotic Drug Act, offences against..... | 40 | 39 | 45 | 37 |
| Gambling and lotteries...... | 23 | 7 | 19 | 1 |
| Keeping bawdy houses and inmates.................. | 3 | 43 | 6 | 49 |
| Riots and unlawful assembly. | 133 412 | 7 5 | 194 426 | 1 57 |
| Totals, Class VI. | 1,423 | 205 | 1,465 | 161 |
| Grand Totals | 11,060 | 799 | 11,174 | 719 |

${ }^{1}$ Offences against females include: abortion, assault against females, assault against wife, indecent assault, carnal knowledge, incest, procuration, rape, attempted rape, seduction and wife desertion. ${ }^{2}$ Offences were reported under this classification for the first time in 1952.

Table 13 shows the proportions of young offenders per 100,000 population in three age groups.
13.-Numbers per $\mathbf{1 0 0 , 0 0}$ Population of Young Adults Convicted of Indictable Offences, by Age Group, 1951 and 1952

| Age Group | 1951 |  |  | 1952 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Offenders | Per 100,000 Population in Respective Group | Change from Preceding Year | Offenders | Per 100,000 Population in Respective Group | Change from Preceding Year |
|  | No. |  | p.c. | No. |  | p.c. |
| 16-17 years. | 2,780 | 659 | $-5.0$ | 2,538 | 596 | $-8.7$ |
| 18-19 * | 2,757 | 652 | -11.3 | 2,891 | 680 | + 4.9 |
| 20-24 " | 6,322 | 581 | $-5.9$ | 6,464 | 588 | +2.2 |

The sentences meted out to these young people varied somewhat from those given to offenders over 24 years of age. In 1952, a higher proportion of them were given suspended sentences, put on probation or sent to reformatories and a lower proportion were fined or given gaol sentences.
14.-Disposition of Sentences for Indictable Offences, by Sex, 1952

| Disposition of Sentences | Males |  | Females |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 16-24 \\ & \text { Years } \end{aligned}$ | $\begin{aligned} & 25 \text { Years } \\ & \text { or Over } \end{aligned}$ | $\begin{aligned} & 16-24 \\ & \text { Years } \end{aligned}$ | 25 Years or Over |
|  | p.c. | p.c. | p.c. | p.c. |
| Suspended sentence. | 16.0 | 10.1 | 18.8 | $17 \cdot 3$ |
| Probation..... | $8 \cdot 7$ | $3 \cdot 6$ | 18.5 | 9.8 |
| Fined...... | 24.3 | 37.0 | $20 \cdot 0$ | 37.9 |
| Gaol.......... | 34.9 | 38.0 | $30 \cdot 3$ | 29.2 |
| Reformatory. | $9 \cdot 2$ 6.9 | 4.5 6.7 | 10.9 | $3 \cdot 3$ |
| Death....... | $\underline{-}$ | 6.7 0.1 | $1 \cdot$ | $2 \cdot 5$ |

Through suspending sentence and probation supervising, many of these young offenders received another chance to make good, and reformatory training gave others an opportunity to better their employment possibilities. It is interesting to note that about one-third of the males under 25 were recorded as labourers, which indicates that they had no particular skill by which to earn a living; the proportion of male offenders over 25 years of age recorded as labourers was $21 \cdot 2$ p.c. Almost 4 p.c. of the youths were students and another $5 \cdot 3$ p.c. were unemployed as compared with 1.6 p.c. of the older men. Approximately three out of four of them lived in urban centres.

Of the young female offenders, $36 \cdot 6$ p.c. were not gainfully employed; domestic or personal service was the occupation of 36.2 p.c. and 84.7 p.c. lived in urban centres.

Since those convicted of non-indictable offences are not reported by age of offender, it is not possible to segregate young people of 16 to 24 years of age who have had summary convictions.

## Subsection 3.-Convictions for Non-indictable Offences

Non-indictable offences-those not expressly made indictable-include all offences against provincial statutes and municipal by-laws. Non-indictable offences are triable by magistrate or justice of the peace under Part XV of the Criminal Code or under the provincial summary convictions Acts, as the case may be.

It is debatable how far summary convictions are of a criminal nature and how much their increase indicates an increase in crime. Many are breaches of municipal by-laws and contrary to public safety, health and comfort as, for example, parking violations or exercising callings without licence, but they do not involve violence, cruelty or serious dishonesty. On the other hand, offences as serious as cruelty to animals and contributing to juvenile delinquency are included under this classification and such indictable offences as common assault and driving with ability impaired may be tried on summary conviction.

Summary convictions increased by $19 \cdot 7$ p.c. to $1,565,707$ in 1952 from $1,308,466$ in 1951. Increases were general in all provinces.

## 15.-Convictions for Non-indictable Offences, by Province, Years Ended Sept. 30, 1943-50, and Dec. 31, 1951-52

Nors.-Figures for years before 1951 are for the 12 months ended Sept. 30; 1951 and 1952 figures are for the calendar year. Statisties for the intervening months, October-December 1950, are given in DBS report, Statistics of Criminal and Other Offences. Figures for 1900-42 are given in the corresponding table of previous Year Books beginning with the 1933 edition.

| Year | N'fld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | N. W. T. | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 194 | ... | 1,033 | 8,857 | 7,619 | 181,425 | 204,227 | 21,986 | 7,810 | 11,598 | 20,510 | 145 | 105 | 465,315 |
| 1944 | ... | 1,287 | 8,760 | 9,533 | 146,593 | 199,938 | 22,602 | 7,788 | 11,950 | 21,866 | 336 | 74. | 430,727 |
| 1945 | ... | 1,394 | 9,786 | 9,818 | 158,580 | 209,713 | 22,820 | 8,996 | 11,576 | 22,887 | 312 | 36 | 455,918 |
| 1946 | ... | 2,715 | 12,915 | 13,925 | 176,996 | 354,154 | 36,014 | 13,985 | 16,289 | 32,203 | 234 | 242 | 659,672 |
| 1947 | ... | 2,806 | 12,019 | 14,097 | 188,835 | 407,334 | 47,170 | 15,263 | 18,696 | 45,585 | 328 | 325 | 752,458 |
| 1948. | ... | 2.696 | 13,699 | 12,189 | 228,502 | 445,911 | 52,783 | 15,488 | 19,748 | 85,006 | 385 | 238 | 876,645 |
| 1949 |  | 3,118 | 12,617 | 13,131 | 232, 132 | 510,837 | 72,023 | 16,465 | 25,551 | 94,326 | 232 | 57 | 980,489 |
| 1950 |  | 2.095 | 13,137 | 21,732 | 230,868 | 617,565 | 79,079 | 22,717 | 28,344 | 117,729 | 553 | 172 | 1,183,991 |
| 1951. | 5,022 | 2,195 | 14,850 | 25,660 | 267,648 | 671,893 | 118,217 | 22,467 | 39,956 | 139,304 | 950 | 304 | 1,308,466 |
| 1952. | 6,191 | 2.578 | 14,977 | 31,905 | 312.892 | 819,253 | 135,034 | 31,618 | 50,443 | 158,967 | 1,342 | 5071 | 1,565,707 |

In considering statistics of summary convictions, it should be remembered that such convictions are greatly influenced by the customs of the people and by the application and degree of enforcement of municipal regulations. These differ from place to place and from year to year and affect non-indictable offences more than they do indictable crimes.

In 1952 marked increases appeared in offences against the Merchant Seamen's Act, the Immigration Act, the Weights and Measures Act and the Income Tax Act. Misdemeanours against public health, revenue laws and public morals also increased. Offsetting these increases were decided decreases in convictions for offences against the Excise Act ( 35.8 p.c.), the Wartime Prices and Trade Board Act ( $35 \cdot 3$ p.c.) which should decline yearly, gambling Acts ( 26.5 p.c.), provincial Acts ( 22.5 p.c.).
16.-Convictions for Non-indictable Offences, by Type, Years Ended Sept. 30, 1948-50, and Dee. 31, 1951-52

Nork.-See headnote to Table 15.

| Type of Offence | 1948 | 1949 | 1950 | 1951 | 1952 | Increase or Decrease $1951-52$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | No. | No. | No. | p.e. |
| Assault (common) | 4,416 | 4,607 | 3.906 | 4,046 | 4,546 | +12.4 |
| Disturbing the peace | 7,544 | 11,018 | 10,568 | 12,210 | 12,760 | +4.5 |
| Drunkenness.. | 70,542 | 75,931 | 75,935 | 83,898 | 85,682 | $+2 \cdot 1$ |
| Vagrancy. | 9,051 | 8,576 | 8,967 | 6,893 | 6,956 | + 0.9 |
| Damage to prope | 1,537 | 1,675 | 1.720 | 1,678 | 2,143 | $+27.7$ |
| Gambling Acts, offences against. ........ | 5,523 | 6,360 | 4,818 | 3,613 | 2,656 | $-26.5$ |
| Bawdy houses (frequenting)............ | 1,111 | 581 | 480 | 273 | . 434 | $+59.0$ |
| Non-upport and neglecting childr | 4,524 | 4,217 | 4,459 | 4,609 | 5,178 | $+12.3$ |
| Contributing to delinquency............ | 1,272 | 1,087 | 1,126 | ${ }^{932}$ | 1,349 | $+44.7$ |
| Traffic regulations.................... | 649,599 | 761,467 | 938,549 | 1,065,426 | 1,311,022 | +23.1 |
| Provincial and Federal ActoGame and Fishing Acts. | 4,753 | 5,854 | 6,144 | 5,996 | 5,839 |  |
| Indian Act. | 1,570 | 2,386 | 2,426 | 2,213 | 2,549 | $+15.2$ |
| Liquor Control and Temperance Acts. | 27,744 | 28,259 | 31,738 | 28,405 | 33,335 | +17.4 |
| Lord's Day Act. | 1,428 | 1,014 | 2,072 | 749 | , 666 | $-11.1$ |
| Radio without | 10,693 | 12,235 | 10,642 | 12,418 | 11,273 | $-9.2$ |
| Railway Acts. | 1,735 | 1,827 | 2,278 | 1,266 | 1,427 | +12.7 |
| Revenue Laws ${ }^{\text {a }}$. . . . . ${ }^{\text {a }}$ | 2.690 | 2,704 | 3,175 | 5,292 | 6,259 | +18.3 |
| Municipal by-laws, breaches of... | 23,006 40,552 | 13,240 30,387 | 20,399 $\mathbf{4 4}, 349$ | 18,980\% | 17,446 | $-8.1$ |
| Exercising various callings without | 40,552 | 30,387 | 44,349 | 40,621 | 44,258 | $+9.0$ |
| licence................ | 1,178 | 1,359 | 2,580 | 2,349 |  |  |
| Other offence | 6,177 | 5,700 | 7,660 | 6,599r | 7,496 | $+13.6$ |
| Totals, Convictions | 876,645 | 980,489 | 1,183,991 | 1,308,466 | 1,565,707 | +19.7 |

[^111]Breaches of Traffic Regulations.-Each year breaches of traffic regulations constitute a greater proportion of the total convictions for non-indictable offences. In 1952 they amounted to $83 \cdot 7$ p.c., an increase of $23 \cdot 1$ p.c. over 1951 , which alone would account for the increase in summary convictions; 98.7 p.c. of them were offences under provincial highway traffic Acts and municipal by-laws.

## 17.-Convictions for Breaches of Traffic Regulations, by Province, Years Ended

 Sept. 30, 1943-50, and Dec. 31, 1951-52Nots.-See headnote to Table 15, p. 309.

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1943 | $\ldots$ | 209 | 2,772 | 1,722 | 82,884 | 152,557 | 16,074 | 2,961 | 4,745 | 10.628 | 21 | 274,573 |
| 1944 | $\ldots$ | 326 | 1,591 | 1,838 | 85, 134 | 146,849 | 16,268 | 2,864 | 4,754 | 10,387 | 10 | 270,021 |
| 1945 | ... | 157 | 1,359 | 2,211 | 100,708 | 149,903 | 14,886 | 2,838 | 3,774 | 10,985 | 4 | 286,825 |
| 1946. | $\ldots$ | 327 | 1,707 | 2,014 | 123,915 | 271,379 | 26,266 | 5,253 | 5,574 | 17,193 | 2 | 453,630 |
| 19 | $\cdots$ | 556 | 2,370 | 2,667 | 138,321 | 315,412 | 36,526 | 6,141 | 7,476 | 28,043 | 7 | 537,519 |
| 1948. | ... | 393 | 4,607 | 2,469 | 174,021 | 352,253 | 41,074 | 6,300 | 7,984 | 60,493 | 5 | 649,599 |
| 1949 |  | 519 | 4,084 | 3,729 | 188,003 | 417,016 | 60,127 | 7,274 | 11,112 | 69,545 | 58 | 761,467 |
| 1950. |  | 366 | 4,265 | 11,909 | 227,857 | 508,010 | 67,832 | 12,362 | 13,772 | 92,038 | 138 | 938,549 |
| 1951. | 1,773 | 580 | 5,802 | 15,641 | 215,222 | 570,895 | 106,262 | 13,325 | 22,923 | 112,738 | 265 | 1,065,426 |
| 1952. | 2,565 | 765 | 5,109 | 20.358 | 266,835 | 714.810. | 122,647 | 19,749. | 25,693 | 132,123 | 368 | 1,311,022 |

For the year 1952, Ontario, with $40 \cdot 9$ p.c. of the registrations of motor-vehicles in Canada, had 54.5 p.c. of the total convictions for breaches of traffic regulations; Quebec in the same year had 18.2 p.c. of the motor-vehicles and 20.4 p.c. of the convictions. In interpreting the figures in this way, however, it should be pointed out that traffic regulations are by no means uniform throughout Canada and no account is taken of the differences in the degrees of urbanization in the provinces. These two provinces have large urban centres, but in provinces with lower degrees of urbanization, such as the Atlantic Provinces, Saskatchewan and Alberta, convictions are lower when considered in proportion to the number of motor-vehicles registered.

Convictions for Drunkenness and Offences against the Liquor Acts.In considering these convictions, it should be noted that the same person may and often does appear before the courts on such charges more than once within a year and that the number of convictions may thus be well above the number of persons convicted.

## 18.-Convictions for Drunkenness, by Province, Years Ended Sept. 30, 1943-50, and Dec. 31, 1951-52

Note.-See headnote to Table 15, p. 309.

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | N. | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1943 | $\ldots$ | 332 | 2,380 | 3,489 | 10,363 | 17,482 | 1,885 | 778 | 1,462 | 4,055 | 51 | 15 | 42,292 |
| 1944 | $\ldots$ | 395 | 2,068 | 4,292 | 8,843 | 17,258 | 1,451 | 864 | 1,539 | 4,744 | 54 | 13 | 41,521 |
| 1945 | ... | 612 | 3,064 | 4,158 | 10,336 | 19,573 | 2,040 | 1,010 | 1,515 | 4,342 | 85 | 10 | 46,745 |
| 1946 | ... | 1,478 | 4,754 | 7,754 | 7,167 | 29,698 | 2,685 | 1,847 | 2,596 | 5,974 | 85 | 38 | 64,076 |
| 1947 | ... | 1,187 | 4,907 | 6,584 | 11,006 | 31,218 | 2,510 | 1,802 | 2,632 | 8,801 | 184 | 37 | 70,868 |
| 1948 | ... | 969 | 4,151 | 4,900 | 11,015 | 33,446 | 2,829 | 1,392 | 2,580 | 9,135 | 101 | 24 | 70,542 |
| 1949 |  | 1,089 | 4,363 | 5,125 | 10,419 | 33,797 | 3,613 | 1,497 | 4,656 | 11,237 | 126 | 9 | 75,931 |
| 1950 |  | 907 | 3,931 | 4,980 | 10,942 | 35,356 | 2,984 | 1,503 | 3,849 | 11,180 | 240 | 63 | 75,935 |
| 1951 | 844 | 759 | 4,432 | 6,036 | 10,222 | 38,577 | 3,098 | 1,915 | 4,691 | 13,007 | 213 | 104 | 83,898 |
| 1952. | 786 | 1,049 | 5,457 | 6,550 | 10,702 | 36,344. | 3,272 | 2,264 | 5,141 | 13,479 | 462 | 176. | 85,682 |

There is general interest in the relation of alcoholism to crime but, when examining statistics to support the assumption that some crimes are associated with the consumption of liquor, it should be observed that accurate interpretation would necessitate allowance for population variables such as age and sex distribution and other classifications according to social and economic status, etc.

## 19.-Convictions for Offences against the Liquor Acts, by Province, Years Ended Sept. 30, 1943-50, and Dec. 31, 1951-52

Nots.-See headnote to Table 15, p. 309.

| Year | N'rld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | N. W. T. | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1943 | $\cdots$ | 118 | 1,369 | 473 | 2,070 | 6,751 | 1.086 | 1,099 | 1,106 | 944 | 47 | 36 | 15,099 |
| 1944 | ... | 56. | 2,240 | 814 | 1,287 | 8,332 | 1,057 | 1,010 | 1,108 | 1,047 | 119 | 23 | 17,093 |
| 1945 | ... | 155 | 2,324 | 911 | 2,626 | 10,655 | 1,429 | 1,416 | 1,454 | 1,215 | 39 | 13 | 22,237 |
| 1946 | ... | 374 | 3,436 | 1,411 | 2,274 | 15,779 | 2,059 | 2,697। | 2,514 | 2.615 | 57. | 146 | 33,362 |
| 1947 | ... | 354 | 2,503 | 1,742 | 1,494 | 12,889 | 2,229 | 2, 112 | 2.623 | 1,741 | 46 | 153 | 28,486 |
| 1948. | ... | 329 | 2.274 | 1,274 | 1,519 | 13,891 | 1,921 | 2,311 | 2,670 | 1,443 | 39 | 73 | 27,744 |
| 1949. | .. | 439 | 2,053 | 1,278 | 1,969 | 14,339 | 1,574 | 2,418 | 3,081 | 1,098 | - | 10 | 28,259 |
| 1950 |  | 263 | 2,192 | 1,172 | 3,121 | 15,761 | 1,980 | 2,478 | 3,504 | 1,164 | 64 | 34 | 31,738 |
| 1951 | 371 | 266 | 2,273 | 818 | 1,467 | 14,104 | 1,961 | 2,005 | 3,757 | 1,251 | 88 | 44 | 28,405 |
| 1952 | 475 | 284 | 2,236 | 1,172 |  | 15,050 | 2,314 | 2,527 | 6,782 | 1,381 | 243 | 94 | 33,335 |

Convictions of Females.-The number of convictions against females for nonindictable offences has increased steadily each year since 1944. The increase in 1952 over 1951 amounted to $20 \cdot 0$ p.c., Manitoba, the Yukon and Northwest Territories, Newfoundland, Nova Scotia and Prince Edward Island recording the highest percentages at $257 \cdot 8,166 \cdot 6,50 \cdot 0,45 \cdot 4$, and $42 \cdot 5$, respectively. Only two provinces, Quebec and Saskatchewan, recorded decreases.

Traffic offences for which women were responsible increased in 1952 over 1951 by 23.8 p.c. and caused $85 \cdot 3$ p.c. of the summary convictions against women.

> 20.-Convictions of Females for Non-indictable Offences, by Province, Years Ended Sept. 30, 1948-50, and Dec. 31, 1951-52

Nots.-See headnote to Table 15, p. 309.

| Province or Territory | Numbers of Convictions |  |  |  |  | Percentages of Convictions of Femsles to Total Convictions |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1948 | 1949 | 1950 | 1951 | 1952 | 1948 | 1949 | 1950 | 1951 | 1952 |
| Newfoundiand. |  |  |  | 206 | 309 |  |  |  | $4 \cdot 1$ | $5 \cdot 0$ |
| Prince Edward Island | 65 | 66 | 67 | 40 | 57 | 2. 5 | $2 \cdot 1$ | $3 \cdot 2$ | 1.8 | $2 \cdot 2$ |
| Nova Scotia. | 469 | 349 | 389 | 471 | 685 | $3 \cdot 5$ | 2.8 | $3 \cdot 0$ | $3 \cdot 2$ | $4 \cdot 6$ |
| New Brunswick | 348 | 373 | 446 | 501 | 611 | $2 \cdot 9$ | 2.8 | $2 \cdot 1$ | $2 \cdot 0$ | 1.9 |
| Quebec. | 6.803 | 7.404 | 10.398 | 9,056 | 7.156 | $3 \cdot 7$ | $3 \cdot 2$ | $3 \cdot 7$ | $3 \cdot 4$ | $2 \cdot 3$ |
| Ontario. | 33,360 | 42,022 | 56,225 | 57,135 | 69.057 | $8 \cdot 1$ | $8 \cdot 2$ | 9-1 | $8 \cdot 5$ | $8 \cdot 4$ |
| Manitoba. | 1,812 | 2,135 | 1,684 | 1,745 | 6,244 | $3 \cdot 6$ | $3 \cdot 0$ | $2 \cdot 1$ | 1.5 | $4 \cdot 6$ |
| Saskatchewan. | 513 | 476 | 595 | 592 | 570 | $3 \cdot 4$ | 2.9 | $2 \cdot 6$ | $2 \cdot 6$ | 1.8 |
| Alberta. ${ }^{\text {British }}$ Colum . ${ }^{\text {a }}$ | 1,156 | 1.224 | 1,194 | 1,208 | 1,568 | $6 \cdot 2$ | 4.8 | $4 \cdot 2$ | 3.0 | $3 \cdot 1$ |
| British Columbia | 7,254 | 7,216 | 9,972 | 13,596 | 15,109 | $9 \cdot 3$ | 7.7 | 8.5 | 9.8 | $9 \cdot 5$ |
| Yukon and N.W.T | 76 | 16 | 42 | 51 | 136 | 13.9 | 5.5 | $5 \cdot 8$ | $4 \cdot 1$ | $7 \cdot 4$ |
| Canada | 51,856 | 61,281 | 81,012 | 84,601 | 101,502 | $6 \cdot 3$ | 6.3 | 6.8 | 6.5 | 6.5 |

## Subsection 4．－Appeals

The disposition of appeals dealt with by the Supreme Court of Canada and the provincial supreme courts in criminal cases，together with the disposition of those dealt with by county and district courts against summary convictions is shown，by＊ province，in Table 21 for the year 1952.

21．－Appeals in Indictable and Summary Conviction Cases，by Province， 1952

| Province or Court | Indictable Ofyences |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ap－ peals Dis－ posed of by Courts | Crown Appeal |  |  |  |  | Appeal of Accused |  |  |  |  |  |
|  |  | From Acquittal |  |  | From Sentence |  | From Conviction |  |  |  | From Sentence |  |
|  |  | $\begin{aligned} & \text { Dis- } \\ & \text { missed } \end{aligned}$ | New Trial | Con－ viction | $\left\lvert\, \begin{gathered} \text { Dis- } \\ \text { missed } \end{gathered}\right.$ | Varied | Dis－ missed | $\begin{gathered} \text { Ac- } \\ \text { quitted } \end{gathered}$ | New | Sub－ sti－ tuted Verdict | Dis－ missed | Varied |
|  | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． |
| N＇f＇ld．．．．．． | $\checkmark$ | － | 二 | ＝ | 二 | 二 | 二 | 二 | 二 | － | － | － |
| N．S．．．．．．．． | 7 | － | － | － | － | － | 4 | － | 2 | － | － | 1 |
| N．B．．．．．．．．． | 10 | － | － | － | － | － | 7 | 2 | － | － | － | 1 |
| Que．．．．．．．．． | 78 | 5 | － | 3 | － | $\overline{12}$ | 41 | 12 | 4 | $\bigcirc$ | 7 | 6 |
| Ont．．．．．．．．． | 318 | － | － | － | 4 | 12 | 168 | 42 | 34 | 1 | 34 | 23 |
| Man．．．．．．．． | 35 | － | － | － | － | 二 | 19 | 1 | F | 二 | 9 | 6 |
| Sask．．．．．．． | 25 | － | － | － | － | 二 | 3 45 | 3 | 2 | $\bigcirc$ | 8 | ${ }^{9}$ |
| Alta．．．．．．．．．． | ${ }_{232}^{128}$ | 1 | $\overline{1}$ | $\stackrel{\rightharpoonup}{6}$ | 二 | $\overline{9}$ | 45 92 | 113 | 10 9 | $\frac{1}{5}$ | 30 43 | 30 54 |
| Supreme Court of Canada．．． | 13 | － | － | － | － | － | 6 | 3 | 4 | － | － | － |
| Totals．．．． | 847 | 6 | 1 | 9 | 4 | 21 | 385 | 87 | 65 | 7 | 131 | 131 |


| Province | Summary Conviction Casss |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Appeals Dis－ posed of by Courts | Appeal of Informant |  |  |  | Appeal of Accused |  |  |  |  |
|  |  | From Acquittal |  | From Sentence |  | From Conviction |  |  | From Sentence |  |
|  |  | $\begin{gathered} \text { Dis- } \\ \text { missed } \end{gathered}$ | Con－ viction | Dis－ missed | Varied | Dis－ missed | $\underset{\text { quitted }}{\text { Ac- }}$ | Sub－ sti－ tuted Verdict | $\begin{gathered} \text { Dis- } \\ \text { missed } \end{gathered}$ | Varied |
|  | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． |
| N＇f＇ld．．．．．． | － | － | － | － | － | － | － | － | － | 二 |
| P．E．I．．．．．． | － 83 | － 12 | －7 | －1 | －1 | $\bigcirc$ | －13 | －4 | －1 | 二 |
| N．B．．．．．．．． | 12 | 2 | － | － | － | 4 | 2 | － | 4 | － |
| Que．．．．．．．．． | 34 | － | 6 | 1 | － | 19 152 | 12 | 2 4 | －22 | 16 |
| Ont．． | 305 | 5 | 6 | － | － | 152 10 | 96 | $\sim^{4}$ | $\underline{-}$ | 16 |
| Man． | $\stackrel{21}{23}$ | －1 | $-2$ | 二 | 二 | 12 | 8 | 二 | － | $-2$ |
| Alta． | 76 | 3 | 2 | 2 | － | 18 | 27 | 9 | 5 | 10 |
| B．C． | 113 | 5 | 6 |  | － | 46 | 36 | 16 | 1 | 3 |
| Totals． | 667 | 28 | 23 | 5 | 4 | 305 | 203 | 35 | 33 | 31 |

## Section 3．－Juvenile Delinquents

The Juvenile Delinquents Act defines a child as＂any boy or girl apparently or actually under the age of 16 years＂．Provision is made，however，by which the Governor General in Council may proclaim that in a province the definition of a child be a＂person under the age of 18 years＂．This has been done in British Colum－ bia，Manitoba and Quebec．In Alberta the age of juvenile boys is＂under 16 years＂．

Newfoundland considers a juvenile to be a girl or a boy of under 17 years of age. For uniformity, the figures relating to juveniles compiled by the Dominion Bureau of Statistics refer to the younger ages of under 16 years only and deal primarily with cases disposed of by the courts.

The fact that juvenile court statistics furnish the most comprehensive figures collected on a country-wide basis makes it important that their possibilities and limitations be understood. This Section gives an account of juvenile delinquency in Canada from the viewpoint of legal action taken, for in the eyes of the law a child is a delinquent only when he or she is adjudged before the court to have committed a delinquency. To many people the term 'juvenile delinquent' has a broader interpretation but that adopted in this Section does not include those boys and girls whose misdemeanours have not been reported to the courts or who have been given the necessary advice and aid from their parents, their school, the police or a childcare agency. Moreover, it does not include those cases that are handled unofficially by the court, where the judge or probation officer makes an adjustment without filing a legal record of the offence. The tendency to follow this practice and thus keep children's names from court records is growing and may account to some extent for the decreasing number of recorded court cases.

These statistics represent cases of delinquency reported to the courts, from the most trivial infractions to the most serious, that of murder. The number of cases brought before the courts is influenced by such factors as personnel and facilities of the court, community interest in and understanding of the function of a juvenile court, and by variations in the policies of the courts in the disposition of cases. As more courts are established, the additional returns may exaggerate an apparent increase in delinquency or may underestimate a decrease. In some communities, the juvenile court is the only available agency to provide services to children; in others, there are well-established agencies serving children, of which the juvenile court is only one.

It should be noted, too, that the total figures do not represent the actual number of children charged and found guilty, but rather tend to exaggerate them, for a child referred to the court two or more times during the year for different offences is counted as a different case each time. Neither do the figures represent the number of offences committed by offenders, as, when a child is charged with more than one delinquency at a hearing, only the most serious offence is counted.

Reports of juvenile delinquents were received in 1952 from 151 of the 156 judicial districts. Eighteen of these had no cases to report. Separate reports were received in 1952 from 155 incorporated urban centres of 4,000 population or more.

Juveniles Before the Courts.-The number of cases of juveniles brought before the courts has declined almost steadily each year since 1943. The only break in the trend was in 1950 and 1951. In the latter year a large part of the increase was accounted for by the addition of 194 cases in Newfoundland.

## 22.-Juveniles brought before the Courts, by Province, 1948-52

Norg.-Statistics for years before 1950 are for the 12 months ended Sept. 30; figures for 1950-52 are for the calendar year. Statistics for the three intervening months, October-December 1949, are given in DBS report Juvenile Delinquents, 1950. Figures for Newfoundland are included for the first time in 1951.

| Province or Territory |
| :--- |
|  |

23.-Percentage Change in the Number of Boys and Girls brought before the Courts, 1943-52

Nore.-See headnote to Table 22.

| Year | Percentage Change from Preceding Year |  |  | Percentage Change from 1942 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys' Cases | $\begin{aligned} & \text { Girls' } \\ & \text { Cases } \end{aligned}$ | $\begin{gathered} \text { All } \\ \text { Cases } \end{gathered}$ | Boys' Cases | Girls' Cases | $\begin{gathered} \text { All } \\ \text { Cases } \end{gathered}$ |
| 1943. | -12.9 | +1.1 | -11.4 | $-12.9$ | $+6.1$ | $-11.4$ |
| 1944. | -4.8 | $-10.5$ | - $5 \cdot 5$ | $-17.1$ | -9.5 | -16.3 |
| 1945. | -16.3 | - 9.6 | -15.6 | -30.6 -38.5 | -18.2 | -29.3 -36.9 |
| 1946. | -11.4 | -5.8 -17.3 | -10.8 -5.1 | -38.5 -40.6 | $-22 \cdot 9$ -36.2 | -36.9 -40.1 |
| 1947. | $-3.3$ | $-17.3$ | $-5.1$ | -40.6 | -36-2 | -40.1 |
| 1948. | $-5.1$ | $-1.3$ | $-4.7$ | -43.6 | -37.1 | -42.9 |
| 1949. | $-9.0$ | $-24.0$ | $-10.7$ | $-48.7$ | $-52.2$ | -49.0 |
| 1950. | +2.9 | +11.8 | $+3.8$ | $-47.2$ | $-46.5$ | $-47.1$ |
| 1951. | +3.9 | $-5.3$ | $+3.0$ | $-45.1$ | -49.4 | -45.5 |
| 1952. | $-5.0$ | $+4.5$ | $-4.1$ | -47.8 | -47.1 | $-47.7$ |

Children Adjudged Delinquent.-Between 80 and 90 p.c. of the children brought before the courts each year from 1943 to 1952 were adjudged delinquent. As the number brought before the courts has declined steadily during the ten-year period, with the exception of the years 1950 and 1951, so the number of delinquents has followed a like trend. The major decreases in 1952 as compared with 1951 were shown in Quebec and Ontario.
21.-Juvenile Dellinquents, by Province, 1943-52

Nors.-See headnote to Table 22.

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. |  | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1943 | ... | 89 | 488 | 429 | 3,196 | 4,178 | 438 | 421 | 447 | 610 | - | 10,296 |
| 194 | ... | 109 | 475 | 474 | 2,259 | 4,428 | 416 | 422 | 565 | 769 | - | 9,917 |
| 1945 | ... | 115 | 493 | 338 | 2,387 | 3,531 | 342 | 334 | 531 | 838 | - | 8,909 |
| 1946 | ... | 55 | 384 | 382 | 2,155 | 3,104 | 298 | 195 | 405 | 878 |  | 7,856 |
| 1947 | ... | 30 | 412 | 334 | 1,842 | 2,830 | 424 | 212 | 277 | 1,167 | 17 | 7,545 |
| 1948 | ... | 28 | 421 | 263 | 1,864 | 2,799 | 364 | 169 | 237 | 999 | 11 | 7,155 |
| 1949 | .. | 49 | 433 | 198 | 1,323 | 2,541 | 403 | 171 | 246 | 833 | 1 | 6,198 |
| 1950 |  | 10 | 351 | 258 | 1,369 | 3,056 | 400 | 76 | 204 | 688 | 6 | 6,418 |
| 1951. | 175 | 52 | 483 | 261 | 1,180 | 3,024 | 347 | 64 | 242 | 815 | 1 | 6,644 |
| 1952. | 215 | 29 | 356 | 267 | 628 | 2,889 | 409 | 81 | 317 | 877 | - | 6,068 |

Offences.-Thieving is the most prevalent delinquency among boys and, together with receiving stolen goods, was the reason for court appearance in nearly half ( $48 \cdot 5$ p.c.) of the cases in 1952. Burglaries, robberies, house- and shop-breaking were committed by 26.4 p.c. of them and another $11-3$ p.c. committed wilful acts against property. Only $3 \cdot 0$ p.c. of the boys were guilty of offences against the person and 36.2 p.c. of these were charged with common assault.

Incorrigibility ( 26.0 p.c.) and thefts ( 25.5 p.c.) were the complaints against more than half of the delinquent girls in 1952.

## 25.-Juvenile Delinquents, by Group of Offence and Ratio per $\mathbf{1 0 0}, \mathbf{0 0}$ Population 7-16 Years of Age, 1913-52

Nork.-See headnote to Table 22.

| Year | Offences aggingt the <br> Person |  | Offences against Property with Violence |  | Offences against Property without Violence |  | Wilful Offences against Property |  | Forgery and <br> Offences against Currency |  | Other Offences |  | Total Convictions |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | $\left\|\begin{array}{l} \text { Ratio } \\ \text { to } \\ \text { Pope- } \\ \text { lation } \end{array}\right\|$ | No. | $\begin{aligned} & \text { Ratio } \\ & \text { to } \\ & \text { Pope- } \\ & \text { lation } \end{aligned}$ | No. | $\left\|\begin{array}{l} \text { Ratio } \\ \text { to } \\ \text { Popu- } \\ \text { lation } \end{array}\right\|$ | No. | $\left\|\begin{array}{c} \text { Ratio } \\ \text { to } \\ \text { Popu- } \\ \text { lation } \end{array}\right\|$ | No. |  | No. | Ratio to Population | No. | Rstio to Population |
| 1913. | 260 | 14 |  |  |  |  |  | 59 |  |  |  |  |  | 535 |
| 1944. | 216 | 11 | 1,739 | 91 | 3,393 | 178 | 1,269 | 67 | 22 |  | 3,278 | 172 | 9,917 | 520 |
| 1945. | 220 | 12 | 1,513 | 80 | 2,964 | 157 | 1,190 | 63 | 29 | 2 | 2,993 | 159 | 8,909 | 47 |
| 1946. | 173 | , | 1,353 | 71 | 2,594 | 137 | 887 | 47 | 23 | 1 | 2,826 | 149 | 7,856 | 414 |
| 1947. | 189 | 10 | 1,389 | 72 | 2,449 | 27 | 677 | 35 | 23 | 1 | 2,818 | 147 | 7,545 | 392 |
| 1948. | 204 | 10 | 1,229 | 64 | ,400 | 124 | 729 | 38 | 15 | 1 | 2,578 | 134 | 7,155 | 37 |
| 1949 | 176 | 9 | 1,346 | 67 | ,244 | 113 | 600 | 30 | 15 |  | 1,817 |  | 6,198 | 311 |
| 1950. | 151 | 7 | 1,337 | 65 | 2,394 | , | 667 | 32 | 6 | 1 | 1,853 |  | 6,418 | 31 |
| 1951 | 188 | 9 | 1,542 | 72 | 2,563 |  | 765 | 6 | 20 | 1 | 1,566 | 73 | 6,644 | 310 |
| 1952 | 172 |  | 1,456 | 65 | 2,496 | 12 | 633 | 28 | 25 | 1 | 1,286 |  | 6,068 | 272 |


26.-Juvenile Delinquents, classified by Offence, 1948-52

Nors.-See headnote to Table 22, p. 314.


Sex and Age.-Juvenile delinquents are predominantly boys. The ratio between boys and girls has remained much the same over a long period and for all offences in 1952 it was approximately one girl to eight boys. Juveniles of 13 to 15 years of age comprised the majority of delinquents, $68 \cdot 9$ p.c. in the case of boys and $85 \cdot 1$ p.c. in the case of girls. However, 299 boys and 14 girls ( $5 \cdot 2$ p.c. of the children)
were under 10 years of age. There were no delinquent girls before the courts in Prince Edward Island; none under 14 years was judged to be delinquent in Saskatchewan and none under 11 years in Quebec and Manitoba.
27.-Percentages of Delinquent Boys and Girls, by Age Group, 1951 and 1952

Nors.-See headnote to Table 22, p. 314.

| Age Group | 1951 |  |  | 1952 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys | Girls | Both Sexes | Boys | Girls | Both Sexes |
| 7-12 years 13 -15 years Not given. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
|  | 29.0 70.2 | 13.2 86.5 | ${ }_{71.7}^{27.6}$ | 29.7 68.9 | 14.0 85.1 | 28.0 70.7 |
|  | 0.8 | $0 \cdot 3$ | 0.7 | 1.4 | 0.9 | $1 \cdot 3$ |
| Totals. | 100.0 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | 100.0 | 100.0 |

Education and Employment.-Many causes contribute to backwardness in school work. The retarding influence may be illness, over-crowding in the home, disturbed family situations or dull mentality. Presuming that six years is the usual age for entering Grade I, nearly half of the juvenile delinquents ( 44.9 p.c. of the boys and 44.8 p.c. of the girls) in 1952 were reported to be two or more years below the normal grade for their age and 3.8 p.c. of the boys and girls were a year or more above it.

Well over half of the boys had attained Grade VI and more than half of the girls Grade VII at the time of the delinquency. The majority of boys who had left school had reached Grades VI to VIII and the girls, Grades VII to IX. Some high school education had been achieved by 17 p.c. of the boys and girls.
28.-Age, Sex and School Grade of Delinquent Boys and Girls, 1952
( $\mathrm{B}=$ Boys; $\mathrm{G}=$ Girls)


In 1952, 10.4 p.c. of the delinquent boys and 18.5 p.c. of the delinquent girls were not attending school. At the time of leaving school their ages ranged from 7 to 15 years, the majority being between 14 and 15 . Nearly 28 p.c. of the delinquent
boys were unemployed. The largest group of wage-earners (67) were recorded as day labourers. The next largest group (52) were in occupations concerned with transportation, such as messengers, helpers on milk-delivery routes, truck drivers' assistants, etc. More than a third of the girls were idle after leaving school. Factory work, domestic and personal service were the main occupations of those who were employed.

Birthplaces of Juvenile Delinquents and their Parents.-Canada was the country of birth of $96 \cdot 2$ p.c. of the juvenile delinquents in 1952 (the place of birth was not recorded in 1.6 p.c. of the cases). One hundred and thirty-one ( $2 \cdot 2$ p.c.) were born in the British Isles, Europe, the United States and China. Ontario was the province of residence of $64 \cdot 1$ p.c. of those born outside Canada.

Both parents of $72 \cdot 1$ p.c. of the delinquent children in 1952 were born in Canada and another 13.9 p.c. had one parent born in this country. To evaluate these figures, comparison should be made of population ratio of children from 7-15 years of age whose parents were Canadian-born with those whose parents were born elsewhere.

Home Circumstances.-The type of home in which he lives and the amount and quality of supervision he receives are important factors in a child's behaviour. The statistics of the marital status of the parents and the place and type of residence of the child reflect home conditions and are worth recording as possible reasons for social or emotional maladjustment. The parents of 77.4 p.c. of the delinquent children were reported to be living together in 1952. Homes broken by separated parents, divorce or death was the background from which 19.0 p.c. of these boys and girls came. The mothers of 9.9 p.c. of the juvenile delinquents were employed other than in the home and, in the cases of another 2.9 p.c., the mothers were dead. The fathers of 6.0 p.c. of the cases were deceased. For every four juveniles who appeared in court, three resided in an urban centre and one in a rural district. Of these boys and girls, 89 p.c. were living in their own homes at the time they got into difficulties; $4 \cdot 7$ p.c. of them were in foster homes, either with a relative or some other person, and institutions were the homes of $1.7 \mathrm{p} . \mathrm{c}$. of them.

Sources of Complaint.-The police were the complainants in the majority of juvenile cases, 79 p.c. of the boys having been so charged. Probation officers and parents were each responsible for $2 \cdot 3$ p.c. of those charged. School authorities referred 1.9 p.c. of the boys to the courts, and social agencies another 1.0 p.c.

The proportion ( $52 \cdot 1$ p.c.) of girls charged by the police was considerably less than the proportion of boys. Parents made more use of the courts for girls than for boys ( 16.4 p.c.). School authorities laid complaints in $5 \cdot 7$ p.c., probation officers in 6.6 p.c. and social agencies in 7.5 p.c. of the girls' cases.

Repeaters.-In 1952, approximately one in every three children brought before the courts failed to heed the first warning and made at least a second appearance. In $1952,72 \cdot 7$ p.c. of the delinquent children appeared before the courts for the first time, 15.9 p.c. were second offenders, $6 \cdot 0$ p.c. third, while 5.4 p.c. were dealt with by the courts four or more times.
23.-First Offenders and Repeaters of Major Offences, 1943-52

Nors.-See headnote to Table 22, p. 314.

| Year | Total Delinquents | First Offenders | Repeaters |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second | Third | Fourth | Fifth Mor | Total | Percentage of Total Delinquents |
|  | No. | No. | No. | No. | No. | No. | No. |  |
| 1943. | 6,494 | 4,831 | 865 | 386 | 183 | 229 | 1,663 |  |
| 1944. | 6,529 | 4,665 4,231 | 843 | 429 337 | 221 | 271 | 1,864 1,527 | 28.6 26.5 |
| 1945. | 5,758 4,949 | 4,231 3,430 | 812 799 | 337 344 3 | 137 <br> 155 | 241 | 1,527 1,519 | 26.5 30.7 3 |
| 1947. | 4,683 | 3,376 | 673 | 329 | 138 | 167 | 1,307 | 27.9 |
| 1948. | 4,591 | 3,340 | 674 | 266 | 147 | 164 | 1,251 | 27.3 |
| 19491. | 6,198 | 5,195 | 603 | 208 | 109 | 83 | 1,003 | 16-2 |
| 19501. | 6;418 | 5,039 | 892 | 314 | 140 | 33 | 1,379 | 21.5 |
| 19511. | 6,644 | 5,141 | 909 | 324 | 132 | 138 | 1,503 | $22 \cdot 6$ |
| $1952{ }^{1}$. | 6,068 | 4,412 | 963 | 367 | 155 | 171 | 1,656 | 27-3 |

${ }^{1}$ Includes minor offences.

Disposition of Cases.-In 1952, not quite one-half of the children's cases ( 48.2 p.c.) were heard within four days of the charge and slightly over two-thirds ( 68.6 p.c.) within nine days. However, $19 \cdot 1$ p.c. of them had to wait at least two weeks and 8.5 p.c. waited a month or more before the first hearing. These waiting periods may be explained in various ways.

Some county courts sit only twice or even once a month. Hearings may be deferred because of sickness in the family, school examinations, stormy weather, or long distances. The chief cause for delay, however, is the time it takes to investigate the facts properly. The probation officer, and frequently there is only one to a court, has to find out what occurred at the time of the delinquency; he must contact the parents and the school, learn something of the home situation, perhaps arrange medical or psychiatric examinations and explore community resources. The disadvantage of a long waiting period is outweighed by the assistance the court receives in deciding the form of treatment best suited to the child's needs and the type of care that will be the most economical for the community. For these intervening days or weeks most children are left in their own homes while a minority are placed in detention homes and, in the long run, whether the effect of the waiting period is good or bad is determined by the care given the youngster during that time.

Juvenile court judges heard 93.1 p.c. and magistrates 6.8 p.c. of the juvenile cases before the courts. The balance were heard by justices of the peace. The proportion of those declared delinquent ( $97 \cdot 6$ p.c.) in the magistrate's courts was greater than in the juvenile courts ( $83 \cdot 2$ p.c.). In the former court $2 \cdot 4$ p.c. of the cases were dismissed while in the juvenile courts only $2 \cdot 5$ p.c. were dismissed but $14 \cdot 3$ p.c. were adjourned sine die.

Some courts consider children whose hearings are adjourned sine die as delinquent while others do not but, for the sake of uniformity in this report, the latter point of view is maintained by the Dominion Bureau of Statistics. In assessing the total problem of juvenile delinquency, however, cases adjourned sine die have to be taken into account for, when the proportion of cases dealt with in this way increases, the proportion of those declared delinquent declines.

## 30.-Juveniles before the Courts, Dismissed and Delinquent, 1948-52

Note.-See headnote to Table 22, p. 314.

| Item | 1948 |  | 1949 |  | 1950 |  | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | p.c. | No. | p.e. | No. | p.c. | No. | p.c. | No. | p.c. |
| Before the courts. | 7,878 | $100 \cdot 0$ | 7,038 | $100 \cdot 0$ | 7,304 | $100 \cdot 0$ | 7,521 | $100 \cdot 0$ | 7,211 | $100 \cdot 0$ |
| Dismissed. | 190 | 2.4 | 166 | 2.4 | 197 | $2 \cdot 7$ | 195 | $2 \cdot 6$ | 176 | $2 \cdot 5$ |
| Adjourned sine die........ | 533 | 6.8 | 674 | $9 \cdot 6$ | 689 | $9 \cdot 4$ | 682 | $9 \cdot 1$ | 967 | 13.4 |
| Delinquent............... | 7,155 | 90.8 | 6,198 | 88.0 | 6,418 | 87-9 | 6,644 | 88.3 | 6,068 | $84 \cdot 1$ |

The disposition of cases in 1952 differed between boys and girls. The proportion of those put on probation was $41 \cdot 9$ p.c. for the boys and $44 \cdot 5$ p.c. for the girls. Fines or restitution were meted out to $18 \cdot 1$ p.c. of the boys but to only $5 \cdot 5$ p.c. of the girls. This is because damage to property, for which restitution seems a reasonable adjustment, is committed relatively more often by boys than by girls. A much larger proportion of girls ( 38.3 p.c.) than boys ( $16 \cdot 6$ p.c.) were sent to training schools. Final disposition of case was postponed in $7 \cdot 2$ p.c. of the girls' cases while $19 \cdot 3$ p.c. of the boys were given suspended sentences. Corporal punishment was resorted to in only two cases.
31.-Disposition of Delinquents, by Type of Sentence, 1943-52

Nots.-See headnote to Table 22, p. 314.

| Year | Reprimanded |  | $\begin{array}{\|c} \text { Probation } \\ \text { of } \\ \text { Court } \end{array}$ |  | Protection of Parents |  | Fined or Made Restitution |  | Detained Indefinitely |  | Sent to Training School |  | Final Disposition Suspended |  | Corporal Punishment |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | p.c. | o. |  | No. | p.c. | o. |  | No. | p.c. | No. | p.c. | o. | p.c. | No. | p.c. |
| 1943. | 464 |  | 2,854 | 27.7 | 140 |  | 1,962 | 19.0 | 101 |  | 1,401 |  | 3,322 | 32-3 | 52 |  |
| 1944 | 395 | $4 \cdot 0$ | 2,780 | 28.0 | 112 | 1.1 | 2,547 | $25 \cdot 7$ | 92 | 1.0 | 1,376 | 13.9 | 2,551 | 25.7 | 64 | $0 \cdot 6$ |
| 1945 | 352 | $3 \cdot 9$ | 2,698 | $30 \cdot 3$ | 109 | 1.2 | 2,367 | $26 \cdot 6$ | 65 | 0.7 | 1,348 | $15 \cdot 1$ | 1,947 | $21 \cdot 9$ | 23 | 0.3 |
| 1946 | 233 | $3 \cdot 0$ | 2,291 | 29-2 | 67 | $0 \cdot 8$ | 1,854 | $23 \cdot 6$ | 53 | $0 \cdot 7$ | 1,180 | $15 \cdot 0$ | 2,150 | 27.4 | 28 | $0 \cdot 3$ |
| 1947 | 182 | 2 | 2,273 | $30 \cdot 1$ | 69 | 0.9 | 2,116 | 28.1 | 40 | $0 \cdot 5$ | 1,108 | 14.7 | 1,733 | $23 \cdot 0$ | 24 | $0 \cdot 3$ |
| 1948 | 248 |  | 2,201 | $30 \cdot 8$ | 55 | 0.8 | 1,850 | $25 \cdot 8$ | 47 | $0 \cdot 7$ | 1,120 | $15 \cdot 6$ | 1,622 | 22.7 | 12 | 0.2 |
| 1949 | 196 | $3 \cdot 2$ | 2,141 | $34 \cdot 5$ | 98 | 1.6 | 1,655 | 26.7 | 39 | 0.6 | 1,036 | 16.7 | 1,029 | $16 \cdot 6$ | 4 | 0.1 |
| 1950 | 354 | $5 \cdot 5$ | 2,392 | 37-3 | 94 | 1.4 | 1,148 | 17.9 | 26 | 0.4 | 1,144 | 17.8 | 1,257 | 19-6 | 3 | 0.1 |
| 1951 | 309 | $4 \cdot 6$ | 2,313 | $34 \cdot 8$ | 154 | $2 \cdot 3$ | 1,433 | $21 \cdot 6$ | 45 | $0 \cdot 7$ | 1,141 | 17.2 | 1,247 | 18-7 | 2 | $0 \cdot 1$ |
| 1952 | 243 |  | 2,412 | $39 \cdot 8$ |  |  | 1,015 |  | 1 |  | 1,152 | 19.0 | 1,095 | $18 \cdot 1$ | 2 |  |

## Section 4.-Police Forces

The Police Forces operating in Canada are organized under three groups: (1) the Federal Force, which is the Royal Canadian Mounted Police whose operations cover a very wide field in addition to purely police work; (2) Provincial Police Forces-the Provinces of Ontario and Quebec have organized their own Provincial Forces, but the other provinces engage the services of the Royal Canadian Mounted Police to perform parallel functions within their boundaries; (3) Municipal Policeevery city of reasonable size has its own police organization which is paid for by the local taxpayers and which attends to police matters within the borders of the municipality concerned.

## Subsection 1.-The Royal Canadian Mounted Police*

The Royal Canadian Mounted Police is a Civil Force maintained by the Federal Government. Organized in 1873 as the North West Mounted Police, its duties were confined to what was then known as the North West Territories. By 1904, the work of the Force received signal recognition when the prefix "Royal" was bestowed upon it by King Edward VII. In 1905, when Alberta and Saskatchewan were constituted Provinces, an arrangement was made whereby the Force continued to discharge its duties as formerly, each Province making a contribution towards defraying the cost. This arrangement was continued until 1917.

In 1918, the Royal North West Mounted Police was assigned the duty of enforcing Dominion legislation for the whole of Canada west of Port Arthur and Fort William. Soon after the end of World War I an extension of governmental activities made it obvious that the enforcement of Dominion statutes throughout Canada must be the responsibility of a Dominion Force and, therefore, the jurisdiction of the Royal North West Mounted Police was extended to the whole of Canada early in 1920. In that year, the name of the Force was changed to the Royal Canadian Mounted Police and the former Dominion Police withr Headquarters at Ottawa, whose duties were largely connected with guarding public buildings in that city and Canadian Government dockyards at Halifax, N.S., and Esqui, malt, B.C., was absorbed by the Royal Canadian Mounted Police.

Organization.-The Force is controlled and administered by a Minister of the Crown (the Minister of Justice): Its Commissioner has the rank and status of a Deputy Minister. Officers are commissioned by the Crown and are selected from serving non-commissioned officers. The Force is divided into 17 Divisions, including the Marine Division with Headquarters at Halifax, N.S. There are 627 detachments distributed over the entire country. Its land force transportation consists of 1,293 motor-vehicles, most of which are fitted with two-way radio sets connecting with wireless stations operated by the Force. Such stations operate in both Western and Eastern Canada, including the Quebec-United States boundary area. The "Air" Division of the Force operates ten aircraft of various types. The strength of the Force is approximately 4,445 officers and men, with a reserve strength of about 291. The reserve strength is located chiefly in the larger cities where men can be congregated easily and where instruction can be given in the evenings.

The Marine Division has a strength of about 200 officers and men and operates 26 ships of various kinds, the majority of which are located on the Atlantic and Pacific Coasts and on the Great Lakes. The RCMP schooner St. Roch, which has been used as a floating detachment in the Far North and as a supply ship to isolated detachments, was the first ship to navigate the Northwest Passage from east to west and from west to east and is also the first vessel to have circumnavigated the North American Continent.

The Personnel Branch of the RCMP has officers in each Division across the country. Great care is taken in the selection of recruits.

Duties.-The Royal Canadian Mounted Police is responsible for enforcing federal laws throughout Canada and is specially empowered to deal with infractions against smuggling by sea, land and air. It also enforces the provisions of the Excise Act, and is responsible for the suppression of traffic in nárcotic drugs. In all, the

[^112]Force has responsibility in over 50 Federal Government Acts, including the Indian Act. It also assists many departments of the Federal Government in administrative duties and is responsible for the protection of government buildings and property. It is the sole police force operating in the Northwest and Yukon Territories. Furthermore, it undertakes secret and security services for the Federal Government. In addition to its federal duties, agreements have been made with the Provinces of Alberta, Saskatchewan, Manitoba, Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland and British Columbia whereby the services of the Royal Canadian Mounted Police can be secured to enforce provincial laws and the Criminal Code in rural districts upon payment for such services. The agreement with Saskatchewan has been in existence for 26 years and those with the Provinces of Alberta, Manitoba, New Brunswick, Nova Scotia and Prince Edward Island for 22 years. The agreements were entered into with the Provinces of Newfoundland and British Columbia in August 1950, and the police forces of those Provinces were absorbed by the Royal Canadian Mounted Police. The Force has agreements also for policing more than 123 urban centres within the provinces mentioned.

Other Services.-The services of RCMP experts in fingerprints, crime-index information, examination of firearms and questioned documents are available to all other police forces in Canada. A Police Gazette, issued monthly and containing instructional articles on police work as well as the latest information on wanted or missing persons, is sent to all police forces across the country. The RCMP has two Police Colleges that are open to selected personnel from other police forces in Canada and to a more limited number of those outside its boundaries.

In recent years the Force has given special attention to crime prevention, as well as detection, and has done much to assist young people in those provinces where the Force acts as the provincial police in developing a healthy outlook towards the police, law, order and responsible citizenship.

A book entitled Law and Order in Canadian Democracy, containing twenty essays, has been issued by the Force and is available through the Queen's Printer, Ottawa.

## Subsection 2.-Provincial Police Forces*

Quebec Provincial Police Force.-The Quebec Provincial Police Force is responsible for upholding law and order over the whole territory of the Province, from the provincial boundary between Ontario and Quebec to the Magdalen Islands in the Gulf of St. Lawrence. The Force, composed of about 800 men, is in charge of a Director, who acts under direct orders from and is responsible to the AttorneyGeneral of the Province.

To facilitate operations, the territory is divided into two almost equal parts designated as the District of Montreal and the District of Quebec. The Director has his office at Montreal and an Assistant Director at the city of Quebec. Working under these Directors are two Deputies and an Inspector General. In each District the Police Force is divided into three sections: the detective corps, the constabulary and the traffic officers; each section is in charge of a captain supported by a number of lieutenants and sergeants.

[^113]A province-wide frequency modulation radio-communication system has been established at Montreal. A main station, operating on the top of Mount Royal, directs radio-equipped cars within a radius of between 60 and 80 miles around Montreal, and similar stations operating from the cities of Quebec and Three Rivers direct the mobile units operating in their respective areas. Substations operate at each of the eight bridges giving access to or exit from the city of Montreal and a number of cars, all equipped with frequency modulation three-way radio units, patrol the surrounding country day and night.

Ontario Provincial Police.-The Ontario Provincial Police is maintained by the Ontario Government under the Attorney-General's Department. The Force is responsible for law enforcement in the rural and unorganized parts of the Province and in certain municipalities by contract.

The development of the Force from its beginning in the early years of Confederstion to the passing of the Police Act in 1946, is outlined in the 1950 Year Book, pp. 332-333.

The Force, with a strength of approximstely 1,453 in 1953, consists of a General Headquarters at Toronto and 16 districts with Headquarters at Chatham, London, Dundas, Niagara Falls, Newmarket, Mount Forest, Barrie, Peterborough, Belleville, Perth, Cornwall, Haileybury, Sudbury, Timmins, Port Arthur and Kenora. Each district has detachments adequate to meet law enforcement requirements. A Criminal Investigation Branch, under the command of a Chief Inspector, is maintained at Toronto to handle crimes of a major nature.

The installation of one of the largest police frequency-modulation radio systems in the world has placed at the command of the police a most efficient method of combating every type of lawlessness. There are in operation 56 fixed stations, together with 437 two-way radio cruisers and three cabin cruisers, one on Lake Temagami, one on Lake Simcoe and one on Georgian Bay. The 250-watt station at each District Headquarters is open 24 hours daily and many of the cars are on continuous round-the-clock patrols.

Up to December 1953, 90 municipalities had availed themselves of the provisions of the Police Act for the policing of their municipalities by the Ontario Provincial Police.

## Subsection 3.-Municipal Police Statistics

Police statistics were submitted for the year 1952 by Chiefs of Police in 243 urban centres, 13 district communities, 13 townships and one unorganized district, all of 4,000 population or over.

Criminologists generally agree that the number of offences known to the police is the closest indication of the volume and nature of crime in a country. The number of offences reported as known to the police was 24.5 p.c. higher in 1952 than in the previous year. Of these known offences, 51.9 p.c. were cleared by arrest.

Of the total prosecutions, $5 \cdot 9$ p.c. were for crimes under the Criminal Code and federal statutes, $21 \cdot 1$ p.c. were for offences under provincial statutes; and 73 p.c. were for municipal by-law infractions. Traffic offences accounted for 87.8 p.c. of the prosecutions.
32.-Summary Police Statistics, by Incorporated Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over, and Totals for Incorporated Centres of 4,000-10,090 Population, 1952

| Province and Urban Centre | $\begin{gathered} \text { Population } \\ 1951 \end{gathered}$ | Police on Force | Offences Known to the Police | Prosecutions | Arrests | Summonses |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Newfoundland- <br> St. John's. | 52,873 | 136 | 2,158 | 7,701 | 1,204 | 954 |
| Totals, 10,000 Population or Over.. | 52,873 | 136 | 2,158 | 7,701 | 1,204 | 954 |
| Totals, 4,000-10,000 Population | 13,291 | 18 | 1,860 | 1,552 | 299 | 1,318 |
| Prince Edward IslandCharlottetown | 15,887 | 15 | 1,104 | 988 | 900 | 129 |
| Totals, 10,000 Population or Over. | 15,887 | 15 | 1,104 | 988 | 900 | 129 |
| Totals, 4,000-10,000 Population. | 6,547 | 6 | 514 | 481 | 408 | 70 |
| Nova Scotia- |  |  |  |  |  |  |
| Dartmouth. |  |  |  |  |  |  |
| Glace Bay. | 15,586 85,589 | $\stackrel{21}{138}$ | 5,147 | 880 19,338 | $\begin{array}{r}730 \\ 3,279 \\ \hline\end{array}$ | 8293 |
| Halifax. | 85,589 10,423 | 18 | , 370 | -523 | ,296 | 99 |
| Sydney. | 31,317 | 39 | 3,224 | 2,970 | 2,146 | 184 |
| Truro.. | 10.756 | 8 | 180 | 173 | 553 | 131 |
| Totals, 10,000 Population or Over. . | 178,708 | 228 | 11,081 | 24,448 | 7,222 | 2,144 |
| Totals, 4,000-10,000 Population. . . | 69,186 | 40 | 4,677 | 3,011 | 2,064 | 1,023 |
| New Brunswick- |  |  |  |  |  |  |
| Edmundston............................ | 10,753 16,018 | 12 | 1.214 | 308 639 | 807 | 313 |
| Fredericton | 27,334 | 44 | 2,364 | 2,357 | 1,272 | 433 |
| Saint Joh | 50,779 | 79 | 11,191 | 10,169 | 2,563 | 12.279 |
| Totals, 10,000 Population or Over.. | 104,884 | 162 | 14,984 | 13,473 | 4,770 | 13,075 |
| Totals, 4,000-10,000 Population. . . | 30,613 | 27 | 3,173 | 2,818 | 1,933 | 1,204 |
| Quebec- |  |  |  |  |  | 185 |
| Arvida ......................... | 11,078 18,667 | 17 <br> 24 <br> 1 | 1,328 | 176 | 770 | 185 24 |
| Chicoutimi............................ | 23,216 | 22 | 1,227 | 1,536 | 1,147 | 1,147 |
| Drummondville........................ | 14,341 | 17 | 511 | 1,366 | 373 | 74 |
| Granby. | 21,989 | 20 | 366 | 180 | 80 | 2 |
| Grand'Mère | 11,089 | 1 |  |  | ${ }^{1} 354$ | 7,987 |
| Hull. | 43,483 | 46 13 | 10,544 1,844 | 1,335 | 1,359 | 129 |
| Jacques-Cartier.......................... | 16,064 | 24 | 1.809 | +551 | 71 | 33 |
| Jonquière................................... | 21,618 | 19 | 3,375 | 917 | 410 | 105 |
| Lachine................................. | 27,773 | 25 | 419 | 1,266 | 245 | 195 |
| Lasalle................................. | 11,633 | 15 | 224 | 182 | 33 | 16 |
| Lévis. | 13,162 | 16 | 224 | 1,472 | 219 | 800 |
| Longueuil. | 11,103 | 14 | 1,008 | 629 588 | 115 | 800 |
| Magog.................................. | 1,021,520 | 2,092 | 311,345 | - 283888 | 20.444 | 294,381 |
|  | $1,021,520$ 14,081 | 20 | 3,101 | 2,995 | 1 |  |
| Mount Royal. | 11,352 | 25 | 4,115 | 3,969 | 8 | 3,960 |
| Outremont... | 30,057 | 44 | r 9,767 | 9,571 40,190 | 254 3,259 | 21 |
| Quebec. | 164,016 | 285 | 25,060 | 40,190 830 | 3,259 56 | 760 |
| Rimouski. . . . . . . . . . . . . . . . . . . . . . . . | 14,633 | 12 | 726 | 1,727 | 260 | 23 |
| St. Hyaci | 20,236 | 26 | 1,566 | 1,487 | 255 | 92 |
| St. Jean . . . . . . . . . . . . . . . . . . . . . . . . | 19,305 | 19 | 185 | 17 | 17 | 4 |
| St. Jérôme (Terrebonne Co.) ........... | 17,685 | 17 | 340 | 331 | 324 | 324 |
| St. Laurent | 20,426 | 29 14 | 5,711 2,370 | 5,404 353 | 217 | 2,070 |
| St. Michel (Montreal Is.) | 10,539 | 14 39 | 2,370 1,570 | 1.528 | 168 | ${ }^{2} 203$ |
| Shawinigan F | 50,543 | 71 | 5,878 | 5,677 | 605 | 4,870 |
|  | 10,376 | 8 |  | 55 | 13 | - |

[^114]32.-Summary Police Statistics, by Incorporated Centres of 10,00e Population or Over, and Totals for Incorporated Centres of 4,000-10,00 Population, 1952-continued

| Province and Urban Centre | $\begin{gathered} \text { Population } \\ 1951 \end{gathered}$ | Police on Force | Offences Known to the Police | Prosecutions | Arrests | Summonses |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - $\quad$, | No. | No. | No. | No. | No. | No. |
| Quebee-concluded |  |  |  |  |  |  |
| Sorel............. | 14,961 | 18 | 479 | 396 | 54 | 54 |
| Thetiord Mines | 15,095 | 19 | 3,780 | 1,192 | 190 | - $\quad 219$ |
| Three Rivers. | 46,074 | 81 | 6,559 | 5,505 2,333 | 1,200 56 | 4,305 |
| Valleyfield (Salaberry-de-) | 22,414 77,391 | 68 | 8,996 | 5,989 | 1,447 | 3,133 |
| - Vietoriaville. | 13,124 | 11 | 3,004 | 2,911 | 215 | 1,230 |
| Westmount. | 25,222 | 42 | 12,406 | 8,739 | 688 | 8,040 |
| Totak, 10,0e9 Population or Over. . | 1,937,607 | 3,261 | 432,872 | 405,411 | 34,753 | 340,847 |
| Totals, 4,900-10,000 Population | 313,334 | 24 | 21,955 | 19,052 | 5,824 | 8,899 |
| - ' |  |  |  |  |  |  |
| Ontario- |  |  |  |  |  |  |
| Barrie. | 12,514 | 12 | 2,052 | 732 | 377 | 324 |
| Belleville. | 19,519 | 23 | 2,541 | 1,903 | 829 | 1,244 |
| Brentford. | 36,727 | 39 | 1,183 | 3,271 | 724 | 450 |
| *Brockville. | 12,301 | 16 | 3,869 | 3,001 | 583 | 439 |
| Chatham. | 21,218 | 34 | 2,779 | 2,444 | 529 | 1,949 |
| Cornwall. | 16,899 | 20 | 1,247 | 1,063 | 339 | 571 |
| Eaetview. | 13,799 | 8 | 1,386 | -667 | 61 | 606 |
| Forest Hill | 15,305 | 30 | 432 | 2,302 | 71 | ${ }^{3}$ |
| Fort William | 34,947 | 43 | 2,775 | 3,655 | 1,806 | 694 |
| Galt. | 19,207 | 16 | 1,147 | 791 | 271 | 635 |
| Guelph. | 27,386 | 30 | 4,325 | 4,187 | 835 | 3,655 |
| Hamilton. | 208,321 | 318 | 102,801 | 103,137 | 6,343 | 52,560 |
| Kingston. | 33,459 | 46 | 16,426 | 15,047 | 1,051 | 14,285 |
| Kitchener | 44.867 | 54 | 6,159 | 5,680 | 814 | 4,254 |
| Leaside. | 16,233 | 15 | 362 | 6,448 | 61 |  |
| London. | 95,343 | 134 | $\begin{array}{r}15,471 \\ \hline\end{array}$ | 12,978 | 2,138 | 10,803 1 |
| Mimico. | 11,342 | ${ }_{9}^{9}$ | 1,863 | 142 | 79 | 1,786 |
| New Toronto. | 11,194 | 15 | 1.958 | 1,897 | 227 | 1,671 |
| Nisgara Falls | 22,874 | 37 | 2,608 | 3,437 | 1,069 | 2,378 |
| North Bay. | 17,944 | 17 | 2,915 | 2,354 | 1,023 | 1,253 |
| Orillia. | 12,110 | 8 | 1,617 | 1,084 | 293 | 914 |
| Oshawa. | 41,545 | 41 | 4,132 | 3,686 | 960 | 2,699 |
| Ottaws. | 202,045 | 278 | 29,163 | 26,850 | 3,240 | 22,862 |
| Owen Sound | 16,423 | 18 | 1,518 | 1,151 | 375 |  |
| Pembroke. | 12,704 | 11 | 1,532 | 1,887 | 997 | 220 |
| Petier borough | 38,272 | 38 | 5,481 | 4,531 | 861 | 3,661 |
| Port Arthur | 31,161 | 45 | 5,415 | 13,305 | 4,373 | 350 |
| St. Catharines | 37,984 | 51 | 14,068 | 3,624 | 1,055 | 2,593 |
| 8t. Thomas. | 18,173 | 20 | 1,599 | 1,118 | 290 | 823 |
| Barnia. | 34,697. | 41 | 4,191 | 4,367 | 793 | 3,623 |
| Banit Ste. | 32,452 | 38 | 2,563 | 2,277 | 1,447 | 2,071 |
| Stratiord | 18,785 | 20 | 1,865 | 2,308 | 249 | 1,468 |
| - Badbury. | 42,410 | 50 | 13,447 | 9,675 | 2,866 | 6,847 |
| -Timmins. | 27,743 | 26 | 3,579 | 2,980 | 1,206 | 1,689 |
| .Toronto. | 675,754 | 1,315 | 527,881 | 513,398 | 27,337 | 490,422 |
| Trenton. | 10,085 | 14 | 1,647 | 1.570 | 319 | 1,248 |
| Waterloo | 11,991 | 11 | 2,199 | 2,211 | 130 | 2,067 |
| Welland | 15,382 | 22 | 3,422 | 3,202 | 345 | 2,877 |
| Windso | 120,049 | 220 | 15,693 | 13,244 | 3,638 | 12,128 |
| Woodstoc | 15,544 | 20 | 2,065 | 4,360 | 480 | 1,620 |
| Totals, 10,000 Population or Over. . | 2,106,748 | 3,243 | 817,376 | 791,964 | 70,484 | 659,742 |
| Totaks, 4,000-10,000 Population. | 275,918 | 451 | 54,779 | 62,628 | 7,673 | 35,005 |
| Manitoba- |  |  |  |  |  |  |
| Brandon. | 20,598 | 19 | 1,504 | 852 | 238 | 640 |
| St. Boniface | 26,342 | 19 | 2,962 | 2,120 | 248 | 2,735 |
| Winnipeg. | 235,710 | 328 | 5,948 | 118,297 | 5,353 | 113,710 |
| Totals, 10,000 Population or Over.. | 282,650 | 366 | 10,414 | 121,269 | 5,839 | 117,085 |
| Totals, 4,060-10,000 Population.... | 37,387 | 26 | 2,472 | 4,014 | 710 | 1,572 |

32.-Summary Police Statistics, by Incorporated Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over, and Totals for Incorporated Centres of 4,000-10,000 Population, 1952-concluded

| Province and Urban Centre | Population 1951 | Police on Force | Offences Known to the Police | Prosecutions | Arrests | Summonses |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Saskatchewan- |  |  |  |  |  |  |
| Moose Jaw | 24,355 | 23 | 5,297 | 5,141 | 677 | 873 |
| Prince Albert | 17,149 | 17 | 1,809 | 2,265 | 748 | 446 |
| Regina.... | 71,319 | 72 | 6,224 | 17,757 | 1,827 | 3,621 |
| Saskatoon | 53,268 | 53 | 1,695 | 11,414 | 1,036 | 1,151 |
| Totals, 4,000-10,000 Population | 166,091 | 165 | 15,025 | 36,577 | 4,288 | 6,091 |
|  | 33,611 | 32 | 4,339 | 2,810 | 676 | 1,137 |
| Alberta- |  |  |  |  |  |  |
| Calgary. | 129,060 | 180 | 17,549 | 14,495 | 4,882 | 9,260 |
| Edmonton. | 159,631 | 186 | $\begin{array}{r}17,5014 \\ 7 \\ \hline 1,142\end{array}$ | 10,705 4,110 | 5,121 | 5,584 |
| Lethbridge. | 22,947 16,364 | 25 20 | 7,142 1,435 | 4,110 3,011 | 515 311 | 381 721 |
| Totals, 10,000 Population or Over. . | 328,002 | 411 | 46,140 | 32,321 | 10,829 | 15,946 |
| Totals, 4,000-10,000 Population | 20,845 | 8 | 1,238 | 6,148 | 362 | 1,345 |
| British Columbia- |  |  |  |  |  |  |
| New Westminster. | 28,639 | 37 | 10,734 | 8,263 | 943 | 476 |
| North Vancouver | 15,687 | 18 | ${ }^{1956}$ | 849 | 239 | 548 |
| Penticton. | 10,548 | 9 | 1,300 | 1,137 | 216 | 1,264 |
| Trail. | 11,430 | 12 | 1,956 | 1,693 | 155 | 1,421 |
| Vancouver | 344,833 | 637 | 29,704 | 100,677 | 14,897 | 3,904 |
| Victoria. | 51,331 | 86 | 16,449 | 16,173 | 878 | 15,414 |
| Totals, 10,000 Population or Over. . | - 462,468 | 799 | 61,099 | 128,792 | 17,328 | 23,027 |
| Totals, 4,000-10,000 Population. ... | 75,700 | 239 | 26,835 | 22,983 | 7,012 | 12,083 |
| Grand Totals, Incorporated Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over. | 5,624,789 | 8,746 | 1,412,253 | 1,563,574 | 157,607 | $\xrightarrow{1,178,740}$ |
| Grand Totals, Incorporated Centres of $\mathbf{4 , 0 0 0 - 1 0 , 0 0 0}$ Population. . . . . . . . . . | 882,432 | 1,101 | 121,842 | 125,497 | 26,961 | 63,656 |

## Section 5.-Penal Institutions and Training Schools

Penal institutions may be classified under three headings: (1) penitentiaries, where prisoners have long sentences and the turnover is slow; (2) reformatories, where the turnover is also rather slow; and (3) common gaols, where the turnover is extremely rapid.

If the average of the figures for inmates at the beginning and at the end of the year be considered the average population for the year, and the number of discharged as the turnover, the turnover in the years 1951 and 1952 was: in penitentiaries, 47 and 49 p.c.; in reformatories, 296 and 305 p.c.; and in gaols, no less than 1,549 and 1,589 p.c., respectively.

In considering these figures it should be borne in mind that the common gaol population changes from day to day and is made up partly of accused persons awaiting trial who may be either liberated or sent to a penitentiary or reformatory.
35.-Movement of Population in Penitentiaries, Reformatories and Gaols, 1949-52

| Type of Institution and Item | 1949 | 19501 | 1951 | 19522 |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |
| Penitentiaries- |  |  |  |  |
| Inmates in custody at beginning of year..... | 3,851 | 4,260 | 4,740 | 4,817 |
| Admitted during the year.................... | 2,382 | 2,445 | 2,334 | 2,182 |
| Discharged during the year | 2,008 | 1,965 | 2,257 | 2,312 |
| In custody at end of year..................... | 4,225 | 4,740 | 4,817 | 4,687 |
| Eeformatories for Men- |  |  |  |  |
| Inmates in custody at beginning of year.... | 2,939 | 2,556 | 2,728 | 2,622 |
| Admitted doring the year. | 12,199 | 7,937 | 7,794 | 8.613 |
| Discharged during the year | 11,989 3,149 | 7,765 $\mathbf{2 , 7 2 8}$ | 7,353 $\mathbf{2 , 5 6 9}$ | 8,407 2,828 |
| Reformatories for Women- |  |  |  |  |
| Inmates in custody at beginning of year..... | 264 | 230 | 197 | 160 |
| Admitted during the year.. | 861 | 367 | 379 | 451 |
| Discharged during the year. | 873 | 400 | 416 | 433 |
| In custody at end of year.. | 252 | 197 | 160 | 178 |
| Commen Gaols- |  |  |  |  |
| Inmates in custody at beginning of year..... | 4,530 | 5,625 | 6,102 | 5,445 |
| Admitted during the year. | 77,729 | 85,062 | 88,555 | 87,917 |
| Discharged during the year................ | 77,295 | 84,697 | 89,235 | 87,763 |
| In custody at end of year..................... | 4,964 | 5,990 | 5,422 | 5,599 |
| Totals- |  |  |  |  |
| Inmates in custody at begtnning of year. Admitted during the year. Discharged during the year. In custedy at end of year. | 11,584 | 12,671 | 13,767 | 13,044 |
|  | 93,171 | 95,811 | 99,062 | 99,163 |
|  | 92,165 | 9,827 | 99,861 | 98,915 |
|  | 12,590 | 13,655 | 12,968 | 13,292 |

${ }^{1}$ In 1950, Newfoundland Penitentiary reported for the first time and Oakalla Prison Farm, B.C., previously classed as a reformatory for men, was changed to a gaol. ${ }^{2}$ In 1952, the Bowden Institution, Innisfail, Alta., and Young Offenders' Unit, South Burnsby, B.C., reported for the first time.

## Subsection 1.-Penitentiaries*

The Penitentiaries Branch of the Department of Justice is charged with the administration of the various penitentiaries of Canada. Eight institutions are included in the system, the two largest being at Kingston, Ont., and St. Vincent de Paul, Que. Others are at Dorchester, N.B., Prince Albert, Sask., Stony Mountain, Man., New Westminster, B.C., Collin's Bay, Ont., and St. John's, N'f'ld.; the latter is operated under provincial authority and the figures for inmates of that institution serving sentences of two years or more are included for 1950-53 in Tables 34 and 35. A Federal Training Centre was opened at St. Vincent de Paul in April 1952 for the treatment and training of offenders under 25 years of age. A Penitentiary Staff College was also set up at Kingston for the training of penitentiary officers through courses of instruction and training conferences. During the year ended Mar. 31, 1953, the average daily population of the penitentiaries was 4,708 and the total net cash outlay for maintenance for the year was $\$ 7,364,148$ or $\$ 4.28$ per inmate per day.

Females given penitentiary sentences in the various provinces are sent to the Prison for Women at Kingston, Ont., where special quarters and staff are maintained for their detention and supervision; inmates in custody on Mar. 31, 1953, numbered 105.

[^115]34.-Movement of Convicts in Penitentiaries, Years Ended Mar. 31, 1950-53

| Item | 1950 | 1951 | 1952 | 1853 |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |
| In Custody, Apr. 1. | 4,260 | 4,740 | 4,817 | 4,6861 |
| Received- |  |  |  |  |
| From gaols. | 2,017 | 1,981 | 1,847 | 2,136 |
| By transfer. | 419 | 338 | 323 | 970 |
| By cancellation of ticket-of-leave | 9 | 15 | 12 | 13 |
| Totals, Received: | 2,445 | 2,334 | 2,182 | 3,119 |
| Discharged by- |  |  |  |  |
| Expiry of sentence....................................... | 1,142 | 1,391 | 1,554 | 1,463 |
| Transfer | 419 | 339 | 322 | 972 |
| Ticket-of-leave | 331 | 459 | 373 | 384 |
| Deportation. | - | - | - | 5 |
| Death.. | 15 | 5 | 24 | 11 |
| Pardon................ | 40 | 49 | 25 | 21 |
| Release to military authorities. | , | - | 1 | - |
| Release on order of court. | 5 | 7 | 13 | 15 |
| Return to provincial authorities. | 4 | 1 | - | - |
| Instructions from Immigration Department | 9 | - | - | - |
| Sentence quashed....... | - | 6 |  |  |
| Totals, Discharged. | 1,965 | 2,257 | 2,312 | 2,871 |
| In Custody, Mar. 31. | 4,740 | 4,817 | 4,687 | 4,934 |

${ }^{1}$ This figure shows one inmate fewer than at Mar. 31, 1952. Sentence of one inmate annuiled by court order during year ended Mar. 31, 1952 but notification was not received by penitentiary until the following fiscal year.
35.-Summary Statistics re Convicts in Penitentiaries, as at Mar. 31, 1950-53

| Item | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |
| Place of BirthCanada. | 4;264 | 4,358 | 4,272 | 4,554 |
| British İsles and possessions. | 157 | +144 | ${ }_{121}$ | 116 |
| Austria and Hungary........ | 21 | 22 | 20 | 14 |
| Italy................. | 11 | 9 | 9 | 9 |
| Poland. | 42 | 34 | 33 | 38 |
| U.S.S.R.. | 60 | 64 | 53 | ${ }^{30}$ |
| Other Europe. | 63 | 65 | 63 | 66 |
| United States... | 110 | 110 | 95 | ${ }_{16}^{91}$ |
| Other countries. | 12 | 11 | 21 | 16 |
| Marital Status- |  |  |  |  |
| Single... | 2,863 | 2,937 | 2,776 1 | 2,955 1,607 |
| Married.. | 1,573 | 1,560 | 1,575 | 1,607 132 |
| Widowed. | ${ }_{103}^{130}$ | 135 108 | $\begin{array}{r}133 \\ 84 \\ \hline\end{array}$ | 132 132 |
| Divorced.... | 103 71 | 108 77 | 84 119 | 132 108 |
| Separated... | 71 | 77 | 119 | 108 |
| Sex- |  |  |  |  |
| Male. ...................................................... | 4,650 | 4,713 | 4,562 | $\begin{array}{r}4,829 \\ \hline 105\end{array}$ |
| Female. | 90 | 104 | 125 | 105 |
| Age- Under 21 years. | 551 | 520 | 485 | 564 |
| 21 to 29 years.. | 2,147 | 2,209 | 2,091 | 2,151 |
| 30 to 39 ". | 1,148 | 1,176 | 1,245 | 1,293 |
| 40 to 49 " | 575 | 575 | 543 | 572 |
| 50 to 59 " | 210 | 227 | ${ }_{211}$ | 239 |
| Over 60 " | 109 | 110 | 111 | 115 |
| Not stated...... | - | - |  | - |
| Totals. | 4,740 | 4,817 | 4,687 | 4,934 |

The Ticket-of-Leave System.-The parole system in Canada is legalized under the Ticket-of-Leave Act (R.S.C. 1952, c. 264) and is administered by the Minister of Justice. It is described in detail in the 1948-49 Year Book, pp. 305-308.

## Subsection 2.-Reformatories and Other Corrective Institutions

A census of reformatories and of training schools is taken at five-year intervals, the latest being June 1, 1951. At that date, there were 13 reformative and corrective institutions, four of which were for women. Enumeration cards were completed for 2,551 men and 141 women on June 1, 1951. In these institutions for adults 29 p.c. of the inmates were under 21 years of age at the time of admission and almost 50 p.c. were between the ages of 21 and 39 years. The proportion of single men was 63 p.c. and three out of four of the men whose residence was known lived in urban centres. More than one-half of the women ( $53 \cdot 2$ p.c.) were single and the majority ( 91.0 p.c.) of those whose residence was known lived in urban centres. From five to eight years of elementary school education were recorded for about one-half of the male and female inmates. Only 6.7 p.c. of the men were unemployed at the time of admission. On the other hand, $20 \cdot 6$ p.c. of the women were unemployed and another 34.0 p.c. had never worked.

The revenue for the support of the institutions for men was derived chiefly from provincial funds ( $56 \cdot 0$ p.c.) and from the sale by the institutions of farm and industrial products ( $41 \cdot 3$ p.c.). In the case of the institutions for women, income was received from provincial funds ( 31.0 p.c.), municipalities ( 1.8 p.c.), sale of products ( 53.4 p.c.), donations and bequests ( $4 \cdot 6$ p.c.) and other sources ( $9 \cdot 2$ p.c.).

Summary statistics of inmates, movement of population, terms of sentence and penal record of inmates are given in the 1954 Canada Year Book, pp. 311-313.

## Subsection 3.-Training Schools

Reports on movement of population are received yearly from training schools and figures compiled therefrom are shown in Table 36 for the years 1948 to 1952.
36.-Movement of Population in Training Schools, Years Ended Mar. 31, 1948-52

| Item | 1948 | 1949 | 1950 | 1951 | 1952 ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Training Schools for Boys- | No. | No. | No. | No. | No. |
| Pupils in residence at beginning of year. | 1,308 | 1,365 | 1,614 | 1,662 | 1,668 |
| Admitted during the year... | 1,391 | 1,189 | 1,220 | 1,393 | 1,597 |
| Discharged during the year | 1,334 | 1,158 | 1,172 | 1.402 | 1,463 |
| In residence at end of year.......................... | 1,365 | 1,396 | 1,662 | 1,653 | 1,802 |
| Training Schools for Girls- |  |  |  |  |  |
| Pupils in residence at beginning of year. | 491 | 516 | 680 | 695 | 674 |
| Admitted during the year. | 431 | 595 | 493 | 473 | 608 |
| Discharged during the year | 406 | 559 | 478 | 494 | 529 |
| In residence at end of year... | 516 | 552 | 695 | 674 | 753 |
| Totals- |  |  |  |  |  |
| Puplls in residence at beginning of year. | 1,799 | 1,881 | 2,394 | 2,357 | 2,342 |
| Admitted during the year. | 1,882 | 1,784 | 1,713 | 1,866 | 2,205 |
| Discharged during the year | 1,740 | 1,717 | 1,650 | 1,896 | 1,992 |
| In residence at end of year. | 1,881 | 1,948 | 2,357 | 2,327 | 2,555 |

${ }^{1}$ In 1952, Boscoville Training School for Boys, Rivière-des-Prairies, Que., reported for the first time.
92428-22

The period of the financial year varied among the training schools. The last complete financial year before June 1, 1951, showed that the province concerned supplied about three-quarters of the funds for the support of such schools ( $77 \cdot 2$ p.c. for boys' schools and $70 \cdot 6$ p.e. for girls' schools) and the municipalities a little more than a tenth ( $12 \cdot 5$ p.c. for boys' schools, $10 \cdot 2$ p.c. for girls' schools). Other financial resources included fees paid by parents, donations, bequests, sale of farm and industrial products and laundry work. Nine of the schools for boys were provincially administered, five were administered by religious orders and one by a board of directors; eight of the schools for girls were administered by religious orders and four were under provincial authority.

Statistics of training schools compiled from Census of 1951 returns are summarized in the 1954 Canada Year Book, pp. 314-316.

## CHAPTER VIII.-EDUCATION AND RESEARCH

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Nors.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

## PART I.-FORMAL EDUGATION*

## Section 1.-Education in the Provinces

Education in Canada is generally the responsibility of the provinces. $\dagger$ Each province has its own system, that of Quebec being a dual one. However, there are two clearly defined types: (1) the English tradition carried on in nine provinces and in the Protestant schools of Quebec and (2) the French tradition followed in the Roman Catholic schools of Quebec.

The English Tradition.-The system of education in each province is established by legislation and administered by a Department of the Provincial Government under a Minister of Education who is a member of the Cabinet and is responsible to the Legislature.

Each of the Atlantic Provinces has a Council of Public Instruction or Board of Education, an advisory group composed of the Premier, Minister of Education, Deputy Minister or Superintendent and certain other appointees. The Council in Newfoundland is made up of the Minister, the Deputy Minister and the Superintendent of Education of each of the four leading religious denominations.

Each Department of Education is concerned with the general administration of the public schools, the conduct of examinations, the certification of teachers, the registration of private schools and trade schools, public and travelling libraries, correspondence courses and also the direct management and control of teachertraining schools, vocational institutes and schools for the blind and the deaf.

[^116]Direct control and operation of the public schools is in the hands of local boards of school trustees, usually elected for terms of two or three years. They employ the teachers and administer the revenues received from provincial grants, local taxation and other minor sources. Any fees charged are for secondary education and are merely nominal, except in Newfoundland where they take the place of taxation.

Larger units of administration exist in all provinces except in Newfoundland and for the Roman Catholic schools of Quebec, though in most provinces the local boards within the units remain with limited powers. In some provinces an official trustee (or trustees), often the school inspector, may be appointed to act in school sections where a board cannot be obtained. Table 1 gives figures of local administrative units.
1.-Active School Boards and Official Trustees, by Province, 1952

| Province | Unit Boards | Local Boards within Units | Inde- pendent Local <br> Boards | Total Boards | Official <br> Trustees |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. |
| Newfoundland. | - | - | 293 | 293 | - |
| Prince Edward Island. | 2 | 10 | 476 | 478 | - |
| Nova Scotia, | 24 | 1,740 | 48 | 1,812 | 3 |
| New Brunswick. | 36 | 1,020 | 75 | 1,131 | - |
| Quebec- ${ }_{\text {Roman }}$ Catholic. |  |  |  |  |  |
| Roman Catholic.. Protestant....... | 10 | - 96 | 1,649 191 | $\begin{array}{r}1,649 \\ \hline 297\end{array}$ | - |
| Ontario.. | 693 | - | 3,966 | 4,659 | 1 |
| Manitoba. | 1 | 46 | 1,459 | 1,506 | 30 |
| Saskatchewan. | 53 | 4,340 | 858 | 5,251 | 61 |
| Alberta. | 56 | 3,809 | 106 | 3,971 | 12 |
| British Columbia | 77 | . - | 11 | 88 | 10 |
| Totals. | 952 | 11,051 | 9,132 | 21,135 | 116 |

${ }^{1}$ Included with independent local boards.
Elementary and secondary education extends over 12 or 13 years or grades, depending on the province. The elementary grades terminate with Grade VIII and the secondary grades begin with Grade IX though there is a practical as well as a theoretical separation into three divisions-Primary (Grades I to VI), Intermediate (Grades VII to X), and Senior (Grades XI to XII or XIII). The elementary schools are known as public schools, the secondary schools as high schools. However, many public schools teach some secondary grades and in Prince Edward Island and Newfoundland all grades are taught in the public schools.

In the cities and in some smaller centres there are kindergarten classes for five-year-olds and a few for four-year-olds as part of elementary education. Most children begin Grade I at age six or early seven and many complete the eight grades in seven years. Attendance is compulsory from age seven or eight to age 14 with attendance to age 16 required of urban pupils in some provinces. Emphasis is on the fundamental subjects-reading, writing, arithmetic, health and social studieswith varying additions of science, arts and crafts, music, home economics and shopwork. Many pupils, particularly in rural areas, leave school at the end of elementary schooling and enter employment in agriculture or unskilled occupations.

Secondary education may extend over a period of four or five years. Courses and subjects of study are diversified. A student may choose the academic course leading to university entrance or select courses or subjects preparing for employment in agriculture, commerce or industry. A student may pass from secondary school into commerce or industry at any time during this period provided he or she is beyond the age of compulsory school attendance.

Further education is available to the high-school graduate through teachertraining courses of one or two years for elementary school teachers; specialized technical training extending up to two years in a technical institute-there is at least one such institute in almost every province; nurse-training school where training extends over three years; or university. University courses are available in arts, commerce, science, education, philosophy, medicine, theology, etc. Graduation with a first degree (B.A., B.Sc., etc.) requires three to four years, medicine requires six years and theology seven years. Post-graduate courses require another two or more years.

The French Tradition.-The Quebec Department of Public Instruction is represented in the Cabinet by the Provincial Secretary. Although the Superintendent of Public Instruction is the head of the Department, a Roman Catholic Committee and a Protestant Committee, in charge of the education of Roman Catholics and Protestants, respectively, constitute the Council of Education which formulates policy and superintends the administration of all educational matters. The Council, however, has no authority over many special and technical schools that come directly under various government departments. The Protestant schools follow the English tradition already described; the Roman Catholic schools follow the French tradition.

From the very beginning boys are separated from girls. Both sexes follow through the Primary Grades, I to VII. The girls may then take the Complementary Grades, VIII and IX, and thence enter a regional household science school, begin a four-year course in teacher-training school or enter a superior school where a twoyear course leads to a school of fine arts, a commercial course or a nurse-training course.

At the end of the sixth year a boy may enter a classical college for an eight-year course ending with a baccalaureate degree, which is prerequisite for entrance to a professional course in university, or he may continue on to the end of the primary course and then spend two years in the complementary course. From this point he may enter a technical school or any one of four sections of the two-year superior course-commercial, scientific, agriculture, technical or pre-teacher-training school. The latter leads to entrance to a teacher-training school, the others lead to specialized schools and advanced courses in technical schools or, after another year of preparatory work, to the higher schools of applied science, commerce and agriculture affiliated with the universities.

The boy who neither enters the classical college nor goes on to the complementary course may go directly from the primary course to a trade school or one of the regional agriculture schools. These schools offer two-year terminal courses.

## Section 2.-Education in the Territories*

Northwest Territories.-Education in the Northwest Territories is carried on under authority of the Northwest Territories Act, the School Ordinance and the Regulations thereunder, and the Indian Act and the Regulations thereunder. Day schools for non-Indian children are operated by the Northern Administration and Lands Branch of the Department of Northern Affairs and National Resources at Fort Smith, Hay River, Fort Resolution and Fort Simpson where the inhabitants are predominantly of white and of mixed blood. Day schools for the education of Eskimos are also operated by that Branch at Aklavik, Tuktoyaktuk, Coppermine, Chesterfield Inlet, Cape Dorset and Coral Harbour in the Northwest Territories, and at Fort Chimo and Port Harrison in the Province of Quebec.

The Roman Catholic Church operates residential schools at Aklavik, Fort Providence and Fort Resolution, and mission day schools at Fort Simpson and Fort Smith; the Church of England operates a residential school at Aklavik. The mission authorities of these churches and other mission organizations also conduct schools for Eskimos at a number of points in the eastern, central and western Arctic and in northern Quebec. Eldorado Mining and Refining Limited at Port Radium and the Discovery Yellowknife Mine in the Mackenzie District also operate day schools.

The only organized school districts are the Yellowknife Public School District No. I and the Yellowknife Roman Catholic Separate School District No. 2. The Public School District, established in 1939, operates a modern eleven-classroom elementary and high school which was opened in 1947. The Separate School District was established in 1951 and operates a four-classroom school.

A Superintendent of Schools, with headquarters at Fort Smith, periodically inspects the schools of the Mackenzie District. These schools follow the program of studies for elementary and secondary schools authorized by the Alberta Department of Education. In remote areas, elementary and high school students have access to correspondence-course studies issued by the educational authorities of Alberta and the cost is borne by the Territorial Administration. An inspection of all school facilities for Eskimo children in the Canadian Arctic is made annually by an Education Officer from Ottawa.

A modified elementary school curriculum is followed by some of the federal schools for Eskimos by way of meeting the unique needs in the Arctic regions, and a suitable curriculum for teaching Eskimo children in mission schools is being considered. Because of their nomadic way of life, Eskimos seldom remain long at the settlements and the periods available to the missions for teaching the children are comparatively short. The Eskimos of the Eastern Arctic have long had a system of syllabic writing (expressed as geometric phonetic characters) which most of them can read and write proficiently. Syllabic writing has been used successfully to provide educational material in the Eskimo language on health matters, hygiene and native economics for the benefit of both children and adults. It is hoped that the establishment of schools in Eskimo territory will be influential in teaching the Eskimos to understand, speak and read simple English.

[^117]A program designed to improve education and welfare facilities generally has been initiated in the Northwest Territories. The program now includes regular distribution of educational films, special radio broadcasts to classrooms, the provision of additional equipment and supplies, and increased attention to methods of instruction. Schools are usually staffed by a particular classification of welfare teachers who carry on welfare work in the communities in addition to regular teaching duties.

Yukon Territory.-Public schools in the Yukon Territory are operated by the Territorial Government at Dawson, Mayo, Whitehorse, Carcross, Teslin, Watson Lake, Haines Junction, Kluane Lake, Brook's Brook, Swift River and Elsa. The Whitehorse school has three kindergarten departments. Roman Catholic Mission authorities maintain a school at Whitehorse and one at Dawson.

The schools in the Territory follow the program of studies of the British Columbia Department of Education. The public schools at Dawson and Whitehorse have high school departments providing education leading to university entrance. The university entrance (junior matriculation) examinations are held in June at Dawson and Whitehorse by authority of the Department of Education of the Province of British Columbia. Examination papers are forwarded from Victoria and are returned there for grading. In outlying districts, correspondence courses are provided at a nominal fee by arrangement with the British Columbia Department of Education.

Educational matters in the Yukon Territory are in charge of a Superintendent of Schools, resident at Whitehorse, who is responsible to the Commissioner (see p. 86). Inspections of all schools are made periodically by the Superintendent.

The education of Indian children is carried on in day schools operated by the Indian Affairs Branch of the Department of Citizenship and Immigration and in residential schools operated by religious denominations. Full-time day schools are maintained at Whitehorse, Carmacks, Mayo, Moosehide and Old Crow. Seasonal schools are conducted by the denominational workers at Ross River and elsewhere as opportunity arises. At Carcross there is a residential school operated under the auspices of the Church of England in Canada; a new building has been erected and was opened in September 1954. The Baptist church conducts a hostel at Whitehorse where Indian pupils are maintained at the expense of the Federal Government. These pupils attend the Whitehorse Indian School. Indian pupils of Roman Catholic affiliation attend the Indian residential school operated under Roman Catholic auspices at Lower Post, B.C., which is located close to the southern boundary of Yukon Territory. Residential schools in Yukon Territory receive a per capita grant for Indian children registered therein.

## Section 3.-Statistics of Schools, Universities and Colleges

Educational institutions in Canada are classified into four types: provincially controlled schools, privately controlled schools, universities and colleges, and federal schools in the Territories and for Indians. The first three types are dealt with in this Section, while information on Indian schools, with the exception of enrolment figures shown in Table 2, is included with the general material on the Indians of Canada given in the Population Chapter, p. 158.

## 2．－Enrolment in Educational Institutions，classified by Type of School and by Province，School Year 1951－52

| Type of School | New－ foundland | Prince <br> Edward <br> Island | Nova Scotia | New Bruns－ wick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No． | No． | No． | No． | No． | No． |
| Provincially Controlled Schools－ |  |  |  |  |  |  |
| Ordinary and technical day schools．．． <br> Evening schools． <br> Correspondence schools <br> Special schools ${ }^{1}$ ． <br> Teacher－training schools－ Full time ${ }^{2}$ ． <br> Accelerated courses ${ }^{2}$ | 83，698 | 19，128 | 138，033 | 106，503 | 677，034 | 814，096 |
|  | 1，920 |  | 4，524 | 2，287 | 72，317 | 73，224 |
|  | 6 | 126 | 1，481 | 465 | 2，050 | 1，479 |
|  |  | － | 334 | －． | 797 | 549 |
|  | 101 | 57 | 267 42 | 163 | $\underline{-117}$ | 1,628 532 |
| Privately Controlled Schools－ <br> Ordinary day schools． <br> Business training schools－ <br> Day classes．．．．．．．．．．．．．．．．．．．．．．．．．．． <br> Evening classes． | － | 1，004 | 4，690 | 1，852 | $55,111^{3}$ | 18，573 |
|  | － | 86 | 537 | 569 | $5,900^{3}$ | 6，210 |
|  | － | 70 | 324 | 299 | $3,400^{3}$ | 5，590 |
| Universities and Colleges－ |  |  |  |  |  |  |
| Preparatory courses．．．．．．． | 825 | ${ }_{263}^{417}$ | 511 4,264 | 1,907 2,281 | 19,182 27,196 | 4,249 32,846 |
| Other courses at university ．．．．．．．．． | 825 | 124 | ＋352 | 2， 591 | 17，030 | 10．953 |
| Indian schools and schools in the Terri－ tories． | － | 48 | 587 | 378 | 2，393 | 5，963 |
| Tot | 86，982 | 21，323 | 155，946 | 117，295 | 888，527 ${ }^{3}$ | 975，892 |
| Population（June 1， 1952 estimate）．．．．．．． | 374，000 | 103，000 | 653，000 | 526，000 | 4，174，000 | 4，766，000 |
|  | Manitoba | Saskat－ chewan | Alberta | British Columbia | $\begin{gathered} \text { Yukon } \\ \text { and } \\ \text { N.W.T. } \end{gathered}$ | Canada |
|  | No． | No． | No． | No． | No． | No． |
| Provincially Controlled Schools－ |  |  |  |  |  |  |
| Ordinary and technical day schools．．． | 132，808 | 168,300 2,706 | 179，691 | 183,112 18,082 | 二 | $2,502,403$ 187,216 |
| Evening schools．．${ }_{\text {Correspondence schools．．．．．．．．．．．．．．．．．．．．}}$ |  | 2,706 3,706 | 8， 8,393 | 18,082 5,718 | 二 | 187,216 24,524 |
| Special schools ${ }^{\text {．．．．}}$ ．${ }^{\text {a }}$ ．．．．．．．．．．．．．．．．． | 18 | 174 |  | 154 | － | 2，026 |
| Teacher－training schools－ |  |  |  |  |  |  |
| Full time ${ }^{2} \ldots \ldots \ldots . . \ldots \ldots \ldots .$. | 429 315 | 566 | 302 | 512 | 二 | 10,142 1,321 |
|  |  |  |  |  |  |  |
| Ordinary day schools．．．．．． | 6，564 | 2，842 | 3，447 | 6，531 | － | 100，614 |
| Business training schools－ |  |  |  |  |  |  |
| Evening classes． | 2，296 | 809 | 1，550 | 1，829 | － | 16，167 |
|  |  |  |  |  |  |  |
| Preparatory courses．．．．．．．．．．．．．．．．．．．． | 5，704 | 6，041 | 5，157 | 7，482 | － | 92，059 |
| Other courses at university．．．．．．．．．．．．． | 3，914 | 160 | 1，288 | 819 | － | 35，231 |
| Indian schools and schools in the Terri－ tories． | 3，437 | 3,493 | 3，195 | 5，316 | 3，235 | 28，045 |
| Tota | 169，988 ${ }^{3}$ | 190，483 | 206，471 | 231，463 | 3，235 | 3，047，605 |
| Population（June 1， 1952 estimate）．．．．．．． | 798，000 | 843，000 | 970，000 | 1，198，000 | 25，000 | 14，430，000 |

[^118]The provincially controlled schools are the most important group and account for about 90 p．c．of the total enrolment shown in Table 2．These systems of public elementary and secondary education are financed mainly by local school authorities， assisted by provincial grants．There are private schools in all provinces（i．e．，schools
that are not conducted by publicly elected or publicly appointed boards and are not financed out of public money) but their enrolment is not large in comparison with that of the public schools. At the level of higher education, there is a provincial university in each of six provinces and one or more colleges supported out of provineial funds in the other provinces. In addition, there are 16 private universities most of which receive provincial aid and 163 colleges giving degree credit courses. Universities and colleges also receive grants from the Federal Government. The number of agricultural colleges and schools, by province, with type and length of course offered, is given in the Agriculture Chapter, pp. 388-391.

## Subsection 1.-Provincially Controlled Elementary and Secondary Schools*

Enrolment and Attendance.-At the elementary school level, enrolments have been increasing since the school year 1944-45. Birth registrations and immigration figures for the past few years indicate that by 1959-60 the enrolment in the elementary grades will be at least $2,900,000$ and in the secondary grades at least 532,000 , a total of $3,432,000$ compared with $2 ; 502,000$ in 1951-52.

Factors operating to increase enrolment include: the introduction of family allowances in 1945 which, while showing its effects on schools most clearly in improved attendance, is also keeping in school to the legal age limit many pupils who might otherwise leave from a few months to two years before they are lawfully entitled to leave; increased emphasis on the holding power of schools; a changed social attitude toward secondary education; increased transportation facilities at public expense; the building of dormitories in some provinces; the larger unit of administration and the establishment of junior high schools and of composite schools to serve rural areas particularly.

Enrolment in provincially controlled schools for the latest school year available is given in Table 2 and average daily attendance is shown in Table 3.

* Academic and vocational day schools only.
3.-Average Daily Attendance in Provincially Controlled Schools, by Province, School Years Ended 1943-52

Nors.-Comparable figures for earlier years will be found in previous editions of the Year Book, beginning with the 1932 edition.

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1943 | $\cdots$ | 12,759 | 86,630 | 69.814 | 515,140 | 553, 954 | 100,169 | 138,019 | 127,214 | 93,473 | 1,697,172 |
| 1944 | $\ldots$ | 12,621 | 89,490 | 69,523 | 518,896 | 559,796 | 99,471 | 136,752 | 128,051 | 102,999 | 1,717,599 |
| 1945. | ... | 12,984 | 93,831 | 70,746 | 523,741 | 571,625 | 100,971 | 135,336 | 130,095 | 107,599 | 1,746,928 |
| 1946. | $\ldots$ | 14,321 | 99,367 | 74,529 | 529,613 | 590,801 | 104,666 | 138,267 | 133,162 | 114.590 | 1,799,316 |
| 1947 | ... | 14,850 | 102,099 | 78, 129 | 533,765 | 597,400 | 103,739 | 135,038 | 131,011 | 121,334 | 1,817,365 |
| 1948.... |  | 14.774 | 103,858 | 81,057 | 545,8411,r |  | 103,744 | 135,578 | 133,410 | 129,859 | 1,861,7071, ${ }^{\text {r }}$ |
| 1949.... | 59,520 | 14,727 | 107,914 | 82,168 | 566,5441, | 638,733 r | 105,240 | 135,872 | 136,690 | 138,941 | 1,986,3491', ${ }^{\text {r }}$ |
| 1950 | 66,727 | 15,043 | 111,818 | 87,158 | 587,6191,r | 660,249r | 106,008 | 136,991 | 146,388 | 147,584 | 2,065,5851', |
| 1951. | 67,638 | 15,310 | 114,285 | 84,923 | 605,9551, | 674,901 + | 112,749 | 137,606 | 150,013 | 154,077 | 2,117,4571 * |
| 1952.... | 71,064 | 15,343 | 117,349 | 87,720 | 636,9661 | 710,227 | 117,774 | 139,744 | 163,454 | 163,364 | 2,223,0051* |

[^119]Grade Distribution．－A record of the grade distribution of pupils in the provincially controlled schools of all provinces is presented in Table 4.

## 4．－Grade Distribution of Pupils Enrolled in Provincially Controlled Schools， by Province，School Year 1951－52

| Grade | N＇f＇ld． | P．E．I． | N．S． | N．B． | Que． | Ont．${ }^{1}$ | Man． | Sask． | Alta． | B．C． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． |
| Kindergar | － | － 526 | $\stackrel{-1}{ }$ | － 14 | 5，199 | 54，061 | － 11 | 2，321 | － | 1，499 |
| Grade I | 18，004 | 2，526 | 28，346 | 14，619 | 107，690 | 91，043 | 21，618 | 20，010 | 22，416 | 21，195 |
| ＂II， | 10，218 | 2，160 | 13，972 | 13，062 | 95，607 | 87,427 | 15，226 | 18，594 | 20，096 | 20，447 |
| ＂III | 10，099 | 2，223 | 15，166 | 13.170 | 99，142 | 84，403． | 15，016 | 18，472 | 20，180 | 20，514 |
| ＂IV | 9，238 | 1，936 | 14，684 | 12，265 | 95，570 | 80，508 | 14，166 | 17，328 | 18，678 | 19，088 |
| ＂V | 8，057 | 1，952 | 13，809 | 11，795 | 80，832 | 74，447 | 13，454 | 17，009 | 17，601 | 17，742 |
| ＂VI | 7，279 | 1，894 | 12，583 | 10，282 | 71，089 | 69，857 | 12，267 | 16．522 | 16，684 | 16，541 |
| ＂VII | 6，219 | 1，883 | 11，730 | 9，224 | 52，674 | 64，426 | 11，528 | 15， 199 | 15，567． | 15，453 |
| ＂VII | 4，601 | 1，654 | 9，511 | 7，472 | 29，124 | 58，996 | 9，840 | 13，491 | 13，958 | 14，217 |
| ＂IX | 4,227 | 1，106 | 7.630 | 5，008 | 19，838 | 52，118 | 7，976 | 10，963 | 12，288 | 12，522 |
| ＂X | 3，030 | 1，148 | 5，508 | 3，592 | 10，015 | 38，866 | 5，736 | 7，898 | 9，009 | 10，238 |
| ＂XI | 2，160 |  | 3,790 | 2，357 | 5，896 | 24， 208 | 4.471 | 5，968 | 7，056 | 7，373 |
| ＂XII | 62 | $72^{2}$ | 1，304 | 1，154 | 1，805 | 17，725 | 1，510 | 4，169 | 6，158 | 5，572 |
| Special <br> Unclassified | 504 | 52 | 二 | 17 674 | 2，553 | 9,719 6,292 | 二 | 356 | － | 711 |
|  |  |  | － | 1，812 |  |  |  |  |  |  |
| To | 83，698 | 19，128 | 138，033 | 106，503 | 677，034 | 814，098 | 132，803 | 168，300 | 179，691 | 183，112 |

${ }^{1}$ Province reports lump sums only for Grades I to III and IV to VI；numbers for these individual grades are estimated．${ }^{2}$ Includes 350 Grade XI students and 58 Grade XII students enrolled in Prince of Wales College．

Teaching Staffs．－In 1952，the teaching staffs of provincially controlled elementary and secondary schools comprised 25,216 men and 68,731 women，a total of 93,947 ．Omitting Quebec for which comparable data are not available， 38 p．c． of the teachers were in cities， 31 p．c．were in towns and villages， 20 p．c．were in one－room rural schools，and the remaining 11 p．c．in schools of two or more rooms outside of urban centres．Again omitting Quebec where 36 p．c．of the teachers were members of religious orders，approximately 25 p．c．of the women teachers were married．Of the total number of teachers in the other nine provinces，at least 10 p．c．were only partially trained or were untrained；also，at least 15 p．c．of the total staff leave the profession each year．

## 5．－Teachers in Provincially Controlled Schools，classified according to Salary， by Province，School Year 1952－53

Nors．－Comparable figures for Quebec are not available．

| Salary | N＇fld． | P．E．I． | N．S． | N．B． | Ont． | Man． | Sask． | Alta． | B．C． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No． | No． | No． | No． | No． | No． | No． | No． | No． |
| Below 81,025 | ${ }^{615}$ | 63 | 437 | 537 | 487 |  | 5 | ${ }^{5}$ |  |
| 81，025－1，524． | 1.170 | 473 | 1，180 | ${ }^{683}$ | 1，112 | ${ }_{1}^{416}$ | ${ }_{6}^{621}$ | 119 | ${ }_{130}^{2}$ |
| \＄1，525－2，024． | 509 | 105 | 1，292 | 1，390 | 3.705 | 1，720 | 2，647 | ${ }_{6} 678$ | ${ }_{117}^{130}$ |
| \＄2，025－2，524． | 192 | 74 | 801 | 585 | 6,666 | 1.100 | ${ }^{1,790}$ | 1，268 | 1，117 |
| \＄2，525－3，024． | 159 | 19 | 475 | 363 | 4，745 | 640 | 1，129 | 1，836 | 1，214 |
| $83,025-3.524$ | 70 | 2 | 254 | 219 | 3，188 | 419 | 490 | 898 | 1，104 |
| 83，525－4，024． | 16 | 4 | 123 | 107 | 2，999 | ${ }^{237}$ | 298 | 694 | 1，349 |
| \＄4，025－5，024． | 5 | 1 | 75 | 102 | 4，045 | 206 3 | 223 28 2 | 585 | 1，298 |
| 85，025－6，024 | － | － | 5 | 15 | 1，706 | 39 17 | 28 3 | 106 13 | ${ }_{132}^{699}$ |
| \＄6，025－7，024．．． | 二 | 二 | 二 |  | 436 27 | 17 | 3 | 13 | ${ }_{22}$ |
| \＄7，025 and over Unspecified．． |  | 二 | 928 |  | 27 | 562 | － | 936 | 2 |
| Totals． | 2，736 | 741 | 5，570 | 4，003 | 29，116 | 5，358 | 7，234 | 7，138 | 7，067 |
| Median salaries．．．．．．． 8 | 1，199 | 1，365 | 1，793 | 1，740 | 2，771 | 2，136 | 2，132 | 2，781 | 3.510 |

Financial Support.-The income required to support the public elementary and secondary schools is derived almost wholly from local taxation and provincial grants. Fees for elementary schooling may be charged in Quebec. In some of the other provinces fees are charged for secondary grades but, except where in lieu of taxation, they are quite nominal.

In general, school boards submit their budgets to the local municipal councils which levy for and collect the required amounts. School boards in Quebec and some boards in other provinces, moreover, have the power to levy and collect taxes for school purposes. Assessment, on which taxes for school purposes are levied, is the valuation of land and buildings (or improvements in some cases) and usually some other factor such as personal property or business income.

Each province has its own method of apportioning grants to local school boards. These grants are of two types. (1) The basic grant may be calculated on a basic minimum cost, an amount per classroom, salary and qualifications of teacher, average attendance, etc. All provinces adopt some means of increasing equality of opportunity by favouring poorer areas over richer ones. (2) Special grants are paid for such features as transportation, music, arts and crafts, special classes, equipment, building costs, night classes, etc. Special grants are largest in Quebec where there is marked emphasis on training for home industries, arts and crafts.

Newfoundland schools are financed largely from provincial funds. Tuition fees may be charged for Grades I to VIII only, except in the 'colleges' (St. John's) where fees may be charged for Grades I to XI. Fees may be charged also to provide for fuel and cleaning or these may be provided in kind. There is no local taxation for school purposes. Provincial grants are mainly for teachers' salaries, school plant maintenance and repairs, and the erection of buildings.

Table 6 presents a comparative statement of the finances of school boards operating provincially controlled schools so far as this can be done through existing records.

## 6.-Financial Support of Provincially Controlled Elementary and Secondary Schools, by Province, for Provincial Fiscal Years Ended 1949-51

Nors.-The receipts shown in this table do not include any amounts raised by loans or the sale of bonds or debentures, as all revenue of this nature must be repaid ultimately with money raised by local taxation. Figures from 1914 are given in the corresponding table of previous Year Books beginning with the 1936 edition.

| Province and Year | Provincial Government Grants | Local Taxation | Other Sources | Total Current Revenue Recorded | Debenture Indebtedness ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5 | \$ | \$ | \$ | \$ |
| Newfoundland- |  |  |  |  |  |
|  | 3,200,332 ${ }^{\text {r }}$ | - | 694, 663 ${ }^{2}$, | 3,895,000 ${ }^{2}$, |  |
| 1950. | 3,430,267 ${ }^{\text {\% }}$ | - | 691, $733^{2}$, | 4,122,000 ${ }^{2}$ \% |  |
| 1951. | 3,557,275 | - | $652,725^{2}$ | 4,210,000 ${ }^{2}$ |  |
|  |  |  |  |  |  |
| 1949. | $524.783{ }^{3}$ | 438, 164 | 32,374 | 995, 321 | $\cdots$ |
| 1950. | 570,908 ${ }^{1}$ | 488,714 | 62,020 | 1,121,642 | . |
| 1951. | $626.067^{2}$ | 538,504 | 127,255 | 1,291,826 | .. |
| Nora Scotia- |  |  |  |  |  |
| 1949........ | 4,908, $241{ }^{\text {3 }}$, ${ }^{\text {r }}$ | 5,401,966 ${ }^{1}$, | - | 10,310,207 ${ }^{\text {r }}$ | . |
| 1950......... | 5,658,799 ${ }^{\text {a }}$, ${ }^{\text {r }}$ | 5,974,035 ${ }^{\text {a }}$, ${ }^{\text {\% }}$ | $\cdots$ | 11,632,834 ${ }_{11}$ |  |

For footootes, see end of table, p. 340.

## 6.-Financial Support of Provincially Controlled Elementary and Secondary Schools, by Province, for Provincial Fiscal Years Ended 1949-51-concluded

\begin{tabular}{|c|c|c|c|c|c|}
\hline $\because \quad$ Province and Year \& Provincial Government Grants \& Local Taxation \& Other Sources \& Total Current Revenue Recorded \& Debenture Indebtedness ${ }^{1}$ <br>
\hline \& \$ \& \$ \& \$ \& \$ \& \$ <br>
\hline New Brunswick- \& \& \& \& \& <br>
\hline 1949........ \& $4,198,1733^{3},{ }^{\text {r }}$
$4,858,332^{3, r}$
4, \& 5,487,746 ${ }^{\text {a }}$, ${ }^{\text {r }}$ \& $\cdots$ \& 9,685,919r \& . <br>
\hline 1951 \& 4,774,407 ${ }^{8}$ \& 7,024,416 ${ }^{3}$ \& .. \& 11,798,823 \& . <br>
\hline Quebec- \& \& \& \& \& <br>
\hline 1944. \& 6,768,395 \& 23,554,568 \& 2,015,294 \& 32,338,257 \& 72,618,071 <br>
\hline 1951 \& 15,910,137 \& 50,579,638 \& 2,479,097 \& 68,968,872 \& 54, 138,073 <br>
\hline Ontario- \& \& \& \& \& <br>
\hline 1949. \& 37,558,062 \& 61,646, 2594 \& 3,516,346 \& 102,720,667 \& 83,877,272 <br>
\hline 1950. \& 42,661,144 \& 73, 195,5774 \& 2,906,755 \& 118,763,476 \& 108,830,392 <br>
\hline 1951. \& 47,355,143 \& 91,569,5934 \& 3,776,308 \& 142,701,044 \& 144,648, 251 <br>
\hline Manitoba- \& \& \& \& \& <br>
\hline 1949. \& 4,206,665 \& 11,442,421 \& 588,611 \& 16,237,697 \& 6,440,174 <br>
\hline 1950 \& 4,086,810 \& 12,875,011 \& 343,165 \& 17,304,986 \& 10,265,632 <br>
\hline 1951. \& 4,347,543 \& 13,967,343 \& 333,655 \& 18,648,541 \& 12,520,784 <br>
\hline Saskatchewan- \& \& \& \& \& <br>
\hline 1949. \& 5,825,433 \& 15,751,617 \& 340,594 \& 21,917,644 \& 4,382,943 <br>
\hline 1950. \& 6,919,369 \& 16,372,024 \& 367,659 \& 23,659,052 \& 5,212,399 <br>
\hline 1951. \& 7,466,027 \& 17,750,804 \& 404,685 \& 25,621,516 \& 5,815,690 <br>
\hline Alberta- \& \& \& \& \& <br>
\hline 1949. \& 6,445,559 \& 17,781,887 \& 421,073 \& 24,648,519 \& 15,804,214 <br>
\hline 1950. \& 7,794, 234 \& 19,619,264 \& 481,376 \& 27,894, 874 \& $$
20,200,574^{r}
$$ <br>
\hline 1951. \& 9,717,500 \& 21,879,905 \& 775,068 \& 32,372,473 \& 26,971,892 <br>
\hline British Columbia- \& \& \& \& \& <br>
\hline 1949. \& 13,450,668
$14,794,397$ \& $$
14,451,889
$$ \& 1,631,785

874,219 \& ${ }^{29,534,342 \mathrm{r}}$ \& .. <br>
\hline 1950. \& 18,794,397 \& 16,683, ${ }^{1252}$, 295,568 \& 1,392,793 \& - $41,886,579$ \& $\cdots$ <br>
\hline
\end{tabular}

[^120]
## Subsection 2.-Private Elementary and Secondary Schools

Private schools include all those not operated by publicly elected or appointed boards. Except in Quebec, they receive no support from public funds. Instruction is similar to that given in public schools except that more opportunities may be given for music, art, etc., and in schools under religious control there is greater emphasis on religious instruction. In most provinces there is some form of inspection or regulation by the provincial Department of Education.

Of the 835 private schools reporting in 1951, 511 were in Quebec, 121 in Ontario, 126 in the Prairie Provinces, 39 in British Columbia and 38 in the Maritimes. There were 5,194 full-time teachers of whom 1,278 were men. Outside of Quebec, the salaries for lay teachers ranged from $\$ 1,000$ to $\$ 5,000$ with a median of $\$ 1,874$ for women, and from $\$ 1,200$ to $\$ 8,000$ with a median of $\$ 2,700$ for men.

In these schools about 65 p.c. of the pupils, including 40,000 girls and 26,000 boys, were in the elementary grades. At the secondary level there were 21,000 girls and 14,000 boys.

The private schools are financed largely from fees, legacies, gifts, or by religious organizations. Annual fees range from very little to upwards of $\$ 1,000$; in 1952 they averaged $\$ 100$ for day students and $\$ 500$ for boarders and expenditures amounted to over $\$ 17,333,000$. Of that amount, $\$ 5,313,000$ was paid out in teachers' salaries.

## 7.-Enrolment in Private Elementary and Secondary Schools, by Province, School Years Ended 1943-52

Nots.-Figures from 1921 will be found in the corresponding table of previous Year Books beginning with the 1937 edition. There is one small private school in Newfoundland.

| Year | P.E:I. | N.S. | N.B. | Qae. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1943. | 738 | 3,641 | 3,552 | 61,566 | 14,722 | 4,495 | 2,308 | 3,729 | 5,313 | 100,064 |
| 1944. | 803 | 3,452 | 3,631 | 60.803 | 14,967 | 4,659 | 2,545 | 3,767 | 5,757 | 100,384 |
| 1945 | 754 | 3,913 | 2,843 | 61,828 | 15,911 | 4,593 | 3,544 | 2,032 | 5,704 | 101,122 |
| 1946 | 804 | 3,362 | 2,903 |  | 16,336 | 4,643 | 3,682 | 2,852 | 5,576 | 40,1581 |
| 1947 | 803 | 3,109 | 2,841 |  | 15,694 | 4,125 | 3,721 | 2,507 | 5,195 | 37,995 ${ }^{1}$ |
| 1948. | 877 | 3,414 | 2,341 | 59,020 | 16,586 | 4,653 | 2,710 | 2,519 | 5,983 | 98,103 |
| 1949 | 951 | 3,894 | 2,504 | $60,000^{\circ}$, | 18,251 | 5,348 | 2,625 | 3,630 | 6,334 | 103,537 ${ }^{\text {r }}$ |
| 1950 | 971 | 4,217 | 2,306 | 56,240 ${ }^{\text {r }}$ | 18,823 | 5,271 | 2,630 | 3,539 | 6,256 | $100,253 \mathrm{r}$ |
| 1951 | 969 | 4,709 | 2,129 | 55,667 | 20,141 | 6,226 | 3,138 | 3,527 | 6,170 | 102,676 |
| 1952 | 1,004 | 4,690 | 1,852 | 55,111 ${ }^{2}$ | 18,573 | 6.564 | 2,842 | 3,447 | 6,531 | $100,614^{2}$ |

${ }^{1}$ Exclusive of Quebec.
${ }^{2}$ Estimated.
Business Colleges.-Of the 135 business schools reporting in 1952 in eight provinces (exclusive of Quebec and Newfoundland), 15 were in the Maritimes, 75 in Ontario, 26 in the Prairie Provinces and 19 in British Columbia. There were 121 men and 270 women employed as full-time teachers and 29 men and 78 women as part-time teachers.

The girl students far out-number the boys and the enrolment in evening classes almost equals that in the full-time day classes. The 1952 enrolment was: full-time day classes, 1,429 boys and 9,044 girls; part-time day classes, 422 boys and 2,106 girls; evening classes, 2,298 boys and 9,579 girls; correspondence courses, 168 boys and 722 girls. The total for the year was about 2,000 higher than for 1951. More than half ( 53 p.c.) of the students were 17 to 19 years of age.

Monthly fees ranged from $\$ 8$ to $\$ 35$ for day classes and from $\$ 6$ to $\$ 20$ for evening classes. Total operating expenditures for 1952 amounted to over $\$ 2,500,000$ of which $\$ 1,085,000$ was for teachers' salaries.

## 8.-Enrolment in Private Business and Commercial Schools (Business Colleges), by Province, School Years Ended 1943-52

Nors.-Figures include day and evening classes. Those from 1921 will be found in the corresponding table of previous Year Books beginning with the 1937 edition. There are no schools of this type in Newfoundland.

| Year | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1943. | 207 | 1,033 | 347 | 5,987 | 11,069 | 2,890 | 1,844 | 3,595 | 3,806 | 30,778 |
| 1944 | 197 | 881 | 348 | 6,256 | 11,724 | 2,988 | 1,869 | 2,780 | 3,415 | 30,458 |
| 1945 | 104 | 684 | 816 | 6,957 | 11,141 | 3,532 | 1,200 | 2,726 | 2,906 | 30,066 |
| 1946. | 181 | 1,080 | 805 |  | 14,901 | 4,099 | 1.568 | 3,482 | 4,021 | 30,13-1 |
| 1947 | 212 | 1,106 | 1,119 |  | 15,024 | 3,721 | 1,904 | 3,855 | 4.009 | 30.9501 |
| 1948 | 227 | 1,011 | 958 |  | 13,917 | 3,493 | 1,533 | 3,731 | 3,674 | 28,5441 |
| 1849 | 214 | 1.070 | 916 | $13,800^{2}$, | 12,938 | 3,449 | 1,554 | 2,969 | 3.932 | 40, $842^{2}$, ${ }^{\text {r }}$ |
| 1950 | 185 | 1,053 | 1,099 | $12,900^{*}$ \% | 11,999 | 3,648 | 1,662 | 2,709 | 4,356 | 39,602 ${ }^{\text {a }}$, |
| 1951 | 152 | 825 | 958 | 11,905\% | 11,101 | 3,084 | 1.595 | 2,694 | 3,408 | 35,722 ${ }^{\text {r }}$, |
| 1052 | 156 | 861 | 868 | 12,500 ${ }^{2}$ | 11,800 | 3,595 | 1,540 | 3,211 | 3,737 | 38,2682 |

## Subsection 3.-Universities and Colleges

Total registration in universities and colleges for the academic year 1951-52 is shown in Table 9. In that year the full-time enrolment of university-grade students was 63,499 . In addition there were 29,227 high school and other students registered in the universities and another 63,520 taking part-time and various short courses. Thus the total enrolment in all institutions in 1951-52 was 156,246 . The estimated full-time enrolment for 1952-53 at 62,800 continued the downward trend which commenced after the all-time peak of the 1947-48 session, but preliminary returns for 1953-54 indicate a reversal; the estimate for that year is about 64,200 .

## 9.-Total Registration in Universities and Colleges, by Province, Academic Year 1951-52

| Province and Item | Undergraduate | Postgraduate | Pre-Matriculation | Others | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland- | No. | No. | No. | No. | No. |
| Full-time.... | 379 | - | - | - | 379 |
| Other.. | 446 | - | - | - | 446 |
| Prince Edward Island-Full-time. | 258 | - | 416 | 124 | 798 |
| Nova Scotia- |  |  |  |  |  |
| Full-time... | 3,504 | 86 | 343 | 31 | 3,964 |
| Other.... | 632 | 42 | 168 | 321 | 1,163 |
| New Brunswick- | 1,916 | 38 | 1,585 | 5 |  |
| Other...... | 1,258 | 69 | 1,322 | 586 | 1,235 |
| Quebec- |  |  |  |  |  |
| Full-time. | 19,468 | 1,250 | 17,523 | 2,325 | 40,566 |
| Other. | 6,083 | 395 | 1,659 | 14,705 | 22,842 |
| Ontario- |  |  |  |  |  |
| Full-time. | 19,495 | 1,681 | 3,806 | 252 | 25,234 |
| Other. | 10,957 | 713 | 443 | 10,701 | 22,814 |
| Manitoba- |  |  |  |  |  |
| Full-time. | 3,895 | 90 | 718 | 73 | 4,776 |
| Other.. | 1,614 | 105 | 173 | 3,841 | 5,733 |
| Saskatchewan-Full-time | 2,317 | 116 | 955 | 104 | 3,492 |
| Other.... | 3,608 | $\sim^{-1}$ | - | 56 | 3,664 |
| Alberta- |  |  |  |  |  |
| Full-time. | 2,945 | 70 119 | 564 280 | 394 894 | 3,973 3,316 |
| British Columbia- |  |  |  |  |  |
| Full-time......... | 5,672 | 319 | - | 9 | 6,000 |
| Other.. | 1,305 | 186 | - | 810 | 2,301 |
| Totals- |  |  |  |  |  |
| Regular Session, Full-time.......... | 59,849 3,466 | 3,650 | 25,910 | 3,317 4,187 | 92,726 |
| Regular Session, Part-time. Summer Schools and Extra-mural | 3,466 |  |  | 4,187 | 8,812 |
| Courses. | 23,465 | 962 | 2,554 | 27,727 | 54,708 |

The enrolment in Canadian universities of full-time students from other countries has increased considerably during the post-war years. In 1951-52 more than half of the outside enrolment came from the United States. Table 10 gives a percentage classification of the outside enrolment for selected years and also the number of Canadian students studying in the United States in the same years.
10.-Students from Other Countries in Canadian Universities and Canadian Students in the United States, Academic Years 1931-52

| Year | Total Full-time Enrolment | Total <br> Outside <br> Enrol- ment | Percentage of Outside Enrolment from- |  |  |  | $\begin{gathered} \text { Canadian } \\ \text { Students } \\ \text { in } \\ \text { U.S.A. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | U.S.A. | U.K. | B.W.I. | Other Countries |  |
|  | No. | No. |  |  |  |  | No. |
| 1931.... | 32,926 | 2,129 | 70.7 | $15 \cdot 6$ | 2.5 | 11.2 | 1,313 |
| 1936... | 35,108 | 2,443 | $82 \cdot 6$ | $6 \cdot 4$ | $1 \cdot 3$ | $9 \cdot 7$ | 1,075 |
| 1941..... | 36,319 | 1,882 | $78 \cdot 5$ | $2 \cdot 2$ | 3.9 | $15 \cdot 4$ | 1,458 |
| 1946. | 63,550 | 2,053 | 54-4 | $8 \cdot 1$ | 12.8 | 24.7 | 1,636 |
| 1951......... | 68,308 | 3,188 | $55 \cdot 1$ | $5 \cdot 2$ | 7.9 | 31.8 | 4,528 |
| 1952... | 63,499 | 3,012 | $50 \cdot 3$ | $4 \cdot 4$ | $8 \cdot 6$ | 36.7 | 4,317 |

Of the 63,499 full-time university-grade students in $1952,2,813$ were in receipt of allowances from the Department of Veterans Affairs.

University Graduates.-Awards made during the 1951-52 session included 13,288 bachelor and first professional degrees, 1,601 masterships and licentiates, 234 earned doctorates as well as 222 honorary doctorates (including 38 granted by Laval University on the occasion of its 100th anniversary), and 3,305 diplomas and certificates.

## 11.-Graduates from Universities and Colleges, Academic Years Ended 1949-52

Nore.-Figures for 1920-36 are given in the 1938 Year Book, pp. 993-997, and for 1937-48 in the corresponding table of subsequent editions.

| Course | 1949 |  | 1950 |  | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Female | Total | Female | Total | Female | Total | Female |
|  | No. | No. | No. | No. | Not. | No. | No. | No. |
| Graduates in Arts, Pure Science and Commerce- |  |  |  |  |  |  |  |  |
| Bachelors of Science (in Arts) | 1,324 | 2,078 | 1,242 | $\begin{array}{r}1,987 \\ \hline 129\end{array}$ | 1,067 | 1,809 152 | 5,623 837 | 1,811 125 |
| Bachelors of Commerce ${ }^{2}$........ | 1,362 | 71 | 950 | 42 | 708 | 47 | 663 | 35 |
| Totals. | 9,729 | 2,324 | 8,983 | 2,158 | 7.834 | 2,068 | 7,123 | 1,971 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Totals. | 3,354 | 10 | 4,082 | 8 | 2,748 | 4 | 2.075 | 15 |
| Graduates in Agriculture, Veterinary Science and Household Science- |  |  |  |  |  |  |  |  |
| Bachelors of Agricultural Science. Graduates in Veterinary Science. Bachelors of Household Science.. | 893 | 30 | 804 | 23 | 556 | 17 | 332 | 28 |
|  | 139 | 2 | 150 | 3 | 175 | 16 | 125 | 4 |
|  | 299 | 299 | 275 | 275 | 277 | 277 | 256 | 256 |
| Totals. | 1,331 | 331 | 1,229 | 301 | 1,008 | 310 | 713 | 288 |

For footnotes, see end of table, p. 344.
11.-Graduates from Universities and Colleges, Academic Years Ended 1949-52-concl.

| Course | 1949 |  | 1950 |  | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Female | Total | Female | Total | Female | Total | Female |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| Teacher Diplomas and Graduates in Education and Social Ser-vice- |  |  |  |  |  |  |  |  |
| Teacher diplomas.............. | 774 |  | 858 |  | $835{ }^{\text {r }}$ |  | 756 |  |
| Degrees in education or pedagogy | 632 | 152 | 531 | 138 | 577 | 155 | 586 | 181 |
| Librarian degrees and diplomas.. | 95 | 72 | 117 | 88 | 122 | 99 | 102 | 78 |
| Physical training degrees and diplomas | 170 | 63 | 151 | 61 | 129 | 60 | 98 | 54 |
| Social service degrees and diplomas. | 268 | 174 | 268 | 162 | 265 | 164 | 240 | 151 |
| Totals | 1,939 | 461 | 1,925 | 449 | 1,928 ${ }^{\text {r }}$ | 478 | 1,782 | 464 |
| Graduates in Medicine and Related Studies- |  |  |  |  |  |  |  |  |
| Medical doctors. | 684 | 56 | 817 | 42 | 867 | 61 | 798 | 35. |
| Dentists. | 178 | 2 | 329 | 4 | 294 | 2 | 201 | 1 |
| Pharmacists. | 374 | 51 | 422 | 65 | 406 | 46 | 371 | 38 |
| Degrees and diplomas in nursing. | 470 | 470 | 538 | 538 | 492 \% | $492{ }^{\text {r }}$ | 435 | 435 |
| Physio-therapy and occupational therapy. | 154 | 154 | 73 | 73 | 60 | 60 | 75 | 75 |
| Totals. | 1,860 | 733 | 2,179 | 722 | 2,119 ${ }^{\text {r }}$ | 661 \% | 1,880 | 584 |
| Graduates in Law and Theology- |  |  |  |  |  |  |  |  |
| Law schools.................... | 713 | 17 | 764 | 28 | 712 | 20 | 556 | 26 |
| Roman Catholic theological colleges | 335 | - | 326 | - | 345 | - | 365 | - |
| Protestant theological colleges... | 155 | 27 | 181 | 21 | 189 | 17 | 232 | 29 |
| Totals. | 1,203 | 44 | 1,271 | 49 | 1,246 | 37 | 1,153 | 55 |
| Post-Graduate and Honorary De-grees- |  |  |  |  |  |  |  |  |
| . Honorary doctorates. . . . . . . . . . | 227 | 8 | 198 | 8 | 186 | 11 | 222 | 10 |
| Doctorates in courses............ | 194 | 19 | 220 | 21 | 202 | 11 | 234 | 21 |
| Masters of Arts ${ }^{4}$................. | 646 | 180 | 769 | 175 | 704 | 156 | 723 | 173 |
| Masters of Science ${ }^{5}$.............. | 324 | 23 | 417 | 33 | 508 | 28 | 439 | 19 3 |
| Bachelors of Divinity .......... | 47 417 | 29 | +385 | 3 3 | 137 352 | 6 36 | 106 | 49 |
| Licentiates (except in theology). Other post-graduate degrees and diplomas ${ }^{6}$ | 417 469 | 29 155 | 335 611 | 34 198 | 352 470 | 36 162 | 281 346 | 49 147 |
| Totals. | 2,324 | 414 | 2,623 | 472 | 2,559 | 410 | 2,351 | 422 |

I Includes Bachelors of Letters and of Social Science.
${ }^{2}$ Includes Bachelors of Accountancy and

Academic Staff.-The total teaching staff, including part-time staff, increased from 9,441 to 10,630 between 1951 and 1952. This increase, in conjunction with the decreased enrolment, brought the ratio of teachers to staff more in line with the experience of pre-war years. By the addition of one-half of the part-time staff to the full-time staff, on the basis of equivalence in instruction, there were eight students for each teacher in the pre-war years. The 1951-52 teaching load corresponded to this figure.

## 12.-Teaching Complement in Universities and Colleges, Academic Years Ended 1921-52

| Year Ended- | Faculties of Arts and Science |  | Professional Schools |  | Totals ${ }^{\text {a }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Full-time | Part-time | Full-time | Part-time | Full-time | Part-time |
|  | No. | No. | No. | No. | No. | No. |
| 1921..... | 1,191 | 242 | 942 | 1,179 | 2,133 | 1,352 |
| 1931. | 1,776 | 519 | 1,127 | 1,705 | 2,903 | 2,077 |
| 1941.. | 2,037 | 579 | 1,707 | 2,420 | 3,452 | 2,185 |
| 1946. | 2,466 | 1,010 | 2,645 | 2,440 | 4,937 | 2,797 |
| 1947... | 2,814 | 1,002 | 3,078 | 2,478 | 5,246 | 3,441 |
| 1948. | 3,042 | 1,119 | 3,257 | 2,667 | 5,447 | 3,591 |
| 1949.. | 2,871 | 1,202 | 3,051 | 2,755 | 5,339 | 3,887 |
| 1950.. | 2,890 | 1,153 | 3,078 | 3,036 | 5,246 | 4,127 |
| 1951. | 3,126 | 1,260 | 2,557 | 2,826 | 5,539 | 3,902 |
| 1952... | 3,141 | 1,354 | 3,066 | 3,720 | 5,874 | 4,756 |

${ }^{1}$ Excludes duplication.
Average salaries in 1952-53 showed slight advances over the 1951-52 levels. The figures below indicate median salaries paid to full-time instructors at 17 of the larger universities in Canada.

| Classification of Position | Median Salaries |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1958-53 | 1951-58 | 1950-51 | 1988-s9 |
|  | \$ | 5 | \$ | \$ |
| Dean. | 7,683 | 7,271 | 6,950 | 5,006 |
| Professor. | 6,406 | 6,313 | 5,685 | 4,345 |
| Associate professor. | 5,271 | 5,227 | 4,613 | 3,469 |
| Assistant professor. | 4,415 | 4,381 | 3,834 | 2,708 |
| Lecturer.. | 3,333 | 3,329 | 2,847 | 1,035 |

By region, the median salaries in 1952-53 showed marked differences.

| Classification of Position | Atlantic Provinces | $\begin{aligned} & \text { Ontario } \\ & \text { and } \\ & \text { Quebec } \end{aligned}$ | Western Provinces | Canada |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| Dean. | 5,000 | 8,917 | 7,725 | 7,683 |
| Professor. | 4,294 | 6,877 | 6,322 | 6,406 |
| Associate professor. | 4,076 | 5,443 | 5,262 | 5,271 |
| Assistant professor. | 3,712 | 4,515 | 4,442 | 4,415 |
| Instructor and lecturer.. | 2,512 | 3,353 | 3,529 | 3,333 |

Income and Expenditure.-University income figures for 1951-52, as shown in Table 13, reflect the first payments of the Federal Government grants. Income distribution for the session was: Government grants $52 \cdot 4$ p.c.; student fees $30 \cdot 2$ p.c.; endowments and investments 6.6 p.c.; and other sources 10.8 p.c. The proportion of receipts from investments and endowments has decreased steadily since 1931, when they represented $16 \cdot 2$ p.c. of the current income.

## 13.-Income and Capital Resources of Universities and Colleges, Academic Years Ended 1921-52

Nots.-The larger universities and many of the colleges in Canada are included and represent an enrol ment of approximately 80 p.c. of the full-time students of university grade throughout the period. The institutions omitted are mainly those conducted by religious orders where teachers receive little or no salary and the financial returns are, consequently, not comparable.

| Year End-ed- | Current Income |  |  |  |  | Deficit ${ }^{2}$ | Surplus ${ }^{2}$ | Capital Resources |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | From <br> Endow- <br> ments and Investments | Government Grants | Student Fees ${ }^{1}$ | Miscellaneous | Total |  |  | Land, Buildings and Equipment | Endowments | Trust Funds |
|  | 8'000 | \$'000 | \$'000 | 8'000 | 8 '000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| 1921. | 1,497 | 4,522 | 1,826 | 1,244 | 9,089 | 80 | 194 | 48,124 | 28,328 |  |
| 1931. | 2,258 | 6,925 | 3,323 | 1,455 | 13,961 | 600 | 126 | 82,403 | 48,459 |  |
| 1941. | 2,046 | 6,804 | 5,143 | 2,054 | 16,047 | 244 | 116 | 95,680 | 55,082 | 17,422 |
| 1946. | 2,397 | 10,485 | 9,779 | 3,153 | 25,815 | 75 | 532 | 102,627 | 56,975 | 28,999 |
| 1947 | 2,314 | 13,768 | 13,636 | 3,203 | 32,921 | 350 | 382 | 112,409 | 59,208 | 34,397 |
| 1948. | 2,387 | 14,863 | 14,903 | 4,689 | 36,842 | 169 | 347 | 123,248 | 63,724 | 42,302 |
| 1949. | 2,568 | 16,218 | 15,959 | 4,845 | 39,590 | 542 | 935 | 139,779 | 69,012 | 43,093 |
| 1950. | 2,950 | 16,959 | 15,409 | 5,140 | 40,459 | 601 | 413 | 150,178 | 84,410 | 37,821 |
| 1951. | 3,127 | 18,733 | 14,025 | 4,647 | 40,532 | 1,037 | 778 | 162,372 | 82,702 | 34,686 |
| 1952. | 3,185 | 25,284 | 14,544 | 5,208 | 48,221 | 479 | 1,506 | 181,393 | 81,737 | 37,507 |

${ }^{1}$ Board and lodging not included. $\quad{ }^{2}$ Combined deficits or surpluses of schools reporting.
The Federal Government, as a result of recommendations made by the Royal Commission on National Development in the Arts, Letters and Sciences, instituted a system of university grants, the first of which were paid during the academic year 1951-52. In that year, 83 institutions received a total of $\$ 6,991,950$. The grants were paid on the basis of 50 cents per head of population in each province, the eligible institutions receiving their share of the provincial allotment on the basis of the number of full-time students at university level attending degree courses. The distribution of payments, by province, is shown in Table 14.
14.-Federal Government Grants to Universities, by Province, Academic Year 1951-52

| Province | Institutions | Grant | Grant per Eligible Student |
| :---: | :---: | :---: | :---: |
|  | No. | $\$$ | 8 |
| Newfoundland. | 1 | 180,700 | 483 |
| Prince Edward Island. | 2 | 49,200 | 184 |
| Nova Scotia. | 13 | 321,250 | 92 |
| New Brunswick. | 6 | 257,800 | 136 |
| Quebec.................... | 5 | 2,027,800 | 105 |
| Ontario. | 27 | 2,298,750 | 126 |
| Manitoba. | 7 | 388,250 | 99 |
| Saskatchewan. | 14 | 415,850 | 181 |
| Alberta. | 4 | 469,750 | 165 |
| British Columbia. | 4 | 582,600 | 103 |
| Totals. | 83 | 6,991,950 | 120 |

## PART II.-CULTURAL ACTIVITIES RELATED TO EDUCATION

An outline of the Report of the Royal Commission on National Development in the Arts, Letters and Sciences.* which was tabled in Parliament on June 1, 1951, is given in the 1952-53 Year Book, pp. 342-345.

## Section 1.-The Relationship of Art to Education $\dagger$

Fine Art Schools, Galleries and Museums.-Fine art appears as an elective subject in the curricula of the faculties of arts in a number of universities, where it may be taken as one subject among five for a year or two; in some, e.g., Acadia University, N.S., there are six or more elective courses. In Mount Allison University, N.B., and in the Universities of Saskatchewan and Manitoba, there is a sufficient number of courses to allow the taking of a Bachelor's degree with specialization in fine art. At the University of Toronto, Ont., an Honour B.A. in art and archæology is offered, as well as graduate work in this field. Departments of fine arts were opened by McGill University (1948-49)-where an Honour B.A. may be taken in fine art and another subject-the University of British Columbia (1949-50) and the University of Alberta (1953-54); McMaster University re-opened its departments in 1951.

There are also schools of art not requiring any fixed academic standing for admission, as they are concerned more with the technical development of the artist. The most widely known of these are:-

Nova Scotia College of Art, Halifax, N.S.
Ecole des Beaur-Arts, Quebec, Que.
Ecole des Beaux-Arts, Montreal, Que.
School of Art and Design, Montreal Museum of Fine Arts, Montreal, Que. Ontario College of Art, Toronto, Ont.
University of Manitoba School of Art, Winnipeg, Man.
Provincial Institute of Technology and Art, affiliated with the University of Alberta, Calgary, Alta. (Summer session at Banff, Alta.)
Vancouver School of Art, Vancouver, B.C.
Courses in these schools vary in length with the requirements of the individual student, but may extend over as many as four years. Summer schools of art are sponsored by some of the foregoing institutions, by universities, and by various independent groups.

Public art galleries and museums in the principal cities perform valuable educational services among adults and children. Children's Saturday classes, conducted tours for school pupils and adults, radio talks, lectures and often concerts are features of the programs of the various galleries. Many of these institutions supply their surrounding areas with travelling exhibitions, and organizations such as the Maritime Art Association, the Western Canada Art Circuit, the Saskatchewan Arts Board and the Art Institute of Ontario, have been founded to carry on the work on a regional basis. The National Gallery of Canada has a nation-wide program of this nature.

[^121]The principal art galleries and museums* are:-<br>New Brunswick Museum, Saint John, N.B.<br>Museum of the Province of Quebec, Quebec, Que. Montreal Museum of Fine Arts, Montreal, Que. National Gallery of Canada, Ottawa, Ont.<br>London Public Library and Art Museum, London, Ont. Art Gallery of Toronto, Toronto, Ont. Royal Ontario Museum of Archæology, Toronto, Ont. Art Gallery of Hamilton, Hamilton, Ont. Willistead Library and Art Gallery, Windsor, Ont. Winnipeg Art Gallery, Winnipeg, Man. Regina College Gallery, Regina, Sask. Edmonton Museum of Arts, Edmonton, Alta. Vancouver Art Gallery, Vancouver, B.C. Arts Centre of Greater Victoria, Victoria, B.C.

The National Gallery of Canada.-Founded in 1880 by the Marquis of Lorne, the National Gallery at first served only as an exhibition gallery. Provided with an Advisory Arts Council in 1907, and first incorporated under a Board of Trustees in 1913, it has assembled a permanent collection mainly during the past 40 years. This collection of pictures and sculpture, prints and drawings, representing the styles of past and present of various parts of the world, was assembled for public enjoyment, study, and the improvement of arts and industrial products, and as the necessary basis of a program of art education. The National Gallery Act, amended in 1951, gives the institution a larger Board of Trustees and other advantages.

The collection of the National Gallery to-day is of international repute and is accessible to the whole country by means of catalogues, photographs, colour reproductions and, to a limited extent, by loans. The Canadian section, naturally the most inclusive, is the best available source for the study of Canadian art. Each year, examples of the best contemporary work are added, along with those of earlier periods. The addition, in 1953 and 1954, of eight famous paintings from the Liechtenstein collection constitutes one of the greatest events in the Gallery's history. This group comprises two panels of the Life of Esther series by Filippino Lippi and Bathsheba at her Toilet by Rembrandt, The Virgin and Child by Hans Memling, The Crucifixion by Quentin Massys, A Bavarian Prince by Bartel Beham, The Lacemaker by Nicolaes Maes and The Church of S.M. della Salute, Venice by Francesco Guardi. An important group of early Canadian paintings was also added, in addition to a number of contemporary works and examples of graphic art. Drawings by Rubens, Ingres, Turner, Girtin, Gainsborough, Picasso and others have also been added. Prints acquired include examples by the Meister E.S., Israhel van Meckenem, Dürer, Rembrandt, Bonnard, Vuillard and others.

In 1953-54, exhibitions of the art of other countries included: Contemporary Cuban Painters; Swiss Posters; and The Art of India. An important exhibition, European Masters; drawn from Canadian collections, was held at Ottawa, Montreal and Toronto. Among the Canadian exhibitions the most important were the retrospectives of A. Y. Jackson and F. H. Varley. Canadian exhibitions were also sent abroad to Venice, Italy; São Paulo, Brazil; Lugano, Switzerland; New Delhi, India; and elsewhere.

The National Gallery conducts a program of extension work throughout the country. The majority of the exhibitions mentioned above, as well as the annual offerings of the chartered art societies and a variety of smaller collections, are

[^122]available.to the entire country and are widely circulated. About 30 such exhibitions are toured and as many as 200 separate showings have been held annually under the auspices of the National Gallery of Canada. In addition, individual loans of material from the collection are made to centres in many parts of the country each year. In this way original works of art are constantly being brought to the attention of the public. Sets of reproductions are also sent on tour of localities that have not the facilities for handling originals.

The latest major development in the general educational work of the National Gallery is the Industrial Design Division set up as the result of public interest in bringing the design of Canadian goods up to the best international standards and in fostering distinctive Canadian designs. A number of exhibitions on Canadian industrial art have been held in various parts of the country. In 1953, the Design Centre was opened in the Laurentian Building, Ottawa, to serve as an exhibition centre and as headquarters for the national program in industrial design sponsored by the National Gallery.

Other methods of education in the arts apply more specifically to young people and are designed, in part, to supplement regular school work. The Gallery provides written lectures illustrated by lantern slides on all aspects of art history, reproductions of paintings with introductory texts for art appreciation, school broadcasts, classes for school ehildren at the Gallery, exhibitions of children's art, conducted tours of the Gallery's collections and educational demonstrations. Lecture tours by well-known authorities are also held throughout Canada. In 1953, Eric Newton, a leading English art critic, and his wife, Stella Mary Pearce, an authority on theatre art, travelled from coast to coast lecturing under the sponsorship of the National Gallery.

The National Gallery also maintains a library of art films. These as well as the facsimile colour reproductions and silk screen prints published by the National Gallery are listed in the free leaflet, Reproductions, Publications and Educational Material. In connection with the CBC school broadcasts on Canadian artists, the National Gallery in 1953 distributed 250,000 small colour reproductions to school children in all parts of the country. The magazine Canadian Art, in the publication of which the National Gallery has taken a leading part, has doubled its circulation since 1945.

Speaking highly of the Gallery's work over many years despite serious diffioulties, the Report of the Royal Commission on National Development in the Arts, Letters and Sciences* made recommendations for the extension and improvement of its exhibition and education services; increases in funds, staff and facilities; maintenance and increase where possible of present appropriations for acquisitions; and, as soon as possible, a new building containing adequate facilities for display, storage, circulation of exhibitions and conservation of paintings.

Between 1952 and 1954 a national compstition was held to select an architect for the new National Gallery building. Out of the 104 entries (a record number for an architectural competition in Canada), a jury of international experts chose that of Messrs. Green, Blankstein, Russell and Associates of Winnipeg who submitted a design in the contemporary style distinguished by its simplicity and dignity.

[^123]Other Art Organizations.-The leading art organizations of national scope, exclusive of museums and art galleries, include the following:-

Association of Canadian Industrial Designers<br>Canadian Arts Council*<br>Canadian Group of Painters<br>Canadian Guild of Potters<br>Canadian Handicrafts Guild<br>Canadian Museums Association $\dagger$<br>Canadian Society of Graphic Arts<br>Canadian Society of Painter-Etchers and Engravers<br>Canadian Society of Painters in Water Colour<br>Canadian Society of Landscape Architects and Townplanners<br>Community Planning Association of Canada<br>Federation of Canadian Artists<br>Royal Canadian Academy of Arts<br>Royal Architectural Institute of Canada<br>Sculptors Society of Canada.

## Section 2.-The Educational and Cultural Functions of the National Film Board $\ddagger$

If education be considered a process providing materials of thought, and culture be regarded as the self-expression of a people, then the National Film Board, by its terms of reference and by its common practice, is playing a part in both.

The task of "interpreting Canada to Canadians and to other nations" was given to the Board by Parliament after World War II. This was, in a general sense, a mandate to educate Canadians and others in the meaning of Canada. Direct education, of course, remains in the hands of the provinces.

The Board participates indirectly by consulting with the Canadian Education Association on films and series of films. A committee on which both the Board and the Association are represented meets to advise on film programs. The latest result of this co-operation is a new film on the mountain regions of Canada's west coast, Mountains of the West. The same consultation and co-operation extend to the production of filmstrips.

The Board's films and filmstrips, as well as still photos are extensively used in Canadian schools. In the year ended Mar. 31, 1953, school showings of Board films reached a total of 94,702 . Libraries of informational and educational films are maintained in a number of schools and universities in both Canada and the United States as part of the Board's non-theatrical distribution system. This system, which brings films to people outside the theatres, includes more than 400 film councils in Canada, representing more than 10,000 different groups. Film libraries and depots number 387.

People in other lands are learning about Canada through direct distribution of the Board's films and by exchange agreements through the International Council for Educational Films. These agreements provide for mutual film distribution by member countries on a reciprocal basis. The Board has produced two films for distribution through these channels. Winter in Canada and The Physical Regions of Canada.

[^124]The Board's still photos division currently is producing picture books about Canada for use in schools. The Board through its productions, provides a medium of expression for artists, writers, composers, musicians and actors. Real national culture cannot be forced however; rather it is a slow, profound and powerful unfolding from the very roots of popular consciousness. This being so, it is important to record its development as a stimulus to continued growth. This the National Film Board is doing in its films.

Recently, the Board has brought to Canadian audiences films on the Stratford Shakespearean Festival; a music festival in Saskatchewan; the Opera School of the Toronto Conservatory of Music; the Winnipeg Ballet; Canadian artists Frederick Varley and Arthur Lismer; Deichmann pottery in New Brunswick; as well as an excerpt from Hugh MacLennan's novel, Each Man's Son; and L'Homme aux Oiseaux, a short film written especially for the Board by Roger Lemelin.

## Section 3.-The Educational and Cultural Functions of the Canadian Broadcasting Corporation*

Many hours of educational or semi-educational programs are broadcast annually by the Canadian Broadcasting Corporation in the English and the French languages. Whether these programs are directed to children or adults, entertainment is combined with information whenever possible. Spoken-word programs cover a very wide range of interests and are presented as readings, talks, discussions, documentary programs, dramatizations or in forms combined with music.

Pre-school Broadcasts.-Though many story programs for pre-school-age children are broadcast purely as entertainment, a special series has been developed to give young children, particularly in remote areas, many of the benefits of kindergarten training. This series, Kindergarten of the Air, is broadcast Monday to Friday for children from two and a half to six years of age. Planned with the advice of kindergarten experts and representatives of the Canadian Home and School Federation, the Federation of Women's Institutes and the Junior League, it includes stories, songs, mental games, keeping-fit exercises, information about animal life and nature study, and encourages good habits of hygiene, eating and relaxation. The program is intended primarily for home listening but has been found useful in many organized kindergarten groups and classes.

School Broadcasts.-In an average school year, more than 1,000 school programs, mostly in dramatized form, are broadcast to all parts of Canada. The CBC also provides upwards of 30 minutes daily broadcasting of specifically planned programs by departments of education to meet classroom requirements. These supplementary aids help teachers to stimulate student imagination and strengthen motives for study. The National School Broadcasts series are planned by the National Advisory Council on School Broadcasting to promote among students a stronger consciousness of Canada and its achievements. During the 1953-54 season, seven such series were planned for students from Grade IV to senior high school. These were: Voices of the Wild, on Canadian wildlife; For Shipment Abroad, a series dramatizing the Canadian import-export trade with special emphasis on Canadian port cities; Adventurers All, a series dramatizing outstanding events in

[^125]the careers of Canadian explorers; Hamlet, a full-length performance of the Shakespearian drama; Life in Canada Today, a series of features on the work of Canadians; Commonwealth Round-up, comprising four programs on interesting aspects of other Commonwealth nations with specially recorded effects contributed by the broadcasting organizations in the United Kingdom, Australia, New Zealand and Pakistan; Music in the Making, a series of five broadcasts in which a new approach to music appreciation was used-a composer, Joseph Haydn, tells about his life with particular emphasis on one of his works, The Surprise Symphony, a movement of which was played in each program. This latter series was particularly successful.

The first experimental television programs for school use were presented during the 1953-54 season. These were four broadcasts planned to provide a visual supplement to the four school radio broadcasts, Life in Canada Today. The telecasts were presented in after-school hours for home viewing. Teachers made use of the stimulation and information gained by students viewing the program by conducting follow-up lessons on the next school day. A report on the teachers' evaluation of the experiment was published by the CBC under the title: Can TV Link Home and School?

In the province of Quebec, the CBC's French network broadcasts RadioCollège, a series of weekly programs dealing especially with the fine arts, music, literature, theatrical arts, sciences, religion and philosophy. These broadcasts are not designed for classroom use, being of a more adult nature than those on the English-language networks and scheduled, in the main, for other than school hours.

Particulars of school broadcasts are contained in the manual, Young Canada Listens, and details of the French network series in the manual, Radio-Collège. Both are published annually by the CBC.

Adult Education.-Programs of an adult education nature are presented frequently by the CBC on its radio and television services. In the planning of these programs co-operation is received from various educational organizations. The CBC is an active participant in the work of the Joint Planning Commission, a body established by the Canadian Association for Adult Education for exchange of information and co-ordination of plans for adult education in Canada.

Radio Programs.-Citizens' Forum is a round table program on which a panel of experts discuss important issues of the day. It is arranged jointly by the Canadian Association for Adult Education and the CBC. Its French counterpart, Les Idées en Marche, is planned in co-operation with La Société d'Education des Adultes. A similar type of program, but one prepared specially for rural listeners, is National Farm Radio Forum, arranged in co-operation with the Canadian Federation of Agriculture and the Canadian Association for Adult Education. All these forum programs are heard by organized listening groups, which continue the discussion of the topic at the conclusion of the broadcast.

For the past three summers the evening sessions of the Couchiching Conference have been broadcast. This week-long conference, organized jointly with the Canadian Institute on Public Affairs, examines Canadian and international affairs in open meetings and group discussions.

Other programs of an educational nature are Cross Section, a series of drama documentaries dealing with economic and social questions; various dramatized series in the field of human relations and mental health; and Trans-Canada Matinée, a daily afternoon program including informative talks and commentaries designed specially for the woman in the home. This latter program was one of six CBC programs that captured a First Award at the 1954 Exhibition of Educational Radio and Television Programs at Columbus, Ohio. On the French Network, Forum de Radio-Parents presents broadcasts designed to help parents on the subject of child care, and genersl questions sent in by parents are answered by psychologists in the series Le Courrier de Radio-Parents. For women listeners the daytime program Femina is presented twice weekly.

In addition, talks on a wide range of subjects including international affairs, Canadian history and community activities are broadcast regularly.

Television.-Organized in co-operation with the Universities of Toronto and Montreal and McGill University, the program Exploring Minds presents-in panel or lecture form-examples of the work of the modern university. On This Week the important world news of the preceding week is discussed by a panel of experts. Fighting Words is a program on which guest experts in the fields of arts and sciences discuss controversial quotations sent in by viewers. A daily program-Living-presents information of interest to consumers on a wide variety of commodities and services.

## Section 4.-Public Libraries

The National Library of Canada, authorized by the National Library Act of June 18, 1952 (1 Eliz. II, c. 330), formally came into existence on Jan. 1, 1953. The work formerly carried on by the Bibliographic Centre and the staff of the Centre were then absorbed by the National Library, which came under the administration of the Secretary of State.

National Library Act.-The Act provides for the establishment of an Advisory Council consisting of fifteen members, including in that number at least one representative from each of the ten provinces; the appointment of a National Librarian, Assistant National Librarian, and staff. Duties of the National Librarian include the establishment of a National Union Catalogue listing the books in every important collection in Canada; the purchasing of book stock; and the publication of a National Bibliography listing books published in Canada, written by Canadians, or of special interest to Canadians. Section II of the Act requires two copies of each book published in Canada to be supplied to the National Librarian within one month of the date of publication; one copy of expensive books must be deposited.

Sketch plans for the National Library building have been prepared for submission to the National Capital Planning Committee. The acquisition of book stock is limited until permanent quarters are available, but activities in other departments of the Library reflect noteworthy progress. The coverage of Canadiana, a bilingual monthly publication listing new Canadian publications, has been expanded to include those issued by all provincial governments. By Mar. 31, 1954, individual
library catalogues representing some 4,720,000 volumes in some 60 libraries had been microfilmed for the National Union Catalogue. A department to catalogue the volumes now available has been organized and will soon begin its work using the Library of Congress classification. In addition, the Library has assumed the duty of receiving, registering and acknowledging all books deposited under the terms of the Copyright Amendment Act. Publications deposited in accordance with both this Act and the National Library Act will be received and checked at the same point, thus providing a more convenient method for publishers to comply with the regulations.

Regional Library Service.-Regional library service, or an adaptation thereof, now functions in Newfoundland, Prince Edward Island, Nova Scotia, Ontario, Saskatchewan, Alberta and British Columbia. In addition, a Director of Regional Libraries was appointed in January 1954 by New Brunswick, preparatory to the establishment of a regional library system in that Province, and preliminary surveys are being undertaken in Manitoba.

Statistics for the regional libraries in operation during 1953 appear below; those for the two Alberta Regional Libraries for the first time.
1.-Summary Statistics of Libraries Organized for Regional Collaboration, 1953


[^126]1.-Summary Statisties of Libraries Organized for Regional Collaboration, 1953-concl.

| Regional Organisation | Participating Libraries | School Deposits | Other Agencies | Population Served | Borrowers |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. |
| Newfoundland Regional Libraries ${ }^{1}$. | 26 | ${ }^{*} 490$ | $\because$ | 130,000 98,500 | $\begin{array}{r} 25,385 \\ 13,500 \end{array}$ |
| Prince Edward Island Libraries.... | 24 | 490 | - | 98,500 | $13,500$ |
| Nova scotis Ragional | 7 | 85 | 64 | 37,649 | 9,000 |
| Cape Breton Island. | 9 | 18 | 100 | 111,896 | 27,155 |
| Colchester-East Hants | 4 | 15 | 118 | 41,218 | 5,600 |
| Pictou County $_{\text {Y }}$ - | 4 | - | 133 | 35,000 | 10,624 |
| Ontario County Library Co-operative | 21 | 121 |  | 40,331 |  |
| Bruce........ | 113 | 100 | 二 | 40,331 33,933 | $\cdots$ |
| Fesex. | 9 | 240 | 3 | 90,574 | . |
| Huron. | 34 | 230 | 10 | 49,280 | . |
| Kent....... | 10 | 175 | 14 | 62,000 | $\cdots$ |
| Lambton.. | 20 | 163 | 3 | 75,000 | $\cdots$ |
| Middlesex | 25 | 120 | 32 | 70,000 | .. |
| Oxford. | 18 | 135 | 4 | 35,918 | - |
| Peel.... | 15 | 75 | 1 | 64,343 | . |
| Simcoe. | 20 | 180 | 11 | 97,500 | .. |
| Thunder Bay District | 10 | 12 | 14 | 105,590 | - |
| Victoris........... | 10 | 87 166 | ${ }_{12}^{2}$ | 25,862 | $\cdots$ |
| Welland... | 10 | 166 84 | 12 | 141,998 | $\cdots$ |
| Wentworth.......... Saskatchewan Regional Libraries- | 4 | 84 | 28 | 57,200 | - |
| North-Central Saskatchewan..... | 12 | - | - | 28,728 | 6,228 |
| Alberta Regional LibrarieaBarrhead. | 6 | 20 | - | 5,000 |  |
| Lacombe.... | 2 | 24 | 7 | 14,000 | 3,300 |
| British Columbia Union Libraries- |  |  |  |  |  |
| Fraser Valley. | 11 | 120 | 141 | 116,013 | 30,419 |
| Okansgan Valley. | 55 | 55 |  | 67,561 | 21,943 |
| Vancouver Island..... | 23 | 63 | 172 | 72,878 | 11,987 |

## ${ }^{1}$ Includes Gosling Memorial Library.

Local Public Libraries.-Public library service in Canada includes the large library and its branches in metropolitan areas-sometimes augmented by bookmobile service to outlying districts; small association libraries in villages and hamlets; regional service on a county or wider basis; and the use of boats and the mails to supply remote rural areas. In these ways some 75 p.c. to 80 p.c. of the population receive library service.

The current DBS Survey of Libraries presents statistics on library operations for 1951. Operations of the 782 public libraries surveyed are given in Table 2.
2.-Summary Statistics of Public Libraries, by Province, 1951

| Province | Volumes | Circulation | Borrowers | Expenditure | Full- <br> Time <br> Staff |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | $\$$ | No. |
| Newfoundland...... | 41,649 | 264,837 | 24,209 | 114,489 | 17 |
| Prince Edward Island. | 77,417 | 218.635 | 27, 213 | 35,033 | 6 |
| Novs Scotia, ${ }_{\text {New Brunswick }}$ | 144,114 91,032 | 505,793 172,283 | 42,539 14 | 189,583 40,238 | 40 |
| New Brunswick | 1,079,172 | 172,283 $1,484,468$ | 14,048 86,564 | 40,238 652,557 | 12 |
| Ontario. | 4,523,640 | 15,696,486 | 839,423 | 3,662,369 | 770 |
| Manitoba..... | -179,326 | -874,313 | 48,034 | 3,207,349 | 60 |
| Saskatchewan | 323,445 | 938,133 | 50,673 | 256,791 | 51 |
| Alberta. | 402,563 | 1,765,593 | 76,191 | 352,987 | 81 |
| British Columbi | 603,690 | 3,179,379 | 181,713 | 936,617 | 208 |
| Totals. | 7,466,048 | 25,498,920 | 1,390,607 | 6,448,013 | 1,397 |

Of the total libraries, 85 were in cities of over 10,000 population. They employed 1,128 of the 1,397 full-time staff members ( $80 \cdot 7$ p.c.) and accounted for over 75 p.c. of the total expenditures. Median salaries in the city libraries for 1951 varied with the size of the city as follows:-

| Population of City | Chief Librarian | Heads of Branches or Divisions | Other Librarians | Other Classyfications |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| Cities 10,000-24,999. | 3,033 | 2,225 | 2,035 | 1,787 |
| Cities 25,000-99,999. | 3,875 | 2,590 | 2,068 | 1,950 |
| Cities 100,000 or over. | 5,000+ | 3,425 | 2,094 | 2,020 |

In addition to their primary task of circulating reading material, the public libraries undertake varied special services. City libraries in 1951 lent over 90,000 films and 109,437 records, gave 434 concerts and 94 art exhibitions and presented 378 radio and drama shows. Some 4,879 story hours for children were presented, usually on Saturday mornings.

Academic Libraries.-The 179 libraries surveyed in 1951 contained about $7,388,000$ volumes. Full-time staff numbered 496 and an additional 546 worked part-time. Of all these, 244 were trained in library science.

Government Libraries.-Sixty Federal Government libraries reported $1.738,838$ volumes and 34 provincial government libraries reported 962,332 volumes in 1951. The federal libraries employed 225 full-time staff members and the provincial libraries had 111.

## Section 5.-Canada and the United Nations Educational, Scientific and Cultural Organization

Liaison between governmental and voluntary organizations in Canada and the United Nations Educational, Scientific and Cultural Organization is the responsibility of the Department of External Affairs. Canadian participation in UNESCO includes representation at the Sessions of the General Conference; the supplying of advice and information on Canadian matters to the Secretariat of UNESCO; co-operation in projects undertaken by the Organization; the sending of Canadian representatives to international seminars sponsored by UNESCO; the administration of UNESCO fellowships and scholarships tenable in this country; and the promotion of UNESCO publications.

General Conferences of UNESCO are now held every two years. At these conferences progress during the preceding years is reviewed and a program for the next two years is determined. Fundamental education and technical assistance are regarded as the most important parts of the UNESCO program. In the scientific field, research toward improving the living conditions of mankind is emphasized and encouragement is given to projects designed to improve scientific liaison. UNESCO also endeavours to promote cultural exchanges, improve the means of communication among the peoples of the world and stimulate the exchange of persons between nations.

The total UNESCO budget for the year 1954 was $\$ 9,461,449$, and Canada's share was 3.54 p.c. or $\$ 334,935$.

More than 100 voluntary organizations, official agencies and departments cooperate with the Department of External Affairs in arranging Canadian participation in the UNESCO program. Canadian support of UNESCO is considered to be an integral part of the country's support of the United Nations program of peace through international understanding.

## PART III.-SCIENTIFIC AND INDUSTRIAL RESEARCH*

## Section 1.-The National Research Council

Organized research in Canada on a national basis dates from 1916 when the Government of Canada established the Honorary Advisory Council for Scientific and Industrial Research under a Committee of the Privy Council. Provision was made thereby for the planning and integration of research work, the organization of co-operative investigations, post-graduste training of research workers, and the prosecution of research through grants-in-aid to university professors. This was the basis of the Council's work from 1916 to 1924.

A Special Committee of Parliament, appointed to study a recommendation for the establishment of national laboratories, endorsed the proposal and the Research Council Act was revised by Parliament in 1924. Temporary laboratories were secured and research on the utilization of magnesian limestones for refractories was carried out so successfully that a wartime industry, established during World War I, was re-established on a large scale. As a result, in 1929-30 the Government provided funds for new laboratories.

The National Research Building on Sussex Street, Ottawa, was opened in 1932 and in 1939 construction was begun of the aerodynamics building on a 130-acre site adjacent to the Rockeliffe Airport of the Royal Canadian Air Force. Later, other buildings were erected on this site, including wood-working and metal-working shops and separate laboratories for research on engines, gas and oil, hydraulics and structures. These facilities have since been enlarged and extended and new buildings have been provided for engineering, low-temperature studies and high-speed aerodynamics. In 1952 a cosmic-ray laboratory, a thermodynamics building and a large structure to house the Division of Applied Chemistry were added and in 1953 a modern laboratory was constructed, in one of the Montreal Road service tunnels, for the exact measurement of surveyors' tapes. That year also saw the completion of the large and beautiful Building Research Centre, and the construction, on a new 250 -acre site on the opposite side of the road, of the new headquarters for the Division of Radio and Electrical Engineering. An underpass connects the two areas. The flight research section of the Division of Mechanical Engineering was transferred from its temporary quarters on the Arnprior Aerodrome to permanent quarters at Uplands Airport near Ottawa.

A Prairie Regional Laboratory, constructed on the campus of the University of Saskatchewan, has been in operation since June 1948. A Maritime Regional Laboratory, built on Dalhousie University campus at Halifax, N.S., was opened in June 1952. The co-operation of a large oil company has made it possible for the Division

[^127]of Building Research to establish a Permafrost Research Station at Norman Wells, N.W.T. This is one of the most northerly building research establishments in the world.

The National Research Council consists of the President, two Vice-Presidents (Scientific), one Vice-President (Administration) and 17 other members, each of the latter group being appointed for a term of three years and chosen to represent industry, labour or research in one of the basic natural sciences. Many of the members are drawn from the science departments of Canadian universities.

The Council's scientific and engineering activities are organized in nine Divisions and two regional laboratories, each with its own Director. Four laboratory Divisions are concerned with fundamental and applied studies in the natural sciences: applied biology, pure and applied chemistry, and physics. Three others are devoted chiefly to engineering work-building research, radio and electrical engineering, and mechanical engineering which includes aeronautics and hydraulics. The Division of Medical Research has no laboratories of its own but awards grants-in-aid and fellowships tenable chiefly in the medical schools of Canadian universities.

In addition to its basic research functions, the Council operates an Information Service with a field staff of technical officers who assist the smaller industries across Canada by bringing their operating problems to the attention of the Council. Through a trained research staff, using the extensive library facilities available to the Council, it is usually possible to provide the required information at very short notice.

The Council aids industry in two other important ways. A free and constant flow of personnel and information is maintained between the Council laboratories and industrial laboratories, the aim being to have Canadian industry use the Council's laboratories just as the units of a large company use their own laboratories as sources of scientific information and assistance. The Council also undertakes for any firm, under contract, research problems that cannot be solved by private consulting and testing laboratories and, in return, obtains assistance from many companies. The Council has long-standing and intimate contacts of this co-operative kind with many Canadian industries in various fields.

Associate committees were established by the National Research Council early in its history and have been continued to date. Throughout the years, hundreds of specialists have accepted invitations from the Council to serve on committees and have brought the wealth of their knowledge and experience to bear on the solution of research problems put before them. Members of committees give their time and effort to these special studies without fee or recompense, and their assistance is a source of great strength to the Council.

Assisted research grants have been made by the Council since its inception in 1916. These awards are given to heads of university science departments for the purchase of needed equipment and the employment of junior helpers, usually students. Aid of this kind has been of considerable assistance in enabling the universities to put into operation the excellent graduate schools that now exist in Canada. In 1953-54, more than $\$ 2,000,000$ was provided out of Council funds for basic research at Canadian universities.

Scholarships and grants in aid of research are awarded annually by the National Research Council. Scholarships awarded in science and engineering include Bursaries, Studentships and Fellowships which have values of $\$ 800, \$ 1,100$ and $\$ 1,400$, respectively, for the academic year, to which a summer supplement of $\$ 800$ may be
added. In addition, Special Scholarships valued at $\$ 1,900$ per year and Postdoctorate Overseas Fellowships at $\$ 2,500$ are offered. The Council also awards two classes of Graduate Medical Research Fellowships, which have values of $\$ 1,800$ to $\$ 3,500$ for awards involving graduate training, and up to $\$ 5,000$ for senior awards in advanced research. Graduste Dental Research Fellowships of similar value are also made. Some 200 of these different awards were made for 1953-54, totalling in value over $\$ 265,000$.

In recent years (since 1948), the National Research Council has opened its doors to a limited number of post-doctorate fellows who have been carefully selected on the basis of merit from the universities of the world. There are now about 100 of these keen young scientists working in the laboratories, most of them in chemistry, physics or applied biology. They are appointed for one year only but may be retained for a second year if conditions warrant. This flow of young men through the laboratories has a most stimulating effect; it creates a sort of university atmosphere that is both fresh and invigorating and keeps the Council young.

Principal Activities, 1953-54.-In the Division of Applied Biology and at the Prairie Regional Laboratory much work has been done in 1953-54 on industrial uses for surplus wheat, other agricultural products and waste materials. Some of the projects undertaken in the Division of Applied Biology are outlined in the following paragraphs.

Lsboratory and pilot-plant studies of the production of butylene glycol from cereal grains, beet molasses and waste sulphite liquor have been completed. The product is of potential value in the chemical industry and, in one form, as an antifreeze. Citric acid, now imported in large quantities, has been produced in high yield by a new and more rapid method of submerged fermentation of beet molasses; laboratory studies have been completed and pilot-plant investigation is in progress. Work has also been carried out on production of frozen concentrated milk. For normal storage conditions, slow freezing has been found to give a more stable product than rapid freezing.

At the Prairie Regional Laboratory, studies are being carried out on the drying of damp grain by a new process, with a view to the development of a more economical farm or country-elevator drier. The process originated in the Division of Applied Chemistry.

The Prairie Laboratory has carried out many analyses of the constituent fractions of the oils from flax, rape and safflower seeds and has a program of work under way which should help in making rape oil, in particular, acceptable to the food trades. Most food oils used in Canada are now imported and it is considered important that Canada produce its own requirements by replacing part of the acreage now devoted to wheat with oil-seed crops. Studies are also being made on the fractionation of linseed oil with a view to improving its quality for various industrial purposes.

Pilot-plant studies on the production of insulating boards (similar to Ten-test) from wheat straw have shown that excellent boards of superior quality can be made. Commercial production will be undertaken in the near future if the economics of the project are satisfactory to the industry.

Basic studies on the cereal rusts are continuing. An attempt is being made to grow these organisms in culture in order to ascertain the reason for so many different strains arising. Work is also being done on the biochemistry of starch, lignin, cellulose and other constituents of wheat.

Scientists at the Maritime Regional Laboratory are interested in a different type of project and have concerned themselves with the study of the composition of seaweeds and their use as feeds and fertilizers; the investigation of Irish moss of which millions of pounds are exported annually; the extraction of the gelling agent from this moss and much information about it that can be used in the commercial production of better extracts; and the search for a good method for preparing algin from rockweeds which are abundant in the Maritime Provinces. Algin finds many uses in the textile, food and pharmaceutical industries.

Highlights of the work of other Divisions are as follows:-
Scientists and engineers in Building Research made soil temperature studies in the Far North as part of their permafrost investigations in co-operation with the Army, extended the snow cover survey of Canada, and completed the full-scale testing of a large pre-stressed, pre-cast, $100-\mathrm{ft}$. reinforced concrete beam.

In the Division of Mechanical Engineering, a start was made on a hydraulic model of a navigation lock for the St. Lawrence Seaway. Designs were prepared for two models of the St. Lawrence River, each representing a five-mile section. A special "re-heat" system, developed to increase the thrust of a jet engine by injecting additional fuel into the tail pipe, reached the testing stage. Aircraft icing, deicing, and anti-icing research yielded valuable results; the low-temperature laboratory participated in flight testing, under icing conditions, of a CF-100 aircraft equipped with icing protection.

The Division of Radio and Electrical Engineering installed an automatic radio beacon at Charles Island, Hudson Strait. Microwave trial equipment for two isolated fog-alarm stations on the Pacific Coast was designed and built and a machine for sorting paper forms, such as cheques, was patented. The Division devised and patented a new type of mechanical a-c line-voltage stabilizer, which is now being manufactured under licence by a Canadian company. Engineers from the Division and scientists from medical institutes collaborated in the development of electronic devices for use in surgery, including apparatus for resuscitation of the heart.

Developments that have been brought to a reasonably complete stage in the Division of Applied Chemistry include: a coating for transparent surfaces to render them water repellent; a high-strength rubber-base cement, suitable for bonding rubber and various solids; and an antifreeze formulation that prevents the corrosion of zinc-containing alloys frequently encountered with inhibited glycol solutions at low temperatures.

The Division of Physics operates in two Branches-pure and applied. One of the main functions of the applied Branch is the work on standards of length, mass, electricity, radiation, etc. For instance, one of the groups calibrated a set of carbon filament lamps by the use of a small refractory tube immersed in molten platinum; the brightness of the open end of such a tube at the temperature of the solidification of the platinum is recognized by international agreement as the primary standard of light. This Branch also carried on, among many other things, the mapping of urban areas, aimed at providing economical photogrammetric methods for accurate largescale plans. In the pure physics Branch, a contribution has been made to the knowledge of how certain metals behave over a wide range of temperatures from close to the absolute zero ( $459 \cdot 4^{\circ}$ below zero F.) up to $200^{\circ} \mathrm{C}$. ( $392^{\circ} \mathrm{F}$.). A universal detector has been developed which can be used to pick out any atomic or molecular beam; the apparatus has already been used to study silver, gold, and boron; until recently these three atoms could not be investigated by atomic beam methods.

The efficiency of methods for the production of Raman spectra of gases has been increased; this improvement has made it possible, for the first time, to establish precise values for the geometrical dimensions of the benzene molecule. Variations of cosmic ray intensity at sea level have been studied, by means of Geiger counters and similar equipment, at Ottawa and at the Arctic Weather Station at Resolute Bay. To obtain new information on primary cosmic rays and nuclear reactions caused by cosmic rays, several batches of photographic plates have been sent by balloons to altitudes of over $100,000 \mathrm{ft}$. (Scientists in the United States helped with this project.)

The Pure Chemistry Division is concerned with investigations in the major fields of chemistry-organic, physical, inorganic, and colloid. Most of the work is fundamental-trying to find out why certain chemical reactions behave as they do, and determining the ultimate spatial structure of unknown compounds.

In medical research, there is the closest integration of the Council's fellowship and medical research program with similar programs of the Defence Research Board, the National Cancer Institute, the Canadian Arthritis and Rheumatism Society, and the Federal Departments of National Health and Welfare and of Veterans Affairs. In 1953-54 five consolidated research grants and 160 individual awards were made by the Division of Medical Research and 21 fellowships were provided. The Division also supported, through substantial grants, the production of growth hormone for experimental purposes by the Connaught Medical Research Laboratories.

In conclusion, it should be noted that the results of pure research, owing to its highly theoretical nature and its essentially long-range character, cannot be "pinned down" easily on a year-by-year basis. Nevertheless, one of the Council's projects in pure research won wide popular acclaim, when scientists at the Prairie Regional Laboratory successfully synthesized three sugars-maltose, sucrose (common sugar), and trehalose. This achievement was hailed as one of the outstanding accomplishments of the scientific world in 1953.

## Section 2.-Research in the Atomic Field*

Atomic energy research in Canada had its origin over 50 years ago when Ernest Rutherford came to this country as Macdonald Professor of Physics at McGill University. There, in collaboration with F. Soddy, he announced in 1902 the results of his investigation of the nature of radioactivity, which had been discovered in 1898 by Henri Becquerel. Rutherford determined the fundamental laws governing spontaneous disintegration of radioactive materials, and went on, both in Canada and in England, to make further discoveries of great importance in the development of atomic energy.

Fundamental research into the structure of the atom continued in many countries on a relatively small though fruitful scale over the ensuing years until the first recognition of nuclear fission was announced in Berlin, Germany, by O. Hahn and F. Strassman on Jan. 6, 1939. Soon it was discovered that when a neutron split a uranium-235 atom, not only was a remarkable quantity of energy released, but also additional neutrons were given off. This suggested the possibility of creating a chain reaction so quick that a new and tremendously powerful explosive would be available for military use.

[^128]The onslaught of World War II in August 1939 pushed into the background interest in harnessing the vast energy now recognized to be contained within the nucleus of the atom, but when scientists drew to the attention of their respective governments the possible military application of atomic energy, development work was accelerated.

In Canada, first investigation of the possibility of releasing a large quantity of energy from uranium took place under the direction of Dr. George C. Laurence in 1940 at the National Research Council.

While experiments continued at the National Research Council, the United States moved quickly toward achieving a chain reaction, and on Dec. 2, 1942, the first nuclear chain reaction to be initiated by man began a controlled release of the tremendous energy stored within the atom. This was done by American scientists, at the University of Chicago, working under the direction of Enrico Fermi.

In 1942, the Governments of the United Kingdom and of Canada agreed to set up a joint Canadian-United Kingdom atomic energy project in Canada. By January 1943, British scientists arrived to work with hastily recruited Canadian scientists in a research centre established on Simpson Street, in Montreal, Que. In February, the group moved to the University of Montreal where considerable progress was made in the investigation of fundamental nuclear processes.

At the Quebec Conference in August 1943, President Roosevelt, Prime Minister Churchill and Prime Minister Mackenzie King agreed that closer co-ordination of the allied efforts in the nuclear field was desirable and it was agreed that a large heavy-water pile should be built immediately in Canada. A technical committee consisting of General Leslie Groves, Sir James Chadwick and Dr. C. J. Mackenzie was set up to co-ordinate this joint program on atomic energy. Dr. J. D. Cockcroft of Britain was appointed Director and a Crown company, Defence Industries Limited, was engaged to undertake the detailed design and construction of the atomic energy pile at Chalk River, about 130 miles west of Ottawa. Construction was started in 1944 and by September 1945 a small low-power atomic energy pile, known as ZEEP, was in operation. This was the first pile, outside of the United States, to produce energy by nuclear fission.

In December 1946, by Act of Parliament, all matters concerning atomic energy in Canada were placed under the Atomic Energy Control Board. The Board immediately asked the National Research Council to assume responsibility for the operation of the establishment at Chalk River, and the Council formally took over that responsibility on Feb. 1, 1947. By then, 400 scientists and engineers were engaged on research and development of atomic energy, the largest organization ever created in Canada to carry out a single research project.

Dr. David A. Keys took on direction of the Chalk River project in 1947, with the research program being directed by Dr. W. B. Lewis. Dr. Cockeroft returned to England to take charge of the United Kingdom atomic energy project, which was founded in 1946.

In July 1947, Canada's second reactor (the term reactor has replaced "pile" in atomic energy parlance) went into operation. This reactor was of special significance because it had the highest neutron flux of any known reactor and, like ZEEP, used natural uranium as a fuel and heavy water as a moderator. It has produced radioactive isotopes with a high specific activity for which there is great demand.

Purchasers of Canadian isotopes include the United States, the United Kingdom and various countries in Western Europe and South America. Shipments have also been made within Canada to industries, hospitals and universities.

The growing view that large-scale industrial application of atomic energy was closer at hand than had been expected made the Government decide to have the Atomic Energy project operated by a separate organization freed from all other responsibilities. A new Crown company, Atomic Energy of Canada Limited, was therefore incorporated in February 1952, under the Atomic Energy Control Act, 1946. The new company took over the operation of the project from the National Research Council on April 1, 1952. Dr. C. J. Mackenzie became its first President, and was succeeded in November 1953 by W. J. Bennett, who was also President of Eldorado Mining and Refining Limited. Dr. Mackenzie continued as President of the Atomic Energy Control Board.

In June 1954, the Government decided that the company responsible for the supply of uranium, Eldorado Mining and Refining Limited, and the company responsible for the research and development aspects of the program, Atomic Energy of Canada Limited, should be joined as the work at Chalk River had reached the point where it was believed possible to produce electricity (by the heat created within reactors) within an economical cost range.

So that the work of these two Crown companies could be more closely integrated in the development of atomic power, it was decided that a holding company should be incorporated. The responsibilities of the original companies would not be changed but they would, in future, be Divisions of the holding company which would report to a Cabinet Minister-the Chairman of the Committee of the Privy Council on Scientific and Industrial Research.

In the 1953-54 atomic power program a "feasibility study group" was established in co-operation with several public utilities and private companies, which had as its immediate goal the production of specifications for a pilot power reactor and the evaluation of cost per kilowatt of the electricity which such a reactor would produce.

In June 1954, the Government set up an Advisory Committee on Atomic Power Development, consisting of senior executives of power companies throughout Canada and this committee will keep Canadian power producers informed of the nature and scope of the program at Chalk River. The committee also assists in evaluating the economic importance of possible atomic power in the various regions of the country.

The development of atomic energy was furthered by the experience gained by the decontamination and reconstruction of the NRX reactor which broke down Dec. 12, 1952, and went back into operation Feb. 17, 1954.

Prior to the NRX breakdown it had been feared that a major accident with a reactor of such high power rating might force its abandonment. The decontamination was carried out without injury to personnel despite an unprecedented spreading of highly radioactive fission products and methods of decontamination were developed for a variety of materials. Scientists and engineers gathered information which will be invaluable in future reactor designs. The restoration of the NRX reactor, believed to be the first reactor of high power to be taken apart and reconstructed after several years of operation, has been followed with considerable interest by atomic energy establishments in other countries.

Modifications made to the reactor during its reconstruction have made possible steady operations at $40,000 \mathrm{kw}$-a power output 33 p.c. higher than was attainable before the breakdown-with the result that a shorter time is now required for many research experiments and for the production of radioactive isotopes. Furthermore, more advanced experiments relating to atomic power development are possible and the testing of components for the new NRU reactor is more effective.

Satisfactory progress was made in the construction of the new NRU reactor at Chalk River. Like the NRX reactor, it will use natural uranium for fuel and heavy water as a moderator. The fuel elements of the NRX reactor are cooled by running river water directly through the reactor. In the NRU reactor, however, the heat will be carried out of the reactor by the circulation of the heavy-water moderator to heat exchangers from where the heat will be carried away by river water. The NRU reactor, moreover, will have a considerably higher neutron flux (density of neutrons within the core).

The Physics Division of the Corporation continued experiments with the Van de Graaff generator, the low-voltage accelerator, and the beta ray spectrometer. Experiments with these machines, together with work previously carried out with a beam of neutrons from the NRX reactor, have led to additional knowledge of nuclear energy output and of the structure of the atomic nucleus.

New and improved electronic instruments were designed for use with the NRX reactor, and continue to be studied in the search for greater reliability and reduced size. A new gamma ray health monitor was developed, for example, and has been in satisfactory operation for several months; development of radiation detection instruments for the Department of National Defence also is continuing.

The Chemistry and Reactor Research Division is carrying out extensive experiments to obtain data upon which the designs of future reactor systems will be based.

Studies have been made of the use of plutonium as a nuclear fuel and new arrangements of fuel elements for power reactors have been studied with the aid of the ZEEP reactor. Chemical and metallurgical methods for processing irradiated uranium fuel elements continue to be developed. The Department of Mines and Technical Surveys is studying the corrosion of these metals and their alloys in different materials that might be used as coolants in reactors. The Department continues to supply the personnel for the Company's Metallurgy Branch.

In the Biology Branch radioactive isotopes are being used to study deficiency diseases in mammals and the synthesis of essential constituents of living cells. Studies of the mechanism by which radiation affects living material were continued with the aid of rapidly reproducing micro-organisms.

The Commercial Products Division of Atomic Energy of Canada Limited, which has its headquarters in Ottawa, handles the marketing-some of it inter-national-of radioactive isotopes produced at Chalk River. The Division's catalogue lists more than 100 different isotopes which may be purchased. Their industrial use ranges from testing welds to the control of thickness of material, such as paper, as it comes through the manufacturing machines. Agriculture and medicine are also served: isotopes such as iodine-131, phosphorus-32, and gold-198 are for use in the human body. The Division also provides an advisory service to users of radioactive isotopes, and a consulting and operating service which includes experimental or research work on a contract basis.

The production of isotopes at Chalk River ceased while the NRX reactor was being reconstructed. However, a supply of certain long-lived fission products had accumulated and these continued to be sold. The United States Atomic Energy Commission assisted the Division by making available certain processed isotopes. From all sources of supply, the Commercial Products Division made more than 1,000 shipments during 1953-54. Moreover, sufficient radioactive cobalt-60-the source of gamma rays in the Cobalt Beam Therapy Units used in the treatment of cancer-was recovered from the NRX reactor to allow the installation of several complete therapy units at various hospitals and the manufacture of the units that contain the cobalt-60 sources was continued at the Division's shops in Ottawa. Immediately after the reactor went back into operation in February 1954, the manufacture of the irradiated cobalt was resumed.

## Section 3.-Other Scientific and Industrial Research Facilities

Aside from the work of the National Research Council and Atomic Energy of Canada Limited, Canadian research is carried on by various federal agencies, provincial organizations, universities and industries.

Several provinces in Canada have established Provincial Research Councils to stimulate and support research on problems having special provincial significance.

The universities, of course, form an extremely important part of the Canadian pattern of research, much of it along fundamental lines; however, practical problems are not neglected, especially those of regional interest.

All three types of institutions-federal, provincial and university organizations -have an interest in problems of industrial significance: this is part of the current Canadian pattern of research. Though many Canadian industries now possess research facilities-some of them quite extensive-the main bulk of industrial research to date has been done under government auspices.

Thus the unique problems of the country, particularly its large area coupled with a small population, have led to a typically Canadian organization of research, of which a very strong associate committee system is perhaps the most distinctive feature.

Federal Institutions.-Although research by industrial concerns has been slow to develop in Canada, government research has expanded rapidly, at first because of the need for speeding up the production of raw materials, which were for many years the basis of Cansda's export trade, and secondly because of the more recent interest in the processing of these raw materials and because of the necessity to meet the needs of national defence. Federal institutions involved in research include the Departments of Agriculture, Fisheries, Mines and Technical Surveys, National Defence, National Health and Welfare, Northern Affairs and National Resources, and Trade and Commerce; the National Research Council; and Crown corporations such as Atomic Energy of Canada Limited. A system of committees, with nation-wide representation, eliminates unnecessary duplication of work from these national research organizations.

The scientific work of the Department of Agriculture is described at pp. 377-378 of this volume, the work of the Defence Research Board in Chapter XXVIII (see Index), specialized work in scientific forest research at pp. 453-461, scientific services concerned with Canada's mineral resources conducted by the Department of Mines
and Technical Surveys at pp. 497-501, investigational work of the Department of Fisheries at pp. 590-594; and the work of the National Research Council at pp. 357-361. The activities of the other federal institutions engaged in research are described briefly in the following paragraphs.

Department of National Health and Welfare.-The Department of National Health and Welfare is engaged in research activities, its Food and Drug Divisions, Laboratory of Hygiene, Occupational Health Laboratory and various clinical services conducting scientific studies in their special fields. The Department has provided considerable funds for research in public health. There are, for instance, federal health grants to assist the provinces in work on the prevention and treatment of crippling conditions in children, mental health, tuberculosis, the control of cancer and of venereal disease. To co-ordinate its medical health programs, conferences are held by representatives of the National Research Council, Defence Research Board, the National Cancer Institute and the Public Health Research Grants Committee. These Conferences provide for reasonably clear definition of the field of each organization and have prevented uneconomical overlapping.

Department of Trade and Commerce.-Rapid development of grain production in Western Canada led to the passing, in 1912, of the Canada Grain Act. This Act is administered by a Board of Grain Commissioners responsible for control of the transportation, weighing, grading and warehousing of Canadian grain. The Board soon encountered problems that required scientific study and a Grain Research Laboratory was established at Winnipeg in 1913.

The Grain Research Laboratory is the main centre of research on the chemistry of Canadian grains. It is well staffed and equipped to provide the service required to help maintain and expand domestic and foreign markets for all types of grain. Each year the Laboratory provides certain information required by the Board for administering the Canada Grain Act. The Laboratory collects and tests samples of various crops to obtain information on the current quality of all grains shipped during the crop year. Fundamental research is also undertaken; the program is directed towards increased understanding of what constitutes quality in cereal grains and towards improving the methods of assessing quality.

Canadian Patents and Development Limited.-Canadian Patents and Development Limited is a Crown corporation established in 1948. The primary purpose of the company is to make available to industry, through licensing arrangements, new processes and improvements in processes developed by the scientific workers of the National Research Council. The services of the company have also been made available to government departments and other agencies, and have been extended to Canadian universities. The company arranges to obtain patents of inventions originating in these agencies and handles all licensing matters for them. Any profits that the company may derive from its licensing arrangements are used for further research and development.

Provincial Organizations.-The fact that only a few provincial research organizations exist does not indicate a lack of interest in research by the provinces. Most provincial governments have university laboratories to consult, particularly about local industrial and agricultural problems. Agriculture is particularly well covered because of its great importance as an export industry; the network of Federal Department of Agriculture laboratories and Experimental Stations, together with agricultural colleges and provincial research councils, provides this industry with a very well-developed research service.

Nova Scotia Research Foundation.-This body was created by the Government of Nova Scotia in 1946 to give its people additional scientific and technical assistance in finding new and better ways to utilize the resources of the forest, the sea, the farm, the mine and the process industries. To this end it seeks to correlate and further scientific work on local problems and available resources. It assists universities, colleges, research groups, industries, provincial and federal departments and individuals by loans of equipment, grants, scholarships, laboratory and summer assistants, library, cartographic, photogrammetric and translation services, and technical information. It has supported or collaborated in work on breeding new varieties of plants and root-nodule bacteria; on antibiotics, poultry, blueberry culture, coalburning equipment, the constitution and underground gasification of coal, the nondestructive testing of mine equipment, the utilization of anhydrite, diatomite, fish waste, gypsum, seaweed, slag, slab wood and fertilizing materials. It has conducted geophysical, geological, seaweed, forest aphidæ and forest ecology surveys and assisted studies on the nutrient cycles of lakes, on X-ray crystallography, and on pressures in underground strata. During the summer of 1954, 85 people were engaged on 27 projects.

Research Council of Ontario.-The Research Council of Ontario was established in 1948 and given the task of advising the Provincial Government on industrial, agricultural and other research activities within the Province. Its responsibility is to establish research projects and programs, whether fundamental or applied, to integrate and co-ordinate all research within the Province, whether public or private, provincial or extra-provincial, and to have public funds sufficient to encourage and carry out necessary research activities.

In addition, the Research Council has the responsibility of administering a scholarship fund which is used for the training of research and scientific workers. Another function of the Council is to encourage the establishment of group research projects in which certain industries and the Provincial Government collaborate.

Saskatcheroan Research Council.-The Saskatchewan Research Council was established in 1947 for "research and investigation in the physical sciences as they affect the economy of the Province of Saskatchewan, and such particular matters as may be brought to its attention from time to time by the Lieutenant-Governor in Council". The term "physical sciences" is given a broad interpretation to include biological sciences, agriculture and engineering. The Council encourages both pure and applied scientific research relating to the resources and economy of Saskatchewan, and works in close co-operation with government departments, the National Research Council and the University of Saskatchewan. Among the current projects supported by the Council are: fundamental studies of lignin and related compounds, beneficiation of uranium ores, application of carbon-14 dating, utilization of wheat starch, cultivation of safflower crop, studies in foundation research, preservation of foods by freesing, winter lubrication, and geological and archæological research. The Council also supports graduate research scholarships.

Research Council of Alberta.-The Province of Alberta set up a Scientific and Industrial Research Council in 1921, the promotion of mineral development within the Province being the chief purpose leading to its establishment. The Council operates under an Act somewhat similar to that setting up the National Research Council and is financed by Provincial Government appropriations. The present program is directed to the application of basic and applied science toward the development of the natural resources of the Province. Investigations include studies
on coal, the Athabasca oil sands, natural gas, geological research and surveys, soil surveys and irrigation research. The Council maintains a gasoline and oil-testing. laboratory and has a group of industrial engineers to provide scientific information to developing industry. The Council laboratories are located at the University of Alberta and work in co-operation with the scientific departments of the University. Operations of the organization are controlled by a council of ten individuals representative of government, the University and industry. The various research projects are under the immediate supervision of advisory committees and the chairmen of these committees form the Technical Advisory Committee of the Council, the body responsible for the integration and operation of the scientific aspects of the program.

British Columbia Research Council.-The British Columbia Research Council, under the sponsorship of the B.C. Department of Trade and Industry, provides a scientific and engineering staff with laboratories at Vancouver, to help British Columbia industries solve their technical problems. Its objective is to enable even the smallest firms to make use of modern technical knowledge and research to improve their competitive position in Canadian and world markets. The Council provides three classes of service: (1) a free information service in collaboration with the National Research Council; (2) assistance to specific firms at cost where information cannot be supplied from existing knowledge; and (3) at the Council's expense, research on problems of general value to the industrial development of the Province.

The Ontario Research Foundation.-The Ontario Research Foundation was established in 1928, and is financed by an endowment fund composed of subscriptions from manufacturers, corporations, private individuals, and a grant from the Provincial Government on a dollar-for-dollar basis with the other contributions. The Foundation carries on research to assist agriculture and industry in developing the natural resources of the Province. A study has been made of the physiography and climate of southern Ontario and also of the parasites found in wildlife in this Province. Many investigations have been undertaken in the industrial field and the Foundation is well equipped to work in metallurgy, textiles, chemistry and biochemistry. The services of the Foundation are at the disposal of industry on a fee basis, and consultative services, testing, short-trial studies and long-term investigations have been undertaken for hundreds of firms. The work has resulted in better products and in more efficient processing.

The Banting Research Foundation.-The Banting Research Foundation supports the work of the Banting and Best Chair of Medical Research in the University of Toronto and aids medical research throughout Canada by making grants-in-aid to those who submit problems of sufficient medical interest to the Board of Trustees. The Board meets and makes grants generally three times a year, around June 1, Oct. 1 and Feb. 1. Five members of the Board of Trustees are appointed by the Board of Governors of the University of Toronto and the Alumni Association of the University of Toronto, and these five members appoint two other Trustees, then the seven members appoint an eighth Trustee.

The Rockefeller Foundation.-The Canadian activities of the Rockefeller Foundation include appropriations to various Canadian universities, institutions and organizations for research in certain limited fields in the natural and social sciences, in the humanities and in medicine and public health, and the financing of postdoctoral fellowships to individual Canadians for work in fields related to the Foundation's general program. Under the public health program, aid is given for teaching in public health and nursing.

University Research.-In eight of the ten Canadian provinces there is at least one major university with graduate-school facilities for training in research. In Ontario there are four; in Quebec, three. In addition, a large number of universities and colleges provide first-class undergraduate training, or training in special fields. Thus, Canadian universities provide adequate training up to the doctorate level in practically all fields of science.

In the main, research in Canadian universities has followed the traditional pattern found in the graduate schools of the British Commonwealth. It has been largely fundamental but, in certain schools, a great deal of research has been done on basic local problems. The universities co-operate with Federal Government departments, provincial government departments, and the National Research Council in researches on most of the natural resources. One such co-operative project has been established at the University of Toronto in the form of a computation centre. This is operated by the University and financially supported by the Defence Research Board and the National Research Council, with the object of developing computation equipment and of training competent operators in this new and complex field of work.

Industrial Research.-In the past, many small industries and some large ones in Canada have been unaware of the value of research to their industries and to the country, partly because many Canadian companies are subsidiaries of companies in the United Kingdom and the United States, and partly because small companies find it impossible to finance their own research. This general problem is well recognized in Canada, but cognizance should be taken of Canada's vast areas, absence of concentration of similar industries, and proximity to the relatively vast research facilities of the United States.

What Canada has done about industrial research, in the face of these rather formidable difficulties, has been partly covered above: in one way or another Canadian universities, provincial institutions and federal organizations have aided Canadian industry.

This picture is changing very quickly. To-day, Canadian industries are rapidly becoming aware of the value of research and many industries now possess research facilities-some of them quite extensive. A survey made by the Canadian Manufacturers' Association a few years ago showed that over $\mathbf{3 6 0}$ of their member companies maintained laboratories in which more than 3,100 persons were employed in research, testing or control. Examples of Canadian industries with powerful research organizations are: Aluminum Laboratories Limited at Kingston, Ont.; Consolidated Mining and Smelting Company at Trail, B.C.; and Ayerst, McKenna and Harrison Limited at Montreal, Que.

Aluminum Laboratories Limited undertakes both fundamental and applied research; its divisions include an industrial group to bridge the gap between scientific development and commercial application, plus mechanical testing, metallography, electro-metallurgy, physics, chemical-metallurgy, analysis and documents. Experimental alloys are constantly being produced and tested for such properties as hardness and resistance to corrosion.

The Consolidated Mining and Smelting Company maintains a large Research and Development Division. It has special laboratories equipped for study in oredressing, electrolysis, gas reactions, metallographic and petrographic work, X-ray
diffraction of crystals, materials testing, and instrument design, and has many important developments to its credit, including the differential flotation process used on ores of the famous Sullivan mine.

Ayerst, McKenna and Harrison Limited has followed an extensive research program for some years in such fields as vitamins, antibiotics, liver extracts, bacteriological products, sex hormones, gland products, and veterinary medicines. It also does basic research and supervises the Canadian Government plant at St. Laurent for the large-scale production of penicillin.

Other companies with sizable research departments represent many diversified interests, for example: Canadian Industries Limited, International Nickel Company, Dominion Rubber Company, Imperial Oil Limited, Shawinigan Chemicals Limited, the Maple Leaf Milling Company, Canadian Breweries Limited and Canada Packers. There are, of course, many others.

To an increasing extent, recent scientific developments are leading to a reasonably swift industrial application, as shown by the establishment of such companies as Isotope Products Limited at Oakville, Ont., and Computing Devices of Canada Limited at Ottawa, Ont.

To date, however, a large amount of industrial research continues to be done under Government auspices, and sometimes with the co-operation of universities. Two further examples of this Canadian habit of co-operation between industries and other organizations may be cited: the Research Division of The Hydro-Electric Power Commission of Ontario, a provincial service, and the Pulp and Paper Research Institute, intimately associated with McGill University. These organizations are briefly described in the following sections.

The Hydro-Electric Power Commission of Ontario.-The Research Division of Ontario Hydro, with a present staff of 300 , provides testing, investigation and research services for all phases of the utility's engineering design, construction work, and system operation and maintenance. The Division maintains a close liaison with other research organizations and power utilities, and staff members participate in the committee work of major technical societies and standardizing associations.

Electrical investigations pertain to improvements in equipment for generating, transmitting, distributing and utilizing power. Problems of electrical insulation, system disturbance recording, protection against lightning, energy metering and illumination are among those studied in such investigations. Attention is given to the performance and efficiency of power equipment, to improved measuring techniques, and to means of minimizing the hazards of electric shock.

Among the structural and mechanical topics studied are the following: metallic corrosion; stresses in structures; noise and vibration conditions; soil mechanics as related to foundations, roads, and earth dams and dykes; the physical properties of structural components and of numerous items such as conductor joints and line hardware; the mechanical performance and safety features of various types of machines; welding materials, techniques and applications; and a variety of problems associated with the design of concrete structures, the application of masonry materials, and the production, placement and quality control of all concrete used.

In addition to chemical analyses and tests performed on a wide range of materials and products purchased, chemical research work is conducted with regard to
such subjects as wood preservation, plastics applications, protective costings, brush and weed control, lubrication, liquid electrical insulants, water treatment, thermal insulation, and corrosion prevention.

Other studies contributory and supplementary to the main branches of work are carried on in the fields of physics, biology, meteorology, petrology and mathematics.

The Pulp and Paper Research Institute of Canada.-Because so much of the Canadian economy is dependent upon pulp and paper, the need has long been recognized for research on cellulose chemistry and other technologies associated with the use of cellulose. In 1913 the Federal Government established the Forest Products Laboratories in Montreal. Its Pulp and Paper Division began to receive support from the pulp and paper industry in 1925 and soon after started to work closely with the Chemistry Department of McGill University. The present building on the University grounds was opened in 1929 to provide increased accommodation and facilities for its expanding activity in pulp and paper research. In 1950, the Institute became an independent corporation under federal charter, administered by a Board of Directors consisting of appointees from McGill University, industry, and the Federal Department which is now Northern Affairs and National Resources.

This Corporation has taken over the building it occupied on the University grounds, together with all its equipment-the land remains University property and is lent to the Corporation. The Corporation has complete control of the operation, subject to the provision that work leading to degrees will be under the control of the appropriate faculties of the University.

McGill's entire Division of Industrial and Cellulose Chemistry and part of the Division of Physical Chemistry form integral parts of the Institute; to some degree, the Institute has also become the bureau of standards for the pulp and paper industry.

Numerous contributions to the fundamental knowledge of the chemistry of cellulose and lignin, the chemical and mechanical pulping of wood, the behaviour of fibres in water, and the testing of pulp and paper have been made by Institute personnel. At present, studies in physical chemistry are being conducted mainly on the surface chemistry and swelling of cellulose, and the flocculation of suspensions of fibres, while research in organic chemistry is being carried out on the reactivity of cellulose, the properties and constitution of cellulose derivatives, and the chemistry of lignin and of bark. Much work is also being done on the various methods of producing chemical pulp.

## CHAPTER IX.-AGRICULTURE

## CONSPECTUS

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Note.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Agriculture, including stock-raising and horticulture, is the most important of the primary industries of the Canadian people, employing, according to the Census of $1951,15 \cdot 6$ p.c. of the total labour force and $19 \cdot 2$ p.c. of the labour force males. In addition, agriculture provides the raw materials for many Canadian manufactures and its products in raw or manufactured form constitute a very large percentage of Canada's exports. The area of agricultural land is shown by province at p. 20 of this volume.

## Section 1.-Federal Government in Relation to Agriculture*

The creation of the Department of Agriculture is provided for in Sect. 95 of the British North America Act (1867), which states, in part, that "in each province, the legislature may make laws in relation to agriculture in the province" and that "the Parliament of Canada may from time to time make laws in relation to agriculture in all or any of the provinces; and any law of the legislature of a province relative to agriculture, shall have effect in and for the province as long and as far as it is not repugnant to any Act of the Parliament of Canada". As a result of this provision, there now exists a Department of Agriculture, with a Minister of Agriculture at its head, in the Federal Government and in each of the provinces except Newfoundland where agricultural affairs are dealt with by the Agricultural Division of the Department of Mines and Resources.

[^129]
## Subsection 1.-General Policy and Price Stability

All the activities of the Department of Agriculture are directed toward the production of marketable farm products. Apart from the initial research and experimentation in connection with operations on the farm itself, it is essential that processing, grading and inspection of farm products should be of a high standard if markets both at home and abroad are to be retained and new ones developed. It is with this end in view that the inspection and grading activities of the Department have become of increasing importance. By inspection and grading the buyer is able to obtain a product suited to his requirements; the producer is compensated according to the grade of his product and is thus encouraged to produce a highquality commodity.

The results of experimental and research work and the policies of the Department, in general, are made available to farmers and to the public through bulletins, the press, radio and screen. Releases on market conditions and prices are a regular feature of this publicity.

The Federal Government has passed a number of Acts designed to give price stability in marketing agricultural products. The most important of these is the Agricultural Prices Support Act, 1944, which permits the Federal Government to stabilize the price of any agricultural product, except wheat and coarse grains which are marketed under other legislation, by outright purchase or by underwriting the market through guarantees or deficiency payments. The following products have been supported under the Act when occasion arose: potatoes, apples, dried white beans, extracted honey, dry skimmed milk, creamery butter, shell eggs, cheess, hogs and cattle.

Another Act under which price support may be extended is the Agricultural Products Co-operative Marketing Act, 1939. Under this Act the Government assists in financing initial payments made by co-operatives to primary producers on delivery of the products for sale. Initial payments are subject to negotiation between co-operative and government but may not exceed 80 p.c. of the average returns for like grades and qualities during the previous three years. The procedure is for the Government to guarantee banks against loss in advancing funds to cooperative organizations with whom agreements have been signed. The legislation has been used extensively by co-operatives, and agreements through the years have covered onions, potatoes, corn, many seed crops and ranch-bred fox and mink pelts.

There is a third piece of federal legislation that has a bearing on price support. A number of provincial governments have legislation providing for the establishment of a Board to regulate or control the marketing of agricultural products sold within the province concerned. Under the British North America Act, a provincial government cannot legislate with regard to products marketed outside the province or in export trade. Under the Agricultural Products Marketing Act, 1949, the Federal Government may, at discretion, permit such marketing legislation to be applied in whole or in part to the marketing of agricultural products outside the province concerned and in export trade.

Under the Agricultural Products Board Act, 1951, the Board may buy, sell, export and import agricultural products when directed by the Governor in Council.

Farm Credit.-The Federal Government has made provision for the extension of credit to farmers under the Canadian Farm Loan Act and under the Farm Improvement Loans Act. The Prairie Grain Producers' Interim Financing Act, 1951, was emergency legislation intended primarily to relieve any hardship caused by the extremely unfavourable harvesting conditions of that autumn.

The Canadian Farm Loan Act, 1927.*-Long-term farm mortgage credit is made available to Canadian farmers under the provisions of this Act, which is administered by the Canadian Farm Loan Board. The Board makes loans for the purchase of live stock, farm equipment and farm land, for improvements, for refinancing debts and for covering operating expenses. The Board also provides short- and intermediate-term credit to its long-term mortgage borrowers by means of five-year second mortgages with collateral chattel security.

The Canadian Farm Loan Act was amended on June 18, 1952, to permit the Board to lend up to 60 p.c. of appraised value on first mortgage and up to 70 p.c. on combined first and second mortgage with the maximum first-mortgage loan limited to $\$ 10,000$ and the maximum of first- and second-mortgage loan limited to $\$ 12,000$. In the year ended Mar. 31, 1953, a total of $\$ 5,852,300$ was approved for loans. This was 38 p.c. higher than the previous year, largely attributable to the wider field of operations resulting from the changes in the Act.

Principal assets under administration increased by $\$ 1,724,106$ during the year to $\$ 31,588,657$ at Mar. 31,1953 , the highest figure for 10 years.

[^130]
## 1.-Loans Approved and Disbursed under the Canadian Farm Loan Act, Years Ended Mar. 31, 1944-53

Nore.-Figures for previous years are given in the corresponding table of former Year Books beginning with the 1940 edition.

| $\begin{gathered} \text { Year } \\ \text { Ended } \\ \text { Mar. 31- } \end{gathered}$ | Loans Approved |  |  |  |  | Loans Paid Out |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | First Mortgage |  | Second Mortgage |  | Total <br> Amount | First <br> Mortgage | Second Mortgage | Total Amount |
|  | No. | Amount | No. | Amount |  |  |  |  |
|  |  | \$ |  | \$ | 8 | \$ | \$ | \$ |
| 1944. | 603 | 1,315,950 | 162 | 90,850 | 1,406,800 | 1,251,949 | 84,154 | 1,336,103 |
| 1945. | 728 | 1,623,000 | 176 | 100,700 | 1,723,700 | 1,561,174 | 100,235 | 1,661,409 |
| 1946. | 918 | 2,161,050 | 258 | 163,050 | 2,324,100 | 1,977,902 | 143,305 | 2,121,207 |
| 1947. | 1,312 | 3,165, 250 | 404 | 253,900 | 3,419,150 | 3,030,915 | 242,896 | 3,273,811 |
| 1948. | 1,301 | 3,145,150 | 517 | 315,400 | 3,460,550 | 2,911,167 | 274,073 | 3,185,240 |
| 1949......... | 1,821 | 4,450,100 | 756 | 469,200 | 4,919,300 | 4,169,070 | 425,966 | 4,595,036 |
| 1950. | 1,949 | 4,715,500 | 801 | 473,900 | 5,189,400 | 4,480,779 | 462,150 | 4,942,929 |
| 1951... | 1,796 | 4,312,450 | 680 | 409,550 | 4,722,000 | 4,288,866 | 404,213 | 4,693,079 |
| 1952......... | 1,437 | 3,929,500 | 494 | 308,900 | 4,238,400 | 4,131,141 | 337,951 | 4,469,092 |
| 1953.......... | 1,685 | 5,458,750 | 559 | 393,550 | 5,852,300 | 4,766,149 | 342,410 | 5,118,559 |

## 2.-Loans Approved under the Canadian Farm Loan Act, by Province, Year Ended Mar. 31, 1953

Noms.-Figures for previous years are given in the corresponding table of former Year Books beginning with the 1940 edition.

| Province | Loans Approved |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | First Mortgage |  | Second Mortgage |  | Total Amount |
|  | No. | Amount | No. | Amount |  |
|  |  | \$ |  | \$ | \$ |
| Prince Edward Island. | 72 | 203,800 | 9 | 4,900 | 208,700 |
| Nova Scotia.......... | 41 | 116,850 | 1 | 1,000 | 117,850 |
| New Brunswick. | 69 | 200,850 | 8 | 5,800 | 206,650 |
| Quebec........... | 149 | 457,350 | 61 | 40,600 | 497,950 |
| Ontario. | 345 | 1,360,250 | 59 <br> 97 | 45,350 | 1,405,600 |
| Manitoba..... | 177 | -571,050 | -97 | 73,300 | 644,350 |
| Saskstchewan. | 499 | 1, 631,800 | 269 | 189,000 | 1,820,800 |
| Alberta........... | 203 130 | 489,850 426.950 | 43 12 | 23,800 9,800 | 513,650 436,750 |
| Totals. | 1,685 | 5,458,750 | 559 | 383,550 | 5,852,300 |

The Farm Improvement Loans Act.*-The Farm Improvement Loans Act, administered by the Department of Finance, is designed to provide intermediateterm credit and a type of short-term credit for farmers to enable them to equip, improve and develop their farms. There is scarcely anything a farmer wants in the way of mechanical aids for his farm operation or for his home for which a loan may not be made. Assistance may also be obtained for the purchase of live stock, principally foundation or breeding stock; for installation or repair of farm electric systems; for repair, alteration or construction of farm buildings, including the home; and for fencing, drainage and other development projects. Credit is provided on security and terms that are convenient and suited to the individual borrower.

The chartered banks are the lending agency under the Act. The legislation, originally operative for three years, $1945-47$, has been extended from time to time for three-year periods. The Federal Government guarantees each bank against loss up to 10 p.c. of the total loans made by it during the period. Under the Act, the guarantee is limited by a provision stating that it will not apply to any loan made after the aggregate of all loans made by all banks in a given period reaches an amount fixed by statute. When, in February 1951, the Act was extended for another three years, the amount fixed was $\$ 200,000,000$. Within two years the loans almost totalled this amount, and a further extension of the Act was made for three years from Apr. 1, 1953. The aggregate of loans for this three-year period, affected by the guarantee, is set at $\$ 300,000,000$. By Dec. 31, 1953, 175 claims amounting to $\$ 90,771$ had been paid under the guarantee.

Loans may be obtained for terms up to 10 years with interest not to exceed 5 p.c. The maximum amount to be advanced to a borrower, at any one time, was increased to $\$ 4,000$ by the legislation of 1953 . The borrower himself must provide from 10 p.c. to 40 p.c. of the cost of his project.

By Dec. 31, 1953, $\$ 313,403,652$ or 69.4 p.c. of the total of all loans made had been repaid. Of the loans made during the first three years of operation, all but 0.4 p.c. had been repaid; of those made during the second three years, all but

[^131]2.8 p.c. had been repaid; of those made during the next two years, all but 32.5 p.c. had been repaid; and for the nine months of the fourth period ended Dec. 31, 1953, $15 \cdot 1$ p.c. of the loans made had been repaid.
3.-Loans made under the Farm Improvement Loans Act, by Purpose, 1945-53

| Purpose | 1952 |  | 1953 |  | Total Loans Since Inception in 1945 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Loans | Amount | Loans | Amount | Loans | Amount |
|  | No. | \$ | No. | \$ | No. | \$ |
| Purchase of agricultural implements..... | 75,347 | 90,818,129 | 73,934 | 88,057,198 | 365,656 | 409,030,397 |
| Construction, repair or alteration of, or additions to any structure on a farm... | 2,923 | 3,474,114 | 3,876 | 5,057,563 | 19,337 | 21,960,388 |
| Purchase of live stock................. | 3,175 | 2,899,824 | 3,694 | 3,053,914 | 15,192 | 12,510,527 |
| Improvement or development project... | 1,420 | 843,724 | 1,896 | 1,300,305 | 12,636 | 6,357,591 |
| Purchase or installation of equipment or electric system or alteration of electric system. | 359 | 155,924 | 456 | 347,666 | 2,542 | 1,319,239 |
| Fencing or drainage...................... | 91 | 67,437 | 106 | 76,114 | 539 | 354,700 |
| Totals. | 83,315 | 98,259,152 | 83,962 | 97,892,760 | 415,902 | 451,532,842 |

4.-Loans made under the Farm Improvement Loans Act, by Province, 1945-53

| Province | 1952 |  | 1953 |  | Total Loans Since Inception in 1945 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Loans | Amount | Loans | Amount | Loans | Amount |
|  | No. | \$ | No. | \$ | No. | 8 |
| Newfoundland. | 44 | 49,900 | 55 | 688,274 | 104 | 121,553 |
| Prince Edward Island | 1,782 | $1,756,128$ 852,297 | 1,671 | $\begin{array}{r}1,497,575 \\ \hline 945,862\end{array}$ | 5,759 3,422 | - ${ }_{3,022,939}$ |
| New Brunswick | 886 | 926,499 | 1,896 | ${ }_{925,977}$ | 3,142 | ${ }_{3,283,204}^{3}$ |
| Quebec.. | 6,049 | 7,128,775 | 7,621 | 8,722,234 | 24,654 | 27,368,034 |
| Ontario. | 11,299 | 12,245, 803 | 11.813 | 12,971,331 | ${ }^{53,021}$ | 55, 698,714 |
| Manitoba | 10,061 | 11,225,437 | 9,547 | 10,639,177 | ${ }^{55,272}$ | 57,727,371 |
| Saskatchewan | ${ }^{28,127}$ | 35,365, 330 | 26,334 | 33,309,549 | ${ }^{137,044}$ | 156, 551, 023 |
| Alberta. | 22,130 | 26, 495,163 | 22,526 | 26, 207,368 | 122,118 | 130, 922,365 |
| British Columbia | 2,069 | 2,213,820 | 2,422 | 2,605,413 | 11,366 | 11,560,366 |
| Totals | 83,315 | 98,259,152 | 83,962 | 97,892,760 | 415,902 | 451,532,842 |

Prairie Grain Producers' Interim Financing Act, 1951.-This Act, which came into force Jan. 15, 1952, provides short-term credit to grain producers in the Prairie Provinces who, because of congested delivery points or inability to complete harvesting of their grain, are in need of credit until their grain can be delivered. Individual advances can be made to a maximum of $\$ 1,000$.

Prairie Farm Assistance Act.-The Prairie Farm Assistance Act, passed in 1939 and administered by the federal Department of Agriculture, provides for direct money payments by the Federal Government, on an acreage basis, to farmers in areas of low crop yields in the Prairie Provinces and the Peace River District of British Columbia. The Act was designed to assist the municipalities and provinces, in years of crop failure, to meet relief expenditures which would normally be too great to be assumed by them. The Act provides that payments be made to farmers under certain conditions and terms and, in order that Federal Government costs may be defrayed to some extent, it is required that 1 p.c. of the purchase
price of all grains (wheat, oats, barley and rye) marketed in the Prairie Provinces be paid to the Federal Government and set aside in a special fund for the purposes of the Act.

If the farmer, who may be an owner, a tenant, or a member of a co-operative farm association engaged in farming, is located in a crop-failure area, he may be awarded assistance on not more than one-half of the cultivated land or a maximum of 200 acres. The rates of payment range up to $\$ 2.50$ per acre.

From the inception of the scheme to Mar. 31, 1954, the total amount paid out under the Act was $\$ 146,105,574$. The amount collected under the $1-p . c$ levy to Feb. 28, 1954, was \$79,708,145.

## Subsection 2.-Agricultural Research and Experimentation

The Department of Agriculture conducts, on a broad scale, scientific research and experimentation on the control of pests and diseases, the nutritional requirements of plants and animals, the breeding and testing of new species and varieties, the micro-biology of soils and foods, investigations of crop production and cultural methods, and many other matters. This work is carried on mainly by the Science Service and the Experimental Farms Service and, in addition to providing information on current production problems, is of paramount importance to the longtime well-being of agriculture.

Conservation of the soil is of basic importance to agriculture and research in the form of soil surveys and study of methods for the protection and conservation of soil resources is carried on by the Department in collaboration with the provincial governments. Studies include the chemistry of the soil, cover crops, value of manure and fertilizers, cultural methods, use of tillage machinery and development of large land-reclamation projects.

The Department has for many years conducted investigations into the control of insects and diseases of forest trees. The limited silvicultural work carried on has aimed at maintaining a supply of trees suitable for planting on the prairies as shelter belts against the wind and to prevent soil and snow drifting. Basically, this is also a soil-conservation measure.

Much of the research and experimental work is concerned with crop plants for, after the soil itself, they are of chief importance. This work includes the breeding and testing of suitable varieties of crops to be grown under the varying climatic conditions throughout Canada. The culture and nutritional value of crop plants and the suitability of food crops for human consumption-even their appeal or lack of appeal to a somewhat discerning housewife-are continuously under study.

Work on live stock includes mainly the feeding, care and handling of stock, its protection from insects and diseases, and the production of suitable market and breeding types. A limited amount of work has also been done on the production of new strains of animals.

Research and study of processed products such as milk, butter, cheese and meat, and of fruits and vegetables is a most active item in the scientific work of the Department. Storage of agricultural products creates many problems that call for constant study.

Chemical and biological research and experimentation is mainly of an applied nature. That is, the Department does not specialize in so-called fundamental research involving the discovery of basic scientific phenomena and laws, but concentrates on the adoption of known processes and the application of such processes
to specific aims. Some discoveries bordering on fundamental research, however, are occasionally made, and it is also found necessary to extend to some degree into the basic field where certain information is lacking in applied science.

Agricultural research, particularly in plant science, must be decentralized to a great extent for most problems must be studied where they occur. Apart from the value to farmers of having a local source of information, the experimental farms and science laboratories are widely distributed because the work can be done in no other way. In addition to the headquarters of the Experimental Farms Service at Ottawa, work is carried on at 28 branch experimental farms and 20 substations. Experimental work of local application is done at 162 illustration stations, 54 district substations and 11 fox and mink illustration stations. The work of the Science Service, centralized at Ottawa, is also augmented by that of about 100 laboratories located throughout the country.

In the field of economic research, studies in farm management, land utilization, marketing and farm-family living are undertaken in all parts of the country. The scope of the scientific and experimental work of the Department is revealed when it is realized that there is no plant or animal in Canada that is not susceptible to damage by disease caused by bacteria, fungi or viruses, or subject to attacks by insects or, in the case of animals, by internal parasites.

## Subsection 3.-Protection and Grading

Unlike manufactured articles, even close scrutiny of most agricultural products is no clue to their purity as food, or to their value to the farmer for further production. Obviously, products that are eventually used as food must be pure and healthful and must come up to standards of quality established for them. On the other hand, if agriculture is to be conducted on a sound basis, the supplies farmers buy-seeds, feeds, fertilizers and pesticides-must also carry some guarantee that they will be as represented. Much of the research and experimental work would be of no avail if legislation were not provided to see that the end-product of such work was satisfactory. In addition, Canada's live stock, crops and trees must be protected from diseases that might be introduced with importations or that might originate in Canada.

These protective and grading services are a most important part of the work of the Department of Agriculture. They come under two sections, the Production Service and the Marketing Service, and the necessary authority is gained from about 20 Acts or their regulations. Generally, the protective features and the grading to standards or approval of analyses of farm supplies come under the Production Service. The grading of most food products is the responsibility of the Marketing Service.

Health of Animals. - The protection of the health of Canada's live stock is a most important service. To guard against the introduction of contagious diseases from foreign lands, stringent regulations are enforced by the Health of Animals Division covering the importation of live stock, live-stock products and even packing material and litter. Provision is also made for the control or eradication of animal diseases developing within Canada. Programs directed at the eventual eradication of such diseases as bovine tuberculosis and brucellosis are a continuing part of the work. The Division is responsible for the inspection of animals slaughtered for food, and post-mortem examination is made of all carcasses in the course of
slaughter and dressing before the meat is approved for human consumption. Sanitary conditions in packing plants and slaughter houses come under review and all canned meats must meet high standards of processing to qualify as food.

Protection of Supplies.-The Plant Products Division, in co-operation with the provinces and other agencies, is concerned primarily with the administration of Acts respecting feeding stuffs, fertilizers, pesticides, hay and straw, fibre flax and binder twine, and the production of seed. The inspection services of the Division have three main functions: (1) to enforce the Acts that regulate the sale of the agricultural supplies; (2) to provide, as required, such services as seed-crop inspection and the sealing of seed produced from inspected and other approved crops; (3) to co-operate with provincial governments and other agencies in promoting and improving supplies of seeds, feeds, fertilizers and pesticides.

Visual inspection is of little value for most of these products and laboratory testing is necessary; the laboratory services of the Division maintain branch offices across Canada. Testing of seeds is a complex matter, for they must be tested for germination, variety, purity and freedom from weeds and other kinds of seeds before they are graded. All feeding stuffs, fertilizers and pesticides are subject to registration, and this is refused if the use of products would be dangerous, if the ingredients or analyses are unsatisfactory, or if the claims made regarding their value are incorrect or misleading.

Plant Protection.-The Division of Plant Protection functions with regard to plants and plant products much as the Health of Animals Division does with animals, and administers the Destructive Insect and Pest Act. Imported nursery stock and plant material are all subject to inspection as protection against the introduction of insects and diseases. Extensive inspection is maintained within Canada to identify, localize and exterminate dangerous enemies of crops and trees. Provision is also made for the inspection of potato crops to be used for seed, for domestic and export markets, and for the issuance of health certificates required for a wide range of plant products.

Standards and Inspection.-The Department has been steadily establishing and improving standards of quality for agricultural products for 50 years or more. This work originated in an effort to improve the quality of export commodities and has gradually extended to include many products that move in interprovincial trade. Most of the provinces have adopted these standards for enforcement within their respective areas on products marketed inside the province.

Grade standards are established and enforced for dairy products, meats, eggs and poultry, fresh and processed fruits and vegetables and seeds. Grade standards are widely recognized outside Canada and many Canadian foods and agricultural products command premium prices because of the strict quality standards maintained.

Dairy Products.-Producers, processers and consumers all derive benefits from grading and inspection services of the Dairy Products Division. Authority to carry out such services is contained in the Cansda Dairy Products Act which established national standards for dairy products and regulates interprovincial and international trade. Grade names and standards have been prescribed for cheddar cheese, creamery butter and dry skimmed milk and each of these products must be graded before entering into interprovincial or international trade. Dairy products for which grade names have not been established, such as ice cream,
evaporated milk and process cheese, are required to meet prescribed standards for composition, packing and marking before being exported from Canada, imported into Canada or moved from one province to another. Authority to carry on the grading and inspection of dairy products made and sold within the province of origin is derived from legislation passed by the province concerned. Nine provinces have either passed or are preparing to pass legislation concurrent with that contained in the Canada Dairy Products Act and Regulations thereunder.

Meats.-In addition to the approval of carcasses for human consumption, inspection and grading of meats is of importance. All hogs marketed at stockyards and plants are rail graded, that is, the farmer is paid on the dressed weight and quality of the carcass. Export bacon is inspected as well as other export meat and meat products. The better grades of beef are marked according to standards of Choice and Good beef, making them eligible for marketing as Red and Blue brands, respectively. Lamb carcasses are graded on an optional basis and wool is inspected and graded in some 26 registered wool warehouses.

Eggs and Poultry.-Registered egg-grading stations are the basic units in the grading and packing of eggs; registered poultry-processing and eviscerating stations are the basic units in the processing, eviscerating, grading and packing of poultry; and registered egg-breaking stations are the basic units in the processing, grading and packing of frozen egg products. There are 1,280 egg-grading stations, 290 processing and eviscerating stations and 37 egg-breaking stations. Over the last few years because of a rapidly increasing demand for eviscerated poultry the quantity processed in registered processing and eviscerating plants increasedfrom approximately $4,000,000 \mathrm{lb}$. in 1950 to about $26,000,000 \mathrm{lb}$. in 1953.

Inspection of eggs, poultry and frozen egg products is compulsory on all sizable quantities intended for export. Inspection is compulsory for interprovincial shipments of poultry of $10,000 \mathrm{lb}$. or over. These products are also check-inspected periodically for grade when offered for wholesale and retail sale. The sale of eggs by grade, at retail, is compulsory throughout Canada, and the sale of poultry by grade, at retail, is compulsory in many of the larger consuming centres.

Fresh Fruits and Vegetables.-Grades are established for all principal fruits and vegetables produced in Canada. Practically all products for which grades are established must be inspected and certified if for shipment out of Canada. In addition, inspection and certification is compulsory on specified products if produced in certain provinces and shipped to another province. To provide this service, mostly seasonal in nature, a staff of inspectors is maintained throughout the principal producing areas across Canada. In the larger distributing centres an inspection staff is maintained to administer grading, packaging and marking regulations at the wholesale and retail level, to collect and compile market statistics and to provide, on request, a commercial inspection service covering the quality or condition of produce received by the wholesaler. The shippers, brokers, commission houses and wholesalers dealing in fruits and vegetables in interprovincial, export or import trade must be licensed and are subject to established regulations.

Processed Fruits and Vegetables.-When special regulations covering canned fruits and vegetables were established under the Meat and Canned Foods Act in 1907, Canada became the first country to have any such legislation. Regulations under the Meat and Canned Foods Act now establish grades for practically all canned, frozen or dehydrated fruits and vegetables as well as for jams. Sanitary regulations are also established and are enforced by a staff of inspectors who
provide an inspection service covering interprovincial, export or import movement of processed fruits and vegetables. This movement constitutes about 98 p.c. of the entire industry in Canada the sales value of which now amounts to approximately $\$ 250,000,000$ as compared with $\$ 20,000,000$ in 1919. Although no grades are established in the regulations, the processing and packing of such products as pickles, olives, vegetable soups, etc., is also supervised and controlled. About 560 processing plants of one kind or another operate under a Certificate of Registration issued by the Department of Agriculture.

Honey.-Regulations are established for the classifying, grading and marking of all honey moving in interprovincial or export trade. Inspection is compulsory on honey being shipped out of Canada and administrative inspections for class and grade are made at the wholesale and retail levels on the domestic market. Interprovincial and export shippers and packers of pasteurized honey must be registered with the Department of Agriculture.

Maple Products.-Regulations are established for the prohibition of adulteration of maple products, for inspection and analysis, for proper identification of maple products and of 'colourable imitations' and for the licensing of manufacturers or packers and of all sugar-bush operators operating in the interprovincial or export market. To enforce the regulations, periodic inspection is made of the manufacturing plants, markets, stores and restaurants.

## Subsection 4.-Canada's Relationship with FAO

Canada continues its active co-operation in the work of the Food and Agriculture Organization of the United Nations (FAO). At the Seventh Session of the Conference, held at Rome in December 1953, a new Director General, Dr. P. V. Cardon of the United States, who has been with the organization since its early days, was appointed to succeed Mr. Norris E. Dodd. Dr. G. S. H. Barton, formerly Deputy Minister of Agriculture for Canada, was re-elected to the seven-member Co-ordinating Committee which advises the Director. Canadian representatives were also elected to the Council, which meets at least twice a year, and to the Committee on Commodity Problems. Seventy-one nations are now members of the Organization.

The organization and objectives of FAO have been explained in earlier editions of the Year Book. In short, the chief aims are: to help nations raise their standard of living; to improve nutrition of the people of all countries; to increase the efficiency of farming, forestry and fisheries; and through all these means to widen the opportunities of all people for productive work.

FAO does not have the funds or authority to buy and distribute food, supply fertilizers and farm machinery, or build and staff laboratories. It works in three effective ways in assisting member nations: by over-all statistical study of world food supplies and requirements and by supplying information requested by member nations; by sending experts to work with scientists and technicians of member governments who ask for help-special missions are sent to countries requesting them; and by making definite recommendations for concerted action and providing a means by which nations may work together on programs and carry them out.

Technical assistance embraces numerous problems of agriculture, simple as well as complex. In many backward countries, for example, the introduction of scythes (to replace crudely made sickles), hoes and other simple hand tools has
meant more food for those who must depend almost entirely on tilling the land for their needs. As the farmers become adept with these tools, more advanced equipment can be introduced. In more advanced countries the problems are different and advice and assistance is sought on practically all phases of the industry, from the soil itself to the storing, marketing and financing of the finished product.

Because the Organization is essentially international, the Headquarters staff at Rome is cosmopolitan. For the same reason a technical mission may be composed of officials drawn from different member countries, but all are experts in the particular branch of agriculture upon which they are asked to advise. A number of Canadians are included on FAO Headquarters staff and during 1954 Canadian specialists served in Afghanistan, Ceylon, Chile, Egypt, Ethiopia, Finland, Haiti, India, Iraq, Korea, Malaya and Pakistan. Canadian universities and federal and provincial government departments have assisted in FAO's Expanded Technical Assistance Program by training a number of Fellows and scholars.

## Section 2.-Provincial Governments in Relation to Agriculture*

## Subsection 1.-Agricultural Services

Newfoundland.-Government agricultural services in Newfoundland are operated by the Agricultural Division of the Department of Mines and Resources.

The Division maintains an extension service and encourages agricultural development by the payment of bonuses on the purchase of pure-bred sires and for the clearing of land; by assistance with agricultural exhibitions and the payment of a subsidy on agricultural limestone. Each year several scholarships are awarded young men enabling them to take a two-year degree course in agriculture. Government policy relating to the clearing of land for agricultural purposes, with govern-ment-owned tractors, is administered by the Land Development Division of the Department.

Prince Edward Island.-The Department of Agriculture is presided over by a Minister assisted by a Deputy Minister, a Dairy Superintendent and Assistant Dairy Superintendent, a Pathologist, a Director of Veterinary Services, five subsidized practicing Veterinarians, a Soil Analysis Assistant, a Poultry Director, an Agronomist, three Field Representatives, a Director and Assistant Director and two extension workers of Women's Institutes.

Nova Scotia.-The Nova Scotia Advisory Committee on Agricultural Services was established a few years ago to further the effective prosecution, within the Province, of agricultural policies and projects of the Federal and the Provincial Departments of Agriculture.

The main purpose and function of the Committee, which meets quarterly, is to determine ways and means by which the purposes of both Departments of Agriculture may best be served, and how the work of those Departments may be co-ordinated and directed through integrated agricultural policies and with a minimum duplication of services.

Every effort is made by the Department of Agriculture and Marketing to "help the people to help themselves" through strengthening member-interest in such organizations as the Nova Scotia Federation of Agriculture, Nova Scotia Fruit Growers' Association, through various agricultural co-operative organizations, credit unions and several producer-organizations.

[^132]New Brunswick.-Provincial Government policy concerning agriculture in New Brunswick is directed by the Department of Agriculture. This Department has as its head the Minister of Agriculture who is assisted by a Deputy Minister and the Directors of the following services: extension, live stock, dairy, veterinary, poultry, horticulture, field husbandry, soils and crops, plant protection and promotion, agricultural engineering, home economics, Credit Union Co-operative Association, agricultural education, apiculture, and agricultural societies.

Quebec.-The Department of Agriculture of Quebec comprises eleven services: rural education, rural economy, extension, animal husbandry, horticulture, field husbandry, information and research, home economics, animal health, rural engineering and the secretariat. Each service is divided into sections dealing with particular problems.

The Department also includes many other special organizations such as the Research Council, the Dairy Industry Commission, the Dairy School of St. Hyacinthe, the Provincial Extension Farm (Deschambault), the Fur Bearing Animals Extension Farm (St. Louis de Courville). The Farm Credit Bureau, the Quebec Sugar Refinery (St. Hilaire) and the Veterinary College (St. Hyacinthe) are also under the authority of the Minister of Agriculture. The Office of Rural Electrification is connected with the Provincial Executive Council.

The annual competition for the Agricultural Merit Order, organized in 1890, is held alternately in each of five regions. Each contest lasts five years and covers the different farm productions; the main objective is an economical increase in crop and cattle yields. County Farm Improvement Contests have been conducted for more than twenty years and are still very popular. Over 6,000 competitors have already benefited from these contests which promote better methods of culture designed to increase farm income. In 1953-54, another group of 200 farmers registered for these competitions.

Soil-improvement policies include large drainage projects carried out by the Department and smaller projects carried out by groups of farmers with government help. In the past five years, 500,000 acres of land have been improved or reclaimed and 400,000 acres of underground drainage have been completed. In 1954, 19,500 farmers will benefit from the work of this Service.

Various forms of assistance are offered towards improvement of crops and live stock. An artificial insemination station operates at St. Hyacinthe for the benefit of 34 breeders' clubs, and plant-breeding stations for cereal and forage crops, vegetables and small fruits are maintained in a number of localities. Trained specialists are employed in the work of controlling plant and animal pests and diseases; the main laboratories are situated at Quebec City and field laboratories are located in different districts or in schools.

Agricultural co-operation is widespread in Quebec. There are 650 co-operatives with 70,000 members and 90 agricultural societies with 29,000 members to serve local interests and organize county exhibitions. There are also 850 Cercles de Fermières (Women's Institutes) in operation with a membership of 48,$000 ; 500$ farmers' clubs with a membership of 23,000 , and 140 junior farmer clubs where 3,450 young boys and girls are working on numerous practical agricultural projects.

The Farm Credit Bureau was established in 1936. During 18 years of operation, the Bureau has placed at the disposal of 36,000 farmers of Quebec a sum of $\$ 106,000,000$ and has established 14,500 young men on farms.

Ontario.-The Ontario Department of Agriculture provides financial assistance and administrative services to agriculture through its Head Office, 11 branches, three experimental farms, and through research and extension work carried on at the four educational institutions under its administration. In addition to general administration, the Head Office administers the policies providing assistance to farmers and settlers in northern Ontario in connection with land breaking and clearing, and with improving farms and live stock. (1) The Live Stock Branch promotes live-stock improvement policies, licenses and examines stallions and gives support to pure-bred live-stock associations; (2) the Field Crops Branch assists in the development of good cultural practices and promotes the use of improved strains of seed, the improvement of pastures, and the eradication of weeds; (3) the Dairy Branch provides an inspection, instruction and supervision service to all dairy factories and promotes the production of clean milk on farms; (4) the Farm Economics Branch conducts cost studies on agricultural production in co-operation with agricultural organizations; (5) the Fruit Branch enforces fruit and vegetable regulations, provides information to growers, and administers the Co-operative Marketing Loans Act; (6) the Co-operation and Markets Branch administers the Farm Products Control Act, the Ontario Food Terminal Act and the Farm Products Containers Act; (7) the Milk Control Board, under the Milk Control Act, regulates and supervises the marketing of fluid milk; (8) the Agricultural and Horticultural Societies Branch gives assistance to agricultural and horticultural fairs and exhibitions, plowing matches and other competitions, and administers the Community Centres Act; (9) the Agricultural Representatives Branch carries on an educational and extension service through agricultural representatives located in all counties and districts and gives direction to 4-H Club work and the Ontario Junior Farmers' Association; (10) the Women's Institute Branch and Home Economics Service gives leadership and direction to organized activities of rural women; (11) the Statistics and Publications Branch, in co-operation with the Dominion Bureau of Statistics, provides a crop-reporting service and gathers and disseminates data on crops, live stock and dairy products. The Horticultural Experiment Station at Vineland, the Western Ontario Experimental Farm and Agricultural School at Ridgetown, the Demonstration Farm at New Liskeard, the Kemptville Agricultural School, the Ontario Agricultural College and the Ontario Veterinary College at Guelph, all under the administration of the Department, provide research and extension services to Ontario agriculture.

Manitoba.-The Department of Agriculture serves Manitoba through the following branches: agricultural extension; live stock; dairy; soils and crops; agricultural publications and statistics; weeds administration; co-operative services; and the provincial veterinary laboratory.

The Extension Service deals with agronomy, horticulture, poultry, agricultural engineering, beekeeping, 4-H Clubs and women's work, and has specialists devoting their attention to these subjects. Meetings, field days and short courses are held. There are 31 agricultural representatives located throughout the Province, each representative serving from one to five municipalities. Six home economists serve designated areas.

The Live Stock Branch administers the Animal Husbandry Act, develops and administers policies that encourage the improvement and production of live stock, and works in close co-operation with the Veterinary Laboratory Service and the Federal Health of Animals Division in the control of live-stock diseases.

The Dairy Branch administers the Dairy Act, supervises the grading of cream, inspects creameries and cheese factories, gives instruction in cheese- and buttermaking, issues licences to makers of dairy products and to cream graders and conducts a dairy-cost study among milk producers. Extension activities include addressing meetings and preparing articles and leaflets on dairy-farm problems.

The Soils and Crops Branch deals with grain and forage crops conservation and fertility and provides liaison between the Province of Manitoba and the Government of Canada in regard to PFRA projects. The branch develops and administers policies that encourage good field-crop husbandry and conservation practices.

The Agricultural Publications and Statistics Branch publishes and distributes, annually, approximately 100,000 bulletins, circulars, posters, leaflets, etc.

The Weeds Administration Branch directs the activities of 18 municipal weedcontrol units comprising 70 rural municipalities engaged in eradicating deep-rooted, persistent perennial weeds; supervises weed demonstrations; investigates weed problems; conducts weed surveys; and prepares weed literature, radio addresses, articles, pictures, mounted weed specimens, etc.

The Co-operative Services Branch takes care of the registration and supervision of co-operatives and credit unions and the administration of the Acts governing them. The Branch also collects and compiles statistics on co-operative activity throughout the Province. The Director is Secretary of the Co-operative Promotion Board.

The Veterinary Laboratory operates a diagnostic laboratory for animal diseases, the services of which are available to veterinarians and live-stock owners.

Saskatchewan.-The Saskatchewan Department of Agriculture is organized as follows. (1) The Administration Branch includes the Accounting Division handling staff records, accounts and vouchers and mail assembly; the Agricultural Records Division, handling records particularly of agricultural and horticultural societies; the Statistics Division, which, in co-operation with the Dominion Bureau of Statistics, collects data on crop conditions, production, marketings and income; and the Radio and Information Division which broadcasts farm information daily over seven private stations. (2) The Agricultural Representative Service has a field staff of 37 agricultural representatives, four area supervisors and specialists in farm mechanics and visual aids. The Farm Labour Division co-ordinates farm labour requirements and services with federal agencies. The Service provides an extension field staff for all Branches of the Department as well as for the other agencies operating within the Co-operative Agricultural Extension Program. Agricultural representatives are active in all federal, provincial and university farm services. In farm labour matters, co-operation is maintained with the federal Department of Labour and the National Employment Service in directing annual movements of farm labour in and out of the Province. Agricultural representatives work through Agricultural Conservation and Improvement Committees in each rural municipality and local improvement district to supply the farmer with the scientific and practical information necessary for improvement in agriculture. Agricultural committees are instrumental in studying local farm problems and in initiating agricultural improvement programs. These programs are encouraged through an Earned Assistance Program under which the Department pays one-half the costs of local group development projects. (3) The Animal Industry Branch includes four divisions. The Dairy Division administers dairy herd improvement programs
and assists producers with management and production problems; inspects and licenses dairy manufacturing and frozen-food locker plants; and administers dairy, locker-plant and margarine legislation. The Livestock Division encourages the use of suitable animals for breeding purposes by the establishment of pure-bred sire areas and by assistance in the purchase and distribution of stallions, bulls, boars and rams. It registers brands, licenses live-stock dealers and agents and promotes programs on insect control, feeding and management. The Poultry Division maintains flock-testing and turkey-grading services; administers an approved hatchery policy, licenses produce dealers and poultry buyers, hatcheries and hatchery agents. It also assists with poultry shows and field days and otherwise promotes flock improvement. The Veterinary Division assists students in veterinary science under a scholarship plan, administers disease-testing and vaccination programs and co-operates with Federal Government officials and local veterinarians in disease prevention and control. (4) The Conservation and Development Branch is responsible for the engineering services extended by the Department, for irrigation development usually in co-operation with the Federal Government, and for drainage programs and projects. Reclamation of land by drainage, development of misused land and under-utilized land, and construction of provincial community pastures all come within its jurisdiction. The Branch administers the Farm Implement Act and provides engineering assistance to conservation and development areas, water users' districts, and irrigation districts in connection with water-control projects. (5) The Lands Branch administers all Crown, school and Land Utilization Board lands except forest reserves and parks in the settled area of the Province; classifies it according to the use for which it is best suited; disposes of such lands under longterm leases; collects rental for land under disposition; secures land control for land-utilization projects, including the purchase and exchange of lands and Crown lands; supervises new settlement projects including land improvement by the Department and by lessees and operates provincial community pastures. (6) The Plant Industry Branch organizes and administers programs for crop improvement and crop protection, and advises on seed and crop improvement, soil conservation, horticultural problems, weed control and management of irrigated land. The improvement of grassland is promoted through a forage crop program. The Seed Plant Division carries on custom cleaning of forage seeds and registered cereals. The Apiary Division advises on beekéeping and honey production, and carries on continuous inspection for American foul brood and supervises grading.

Alberta.-The Alberta Department of Agriculture is organized as follows. (1) The Field Crops Branch deals with all matters that pertain to the utilization of soil and the production of crops. A Commissioner of Field Crops and four Supervisors administer programs and policies relating to crop improvement, soil conservation and weed control, crop protection and pest control, and horticulture. Agricultural Service Boards of municipalities carry out programs and administer regulations for which the municipality is made responsible by provincial legislation; the Department is represented on each Board. (2) The Live Stock Branch aids in maintaining the quality of herds and flocks by assisting farmers in securing pure-bred herd sires and by maintaining an artificial insemination laboratory. The work of the Branch includes the supervision of live-stock feeder associations and the administration of legislation relating to stock inspection, brands, domestic animals and the sale of horned cattle. (3) The Dairy Branch administers the Dairymen's Act and the Frozen Food Locker Act. Grading and purchasing of raw produce by all
dairy plants are under regulation, as well as standards of construction, manufacture, processing, sanitation and temperature control for dairies and frozen-food lockers. A regular cow-testing service is available to dairy producers and the Branch laboratory provides facilities for chemical and bacteriological analyses needed for industrial directives. Yearly cost studies and dairy-farm management services are operating in the principal milk-producing areas. (4) The Poultry Branch carries on programs for the improvement of poultry husbandry, supervises flock approval for the control of pullorum disease, maintains a practical poultry-breeding plant for the distribution of breeding stock and issues all hatchery, wholesale, first receiver and truck licences for the handling of poultry products. (5) The Veterinary Services Branch provides the scientific diagnosis of live-stock and poultry diseases through its laboratory; conducts investigations of disease conditions; gives lectures in veterinary science at the University of Alberta, Schools of Agriculture, and a large number of meetings; and actively promotes government policies aimed at reducing disease losses throughout the Province. (6) The Apiculture Branch administers the Bee Diseases Act which requires the registration of all beekeepers and the maintenance of an inspection service; it also administers the regulations on honey grading. The Branch carries on a considerable amount of general educational work. (7) The Agricultural Extension Service operates 42 offices and employs the services of 45 district agriculturists and 15 district home economists. The district agriculturists work with the farmers, assisting with their problems, and with departmental policies designed to improve the standard of agricultural practices; the district home economists provide a similar service for farm women. Bulletins are prepared dealing with agricultural and home economics topics and weekly farm notes are prepared for distribution to the press. The Branch is responsible for the supervision of agricultural societies and, in co-operation with the Federal Department of Labour, is concerned with recruitment and placement of farm labour. (8) The Fur Farm Branch administers the licensing and exporting of live animals and pelts, assists fur farmers with problems pertaining to care and management and stock improvement, and operates a vaccine distemper assistance plan to control disease. (9) Schools of agriculture and home economics are operated at Olds, Vermilion and Fairview (see p. 390). (10) A Radio and Information Branch, established on Apr. 1, 1953, provides a radio program consisting of five broadcasts a week over six Alberta stations.

British Columbia.-The Department of Agriculture has four main divisions. (1) The Administrative Division is responsible for the general direction of agricultural policies, administration of legislation affecting agriculture, supervision of extension programs, collection of agricultural statistics, compilation of reports and publications, preparation of material for agricultural exhibitions, supervision of farmers' and women's institutes, as well as the carrying out of soil surveys in various sections of the Province. (2) The Animal Industry Division consists of general live-stock, veterinary, dairy and poultry branches and supervises the promotion and improvement of animal production, fur farms, brand inspection, inspection of beef grading, control of contagious diseases of animals, eradication of insect pests detrimental to live stock, and field extension connected with animal nutritional work. (3) The Plant Industry Division includes horticulture, field-crop, plant pathology, entomology and apiculture branches and supervises fruit, vegetable and seed production and surveys dealing with orchards, small fruits, flowering bulbs and greenhouse areas; also the suppression of insect pests, plant disease inspection with control of noxious weeds and general promotion of crop production. In addition,
there are field officials in 12 of the principal fruit and vegetable producing areas who undertake extension work on behalf of field crop, fruit and vegetable producers.
(4) The Agricultural Development and Extension Division includes field-extension work through the district agriculturist service, clearing agricultural lands for production, agricultural engineering, farm labour supply, and junior club projects. Extension Division officials of the Department are located in 32 agricultural centres throughout the Province.

## Subsection 2.-Agricultural Colleges and Schools

All provinces, with the exception of Newfoundland, provide facilities for training in agricultural science at university level. Such colleges are administered by either the Department of Agriculture or the Department of Education of the respective provinces.

Prince Edward Island.-The two-year course in scientific agriculture offered at Prince of Wales College is designed for students preparing to enter third year at Macdonald College, Que. The course is started every second year.

In the Vocational School, the short courses offered in agriculture are planned to provide not only knowledge and skill but to develop in the student a sense of the dignity and importance of agriculture as a vocation and an understanding of the importance of the industry to the Province.

Nova Scotia.-Nova Scotia Agricultural College at Truro offers three courses: the first two years of a course leading to the degree of Bachelor of Science in Agriculture; a two-year course in general agriculture; and a two-year course in vocational agriculture. In addition, the College assists in conducting short courses at various provincial centres, supports Folk Schools and gives leadership and direction to the 4-H Club organization. Tuition is free for students of the Maritime Provinces.

New Brunswick.-The Province's four Agricultural Schools are located at Woodstock, Fredericton, St. Joseph and Edmundston. Two-year agricultural courses extending over five months each year are offered at St. Joseph, Fredericton and Edmundston and at Woodstock a three-year course is conducted. The curriculum includes training in all phases of agriculture, shop and general academic work. Home economics courses of 10 months are offered at Woodstock and St. Joseph in conjunction with the agricultural courses.

Quebec.-Courses in agricultural schools in the Province include a four-year university course leading to a degree of Bachelor of Science in Agriculture at the following universities: Laval Faculty of Agriculture (Ste. Anne de la Pocatière); L'Institut Agricole d'Oka (affiliated with the University of Montreal); and McGill Faculty of Agriculture (Macdonald College). At the Provincial Veterinary School (St. Hyacinthe), affiliated with the University of Montreal, a four-year course is offered leading to a degree of doctor in veterinary medicine. There are also nine secondary agricultural schools throughout the Province, 10 regional schools and six orphanages offering courses in agriculture. More than 1,500 students, the great majority of whom are sons of farmers, attend these intermediate and regional schools of agriculture, and in the orphanages 200 pupils follow practical agricultural courses. A farm is always annexed to the school for practical training and specialists give instruction on the maple-sugar industry, farm mechanics, co-operatives, plant protection, veterinary hygiene, aviculture, marketing and silviculture. School
co-operatives and clubs are organized and directed by the pupils, under the supervision of their professors. Household science training for the daughters of farmers and settlers is given in five of these schools. During the summer of 1953 nearly 400 girls attended these courses which extend over the four summer months of two consecutive years.

Ontario.-The two-year course of the Ontario Agricultural College for the Associate Diploma in Agriculture is planned to provide basic training of personnel in agriculture. Young persons interested in making agriculture their vocation study the application of science to agricultural practice and also receive training for rural citizenship.

The four-year course for the degree of Bachelor of Science in Agriculture is designed for fundamental education in the science of agriculture. A sound training is provided for farming as a profession, for entrance into government extension and allied agricultural services, agricultural industry, teaching, and for those who wish to proceed to graduate studies for the Master's and Doctorate degrees.

Graduate courses are also offered leading to the degree of Master of Science in Agriculture. Graduate students are enrolled in a department or departments of the Ontario Agricultural College conjointly with a department or departments of the University of Toronto for advanced courses of study and training in experimentation and scientific investigation. M.S.A. graduates may go into teaching, research, or further post-graduate study for a Doctorate degree.

The Ontario Veterinary College offers a course leading to the degree of Doctor of Veterinary Medicine. The course is five years in length with two four-month periods of regulated summer internship. In addition to its function as a teaching institution, the College is a centre for research into the diseases of animals and provides free consultation for veterinary surgeons in practice as well as extension services in the interests of the live-stock industry.

The Kemptville Agricultural School offers diploma courses in the following subjects:-
(1) A two-year diploma course in agriculture (two terms of six months each) giving practical training in modern farm methods designed primarily for young people who wish to farm but serving also as a preparation for many other occupations closely connected with agriculture. Stress is laid on the development of community leadership. A 300 -acre school farm and residence life are features of the Kemptville Agricultural School. (2) A one-year diploma course (six-month session) leading to a diploma in homemaking and qualification for the less exacting positions in fields of home economics. (3) A two-year diploma course (two terms of six months each) for girls wishing to prepare for positions in the tourist trade, food services, sewing centres and other fields of home economics. (4) A three-month winter course for all dairy apprentices leading to the Dairy School Diploma required for certified buttermakers, cheesemakers and operators of dairy manufacturing plants.

Western Ontario Agricultural School offers a practical course intended for young men who propose to return to farming. It consists of two winter courses of 20 weeks each, starting late in October and ending late in March. All subjects relating to agriculture are included in the curriculum.

Manitoba.-The Faculty of Agriculture and Home Economics of the University of Manitoba offers degree courses in agriculture and home economics as well as a two-year, sub-collegiate diploma course in agriculture. Practical one-season courses in agriculture and homemaking are also given at the Brandon Agricultural and Homemaking School. Graduates in agriculture from this School are admitted to the second year of the diploma course at the University.

Saskatchewan.-The University of Saskatchewan offers a degree course in agriculture for those who intend to teach agriculture in secondary schools or colleges, to engage in research or administrative work, or to farm. Specialization is possible with permission of the faculty. Provision is made for combined courses in agriculture and arts or commerce. Post-graduate courses are available.

The Saskatchewan School of Agriculture offers a practical course intended to give sound training in farm practice and also to train young men to become rural leaders.

All courses leading to a degree in home economics require four years. The prescribed course of studies for the first two years is the same for all pupils but in the third and fourth years four types are offered: (1) for teachers, (2) for dietitians, (3) general, and (4) additional specializations. A combined course leading to a degree in arts and science and in home economics requires at least five years.

Alberta.-The University of Alberta offers a four-year degree course in agriculture to students with senior matriculation or its equivalent. Students may elect a general program or major in a wide range of special courses in the fields of animal science, economics, entomology, dairying, plant science, and soils. Graduate work at the Master level is offered in all departments and at the Doctorate level in some.

The Alberta Schools of Agriculture and Home Economics, located at Olds, Vermilion and Fairview, offer practical two-year courses in agriculture and homemaking. The purpose of the schools is to train young men for farming and young women for homemaking.

The regular course in agriculture and in home economics requires two terms, each extending from late October to early April. A special two-in-one course of one term is offered to students who have completed 70 high-school credits. These schools accept students who have reached 16 years of age. There are no academic requirements for regular students, although Grade VIII is desirable, and no tuition fees fer residents of Alberta. Living accommodation is provided in modern dormitories with dining-room, auditorium and gymnasium facilities.

During the-summer months the schools are used for agricultural meetings and conferences of organizations that are connected with agriculture. During the month of July, leadership courses, 4-H club gatherings, farm camps and other events keep the facilities in constant operation.

British Columbia.-The Faculty of Agriculture at the University of British Columbia offers a four-year general degree course in agriculture and a five-year honours course. In the honours course there are 15 different fields in which a student may specialize. Work is also offered by the Faculty of Agriculture in the Faculty of Graduate Studies through which a student may proceed to the degrees of Master of Science in Agriculture and Master of Science; in a limited number of fields, work is offered at the Doctorate level. The Faculty also offers a one-year or twoyear diploma course in occupational agriculture, adaptable to the needs of individual students.

In co-operation with various branches of the provincial Department of Agriculture and under the auspices of the University Extension Department, the Faculty of Agriculture also offers a number of short courses which vary in length from one or two days to several weeks.

# Section 3.-Agricultural Irrigation and Land Conservation 

Subsection 1.-Federal Projects*<br>PRAIRIE FARM REHABILITATION ACT

The Prairie Farm Rehabilitation Act is a rehabilitation program conceived by Parliament in 1935 to meet the problems of drought and soil drifting adversely affecting agriculture on the Canadian prairies. Existing agencies of the Government of Cangada were assisted, with PFRA funds, to expand their activities in providing leadership in the immediate drought problems. In particular, cultural investigations were carried out by the Experimental Farms Service to ensure the most economic use of the limited supply of soil moisture for crop production and the prevention of soil drifting farm lands that were a menace to surrounding good land. A program of water conservation to meet immediate needs was also initiated in 1935. Other services, such as the Economics Division, were assisted where special knowledge was required for rehabilitation measures.

The major activities of the PFRA Administration, with Headquarters at Regina, Sask., include the construction, for the Government of Canada, of all projects concerned with water conservation and land utilization in the Prairie Provinces. The five principal phases of investigational study in the field of engineering include surveys (exploration), soil mechanics, drainage, hydrology and design. These studies are undertaken by PFRA to gather the fundamental groundwork of technical and other basic information that is required before construction of any project is undertaken.

## Water Conservation

Individual and Community Projects.-PFRA provides engineering and financial assistance to farmers in the construction of water conservation works within drought areas of the three Prairie Provinces as a rehabilitation measure. The amount of financial assistance awarded is largely dependent upon the type and size of the project contemplated. At all times PFRA policy, with respect to assistance provided, is to assist farmers to rehabilitate themselves. Authority to proceed with construction is first secured through the respective provincial water rights departments. Water conservation projects in this category are classified either as "individual farm projects" or as "community projects" undertaken by a group of farmers.

Individual Parm Projects.-During 19 years of operation, PFRA has provided assistance to farmers to construct 50,277 individual farm projects in the form of dugouts and small dams, many of which are suitable for irrigation. The objective is to provide adequate water-storage facilities where water shortages exist, and to assure dependable water supplies through irrigation for domestic requirements, for stock-watering and for the production of live-stock feed.

[^133]The construction of these projects has extended the benefits of water to all parts of the dry area: as a result, a much larger number of farmers have been rehabilitated than would have been possible through the construction of large schemes on well-defined watersheds and without the movement of settlers from their present holdings. The maintenance of valuable live-stock herds has been secured by assuring dependable water supplies on farm stock-watering projects and through the development of 90,000 acres of irrigated land on small irrigation schemes.

Community Projects.-The development of community projects is necessarily confined within the narrow reaches of well-defined watersheds where sufficient water resources are available. Where a group of farmers organizes a water-users' association or a rural municipality provides leadership in an irrigation or waterstorage project, PFRA co-operates with the local body. The usual procedure is for the Government of Canada to assume the capital cost of storage and connecting works and the provincial body to assume the responsibility for the distribution of water to the land or along the watershed. The local body also undertakes maintenance and operation.

To Mar. 31, 1954, PFRA provided the necessary assistance to construct 292 community projects, the majority of which are located on six watersheds originating in the three Prairie Provinces. The purpose of these projects is to conserve the surplus spring runoff water to supplement short supply later in the year. By maintaining stream flows, farmers are assured of dependable water supplies for live stock and for irrigation use. In addition, community projects provide homes for farmers moved from submarginal areas to where they can be assured a livelihood.

PFRA's responsibility for the development of large community irrigation schemes terminates with the construction of primary reservoirs and connecting canals. In special cases where the need for early returns to farmers proved imminent, PFRA has assisted further in the development of the irrigable land and has maintained a constant surveillance of the project's operations and progress. At times, agreement has been reached between PFRA and the provincial government concerned whereby PFRA provides engineering and financial assistance to construct primary works and the province agrees to assist with the development of the irrigable area. Such an agreement is in effect in connection with sections of the Swift Current Irrigation project being developed in Saskatchewan.

Major Irrigation Projects.-During recent years PFRA has administered special votes by Parliament for the construction of water conservation and development projects that involve large expenditures of money. These undertakings have extended PFRA administration beyond the boundaries of the PFRA area in the three Prairie Provinces into British Columbia.

St. Mary Irrigation Project.-The St. Mary Irrigation project has been undertaken by agreement between the Government of Canada and the Province of Alberta. The Government of Canada has agreed to construct the main supply reservoirs and connecting works. The Province of Alberta has undertaken the responsibility for construction of the auxiliary reservoirs and distribution system from the main works to the land (see also p. 398).

The St. Mary River System is by far the most important irrigation project undertaken in Canada and, when completed, will irrigate an area of approximately 510,000 acres. Construction of the St. Mary Dam, key structure on the whole project, was completed in 1951. It stands 195 feet high and is 2,536 feet wide, and creates a reservoir capable of storing 320,000 acre-feet of water. Approximately 200 miles of main canal have been built and 10,000 acres of land have been developed, together with over 100 miles of the distribution canal system. Further lands are under development.

South Saskatchewan River Development.-This development in central Saskatchewan is a proposed multipurpose project to be used for developing power and irrigation, the irrigable area lying between the town of Elbow and the city of Saskatoon. The key structure on the project will be a dam on the South Saskatchewan River located at a point midway between the towns of Outlook and Elbow.

The plan is to stabilize agriculture in the south-central area of the Province where prolonged droughts have created serious economic problems for over 50,000 farmers. Full use will be made of the river's control, power, urban water supply and recreational benefits.

Bow River Irrigation Project.-The Bow River project was purchased by the Government of Canada in 1950 from the Canada Land and Irrigation Company, a private British interest. Development of this project will ensure water to 57,000 acres of land at present irrigated and will bring an additional 180,000 acres "under the ditch". Construction activities so far have been mainly the repair and enlargement of old structures to meet new and increased demands. Twelve thousand acres of new land in the Hays district of the Bow River irrigation project were prepared for settlement in 1951. A complete irrigation distribution system was installed in the area (see also p. 398).

Red Deer Irrigation Project.-The proposed Red Deer River development concerns the irrigation of an estimated 400,000 acres of land located in the eastcentral part of Alberta. The project will consist of a dam on the Red Deer River at Ardley and about 100 miles of main canal to two main reservoirs-Craig Lake and Hamilton Lake. The dam will contain power installations to produce power for pumping and also for sale commercially. An estimated $20,000,000 \mathrm{kwh}$. of water power will be available for sale when power is fully developed. Development plans are under preparation.

Irrigation Development in British Columbia.-Irrigation development in British Columbia has been undertaken in connection with the Veterans' Land Act and at the request of the British Columbia Government. Three projects (the Chase irrigation project and the Johnstone Western Canada ranching projects No. 1 and No. 2) have been completed within the South Thompson Valley area. On these projects, 809 acres of land have been developed for irrigation for the benefit of approximately 40 veterans of World War II.

In the Okanagan Valley three new projects have been completed (the Westbank irrigation project and the Bankhead project near Kelowna, and the Cawston Benches project located east of the town of Keremeos). The three projects irrigate 1,782 acres of land and provide locations for 170 veterans of the Second World War. The Penticton West Benches project, irrigating approximately 200 acres and accommodating 97 veterans on small holdings, was completed in 1953.

Intensive farming is practised in the Okanagan and South Thompson Valleys. The land developed for irrigation by PFRA is used mainly for the growing of small fruits and vegetables and for dairying. New projects are constantly being investigated as potential development areas.

Major Reclamation Projects.-Riding Mountain Reclamation Project.Extensive investigations have been undertaken by PFRA in the Riding Mountain area at the request of the Manitoba Government. A serious flood problem exists on a number of streams flowing off the north and east slopes of Riding Mountain and Duck Mountain, causing damage to a large area of valuable agricultural land. PFRA was asked to devise and carry out a plan to relieve a land area of over 252,000 acres affected by flooding.

The cost of reclamation in the area is borne jointly by the Government of Canada and the Government of Manitoba. Construction work so far has centred mainly along Edwards and Mink Creeks in the Riding Mountain area. The work consisted of clearing and dyking stream channels and straightening the alignment of channels by building stream cutoffs and diversions. The larger portion of the work on these two streams was completed in 1951.

Stream bank erosion studies are also being continued on streams of Riding Mountain to stabilize stream banks and minimize erosion problems. It will be necessary to continue the studies for a number of years before definite results can be presented.

Saskatchewan River Reclamation Project.-Surveys and investigations were made by PFRA to determine the possibility of successfully reclaiming land for agriculture in the Pasquia area of the Saskatchewan River delta region near the town of The Pas in Manitoba. As a result, an agreement was reached on Apr. 17, 1953, between the Government of Canada and the Province of Manitoba for the construction of the necessary reclamation works to protect the area from flooding and to settle about 96,000 acres of suitable land. The Government of Canada is assuming the costs of building the main protective works, and the Province is assuming the costs of settlement, maintenance of works, and internal drainage. Half of the reclaimed land will be reserved for the resettlement of farmers from drought areas and the remainder is to be sold. Part of the proceeds from the sale of the lands will go to the Federal Government as a partial reimbursement of the costs of building the main protective works. Construction was started early in 1953 ; it will take three years to complete the works consisting of dykes, drains and diversion of streams.

Assiniboine River Project.-This project is being undertaken at request of the Manitoba Government to prevent flooding on the Assiniboine River, particularly between Brandon and Virden and between Portage la Prairie and Headling where thousands of acres of valuable agricultural land have been inundated repeatedly. All the studies undertaken are in conjunction with the Red River Basin investigation currently being carried out.

Several alternative plans are being investigated to divert excess water from the Assiniboine River during flood stages. Detailed study is being given to water runoff data in the Assiniboine River Drainage Basin and the possibility of building water-storage works on the headwaters of the Assiniboine River.

Lillooet Valley Reclamation Project.-The Lillooet Valley Reclamation project was undertaken upon agreement between the Government of Canada, the Government of British Columbia and the Pemberton Valley Reclamation District. This project is located in the Lillooet River Valley above and below the town of Pemberton and its objective is to protect lands now under cultivation from flooding and to reclaim additional lands by dyking and drainage. The land reclaimed amounted to 14,000 acres, which allowed farmers in the district to increase their holdings and also permitted the settlement of hundreds of additional inhabitants.

## Land Utilization

In addition to cultivation and water-conservation activities, rehabilitation of drought areas involves the conversion of large tracts of land proved to be unsuitable for crop production, which had initially been cultivated to a permanent grass cover for live-stock production, and the relocation of farmers residing thereon. To this end, PFRA's Land Utilization Program has constructed 62 operating pasture units, resulting in the reclamation of $1,677,416$ acres of submarginal land. During the 1953-54 construction season 25,396 additional acres were fenced and included in the pasture system.

During the year ended Mar. 31, 1954, summer grazing was provided for 110,000 head of live stock owned by 6,421 patrons living on lands adjacent to these pastures.

An extensive pasture improvement program is in effect on all pastures and is immediately initiated as soon as new areas are enclosed. This policy has more than doubled the 1938 average carrying capacity on pasture land. The three improvement policies most extensively practised in all pastures are: (1) regrassing-since 1938 approximately 180,293 acres of land in community pastures have been regrassed; (2) development of stock-watering sites-to Mar. 31, 1954, over 1,000 stock-watering dams, dugouts and wells have been constructed in community pastures; and (3) pasture management and controlled grazing.

## MARITIME MARSHLANDS REHABILITATION ACT

The marshlands of Prince Edward Island, Nova Scotia and New Brunswick are among the more productive soils in Canada when protected and properly cultivated. They are composed of deposits laid down by tidal waters and are, for the most part, adjacent to the Bay of Fundy.

The initial areas were reclaimed as early as 1630 and since that time about 80,000 acres have been protected by dykes and aboiteaux. These structures prevented flooding by tide water and permitted cultivation after drainage had been carried out.

Through a variety of circumstances-loss of cattle markets, loss of hay markets and the increase in labour costs-maintenance of the protective structures was not adequately carried out and deterioration of many of the structures resulted. Because the marshlands, when protected, can play such an important role in the agricultural economy of the provinces concerned, the Government of Canada and the Provincial Governments of Nova Scotia and New Brunswick passed legislation permitting them to carry on a program of reclamation and rehabilitation of these lands. The federal Act, the Maritime Marshland Rehabilitation Act, was passed in 1948. Complementary provincial marshland reclamation Acts were passed by both Nova Scotia and New Brunswick in 1949. These Acts permitted
agreements to be signed whereby the Government of Canada would construct or reconstruct the protective works, normally called dykes, aboiteaux and breakwaters, and also would assume the responsibility of maintaining these works until such time as they could be turned back to the Provinces. The Federal Government is responsible also for any engineering work in connection with the complete program. The Provinces are responsible for the organization of the marsh areas, the freshwater drainage and acquisition of any land required. They are responsible also for the instigation and follow-up of a suitable land-use program. Owing to the small area of marshland in Prince Edward Island, no provincial legislation was considered necessary in that Province.

By Mar. 31, 1954, the Provinces had asked to have 127 areas considered for reclamation purposes. These comprised 38,588 acres of marshland in New Brunswick (including 8,058 salt or unprotected marsh), $34,102 \cdot 4$ acres in Nova Scotia (including 5,486.5 salt or unprotected marsh) and 275 acres in Prince Edward Island. The $72,965 \cdot 4$ acres of marshland in the three Provinces constitute an integral part of the estimated 404,000 acres of farm land.

By the end of the 1954 construction season, protective works of a major type had been carried out on 70 projects and 35 areas had been temporarily reconstructed.

Investigations to determine the advisability of constructing a large structure to eliminate the need for many miles of dyke and many aboiteaux were being carried out on the Annapolis River in Nova Scotia and on the Tantramar and Shepody Rivers in New Brunswick. Construction on the Shepody River project was started in 1953.

## Subsection 2.-Provincial Projects

Saskatchewan.*-Crown lands have been administered by the Lands Branch of the Saskatchewan Department of Agriculture since Apr. 1, 1947. On Apr. 1, 1949, the Conservation and Development Branch was established and made responsible for: (1) the administration of water rights; (2) development of irrigation; (3) flood control and drainage; (4) restoration of abandoned, under-utilized and misused lands; and (5) construction of provincial community pastures outside the area covered by the agreement with PFRA and not provided for in the agreement with the Federal Government.

The Provincial Department of Agriculture's conservation and development activity in the field of agricultural rehabilitation and reclamation is based on cooperation with the federal PFRA program with which a closely knit working arrangement is maintained. Following is a summary of the activities of the Saskatchewan Department of Agriculture, as at Dec. 31, 1953:-

Irrigation Development.-By the end of 1953, 100,908 acres of topographic surveys and 139 miles of strip topographic surveys were completed on irrigation projects; 252 miles of ditch were built and 84 miles maintained; 1,122 structures were installed and 3,310 acres were levelled.

Drainage Development.-Topographic surveys covered 121,034 acres and 3,146 miles of strip topographic surveys were completed on drainage projects; 298 miles of ditch and 120 miles of road were built and 93 miles of ditch maintained; 196 structures were installed in drainage systems.

[^134]Development of Under-utilized and Misused Lands.-A total of 40,122 acres of tame perennial forage crops were seeded, mostly for fodder production; and 538 miles of fence were built or rebuilt in the establishment of departmental, municipal or co-operative pastures.

Miscellaneous Project Work.-Such projects included: regrassing about 12,000 acres; planting 350,000 trees; constructing 89 dams and dugouts (with the co-operation of groups of farmers in the area of northern Saskatchewan outside the boundaries of the PFRA program) organizing 11 conservation areas covering $1,418,000$ acres, in order to help local farmers install and maintain drainage and other conservation works.

Pasture Development.-Development and improvement of 72 pastures, with a total area of 639,025 acres, was carried out in the area of the Province outside the PFRA program. These pastures are operated by the Lands Branch of the Department of Agriculture, by the municipality or municipalities in which they are located, or by co-operative associations. In 1953, provincial community pastures alone provided grazing for 12,536 cattle and calves owned by 582 local farmers.

Development of Land for Settlement.-Six projects for the development and improvement of unoccupied land for agricultural settlement were carried out during the period Apr. 1, 1950, to Dec. 31, 1953. These projects included the breaking of 50 acres on each of 287 farm units; each unit is leasable for a 33 -year term, the leases specifying the conservation methods to be followed.

Alberta.*-Extensive surveys have been carried out in Alberta to determine the distribution and extent of the available water supplies in the Province and their most beneficial use for irrigation, water power and other purposes. Sect. 69 of the Alberts Water Resources Act gives the Minister of the Department of Water Resources wide powers with respect to investigation of the water resources of the Province.

In more recent years much of the work has been carried out by the Federal Government in co-operation with the Provincial Government. Stream measurement is now done by the Hydrometric Service of the Federal Department of Northern Affairs and National Resources, and irrigation surveys are carried out largely by the Water Development Organization under PFRA. The Water Resources Division of the Federal Resources Department and the power companies operating in the Province also assist in the program.

The Calgary Power Company has completed a fairly extensive and detailed water-power survey of the Bow River and its tributaries and, as a result, the Company has constructed a number of water-power reservoirs and power stations on the stream. Also, in co-operation with the Provincial Government, the Company has made a preliminary survey of Lesser Slave River and the Athabasca River from Athabasca to McMurray.

By Order in Council dated Feb. 17, 1941, the St. Mary and Milk River Water Development Committee was set up to investigate and report on the many phases of irrigation development of southern Alberta including water supplies available to Canada from the Waterton, Belly, St. Mary and Milk Rivers; the most feasible plan to put these waters to the most beneficial use; the benefits that such waterdevelopment projects would confer on federal and provincial interests; the allocation of costs; and methods that might be adopted to finance such developments. The

[^135]Committee completed a very thorough investigation and published a full and comprehensive report, not only on the projects on the international streams, but also on other projects in Alberta.

The allocation of water to the major irrigation projects in Alberta, as approved by the Prairie Provinces Water Board, are as follows:-

| Project | Acres Irrigable | Water Allocation in Acre-feet |
| :---: | :---: | :---: |
| St. Mary and Milk River Development. | 465,000 | 796,000 |
| Western Irrigation District............... | 50,000 | 85,700 |
| Eastern Irrigation District. | 281,000 | 562,000 |
| Bow River Irrigation Development | 240,000 | 478,534 |
| United Irrigation District. | 34,000 | 51,000 |
| Lethbridge Northern District. | 96,135 | 150,000 |
| Mountain View Irrigation District | 3,600 | 6,000 |
| Etna Irrigation District........... | 7,300 | 13,000 |
| Leavitt Irrigation District | 4,400 | 7,000 |
| Macleod Irrigation District | 5,000 | 8,000 |
| Private Projects... | 70,000 | 80,000 |
| Totals. | 1,256,435 | 2,237,234 |

The following paragraphs outline development during the 1953-54 season:-
St. Mary River Project.-Progress on this project was good during the season despite delay caused by a wet spring. By early 1954, 263,000 acres were either being served, were completed and capable of being served or were under construction. To Mar. 31, 1954, the Alberta Government's expenditure on the project was estimated at $\$ 11,739,361$.

Bow River Project.-During the season, PFRA completed construction of the Travers dam and continued construction on the main canal and other works. The Alberta Government expended approximately $\$ 200,000$ on the Retlaw-Lomond section of the Bow River project and awarded the 1954-55 contract for that tract; appropriation for $1954-55$ is $\$ 750,000$.

William Pearce Irrigation Project.-Surveys and studies were continued during 1953 regarding the suitability of the soils in those areas blocked out for the project.

Macleod Irrigation District.-This system was placed in operation for a short period in 1953 but very little irrigating was carried out. Most of the water run through the system was used to fill dugouts for stock-watering purposes. During the year extensions were made to the main canal and laterals. The amount expended on this project by the Provincial Government in the year ended Mar. 31, 1954, was $\$ 21,400$.

Lake Level Stabilization.-Water stabilization projects have been built as a co-operative effort between the Water Resources Office, the Department of Lands and Forests and Ducks Unlimited. For the most part, they are small structures placed in the outlets of major lakes and pipes are inserted through the dams to maintain steady flow in outlet creeks. These projects have a definite water conservation value as well as furnishing a habitat for fish and game. In 1953, work was done on Norberg and Bunder Lakes; the expenditure on these two projects was $\$ 8,000$.

Heart River Project.-No major construction was done on this project in 1953 but a canal that will supply water to the town of McLennan will be constructed in 1954.

Stream Control.-The season's work consisted of: additional dyking on the Highwood River for the purpose of retaining Bow River water in its own watershed; extending and repairing the dyke near the town of Fort Macleod, which was damaged
during the flood of 1953; cleaning out the Seven Persons Creek and Ross Creek channels at Medicine Hat; preparing an aerial survey map of the Blairmore and Coleman district to correct the flooding of the Crowsnest River; constructing protection works to prevent the Oldman River from by-passing the diversion works of the Lethbridge Northern Irrigation District. Expenditure on these projects amounted to $\$ 233,245$ in the year ended Mar. 31, 1954.

Peace River Dugout Program.-The Provincial Department of Agriculture extends assistance for the construction of dugouts in the Peace River area because of a serious lack of underground water. Assistance is on the basis of six cents per cu. yard up to a maximum of $\$ 120$ per dugout ( $2,000 \mathrm{cu}$. yards). During 1953, 115 dugouts were constructed making a total of 2,163 dugouts to Mar. 31, 1954. Expenditure in 1953-54 amounted to $\$ 12,463$. The program, which is of incalculable benefit to the Peace River area, is administered by District Agriculturists.

Ground Water Control Act.-This Act, passed in 1953, is designed to prevent the wastage of underground water and water pressure in the acquafers. Regulations were drafted and are now officially adopted requiring the registration of all those who drill for water on lands not necessarily their own. It is now proposed to register all water-boring operators and to require proper control of water flows obtained from underground sources.

British Columbia.*-About 17 p.c. of the arable land in British Columbia is under cultivation and nearly all the grazing area is being utilized. The $1,100,000$ acres developed give a ratio of approximately one acre per person. Within this arable area there exist an estimated 163,177 acres of irrigated land, and the total acreage of irrigable land in British Columbia is estimated at 181,974 acres.

About two-thirds of the irrigated area is made up of individual projects and the other third is served by the larger irrigation projects listed in Table 5.

[^136]5.-Major Irrigation Projects in British Columbia, circa 1954

| Project |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

5.-Major Irrigation Projects in British Columbia, circa 1954-concluded

| Project | Water Supply | Irri- <br> gable <br> Area | Irri- <br> gated <br> Area | Average Irrigation Charge | Locality |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | acres | acres | 8 |  |
| Darfield | Lindquist Creek. | 363 | 200 | . | North Thompson |
| East Creston | Arrow Creek | 1,562 | 1,378 | 3.96 | Kootenay Valley |
| Ellison. | Kelowna Creek............. | 662 | 662 | $\because$ | Okanagan Valley |
| Girouard | B.X. (Swan Lake) Creek... | 101 | 49 | 6.00 | " |
| Glenmor | Kelowna Creek.............. | 1,851 | 1,851 | 8.00 | " V |
| Grand For | Kettle River. | 2,500 | 2,000 | 7.20 | Kettle Valley |
| Heffey.................... | North Thompson River.... | 1,648 | 1,648 | 6.00 | North Thompson Valley |
| Kaleden................... | Marron River, Shatford Creek, etc.. | 600 | 535 | 23.41 | Okanagan Valley |
| Keremeos | Ashnola River, etc............ | 1,120 | 940 | 14.40 | Similkameen Valley |
| Malcolm Horie | Joseph Creek. ................ | 220 | 150 | 3.00 | Near Cranbrook |
| Merritt Central | Coldwater River | 125 | 100 | 2.50 | Nicola Valley |
| Naramata................. | Lequime, Naramata, Robinson Creeks. | 977 | 977 | 19.51 | Okanagan Valley |
| Okanagan Falls. | Shuttleworth Creek.......... | 530 | 209 | 10.00 | Okang ${ }_{\text {LI }}$ |
| Okanagan Mission. | Bellevue Creek and Okanagan Lake. | 446 | 366 | 17.00 | " |
| Osoyoos. | Haynes Creek, etc........... | 203 | 25 |  | " |
| Oyama. | Long Lake. . . . . . . . . . . . . . | 293 | 293 | 22.00 | " |
| Peachland . . . . . . . . . . . | Peachland Creek. . . . . . . . . | 550 | 440 | 18.00 | Columis Valley |
| Renata Irrigation District. | Dog Creek. ................ | 162 | 129 250 | 15.00 6.00 | Columbia Valley |
| Robson.... | Pass Creek. | 263 863 | 250 863 | 6.00 |  |
| Scotty Creek. | Scotty Creek................. Hydraulic Creek. . | 2,777 | 2,777 | 13.32 | Okanagan Valley |
| South Vernon.. | Vernon Creek. | 319 | 207 | 3.60 | " |
| Trout Creek. | Trout Creek. | 320 | 309 | 12.60 | " |
| Valleyview. | South Thompson River..... | 107 | 107 | 3.00 | South Thompson Valley |
| Vermilion | Kindersley Creek | 1,491 | . | 5.75 | Columbia Valley |
| Vernon. | Coldstream, Paradise Creeks, etc. | 7,836 |  | 10.00 | Okanagan Valley |
| Vinsulla | Knouff Creek, etc. .......... | 298 | 155 | 3.50 |  |
| Westbank | Powers Creek. | 798 | 772 | 15.30 |  |
| Winfield and Okanagan Centre. | Vernon Creek................ | 1,897 | 1,858 | 15.00 | Val |
| Wynndel................... | Duck Creek.................. | 516 | 417 | 4.50 | Kootenay Valley |
| Irrigation Companies- |  |  |  |  |  |
| Columbia Valley Irrigated Fruitlands Company.... | Bruce Creek................. | 2,000 | 367 | 3.50 | Columbia Valley |
| Woods Lake Water Company. | Oyams Creek.............. | 832 | 832 | 7.50 | Okanagan Valley |

## Section 4.-Statistics of Agriculture*

The collection, compilation and publication of statistics relating to agriculture is a responsibility of the Dominion Bureau of Statistics. Valuable information is obtained through the Decennial Census of Canada and the Census of the Prairie Provinces. Complete details of the 1951 Census of Agriculture may be found in Volume VI of the Census of Canada, 1951. $\dagger$

The Bureau also collects and publishes primary and secondary statistics of agriculture on an annual and monthly basis. The primary statistics relate mainly to the reporting of crop conditions, crop and live-stock estimates, values of farm lands, wages of farm labour and prices received by farmers for their products. The secondary statistics relate to the marketing of grain and live stock, dairying, milling and sugar industries and cold-storage holdings.

[^137]In the collection of annual and monthly statistics, the Federal Department of Agriculture and the Provincial Departments of Agriculture, as well as such agencies as the Board of Grain Commissioners and the Canadian Wheat Board, co-operate with the Bureau. Many thousands of farmers throughout Canada also send in reports voluntarily.

The figures for 1949 to 1953 (except for 1951 Census data) contained in this Section do not include those for Newfoundland, though that Province came into Confederation on Mar. 31, 1949. Agriculture plays a relatively minor part in Newfoundland's economy. The climate is not well suited to the production of any but the hardier crops and the amount of pasture land and arable soil is limited.

## Subsection 1.-Cash Income from the Sale of Farm Products

Preliminary estimates indicate that, during 1953, Canadian farmers (exclusive of Newfoundland) realized $\$ 2,741,300,000$ from the sale of farm products and from participation payments on previous years' grain crops. This estimate is 3 p.c. below the all-time high of $\$ 2,826,600,000$ estimated for 1952. Supplementary payments made to western farmers under the provisions of the Prairie Farm Assistance Act amounted to only $\$ 1,600,000$ in 1953 as compared with $\$ 5,100,000$ in 1952. Higher income from the sale of wheat, dairy products, eggs, corn, sugar beets, hay and wool was more than offset by lower returns from other products.

As in 1952, a heavy year-end farm carry-over of wheat enabled western farmers to market exceptionally large quantities of this grain during the first seven months of the year. Although deliveries during the latter part of 1953 were below the 1952 level, the total for the year was well above that for 1952. The quality of the grain

delivered during the spring of 1953 was also above that of a year earlier. Though the initial prices for specific grades were unchanged from the previous year, the higher grading resulted in a higher weighted average initial price. Total wheat participation payments in 1953 at $\$ 125,400,000$ were substantially below those of 1952. Final wheat payments, usually made before the end of the calendar year, were delayed until the closing of the 1952-53 pool on Jan. 30, 1954. Although prices of oats and barley were relatively unchanged in 1953, marketings were down.

The greatest reduction in receipts from the sale of field crops occurred in the receipts from potatoes. As a result of substantial reduction in potato prices from the unusually high levels of the previous year, income from this source was down by more than 50 p.c. A smaller crop and reduced prices combined to provide returns from tobacco of $\$ 59,200,000$ as against $\$ 66,700,000$ of the previous year.

Lower prices for all live stock except hogs, and smaller marketings of hogs and sheep combined to reduce income from the sale of live stock about 6 p.c. below the 1952 level. A substantial increase in cattle marketings during the year 1953 reflected the build-up of the cattle population which commenced in 1950 and continued during the period of restricted export movement arising out of the discovery of foot-and-mouth disease in Saskatchewan early in 1952. Support for cattle prices, which commenced in April 1952 as a result of the foot-and-mouth outbreak and the consequent imposition by the United States of an embargo on imports of Canadian cattle, was continued until the lifting of the import restrictions on Mar. 1, 1953. Prices of good steers, at Toronto, fluctuated around the support price of $\$ 23$ per 100 lb . during the first two months of 1953 and then declined by approximately three dollars to a level that was maintained fairly consistently during the remainder of the year.

Early in 1953, hog marketings began to decline from the 1952 level and, as the year progressed, the difference between the two periods became more apparent. This decline in hog marketings was recorded in all provinces except Alberta where increased marketings occurred. Prices for hogs in 1953 were well above the 1952 level. The weighted average price of all hogs sold in Canada was the third highest on record, being exceeded only by prices established in the years 1949 and 1951. This favourable price position for hogs in Canada during 1953 is attributable, in large part, to the strong market for hogs prevailing in the United States.

Income from the sale of poultry and eggs was about 5 p.c. higher than in 1952. Although income from poultry meat was below the 1952 level, this decline was more than offset by increased returns from the sale of eggs. While total marketings of eggs in 1953 were relatively unchanged from 1952, the average prices realized were substantially higher.

Income from the sale of dairy products at $\$ 113,100,000$ was approximately 4 p.c. above that of 1952 . Lower prices were more than offset by increased production occasioned by a continued rise in numbers of milk cows during the year. Under the Federal Government price-support program, the Agricultural Prices Support Board purchased Canada First Grade creamery butter meeting its specifications at 58 cts. a pound, f.o.b. Montreal or Toronto, with appropriate differentials for other delivery points. This program, in effect for two years and due to expire at the end of April 1953, was renewed for a further two-year period.

## 6.-Cash Income from the Sale of Farm Products, by Source, 1951-53

## (Exelusive of Newfoundland)

Nors.-Figures for 1926-48 will be found in DBS Reference Paper No. 25 (Part II). Figares for 1949 are given in the 1952-63 Year Book, p. 407, and for 1950 in the 1954 edition, p. 402.


[^138]
## 7.-Cash Income from the Sale of Farm Products, by Province, 1951-53

Nots.- Figures for 1926-45 will be found in DBS Reference Paper No. 25 (Part II). Figures for 1946-49 are given in the 1952-53 Year Book, p. 408, and for 1950 in the 1954 edition, p. 403.

| Province | $1951{ }^{\text {r }}$ | 1952r | 1953 |
| :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 |
| Newfoundland. |  |  |  |
| Prince Edward Island. | 26,640 | 31,627 | 22,435 |
| Nova Scotia, | 44,395 | 39,757 | 40,566 |
| New Brunswick | 50,335 | 52,952 | 46,051 |
| Quebec...... | 437,006 | 412,583 | 387,075 |
| Ontario.. | 786,805 | 718,965 | 692,657 |
| Manitoba. | 265,711 | 249,843 | 214,187 |
| Saskatchewan. | 636,189 | 710,141 | 743,352 |
| Alberta. | 459,949 | 506,529 | 491,529 |
| British Columbia | 109,431 | 104,219 | 103,400 |
| Totals. | 2,816,461 | 2,826,616 | 2,741,252 |

Net Income of Farm Operators from Farming Operations, 1953.Preliminary estimates indicate that during 1953, Canadian farm operators (exclusive of Newfoundland) realized a net income from farming operations of $\$ 1,656,600,000$. This figure is 13 p.c. lower than the revised net income of $\$ 1,900,800,000$ realized in 1952 and 23 p.c. lower than the 1951 record high net income estimate of $\$ 2,154,500,000$. The decline in net income for the second consecutive year was the result of a drop of 8 p.c. in the gross farm income, more than offsetting a decline of 3 p.c. in farm operating expenses and depreciation charges. Gross farm income in 1953 is estimated at $\$ 3,193,300,000$ as compared with the all-time high of $\$ 3,578,500,000$ reached in 1951. The decline from the 1952 level of $\$ 3,477,000,000$ was the result of lower returns from the sale of farm products and a very substantial drop in the value of year-end changes in farm-held stocks of grains and live stock. Income in kind for 1953 was down 3 p.c. from 1952; this item includes the value of that produce grown by farm operators and consumed in the farm home plus an imputed rental value of the farm dwelling.

## 8.-Net Income of Farm Operators from Farming Operations, 1951-53

(Exclusive of Newfoundland)

| Item | 1951 ${ }^{\text {r }}$ | 1952. | 1953 |
| :---: | :---: | :---: | :---: |
|  | \$'000 | 8'000 | \$'000 |
| 1. Cash income from sale of farm products. | 2,816,461 | 2,826,616 | 2,741,252 |
| 2. Income in kind. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 408,613 | +237,742 | +50,885 |
| 3. Value of changes in inventory | 3,578,453 | 3,477,854 | 3,193,263 |
| 5. Operating expenses........... | 1,238,011 | 1,369,860 | 1,305,518 |
| 6. Depreciation charges.................................. | 196,271 | 212,346 | 232,753 |
| 7. Total operating and depreciation (Items $5+6$ ) $\ldots \ldots \ldots \ldots$. | 1,434,282 | 1,582, 206 | 1,538,271 |
| 8. Net income, excluding supplementary payments (Items | 2,144,171 | 1,895,648 | 1,654,992 |
| F9. Supplementary paymen | 10.356 | 5,131 | 1,572 |
| 10. Net income of farm operators from farming operations <br> (Items 8+9) ${ }^{1}$. | 2,154,527 | 1,900,779 | 1,656,564 |

1 Includes estimated rental value of farm homes and supplementary payments made under the provisions of the Prairie Farm Assistance Act.

## 9.-Net Income of Farm Operators from Farming Operations, by Province, 1951-53

Nors.-Net income includes estimated rental value of farm homes and supplementary payments made under the provisions of the Prairie Farm Assistance Act.

| Province | $1951{ }^{\text {r }}$ | 1952 ${ }^{\text {r }}$ | 1953 |
| :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 |
| Newfoundland. ......... |  |  |  |
| Prince Edward Island. . | 17,392 | 20,550 | 12,335 |
| Nova Scotia. ${ }^{\text {New Brunswick... }}$ | 26,142 37,572 | 18,932 36,196 | 20,155 28,213 |
| Nueber....... | 333,785 | 2\%2,350 | 262,520 |
| Ontario... | 558,174 | 429,707 | 401,576 |
| Manitoba. | 181,897 | 157,015 | 110.611 |
| Saskatchewan | 552,962 | -564,917 | 474,290 |
| Alberta. | 392,414 | 361,308 | 306,951 |
| British Columbia | 54,189 | 39,804 | 39,913 |
| Totals. | 2,154,527 | 1,900,779 | 1,656,564 |

Value of Farm Lands.-The average value of occupied farm lands in Canada for 1953 is reported as $\$ 51$ per acre. This represents an increase of $6 \cdot 3$ p.c. over the average value in 1952 and an increase of $112 \cdot 5$ p.c. over the 1935-39 average. Increases in farm land values over 1952 levels were recorded in all provinces except Prince Edward Island and Nova Scotia. The all-Canada average is determined by weighting the provincial averages by the area of occupied farm land in each province.

## 10.-Average Values per Acre of Occupied Farm Lands, by Province, Selected Years, 1910-53

Nors.-Figures include unimproved lands and buildings.

| Province | 1910 | 1920 | 1929 | 1935 | 1939 | 1941 | 1943 | 1945 | 1947 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | 5 | \$ | \$ | \$ | \$ | \$ | \$ | \$ | 8 | \$ | \$ | \$ | \$ |
| Newfoundland. $\qquad$ Prince Edward Island | 31 | 49 | 43 | 31 | 35 | 7.7 | 37 | $\ldots$ | $\ldots 7$ | 5 | 5 | 60 | 1 | 6i |
| Nova Scotia. . . . | 25 | 49 | 43 | 31 | 35 | 34 | 337 | 43 | 47 | 52 | 55 | 60 | 64 | 51 |
| New Brunswi | 19 | 35 | 35 | 25 | 29 | 25 | 33 | 40 | 44 | 45 | 51 | 52 | 51 | 54 |
| Quebec. | 43 | 70 | 55 | 41 | 44 | 50 | 58 | 57 | 61 | 59 | 66 | 74 | 76 | 77 |
| Ontario. | 48 | 70 | 60 | 42 | 46 | 45 | 56 | 57 | 64 | 71 | 75 | 90 | 92 | 98 |
| Manitoba. | 29 | 39 | 26 | 17 | 17 | 17 | 19 | 21 | 27 | 36 | 39 | 42 | 43 | 49 |
| Saskatchewan | 22 | 32 | 25 | 17 | 15 | 14 | 15 | 18 | 21 | 24 | 26 | 28 | 29 | 30 |
| Alberta. | 24 | 32 | 28 | 16 | 16 | 16 | 18 | 20 | 25 | 33 | 35 | 37 | 37 | 43 |
| British Columbi | 74 | 175 | 90 | 58 | 60 | 60 | 62 | 67 | 75 | 84 | 87 | 92 | 93 | 99 |
| Canada Average | 23 | 48 | 37 | 24 | 25 | 25 | 28 | 30 | 35 | 40 | 43 | 47 | 48 | 51 |

${ }^{1}$ See text preceding table.

## Subsection 2.-Volume of Agricultural Production

The index of farm production in Canada for 1953 is estimated at $155 \cdot 0$ $(1935-39=100)$. This figure is the third highest recorded since 1935 and is exceeded only by the estimate of $164 \cdot 2$ for 1942 and the all-time high of $165 \cdot 2$ established in 1952.

The drop of approximately 10 points in the index from 1952 to 1953 was largely attributable to smaller grain crops and a decline in the output of live stock. To a lesser degree, reduced production of sugar beets, fruits, tobacco, vegetables and maple products also contributed to the decline. Offsetting this to some extent were the gains in production recorded for potatoes, dairy products, and poultry and eggs.

## 11.-Index Numbers of Physical Volume of Agricultural Production, by Province, 1944-53

(1935-39 $=100$. Exclusive of Newioundland)
Norz.-For a description of this index, methods and coverage, see DBS Quarterly Bulletin of Agricultural Statistics for April-June, 1952. Figures for 1935-43 are given in the 1950 Year Book, p. 420.

| Year | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1944. | 119.2 | 107.3 | 136.8 | $131 \cdot 1$ | 114.0 | $145 \cdot 1$ | 196.4 | $125 \cdot 1$ | $140 \cdot 0$ | $140 \cdot 4$ |
| 1945 | 121.3 | $80 \cdot 7$ | 106.7 | $100 \cdot 7$ | $107 \cdot 6$ | 116.8 | $129 \cdot 3$ | $97 \cdot 6$ | $131 \cdot 1$ | $110 \cdot 9$ |
| 1946 | $123 \cdot 6$ | $100 \cdot 3$ | 119.6 | $112 \cdot 2$ | 117.6 | $139 \cdot 1$ | $138 \cdot 7$ | $122 \cdot 7$ | 151.9 | $125 \cdot 6$ |
| 1947 | 128.9 | 86.7 | 119.0 | $102 \cdot 6$ | $107 \cdot 7$ | $122 \cdot 1$ | 128.2 | $115 \cdot 8$ | 146.8 | 116.0 |
| 1948 | $133 \cdot 3$ | 91.8 | $124 \cdot 3$ | $121 \cdot 6$ | 119.0 | $143 \cdot 8$ | 131.8 | 118.5 | $143 \cdot 7$ | $125 \cdot 1$ |
| 1949 | $158 \cdot 8$ | $105 \cdot 1$ | 145.8 | 126.4 | $124 \cdot 9$ | $125 \cdot 7$ | $128 \cdot 1$ | 98.1 | 148.7 | 122.3 |
| 1950 r | $148 \cdot 2$ | 105.2 | $140 \cdot 2$ | $136 \cdot 3$ | 128.1 | 137.8 | $168 \cdot 3$ | 121.8 | 134.2 | 137.8 |
| 1951 \% | $119 \cdot 5$ | $87 \cdot 7$ | $110 \cdot 4$ | $139 \cdot 0$ | $128 \cdot 6$ | $146 \cdot 4$ | $218 \cdot 1$ | 157.1 | 126.9 | $154 \cdot 7$ |
| 1952 r | $142 \cdot 3$ | 79.9 | 109.4 | $124 \cdot 2$ | 117.6 | $162 \cdot 7$ | $266 \cdot 7$ | 175.1 | $132 \cdot 2$ | 165.2 |
| 1953. | $142 \cdot 9$ | $80 \cdot 0$ | $121 \cdot 1$ | 131.6 | $125 \cdot 5$ | 128.9 | $230 \cdot 8$ | $159 \cdot 6$ | $135 \cdot 3$ | 155.0 . |

## Subsection 3.-Field Crops

Production of many of Canada's grain, fodder and oilseed crops in 1953 reached, for the third consecutive year, unusually high levels. New production records were set for only one crop, soybeans, but harvests of five other crops-wheat, barley, rye, shelled corn and rapeseed-were the second largest on record. Although seeding in many areas throughout the country was unduly prolonged, warm weather and frequent rains, especially in Western Canada, so accelerated plant growth that the adverse effects of late seeding were largely overcome. Losses to the Western Canadian grain crop from insect damage were, as in 1952, almost negligible but damage from hail and rust was more serious than it has been in recent years.

Almost without exception, average yields per acre of spring-sown grains in 1953 were higher than in 1952 in Eastern Canada and British Columbia but somewhat below the record or near-record 1952 levels in the Prairie Provinces. Average yields of fall-sown grains, with the minor exception of fall rye in Quebec, were above those of 1952. Generally favourable growing and harvesting conditions in Western Canada in 1953 also contributed to a crop of high quality. About 79 p.c. of the wheat inspected during the crop year 1953-54 graded No. 4 Northern or higher (excluding "Toughs" and "Damps"), compared with 66 p.c. in 1952-53 and 62 p.c. for the five-year average (1947-48-1951-52). Grades of Western Canadian oats, barley, rye and flaxseed in 1953-54 showed similar improvement over those of both the preceding crop year and the five-year averages.

The gross value of production of principal field crops from Canadian farms in 1952, based on average prices received by farmers throughout the 1952-53 crop year, was estimated at a record $\$ 2,306,000,000$, exceeding by almost 9 p.c. the previous record of $\$ 2,120,000,000$ set in 1951. Complete data on the value of Canada's 1953 crops will not be available until several months after the close of the 1953-54 crop year but the gross value is expected to be below that of 1952 as the result of reduced volume of production and somewhat lower prices for many crops. Estimates of the value of the 1953 crops, based on average prices received by farmers during the crop year ended July 31 , 1954, will be published in one of the regularly scheduled DBS crop reports and in the Quarterly Bulletin of Agricultural Statistics.

12.-Acreages, Yields and Prices of Principal Field Crops, 1951-53, with
(Exclusive of Newfoundland)

| Crop and <br> Year | Area | Yield per Acre | Pro- duction | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { Price } \end{aligned}$ | Total Value ${ }^{1}$ | $\begin{aligned} & \text { Crop } \\ & \text { and } \end{aligned}$ Year | Area | Yield per Acre | Production | Average Price | Total Value ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { '000 } \\ & \text { acres } \end{aligned}$ | bu. | '000 | $\begin{aligned} & \text { \& per } \\ & \text { bu. } \end{aligned}$ | \$'000 |  | $\begin{aligned} & \text { '000 } \\ & \text { acres } \end{aligned}$ | bu. | '000 | $\begin{aligned} & \text { \$ per } \\ & \text { bu. } \end{aligned}$ | \$'000 |
| Wheat- |  |  |  |  |  | Mixed Grains- |  |  |  |  |  |
| Av. 1945-49 | 24,717 | 14.8 | 366,349 | $1 \cdot 62$ | 593,271 | Av. 1945-49 | 1,429 | 35.4 44.9 | 50,551 68,509 | 0.85 1.01 | 42,859 69 |
| 1951........ | 25,254 25,995 | ${ }_{26}^{21.9}$ | 552,657 687,922 | 1.55 1.59 | 855,137 $1,090,512$ | 1951......... | 1,524 1,570 | $44 \cdot 9$ $40-3$ | 68,509 63,205 | 1.01 0.97 | 69,485 61,004 |
| 1953.... | 25,513 | $24 \cdot 1$ | 613,962 | 1 | $1,20,12$ | 1953. | 1,445 | 43.0 | 62,188 | - | ${ }_{2}$ |
| Oats- |  |  |  |  |  | Flaxseed- |  |  |  |  |  |
| Av. 1945-49 | 12,021 | 28.4 | 341,612 | $0 \cdot 67$ | 229,883 | Av. 1945-49 | 1,135 | $8 \cdot 2$ | 9,253 | $3 \cdot 84$ | 35,489 |
| 1951. | 11,897 | 41.0 | 488,191 | 0.76 | 369,296 | 1951....... | 1,158 | $8 \cdot 5$ | 9,897 | 3.90 | 38,616 |
| 1952. | 11,062 | $42 \cdot 2$ | 466,805 | $0 \cdot 66$ | 309,477 | 1952r...... | 1,130 | 10.9 | 12,261 | $3 \cdot 16$ | 38,749 |
| 1953........ | 9,830 | $41 \cdot 4$ | 406,960 |  |  | 1953. | 972 | $10 \cdot 2$ | 9,912 |  |  |
| Barley- |  |  |  |  |  | Potatoes- |  |  |  |  |  |
| Av. 1945-49 | 6,717 | 21.5 | 144,688 | 0.94 | 136,599 | Av. 1945-49 | 509 | 156.0 | 79,282 | 1.11 | 87,669 |
| 1951........ | 7,840 | 31.3 | 245,218 | $1 \cdot 10$ | 269,951 | 1951....... | 285 | 169-7 | 48,355 | 2.03 | 98,077 |
| 1952. | 8,477 | $34 \cdot 4$ | 291,379 | 1.06 | 307,749 | 1952 r . | 297 | $202 \cdot 4$ | 60,071 | 1.68 | 100,784 |
| 1953. | 8,911 | 29.4 | 262,065 |  |  | 1953 | 321 | 208.7 | 67,002 | 2 |  |
|  |  |  |  |  |  | Tame |  |  | '000 | \$ per |  |
| Rye- |  |  |  |  |  | Hay- |  | ton | tons | ton |  |
| Av. 1945-49 | 1,128 | 11.2 | 12,654 | 1.86 | 23,482 | Av. 1945-49 | 11,269 | 1.62 | 18,256 | 15.03 | 274,474 |
| 1951.. | 1,127 | $15 \cdot 7$ | 17,647 | 1.56 | 27,575 | 1951. | 10,538 | 1.85 | 19,484 | $15 \cdot 26$ | 297,238 |
| 1952 r . | 1,274 | 19.5 | 24,833 | 1.38 | 34,267 | 1952 r | 10,679 | 1.79 1.84 | 19,083 19 | ${ }_{14}^{1424}$ | $\underset{2}{271,687}$ |
| 1953. | 1,494 | $19 \cdot 3$ | 28,775 | 2 |  | 1953 | 10.702 | 1.84 | 19,650 |  |  |

${ }^{1}$ Gross value of farm production; does not represent cash income from sales. ${ }^{2}$ See footnote, Table 13.

## 13.-Acreages, Production and Values of Principal Field Crops, by Province, 1952 and 1953, with Five-Year Average, 1945-49

(Exclusive of Newfoundland)

| Province | Area |  |  | Total <br> Production |  |  | Gross <br> Farm Value ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{c\|} \hline \text { Aver- } \\ \text { age } \\ 1945-49 \end{array}$ | 1952 | 1953 | $\begin{gathered} \text { Aver- } \\ \text { age } \\ 1945-49 \end{gathered}$ | 1952 | 1953 | Average 1945-49 | 1952 |
|  | '000 ac. | '000 ac. | '000 ac. | '000 bu. | '000 bu. | '000 bu.fl | \$'000 | \$'000 |
|  | Wheat |  |  |  |  |  |  |  |
| Prince Edward Island. | 估 $\begin{array}{r}5 \\ 2 \\ 3 \\ 24 \\ 719 \\ 43 \\ 2,442\end{array}$ | [ ${ }^{4} 1$ | 3 <br> 1 <br> 3 <br> 11 <br> 732 |  | 85 | - | 107 | - 160 |
| Nova Scotia..... |  |  |  | 1072955 | 852262 | 75 25 | 143 | 14 |
| New Brunswick. |  |  |  |  |  | 241 | 92 | 111 |
| Quebec.......... |  |  |  | ${ }^{412}$ | ${ }^{220}$ |  | 633 <br> 33,066 | 398 |
| Ontario (a) winter whe |  |  |  | 20,970 | 20,800 | 26, 206 |  | 37,648 |
| (b) spring whea |  |  | 34 |  |  |  | 1,376 | 1,376 |
| Manitoba........... |  | 2,368 | 2,208 | 48,160 | 57,000 | 46,000 | 79,827 | 92,910 |
| Saskatchewan. | 14,438 6,920 | 16,432 6,404 | 16,100 6,340 | 185, 220 | 435,000 | 375,000 | 301,085 | 691,650 |
| British Columbia | 122 | -86 | 81 81 | 12,589 | 172,000 1,973 | 163,000 2,605 | 171,983 4,999 | 263,160 3,058 |
| Totals | 24,718 | 25,995 | 25,513 | 366,349 | 687,922 | 613,962 | 593,271 | 1,090,512 |

[^139]
## 13.-Acreages, Production and Values of Principal Field Crops, by Province, 1952 and 1953, with Five-Year Average, 1945-49 -continued

| Province | Area |  |  | Total Production |  |  | Gross <br> Farm Value ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Aver- age $1945-49$ | 1952 | 1953 | Aver- age 1945-49 | 1952 | 1953 | $\left.\begin{gathered} \text { Aver- } \\ \text { age } \\ 1945-49 \end{gathered} \right\rvert\,$ | 1952 |
|  | '000 ac. | '000 ac. | '000 ac. | '000 bu. | '000 bu. | '000 bu. | 8'000 | \$'000 |
|  | Oats |  |  |  |  |  |  |  |
| Prince Edward Island. | 118 | 96 | 106 | 4,379 | 3,456 | 4,779 | 3,356 | 3,214 |
| Nova Scotia.......... | 69 | 56 | 56 | 2,389 | 2,356 | 2,399 | 2,039 | 2,332 |
| New Brunswick | 191 | 155 | 152 | 6,599 | 4,650 | 6,840 | 5,171 | 4,138 |
| Quebec.. | 1,481 | 1,363 | 1,380 | 35,462 | 37,483 | 42,780. | 28,745 | 34,859 |
| Ontario. | 1,673 | 1,732 | 1,548 | 63,168 | 67,560 | 68,576 | 47,005 | 55,399 |
| Manitoba.... | 1,542 4,212 | 1,611 | 1,412 | 51,300 99,400 | 65,000 152,000 | 53,000 111,000 | 33,205 61,734 | 40,300 89,680 |
| Alberta..... | 2,654 | 2,587 | 2,357 | 75,000 | 129,000 | 112,000 | 45,962 | 76,110 |
| British Columbia. | 81 | 100 | 98 | 3,915 | 5,300 | 5,586 | 2,666 | 3,445 |
| Totals. | 12,021 | 11,062 | 9,830 | 341,612 | 466,805 | 406,960 | 229,883 | 309,477 |
|  | Barley |  |  |  |  |  |  |  |
| Prince Edward Island. | 11 | 4 | 5 | 324 | 126 | 168 | 331 | 165 |
| Nova Scotia. | 8 | 4 | 3 | 221 | 118 | 105 | 249 | 155 |
| New Brunswick | 12 | 10 | 9 | 364 | 268 | 338 | 406 | 340 |
| Quebec.. | 137 | 61 | 56 | 3,076 | 1,556 | 1,582 | 3,374 | 2,085 |
| Ontario. | 256 | 203 | 171 | 8,193 | 6,689 | 6,156 | 7,867 | 9,030 |
| Manitoba. | 1,795 | 2,165 | 2,365 | 42,900 | 71,000 | 61,000 | 41,416 | 78,810 |
| Saskatchewa | 2,377 | 2,644 | 2,745 | 43,500 | 92,000 | 82,000 | 40,125 | 93,840 |
| Alberta. | 2,106 | 3,336 | 3,489 | 45,600 | 118,000 | 108,000 | 42,326 | 121,540 |
| British Columbia | 15 | 51 | 68 | 510 | 1,622 | 2,716 | 505 | 1,784 |
| Totals. | 6,717 | 8,477 | 8,911 | 144,688 | 291,379 | 262,065 | 136,599 | 307,749 |
|  | Fall Rye |  |  |  |  |  |  |  |
| Quebec.. | 10 | 4 | 3 | 166 | 72 | 55 | 217 | 107 |
| Ontario. | 87 | 75 | 75 | 1,810 | 1,494 | 1.710 | 2,964 | 2,390 |
| Manitoba. | 40 | 5989 | 120 | ${ }_{4}^{664}$ | 1,000 | 2,500 9,300 | 1,132 | 1,420 |
| Saskatchewa | 496 | 379 | 500 | 4,023 | 7,000 | 9,300 7,500 | 7,883 | 9,660 7 |
| Alberta. ${ }_{\text {British }}$ Columbia. | 201 | 254 2 | 328 | 3,026 21 | 5,400 67 | 7,500 160 | $\begin{array}{r}5,704 \\ 38 \\ \hline\end{array}$ | $\begin{array}{r}7,182 \\ \hline\end{array}$ |
| Totals. | 8351 | 772 | 1,031 | 9,710 | 15,033 | 21,225 | 17,938 | 20,855 |
|  | Sprina Rye |  |  |  |  |  |  |  |
| Manitoba | 10 | 12 | 15 | 141 | 200 | 250 | 253 | ${ }_{9}^{284}$ |
| Saskatchewan | 163 | 363 | 316 | 1,638 | 7,200 |  | 3,078 | 9,936 |
| Alberta... | 120 | 126 | 132 | 1,165 | 2,400 | 2,200 | 2,213 | 3,192 |
| Totals. | 293 | 501 | 463 | 2,944 | 9,800 | 7,550 | 5,544 | 13,412 |
|  | All Ryz |  |  |  |  |  |  |  |
| Quebec.. | 1087506543211 | 475717423802 | 75 | $\begin{array}{r} 166 \\ 1,810 \end{array}$ | $\begin{array}{r} 72 \\ 1,494 \end{array}$ | $\begin{array}{r} 55 \\ 1,710 \end{array}$ | ${ }_{2}^{217}$ | 2, 107 |
| Ontario. |  |  |  | $\begin{array}{r} 1,810 \\ 805 \end{array}$ |  |  | 2,964 <br> 1,385 |  |
| Manitoba |  |  | ${ }_{816}^{135}$ | 5,661 | 14,200 | 14,400 | 10,961 | 19,596 |
| Alberta...... |  |  | 460 | 4,191 | 7,800 | 9,700 | 7,917 | 10,374 |
| British Columbia |  |  | 6 | 21 | 67 | 160 | 38 | 96 |
| Totals. | 1,123 | 1,274 | 1,494 | 12,654 | 24,833 | 28,775 | 23,482 | 34,267 |

${ }^{1} 1953$ values not available at time of going to press; estimates will be published in DBS crop reports and the Quarterly Bulletin of Agricultural Statistics.

## 13.-Acreages, Production and Values of Principal Field Crops, by Province, 1952 and 1953, with Five-Year Average, 1945-49-continued



[^140]
## 13.-Acreages, Production and Values of Principal Field Crops, by Province, 1952 and 1953, with Five-Year Average, 1945-49-continued


${ }^{1} 1953$ values not available at time of going to press; estimates will be published in DBS crop reports and the Quarterly Bulletin of Agricultural Statistics.

## 13.-Acreages, Production and Values of Principal Field Crops, by Province, 1952 and 1953, with Five-Year Average, 1945-49-concluded

| Province | Area |  |  | Total Production |  |  | $\begin{gathered} \text { Gross } \\ \text { Farm Value }{ }^{\mathrm{L}} \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|} \hline \text { Aver- } \\ \text { age } \\ 1945-49 \end{array}$ | 1952 | 1953 | Aver- <br> age <br> $1945-49$ | 1952 | 1953 | Aver- age $1945-49$ | 1952 |
| Quebec. <br> Ontario. <br> Manitoba <br> Saskatchewan <br> British Columbia <br> Totals | '000 ac. | '000 ac. | '000 ac. | ,000 tons | '000 tons' | '000 tons | \$'000 | \$'000 |
|  | Fodder Corn |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  | 369 | 268 | 264 | 3,360 | 3,006 | 2,695 | 15,691 | 12,024 |
|  | 21 | 21 | 24 | 73 | 106 | 120 | 528 | 742 |
|  | 6 | 1 | 1 | 15 | 4 | 3 | 146 | 43 |
|  | 4 | 4 | 3 | 42 | 46 | 39 | 310 | 413 |
|  | 501 | 365 | 365 | 4,355 | 3,798 | 3,565 | 22,675 | 17,197 |
|  | Sugar Beets |  |  |  |  |  |  |  |
| Quebec.. | 3221130 | 8321637 | 7 | 2721890354 | $\begin{array}{r} 87 \\ 332 \\ 124 \\ 480 \end{array}$ | $\begin{array}{r} 70 \\ 246 \\ 162 \\ 422 \end{array}$ | $\begin{array}{r} 344 \\ 2,950 \\ 1,111 \\ 4,672 \end{array}$ | 1,2164,7691,7927,716 |
| Ontario. |  |  | 23 |  |  |  |  |  |
| Manitoba |  |  | 17 |  |  |  |  |  |
| Alberta. |  |  | 35. |  |  |  |  |  |
| Totals. | 66 | 93 | 82 | 689 | 1,023 | 900 | 9,077 | 15,493 |

${ }^{2} 1953$ values not available at time of going to press; estimates will be published in DBS crop reports and the Quarterly Bulletin of Agricultural Statistics.

## 14.-Acreages and Production of Grain in the Prairie Provinces, 1951-53

Norg.-Figures for years before 1951 will be found in the corresponding table of previous editions of the Year Book.

| Grain | Acreages |  |  | Production |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 | 1953 | 1951 | 1952 | 1953 |
|  | '000 acres | '000 acres | '000 acres | '000 bu. | '000 bu. | '000 bu. |
| Wheat.. | 24,385 | 25,204 | 24,648 | 529,000 | 664,000 | 584,000 |
| Oats.. | 8,312 | 7,560 | 6,490 | 340,000 | 346,000 | 276,000 |
| Barley.. | 7,530 | 8,145 | 8,599 | 234,000 | 281,000 | 251,000 |
| Rye.. | 1,047 | 1,193 \% | 1,411 | 15,980 | 23,200 $=$ | 26,850 |
| Flaxseed...... | 1,086 | 1,047 7 | 926 | 8,870 | 11,300 r | 9,300 |

Stocks of Grain in Canada.-Table 15 shows the stocks of Canadian grain on hand in Canada and in the United States on July 31 for the years 1951-53, with averages for the five-year periods 1935-39, 1940-44 and 1945-49. Stocks in Canada are separated into those in commercial positions and those on farms. Stocks on farms and in country elevators in the Prairie Provinces are given separately.

## 15.-Carryover of Canadian Grain as at July 31, 1951-53, with Five-Year Averages, 1935-49

Nore.-Figures for individual years before 1951 will be found in the corresponding table of previous editions of the Year Book.

| As at July 31- | Total in Canada and United States | Total in Canada | $\begin{gathered} \text { In } \\ \text { Commercial } \\ \text { Storage } \\ \text { in } \\ \text { Canada } \end{gathered}$ | $\begin{gathered} \text { On Farms } \\ \text { in } \\ \text { Canada } \end{gathered}$ | Prairie Provinces |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | On Farms | In <br> Country <br> Elevators |
|  | bu. | bu. | bu. | bu. | bu. | bu. |
|  | Wheat |  |  |  |  |  |
| Av. 1935-39. | 101, 142,053 | 92,273,005 | 86,848,305 | 5,424,700 | 4,328,000 | 18,075,723 |
| Av. 1940-44..... | 431, 102,442 | 408,734,141 | 351,581,341 | 57,152,800 | 54,960,000 | 154,370,863 |
| Av. 1945-49..... | 119,587,196 | $115,603,875$ | 82,718,676 | 32,885,200 | 31,265,600 | 24,698,778 |
| $\begin{aligned} & 1951 \ldots \ldots \ldots \ldots \\ & 1952 \ldots \ldots \ldots \ldots \\ & 1953 \ldots \ldots \ldots \end{aligned}$ | 189,202,667 | 187,189,563 | 164,929,563 | 22,260,000 | 20,000,000 | 78,529,616 |
|  | 217, 177, 826 | 214,934,143 | 195,672,143 | 19,262,000 | 18,000,000 ${ }^{\text {r }}$ | 98,782,136 |
|  | 369,185,486 | 368,545,625 | 288,829,625 | 79,716,000 | 77,000,000 | 154,702,768 |
|  | Oats |  |  |  |  |  |
| Av. 1935-39... | 30,700,483 | 30,682, 283 | 6,229,883 | 24,452,400 | 12,585,600 | 1,361,855 |
| Av. 1940-44..... | 74,984,299 | 74,212,213 | 16,435,613 | 57,776,600 | 43, 826,600 | 6,500,924 |
| Av. 1945-49..... | 70,725,656 | 69,841,382 | 18,954,582 | 50,886,800 | 41,042,800 | 5,091,295 |
| 1951...... | 95,177,487 | 94,526,622 | 35,045,622 | 59,481,000 | 43,000,000 | 14,922,787 |
| 1953............. | 108,358,284 | 104,861,518 | 47,025,518 | 57,836,000 | 45,000,000 ${ }^{\text {r }}$ | 25,455,272 |
|  | 144,409,073 | 143,525,521 | 52,865,521 | 90,660,000 | 78,500,000 | 38,504,134 |
|  | Barley |  |  |  |  |  |
| Av. 1935-39..... | 8,096,869 | 7,827,168 | 4,182,808 | 3,644,360 | 2,500,800 | 711,449 |
| Av. 1940-44..... | 29,922,222 | 28,868,755 | 12,191,755 | 16,677,000 | 15,453,000 | 4,138,057 |
| Av. 1945-49..... | 29,747,854 | 29,512,098 | 12,702,098 | 16,810,000 | 16,140,000 | 3,842,261 |
| 1951. | 53,496,371 | 53,496,371 | 35,642,371 | 17,854,000 | 17,000,000 ${ }^{\text {r }}$ | 11,584,103 |
| 1952......... | $79,503,741$ | 79,286,664 | 57,810,664 | 21,476,000 | 21,000,000 ${ }^{\text {r }}$ | 26,916,163 |
|  | 111,666,834 | 111,260,514 | 73,025,514 | 38,235,000 | 37,000,000 | 47,738,023 |
|  | Rye |  |  |  |  |  |
| Av. 1935-39..... | 2,236,368 | 1,940,370 | 1,763,390 | 176,980 | 149,000 | 373,309 |
| Av. 1940-44..... | 6,897,205 | 4,942,647 | 3,260,247 | 1,682,400 | 1,617,800 | 1,172,857 |
| Av. 1945-49..... | $3,273,777$ | 3,123,572 | 2,023,372 | 1,100,200 | 1,053,400 | 544,436 |
| 1951. | 3,298,681 | 2,624,988 | 1,774,988 | 850,000 | 800,000 | 226,523 |
| 1952.............. | 8,094,397 | 7,517,089 | 6,171,089 | 1,346,000 | 1,300,000 | 2,232,344 |
|  | 16,190,618 | 15,288,159 | 12,133,159 | 3,155,000 | 3,050,000 | 3,417,245 |
|  | Flaxseed |  |  |  |  |  |
|  | 277,016 | 277,016 | 271,356 | 5,660 | 5,000 | 64,481 |
| Av. 1940-44...... | $1,923,885$ | 1,923,885 | 1,667,525 | 256,360 | 251,700 | 373,895 |
| Av. 1945-49..... | $3,888,325$ | 3,888,325 | $3,423,525$ | 464,800 | 461,400 | 240,711 |
| 1951. | 1,203,778 | 1,203,778 | 997,778 | 206,000 | 205,000 | 113,467 |
| 1952.............. | 2,588,918 ${ }^{\text {r }}$ | 2,588,918r | 2,054,918 | 409,000 | 390,000 | 526,003 |
| 1953............. | 3,939,420 | 3,939,420 | 2,468,420 | 1,471,000 | 1,450,000 | 972,940 |

## Subsection 4.-Live Stock

The numbers of live stock on farms in the different provinces for 1952 and 1953 are given in Table 16 and the average value per head of farm live stock is given by province in Table 17.
16.-Live Stock on Farms, by Province, at June 1, 1952 and 1953

| Province and Item | 1952 | 1953 | Province and Item | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. |  | No. | No. |
| Newfoundland- |  |  | Manitoba- |  |  |
| Horses.. | .. | - | Horses. | 113,500 | 96,800 |
| Milk cows ${ }^{\text {. }}$. $\ldots \ldots . . . . . .$. | . | - | Milk cows ${ }^{\text {. } . . . . . . . . . . . . ~}$ | 209,000 | 195,000 |
| Other cattle............. | . | . | Other cattle............ | 476,000 | 459,000 |
| Sheep. | . | .. | Sheep................... | 68,000 | 65,000 |
| Swine.. | .. | .. | Swine.................. | 399,000 | 287,000 |
| Prince Edward Island- |  |  | Saskatchewan- |  |  |
| Horses................... | 19,700 | 19,000 | Horses................. | 279,500 | 255,500 |
| Milk cows ${ }^{1} . . . . . . . . . . .$. | 41,000 | 44,000 | Milk cows ${ }^{\text {², ............ }}$ | 289,000 | 285,000 |
| Other cattle............. | 63,900 | 70,000 | Other cattle............ | 1,093,000 | 1,150,000 |
| Sheep. | 36,200 | 38,700 | Sheep................... | 155,000 | 170,000 |
| Swine. | 77,000 | 57,000 | Swine................. | 646,000 | 469,000 |
| Nova Scotia- |  |  | Alberta- |  |  |
| Horses. | 24,400 | 23,400 | Horses. . . . . . . . . . . . . | 239,700 | 222,000 |
| Milk Cows ${ }^{\text {P }}$. | 83,000 | 88,000 | Milk cows²............. | 280,000 | 289,000 |
| Other cattle. | 102,700 | 114,000 | Other cattle............ | 1,474,000 | 1,621,000 |
| Sheep................... | 83,700 | 95,000 | Sheep................... | 387,000 | 432,000 |
| Swine.................. | 51,000 | 39,000 | Swine. . . . . . . . . . . . . | 1,170,000 | 1,180,000 |
| New Brunswick- |  |  | British Columbla- |  |  |
| Horses. | 29,800 | 29,000 | Horses................. | 34,100 | 30,300 |
| Milk cows ${ }^{1}$. . | 86,000 | 95,000 | Milk cows ${ }^{1}$. . . . . . . . . . | 84,000 | 94,000 |
| Other cattle. | 91,900 | 98,400 | Other cattle............ | 254,200 | 258,000 |
| Sheep.. | 55,000 | 64,300 | Sheep.................. | 76,500 | 81,000 |
| Swine. | 83,000 | 56,000 | Swine................. | 66,000 | 42,000 |
| Quebee- |  |  | Yukon Territory- |  |  |
| Horses.. | 221,000 | 218,000 | Horses............... | .. | . |
| Milk cows ${ }^{1}$ | 937,000 | 1,016,200 | Milk cows ${ }^{1}$. | . | . |
| Other cattle. | 871,000 | 903,600 | Other cattle. | . | . |
| Sheep................... | 337,100 | 360,800 | Sheep................... | . | . |
| Swine................. | 1,312,000 | 867,000 | Swine.. | .. | .. |
| Ontario- |  |  | Totals- |  |  |
| Horses................... | 218,700 | 202,200 | Horses................. | 1,180,400 | 1,096,200 |
| Milk cows ${ }^{\text {a }}$. . . . . . . . . . | 959,000 | 1,040,000 | Milk cows ${ }^{1} . . . . . . . . . . .$. | 2,968,000 | 3,146,200 |
| Other cattle............. | 1,778,000 | 1,942,000 | Other cattle........... | 6,204,700 | 6,616,000 |
| Sheep.................... | 389,700 | 414,500 | Sheep................... | 1,588,200 | 1,721,300 |
| Swine................. | 1,937,000 | 1,450,000 | Swine................. | 5,741,000 | 4,447,000 |

[^141]17.-Average Value per Head of Farm Live Stock, by Province, 1952 and 1953

| Province and Item | 1952 | 1953 | Province and Item | 1952 | 1953 | Province and Item | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | 8 | \$ |  | 8 | 8 |
| Newfoundland- |  |  | Quebec- |  |  | Alberta- |  |  |
| Horses....... | .. | .. | Horses | 142 | 141 | Horses. | 50 | 51 |
| All cattle. | .. | .. | All cattle. | 136 | 112 | All cattle. | 164 | 129 |
| Milk cows ${ }^{1}$. | $\cdots$ | .. | Milk cows ${ }^{\text {² }}$ | 188 | 153 | Milk cows ${ }^{1}$. | 235 | 190 |
| Other cattle. | .. | $\cdots$ | Other cattle | 80 | 65 | Other cattle. | 150 | 118 |
| Sheep........ | .. | .. | Sheep. | 20 | 17 | Sheep. | 20 | 19 |
| Swine.. | .. | .. | Swine | 26 | 31 | Swine. | 26 | 31 |
| P. E. Island- |  |  | Ontario- |  |  | British Columbla- |  |  |
| Horses. | 102 | 89 | Horses. | 98 | 91 | Horses. . | 84 | 81 |
| All cattle. | 134 | 103 | All cattle. | 167 | 133 | All cattle. | 150 | 133 |
| Milk cows ${ }^{1}$. | 190 | 151 | Milk cows ${ }^{\text {l }}$ | 228 | 179 | Milk cows ${ }^{1}$ | 205 | 188 |
| Other cattle. | 98 | 73 | Other cattle | 134 | 109 | Other cattle | 132 | 112 |
| Sheep. | 22 | 18 | Sheep | 28 | 24 | Sheep. | 25 | 22 |
| Swine. | 27 | 31 | Swine | 28 | 32 | Swine. | 29 | 33 |
| Nova Scotia- |  |  | Manitoba- |  |  | Yukon Territory- |  |  |
| Horses.... | 131 | 124 | Horses. | 56 | 55 | Horses... | . | $\cdots$ |
| All cattle. | 140 | 109 | All cattle. | 153 | 125 | All cattle. | .. | .. |
| Milk cowst. | 200 | 156 | Milk cows ${ }^{\text {r }}$ | 214 | 176 | Milk cows ${ }^{\text {r }}$ | .. | .. |
| Other cattle. | 92 | 73 | Other cattle | 127 | 104 | Other catt | .. | .. |
| Sheep.. | 20 | 16 | Sheep. | 19 | 19 | Sheep. | . | .. |
| Swine... | 28 | 27 | Swine | 25 | 32 | Swine. | .. | .. |
| New Brunswick- |  |  | Saskatchewan- |  |  | Totals- |  |  |
| Horses......... | 129 | 120 | Horses............ | 43 | 45 | Horses............ | 80 | 80 |
| All cattle.... | 121 | 108 | All cattle. | 158 | 122 | All cattle. | 156 | 125 |
| Milk cows ${ }^{\text {l }}$. | 172 | 156 | Milk cows ${ }^{1}$ | 216 | 166 | Milk eows ${ }^{\text {l }}$. | 210 | 169 |
| Other cattle. | 74 | 62 | Other cattle | 142 | 111 | Other cattle.... | 129 | 104 |
| Sheep... | 20 | 18 | Sheep. | 19 | 18 | Sheep. | 22 | 20 |
| Swine | 26 | 30 | Swine. | 24 | 27 | Swine | 27 | 31 |

${ }^{1}$ Cows and heifers, two years or over, kept for milk purposes.
The Federal Department of Agriculture inspects all live stock in plants designated as inspected establishments under the Meat and Canned Foods Act. A statistical record is kept of these inspections and the figures appear in Table 18. Local wholesale butchering and such slaughterings as are carried out by retail butchers and by farmers for their own use are not included. Actually, the slaughtering and meat-packing industry is concentrated into a comparatively small number of large establishments to facilitate greater efficiency and utilization of products. Thus, the figures of Table 18 are fairly inclusive. The slaughtering and meat-packing industry is dealt with in its proper relation to all other manufacturing enterprises in Chapter XV of this volume. On a gross value basis it normally ranks among the three largest manufacturing industries in Canada but it owes its importance to the value of raw products obtained from the farmer and the rancher rather than to the value added by the manufacturing process.

## 18.-Live Stock Slaughtered at Inspected Establishments, 1938-53, and by Month, 1953

(Exclusive of Newfoundland)

| Year | Cattle | Calves | Sheep | Hogs |  | Cattle | Calves | Sheep | Hogs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |  | No. | No. | No. | No. |
| 1938. | 859,260 | 676,579 | 801,679 | 3,137, 203 |  |  |  |  |  |
| 1939 | 873,660 | 679,117 | 783, 828 | 3, 623,645 | January.... | 112,829 | 31,496 | 29,554 | 422,195 |
| 1940 | 890,919 $1,003,691$ | 703,918 727,829 | 765,165 828,603 | $5,457,083$ $6,280,345$ | February... | 106,317 110,946 | 33,899 | 25,232 22,366 | 421,662 462,424 |
| 1941 | $1,003,691$ 970,415 | 727,829 | 828,603 825,368 | $6,280,345$ <br> $6,196,850$ | March........ | 110,946 111,869 | 63,826 99,104 | 22,366 17,061 | 462,424 449,865 |
| 1943 | 1,021,054 | 669,672 594 | 889,317 | 7,168,525 | May. | 110,588 | 87,298 | 8,730 | 392,359 |
| 1944. | 1, 354, 121 | 661,245 | 959,169 | 8,766,417 | June.......... | 115, 166 | 74,269 | 10,686 | 343.895 |
| 1945 | 1,891,024 | 787,626 | $1,185,161$ | 5, 681,629 | July......... | 126,702 | 62,344 | 30,351 | 296,401 |
| 1946 | 1,668,441 | 752,343 | 1,213,235 | $4,252,591$ | August..... | 124,349 | 58,890 | 65,724 | 255,232 |
| 1947 | 1,291,759 | 665,311 | 900,766 | 4,452,816 | September | 137,049 | 62,777 | 89,195 | 304,687 |
| 1948 | 1,489,883 | 787,410 | 768,943 | 4,487,649 | October.... | 142,890 | ${ }^{62,227}$ | 114,020 | 396,291 |
| 1949 | 1,439,489 | 766,277 | 629,673 | 4, 098, 609 | November.. | 151,482 | 58,836 | 84,318 | 428,781 |
| 1950 | 1,284,683 | 773, 205 | 521,089 | 4, 405,055 | December | 119,219 | 45,757 | 46,134 | 437,520 |
| 1952. | 1, 237,630 | 567,760 | 512,966 | 6,234,145 | Totals, 1953 | 1,469,406 | 740,723 | 543,371 | 4,611,312 |

Wool.-Wool production in Canada (exclusive of Newfoundland) in 1953 was 12 p.c. above that of 1952 . The $1935-39$ average was $16,022,000 \mathrm{lb}$. and the 1953 production $8,621,000 \mathrm{lb}$. The shorn-wool production in 1953 was higher, the result of an increase in sheep population. Avcrage fleece weight was $7 \cdot 4 \mathrm{lb}$. compared with $7 \cdot 7 \mathrm{lb}$. in 1952 . The $49 \cdot 4$ p.c. increase in wool pulled from domestic skins was partly accounted for by an increase in inspected slaughterings of sheep and lambs.

Exports of wool in 1953 were $3,756,000 \mathrm{lb}$. compared with $3,639,000 \mathrm{lb}$. in 1952, while imports rose from $49,537,000 \mathrm{lb}$. in 1952 to $63,088,000 \mathrm{lb}$. in 1953 . Thus, assuming there was no change in stocks, the domestic disappearance of wool was higher by 26.8 p.c. in 1953 than in 1952.

## 19.-Production and Apparent Consumption of Wool, 1951-53

Norz.-The 1951 figures shown are based on the Census Revisions of 1950 and previous figures on the same basis are not yet available.

| Item | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: |
| Shorn Wool- |  |  |  |
| Yield per fleece............................... lb . | $7 \cdot 5$ | $7 \cdot 7$ | $7 \cdot 4$ |
| Total yield shorn. . . . . . . . . . . . . . . . . . . . . . . . . . 0000 lb . | 5,700 | 6,378 | 6,659 |
| Price per pound........................... ets. | 74 | 36 | 38.5 |
| Total value of shorn wool. . . . . . . . . . . . . . . . . . . 8'000 | 4,231 | 2,265 | 2,565 |
| Total pulled wool................................... . 000 lb l | 1,182 | 1,313 | 1,962 |
| Total wool production............................. | 6,882 | 7,691 | 8,621 |
| Apparent consumption............................ | 73,238 | 53,589 | 67,953 |

## Subsection 5.-Dairying

Milk Production.-Milk production in 1953 amounted to $16,424,800,000 \mathrm{lb}$., an increase of $690,197,000 \mathrm{lb}$. over the previous year. The proportion of the total milk production used for factory-made dairy products increased from 55.7 p.c. in 1952 to 56.7 p.c. in 1953, but the proportion sold in fluid form showed a very small decrease. Milk used for all purposes on farms (home consumed, manufactured and fed) dechned from approximately 14.0 p.c. of the total in 1952 to 13.0 p.c. in 1953.
20.-Production and Utilization of Milk, by Province, 1950-53, with Totals for 1946-53

Nore.-Figures for 1950-52 have been revised since the publication of the 1954 Year Book.

| Province and Year | Used in Manufacture |  | Milk Otherwise Used |  |  | Total Milk Production |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\stackrel{\text { On }}{\text { Farms }}$ | $\underset{\text { Factories }}{\text { In }}$ | Fluid Sales | $\left\|\begin{array}{c} \text { Farm-Home } \\ \text { Consumed } \end{array}\right\|$ | Fed on Farms |  |
|  | '000 lb. | '000 lb. | '000 lb. | '000 lb. | ${ }^{\prime} 000 \mathrm{lb}$. | '000 lb. |
| Newfoundland.. | . | .. | . | . | . | . |
| Prince Edward Island.. 1950 | 13,092 | 119,053 | 26,530 | 20,781 | 6,062 | 185,518 |
| 1951 | 11,926 | 130,546 | 27,079 | 21,263 | 6,608 | 197,422 |
| 1952 | 10,179 | 123,730 | 27,698 | 20,498 | 5,339 | 187,444 |
|  |  | 143,939 | 27,465 | 20,975 | 5,519 | 207,984 |
| Nova Scotia............ 1950 | 40,110 | 173,104 | 144,120 | 47,330 | 14,649 | 419,313 |
| 1951 | 32,989 | 156,800 | 151,246 | 44,610 | 14,176 | 399,821 |
| 1952 | 29,508 | 152,771 | 158,922 | 47,160 | 18,029 | 406,390 |
| 1953p | 29,835 | 177,348 | 163,785 | 45,690 | 17,595 | 434,253 |
| New Brunswick....... 1950 | 62,016 | 194,526 | 133,900 | 47,318 | 10,225 | 447,985 |
| 1951 | 68,017 | 189,812 | 135,903 | 44,278 | 11,564 | 449,574 |
| 1952 | 51,316 | 187,692 | 138,687 | 43,970 | 11,331 | 432,996 |
| 1953p | 49,093 | 209,929 | 143,665 | 44,703 | 9,420 | 456,810 |
| Quebec................ 1950 | 87,435 | 2,639,871 | 1,675,800 | 286,930 | 139,853 | 4,829,889 |
| Quebec........... 1951 | 109,371 | 2,738,813 | 1,713,162 | 277,056 | 121,508 | 4,959,910 |
| 1952 | 118,474 | 2,965,640 | 1,824,626 | 278,024 | 118,268 | 5,305, 532 |
| 1953 p | 102,726 | 3,173,611 | 1,909,880 | 275,445 | 116,096 | 5,577,758 |
| Ontario................. 1950 | 72,518 | 2,971,223 | 1,579,600 | 231,890 | 208,350 | 5,063,581 |
| 1951 | 70,431 | 2,945, 242 | 1,597,820 | 224,796 | 211,981 | 5,050,270 |
| 1952 | 47,104 | 3,070,685 | 1.591, 182 | 223,728 | 204,599 | $5,137,298$ $5,297,298$ |
| 1953 ${ }^{\text {p }}$ | 33,766 | 3,202,093 | 1,652,348 | 222,957 | 186,134 | 5,297,298 |
| Manitoba.............. 1950 |  |  |  | 91,438 | 45,822 | 982,560 |
| 1951 | 64,128 | 570,325 | 200,879 | 90,137 | 50,976 | 976,445 |
| 1952 | 54,475 | 600,088 | 205,163 | 88,932 | 50,134 | 998,792 |
| 1953p | 50,638 | 629,786 | 212,439 | 92,031 | 55,325 | 1,040,219 |
| Saskatchewan......... 1950 | 165,071 | 707,974 | 209,910 | 190,417 | 69,475 | 1,342,847 |
| Saskatchewan ........ 1951 | 158,246 | 685,492 | 214,165 | 176,013 | 81,803 | $1,315,719$ |
| 1952 | 146,882 | 682,186 | 220,802 | 169,734 | 92,275 | 1,311,879 |
| 1953 D | 134,924 | 680,961 | 234,200 | 169,229 | 98,785 | 1,318,099 |
| Alberta................. 1950 | 110,894 | 827,929 | 211,700 | 140,691 | 83,622 | 1,374,836 |
| 1951 | 96,438 | 770,784 | 226, 263 | 145,652 | 87,380 | 1,326,517 |
| 1952 | 80,894 | 747,952 | 240,628 | 138,123 | 89,566 | 1,297,163 |
| 1953 p | 71,206 | 811,235 | 257,547 | 130,993 | 96,272 | 1,367,253 |
| British Columbia...... 1950 | 19,160 | 238,825 | 361,000 | 33,319 | 23,517 | 675,821 |
| 1951 | 17,080 | 209,894 | 351,993 | 32,185 | 23,141 | 634,293 |
| 1952 | 17,363 | 231,182 | 348,694 | 34,165 | 26,205 | 657,609 |
| 1953 p | 15,889 | 291,445 | 359,710 | 33,532 | 24,550 | 725,126 |
| Totals. . . . . . . . . . 1946 | 1,278,736 | 8,871,785 | 4,254,000 | 1,740,072 | 810,960 |  |
| 1947 | 1,327,236 | 9,210,818 | 4,162,539 | 1,722,933 | 817,272 | 17,240,788 |
| 1948 | 1,480,590 | 8,882,812 | 4,024,917 | 1,594, 160 | 747,883 | 16,730,362 |
| 1949 | 1,238,322 | 9,020,329 | 4,083,753 | 1,659,650 | 841,291 | 16,843,345 |
| 1950 | 640,839 698,626 | 8,444,332 $8,397,708$ | $4,545,490$ $4,618,510$ | 1,090,114 | 601,575 609,137 | 15,322,350 |
| 1951 | 628,626 556,195 | $8,397,768$ $8,761,926$ | $4,618,510$ $4,756,402$ | 1,055,990 | 609,137 665,746 | 15, ${ }^{15} 734,7803$ |
| 1953 P | 498,163 | 9,320,347 | 4,961,039 | 1,035,555 | 609,696 | 16,424,800 |

21.-Farm Values of Milk Production, by Province, 1950-53, with Totals for 1946-53

Nors.-Figures for 1950-52 have been revised since the publication of the 1954 Year Book.

| Province and Year | Value of Milk <br> Used in Manufacture |  | Value of Milk Otherwise Used |  |  | Value of Total Milk Production |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | On Farms | In <br> Factories | Fluid Sales | Farm-Home Consumed | Fed on Farms |  |
|  | \$ 000 | \$ 000 | \$'000 | \$'000 | \$ 000 | \$'000 |
| Newfoundland.............. | . | . | . | . | . | .. |
| Prince Edward Island. 1950 | 313 | 2,464 | 935 | 497 | 525 | 4,734 |
| 1951 | 316 | 3,054 | 980 | 572 | 582 | 5,504 |
| 1952 | 270 | 2,740 | 1,040 | 531 | 527 | 5,108 |
| 1953p | 263 | 3,080 | 1,011 | 524 | 543 | 5,421 |
| Nova Scotia........... 1950 | 942 | 3,750 | 5,934 | 1,264 | 1,020 | 12,910 |
| 1951 | 845 | 3,972 | 6,398 | 1,365 | . 959 | 13,539 |
| 1952 | 744 | 3,720 | 7,007 | 1,391 | 1,031 | 13,893 |
| 1953P | 752 | 4,183 | 7,310 | 1,343 | 1,106 | 14,694 |
| New Brunswick. . . . . 1950 | 1,482 | 3,911 | 5,347 | 1,192 | 974 | 12,906 |
| 1951 | 1,800 | 4,433 | 5,888 | 1,266 | 1,029 | 14,416 |
| 1952 | 1,338 | 4,094 | 6,233 | 1,205 | 1,965 | 13,835 |
| 1953p | 1,280 | 4,564 | 6,447 | 1,230 | 975 | 14,486 |
| Quebec................. 1950 | 2,090 | 57,035 | 59,863 | 6,829 | 7,732 | 133,549 |
| 1951 | 2,894 | 68,931 | 64,254 | 7,758 | 9,525 | 153,362 |
| 1952 | 3,088 | 68,774 | 73,829 | 7,423 | 9,993 | 163,107 |
| 1953 p | 2,634 | 71,685 | 76,526 | 7,272 | 10,452 | 168,569 |
| Ontario................. 1950 | 1,733 | 62,573 | 58,009 | 5,241 | 7,830 | 135,386 |
| 1951 | 1,894 | 73,933 | 62,746 | 5,957 | 9,624 | 154,154 |
| 1952 | 1,228 | 69,150 | 68,236 | 5,638 | 9,326 | 153,578 |
| 1953p | 866 | 69,122 | 69,817 | 5,529 | 8.922 | 154,256 |
| Manitoba.............. 1950 | 1,596 | 10,741 | 6,530 | 1,948 | 2,561 | 23,376 |
| 1951 | 1,642 | 12,671 | 7,062 | 2,298 | 3,369 | 27,042 |
| 1952 | 1,304 | 12,331 | 7,325 | 2,125 | 3,331 | 26,416 |
| 1953P | 1,212 | 12,754 | 7,936 | 2,181 | 3,547 | 27,630 |
| Saskatchewan......... 1950 | 3,663 | 13,007 | 6,914 | 3,980 | 3,723 | 31,287 |
| 1951 | 3,985 | 14,961 | 7,513 | 4,330 | 4,343 | 35,132 |
| 1952 | 3,578 | 13,899 | 8,073 | 3,904 | 4,410 | 33,864 |
| 1953p | 3,287 | 13,721 | 8,810 | 3,875 | 4,503 | 34,196 |
| Alberta................ 1950 | 2,461 | 16,228 | 7,998 | 3,123 | 4,112 | 33,922 |
| 1951 | 2,346 | 17,699 | 9,134 | 3,772 | 4,544 | 37,495 |
| 1952 | 1,936 | 16,342 | 10,175 | 3,315 | 4,216 | 35,984 |
| 1953 ${ }^{\text {P }}$ | 1,704 | 17,444 | 11,076 | 3,144 | 4,496 | 37,864 |
| British Columbia...... 1950 | 434 | 6,220 | 13,995 | 826 | 733 | 22,208 |
| 1951 | 437 | 6,504 | 16,041 | 898 | 746 | 24, 626 |
| 1952 | 438 | 6,681 | 17,875 | 909 | 810 | 26,713 |
| 1953P | 394 | 8,201 | 18,125 | 882 | 775 | 28,377 |
| Totals............. 1946 | 21,306 | 163,407 | 118,624 | 34,513 | 30,526 |  |
| 1947 | 28,217 | 186,796 | 131,409 | 38,393 | 36,087 | 420,902 |
| 1948 | 41,255 | 232,403 | 146,446 | 45,170 | 40,868 | 506,142 |
| 1949 | 30,790 | 200,399 | 147,755 | 39,850 | 39,238 | 458,032 |
| 1950 | 14,714 | 175,929 | 165,525 | 24,900 | 29,210 | 410,278 |
| 1951 | 16,159 | 206,158 | 180,016 | 28,216 | 34,721 | 465,270 |
| 1952 | 13,924 | 197,731 | 199,793 | 26,411 | 34,609 | 472,498 |
| 1953P | 12,392 | 204,754 | 207,058 | 25,970 | 35,319 | 485,493 |

Butter and Cheese Production.-Butter production in 1953 amounted to $325,633,000 \mathrm{lb} ., 19,405,000 \mathrm{lb}$. more than in 1952 . Of the 1953 total, $302,606,000 \mathrm{lb}$. was creamery butter, $21,289,000 \mathrm{lb}$. dairy or farm-made butter and $1,738,000 \mathrm{lb}$. whey butter. Creamery output was the highest since 1943 when the total was $312,000,000 \mathrm{lb}$. From that year to 1951 declines were almost continuous but the trend turned upward in 1952 and 1953. Butter production was affected by the
introduction of margarine in 1949; output of that product amounted to $73,958,000 \mathrm{lb}$. in $1949,94,032,000 \mathrm{lb}$. in $1950,108,056,000 \mathrm{lb}$. in $1951,110,955,000 \mathrm{lb}$. in 1952 and $110,499,000 \mathrm{lb}$. in 1953.

Factory cheese production in 1953 was estimated at $81,660,000 \mathrm{lb}$., an increase of 10.8 p.c. over the 1952 estimate but 60.6 p.c. below the peak production of $207,431,000 \mathrm{lb}$. in 1942. Total cheese production in 1942, including factory and farm-made cheese, reached an all-time high of $208,219,000 \mathrm{lb}$.; the total manufactured in 1952, on the other hand, was probably the lowest since the mid-1880's. Restrictions placed on the importation of cheese into the United Kingdom during 1945 to 1948 was responsible for the drastic cut in cheese production in those years. Lower creamery butterfat prices in 1949 and uncertainties resulting from the introduction of margarine production led farmers to sell more of their milk to cheese factories. This resulted in a temporary recovery of cheese production for that year, but the decline continued in the three succeeding years. The increase in 1953 may be attributed in some measure to a falling-off in the production of evaporated milk.

## 22.-Production of Butter and Cheese, by Province, 1950-53, with Totals for 1946-53



For footnote, see end of table.
22.-Production of Butter and Cheese, by Province, 1950-53, with Totals for 1946-53--concluded


[^142]Production of Concentrated Milk Products.-Products manufactured in concentrated milk plants and creameries equipped with powder manufacturing facilities are classified as whole-milk products and milk by-products. Production of whole-milk products in 1953 decreased 8 p.c. from 1952 production and concentrated milk by-products decreased 5 p.c.

## 23.-Production of Concentrated Milk Products, 1950-53

(Exclusive of Newfoundland)

| Product | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: |
|  | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Concentrated Whole-Milk Products- |  |  |  |  |
| Evaporated milk. | 256,484 | 290,443 | 305,715 | 272,009 |
| Condensed milk. | 14,541 | 19,541 | 16,539 | 18,462 |
| Whole-milk powder | 15,679 | 17,404 | 16,035 | 18,744 |
| Miscellaneous whole-milk products | 7.742 | 13,159 | 11,906 | 14,105 |
| Totals, Concentrated Whole-Milk Products... | 294,446 | 340,547 | 350,195 | 323,320 |
| Concentrated Milk By-products- |  |  |  |  |
| Condensed skim milk.............................. | 4,366 | 6,282 | 4,741 | 4,037 |
| Evaporated skim milk................................ | 12,407 | 10,323 | 10,428 | 10,789 |
| Skim-milk powder. | 53,263 | 52,748 | 88,229 | 83,042 |
| Condensed buttermil | 3.020 | 4,107 | 2,668 | 1,484 |
| Buttermilk powder | 5,006 4,309 | 5,428 6,678 | 6,606 2,898 | 6,565 4,885 |
| Totals, Concentrated Milk By-products ${ }^{1}$. | 87,924 | 95,215 | 122,856 | 116,591 |
| Grand Totals. | 382,370 | 435,762 | 473,051 | 439,911 |

${ }^{1}$ Includea lactose and whey powder.
Ice-Cream Production.-The output of ice cream in Canada in 1953 was higher by 6 p.c. than in 1952; compared with 1941 there was an increase in production amounting to 104 p.c. The per capita disappearance of ice cream in 1953 amounted to 1.9 gal .
24.-Production of Ice Cream, by Province, 1950-53

| Province | 1950 | 1951 | 1952 | 1953 | Province | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 gal. | '000 gal. | '000 gal. | '000 gal. |  | '000 gal. | '000 gal. | '000 gal. | '000 gal. |
| N'f'ld. |  |  |  |  | Man | 1,496 | 1,719 | 1,832 | 1,782 |
| P.E.I | 155 | 185 | 196 | 175 | Sask | 1,383 | 1.519 | 1,748 | 1,847 |
| N.S. | 1,420 | 1,578 | 1,478 | 1,411 | Alta | 1,967 | 2,109 | 2,293 | 2,453 |
| N.B | 749 | -913 | -867 | 850 | B. | 2,451 | 2,892 | 2,964 | 3,058 |
| Ont. | 9,439 | 9,224 | 10,182 | 10,698 | Totals | 23,822 | 25,366 | 27,262 | 28,838 |

Domestic Disappearance of Dairy Products.-The estimated consumption of fluid milk and cream, on a milk basis, amounted to $4,533,000,000 \mathrm{pt}$. in 1953 , $147,000,000 \mathrm{pt}$. higher than the 1952 consumption and $408,000,000 \mathrm{pt}$. above that of 1943. The average daily consumption per capita was 0.86 pt . in 1953 compared with 0.85 pt. in 1952 . The peak daily per capita consumption of approximately 1 pt. was reached during the period $1944-46$ when subsidies were in effect.

## 25.-Estimated Consumption of Milk and Cream (expressed as Milk), by Province, 1950-53, with Totals for 1946-53

| Province and Year | Estimated Consumption | Daily Per Capita Consumption | Province and Year | Estimated Consumption | Daily Per Capita Consumption |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 pt. | pt. |  | '000 pt. | pt. |
|  |  |  | Manitoba............. 1950 | 223,473 | 0.80 |
| Newfoundland.. | . | . | 1951 | 220,923 | 0.78 |
|  |  |  | 1953 | 231,083 | 0.78 0.78 |
| Prince Edward Island... 1950 | 36,058 | 1.03 | Saskatchewan........ 1950 | 305,450 | 1.00 |
| 1951 | 36,845 | 1.03 | 1951 | 297,483 | 0.98 |
| 1952 | 36,717 | $0 \cdot 97$ | 1952 | 297,606 | 0.96 |
| 1953 | 36,912 | 0.95 | 1953 | 307, 289 | 0.98 |
| Nova Scotia. . . . . . . . . 1950 | 145,059 | 0.62 | Alberta. . . . . . . . . . . 1950 | 268,248 | 0.80 |
| 1951 | 148,309 | 0.63 | 1951 | 283,045 | 0.83 |
| 1952 | 156,058 | $0 \cdot 65$ | 1952 | 288,009 | 0.81 |
| 1953 | 158,575 | $0 \cdot 66$ | 1953 | 295, 205 | 0.81 |
| New Brunswick........ 1950 | 137,365 | 0.74 | British Columbia..... 1950 | 297,278 | 0.72 |
| (951 | 136,515 | 0.72 | 1951 | 289,626 | 0.68 |
| 1952 | 138,369 | 0.72 | 1952 | 288,680 | 0.66 |
| 1953 | 142,680 | $0 \cdot 73$ | 1953 | 296,474 | $0 \cdot 66$ |
| Quebec................. 1950 | 1,482,524 | 1.02 |  |  |  |
| 1951 | 1,502,963 | 1.02 | Totals............ 1946 | 4,547,637 | 1.01 |
| 1952 | 1,587,528 | $1 \cdot 04$ | 1947 | 4,465,570 | 0.97 |
| 1953 | 1,649,635 | 1.06 | $\begin{aligned} & 1948 \\ & 1949 \end{aligned}$ | $4,262,270$ $4,357,279$ | 0.91 0.90 |
| Ontario................. 1950 | 1,367,521 | 0.84 | 1950 | $4,262,976$ | 0.90 0.87 |
| Ontario................ 1951 | $1,375,721$ | $0 \cdot 82$ | 1951 | 4,291,430 | 0.86 |
| 1952 | $1,369,903$ | 0.79 | 1952 | 4,386,080 | 0.85 |
| 1953 | 1,415,297 | $0 \cdot 79$ | 1953 | 4,533,150 | 0.86 |

Domestic disappearance of butter (creamery, dairy and whey) was approximately $308,674,000 \mathrm{lb}$. in 1953 , compared with $300,406,000 \mathrm{lb}$. in 1952 and $370,153,000 \mathrm{lb}$. in 1948. Per capita figures reflected this decline, falling from 28.73 lb . in 1948 to 20.82 lb . in 1952 and 20.88 lb . in 1953. The per capita consumption of margarine for 1952 and 1953 was $7 \cdot 72 \mathrm{lb}$. and $7 \cdot 46 \mathrm{lb}$., respectively.

The domestic disappearance of cheese (including cheddar, process and other) was about $89,154,000 \mathrm{lb}$. in 1953 , an average of 6.03 lb . per capita. In the previous year the per capita average was $5 \cdot 83 \mathrm{lb}$.

The domestic disappearance of concentrated whole-milk products increased from 20.30 lb . per capita in 1952 to 20.78 lb . in 1953.

Disappsarance of all dairy products represented the equivalent of approximately $1,033 \mathrm{lb}$. of milk per capita in 1953 compared with $1,026 \mathrm{lb}$. in 1952.

## 26.-Domestic Disappearance of Dairy Products, 1950-53

(Exclusive of Newfoundland)

| Product | 1950 |  | 1951 |  | 1952 |  | 1953 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Disappearance |  | Disappearance |  | Disappearance |  | Disappearance |  |
|  | Total | $\begin{gathered} \text { Per } \\ \text { Capita } \end{gathered}$ | Total | $\begin{gathered} \text { Per } \\ \text { Capita } \end{gathered}$ | Total | $\begin{gathered} \text { Per } \\ \text { Capita } \end{gathered}$ | Total | Per Capita |
| Fluid Milk and Cream-1 | '000 lb. | Ib. | '000 lb. | lb . | '000 lb. | lb . | '000 lb. | lb. |
| Milk................... | 4, 645,793 | 347.71 | 4,682,467 | 343.09 | 4,776,899 | 339.85 | 4,929,972 | 342.41 |
| Cream as product | 185,539 | 13.89 | 181,801 | 13.32 | 186,461 | $13 \cdot 27$ | 194,724 | 13.52 |
| Cream as milk... | 853,446 | 63.88 | 853,478 | 62.53 | 881,145 | 62.69 | 917,791 | 63.74 |
| Totals, Milk and Cream ${ }^{1}$ | 5,449,239 | 411.59 | 5,535,945 | $405 \cdot 62$ | 5,658,044 | 402.54 | 5,847,763 | 406-15 |
| Butter- |  |  |  |  |  |  |  |  |
| Creamery | 276,671 | 20.18 | 268,542 | 19.17 | 274,911 | 19.05 | 285,581 | $19 \cdot 32$ |
| Dairy. | 27,352 | 1.99 | 26,830 | 1.91 | 23,770 | $1 \cdot 65$ | 21,289 | 1.44 |
| Whey. | 2,187 | $0 \cdot 16$ |  | $0 \cdot 14$ | 1,725 | 0.12 | 1,804 | $0 \cdot 12$ |
| Totals, Butter. | 306,210 | $22 \cdot 33$ | 297,307 | 21.22 | 300,406 | 20.82 | 308,674 | 20.88 |
| Cheese- |  |  |  |  |  |  |  |  |
| Cheddar. | 31,466 | 2.29 | 29,713 | $2 \cdot 12$ | 31,624 | $2 \cdot 19$ | 32,944 | $2 \cdot 23$ |
| Process. | 36,409 | $2 \cdot 66$ | 39,551 | $2 \cdot 82$ | 41,178 | $2 \cdot 85$ | 44,304 | 3.00 |
| Other. | 8,648 | $0 \cdot 63$ | 10,632 | 0.76 | 11,327 | 0.79 | 11,906 | 0.80 |
| Totals, Cheese | 76,523 | 5.58 | 79,896 | $5 \cdot 70$ | 84,129 | $5 \cdot 83$ | 89,154 | 6.03 |
| Concentrated Whole-Milk Products- |  |  |  |  |  |  |  |  |
| Evaporated....... | 239,408 | 17.46 | 250,169 | 17.86 | 265,079 | $18 \cdot 37$ | 275,038 | $18 \cdot 61$ |
| Condensed. | 10,976 | 0.80 0.44 | 10,712 | 0.76 0.36 | 11,017 | 0.76 | 12,835 | $0 \cdot 87$ |
| Powdered | 6,038 | 0.44 | 4,994 | $0 \cdot 36$ | 5,041 | $0 \cdot 35$ | 5,126 | $0 \cdot 35$ |
| Totals, Concentrated Whole-Milk Products ${ }^{2}$. . | 264,167 | $19 \cdot 26$ | 279,032 | 19.92 | 293,042 | $20 \cdot 30$ | 307,103 | $20 \cdot 78$ |
| Concentrated Milk By-products- |  |  |  |  |  |  |  |  |
| Evaporated | 11.942 | : | 9,057 | : | 10,348 | : | 10,890 | 8 |
| Condensed | 4,574 | : | 6,087 | : | 4,836 | ${ }^{8}$ | 4,109 | 3 |
| Powdered. | 46,817 | : | 52,052 | ${ }^{3}$ | 50,727 | ${ }^{5}$ | 65,608 | , |
| Totals, Concentrated Milk By-products4. ... | 80,779 | 1 | 91,534 | : | 84,670 | : | 94,720 | 3 |
| All Dairy Products in Terms of Milk- |  |  |  |  |  |  |  |  |
| Cheese.. | 7,760,184 | 519.44 | 6,920,566 | 491.01 55.28 | 6,989,135 | $\begin{array}{r}484.35 \\ 57 \\ \hline\end{array}$ | $7,180,758$ 861,949 | 485.81 58.31 |
| Concentrated | 619,011 | 55.14 | 649,125 | + 46.34 | 702,987 | 48.72 <br> 18 | 833,601 | $58 \cdot 81$ $49 \cdot 63$ |
| Grand Totals ${ }^{\text {b }}$ | 14,426,853 | 1,062.67 | 14,336,234 | 1,033-82 | 14,650,901 | 1,025.75 | 15,112,464 | 1,032.94 |

[^143]
## Subsection 6.-Poultry and Eggs

Statistics of production and consumption of poultry meat and eggs are given in Tables 27 to 29.
27.-Numbers and Values of Poultry on Farms, by Province, as at June 1, 1952 and 1953

| Province and Year | $\begin{gathered} \text { Hens } \\ \text { and } \\ \text { Chickens } \end{gathered}$ | Turkeys | Geese | Ducks | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Numbers |  |  |  |  |
|  | '000 | '000 | '000 | '000 | '000 |
| Newfoundland ${ }^{1} . . . . . . . . . . . . . . . . . . .1951$ | 74 | 2 | -- | -- | 76 |
| Prince Edward Island............. 1952 | $\begin{aligned} & 925 \\ & 870 \end{aligned}$ | 18 17 | 21 20 | $\begin{aligned} & 15 \\ & 15 \end{aligned}$ | 979 922 |
| Nova Scotia. . . . . . . . . . . . . . . . . 19.1953 | 1,480 1,530 | 28 25 | 4 4 | 3 3 | 1,515 1,562 |
| New Brunswick................... 1953 | 1,145 1,090 | 44 50 | 5 6 | 5 5 | 1,199 1,151 |
| Quebec............................. ${ }_{1953}^{1952}$ | 9,875 9,800 | 440 375 | 13 14 | 49 53 | $\begin{aligned} & 10,377 \\ & 10,242 \end{aligned}$ |
| Ontario. . . . . . . . . . . . . . . . . . . . ${ }_{1953}^{1952}$ | 20,700 23,400 | 692 568 | 137 147 | 166 168 | $\begin{aligned} & 21,695 \\ & 24,283 \end{aligned}$ |
| Manitoba. . . . . . . . . . . . . . . ............ 1952 | 6,667 6,190 | 418 355 | 62 59 | 65 63 | $\begin{aligned} & 7,212 \\ & 6,667 \end{aligned}$ |
| Saskatchewan...................... 1952 | 8,680 7,900 | 587 470 | 43 45 | 74 | 9,384 8,478 |
| Alberta. ............................... 1953 | 8,420 8,280 | 640 530 | 80 | 95 91 | 9,235 8,979 |
| British Columbia.................. ${ }_{1953}^{1952}$ | 3,840 3,900 | 300 225 | 21 | 25 | 4,186 <br> 4,167 |
| Totals....................... 1952 | 61,732 62,960 | 3,167 2,615 | 386 388 | 497 488 | $\begin{aligned} & 65,782 \\ & 66,451 \end{aligned}$ |
|  | Values |  |  |  |  |
|  | \$ | \$ | \$ | \$ | \$ |
| Newfoundland ${ }^{1}$................... 1951 | 202,611 | 11,652 | 2,740 | 1,842 | 218,845 |
| Prince Edward Island............. ${ }_{1953}^{1952}$ | $1,107,000$ 959,900 | 56,000 63,000 | 51,000 42,000 | 18,000 21,000 | $\begin{aligned} & 1,232,000 \\ & 1,085,000 \end{aligned}$ |
| Nova Scotia. . . . . . . . . . . . . . . . . . 1951953 | $\begin{aligned} & 2,200,000 \\ & 2,358,000 \end{aligned}$ | 88,000 88,000 | 12,000 12,000 | 4,000 5,000 | $\begin{aligned} & 2,304,000 \\ & 2,463,000 \end{aligned}$ |
| New Brunswick. .................... ${ }_{1953}^{1952}$ | $\begin{aligned} & 1,602,000 \\ & 1,500,000 \end{aligned}$ | $\begin{aligned} & 166,000 \\ & 150,000 \end{aligned}$ | $\begin{aligned} & 18,000 \\ & 15,000 \end{aligned}$ | $\begin{aligned} & 8,000 \\ & 7,000 \end{aligned}$ | $\begin{aligned} & 1,794,000 \\ & 1,672,000 \end{aligned}$ |
| Quebec................................... 1952 | $\begin{aligned} & 13,657,000 \\ & 13,164,000 \end{aligned}$ | $\begin{aligned} & 1,471,000 \\ & 1,078,000 \end{aligned}$ | $\begin{aligned} & 33,000 \\ & 36,000 \end{aligned}$ | $\begin{aligned} & 66,000 \\ & 92,000 \end{aligned}$ | $\begin{aligned} & 15,227,000 \\ & 14,370,000 \end{aligned}$ |
| Ontario. ................................ 1953 | $\begin{aligned} & 25,817,000 \\ & 32,092,000 \end{aligned}$ | $\begin{aligned} & 2,229,000 \\ & 1,490,000 \end{aligned}$ | $\begin{aligned} & 349,000 \\ & 359,000 \end{aligned}$ | $\begin{aligned} & 231,000 \\ & 224,000 \end{aligned}$ | $\begin{aligned} & 28,626,000 \\ & 34,165,000 \end{aligned}$ |
| Manitoba. . ............................. 1952 | $\begin{aligned} & 5,501,000 \\ & 5,410,000 \end{aligned}$ | $\begin{aligned} & 874,000 \\ & 941,000 \end{aligned}$ | $\begin{aligned} & 120,000 \\ & 120,000 \end{aligned}$ | $\begin{aligned} & 63,000 \\ & 67,000 \end{aligned}$ | $\begin{aligned} & 6,558,000 \\ & 6,538,000 \end{aligned}$ |
| Saskatchewan...................... ${ }_{1953}^{1952}$ | $\begin{aligned} & 7,083,000 \\ & 6,319,000 \end{aligned}$ | $\begin{aligned} & 1,390,000 \\ & 1,057,000 \end{aligned}$ | $\begin{aligned} & 88,000 \\ & 97,000 \end{aligned}$ | $\begin{aligned} & 82,000 \\ & 81,000 \end{aligned}$ | $\begin{aligned} & 8,643,000 \\ & 7,554,000 \end{aligned}$ |
| Alberta.......................... ${ }_{1953}^{1952}$ | $\begin{aligned} & 7,886,000 \\ & 7,323,000 \end{aligned}$ | $\begin{aligned} & 1,776,000 \\ & 1,215,000 \end{aligned}$ | $\begin{aligned} & 186,000 \\ & 177,000 \end{aligned}$ | $\begin{aligned} & 133,000 \\ & 104,000 \end{aligned}$ | $\begin{aligned} & 9,981,000 \\ & 8,819,000 \end{aligned}$ |
| British Columbia................. 1952 | $\begin{aligned} & 5,584,000 \\ & 5,213,000 \end{aligned}$ | $\begin{aligned} & 875,000 \\ & 802,000 \end{aligned}$ | $\begin{aligned} & 66,000 \\ & 40,000 \end{aligned}$ | $\begin{aligned} & 42,000 \\ & 43,000 \end{aligned}$ | $\begin{array}{r} 6,567,000 \\ 6,098,000 \\ \hline \end{array}$ |
| Totals. ......................... 1952 | $\begin{aligned} & \hline 70,437,000 \\ & 74,338,000 \end{aligned}$ | $\begin{aligned} & 8,925,000 \\ & 6,884,000 \end{aligned}$ | $\begin{aligned} & 923,000 \\ & 898,000 \end{aligned}$ | $\begin{aligned} & \mathbf{6 4 7}, 000 \\ & 644,000 \end{aligned}$ | $\begin{aligned} & 80,932,000 \\ & 82,764,000 \end{aligned}$ |

${ }^{1}$ Census data; no estimates are available for 1952 and 1953.
28.-Production, Utilization and Value of Farm Eggs, by Province, 1953

| Province | Average Number of Layers ${ }^{1}$ | Average Production per 100 Layers | Net Eggs Lsid ${ }^{2}$ | Sold ${ }^{3}$ | $\begin{gathered} \text { Used } \\ \text { on } \\ \text { Farms } \end{gathered}$ | Value per Dozen ${ }^{4}$ | Total Value Sold and Used |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 | No. | '000 doz. | '000 doz. | '000 doz. | cts. | \$ ${ }^{\prime} 000$ |
| Newfoundland. $\qquad$ Prince Edward Islan | ${ }^{\circ} 429$ | 18,994 | 6,764 | 5,825 | ${ }^{\circ} 939$ | 42.8 | 2,894 |
| Nova Scotia........ | 707 | 21,155 | 12,429 | 9,371 | 3,058 | $52 \cdot 0$ | 6,467 |
| New Brunswick | 518 | 18,742 | 7,966 | 6,252 | 1,714 | $54 \cdot 7$ | 4,355 |
| Quebec. . | 3,285 | 19,712 | 53,738 | 41,584 | 12,154 | $50 \cdot 7$ | 27,255 |
| Ontario. | 8,788 | 19,308 | 140, 100 | 127,129 | 12,971 | $49 \cdot 1$ | 68,808 |
| Manitoba | 2,074 | 17,251 | 29,719 | 25,939 | 3,780 | 39.8 | 11,839 |
| Saskatchew | 2,447 | 15,593 | 31,911 | 24,915 | 6,996 | 36.0 | 11,498 |
| Alberta. | 2,601 | 17,009 | 36,685 | 28,558 | 8,127 | $39 \cdot 6$ | 14,512 |
| British Columbia | 1,524 | 19,241 | 24,106 | 22,006 | 2,100 | $50 \cdot 5$ | 12,178 |
| Totals. | 22,373 | 18,567 | 343,418 | 291,579 | 51,839 | 46.5 | 159,806 |

${ }^{1}$ Hens and pullets over six months old. ${ }^{2}$ Total laid less loss. ${ }^{2}$ Includes eggs used for hatching. $\quad$ Average value at farms for all purposes.
29.-Production and Domestic Disappearance of Eggs and Poultry, 1953

| Item | Farm Production | Produced Elsewhere | Total Production | Total Supply | Domestic Disappearance | Per Capita Consumption |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 doz. | '000 doz. | '000 doz. | '000 doz. | '000 dos. | doz. |
| Fggs. | 343,418 | 9,781 | 353,199 | 360,429 | 347,491 ${ }^{1}$ | 23.4 |
| Peultry- | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. | lb. |
| Fowl and chickens........ | 309,387 | 11,912 | 321,299 | 341,340 | 319,508 | 22.2 |
| Turkeys. | 53,304 | 1,524 | 54,828 | 68,939 | 61,472 | $4 \cdot 3$ |
| Geese...................... | 4,850 | 111 | 4,961 | 5,142 | 4,961 | $0 \cdot 3$ |
| Ducks. | 3,876 | 100 | 3,976 | 4,814 | 4,566 | $0 \cdot 3$ |
| Totals, Poultry....... | 371,417 | 13,647 | 385,064 | 420,235 | 390,507 | 27.1 |

${ }^{1}$ Includes hatching eggs.

## Subsection 7.-Fruit

Commercial fruit growing in Canada is confined almost exclusively to rather limited areas in the Provinces of Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia. In Nova Scotia production is centred mainly in the Annapolis Valley and in New Brunswick it is centred in the St. John River Valley and Westmorland County. The fruit-growing districts of Quebec are the Montreal area, the North Shore area, the Eastern Townships and Quebec City district. In Ontario, fruit is grown in all the counties adjacent to the St. Lawrence River and the Great Lakes as far west as Georgian Bay, the Niagara district being the most productive. In British Columbia, the four well-defined fruit areas are the Okanagan Valley, the Fraser Valley, the Kootenay and Arrow Lakes district and Vancouver Island. The climate elsewhere in Canada is not suitable for commercial tree-fruit culture.

A marketing system has been developed for distributing fresh fruit from the specialized production areas to all parts of the country and a very large proportion of the deciduous fruit consumed in Canada is domestically grown. Considerable quantities of apples, strawberries and blueberries are exported annually. The United States is the most important export market for Canadian fruit. The import restrictions of the United Kingdom have greatly reduced exports of Canadian fruit to that market in recent years. In most of the producing areas, and particularly in the Annapolis Valley of Nova Scotia, the Niagara Peninsula of Ontario and the Okanagan Valley of British Columbia, fruit-growing is the principal form of agriculture and its prosperity is of paramount importance to the economy of those areas. Apples and small fruits are produced commercially in the four provinces named, but tender tree fruits and commercial vineyards are limited to Ontario and British Columbia.

Canning and processing industries have developed in the fruit-growing districts and, although the importance of the processing market varies with different fruits, it provides a valuable outlet for substantial proportions of most Canadian-grown fruit crops. Some canned fruits are exported.
30.-Estimated Commercial Production and Farm Value of Fruit, 1950-53

| Kind of Fruit and Year | Quantity | Weight | Farm Value | Average <br> Farm <br> Price per Unit of Quantity ${ }^{1}$ | Kind of Fruit and Year | Quantity | Weight | Farm Value |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 bu. | '000 lb. | \$'000 | \$ |  | '000 qt. | '000 lb. | \$'000 | \$ |
| Apples- |  |  |  |  | Strawberries- |  |  |  |  |
| 1950. | 16,166 | 727,470 | 12,467 | 0.77 | 1950. | 27,444 | 34,305 | 6,742 | $0 \cdot 25$ |
| 1951. | 13,610 12 | 612,450 542,205 | 13,893 17,391 | 1.02 1.44 | 1951. | 26,204 | 32,755 | 5,662 | 0.22 |
| 1953. | 12,049 11,416 | 542,205 513,720 | 16,978 | 1.49 | 1955. | 32,368 | 40,460 | 6,077 | $0 \cdot 19$ |
|  |  |  |  |  | 1953. | 28,303 | 35,379 | 6,464 | 0.23 |
| Pears- |  |  |  |  |  |  |  |  |  |
| 1950. | 864 | 43,200 | 1,877 | 2.17 1.83 | Raspberries- |  |  |  |  |
| 1951. | 1,225 | 61,250 | 2,238 | 1.83 |  |  |  |  |  |
| 1953. | 1,303 | 65,150 70,850 | 2,371 2,576 | 1.82 | ${ }_{1951 . . . . . . . . . . . . . . ~}^{\text {195. }}$ | 11,964 11,772 | 14,955 | 2,840 3,133 | 0.24 0.27 |
| 1953. | 1,417 | 70,850 | 2,576 | $1 \cdot 82$ | 1955,............. | 11,7829 | 14, 1356 | 3,565 | 0.27 0.24 |
| Plums and |  |  |  |  | 1953. | 12,486 | 15,608 | 3,087 | $0 \cdot 25$ |
| ${ }_{1950}$ Prunes- |  |  |  |  |  |  |  |  |  |
| 1950... | 690 | 30,000 34,600 | 1,016 | $1 \cdot 69$ |  | '000 lb. |  |  |  |
| 1952. | 896 | 44,800 | 1,033 | 1.15 | Loganberries- |  |  |  |  |
| 1953. | 783 | 39,150 | 1,198 | 1.53 | 1950. | 1,197 | 1,197 | 166 | 0.14 |
|  |  |  |  |  | 1951. | 883 | 883 | 147 | $0 \cdot 17$ |
| Peaches- |  |  |  |  | 1952........... | 1,240 | 1,240 | 158 | $0 \cdot 13$ |
| 1950. | 1,222 | 61,100 | 2,754 | $2 \cdot 25$ | 1953............ | 1,611 | 1,611 | 236 | $0 \cdot 15$ |
| 1951. | 1,792 | 89,600 | 4,004 | $2 \cdot 23$ |  |  |  |  |  |
| 1952. | 2,917 | 145,850 | 5,152 | $1 \cdot 77$ |  |  |  |  |  |
| 1953. | 2,892 | 144,600 | 5,381 | 1.86 | Grapes- |  |  |  |  |
|  |  |  |  |  | 1950. | 109,189 | 109,189 | 3,543 | 0.03 |
| $\text { pricots- } 1950$ | 18 | 900 | 77 | 4.28 | 1951 | 88,602 | 88,602 86,481 | 2,813 | 0.03 0.04 |
| 1951........... | 38 | 1,900 | 116 | 3.05 |  | 86,481 80,958 | 86,481 80,958 | 3,052 3,508 | 004 |
| 1952..... | 243 | 12,150 | 342 | $1 \cdot 41$ | 1 |  | 80,58 |  |  |
| 1953.......... | 210 | 10,500 | 401 | 1.91 |  |  |  |  |  |
| Cherries- |  |  |  |  | Blueberries- |  |  |  |  |
| 1950. | 359 | 17,950 | 2,065 | 5.75 | $1950{ }^{2}$. | 4,427 | 4,427 | 649 | $0 \cdot 15$ |
| 1951. | 419 | 20,950 | 2,263 | $5 \cdot 40$ | 1951. | 25,582 | 25,582 | 2,979 | $0 \cdot 12$ |
| 1952. | 505 | 25, 250 | 2,113 | $4 \cdot 18$ | 1952 | 25,170 | 25.170 | 3,384 | $0 \cdot 13$ |
| 1953. | 450 | 22,500 | 2,724 | 6.05 |  | 18,301 | 18,301 | 3,180 | $0 \cdot 17$ |

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## 31.-Quantity and Value of Commercial Fruit Produced, by Province, 1950-53

| Province | Quantity |  |  |  | Value ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 | 1951 | 1952 | 1953 | 1950 | 1951 | 1952 | 1953 |
|  | '000 lb. | '000 lb. | '000 lb. | '000 lb. | \$ 000 | \$'000 | \$'000 | \$ 000 |
| Newfoundland............ | 1,082 | 1,870 | 2,165 | 2,646 | 130 | 224 | 260 | 304 |
| Prince Edward Island..... | 760 | 900 | 1,589 | 1,485 | 76 | 99 | 168 | 178 |
| Nova Scotia............. | 105,299 | 73,877 | 79,724 | 53,080 | 2,068 | 1,769 | 2,229 | 2,111 |
| New Brunswick. | 18,950 | 20,831 | 18,980 | 13,902 | 860 | 1,032 | 1,184 | 740 |
| Quebec...................... | 91,147 ${ }^{2}$ | 166,690 | 88,585 | 96,951 | 3,822 ${ }^{2}$ | 7,099 | 6,839 | 7,240 |
| Ontario. | 360,669 | 393,048 | 408,151 | 409,805 | 14,305 | 14,762 | 17,733 | 20,182 |
| British Columbia. | 466,786 | 326,071 | 403,098 | 375,308 ${ }^{2}$ | 12,935 | 13,128 | 15,225 | 14,978 ${ }^{2}$ |
| Totals | 1,044,693 | 983,287 | 1,002,292 | 953,177 | 34,196 | 38,113 | 43,638 | 45,733 |

${ }^{1}$ Farm value (to piekers in the case of blueberries) for unpacked fruit. ${ }^{2}$ Excludes blueberries.

## Subsection 8.-Special Crops

Tobacco.-The chief tobacco-growing area of Canada is located in southern Ontario in the counties adjacent to Lake Erie. Most of the cigarette tobacco comes from that district. In Ontario in 1953, 90,800 acres of flue-cured or Bright Virginia type tobacco and 1,096 acres of Burley tobacco were harvested. These are the most important types grown, though dark air-cured and fire-cured tobacco as well as cigar tobacco are grown on a more limited scale. The only other important production comes from Quebec. In 1953, 4,920 acres of flue-cured tobacco, 3,000 acres of cigar tobacco and 1,100 acres of pipe tobacco were harvested in that Province.

A study of Department of National Revenue reports on tax-paid withdrawals of tobacco products reveals changes in the smoking habits of Canadians during the past three decades. In 1922, the first year for which comparable figures are available, the Canadian per capita consumption of cigarettes was 229, cigars 20, cut tobacco 1.3 lb ., plug tobacco 1.1 lb . and snuff about 1.3 oz . By 1953, the annual per capita consumption of cigarettes had increased to 1,421 , cigars had dropped to $15 \cdot 9$, cut tobacco went up to 1.8 lb . and plug declined considerably.

## 32.-Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, 1950-53, with Average for 1945-49

| Year | Harvested Area | Average Yield per Acre | Total Production | Average Farm Price per lb. | Gross Farm Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | acres | lb . | 1 l . | cts. | \$ |
| Av. 1945-49... | 109,709 | 1,106 | 121,373,000 | 36.8 | 44,655,000 |
| 1950. | 101,809 | 1,182 | 120,298,000 | $42 \cdot 6$ | 51,292,000 |
| 1951.. | 118,970 | 1,293 | 153,792,000 | $43 \cdot 1$ | 66,213,000 |
| 1952. | 91,639 | 1,525 | 139,719,000 | $40 \cdot 6$ | 56,797,000 |
| 1953. | 101,088 | 1,377 | 139,190,000 | 42.8 | 59,617,000 |

33.-Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, by Province, 1950-53, with Average for 1945-49

| Year | Quebec |  |  | Ontario |  |  | British Columbia |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Harvested Area | $\begin{aligned} & \text { Pro- } \\ & \text { duc- } \\ & \text { dion } \end{aligned}$ | Value | Harvested Area | $\begin{aligned} & \text { Pro- } \\ & \text { duc- } \\ & \text { tion } \end{aligned}$ | Value | Harvested Area | $\begin{aligned} & \text { Pro- } \\ & \text { duc- } \\ & \text { tion } \end{aligned}$ | Value |
|  | acres | '000 lb. | \$ | acres | '000 lb. | 8 | acres | '000 lb. | \$ |
| Av. 1945-49... | 11,293 | 10,359 | 2,898,000 | 98,315 | 110,904 | 41,730,800 | 101 | 111 | 34,800 |
| 1950. | 9,163 | 9,556 | 2,732,000 | 92,556 | 110,610 | 48,505,000 | 120 | 132 | 55,000 |
| 1951. | 9,080 | 8,631 | 2,600,000 | 109,740 | 144,975 | 63,544,000 | 150 | 186 | 69,000 |
| 1952. | 7,997 | 8,358 | 2,688,000 | 83,548 | 131,236 | 54,065,000 | 94 | 125 | 44,000 |
| 1953. | 9,020 | 9,865 | 3,261,000 | 91,996 | 129,253 | 56,328,000 | 72 | 72 | 28,100 |

## 34.-Acreages, Production and Values of the Commercial Crop of Lear Tobacco, by Main Type, 1950-53, with Average for 1945-49

| Type of Tobacco and Year | Harvested Area | Average Yield per Acre | Total Production | Average Farm Price per lb. | Gross Farm Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | acres | lb. | lb. | cts. | 8 |
| Flue-cured............Av. Av. 1945-49 | 90,787 | 1,102 | 100,070,000 | 38.9 | 38,944,000 |
| 1950 | 92,080 | 1,175 | 108,202,000 | 44.5 | 48,144,000 |
| 1951 | 111,300 | 1,294 | 144,055,000 | $44 \cdot 2$ | $63,729,000$ |
| 1952 | 86,047 | 1,534 | 131,965,000 | $41 \cdot 6$ | $54,867,000$ |
| 1953 | 95,792 | 1,382 | 132,352,000 | $43 \cdot 7$ | 57,837,000 |
| Burley.................Av. Av. 1945-49 | 11,042 | 1,147 | 1,266,400 | 28.6 | 3,628,000 |
| Burly...............Av. 1950 | 4,652 | 1,217 | 5,660,000 | $30 \cdot 0$ | $1,700,000$ |
| 1951 | 2,480 | 1,457 | $3,609,000$ | $30 \cdot 1$ | 1,088,000 |
| 1952 | 1,406 | 1,673 | 2,352,000 | 29.6 | 695,000 |
| 1953 | 1,096 | 1,560 | 1,709,000 | $31 \cdot 3$ | 535,000 |
| Cigar leaf..............Av. 1945-49 | 4,310 | 1,140 | 4,914,000 | 22.8 | 1,119,000 |
| 1950 | 3,212 | 1,300 | 4, 175,000 | $22 \cdot 0$ | 919,000 |
| 1951 | 3,000 | 1,243 | 3,728,000 | $22 \cdot 9$ | 853,000 |
| 1952 | 2,150 | 1,227 | 2,639,000 | $22 \cdot 9$ | 603,000 |
| 1953 | 3,000 | 1,277 | 3,830,000 | $24 \cdot 2$ | 926,000 |

Sugar Beets and Beetroot Sugar.-Sugar beets are grown commerciaily in Quebec, Ontario, Manitoba and Alberta and seven beet-sugar factories are located in these Provinces. In Quebec, commercial production, which centres in the St. Hilaire area of the Eastern Townships, started in 1944; in 1953, about 70,000 tons were harvested from 7,000 acres. The sugar-beet industry of Ontario is largely confined to the southwestern section of the Province and factories are located at Wallaceburg and Chatham. In 1953, Ontario factories processed about 246,000 tons harvested from over 23,000 acres.

Processing of sugar beets in Manitoba began in 1940 when 95,000 tons were handled. In 1953, the factory processed 162,000 tons from 17,000 harvested acres. In Alberta, where the industry has shown steady growth, sugar beets are produced under irrigation with yields averaging above those received in the other provinces. In 1953, the three Alberta factories, located in the south of the Province at Raymond, Picture Butte and Taber, handled 422,000 tons of beets from a harvested area of about 35,000 acres.
35.-Acreages, Yields and Values of Sugar Beets, and Quantities and Values of Refined Beetroot Sugar Produced, 1950-53, with Average for 1945-49

| Year | Sugar Beets |  |  |  |  | Refined Beetroot Sugar Produced |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Harvested Area | Yield per Acre | Total Yield | Average Price per Ton | Total Value | Quantity | Value | Price per lb. |
|  | acres | tons | tons | $\leqslant$ | \$ | lb. | \$ | cts. |
| Av. 1945-49.. | 66,000 | 10.48 | 690,000 | $12 \cdot 74$ | 8,788,000 | 185, 275,000 | 14,865,000 | $8 \cdot 0$ |
| 1950......... | 102,000 | $10 \cdot 97$ | 1,119,000 | 16.39 | 18,343,000 | 300,185,000 | 30,845,000 | $10 \cdot 3$ |
| 1951. | 93,000 | $10 \cdot 36$ | 965,000 | 14.96 | 14,443,000 | 247,753,000 | 26,446,000 | $10 \cdot 7$ |
| 1952.......... | 93,000 | 11.04 | 1,023,000 | 12.40 | 12,681,000 | 298,245,000 | 29,042,000 | $9 \cdot 7$ |
| 1953P.. | 82,000 | 10.99 | 900.000 | 13.02 | 11,722,000 | 245, 476,000 | 21, 944,000 | 8.9 |

Apiculture.-Honey is produced commercially in all provinces of Canada, Ontario being the largest producer. There is a considerable movement of honey from the Prairie Provinces to other parts of Canada. In recent years exports have been small, the United States being the most important external market.

The 1951 crop was the largest since 1948, despite a reduction in the number of bee colonies. In 1952 and 1953 production was lower owing to further reductions in colony numbers and to lower yields after the extremely high production per colony experienced in 1951.

In order to facilitate storage, shipment and uniformity of quality, considerable quantities of Canadian honey are pasteurized. Beekeepers' marketing co-operatives are active in several provinces.

Bees are kept in some of the fruit-growing and greenhouse districts of the country chiefly for purposes of pollination.
36.-Beekeepers and Bee Colonies, Production and Value of Honey and Beeswax, 1950-53, with Average for 1945-49

| Year | Beekeepers | BeeColonies | Honey |  |  |  | Beeswax |  | Value of Honey and Wax |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Average Production per Hive | Total Production | Average Price per lb. to Producers | Total Value | Production | Value |  |
|  | No. | No. | lb . | lb. | cts. | \$ | lb. | \$ | \$ |
| 1945-49 | 36,740 | 539,200 | 63 | 33,982,000 | 19 | 6,457,000 | 474,000 | 213,000 | 6,670,000 |
| 1950.... | 22,180 | 430,000 | 66 | 28,351,000 | 15 | 4,282,000 | 425,000 | 166,000 | 4,448,000 |
| 1951.... | 18,900 | 406,300 | 101 | 40,909,000 | 16 | 6,445,000 | 590,000 | 294,000 | 6,739,000 |
| 1952.... | 15,950 | 385,600 | 81 | 31,230,000 | 15 | 4,680,000 | 463,000 | 217,000 | 4,897,000 |
| 1953.. | 13,950 | 341,300 | 77 | 26.384,000 | 16 | 4,099,000 | 390,000 | 174,000 | 4,273,000 |

37.-Honey Production, by Province, 1950-53, with Average for 1945-49

| Province | Av. 1945-49 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Newfoundland Prince Edward Island. | 49 | 46 |  |  | " 68 |
| Nova Scotis.......... | 98 | 81 | 143 | 125 | 137 |
| New Brunswick | 139 | 68 | 151 | 156 | 124 |
| Quebec. | 4,065 | 3,041 | 5,044 | 4,398 | 2,972 |
| Ontario. | 10,378 | 8,350 | 20,500 | 14,900 | 10,000 |
| Manitoba... | 5,392 | 5,891 | 5,400 | 3,360 | 4,830 |
| Saskatchewan | 6,001 | 4,881 | 3,600 | 2,500 | 3,247 |
| Alberta. | 6,957 | 4,851 | 4,500 | 4,900 | 3,856 |
| British Columbia | 903 | 1,142 | 1,500 | 800 | 1,150 |
| Totals. | 33,982 | 28,351 | 40,909 | 31,230 | 26,384 |

Maple Sugar and Syrup.-Maple syrup is produced in the Provinces of Nova Scotia, New Brunswick, Quebec and Ontario. The bulk of the crop comes from the Eastern Townships of Quebec, a district famous both in Canada and the United States as the centre of the maple-products industry. Virtually all of the maple products exported are sent to the United States with the larger proportion moving as sugar, although substantial quantities of syrup are also shipped.

Most of the syrup sold in Canada is marketed in one-gallon cans direct to the consumer from the producer but a considerable amount of both sugar and syrup is sold each year to processing firms.
38.-Estimated Production of Maple Sugar and Maple Syrup, by Province, 1950-53, with Average for 1945-49

| Province and Year | Maple Sugar |  |  | Maple Syrup |  |  | Total Value, Sugar and Syrup |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Average Price per lb. | Value | Quantity | Average Price per gal. | Value |  |
| Nova Scotia- |  |  |  |  |  |  |  |
| Av. 1945-491..... | 16,000 | $44 \cdot 0$ | 7,000 | 7,000 | 3.85 | 25,000 | 33,000 |
| 1950............... | 13,000 | $47 \cdot 0$ | 6,000 | 7,000 | $3 \cdot 76$ | 26,000 | 32,000 |
| 1951... | 15,000 | $52 \cdot 8$ | 8,000 | 5,000 | $4 \cdot 18$ | 21,000 | 29,000 |
| 1952... | 11,000 | 54.0 | 6,000 | 6,000 | $4 \cdot 13$ | 25,000 | 31,000 |
| 1953. | 6,000 | $53 \cdot 0$ | 3,000 | 2,000 | $4 \cdot 24$ | 8,000 | 11,000 |
| New Brunswick- |  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Av. 1945-491...... } \\ & \text { 1950.................. } \end{aligned}$ | - $\begin{array}{r}91,000 \\ 86,000\end{array}$ | 46.0 43.0 | 42,000 37,000 | 12,000 14,000 | 4.12 4.00 | 49,000 56,000 | 91,000 93,000 |
| 1951. | 90,000 | $46 \cdot 0$ | 41,000 | 10,000 | $4 \cdot 27$ | 43,000 | 84,000 |
| 1952. | 114,000 | $50 \cdot 0$ | 57,000 | 12,000 | $4 \cdot 30$ | 52,000 | 109,000 |
| 1953............. | 38,000 | $47 \cdot 0$ | 18,000 | 5,000 | $4 \cdot 85$ | 24,000 | 42,000 |
| Quebec- |  |  |  |  |  |  |  |
| Av. 1945-491..... | 2,270,000 | 32.0 | 736,000 | 1,863,000 | $3 \cdot 34$ | 6,224,000 | 6,960,000 |
| 1950............. | 1,692,000 | 37.0 | 626,000 | 2,273,000 | $3 \cdot 44$ | 7,819,000 | $8,445,000$ |
| 1951 | 1,500,000 | $39 \cdot 0$ | 585,000 | 1,750,000 | $3 \cdot 55$ | 6,212,000 | 6,797,000 |
| 1952. | 2,020,000 | $42 \cdot 0$ | 848,000 | 2,777,000 | $3 \cdot 33$ | 9,247,000 | 10,095,000 |
| 1953. | 1,266,000 | $39 \cdot 0$ | 494,000 | 1,688,000 | $3 \cdot 69$ | 6,229,000 | 6,723,000 |
| Ontario- |  |  |  |  |  |  |  |
| Av. 1945-491..... | 29,009 | 38.0 | 11.000 | . 373,000 | 3.82 | 1,422,000 | 1,433,000 |
| 1950.............. | 33,000 | $40 \cdot 0$ | 13,000 | 507,000 | 4.05 | 2,053,000 | 2,066,000 |
| 1951.............. | 44,000 | 43.0 | 19,000 | 379,000 | $4 \cdot 29$ | 1,626,000 | 1,645,000 |
| 1952............. | 16,000 | 47.0 | 8,000 | 459,000 | $4 \cdot 21$ | 1,932.000 | 1,940,000 |
| 1953.............. | 14,000 | $52 \cdot 0$ | 7,000 | 121,000 | $4 \cdot 32$ | 523,000 | 530,000 |
| Totals- |  |  |  |  |  |  |  |
| Ar. 1945-491..... | 2,407,000 | $33 \cdot 1$ | 296,000 | 2,254,000 | $3 \cdot 42$ | 7,721,000 | 8,517,000 |
| 1950. | 1,824,000 | 37.4 | 682,000 | 2,801,000 | $3 \cdot 55$ | 9,954,000 | 10,636,000 |
| 1951. | 1,649,000 | $39 \cdot 6$ | 653,000 | 2,144,000 | 3-69 | 7,902,000 | 8,555,000 |
| 1955. | 2,161,000 | 42.5 | 919,000 | 3,254,000 | $3 \cdot 46$ | 11,256,000 | 12,175, 000 |
| 1953............. | 1,324,000 | 39.4 | 522,000 | 1,816,000 | 3-74 | 6,784,000 | 7,306,000 |

${ }^{1}$ Five-year average prices are derived from actual figures, but quantities and values are rounded to the nearest thousand.

Fibre Flax.-The demand for fibre flax was heavy during World War II when exports increased to many times the pre-war volume. After the War, however, exports of fibre flax to Canada's principal market, the United Kingdom, dropped sharply and acreage devoted to this crop decreased; in 1950 it was at the lowest level since 1931. In 1951 and 1952 acreage and production increased but both declined again in 1953.

## 39.-Acreages, Yields and Values of Flaxseed, Fibre and Tow, 1950-53, with Average for 1945-49

| Year | Area | Production |  |  | Values |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Seed | Fibre | $\begin{aligned} & \text { Green } \\ & \text { Tow } \end{aligned}$ Tow | Seed | Fibre | $\begin{aligned} & \text { Green } \\ & \text { Tow } \end{aligned}$ | Total |
|  | acres | bu. | lb. | tons | \$ | \$ | \$ | \$ |
| Av. 1945-49.... | 13,991 | 57,000 | 2,852,000 | 136 | 301,000 | 751,000 | 9,000 | 1,061,000 |
| 1950. | 4,569 | 25,000 | 946,000 | - | 133,000 | 294,000 | - | 427,000 |
| 1951............ | 7,555 | 42,000 | 2,660,000 | - | 210,000 | 538,000 | - | 748,000 |
| 1952........... | 7,166 | 35,000 | 1,470,000 | - | 158,000 | 246,000 |  | 404,000 |
| 1953............ | 3,000 | 25,000 | 580,000 | - | 68,000 | 96,000 | - | 164,000 |

## Subsection 9.-Prices of Agricultural Produce

The monthly index of farm prices of agricultural products was designed to measure changes occurring in the average prices farmers receive at the farm from the sale of farm products. In comparing current index numbers with those before August 1953, certain points should be considered. Western grain prices used in the construction of the index before Aug. 1, 1953, are final prices for all grains. Since Aug. 1, 1953, only initial prices are available for western wheat, oats and barley. Any subsequent participation payments made on the 1953 crops will be added to the prices currently used and the index revised upward accordingly.

## 40.-Average Index Numbers of Farm Prices of Agricultural Products, by Province, 1944-53, and by Month, 1952 and 1953

$$
(1935-39=100)
$$

Norc.-A description of this index, its coverage and the methods used will be found in DBS Quarterly Bulletin of Agricutural Statistics for October-December, 1946.

| Year and Month | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1944 Averages. | 172.7 | 173.3 | 171.9 | $171 \cdot 7$ | 169.1 | $173 \cdot 1$ | $171 \cdot 4$ | 176.9 | 179.5 | 172.4 |
| 1945 Averages. | 196.7 | $180 \cdot 8$ | $195 \cdot 3$ | 179.5 | 174.6 | 188.4 | 192.6 | 196.2 | 187.8 | 185-7 |
| 1946 Averages. | $194 \cdot 2$ | 191.2 | 207.7 | 196.9 | 187.9 | 209 -4 | 217-3 | 219.9 | 199.2 | 204-1 |
| 1947 Averages. | $180 \cdot 1$ | 184-9 | 199.6 | $213 \cdot 7$ | $202 \cdot 1$ | 225.9 | 226.1 | 231.9 | 207-1 | 215.8 |
| 1948 Averages. | 236.6 | 214-1 | $250 \cdot 3$ | $265 \cdot 6$ | 258.6 | 259.6 | $247 \cdot 1$ | 262.9 | 240.2 | 255.8 |
| 1949 Averages. | 204.1 | $210 \cdot 5$ | 220.5 | 261.3 | 257.8 | 262.8 | 248.8 | $265 \cdot 6$ | $245 \cdot 1$ | 255-4 |
| 1950 Averages. | 189.6 | 206.5 | 216.8 | $260 \cdot 9$ | $265 \cdot 1$ | 274.4 | 251.5 | $276 \cdot 2$ | $244 \cdot 3$ | $260 \cdot 8$ |
| 1951 Averages. | $236 \cdot 4$ | $243 \cdot 2$ | $250 \cdot 8$ | $305 \cdot 6$ | 315.0 | 301.6 | 268.7 | 308.0 | $287 \cdot 1$ | 296.8 |
| 1952 |  |  |  |  |  |  |  |  |  |  |
| January. | $343 \cdot 7$ | 283.2 | 329.7 | 314.9 | $313-1$ | 293.1 | 261-7 | $290 \cdot 8$ | 310.8 | 296.5 |
| February | $319 \cdot 2$ | 273.9 | 318.7 | $307 \cdot 2$ | 297.5 | 281.4 | $252 \cdot 3$ | $279 \cdot 6$ | 304-4 | 284.8 |
| March. | 348.9 | 278.9 | $355 \cdot 7$ | 301-3 | $290 \cdot 1$ | $277 \cdot 2$ | 247 -7 | 268.9 | 299.4 | 279.5 |
| April | 394.6 | 286.6 | 377.5 | 295.0 | 285.0 | $271 \cdot 2$ | 244.1 | 265.6 | 296.5 | 276.3 |
| May. | 414.5 | 287.8 | $386 \cdot 6$ | 285.6 | 278.3 | 258.8 | 235-6 | $255 \cdot 6$ | 296.2 | 268.8 |
| June. | 493.5 | $307 \cdot 3$ | $434 \cdot 0$ | $293 \cdot 6$ | 289.3 | 259-7 | $237 \cdot 4$ | 258.0 | 294.7 | 276-1 |
| July | $348 \cdot 3$ | $272 \cdot 2$ | 371.5 | $292 \cdot 6$ | 292.7 | 264-6 | 241.5 | 259-7 | 298.5 | $275 \cdot 2$ |
| August. | 378.6 | $271 \cdot 1$ | 377.7 | $284 \cdot 7$ | 292.7 | $265 \cdot 1$ | $252 \cdot 3$ | $268 \cdot 2$ | $288 \cdot 1$ | $278 \cdot 2$ |
| September | 309.6 | 269 -1 | 309.5 | $280 \cdot 1$ | 279.9 | 259.9 | 249 -3 | $264 \cdot 6$ | 288.8 | 269 -9 |
| October | 294-3 | $258 \cdot 3$ | 298.3 | 274-2 | $272 \cdot 4$ | $256 \cdot 5$ | $242 \cdot 5$ | 255.8 | $280 \cdot 4$ | $262 \cdot 6$ |
| Novembe | 293.4 | 256.7 | 294-3 | $275 \cdot 9$ | 273.2 | 257 -1 | $243 \cdot 4$ | $257 \cdot 6$ | $280 \cdot 5$ | 263-5 |
| Decembe | $280 \cdot 9$ | $255 \cdot 6$ | $280 \cdot 7$ | $277 \cdot 8$ | $270 \cdot 9$ | 257-2 | 243.0 | 258.8 | 279-8 | $262 \cdot 8$ |
| 1952 Averages | $351 \cdot 6$ | $275 \cdot 1$ | 344.5 | $290 \cdot 2$ | $286 \cdot 3$ | 266.8 | 245.9 | $265 \cdot 3$ | 293.2 | $274 \cdot 5$ |

[^145]40.-Average Index Numbers of Farm Prices of Agricultural Products, by Province, 1944-53, and by Month, 1952 and 1953-concluded
$(1935-39=100)$

| Year and Month | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1953 |  |  |  |  |  |  |  |  |  |  |
| January | 279.4 | $260 \cdot 2$ | 283.7 | $280 \cdot 4$ | $272 \cdot 5$ | $263 \cdot 1$ | $242 \cdot 8$ | $257 \cdot 6$ | $276 \cdot 3$ | 263.8 |
| February | 238.2 | $246 \cdot 3$ | $256 \cdot 5$ | $278 \cdot 0$ | 268.8 | 257.0 | 241.1 | 254.6 | 276.8 | $259 \cdot 6$ |
| March | 207.9 | $241-7$ | $222 \cdot 4$ | $278 \cdot 6$ | $267 \cdot 2$ | $257 \cdot 5$ | $240 \cdot 2$ | 254.8 | 271.7 | 257.8 |
| April | $164 \cdot 3$ | 226.0 | $195 \cdot 3$ | $266 \cdot 4$ | 258.0 | 253.7 | 237.7 | 252 -2 | $270 \cdot 1$ | 250.8 |
| May. | $169 \cdot 3$ | 219.7 | $200 \cdot 3$ | 269.5 | $260 \cdot 3$ | 253.7 | $239 \cdot 9$ | 256.3 | 266.5 | 253.0 |
| June. | $193 \cdot 2$ | $227 \cdot 3$ | $207 \cdot 7$ | $279 \cdot 2$ | $270 \cdot 1$ | $260 \cdot 1$ | $240 \cdot 8$ | 265.2 | 274.6 | $260 \cdot 4$ |
| July . | 178.2 | $225 \cdot 2$ | $214 \cdot 1$ | $275 \cdot 6$ | $265 \cdot 6$ | $253 \cdot 5$ | 238.2 | 257.4 | $268 \cdot 3$ | $255 \cdot 7$ |
| August | 194-1 | 233.0 | 218.0 | $275 \cdot 1$ | 267.9 | $221 \cdot 0$ | $200 \cdot 1$ | 227.4 | 271.3 | $240 \cdot 3$ |
| September | $177 \cdot 6$ | 224.9 | $199 \cdot 8$ | $267 \cdot 3$ | 262.9 | 218.5 | 198-1 | 223.8 | 265.9 | $235 \cdot 6$ |
| October | $170 \cdot 8$ | $224 \cdot 1$ | $200 \cdot 6$ | $270 \cdot 6$ | $265 \cdot 3$ | $217 \cdot 1$ | 196.9 | 220.8 | 269.7 | $235 \cdot 8$ |
| Novemb | $166 \cdot 3$ | 221.9 | 183.7 | 264-2 | $254 \cdot 1$ | 211.9 | $193 \cdot 4$ | 216.0 | 265.0 | $229 \cdot 0$ |
| December | $165 \cdot 8$ | $215 \cdot 0$ | $178 \cdot 2$ | $268 \cdot 6$ | 253-6 | $213 \cdot 6$ | $193 \cdot 2$ | $217 \cdot 7$ | 264-7 | $229 \cdot 5$ |
| 1953 Averages | 192.1 | $230 \cdot 4$ | 213.4 | 272.8 | 263.9 | $240 \cdot 1$ | 221.9 | 242.0 | $270 \cdot 1$ | $247 \cdot 6$ |

${ }^{1}$ Exclusive of Newfoundland.
Monthly prices of grain and monthly prices of live stock are shown in DBS Quarterly Bulletin of Agricultural Statistics

## 41.-Yearly Average Cash Prices per Bushel of Canadian Cereals-Basis, in Store at Fort William and Port Arthur, Ont.-Crop Years Ended July 31, 1944-53

Note.-Statistics for 1926-43 are given in the corresponding tables of previous editions of the Year Book.

| Year Ended July 31- | Averages in Cents and Eighths per Bushel |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Wheat, ${ }^{1}$ <br> No. 1 N. | Oats, ${ }^{2}$ <br> No. 2 C.W. | Barley, ${ }^{2}$ <br> No 2 C.W. <br> -6 Row | $\begin{gathered} \text { Rye, }{ }^{3} \\ \text { No. } 2 \text { C.W. } \end{gathered}$ | Flaxseed, ${ }^{3}$ <br> No. 1 C.W. |
|  | cts. | cts. | cts. | cts. | cts. |
| 1944. | 135 | 67/3 | 79/6 | 115/4 | 2504 |
| 1945........................... | 143/6 | 61/4 | $87 / 3$ | 126/2 | 2754 |
| 1946. | 183/3 | $61 / 4$ | 84/6 | 223/7 | $275{ }^{4}$ |
| 1947............................ | 183/3 | 66/2 | 93/4 | 287/6 | 3254 |
| 1948............................ | 183/3 | 90 | 119/7 | 374/5 | $550{ }^{5}$ |
| 1949............................ | 183/3 | 78/1 | 124/3 | 140 | $403 / 1^{6}$ |
| 1950........................... | 183/3 | 90/4 | 158/7 | 146 | 371/6 |
| 1951........................... | 185/4 | 95/4 | 147/4 | 184/5 | 441/4 |
| 1952........................... | 182/2 | 90/6 | 132/5 | 193/5 | 428/1 |
| 1953........................... | 185/6 | 79/7 | 133/5 | 158/2 | 328/5 |

[^146]42.-Yearly Average Prices per 100 1b. of Canadian Live Stock at Principal Markets, 1949-53

Nork.-Classification of live stock was changed in February 1949 as follows: steers up to $1,050 \mathrm{lb}$. changed to steers up to $1,000 \mathrm{lb}$.; steers over $1,050 \mathrm{lb}$. to steers over $1,000 \mathrm{lb}$.; lambs, good handy weights to lambs, good; sheep, good handy weights to sheep, good.

| Item | Toronto |  |  |  |  | Montreal |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 | 1950 | 1951 | 1952 | 1953 | 1949 | 1950 | 1951 | 1952 | 1953 |
|  | $\delta$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | $\$$ |
| Steers, up to $1,000 \mathrm{lb}$., good | 20.45 | 24-74 | $32 \cdot 60$ | $25 \cdot 15$ | $20 \cdot 25$ | 20.99 | 26.67 | 32.75 | $26 \cdot 90$ | $20 \cdot 39$ |
| Steers, up to 1,000 lb., medium | $19 \cdot 26$ | 23.45 | 31.51 | 23.85 | 18.74 | 18.75 | $24 \cdot 63$ | 31.04 | 23.88 | 18.60 |
| Steers, up to $1,000 \mathrm{lb}$., common | 17-29 | 22.06 | 29.46 | 19.85 | 15.53 | 16.07 | $20 \cdot 66$ | 27-18 | $19 \cdot 36$ | 14.00 |
| Steers, over $1,000 \mathrm{lb}$., good. | 21.29 | 26.72 | 33.49 | 25.85 | $20 \cdot 11$ | 21.28 | 26.83 | 33-00 | 26.54 | $20 \cdot 38$ |
| Steers, over 1,000 lb., medium | 20.51 | $25 \cdot 16$ | $32 \cdot 46$ | 24.00 | 18.55 | $19 \cdot 69$ | $25 \cdot 30$ | 31.45 | 23.77 | 18.47 |
| Steers, over $1,000 \mathrm{lb}$., common | $19 \cdot 26$ | 22.80 | 31.04 | $20 \cdot 10$ | 16.07 | 17.19 | 22.15 | 27-97 | 17-95 | 14.39 |
| Heifers, good. | $19 \cdot 99$ | 24.35 | $31-85$ | 24.55 | 19.82 | $19 \cdot 58$ | 25.04 | 31.38 | $23 \cdot 38$ | 17.03 |
| Heifers, medium | 18.84 | 23.78 | 30.94 | 23.10 | 18.17 | 16.82 | 22.64 | 28.01 | 21-34 | $15 \cdot 55$ |
| Calves, fed, good | 21.71 | 25-44 | $32 \cdot 84$ | $25 \cdot 65$ | 20-86 | 21.37 | 27.33 | 33.41 | $27 \cdot 17$ | 20.94 |
| Calves, fed, medium | $20 \cdot 15$ | 23.78 | 31.19 | $23 \cdot 80$ | 18.95 | $19 \cdot 30$ | 23.78 | 31.26 | 23.53 | 15.72 |
| Cows, good. | 15.77 | 20.07 | 26.95 | 18.55 | 13-12 | 15.64 | 20.21 | 26-55 | 18.85 | $13 \cdot 63$ |
| Cows, medium | 14-55 | 18.59 | 25-43 | 16-80 | 12-27 | 14.07 | 17-82 | 24-51 | 16-48 | 11.81 |
| Bulls, good | 17.76 | 21.93 | $29 \cdot 30$ | 18.50 | 13-89 | 16.63 | 21.44 | $28 \cdot 31$ | 18.55 | $14 \cdot 46$ |
| Stocker and feeder steers, good | 18.45 | $26 \cdot 36$ | $33 \cdot 65$ | 23.00 | 19-35 | 1 | 1 | 1 | 21.30 | $20 \cdot 50$ |
| Stocker and feeder steers, commo | 16.37 | $23 \cdot 61$ | 30.99 | $20 \cdot 15$ | 16.04 | 1 | 1 | 1 | 15.20 | $17 \cdot 16$ |
| Stock cows and heifers, good. | 14.98 | 15. | 23 | $1{ }^{1}$ | ${ }^{1} 1$ | 1 | 1 | 1 | 1 | 16.93 |
| Stock cows and heifers, comm | 14.00 | 16.66 | 23.92 | 17.05 | 11.56 | 1 | 1 | 1 | 15-27 | 12.00 |
| Calves, veal, good and choice | 25.51 | 29.61 | 36.55 | $27 \cdot 90$ | 24-62 | 24-64 | $27 \cdot 11$ | 36.60 | 26.55 | 23.30 |
| Calves, veal, common and medium. | 20.89 | 24-20 | 31.96 | 21.85 | 19-33 | 20.09 | 22.28 | 33.48 | 22.84 | 19-13 |
| Hogs, Grade B-1, dressed | $30 \cdot 20$ | 28.98 | $32 \cdot 85$ | 25.70 | $30 \cdot 40$ | $30 \cdot 30$ | 29.03 | 32.95 | 25.75 | $30 \cdot 90$ |
| Lambs, good. | 23-75 | 28-33 | $33 \cdot 95$ | 26.05 | 23-37 | $22 \cdot 50$ | 27.86 | $32 \cdot 60$ | 25.05 | 22-73 |
| Lambs, commo | 18.21 | 23.97 | $30 \cdot 28$ | $21 \cdot 10$ | 18.63 | 16.31 | 22.18 | 26.88 | 17 -40 | 17-12 |
| Sheep, good............................ | 10.87 | 14-32 | 19-77 | 14.80 | 9-52 | 9.40 | 13.78 | 19.82 | $13 \cdot 23$ | 8.95 |
|  | Winnipeg |  |  |  |  | Edmonton |  |  |  |  |
|  | 1949 | 1950 | 1951 | 1952 | 1953 | 1949 | 1950 | 1951 | 1952 | 1953 |
|  | 5 | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Steers, up to $1,000 \mathrm{lb}$., good. | 20.06 | 24-55 | 31.70 | 24.00 | 18.25 | 19.03 | $24 \cdot 30$ | 31.75 | 23.45 | 18.42 |
| Steers, up to 1,000 lb., medium | 17.86 | $22 \cdot 37$ | $29 \cdot 42$ | 21.12 | 16.03 | $17 \cdot 54$ | $23 \cdot 18$ | $30 \cdot 18$ | 21.97 | 16.69 |
| Steers, up to $1,000 \mathrm{lb}$., comm | 15.58 | 19.84 | $26 \cdot 60$ | 17.74 | 12.87 | 14.84 | 19.96 | 26.76 | 17.37 | $12 \cdot 30$ |
| Steers, over $1,000 \mathrm{lb}$., good. | 20.01 | $24 \cdot 38$ | 31.82 | 23.93 | 18.02 | $19 \cdot 31$ | 24-39 | $31-84$ | 23.82 | 18.14 |
| Steers, over $1,000 \mathrm{lb}$., medium | $17 \cdot 60$ | $22 \cdot 94$ | 29.40 | 20.69 | $15 \cdot 57$ | 17.78 | 23.21 | $30 \cdot 12$ | 21.93 | $16 \cdot 57$ |
| Steers, over $1,000 \mathrm{lb} ., \mathrm{co}$ | 15.37 | $20 \cdot 20$ | $26 \cdot 65$ | $17 \cdot 61$ | $12 \cdot 47$ | $15 \cdot 41$ | 20.64 | 27.00 | 18.37 | $13 \cdot 18$ |
| Heifers, good. | 17.77 | 22.43 | $29 \cdot 24$ | $20 \cdot 61$ | 15 -81 | 16.73 | 21.92 | 29-94 | 21.38 | $16 \cdot 62$ |
| Heifers, medium | 16.00 | 20.90 | 26.82 | 18.06 | 13.51 | 15-19 | 21.65 | 27.77 | $19 \cdot 65$ | 14.76 |
| Calves, fed, good | 20.27 | $24 \cdot 64$ | 32.03 | 23-79 | 18.78 | $19 \cdot 01$ | $23 \cdot 51$ | 31.45 | $22 \cdot 78$ | 17.99 |
| Calves, fed, medi | 18.29 | $22 \cdot 35$ | 29.79 | $20 \cdot 63$ | $16 \cdot 18$ | $17 \cdot 48$ | 21-38 | 29.46 | 20.94 | 16.84 |
| Cows, good. | 14.54 | 18.91 | 25.74 | 16.00 | 11.48 | 13.50 | 18.47 | $25 \cdot 51$ | 16.45 | 11.26 |
| Cows, medium | 13.04 | 17.20 | 23.79 | 13.78 | 9.86 | $12 \cdot 55$ | $17 \cdot 15$ | $23 \cdot 84$ | $14 \cdot 60$ | $9 \cdot 45$ |
| Bulls, good. | 16.71 | 21.32 | 28.24 | 15-59 | $12 \cdot 30$ | 15.35 | $20 \cdot 49$ | $27 \cdot 70$ | 15-76 | 11.77 |
| Stocker and feeder steers, good | 17.46 | 24.56 | $30 \cdot 45$ | $19 \cdot 55$ | 15.01 | 16.07 | 24-34 | 30-60 | $20 \cdot 60$ | 15.54 |
| Stocker and feeder steers, comm | 14.75 | 21.18 | $27 \cdot 24$ | 15-22 | 11.05 | 13.26 | $20 \cdot 34$ | $26 \cdot 13$ | 15.94 | 11.92 |
| Stock cows and heifers, good. | 14.23 | $19 \cdot 69$ | 26.84 | $17 \cdot 41$ | 12.47 | $12 \cdot 56$ | 18.88 | 26.22 | 17.02 | 12.50 |
| Stock cows and heifers, comm | 11.96 | 16.67 | $23 \cdot 23$ | 13.87 | $9 \cdot 17$ | 11.44 | 16.22 | 22.91 | 12.05 | 9.09 |
| Calves, veal, good and choice | 23.71 | 29.00 | $35 \cdot 45$ | $26 \cdot 10$ | $22 \cdot 68$ | 19-76 | 27.24 | 36-30 | 26.90 | 22.86 |
| Calves, veal, common and me | 17.56 | 22.04 | 28.81 | 19.51 | 15.73 | $15 \cdot 69$ | 22.74 | 28.75 | 19-51 | 14.87 |
| Hogs, Grade B-1, dressed | 28.49 21.89 | 27.76 | 30.85 | 24.45 | $27 \cdot 40$ | $29 \cdot 86$ | 28.40 | 32.70 | $24 \cdot 60$ | 28.78 |
| Lambs, good. | 21.89 | $26 \cdot 62$ | 32.05 | $22 \cdot 85$ | 19.85 | $20 \cdot 53$ | 24.06 | 31.45 | 22.45 | 20.19 |
| Lambs, commo | 16.82 | $20 \cdot 64$ | 26.56 | 18.98 | 15.27 | 15.73 | 20.91 | 26.87 | 17.82 | 17-13 |
| Sheep, good | 7.86 | 10.28 | 12.53 | 9-64 | $5 \cdot 32$ | 7-63 | 11.52 | 15.43 | 12 -42 | 9.41 |

${ }^{1}$ No sales reported.

## Subsection 10.-Food Consumption

Consumption of Major Foods.-A study of consumption of the major foods was undertaken during World War II by the Dominion Bureau of Statistics in recognition of the national and international significance of such information. Though data on total consumption of certain commodities such as wheat, alcoholic
beverages, meats, etc., had been available for a considerable period, it was found necessary to establish a per capita level of consumption of a wide range of products on a comparable basis.

The figures represent available supplies, including production and imports, adjusted for change of stocks, exports, marketing losses and industrial uses. All calculations have been made at the retail stage of distribution, except for meats, where the figures are worked out at the wholesale stage. The amount of food actually eaten would be somewhat lower than indicated because of losses and waste occurring after the products reached the hands of the consumer. It should also be pointed out that there are minor discrepancies in certain of the figures since statistics of storage stocks in the hands of retailers and consumers were not available. However, the figures represent the best summary of food consumption data that has been compiled for Canada.

All basic foods have been classified under 13 main commodity groups. Totals for each group have been computed using common denominators for the group, for example: milk solids (dry weight) in the dairy-products group; fat content for fats and oils; and fresh equivalent for fruits. All foods have been included in their basic form, that is, as flour, fat, sugar, etc., rather than in more highly manufactured forms.

The series in Table 43 represents the official estimates of yearly supplies of food moving into consumption, expressed in pounds per capita, for the years 1935-39 as an average for comparison with the years 1951, 1952, and 1953.

## 43.-Per Capita Supplies of Food Moving into Consumption, 1951-53, and Average for 1935-39

| Kind of Food and Weight Base | Pounds <br> per Capita per Annum |  |  |  | Percentages of 1935-39 A verage |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|} \hline \text { Average } \\ 1935-39 \end{array}$ | 1951 | 1952 | 1953p | 1951 | 1952 | 1953 ${ }^{\text {p }}$ |
| Cereals- |  |  |  |  |  |  |  |
| Flour (including rye flour) ${ }^{1} \ldots$. Retail wt . | 184.8 | 152.1 | $151 \cdot 6$ | 145.4 | 82.3 | 82.0 75.3 |  |
| Oatmeal and rolled oats........ "\% | $7 \cdot 3$ | 6.3 | $5 \cdot 5$ | $5 \cdot 2$ | 86.3 | 75.3 | 71.2 100.0 |
| Pot and pearl barley........... | $0 \cdot 3$ | $0 \cdot 3$ | $0 \cdot 3$ | $0 \cdot 3$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |
| Corn meal and flour............ | $1 \cdot 4$ | 0.8 | $0 \cdot 6$ | 0.6 | 57.1 | $42 \cdot 9$ | 42.9 |
| Buckwheat flour. | $0 \cdot 2$ | $0 \cdot 1$ | $0 \cdot 1$ | $0 \cdot 1$ | 50.0 | 50.0 | $50 \cdot 0$ |
| Rice. | $4 \cdot 3$ | 4.8 | 3.0 6.4 | $4 \cdot 1$ 6.5 | 111.6 95.9 | $69 \cdot 8$ 86.5 | $95 \cdot 3$ 87.8 |
| Breakfast food. | $7 \cdot 4$ | $7 \cdot 1$ | $6 \cdot 4$ | 6.5 | $95 \cdot 9$ | 86.5 | 87.8 |
| Totals, Cereals...............tail wt. | $205 \cdot 7$ | 171.5 | 167 -5 | 162.2 | 83.4 | 81.4 | 78.9 |
| Potatoes- |  |  |  |  |  |  |  |
| Potatoes, white.............. Retail wt. | 192.3 | 0.7 | 146.8 | 157.5 | 116.7 | $76 \cdot 3$ $83 \cdot 3$ | 81.9 83.3 |
|  |  |  |  |  |  |  |  |
| Totals, Potatoes........... Retail wt. | 192.9 | - | 147-3 | 158.0 | - | 76.4 | 81.9 |
| Sugars and Syrups- |  |  |  |  |  |  |  |
| Sugar..................... Refined wt. | 94.7 1.8 | 96.3 1.1 | 97.7 1.4 | 96.6 0.5 | $101 \cdot 7$ 61.1 | 103.2 77.8 | 102.0 27.8 |
| Other.......................... | $8 \cdot 2$ | $8 \cdot 3$ | $7 \cdot 1$ | 6.6 | 101.2 | 86.6 | 80.5 |
| Totals, Sugars and Syrups... Sugar content | $101 \cdot 7$ | 102.8 | 103.8 | 101-3 | $101 \cdot 1$ | $102 \cdot 1$ | 99.6 |
| Starch..........................tetail wt. | $2 \cdot 5$ | $1 \cdot 6$ | $1 \cdot 6$ | $1 \cdot 6$ | 64.0 | 64.0 | 64.0 |

For footnotes, see end of table, p. 434.

## 43.-Per Capita Supplies of Food Moving into Consumption, 1951-53, and Average for 1935-39-continued

| Kind of Food and Weight Base | Pounds <br> per Capita per Annum |  |  |  | Percentages <br> of 1935-39 Average |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\left\|\begin{array}{c} \text { Average } \\ 1935-39 \end{array}\right\|$ | 1951 | 1952 | 1953p | 1951 | 1952 | 1953p |
| Pulses and Nuts- |  |  |  |  |  |  |  |
| Dry beans.................... Retail wt. | $3 \cdot 7$ | $5 \cdot 4^{3}$ | $3 \cdot 63$ | 3.73 | 145.9 | 97.3 | $100 \cdot 0$ |
| Dry peas... | $5 \cdot 7$ | $2 \cdot 1$ | 1.4 | 1.8 | 36.8 | $24 \cdot 6$ | $31 \cdot 6$ |
| Peanuts.......................Shelled wt. | $2 \cdot 2$ | $2 \cdot 7$ | $2 \cdot 7$ | $2 \cdot 8$ | 122.7 | 122.7 | $127 \cdot 3$ |
| Tree nuts..................... ${ }_{\text {a }}^{\text {a }}$. | 1.1 | $1 \cdot 1$ | $1 \cdot 1$ | $1 \cdot 3$ | $100 \cdot 0$ | $100 \cdot 0$ | 118.2 |
| Cocoa...................... Green beans | 3.7 | 2.4 | $3 \cdot 1$ | 3.5 | 64-9 | 83.8 | 94.6 |
| incl. shelled wt. of nuts | 14.5 | 12.5 | 10.3 | 11.3 | 86.2 | 71.0 | 77.9 |
| Frult- |  |  |  |  |  |  |  |
| Tomatoes and Citrus Fruit- |  |  |  |  |  |  |  |
| Tomatoes, fresh.............Retail wt. | $15 \cdot 4$ | $19 \cdot 3$ | 18.8 | $20 \cdot 2$ | $125 \cdot 3$ | $122 \cdot 1$ | 131.2 |
| Tomato products....... Net wt. canned | $10 \cdot 0$ | 16.0 | $13 \cdot 3$ | 14.8 | $160 \cdot 0$ | 133.0 | 148.0 |
| Citrus fruit, fresh............ Retail wt. | $25 \cdot 1$ | 34.5 | 37.5 | 39.0 | 137.5 | 149 -4 | $155 \cdot 4$ |
| Citrus fruit, canned. . . . . Net wt. canned Other Fruit- | 0.5 | 6.9 | 9-2 | $10 \cdot 6$ | 1,380.0 | 1,840•0 | 2,120-0 |
| Fresh........................ Retail wt. | 40.5 | $61 \cdot 6$ | $68 \cdot 1$ | $65 \cdot 4$ | $152 \cdot 1$ | 168.1 | $161 \cdot 5$ |
| Canned.............. Net wt. canned | $6 \cdot 3$ | 11.7 | $12 \cdot 6$ | $14 \cdot 6$ | 185.7 | $200 \cdot 0$ | 231.7 |
| Dried.............. Processed wt. | $8 \cdot 3$ | $6 \cdot 7$ | $6 \cdot 9$ | $6 \cdot 6$ | $80 \cdot 7$ | 83.1 | 79.5 |
| Juice................ Net wt. canned |  | 3.9 | $4 \cdot 2$ | $4 \cdot 1$ |  |  |  |
| Frozen.......................Retail wt. | 0.2 | 0.4 | 0.5 | 1.0 | $200 \cdot 0$ | $250 \cdot 0$ | $500 \cdot 0$ |
| Totals, Fruit.............Fresh equiv. | 138.7 | $200 \cdot 6$ | 212.1 | 218.0 | $144 \cdot 6$ | 152-9 | 157 -2 |
| Vegetables- |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Cabbage and greens.......... Retail wt. | 16.2 | $19 \cdot 1$ | 19.9 | 18.9 | 117.9 | 122.8 | 116.7 |
| Carrots. | $15 \cdot 4$ | 12.9 | $11 \cdot 6$ | 11.2 | $83 \cdot 8$ | $75 \cdot 3$ | $72 \cdot 7$ |
| Legumes | $6 \cdot 2$ | 2.5 | $3 \cdot 4$ | 3.8 | $40 \cdot 3$ | 54.8 | $61 \cdot 3$ |
| Other...................... " | 29.8 | 34.8 | 36.1 | $37 \cdot 6$ | 116.8 | $121-1$ | 126.2 |
| Canned............... Net wt. canned | 10.8 | $18 \cdot 7$ | 18.4 | 18.8 | $173 \cdot 1$ | 170-4 | 174-1 |
| Frozen........................ Retail wt. | . | 0.6 | 0.8 | 1.0 | . | .. | .. |
| Totals, Vegetables.......Fresh equiv. | 78.4 | 88.6 | 90.2 | $91 \cdot 3$ | 113.0 | $115 \cdot 1$ | 116.5 |
| Olls and Fats- |  |  |  |  |  |  |  |
| Margarine...................... Retail wt. |  | 7.4 | $7 \cdot 7$ | 7.5 |  |  |  |
| Lard........................... | $3 \cdot 9$ | $8 \cdot 1$ | 9.4 | 7.8 | 207.7 | $2 \dot{4 i} 1.0$ | $200 \cdot 0$ |
| Shortening..................... " | 10.6 | $8 \cdot 2$ | $8 \cdot 3$ | $9 \cdot 2$ | 77.4 | 78.3 | 86.8 |
| Salad and cooking | 1.8 | 2 -4 | $2 \cdot 7$ | 2.5 | 133.3 | 150.0 | 138.9 |
| Butter. | $31 \cdot 0$ | $22 \cdot 6$ | 20.8 | 20.9 | 72.9 | $67 \cdot 1$ | $67 \cdot 4$ |
| Totals, Oils and Fats....Fat content | 41.4 | 42.9 | 43.4 | 42.4 | $103 \cdot 6$ | 104-8 | 102-4 |
| Meat- |  |  |  |  |  |  |  |
| Pork.......................Carcass wt. | $39 \cdot 8$ | 67.8 | 65.9 | 57.0 | $170 \cdot 4$ | $165 \cdot 6$ | 143.2 |
| Beef......................... | $54 \cdot 7$ | 43.8 | 44.7 | 59.1 | $80 \cdot 1$ | 81.7 | $108 \cdot 0$ |
| Veal......................... "/ | 10.5 | 7.7 | $6 \cdot 7$ | $9 \cdot 1$ | 73.3 | 63.8 | 86.7 |
| Mutton and lamb............ " | $5 \cdot 6$ | 2.6 | 1.9 | $2 \cdot 3$ | $46 \cdot 4$ | 33.9 | 41.1 |
| Offal........................Edible wt. | 5.8 | $5 \cdot 3$ | $5 \cdot 5$ | $5 \cdot 2$ | 91.4 | 94.8 | 89.7 |
| Canned meat. . . . . . . . . . Net wt. canned | 1.4 | $4 \cdot 9$ | 6.2 | $5 \cdot 6$ | $350 \cdot 0$ | $442 \cdot 9$ | $400 \cdot 0$ |
| Totals, Meat. . . . . . . . . . Careass wt. | 118.3 | 133.7 | 132.9 | $140 \cdot 1$ | 113.0 | 112.3 | 118.4 |
| Poultry and Fish- |  |  |  |  |  |  |  |
| Hens and chickens..... Retail wt. dressed | 15.6 | 20.74 | 24.84 | 22.24 | 132.7 | $159 \cdot 0$ |  |
| Other poultry........... ${ }_{\text {Shell }}$ " | 2.8 | 3.94 | 4.84 | 4.94 | 139-3 | 171.4 | 175.0 |
| Shellfish. . ...................Fresh edible wt. Fish (other), fresh, frozen | 0.4 | 0.4 | $0 \cdot 4$ | $0 \cdot 4$ | 100.0 | 100.0 | 100.0 |
| and cured................Filleted wt. | 8.8 | $8 \cdot 7$ | 8.8 | 8.4 | 98.9 | $100 \cdot 0$ |  |
| Fish, canned. . . . . . . . . . Net wt. canned. | 2.7 | 4.7 | $4 \cdot 7$ | $4 \cdot 7$ | 174-1 | 174-1 | 174-1 |
| Totals, Poultry and Fish... Edible wt. | 22.4 | 27.8 | 30.8 | 29.0 | 124-1 | 137.5 | 129.5 |
| Kggs.....................Fresh egg equiv. | $30 \cdot 7$ | 34-64 | 34.04 | 35.1 | 112.7 | 110.7 | 114.3 |

For footnotes, see end of table, p. 434.
43.-Per Capita Supplies of Food Moving into Consumption, 1951-53, and Average for 1935-39-concluded

| Kind of Food and Weight Base | Pounds <br> per Capita per Annum |  |  |  | Percentages of 1935-39 A verage |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\left\|\begin{array}{c} \text { Average } \\ 1935-39 \end{array}\right\|$ | 1951 | 1952 | 1953p | 1951 | 1952 | 1953 ${ }^{\text {p }}$ |
| Milk and Cheese- |  |  |  |  |  |  |  |
| Cheddar cheese ${ }^{5}$. . . . . . . . . . . . . Retail wt. | 3.7 | $4 \cdot 9$ | $5 \cdot 1$ | $5 \cdot 3$ | 132.4 | 137.8 | $143 \cdot 2$ |
| Other cheese.................... " | $0 \cdot 2$ | 0.8 | 0.8 | $0 \cdot 8$ | $400 \cdot 0$ | $400 \cdot 0$ | $400 \cdot 0$ |
| Cottage cheese.................. | $0 \cdot 2$ | 0.7 | $0 \cdot 7$ | $0 \cdot 7$ | $350 \cdot 0$ | $350 \cdot 0$ | $350 \cdot 0$ |
| Evaporated whole milk........ | $6 \cdot 1$ | 17.9 | 18.4 | $18 \cdot 6$ | $293 \cdot 4$ | 301 -6 | 304.9 |
| Condensed whole milk........ | $0 \cdot 6$ | $0 \cdot 8$ | 0.8 | 0.9 | 133.3 | 133.3 | $150 \cdot 0$ |
| Whole milk powder. | $0 \cdot 1$ | 0.4 | 0.4 | $0 \cdot 4$ | $400 \cdot 0$ | $400 \cdot 0$ | $400 \cdot 0$ |
| Condensed skim milk | $0 \cdot 4$ | $0 \cdot 4$ | $0 \cdot 3$ | $0 \cdot 3$ | $100 \cdot 0$ | $75 \cdot 0$ | $75 \cdot 0$ |
| Skim milk powder.. | 1.8 | $3 \cdot 7$ | $3 \cdot 5$ | $4 \cdot 4$ | $205 \cdot 6$ | 194.4 | $244 \cdot 4$ |
| Evaporated skim milk. | $0 \cdot 1$ | 0.7 | 0.7 | 0.7 | $700 \cdot 0$ | $700 \cdot 0$ | 700.0 |
| Condensed buttermilk. | $0 \cdot 1$ | $0 \cdot 3$ | $0 \cdot 2$ | $0 \cdot 1$ | $300 \cdot 0$ | $200 \cdot 0$ | $100 \cdot 0$ |
| Milk in ice cream. | $10 \cdot 9$ | $32 \cdot 6$ | 33.0 | 33.0 | $299 \cdot 1$ | 302.8 | 302.8 |
| Powdered buttermilk | $0 \cdot 2$ | $0 \cdot 3$ | $0 \cdot 5$ | $0 \cdot 4$ | $150 \cdot 0$ | $250 \cdot 0$ | $200 \cdot 0$ |
| Fluid whole milk ${ }^{6}$... | 408.5 | 405.64 | 402.54 | 406-14 | $99 \cdot 3$ | 98.5 | 99.4 |
| Totals, Milk and Cheese...Milk solids | 52.0 | 63.0 | 62.9 | $64 \cdot 1$ | 121.2 | 121.0 | 123.3 |
| $\underset{\text { Beverages- }}{\text { Tea....................... Primary }}$ |  |  |  |  |  |  |  |
| Tea......................... Primary |  |  |  |  |  |  |  |
| Coffee...................... Green beans | $3 \cdot 5$ $3 \cdot 7$ | $3 \cdot 0$ $6 \cdot 3$ | 3.2 6.8 | $3 \cdot 1$ $7 \cdot 2$ | $85 \cdot 7$ $170 \cdot 3$ | 91.4 183.8 | 88.6 194.6 |
| Totals, Beverages............... Primary distribution wt. | 7-2 | 9-3 | 10.0 | 10.3 | 129.2 | 138.9 | $143 \cdot 1$ |

${ }^{1}$ Fluctuations in apparent per capita flour consumption are owing partly to unavailability of complete data on flour inventories in all positions. ${ }^{2}$ Not available pending revision of intercensal estimates. ${ }^{3}$ Includes soybean flour. $\quad$ Exclusive of Newfoundland. ${ }^{5}$ Includes process cheese. ${ }^{6}$ Includes cream expressed as milk.

Consumption of Meats.-Production of meats from slaughter, total supply, distribution and per capita consumption of meats and lard are shown in Table 44. All estimates are on a carcass-weight basis except canned meats which are in terms of product.

## 44.-Supply, Distribution and Consumption of Meats and Lard, 1949-53, with Average for 1935-39

Note.-Estimates for 1949-51 are not strictly comparable with those for 1952 and 1953, since revisions necessitated by the 1951 Census of Agriculture have not yet been completed for earlier years.

| Item | $\begin{gathered} \text { Average } \\ 1935-39 \end{gathered}$ | 1949 | 1950 | 1951 | 1952 | 1953 ${ }^{\text {p }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beef- |  |  |  |  |  |  |
| Animals slaughtered in Canada '000 | 1,347.0 | 1,904-5 | 1,729-3 | 1,472.0 | 1,459-1 | 1,837.5 |
| Estimated dressed weight ${ }^{2}$.... '000 ${ }^{\prime \prime} \mathrm{lb}$. | 618,556 | 866,844 | 790,395 | 708,546 | 726,638 | 902,966 |
| On hand, Jan. 1.............. " | 22,684 | 35.313 9 | 23,415 | 22,174 | 19,497 | 32,961 |
|  | $158{ }^{3}$ | 9,335 | 10,587 | 10,112 | 9,289 | 11,537 |
| Totals, Supply.. | 641,398 | 911,492 | 824,397 | 740,832 | 755,424 | 947,464 |
| Exports ${ }^{2}$. | 10,899 | 105,121 | 90,740 | 96,605 | 68,072 | 28,920 |
| Used for canning | 1,406 | 17,415 | 14,582 | 11,701 | 9,199 | 9,651 |
| On hand, Dec. $31 . . . . . . . . . . .$. | 24,040 | 23,415 | 22,174 | 19,497 | 32,961 | 35,697 |
| Totals, Consumption......... "] | 605,053 | 765,541 56.5 | 696,901 $50 \cdot 3$ | 613,029 $43 \cdot 8$ | 645,192 44.7 | 873,196 59.1 |
| Consumption per Capita....... lb. | $54 \cdot 7$ | 56.5 | $50 \cdot 3$ | 43.8 | 44-7 | $59 \cdot 1$ |

For footnotes, see end of table, p. 436.

## 44.-Supply, Distribution and Consumption of Meats and Lard, 1949-53, with Average for 1935-39-continued

| Item | $\begin{gathered} \text { Average } \\ 1935-39 \end{gathered}$ | 1949 | 1950 | 1951 | 1952 | 1953D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Veal- |  |  |  |  |  |  |
| Animals slaughtered in Canada , 000 | 1,333.6 | 1,287-1 | 1,387-4 | 1,166-3 | 959-2 | 1,318.3 |
| Estimated dressed weight ${ }^{2}$.... '000 lb. | 116,372 | 124,303 | 125,958 | 110,407 | 98,149 | 137,994 |
| On hand, Jan. 1............... " | 3,452 | 6,894 | 6,327 | 3,356 | 4,171 | 3,891 |
| Totals, Supply | 119,824 | 131,197 | 132,285 | 113,763 | 102,320 | 141,885 |
| Exports. | - | d | 4. | 4 | 1 | 4 |
| Used for canning | 22 | 1,554 | 1,605 | 1,182 | 1,736 | 1,454 |
| On hand, Dec. 31 | 3,785 | 6,327 | 3,356 | 4,171 | 3,891 | 5,433 |
| Totals, Constmption. | 116.017 | 123,316 | 127,324 | 108,410 | 96,693 | 134,998 |
| Conbumption per Capita........ lb. | 10.5 | $9 \cdot 1$ | $9 \cdot 2$ | $7 \cdot 7$ | 6.7 | 9-1 |
| Pork- |  |  |  |  |  |  |
| Animals slaughtered in Canada , 000 | 5,165-1 | 7,169-5 | 7,650-4 | 7,961-6 | 8,864-1 | 6,892-1 |
| Estimated dressed weight'.... '000 lb. | 620,522 | 910,568 | 963,757 | 1,005,695 | 1,181,593 | 915,204 |
| On hand, Jan. 1............... | 34,511 | 32,439 | 35,445 | 31,292 | 39,000 | 68,813 |
| Imports ${ }^{2}$. . . . . . | 7,394 | 6,685 | 5,733 | 22,456 | 4,677 | 481 |
| Totals, Supply. | 662,427 | 949,692 | 1,004,935 | 1,059,443 | 1,225,270 | 984,498 |
| Exports ${ }^{2}$. | 179,630 | 76,060 | 85,099 | 21,382 | 15,041 | 55,320 |
| Used for canning | 4,602 | 35,494 | 46,835 | 48,754 | 190,911 | 55,935 |
| On hand, Dec. 31 | 37,863 | 35,445 | 31,292 | 39,000 | 68,813 | 30,755 |
| Totalg, Consumption.......... Conbumption per Capita...... ib. | 440,332 39.8 | 802,693 59.2 | 841,709 60.8 | 950,307 67.8 | $\begin{array}{r} 950,505 \\ 65 \cdot 9 \end{array}$ | 812,488 57.0 |
| Mutton and Lamb- <br> M |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Estimated dressed weight'.... '000 lb. | 61,417 | 43,641 | 35,691 | 35,973 | 26,195 | 28,984 |
| On hand, Jan. 1. | 6,190 | 6,346 | 5,023 | 3,894 | 3,584 | 4,482 |
| Imports ${ }^{2}$. . | 422 | 29 | 486 | 3,499 | 2,661 | 4,745 |
| Totals, Supply | 68,029 | 50,016 | 41,200 | 43,366 | 32,440 | 38,211 |
| Exports ${ }^{2}$ | 248 | 3,906 | 2,761 | 2,737 | 46 | 52 |
| Used for canning | 37 | 246 | 220 | 205 | 350 | 310 |
| On hand, Dec. 31 | 5,965 | 5,023 | 3,894 | 3,584 | 4.482 | 3,530 |
| Totals, Consumption. | 61,779 | 40,841 | 34,325 | 36,840 | 27,562 | 34,319 |
| Conbumption per Capita........ lb. | $5 \cdot 6$ | $3 \cdot 0$ | $2 \cdot 5$ | $2 \cdot 6$ | $1 \cdot 9$ | $2 \cdot 3$ |
| Canned Meats- |  |  |  |  |  |  |
| Estimated production......... '000 lb. | 5,624 | 45,973 | 53,485 | 54,545 | 144,183 | 55,494 |
| Imports ..... | 12,292 | 11,099 | 10,969 | 23,977 | 14,185 | 11,543 |
| Change in stocks ${ }^{6}$ | .. | -3,850 | +94 | +879 | +54,442 | -39,017 |
| Totals, Supply. | 17,916 | 60,922 | 64,360 | 77,643 | 103,926 | 106,054 |
| Export | 1,999 | 10,009 | 8,430 | 9,258 | 14,874 | 22,748 |
| Totalb, Consumption. | 15,917 | 50,913 | 55,930 | 68,385 | 89,052 | 83,306 |
| Congumption per Capita........ lb. | $1 \cdot 4$ | 3.8 | $4 \cdot 0$ | 4.9 | 6.2 | $5 \cdot 6$ |
| Offal- |  |  |  |  |  |  |
| Estimated production........ ' 000 lb . | 64,611 | 85,916 | 84,446 | 79,739 | 83,128 | 83,009 |
| Imports...................... " | .. | 729 | 1,483 | 4,348 | 1,594 | 4,121 |
| Totals, Supply................ | 64,611 | 86,645 | 85,929 | 84,087 | 84,722 | 87,130 |
| Exports...................... |  | 7,270 | 5,657 | 7,223 | 2,535 | 6,680 |
| Used for canning. | 583 | 3,161 | 3,258 | 2,923 | 2,493 | 3,509 |
| Totals, Conbumption.......... | 64,028 | 76,214 | 77,014 | 73,941 | 79,694 | 76,941 |
| Consumption per Capita........ lb. | $5 \cdot 8$ | $5 \cdot 6$ | $5 \cdot 6$ | $5 \cdot 3$ | $5 \cdot 5$ | 5.2 |

For footnotes, see end of table, p. 436.
44.-Supply, Distribution and Consumption of Meats and Lard, 1949-53, with Average for 1935-39-concluded

| Item |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: |

${ }^{1}$ Edible meat excluding offal. ${ }^{2}$ Basis cold dressed carcass weight. ${ }^{2}$ Includes edible offal of beef and veal. ${ }^{4}$ Quantity small; included with beef. ${ }^{5}$ Edible meat excluding fats and offal. The positive changes represent deductions from the available supply during a given year and therefore are subtracted; similarly, negative changes represent an increase in disappearance. ${ }^{7}$ Includes rendered pork fat.

## Section 5.-Agricultural Statistics of the Census

Summary agricultural statistics, recorded by the Census of 1951, are given in the 1954 Canada Year Book, pp. 438-447. They include information relating to occupied farms classified by province, tenure and size, farm operators classified by age and province, farm machinery, farm electrification and farm areas. More detailed information may be obtained from The Ninth Census of Canada, 1951 Census Vol. VI, Parts I and II.

## Section 6.-International Crop Statistics

Tables 45 and 46 are based on estimates published in March 1954 by the Foreign Agricultural Service, United States Department of Agriculture, and give the acreages and production of wheat and the production of oats and barley for the harvests of 1952 and 1953, with averages for the years 1945-49, in the leading countries of the world.
45.-Estimated Acreages and Production of Wheat Harvested in 1952 and 1953 in Specified Countries, with Average for 1945-49

| Continent and Country | Acreages |  |  | Production |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average 1945-49 | 1952 | 1953 | $\begin{gathered} \text { Average } \\ 1945-49 \end{gathered}$ | 1952 | 1953 |
|  | '000 acres | '000 acres | '000 acres | '000 bu. | '000 bu. | '000 bu. |
| North America Canada |  |  | 25,513 | 366,349 | 687,922 | 613,965 |
| Canada... | 24,717 1,244 | 25,995 1,466 | 25,513 1,557 | 15,522 | 17,450 | 23,880 |
| United State | 71,024 | 70,926 | 67,608 | 1,202,396 | 1,298,957 | 1,168,536 |
| Tetals, North America ${ }^{1}$. . | 97,040 | 98,450 | 94,740 | 1,585,000 | 2,005,000 | 1,807,000 |
| Europe- |  |  |  |  |  |  |
| Austria.................. | 528 | 570 | ${ }_{411} 535$ | 10,800 14,733 | 17,959 20,760 | 18,450 20,110 |
| Belgium.................. | 371 175 | 411 | 4175 | 14,733 8,704 | 20,760 11,060 | 20,100 10,500 |
| Finland.................... | 420 | 380 | 355 | 8,966 | 9,400 | 9,500 |
| France..................... | 10,354 | 11,000 | 10,600 | 238,200 | 310,000 | 325,000 |

For footnote, see end of table.
45.-Estimated Acreages and Production of Wheat Harvested in 1952 and 1953 in Specified Countries, with Average for 1945-49-concluded

| Continent and Country | Acreages |  |  | Production |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average $1945-49$ | 1952 | 1953 | Average 1945-49 | 1952 | 1953 |
|  | '000 acres | '000 acres | '000 acres | '000 bu. | '000 bu. | '000 bu. |
| Europe-concluded |  |  |  |  |  |  |
| Greece. | 1,917 | 2,382 | 2,581 | 24,750 | 38,580 | 52,000 |
| Ireland..................... | 561 | 280 | 385 | 17,746 | 9,800 | 13,100 |
| Italy....................... | 11,742 | 12,000 | 12,100 | 227,200 | 295,000 | 325,000 |
| Luxembourg. | 32 | 47 | 44 | 1800 | 1,540 | 1,340 |
| Netherlands. | 262 | 202 | 161 | 11,109 | 12,160 | 9.530 |
| Norway. | 91 | 51 | 47 | 2,670 | 1,460 | 1,620 |
| Portugal................... | 1,665 | 1,711 | 1,746 | 14,190 | 20,360 | 23,500 |
| Spain................... | 9,640 | 10,625 | 10,625 | 116,700 | 170,000 | 125,000 |
| Sweden. | 749 | 821 | 965 | 23,222 | 28,740 | 36,585 |
| Switzerland. | 223 | 226 | 211 | 7,800 | 9,300 | 8,000 |
| United Kingdom. | 2,148 | 2,030 | 2,217 | 77,505 | 86,130 | 99,456 |
| Western Germany | 2,283 | 2,921 | 2,832 | 67,420 | 120,200 | 116,100 |
| Other Europe ${ }^{2}$. | 18,530 | 20,160 | 20,200 | 317,000 | 402,000 | 415,000 |
| Totals, Europe ${ }^{1}$. | 66,120 | 71,010 | 71,200 | 1,265,000 | 1,640,000 | 1,705,000 |
| Union of Soviet Soclallst Republics (Europe and Asia)......................... | 82,200 | . | .. | 885,000 | .. | .. |
| Asia-- |  |  |  |  |  |  |
| China | 54,447 |  |  | 864,280 | 800,000 |  |
| India ${ }^{3}$, | 23,312 | 23,235 | 24,041 | 212,336 | 215,340 | 240,000 |
| Iran.. |  | .. | .. | 70,791 | 75,000 | 78,000 |
| Iraq. | 1,593 |  |  | 14,424 | 17,640 |  |
| Japan. | 1,655 | 1,779 | 1,693 | 34,325 | 56,480 | 50,500 |
| Lebanon. | 166 | 161 | 166 | 2,133 | 1,800 | 1,890 |
| Pakistan ${ }^{3}$ | 10,370 | 10,220 | 9,617 | 130,018 | 114,240 | 105,000 |
| Syria. | 1,957 | 2,220 | 2,300 | 18,762 | 26,000 | 27,550 |
| Turkey | 9,436 | 13,400 | 15,700 | 125,089 | 234,000 | 290,000 |
| Totals, Asia ${ }^{\text {a }}$. | 111,750 | 115,060 | 123,070 | 1,525,000 | 1,605,000 | 1,670,000 |
| Africa- |  |  |  |  |  |  |
| Algeria. | 3,566 | 4,389 | 4,122 | 29,900 | 43,790 | 39,500 |
| Egypt. | 1,618 | 1,455 | 1,858 | 42,633 | 41,000 | 56,800 |
| French Morocco | 2.621 | 3,530 | 3,269 | 21,792 | 29,400 | 37,700 |
| Tunisia. | 1,907 | 2,856 | 2,029 | 12,320 | 25, 240 | 21,000 |
| Union of South Africa. | 2,416 | 3,120 | .. | 15,067 | 19,650 |  |
| Totals, Africal. | 13,740 | 16,930 | 15,910 | 134,000 | 173,000 | 191,000 |
| South America- |  |  |  |  |  |  |
| Argentina. | 11,493 | 13,590 | 13,000 | 193,740 | 279,250 | 225,000 |
| Brazil. | . 876 |  |  | 11,283 | 20,000 |  |
| Chile | 1,980 | 1,925 | 2,000 | 35,628 | 40,900 | 34,900 |
| Uruguay | 1,060 | i, 225 | 1,670 | 3,798 13,124 | 17,000 | 28,000 |
| Totals, South Americal . . | 16,320 | 19,220 | 19,360 | 263,000 | 370,000 | 325,000 |
| Oceania- |  |  |  |  |  |  |
| Australia. | 12,662 | 10,185 |  | 177,742 | 195,210 | 199,000 |
| New Zealand | 140 | 139 | 125 | 5,241 | 4,525 | 4,600 |
| Totals, Oceania. | 12,802 | 10,324 | 11,125 | 182,983 | 199,735 | 203,600 |
| World Totals ${ }^{1}$. | 399,970 | 445,990 | 452,400 | 5,840,000 | 7,295,000 | 7,150,000 |

[^147]46.-Estimated Production of Oats and Barley Harvested in 1952 and 1953 in Specified Countries, with Average for 1945-49

| Continent and Country | Oats |  |  | Barley |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Average } \\ 1945-49 \end{gathered}$ | 1952 | 1953 | $\begin{gathered} \text { Average } \\ 1945-49 \end{gathered}$ | 1952 | 1953 |
|  | '000 bu. | '000 bu. | '000 bu. | '000 bu. | '000 bu. | '000 bu. |
| North America - |  |  |  |  |  |  |
| Canada. | 341,612 | 466,805 | 405,580 | 144,688 | 291,379 | 862,065 |
| Mexico. | 2,152 | 3,520 | 3,800 | 6,032 | 7,560 | 7,800 |
| United States | 1,376,527 | 1,260,127 | 1,216,416 | 273,306 | 226,014 | 241,015 |
| Totals, North America ${ }^{\text {a }}$. | 1,720,000 | 1,730,000 | 1,626,000 | 424,000 | 525,000 | 511,000 |
| Europe- |  |  |  |  |  |  |
| Austria................... | 17,424 | 27,300 | 28,800 | 7,127 | 12,500 | 15,050 |
| Belgium................. | 37,888 | 31,900 | 31,500 | 9,388 | 12,520 | 13,360 |
| Denmark.................. | 67,820 | 66,140 58 | 56,490 | 64,345 8 8 | 97,880 | 100,600 |
| France. . . . . . . . . . . . . . . . . . . | 221,821 | 231,130 | 245,964 | 8,500 52,500 | 10,800 79,420 | 15,000 |
| Greece. | 6,058 | 8,040 | 11,500 | 7,359 | 9,800 | 11,870 |
| Ireland | 48,040 | 41,000 | 37,500 | 6,739 | 11,620 | 9,800 |
| Italy. | 30,513 | 35,000 | 42,000 | 9,467 | 12,250 | 14,340 |
| Luxembourg. | 2,370 | 2,720 | 2,620 |  |  |  |
| Netherlands | 24,125 | 33,660 | 34,940 | 7,147 | 11,000 | 12,820 |
| Norway................. | 11,137 | 11, 100 | 12,500 | 4,014 | 6,790 | 9,760 |
| Portugal.................. | 8,270 | 9,580 | 9,400 | 3,835 | 6,070 | 6,120 |
| Spain.. | 34,390 | 37,700 | 27,000 | 83,528 | 102,330 | 73,500 |
| Sweden. | 58,000 | 56,110 | 68,300 | $\bigcirc$ | 15,100 | 21,700 |
| Switzerland. | 5,568 | 5,180 | 5,000 | 2,745 | 2,820 | 2,750 |
| United Kingdom. | 204,692 | 194,040 | 197,470 | 91,895 | 108,920 | 109,240 |
| Western Germany | 144,500 | 180,270 | 175,970 | 43,740 | 80,710 | 95,140 |
| Other Europe ${ }^{2}$. | 313,000 | 355,000 | 354,000 | 172,000 | 208,000 | 200,000 |
| Totals, Europe ${ }^{1}$. | 1,293,000 | 1,402,000 | 1,430,000 | 600,000 | 805,000 | 835,000 |
| Union of Soviet Socialist Republics (Europe and Asia). | 722,000 | . | . | 272,000 | .. | .. |
| Asia- |  |  |  |  |  |  |
| China. | 51,335 | . | $\cdots$ | 322,244 |  |  |
| India ${ }^{3} \ldots \ldots \ldots \ldots \ldots . .$. |  | 二 | - | 106,255 | 100,000 | 107,500 37,700 |
| Iran. | - | - | 二 | 37,157 29,502 | 38,600 29,850 | 30,000 |
| Jrapan. | 6,431 | 9,500 | 9,710 | 26,046 | 29,850 99,100 | 96,200 |
| Lebanon | 6,431 | 9,500 |  | 1,165 | 690 | 690 |
| Manchuria............. . . | - | - | - | 5,550 |  |  |
| Pakistan ${ }^{3}$ |  | - | - | 6,922 | 6,400 | 5,300 |
| Syria. |  |  |  | 11, 135 | 10,500 | 13,500 160,750 |
| Turkey. | 14,000 | 27,900 | 28,450 | 68,675 | 146,470 | 160,750 |
| Totals, Asia ${ }^{\text {a }}$. $\ldots \ldots \ldots \ldots$ | 84,000 | 111,010 | 108,000 | 692,000 | 800,000 | 825,000 |
| Africa- |  |  |  |  |  |  |
| Algeria.................... | 7,694 | 9,810 | 8,000 | 28,120 | 48,000 | 35,000 |
| Egypt. ${ }_{\text {French }}$ Morocco.............. | 2,376 | -4,230 |  | 8,605 47.322 | 56,500 | 70,000 |
| Tunisia........ | 958 | 830 |  | 7,901 | 16,100 | 8,300 |
| Union of South Airica..... | 8,415 | . . | .. | 1,740 | .. | .. |
| Totals, Africa ${ }^{1}$.......... | 20,000 | 24,000 | 23,000 | 107,000 | 150,000 | 145,000 |

For footnotes, see end of table.
46.-Estimated Production of Oats and Barley Harvested in 1952 and 1953 in Specified Countries, with Average for 1945-49-concluded

| Continent and Country | Oats |  |  | Barley |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Average } \\ & 1945-49 \end{aligned}$ | 1952 | 1953 | $\begin{gathered} \text { Average } \\ 1945-49 \end{gathered}$ | 1952 | 1953 |
|  | '000 bu. | '000 bu. | '000 bu. | '000 bu. | '000 bu. | '000 bu. |
| South America- |  |  |  |  |  |  |
| Argentina.... | 47,782 5,310 | 87,430 7 | 58,500 | 35,576 | 54,900 | 40,000 |
| Uruguay.................... | 2,840 | 2,700 | .. 6 | 4,030 846 | 1,020 | 6,300 |
| Totals, South America ${ }^{1}$. | 57,000 | 98,000 | 69,000 | 53,000 | 78,000 | 64,000 |
| Oceania- |  |  |  |  |  |  |
| Australia.... | 33,249 | 54,530 | 43,750 | 16,854 | 36,580 | 38,400 |
| New Zealand | 3,669 | 2,980 | 1,500 | 2,223 | 2,400 | 2,600 |
| Totals, Oceania . | 36,918 | 57,510 | 45,250 | 19,077 | 38,980 | 41,000 |
| World Totals | 3,930,000 | 4,200,000 | 4,025,010 | 2,170,000 | 2,745,000 | 2,745,000 |

[^148]
## CHAPTER X.-FORESTRY*

## conspectus

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Noтs.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p$. 1 of this volume.

Land is the basis of the Canadian economy and wise use of the land is the foundation of good forestry. In addition to providing the greatest amount of the most usable woods as economically as possible, good forestry will aid in maintaining agricultural lands against drought and erosion; will continuously protect watercatchment areas and assure supplies of water; will furnish cover for game and fur-bearing animals; and will give Canadians and their tourist guests opportunity for recreation which only the forests can provide.

## Section 1.-Forest Regions $\dagger$

The forests of Canada cover a vast area in the north temperate climatic zone. Wide variations in physiographic, soil and climatic conditions cause marked differences in the character of the forests in different parts of the country; hence eight fairly well defined forest regions may be recognized. These are shown on the accompanying map and are listed as follows, with the relative proportion of the total area of all forest regions occupied by each:-

| Region | Percentage of Total <br> Regional Area | Region | Percentage of Total <br> Regional Area |
| :---: | :---: | :---: | :---: |
| Boreal. | $80 \cdot 1$ | Acadian. | 2.0 |
| Great Lakes-St. | $7 \cdot 9$ | Columbia. | 0.9 |
| Subalpine....... | $4 \cdot 0$ | Deciduous. | 0.4 |
| Montane. | $2 \cdot 5$ |  |  |
| Coast. | $2 \cdot 2$ | Total. | $100 \cdot 0$ |

[^149]Boreal Forest Region.-This region comprises the greater part of the forested area of Canada, forming a continuous belt from the Atlantic Ocean westward to the Rocky Mountains and northwestward to Alaska. The white and black spruces are characteristic tree species; other prominent conifers are tamarack, which ranges throughout the region, balsam fir and jack pine in the eastern and central portions, and alpine fir and lodgepole pine in the western and northwestern parts. Although the region is primarily coniferous, there is a general admixture of broad-leaved trees, such as the white birches and poplars; these play an important part in the central and south-central portions, particularly as the region grades into the Grassland Formation of the prairies. In turn, the proportion of barrens (non-forested rock, muskeg and tundra) increases in the northern parts until the region finally merges into the Tundra Formation. In the southern parts of the eastern portions of the region there is considerable intrusion of species from the Great Lakes-St. Lawrence Forest Region, such as the white and red pines, yellow birch, sugar maple, black ash and eastern white cedar.

Great Lakes-St. Lawrence Forest Region.-Along the Great Lakes and the St. Lawrence River valley is a forest of a very mixed nature, characterized by the white and the red pines, eastern hemlock and yellow birch. With these are associated certain dominant broad-leaved species common to the Deciduous Forest Region, such as sugar maple, red maple, northern red oak, basswood and white elm. Other species with wide range are the eastern white cedar, the largetooth aspen and, to a lesser extent, beech, white oak, butternut and white ash. Boreal species, such as the white and the black spruces, balsam fir, jack pine, poplar and white birch intrude from the north, and red spruce from the Acadian Forest is abundant in certain eastern portions of the Region.

Acadian Forest Region.-The greater part of the Maritime Provinces contains a forest closely related to both the Great Lakes-St. Lawrence and the Boreal Regions. The characteristic species is red spruce, with which are associated balsam fir, yellow birch and sugar maple, with some red pine, white pine, beech and hemlock. Other species of wide distribution are the black and the white spruces, northern red oak, white elm, black ash, red maple, white birch, wire birch and the poplars. Eastern white cedar and jack pine, however, are restricted almost entirely to the western half of the Region.

Deciduous Forest Region.-A small portion of this forest, widespread in the eastern United States, is found in southwestern Ontario between Lakes Huron, Erie and Ontario. Here, with the broad-leaved trees common to the Great LakesSt. Lawrence Forest Region, such as sugar maple, beech, white elm, basswood, red ash, white oak and butternut, are scattered a number of other broad-leaved species which have their northern limits in this locality. Among these are the tulip-tree, cucumber-tree, papaw, red mulberry, Kentucky coffee-tree, redbud, black gum, blue ash, sassafras, mockernut, and pignut hickories, and scarlet, black and pin oaks. In addition there are black walnut, sycamore and swamp white oak, which are largely confined to this Region. Conifers are few, mainly scattered white pine, tamarack, red juniper and hemlock.

Subalpine Forest Region.-This is a coniferous forest found on the higher slopes of the mountains east of the Coast Ranges. It extends northward to the divide between the drainage of the Skeena, Nass and Peace Rivers, and that of the Stikine and Liard Rivers. The characteristic species are Engelmann spruce, alpine fir and lodgepole pine. There is a close relationship with the Boreal Region, from which the black and the white spruces and aspen intrude, more particularly in the northern parts. There is also some entry of Douglas fir from the Montane Forest, and western hemlock, western red cedar and amabilis fir from the Coast Forest. Other species found are western larch, whitebark pine and limber pine.

Columbia Forest Region.-A large part of the Kootenay River valley, the upper valleys of the Thompson and Fraser Rivers, and the Quesnel Lake area of British Columbia contain a coniferous forest closely resembling that of the Coast Region. Western red cedar and western hemlock are the characteristic species. Associated with these are Douglas fir, which is of general distribution, and, in the southern parts, western white pine, western larch and grand fir. Engelmann spruce from the Subalpine Region is important in the upper Fraser Valley and is found to some extent at the upper levels of the forest in the remainder of the region. Towards lower elevations in the west and in parts of the Kootenay Valley, the forest grades into the Montane Region and, in a few places, into the Grassland Formation.

Montane Forest Region.-This region occupies a large part of the interior uplands of British Columbia as well as part of the Kootenay Valley and a small area on the east side of the Rocky Mountains. It is a northern extension of the typical forest of much of the western mountain system in the United States, and comes in contact with the Coast, Columbia and Subalpine Forests. Ponderosa pine is a characteristic species of the southern portions, to which it is restricted. Douglas fir is found throughout but more particularly in the central and southern parts. Lodgepole pine and aspen are generally present, the latter being well represented in the north-central portions. Engelmann spruce and alpine fir from the Subalpine Region become important constituents in the northern parts, together with white birch. The Boreal white spruce also enters here. Extensive bunch grass and sage brush communities of the Grassland Formation are found in many of the river valleys.

Coast Forest Region.--This is part of the Pacific Coast forest of North America. Essentially coniferous, it consists principally of western red cedar and western hemlock, with the addition of Douglas fir in the south and Sitka spruce in the north. Amabilis fir and yellow cedar occur widely and, together with mountain hemlock and alpine fir, are common towards the timberline. Western white pine is found in the southern parts. Broad-leaved trees, such as black cottonwood, red alder and broadleaf maple have a limited distribution in this region. Arbutus and garry oak occur in Canada only on the southeast coast of Vancouver Island and the adjacent mainland. These are species that have entered from the Montane Forest in the United States.


## Section 2.-Native Tree Species

There are more than 150 tree species in Canada, of which 31 are conifers, commonly called 'softwoods'. About two-thirds of these softwoods are of commercial importance. Of the large number of deciduous or 'hardwood' species, only about 10 p.c. is of any great commercial value to the wood-using industries. About 82 p.c. of the volume of merchantable timber is made up of softwood species.

The dominant species existing in each forest region are given in Section 1, pp. 440-442. Detailed information is contained in Forestry Branch Bulletin No. 61, Native Trees of Canada,* published by the Department of Northern Affairs and National Resources.

## Section 3.-Forest Resources

The forested area of Canada (exclusive of Labrador) is estimated at 1,485,870 sq. miles, or 42 p.c. of the total land area.

Over 44 p.c. of the total forested area of Canada is classified as "non-productive", i.e., incapable of producing crops of merchantable wood. However, these forests do provide valuable protection for drainage basins and shelter for game and fur-bearing animals.

Of the productive portion of the forested area, $578,000 \mathrm{sq}$. miles are considered to be now accessible for commercial operations. Further details are given in Chapter I, Table 1, p. 20. The economically inaccessible productive forests contain much valuable timber suitable for lumber and pulpwood. At present it is not economical to conduct cutting operations on these areas but, as low-cost methods of transportation are developed, as accessible forested areas become depleted, and as the demand for wood products increases, these inaccessible productive forests will be brought progressively into commercial development. Owing generally to less favourable climatic conditions, the productive capacity of these inaccessible timberlands is expected to be lower than that of the accessible areas now being logged.

The predominant part that lumber and other forest products have played in the development of Canada has resulted in a widespread tendency to evaluate the forests in terms of timber alone. A growing realization of the economic importance of the non-timber values, however, is bringing about increasing recognition of their true value and thus developing a broader concept of forestry.

Inventories of the forest resources are made periodically by provincial forest authorities and, with their co-operation, the Forestry Branch of the Department of Northern Affairs and National Resources compiles the National Forest Inventory. The latest estimates of the total stand of timber, by province and region, appear in Table 1. These estimates are subject to constant revision as more accurate and complete inventories are compiled.

[^150]
## 1.-Estimate of Total Stand of Timber, by Type and Size, and by Province and Region, 1953



Forest Land Tenure.-Private individuals or corporations own 7 p.c. of Canada's total forest land. The remaining $93 \mathrm{p} . \mathrm{c}$. is still in the possession of the Crown in the right of the Federal Government or of the provinces: rights to cut Crown timber under lease or licence have been granted on 15 p.c. of the total forest land. Some of the unalienated land has already been logged and has reverted to the Crown but, in the main, it is located in the inaccessible and less accessible areas.

Farm woodlots on the 623,000 farms across Canada cover about 22,780,000 acres (Census of 1951)-13 p.c. of the total farm area and over 6 p.c. of the total accessible productive forest. These small wooded tracts, ranging in size from three or four acres to 200 or more acres, are among the most accessible forests in Canada. Further, the woodlots of eastern Canada are, in general, highly productive because they lie in the southern parts of the country and frequently occupy soils that are considerably higher in quality than those typical of the northern forests.

## 2.-Tenure of Occupied Forest Lands, by Province, 1953

(Gross area in square miles)

| Province | Private Forest Land |  |  | Crown Forest Land |  |  |  |  | Total Occupied Forest Land |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Farm <br> Woodlots | Other Private Lands | Total | $\begin{array}{\|c\|} \hline \text { Pulp- } \\ \text { Wood } \\ \text { Licences } \end{array}$ | Saw Timber Licences | Timber Sales | Permit <br> Berths | Total |  |
| Newfoundland ${ }^{1} \ldots .$. | 58 | 4,024 | 4,082 | 15,923 | 1,193 | - | - | 17,116 | 21,198 |
| P. E. Island. ........ | 541 | 67 | 608 | 15,023 |  | - |  | - | 608 |
| Nova Scotia. | 2,884 | 5,581 | 8,465 | 700 | - | 44 | - | 744 | 9,209 |
| New Brunswic | 3,194 | 7,946 | 11,140 | 3,833 | 6,912 | - | - | 10,745 | 21,885 |
| Quebec. | 9,179 | 10,858 | 20,037 | 71,812 | 8,857 | - |  | 80,669 | 100,706 |
| Ontario. | 6,020 | 12,888 | 18,908 | 87,007 | 10,802 | - | - | 97,809 | 116,717 |
| Manitobs. | 2,832 | 4,084 | 6,916 | 2,745 | 214 | 914 | 24 | 3,897 | 10,813 |
| Saskatchewan | 4,602 | 2,745 | 7,347 | - | 37 | 150 |  | 37 | 7,384 |
| Alberta. . . . . . . . . | 4,477 | 4,561 | 9,038 | - | 2,500 | 150 | 50 | 2,700 | 11,738 |
| British Columbia... | 1,807 | 8,573 | 10,380 | 756 | 2,846 | 3,020 | 617 | 7,239 | 17,619 |
| Northwest Territories. <br> Yukon Territory.... | - | - | - | 二 | - | - | 4 16 | 4 16 | 4 16 |
| Canada ${ }^{1}$ | 35,594 | 61,327 | 96,921 | 182,776 | 33,361 | 4,128 | 711 | 220,976 | 317,897 |

${ }^{1}$ Excludes Labrador.

## 3.-Forest Reserves and Parks, by Province, 1953

(Gross area)

| Province or Territory | National Parks | Provincial Parks | Provincial Forest Reserves | Military Reserves | Indian Reserves | Federal Forest Experiment Stations | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles |
| Newfoundland. | - | 48 | 108 | - | - | - | 156 |
| Prince Edward Island. | 7 | - | - | - | 4 | - | 11 |
| Nova Scotia.......... | 390 | - | - | 23 | 30 | - | 443 |
| New Brunswick....... | 80 | - | 271 | 478 | 59 | 35 | 923 |
| Quebec. . | 1. | 20,244 | 6,056 | 22 | 281 | 7 | 26,610 |
| Ontario.. | 12 | 5,079 | 19,526 | 280 | 2,436 | 97 | 27,430 |
| Manitobs. | 1,148 | 2,6042 | 4,6032 | 176 | 819 | $25^{3}$ | 7,682 ${ }^{2}$ |
| Saskatchewa | 1,496 | 1,685 | 140,807 | 83 | 1,882 |  | 145,953 |
| Alberta. | 20,718 | 117 | 8,619 | 5 | 2,370 | 47 | 31,876 |
| Britisk Columbia..... | 1,671 | 14,087 | 35,505 | 407 | 1,283 | - | 52,953 |
| Northwest Territories. Yukon Territory. | 3,625 | - | - | $-_{41}$ | - $_{9}$ | - | 3,625 50 |
| Canada | 29,147 | 43,864 | 215,495 | 1,515 | 9,173 | 186 | 297, $712{ }^{2}$ |

${ }^{1}$ Gatineau Park ( 70 sq . miles) and Quebec Battlefields Park ( 0.36 sq . mile) are under federal jurisdiction but are not considered National Parks and are excluded from the Quebec total figures. ${ }_{2}$ Provincia! Park development is carried out in two provincial forest reserves having a total area of 1,668 sq. miles; duplication is omitted from totals.
${ }^{2}$ Included in the National Parks figure.

## Section 4.-Forest Depletion

A general account of forest depletion and increment is presented in this Section. Details of the scientific control of those influences that account for wastage, viz., forest fires, insect pests, etc., are dealt with in Section 5, Forest Administration.

The average annual rate and cause of depletion of reserves of merchantable timber during the ten years 1942-51, together with preliminary data for 1952, are given in Table 4. Of the total depletion in the ten-year period, 81 p.c. was utilized and 19 p.c. was destroyed by fire, insects and disease. The utilization of $2,934,609,000$
cu. feet comprised 39 p.c. logs and bolts, 32 p.c. pulpwood, 26 p.c. fuelwood, and the remaining 3 p.c. miscellaneous products. Approximately 6 p.c. of the logs and bolts and pulpwood were exported in unmanufactured form.

The more efficient utilization of timber that has been cut is one factor related to forest depletion. There is little doubt that in the past too high a percentage of the sawn $\log$ was discarded. Changes of great significance have been taking place in the uses of wood, permitting the utilization of sizes and qualities previously considered unmerchantable. The development of the manufacture of rayon, cellophane and numerous other products in the cellulose industry is rapidly extending the use of wood. The increasing demand for plastic-wood products, fibre board and laminated wood is resulting in greater use of inferior classes of wood, and therefore in the more complete utilization of forest resources and in the elimination of much waste.

## 4.-Average Annual Forest Depletion during the Ten-Year Period 1942-51 and 1952



Although all the utilization and most of the wastage occurs on the currently occupied productive forest area of approximately 257,000 sq. miles (where commercial cutting is concentrated), it is from the accessible productive forest of $578,000 \mathrm{sq}$. miles that the forest production of the future will be obtained. Merchantable timber on the accessible productive forest is estimated at $275,268,000,000 \mathrm{cu}$. feet, of which approximately $125,000,000,000 \mathrm{cu}$. feet may be considered to be located on the occupied area. The average annual depletion for the decade 1942-51 amounted to 1.3 p.c. of the accessible productive volume or to 2.9 p.c. of the volume on the occupied portion. The depletion for 1952, however, shows an appreciable increase over the average, being 1.6 p.c. of the accessible, and 3.5 p.c. of the occupied portion. These rates are indicative of the fact that in many localities severe over-cutting is taking place, whereas the annual growth is not being used on the less accessible portions of the productive forest. This situation emphasizes the urgent need for increased protection and management of the commercial forests, if forest growth is to balance depletion and the forest industries are to maintain their dominant place in Canada's development.

## Section 5.-Forest Administration

## Subsection 1.-Administration of Federal and Provincial Timber-Lands*

The major portion of the forest resources of Canada are owned and administered by the provincial governments. The Federal Government is responsible for the administration of those of the Yukon and Northwest Territories and on other federal lands such as National Parks and Forest Experiment Stations. About 97,000 sq. miles are privately owned by individuals or corporations.

The general policy of the Federal Government and the provincial governments has been to dispose of the timber under their jurisdiction by means of licences to cut, rather than by the outright sale of timber-land. Under this system the Crown retains ownership of the land and control of the cutting operations. Revenue is received in the form of Crown dues or stumpage (either in lump sums or in payments made as the timber is cut); ground rents and fire-protection taxes are collected annually. All these charges against the timber and land may be adjusted at the discretion of the governments concerned.

The three Maritime Provinces did not adopt this policy to the same extent as did the rest of Canada. In Prince Edward Island practically all the forest land has been alienated and is in small holdings, chiefly farmers' woodlots. In Nova Scotia, 73 p.c. of the forest land is privately owned; holdings exceeding 1,000 acres make up more than one-half of this area. In New Brunswick, 50 p.c. is under private ownership. The percentages of privately owned forest land in the other provinces are as follows: Newfoundland, 16 p.c.; Quebec, 6 p.c.; Ontario, 8 p.c.; Manitoba, 7 p.c.; Saskatchewan, 7 p.c.; Alberta, 7 p.c.; and British Columbia, 4 p.c.

Provincial lands suitable for growing trees are set aside for timber production, and the policy of disposing of the title to lands fit only for the production of timber has been virtually abandoned in every province of Canada.

Over 2,000 professionally trained foresters are employed in Canada by the Federal Government, by provincial forest services, or by pulp and paper and lumber companies. The staff working for the Federal Government are almost entirely engaged in research; those employed by the provincial governments devote their attention mainly to the administration of provincial forest lands; while those in private industry, although they do some research, are concerned chiefly with forest management and protection.

Federal Administration.-The Canada Forestry Act provides, among other things, authority for the operation of forest experiment stations and forest products laboratories, some of which have been in existence for many years. The Act also authorizes the granting of federal assistance to the provinces to enable them to improve the management of their own forests.

Agreements with the provinces provide that the Federal Government pay onehalf the cost to the provinces of completing and maintaining their forest inventories during a five-year period. They provide also for payments by the Federal Government to the province amounting to $\$ 10$ per thousand trees planted and $\$ 1$ per acre seeded by provinces on unoccupied Crown lands, provided that the share of this program paid for by the province itself is maintained at or above the average level of the previous three years. The Federal Government also agrees to pay one-fifth of the cost to the province for establishment and operation of new forest nurseries.

[^151]Between Dec. 4, 1951, and June 12, 1952, the Federal Government entered into agreements with all the provinces, except Quebec and Newfoundland, based generally on the above provisions. In the years ended Mar. 31, 1952 and 1953, federal payments to the provinces under the forestry agreements amounted to $\$ 802,405$ and $\$ 1,023,706$, respectively, after deduction of refunds made by the provinces with respect to interim claims. In 1953-54, actual payments totalled $\$ 1,170,189$.

Inventory programs under the agreements were estimated to be two-thirds completed by the end of March 1954. The progress in forest inventories is given in Table 5.

## 5.-Progress in Forest Inventories to Mar. 31, 1954

| Project | Estimated Area to be Covered | Area Covered Prior to Agreements | Area Covered Under Agreements |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { Prior to } \\ & \text { Mar. 31, } \\ & 1953 \end{aligned}$ | $\left\lvert\, \begin{gathered} \text { Year Ended } \\ \text { Mar. 31, } \\ 1954 \end{gathered}\right.$ | Total |
|  | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles |
| Ground control surveys. | 402,000 | 107,000 | 122,000 | 76,000 | 305,000 |
| Air Photography Small scale.... | 686,000 | 246,000 | 158,000 | 173,000 | 577,000 |
| Medium scale | 449,000 | 201,000 | 113,000 | 65,000 | 379,000 |
| Totals, Air Photography. ... | 1,135,000 | 447,000 | 271,000 | 238,000 | 956,000 |
| Base Maps- |  |  |  |  |  |
| Small scale. | 663,000 339,000 | 74,000 | 153,000 40,000 | 202,000 19,000 | 429,000 258,000 |
| Totals, Base Map | 1,002,000 | 273,000 | 193,000 | 221,000 | 687,000 |
| Field surveys for forest data............. | 935,000 | 167,000 | 249,000 | 118,000 | 534,000 |
| Interpretation of photographs........... | 1,021,000 | 163,000 | 242,000 | 207,000 | 612,000 |
| Forest maps............................. | 1,021,000 | 85,000 | 184,000 | 163,000 | 432,000 |
| Inventory reports....................... | 1,021,000 | 51,000 | 121,000 | 322,000 | 494,000 |

The total number of trees planted under the reforestation agreements up to Mar. 31, 1954, exceeded $30,000,000$. In 1953-54, planting programs were carried out in five provinces to the extent of $9,386,000$ trees. Details of over-all planting and seeding operations by provinces are shown in Table 6.

## 6.-Reforestation under the Forestry Agreements to Mar. 31, 1954

| Province | Trees Planted |  | Area Planted |  | Area Seeded |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|} \hline \text { Year Ended } \\ \text { Mar. 31, } \\ 1954 \end{array}$ | Total to Mar. 31, 1954 | $\begin{array}{\|c} \hline \text { Year Ended } \\ \text { Mar. 31, } \\ 1954 \end{array}$ | Total to Mar. 31, 1954 | $\begin{gathered} \text { Year Ended } \\ \text { Mar. } 31, \\ 1954 \end{gathered}$ | Total to Mar. 31, 1954 |
|  | No. | No. | acres | acres | acres | acres |
| Prince Edward Island | 29,000 | 48,000 | 25 | 38 | - | - |
| Nova Scotia....... | 36,000 | 59,000 | 35 | 59 | - |  |
| Ontario.. | 8,533,000 | 22,668,000 | 8,533 | 22,667 | - | 6,000 |
| Manitoba..... | 670,000 | 1,292,000 | 587 | 1,093 |  |  |
| Saskatchewan. | 118,000 | $1,567,000$ 5,745,000 | 81 | 1.425 6,090 | 188 | 357 |
| British Columbia. |  | 5,745,000 |  | 6,050 |  |  |
| Totals. | 9,386,000 | 30,379,000 | 9,261 | 30,372 | 188 | 6,357 |

The Federal Government has also agreed to pay to the Province of New Brunswiek, during a three-year period ending Mar. 31, 1956, one-third of the cost up to a maximum of $\$ 3,000,000$ of an aerial spraying operation against the spruce budworm in the northern part of the Province. The Government of New Brunswick is also contributing one-third of the cost, the remaining third being contributed by the forest industries in the area affected. In the early summer of 1953, more than $1,000,000$ gallons of DDT insecticide were sprayed over an area of about 2,800 sq. miles. The Federal Government contributed $\$ 1,000,000$ to the cost of the budworm spraying operation in 1953-54. Subsequent studies by forest entomologists of the Federal Department of Agriculture showed that the average mortality of budworm larvæ from spraying ranged from 87 to 99 p.c. Damage to foliage was light enough so that only a small part of the area needs to be resprayed to save it from further damage by the budworm.

Recent Advances in Forest Management Programs.-During recent years an increasing interest has been shown by governments and industry alike in programs to stimulate production of forest products and, at the same time, perpetuate Canada's forest resources. Most of the provinces require timber operators on Crown lands to submit forest inventories of their cutting areas and to prepare management plans covering operations for a stated period of time.

Saskatchewan has taken an effective step towards conservation of its forest resources by curtailing the annual cut to an amount approximating 5 p.c. of the estimated stand of merchantable spruce saw-timber in each particular district.

In British Columbia the granting of forest-management licences under authority of an amendment in 1947 to the British Columbia Forest Act will, undoubtedly, lead to a great improvement in forestry practice in that Province. Continuity of tenure, which is essential to the successful operation of a sustained-yield program, is assured by these licences under which the Minister of Lands and Forests of British Columbia may enter into long-term timber agreements with operators. At the end of 1953 a total of 14 Management Licence contracts were in effect, with an allowable annual cut on a sustained-yield basis of $70,800,000$ cu. feet; and there were 25 Public Working Circles over the whole province, with an annual allowable cut of $133,700,000 \mathrm{cu}$. feet; making a total on sustained-yield equal to more than 25 p.c. of the total forest production of the Province. In 1948 a further amendment to the British Columbia Forest Act established a Forest Development Fund of $\$ 2,500,000$ for the building of forest roads and bridges intended for the economical harvesting of forest products.

The Provinces of Nova Scotia, New Brunswick and Ontario have each appointed an Advisory Committee composed of representatives of the provincial government, the forest industries and other organizations interested in the welfare of the forests, so that forest problems can be discussed and a concerted effort made to solve them for the benefit of all. Efforts are being made, especially in Quebec and Ontario, to encourage the establishment and maintenance of forests on a community basis.

The use of air photographs for forestry purposes is a comparatively new field in which progress has been made in both research and practice (see p. 454). By the use of such photographs the Forestry Branch of the Department of Northern Affairs and National Resources has been continuing its work on the aerial forest mapping of federally administered lands and other territories. Forest inventory maps, for
example, were prepared from air photographs of the Eastern Rockies Forest Conservation Area and data were collected on the ground to support the interpretation of the photographs. The development of instrumental aids in forest photography and in interpretation is being continued.

Timber Control.-The formal control of timber by the Timber Controller, as established during the war years, ceased on Mar. 31, 1950. Since that date the only controls have been those exercised through licences for the export of logs and pulpwood, required under the authority of the Export and Import Permits Act.

## Subsection 2.-Forest Fire Protection

The Federal Government is responsible for fire protection in the forests under its administration-chiefly those of the Yukon and Northwest Territories, the National Parks, Indian lands and Forest Experiment Stations. Each of the provincial governments, except that of Prince Edward Island, maintains a fire-protection organization co-operating with owners and licensees for the protection of timbered areas, the cost being distributed or covered by special taxes on timber-lands.

In each province, except Prince Edward Island, provincial legislation regulates the use of fire for clearing and other legitimate purposes and provides for the closing of forests to travel or work during dangerous periods. The Province of Quebec has organized a number of co-operative protective associations among lessees of timber limits. These associations have their own staffs, which co-operate with those of the Board of Transport Commissioners and the Provincial Government. The latter contributes towards fire-suppression costs and also pays for the protection of vacant Crown lands lying within the area of the associations' activities. In the Province of Newfoundland, responsibility for the protection of most licensed timber-lands is vested in the lessees; the Newfoundland Forest Protection Association, maintained jointly by government and industry, carries out certain important fire-control functions.

The provincial services of forest fire protection along railway lines are assisted by the Railway Act, administered by the Board of Transport Commissioners. The Board has wide powers relating to fire protection along railway lines under its jurisdiction. Certain officers of the various forest authorities are appointed ex officio officers of the Board of Transport Commissioners and co-operate with the fire-ranger staffs which the railway companies are required to employ under the Railway Act.

In many districts in Canada, radio-equipped aircraft are used to good effect for the detection and suppression of forest fires. Where lakes are numerous, seaplanes or flying boats can be used for fire detection and for transportation of fire-fighters and their equipment to fires in remote areas especially. In Ontario, water bombing of small fires is regularly practised and in some districts helicopters are being used in fire suppression work. Equipment and supplies are sometimes dropped by parachute to isolated fire crews and, in Saskatchewan, parachutists are employed to fight fires that are difficult to reach.

Fire detection in more settled areas is carried out from lookout towers fitted with telephone or radio for reporting, and fire-fighting crews and equipment are
maintained at strategic points. These crews, when not engaged on fire-suppression duties, are employed on the construction and maintenance of roads, trails, telephone lines, fire guards and other improvements.

Portable gasoline pumps and linen fire hose are important items of equipment and may be carried by canoe, motor-boat, automobile, aircraft, pack-saddle or backpack. The pumps provide hose pressures of up to 200 lb . per sq. inch, depending upon the elevation above and distance from the water supply; hose lines of over a mile in length are frequently used. Small hand-pumps supplied by 5 -gallon portable containers are also effective. Bulldozers and ploughs are commonly used for fire-line construction and trucks fitted with water tanks and power pumps are employed for the control of fires adjacent to roads. Despite the provision of these mechanical aids, more than half of all fires are fought with hand tools.

The various government forest authorities conduct forest conservation publicity work independently and in co-operation with the Canadian Forestry Association. Since its beginning in 1900, the CFA has played an important part in securing popular co-operation in reducing the fire hazard. By means of its magazine, which has a large circulation, by railway lecture cars and motor-trucks provided with motion-picture equipment, and by co-operation with radio broadcasting stations and the press, the Association reaches a large proportion of the population of Canada. Efforts are made through the schools, by specially appointed junior forest wardens and other means, to educate the younger generation on the value of the forests and on the seriousness of the devastation caused by fire and the means of preventing such devastation.

Forest Fire Statistics.-During 1952 there were 5,101 forest fires compared with 4,529 in 1951 and an average for the period 1942-51 of 5,121 . However, the average size of forest fires in 1952 and in 1951 was smaller than the average for the ten-year period, the area burned in the two later years being 991,196 acres and 896,426 acres, respectively, and the ten-year average being $1,622,364$ acres. The estimated values destroyed in 1952 were 20 p.c. less than in 1951 and 5 p.c. less than the average; the actual cost of fire fighting was 39 p.c. less than in 1951 and 37 p.c. more than the average.

Although April and May were unusually dry months for Newfoundland and April was dry in Nova Scotia and fire occurrence was then highest above normal, the greatest fire damage occurred in these Provinces in July. In New Brunswick and Quebec over 80 p.c. of the damage occurred in the July-August period and no serious fire situation developed during the exceptionally dry autumn. Weather conditions in Ontario were generally favourable for fire protection and the acreage burned in that Province was less than one-tenth of the annual average for 1942-51; most of the fires occurred in April and May. Manitoba's one hazardous period was in April, but Saskatchewan had a very lengthy dangerous season. Most fires in Saskatchewan occurred in April and May but some were reported in November and December. The northeastern districts of Alberta suffered a severe drought during April and May when almost all of the Province's fire damage occurred. In British Columbia hazard conditions were not extensive but periods of high danger developed west of the Rockies in May and over the whole province in July and August. The fire period in the Northwest Territories extended from April to early August but cool damp weather in Yukon Territory precluded danger of fire there.

## 7.-Summary Statistics of Forest-Fire Losses, 1952, compared with Ten-Year Average, 1942-51

| Item |  |
| ---: | ---: | ---: | ---: | ---: | ---: |

[^152]
## 8.-Forest-Fire Losses, by Province, 1952 compared with Ten-Year Average, 1912-51

| Province and Item | Annual Average 1942-51 | 1952 | Item | Annual <br> Average 1942-51 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland- |  |  | Quebee- |  |  |
| Forest fires. . . . . . . . . No. | .. | 205 | Forest fires . . . . . . . . . No. | 1,126 | 604 |
| Area burned. . . . . . . . acres | .. | 30,739 | Area burned. . . . . . . . a acres | 170,523 | 55,857 |
| Fire-fighting cost and damage. | .. | 183,919 | Fire-fighting cost and damage............... § | 849,167 | 1,085,509 |
| Nova Scotia- |  |  | Ontario- |  |  |
| Forest fires. . . . . . . . . No. | 267 | 237 | Forest fires. . . . . . . . . . No. | 1,284 | 1,095 |
| Area burned. . . . . . . and acres | 16,018 | 3,615 | Area burned. . . . . . . . . acres | 176,022 | 12,421 |
| Fire-fighting cost and damage. | 142,813 | 48,517 | Fire-fighting cost and damage. $\qquad$ \$ | 1,143,446 | 332,173 |
| New Brunswick- |  |  | Manltoba- |  |  |
| Forest fires. . . . . . . . . No. |  | 247 | Forest fires........... No. |  |  |
| Area burned. . . . . . . . a acres | 35,821 | 4,252 | Area burned. . . . . . . . . acres | 185,014 | 173,770 |
| Fire-fighting cost and damage................ \$ | 371,606 | 103,128 | Fire-fighting cost and damage. 8 | 245,998 | 291,269 |

## 8.-Forest-Fire Losses, by Province, 1952 compared with Ten-Year Average, 1942-51-concluded

| Province and Item | $\begin{gathered} \text { Annual } \\ \text { Average } \\ 1942-51 \end{gathered}$ | 1952 | Item | Annual <br> Average 1942-51 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Saskatehewan- |  |  | Northwest Territories- |  |  |
| Forest fires . . . . . . . . . . No. | 129 | 137 | Forest fires. ........ No. |  | 737 |
| Area burned . . . . . . . . a acres | 185, 263 | 38,073 | Area burned. . . . . . . acres | . | 137,124 |
| Fire-fighting cost and damage................ \$ | 135,257 | 79,106 | Fire-fighting cost and damage.............. \$ | .. | 44,177 |
| Alberta- |  |  | Nationsl Parks- |  |  |
| Forest fires. . . . . . . . . No. | 232 | ${ }_{481} 193$ | Forest fires......... No. | 32 | 34 |
| Area burned. . . . . . . . . acres | 457,321 | 484,338 | Area burned. . . . . . . acres | 11,838 | 19,784 |
| Fire-fighting cost and damage................ \& | 1,081,034 | 1,348,910 | Fire-fighting cost and damage......... \% | 15,323 | 16,841 |
| British Columbia- |  |  | Indian Lands- |  |  |
| Forest fires.......... No. | 1,508 | 1,914 | Forest fires. . . . . . . . No. | 45 | 55 |
| Area burned. . . . . . . . acres | 364,569 | 152,406 | Area burned........acres | 19,873 | 15,938 |
| Fire-fighting cost and damage................ \$ | 1,297,612 | 2,053,677 | Fire-fighting cost and damage.......... 88 | 19,926 | 171,819 |
| Federal Lands- |  |  | Forest Experiment |  |  |
| Yukon Territory- <br> Forest fires. $\qquad$ |  | 23 | Stations- <br> Forest fires. $\qquad$ | 4 | 2 |
| Area burned.......... acres | . | 31,631 | Area burned.........acres | 102 | 3 |
| Fire-fighting cost and damage.. | . | 28,201 | Fire-fighting cost and damage.............. \$ | 239 | 3 |

9.-Forest Fires, by Cause, 1952 compared with Ten-Year Average, 1942-51

| Cause | Provinces ${ }^{1}$ |  |  |  | $\begin{gathered} \text { Yukon and } \\ \text { Northwest } \\ \text { Territories, } 1952 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual <br> Average <br> 1942-512 |  | 1952 |  |  |  |
|  | No. | p.c. | No. | p.c. | No. | p.c. |
| Camp-fires. | 820 | 16 | 836 | 16 | 25 | 42 |
| Smokers... | 1,112 | 22 | 1,083 | 21 | 5 | 8 |
| Settlers.. | 571 | 11 | 518 | 10 | - | - |
| Railways.. | 583 | 11 | 684 | 13 | - |  |
| Lightning..... | 886 | 17 | 744 | 15 | 8 | 13 |
| Industrial operations. | 222 | 4 | 309 | 6 | 1 | 2 |
| Incendiary.... | 142 | 3 | 153 | 3 | 1 | 2 |
| Public works. | 69 | 2 | 86 | 2 | - | - |
| Miscellaneous known | 442 | 9 | 495 | 10 |  |  |
| Unknown.. | 274 | 5 | 193 | 4 | 20 | 33 |
| Totals. | 5,121 | 100 | 5,101 | 100 | 60 | 100 |

${ }^{1}$ Includes federal lands within provincial boundaries.
${ }^{2}$ Excludes Newfoundland.

## Subsection 3.-Research in Forestry

The chief responsibility of the Federal Government in the field of forestry is to carry out research in problems affecting Canada's forests and their development, conservation and more effective utilization. To this end, forest research and forest products research facilities have been greatly expanded throughout Canada during the past five years. The Federal Government, several provincial governments, the Pulp and Paper Research Institute of Canada, the four universities with faculties of forestry, and a number of the larger industrial companies conduct research in these fields. The Forestry Branch of the Federal Department of Northern Affairs
and National Resources conducts research in forest economics, silviculture, management, forest inventory methods, forest fire protection, and in forest products. An extensive program of research is under way on the experiment stations and on other lands, where an increasing proportion of the total effort is being expended in cooperation with provincial authorities and industry.

Forest Research.-Research in silviculture and management has been concentrated since World War II upon problems of regeneration, growth and stand development, and harvest cutting methods. A regeneration survey extending from the Rocky Mountains to the Atlantic Coast has provided information on the status of regeneration on cut-over and burned lands. This has been followed by intensive work of a more fundamental nature to assess the factors responsible for the success or failure of regeneration and, by empirical tests of practical cutting methods, seedbed treatments, and seeding and planting methods, to obtain reproduction. Studies are made of the growth, yield and successional changes in the most important forest types. Systems of classifying forest sites so as to assess their effective growth, development and long-term productivity are being devised. Research in tree breeding is also carried on for artificial propagation by selection and development of superior strains. Research in forest management is concerned with the application of silviculture, regulation of cut, and protection so as to maintain forests at their highest production levels. Many of the research studies in silviculture and forest management are conducted co-operatively with provincial forest services and wood-using industries.

Forest fire protection in Canada is a vital problem and is therefore a major concern of federal and provincial forest authorities. Forest fire protection of Crown lands is the responsibility of provincial forest services but federally owned forest lands, such as the National Parks, the Forest Experiment Stations, and lands in the Yukon and Northwest Territories, are the responsibility of the Federal Government. Other organizations responsible for forest fire protection within their respective territories are the forest protective associations in Quebec and company organizations dealing with privately owned forest land in Nova Scotia and British Columbia. In forest fire research, the Federal Forestry Branch is working towards full cooperation with the provincial forest services in achieving the best methods of forest fire protection. The leading contributions of the Branch have been in the field of fire-hazard research and in the development of equipment and techniques for fire fighting. Increasing attention is being given to research relating to such fields as fire-control planning, visible area mapping, detection and communications equipment, and the development of fuel-type classification methods and mapping techniques. A number of provincial forest-protection services are also engaged in research activities. Notable advances have been made in several provinces in the development of forest communications equipment, the dropping of supplies to fire fighters by parachute, and the design of mechanical fire-fighting equipment.

Research in forest inventory methods is of increasing importance because of the greatly expanded inventory programs being conducted in most provinces. Data from air photographs are correlated with field work to develop new techniques oi timber estimating, which is being facilitated by the use of stand-volume tables. Various methods of field sampling are being investigated and compared. Research is being continued in methods for measuring tree images and tree shadows to determine heights, crown widths, canopy density and other data from photographs taken in different seasons of the year under various conditions. The use of large-scale
photography of sample areas is also being investigated and studies are being made in the identification of species and sub-types. Construction of suitable photogrammetric and other scientific apparatus includes those required by the forestry tricamera method of air photography, which has been developed to provide maximum forestry information at minimum cost, and the shadow-height calculator, constructed to facilitate the determination of tree heights from shadows in air photographs.

Research in forest economics is concentrated on problems associated with the production of wood in the forest. These problems are concerned with land use, land tenure, taxation, forest legislation and administrative techniques, forest management, forest labour and the valuation of forest lands. Economics research also involves continued study of the broad developments in forest industries.

Forest Biology.-The Division of Forest Biology of the Science Service, Federal Department of Agriculture, undertakes investigations dealing with the biology and control of insects and diseases affecting forest and shade trees. The Zoology Unit maintains ten regional laboratories at strategic points across the country. The Forest Pathology Unit operates six branch laboratories. An insect disease laboratory was recently established at Sault Ste. Marie, Ont., for fundamental research on virus, fungi, and bacterial diseases of insects.

A special article dealing with Noxious Forest Insects and Their Control appears in the 1947 Year Book, pp. 389-400. A detailed account of the activities in forest pathology in Canada may be found in the 1948-49 Year Book, pp. 416-417.

Forest Products Research.-The following special article outlines the history of the forest products laboratories and deals in detail with their current activities.

## THE FOREST PRODUCTS LABORATORIES OF CANADA*

The Laboratories.-In 1913, in co-operation with McGill University, the Forest Products Laboratories of Canada were established and located on the campus of the University at Montreal, Que. By that time, the widespread and diversified nature of Canada's forest industries, their significance to the national economy and the vital importance of export markets had clearly indicated that, in the main, forest products research should be a national rather than a provincial function.

A second laboratory was established in 1917 on the campus of the University of British Columbia at Vancouver, B.C., for the primary purpose of conducting aircraft research entailing the testing and use of considerable quantities of highgrade Sitka spurce, available only on the West Coast.

By 1927, the expansion of research facilities, an increasing staff of research personnel and the coincident addition of test and laboratory equipment had made it necessary to find larger quarters for the Montreal Laboratory and, with the exception of the Pulp and Paper Unit, $\dagger$ the Forest Products Laboratory was moved to its present quarters at Ottawa.

Both Laboratories are now staffed and equipped for work in all the principal phases of research pertinent to wood and its uses, including certain aspects of the wood chemistry field not related to the manufacture of paper. The activities of

[^153]the two Laboratories are generally similar although the work at Vancouver is weighted in favour of British Columbia species. Research activities are so integrated that findings are valid wherever they are applicable in Canada or elsewhere. However, development has not reached its zenith. Scientific and mechanical equipment is being constantly improved and every endeavour is made to recruit and maintain a professional and technical staff capable of rendering efficient service in the varied and extensive pattern which must be followed in forest products research.

The work of the Laboratories is organized to provide a continuing program of fundamental research which will constantly add to the growing volume of basic data on record. A large number of investigations and studies in the fields of applied research are also undertaken to determine the results of the numerous factors affecting conversion and utilization. Research work also extends to the field of utilization; basic and exploratory investigations are directed towards determining methods, processes and new uses which would result in a more complete and effective utilization of the original wood substance available from the tree.

There is, as well, a fairly substantial volume of work performed for the Canadian Armed Services and other government departments and in the carrying out of tests and investigations requested by industry. Industrial interest in forest products research is constantly growing and this awareness of the value and importance of research findings is reflected by the large increase in enquiries received by the Forest Products Laboratories.

A carefully selected library provides background information and knowledge of the work in other forest research organizations as well as essential reference material. Regular contact is maintained with forest products research organizations throughout the world and the continuing exchange of information is considered of major importance. As research data are published in many languages it is often necessary to translate original material, a field in which much duplication of effort existed in the past. As a result of an arrangement made at the Forest Products Pre-Conference of the British Commonwealth Forestry Conference held at Ottawa in 1952, translations are now supplied to other countries and information is exchanged as to translations in progress.

Each year a Program of Work is circulated so that research workers in other fields will be aware of the particular projects under study at both the Ottawa and Vancouver Laboratories. Most of the research work is national in scope but certain projects are carried out primarily to meet the requirements of areas with problems of a unique nature.

More generally stated, the Forest Products Laboratories of Canada aim their activities so as to provide a desirable balance between the essential work of fundamental studies-to provide basic data-and investigations in the domain of applied research. In this manner it is believed that the forest products industries are best served, and that long-term and continuing benefits to the national economy will be of highest value.

The results achieved in the past forty years have provided an impressive fund of knowledge on the properties and uses of Canadian wood species. These accumulated data serve to assess problems arising out of utilization and are of high value in planning additional research.

There is recognition that the value of research lies mainly in the application of its findings in the practical fields of commercial production. The administration, therefore, endeavours to maintain a close liaison with forest products industries so that, aware of their needs, it can co-operate in finding solutions to production problems as well as assess and evaluate new methods, processes, and equipment.

It is realized that, in a competitive economy, efficiency plays a dominant role and considerable work has been undertaken to provide dependable data on various phases and factors pertinent to conversion and utilization. Among such studies are those related to sawmilling, veneer cutting and plywood production, the use of radio-frequency heating, and the recovery of sawmill and logging residue.

In the fields of chemical utilization, wood structure, wood preservation and pathology, and timber mechanics and engineering, specialists and technicianswith suitable laboratory equipment and following recognized research techniquesare actively engaged in recording and interpreting research findings, and thus they expand knowledge applicable to forest products research.

Results of the Laboratory investigations are analysed and appraised and supply the subject matter of many reports and publications so that findings may be available and research knowledge disseminated where it can best serve. A large number of publications, available on request, have been issued on various phases of forest products research.

The Laboratories are represented on many technical committees including: the Fundamental Research, the Testing and Control, and the Camp Heating Committees of the Canadian Pulp and Paper Association; the Paint, Furniture, Packaging, Paper Products and Building Board Technical Sub-committees of the Canadian Government Specification Board; Structural Timber, Laminated Construction, Plywood, Millwork and Packaging Committees of the Canadian Standards Association; the Materials and Design Committees of the National Building Code; the Research co-ordinating Committee on the Utilization of Mill Waste for Pulpwood; the Wood Committee, American Society for Testing Materials; the Preservatives Committee, American Wood Preservers Association; and the Preservation Committee, B.C. Plywood Manufacturers' Association.

Organization of Research.-The plan followed at both Laboratories is to group related research within separate Sections composed of several Units. Each Unit is responsible for a particular phase of research work and is in charge of a specialist in that field. Training of and specialization by the technical personnel rounds out Unit organization and ensure a high degree of accuracy in research investigations. A Section Head, with technical qualifications and administrative ability, is in immediate charge of the work of a Section, under the control of the Laboratory Superintendent. A brief description of the work of the five Sections follows:-

## Timber Mechanics

Timber Engineering: Determination of the mechanical and physical properties of Canadian woods; timber fabrication; new forms of wood construction, including laminations and arches; timber fasteners; technical data for use in timber standards and building codes.

Plywood: Problems incident to the production of veneers and the manufacture of plywood, including testing and studies of improved manufacturing techniques, properties of adhesives, bonding techniques and durability of bonds; 92428-30
basic studies on the use of high-frequency heating and its uses, including investigations on its application to bonding in gluing operations and the production of curved plywood shapes.

Containers: Generally, the design and testing of containers and the assessment of their suitability for carrying intended loads; the study of handling and transit hazards; supplying of technical data for container codes and studies aimed at improving container design.

## Wood Preservation and Pathology

Preservation: Treatment of wood with preservatives by pressure and nonpressure methods; ground-line treatments; service tests; chemical analyses of treated timber; determination of the efficacy of new preservatives; treatment of timber against attacks by insects and marine organisms; durability tests on treated wood by laboratory techniques and in service installations.

Pathology: The study of wood-destroying and wood-staining fungi, including their identification and their effect on the serviceability of timber, and methods of control; identification and life history of fungi, stain, and moulds; durability tests of untreated wood by wood-soil and other accelerated laboratory techniques.

Wood Paints and Coatings: Investigations on the use and composition of paints and other forms of surface coatings applied to wood; durability of exterior coatings on wood; effect of various factors, such as timber species, moisture content of wood, and resin content on surface coatings; fire-retardant paints and coatings.

## Wood Utilization

Logging and Milling: Studies pertinent to the production of lumber and other primary manufacturing products; investigation of production methods and equipment with a view to more complete utilization; research into possible conversion to economic use of material now discarded; investigation of the benefits from closer integration of wood-using industries; operation of a research sawmill. Of necessity, these studies are undertaken in logging operations and at the sawmills and factories of co-operating industrial companies which have been selected as being representative of the manufacturing region or forest area being investigated.

Secondary Wood-using Industries: Research into the secondary wood-using industries, aimed at developing more effective utilization and reducing incident waste; investigations initiated with a view to determining new outlets for Canadian woods, and particularly for hardwoods; studies of forest products economics.

Lumber Seasoning: Investigations into the theory and techniques of lumber seasoning, including air-drying, kiln-drying, and other methods; research and experimentation to secure data for the preparation of kiln-drying schedules; studies pertinent to seasoning practices in industry aimed at developing improved methods of drying; organized kiln-drying and lumber seasoning courses of instruction.

## Wood Chemistry

Chemical Utilization and Organic Chemistry: Investigations and experimental production of fibreboard, wallboard, and binder board from wood waste; studies aimed at the production of improved wood; research into the production of tannins from the bark of Canadian wood species; studies on the chemical composition of wood and on the chemistry of wood, carbohydrates, lignin, and bark; research and experimentation into the production and properties of cellulose from sawdust; investigations of the extractives from wood.

Microbiology: Investigations and experimentation into the possibilities of utilizing wood waste by microbiological means, including research with wood digesting organisms and the microbiological decomposition of wood.

## Wood Structure

Structure and Uses: Research into wood structure and its effect on the properties and behaviour of wood in service; investigations into the microstructure of Canadian timber species and the effects and causes of irregularities in wood structure; studies on the reaction of wood structure to the penetration of chemicals, and on the use of chemicals to improve dimensional stability.

Anatomy-Growth Relationship: Co-operative studies with the Forest Research Division aimed at determining the effects of various natural growth conditions and of silvicultural practices on wood quality.

Wood Identification: Work related to the identification of wood and maintenance of a reference collection of woods of the world and the recording of data pertinent to wood identification.

Past Research.-Since their formation, the Forest Products Laboratories have followed a plan intended continually to expand the record of basic data on the properties and uses of Canadian timber species. Close contact with the work of other forest products research organizations throughout the world has provided additional and valuable information.

An extensive program of timber-testing has resulted in the accumulation of data on the mechanical properties of all Canadian commercial timber species. These tests were carried out on carefully selected clear specimens and on timbers of structural sizes. From these data, basic and working stresses have been computed and strength tables prepared for use in designs.

There have been two distinct approaches to research into the durability of various Canadian woods. Pathological studies have determined the types, conditions of occurrence and the deterioration caused by different fungi. These studies have extended to logs, pulpwood and other material in the round, through phases of their conversion and use. Results obtained have been interpreted and serve as a basis for preventive measures to eliminate or greatly reduce fungi infection. The second phase has dealt with the treatment of wood with preservatives to determine their suitability for use for various treating methods and to record the increased service life obtained. Data on increased durability obtained through the use of preservatives are now on record for many Canadian timber species.

The design and service value of containers have been investigated and records of resistance to handling and transit hazards are now available for containers of many types. Studies included re-design of containers in use and new designs for specific loads, as well as careful review of construction to determine the most efficient production of acceptable packaging.

The air-seasoning and kiln-drying of lumber have received intensive study and experimentation, and drying schedules and piling methods have been developed. These investigations have resulted in the accumulation of data pertinent to the seasoning of Canadian species of board and structural sizes, and the drying of specialized stock. Kiln-drying and seasoning courses are held each year at Vancouver and Ottawa.

Progress in research is frequently largely dependent on the recording of data secured from actual operations. Field studies have been made at a number of sawmills, on logged areas, and in industrial plants in order to provide factual records of production with a view to determining the factors responsible for efficient operation. Planning and selection of representative sites for these studies permit application of results on a broad basis.

Recently a Research Sawmill of the circular headrig type has been installed at the Ottawa Laboratory. It is instrumented to provide for the control, study and recording of the many variables that affect lumber recovery and quality and is providing fundamental data on conversion processes.

Recognition of the considerable waste of valuable wood substance through residue occurring in log conversion and other manufacturing processes has resulted in many studies directed to reducing such waste to a minimum and to finding economic uses for the various types of residue. Investigations in the field of waste utilization have included reprocessing and chemical conversion and, recently, research in possible new production through microbiological means. A considerable volume of data has been placed on record relative to the chemical composition and chemical processes for the utilization of wood substance. In this field, production of tannins, determination of extractives, recovery of lignin from waste pulp liquors, and hydrolysis have been the principal avenues of research.

The various processes of veneer and plywood production have received much attention and the available records contain extensive data of a fundamental and applied nature. A commercial-size rotary veneer lathe, with necessary ancillary equipment, and instrumented for research, has been in operation at the Ottawa Laboratory. Investigations include the determination of the suitability of Canadian woods, not now used, for cutting to veneers and for the production of plywood, as well as the efficiency and suitability of various glues and bonding processes.

The use of radio-frequency power in the wood-using industry, and particularly in wood-bonding operations has been intensively studied. Fundamental data have been obtained and practical applications, including the production of curved plywood shapes and building panels, have been developed. Data on the dielectric properties of Canadian wood species have been recorded.

Thus, past research of the Forest Products Laboratories has been so oriented as to procure basic and applied data on the complex factors involved in all conversion processes, and to determine those conditions which produce the most satisfactory results from wood in service.

Future Research.-Fundamental research into the mechanical, physical and chemical properties of Canadian wood species will continue in order to expand and complement data now on record and to keep under continual review the basic factors that affect utilization and satisfactory service.

To keep abreast of or, whenever possible, ahead of industrial trends, investigations will be undertaken to assess or develop new techniques and new approaches to conversion and utilization practices. Field and laboratory studies will continue to be directed to the more economical use of available wood substance and to means of reducing to a minimum incidental waste or residue. Research will be extended
to Canadian wood species not now considered as commercial timbers, and to determining the suitability for additional uses of timbers now in commercial production. Special attention will be given to problems related to the handling, transportation and chipping of slabs and edgings for the manufacture of pulp.

Intensive research into logging will continue to explore possibilities for higher extraction and limitation of waste. The Research Sawmill studies will comprise determination of the variables affecting production as well as the development of machinery and methods for reducing manufacturing costs.

Studies of the chemistry of Canadian woods, chemical utilization, wood laminations, veneers and plywoods, dielectric heating, preservation, and wood rots will form the subject matter of numerous research projects.

Research findings will continue to be reported in Forest Products Laboratories of Canada publications, prepared to contain the maximum of useful information. The Laboratories also will continue to provide, on request, specific data in response to industrial inquiries. This sometimes necessitates additional investigation to supplement the data on record.

In a developing economy, increasingly dependent on research findings for expansion and orientation, it is difficult accurately to forecast research requirements. However, the original and continuing policy of the Forest Products Laboratories of Canada is to carry on research work of a fundamental nature and at the same time to adapt investigations and studies so that they can best meet the needs of industry.

## Section 6.-Forest and Allied Industries

This Section is concerned with the many industries employed in the hewing down of timber in the forest and its transformation into the numerous utilitarian shapes and forms required in modern living. The basic industries provide the raw material for sawmills, pulp and paper mills and for the wide range of secondary industries that convert the products of the basic industries into more highly manufactured goods such as veneers and plywoods, sash and doors, furniture and all the vast range of industries that use wood in any form in their processes. These industries, especially the pulp and paper industry and the lumber industry, contribute substantially to the value of Canada's export trade and thereby provide the exchange necessary to pay for a large share of the imports purchased from other countries, particularly the United States.

## Subsection 1.-Woods Operations

In connection with operations in the woods, it should be borne in mind that the forests not only provide the raw materials for the sawmills, pulp mills, wood distillation, charcoal, excelsior and other plants, but also provide logs, pulpwood and bolts for export in the unmanufactured state, and fuel, poles, railway ties, posts and fence rails, mining timber, piling and other primary products which are finished in the woods ready for use or exportation. A number of minor forest products help swell the total, such as Christmas trees, maple sugar and syrup, balsam gum, resin, cascara, moss and tanbark.

It has been estimated that operations in the woods during the logging season in 1952 gave employment amounting to $44,795,000$ man days and distributed $\$ 158,000,000$ in wages and salaries.

## 10.-Value of Woods Operations, by Product, 1947-52

| Product | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | \$ |
| Logs and bolts | 205,259, 855 | 215, 108,932 | 207,789,335 | 253,649,547 | 316,027,115 | 304,262,790 |
| Pulpwood | 237,488,741 | 284, 656,819 | 270,697,980 | 285,762,620 | 381, 920,846 | 396,102,104 |
| Fuelwood | 46,206,336 | 49,535,855 | 48,816,965 | 49,804,328 | 50,521,011 | 61,355,643 |
| Hewn railway ties | 1,177,806 | 1,303,596 | 917,033 | 495,509 | 612,583 | 1,292,636 |
| Poles. | 8,404,809 | 13,116,480 | 11,485, 488 | 19,209,308 | 13,249,988 | 16,961,456 |
| Round mining | 10,082,458 | 10,268,435 | 10,376,305 | 3,767,076 | 6,420,818 | 19,917,669 |
| Fence posts | 2,832,783 | 2,489,286 | 2,640,576 | 2,906,249 | 2,920,922 | 3,432,675 |
| Wood for distillation. | 544,746 | 497,286 | 467,997 | 425,918 | 467,491 | 441,443 |
| Fence rails. | -628,804 | 591,484 | 644,844 | 705,106 | 671,491 | 758,519 |
| Miscellaneous products | 7,177,790 | 8,726,895 | 7,575,539 | 9,008,942 | 9,713,750 | 11, 126,259 |
| Totals. | 519,804,128 | 586,295,068 | 561,412,062 | 625,734,603 | 782,525,015 | 815,651,194 |

## 11.-Production and Consumption of Wood Cut in Woods Operations, 1943-52, by Product, 1951 and 1952

Nors.--Details by chief products and by provinces for the years $1926-51$ will be found in the DBS Bulletin, Annual Estimate of Operations in the Woods, 1951, and earlier issues.

| Year and Product | Production |  |  | Consumption |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity Reported or <br> Estimated | Equivalent Volume of Merchant- able Wood ${ }^{1}$ | Total Value | Quantity Reported or <br> Estimated | Equivalent Volume of Merchant- able Wood ${ }^{1}$ | Total Value |
|  |  | M cu. ft. | \$ |  | M cu. ft. | \$ |
| 1943. | ... | 2,475,906 | 268,615,283 | $\ldots$ | 2,312,200 | 243,737,886 |
| 1944 |  | 2,508,046 | 301,570,823 |  | 2,332,157 | 270,730,868 |
| 1945 | ... | 2,566,058 | 334,324,901 |  | 2,375,780 | 298,992,227 |
| 1946 | ... | 2,812,718 | 413,269,314 |  | 2,585,060 | 365,537,917 |
| 1947 | ... | 3,091,086 | 519, 804,128 | ... | 2, 854,481 | 466,722,041 |
| 1948 | ... | 3,198, 179 | 586, 295,068 | ... | 2,937,614 | 523,668,509 |
| 1949 | ... | $3,140,137$ | 561,412,062 |  | 2,954,454 | 515,324, 829 |
| 1950 | ... | 3,342,399 | $625,734,603$ | ... | 3,168,238 | 580,885,734 |
| 1951 |  |  |  |  |  |  |
| Logs and bolts. . . M ft. b.m. | 7,388,461 | 1,409,071 | 316,027,115 | 7,441,124 | 1,419,080 | 316,753,316 |
| Pulpwood. . . . . . . . . . cord | 15, 053,910 | 1,279,582 | 381,920,846 | 12,229,371 | 1,039,496 | 316,600,016 |
| Fuelwood............. | 10,217,175 | 817,374 | 50,521,011 | 10,203,773 | 816,302 | 50,316,468 |
| Hewn railway ties.... No. | 387,370 | 1,937 | ${ }^{612,583}$ | 387,370 | 1,937 | 612,583 |
| Poles and piling | 904,007 | 13,560 | 13,249,988 | 717,288 | 10,759 | 10,430,692 |
| Round mining timber.cu. ft. | 19,320,147 | 19,320 | 6,420,818 | 11, 147,012 | 11,147 | 3,854,682 |
| Fence posts.. ........ No. | 15,502,849 | 18,603 | 2,920,922 | 14,268,661 | 17,122 | 2,617,908 |
| Wood for distillation. . cord | 53,665 | 4,293 | 466,491 | 53,665 | 4,293 | 466,491 |
| Fence rails......... No. | 4,675,020 | 4,675 34,542 | - 671,491 | 4,675,020 | - 4,675 | 671,491 $2,949,654$ |
| Miscellaneous products...... | ... | 34,542 | 9,713,750 | ... | 10,894 | 2,949,654 |
| Totals, 1951 | ... | 3,602,957 | 782,525,015 | ... | 3,335,705 | 705,273,301 |
| 1952 |  |  |  |  |  |  |
| Logs and bolts. . . M ft. b.m. | 7,272,019 | 1,392,947 | 304, 262,790 | 7,291,744 | 1,397,039 | 303,026,856 |
| Pulpwood. . . . . . . . . . cord | 14, 102,394 | 1,198,703 | 396,102, 104 | 11,640, 191 | 989,416 | 334, 824,403 |
| Fuelwood............. " | 10,517,709 | 841,417 | 61,355, 643 | 10,501,852 | 840.148 | 61, 776,352 |
| Hewn railway ties.... No. | 713,924 | 3,570 | 1,292,636 | 713,924 | 3,570 | 1,292,636 |
| Poles and piling...... " | 1,053,243 | 15,799 | 16,961,456 | 807,110 | 12,107 | 12,674,011 |
| Round mining timber. cu. ft. | 49,435,386 | 49,435 | 19,917,669 | 11,549,576 | 11,549 | 4,556,992 |
| Fence posts......... No. | 16,096,074 | 19,315 | 3,432,675 | 14,409, 870 | 17,292 | 2,966, 683 |
| Wood for distillation.. cord | 40,027 | 3,202 | 441,443 | 40.027 | 3,202 | 441,443 |
| Fence rails........... No. Miscellaneous products...... | $4,694,624$ $\ldots$ | 4,695 36,526 | 11, 758,519 | 4,694,624 | 4,695 12,942 | 758,519 $3,776,39$ |
| Totals, 1952. | ... | 3,565,609 | 815,651,194 | ... | 3,291,960 | 725,394,291 |

[^154]
## 12.-Equivalent Volume of Solid Wood Cut and Value of Products of Woods Operations, by Province, 1950-52

| Province | Equivalent Volume of Solid Wood |  |  | Value of Products |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 | 1951 | 1952 | 1950 | 1951 | 1952 |
|  | M cu. ft. | M cu. ft. | M cu. ft. | \$ | \$ | \$ |
| Newfoundland. | 92,086 | 103,953 | 107, 531 | 19,397,276 | 22,084,403 | 25,186,024 |
| Prince Edward Island...... | 13,524 | 15,456 | 17,034 | 1,121,461 | 1,770,190 | 2,641,036 |
| Nova Scotia,........... | 116,227 | 138,871 | 137, 980 | 16,990, 175 | 25, 025,276 | 27,712, 516 |
| New Brunswi | 220,328 $1,131,072$ | 1,208,851 | 1,158,746 | 40,279,504 $212,563,708$ | r $64,635,365$ | $63,792,776$ $280,423,820$ |
| Quebec. | 1,131,072 | 1,208,851 695,877 | 1,158,746 | $212,563,708$ $133,953,112$ | $267,682,117$ $150,920,968$ | $280,423,820$ $170,534,331$ |
| Manitoba. | 77,458 | 87,198 | 87,761 | 9,441,487 | 11,551,887 | 13,472,295 |
| Saskatchewa | 90,734 | 88,656 | 86,739 | 8,590,115 | 8,736,785 | 10,513, 606 |
| Alberta. | 142,320 | 158,505 | 164,008 | 12,637,822 | 16,066,822 | 17,227,875 |
| British Columbia | 805,764 | 832,170 | 845, 339 | 170,759,943 | 214,051, 202 | 204, 146, 915 |
| Totals............ | 3,342,399 | 3,602,957 | 3,565,609 | 625,734,603 | 782,525,015 | 815, 651,194 |

## Subsection 2.-The Lumber Industry

The manufacture of sawn lumber is the second most important industry in Canada depending on the forest for its raw materials.

The total number of sawmills, tie, shingle, lath, veneer, stave, heading and hoop mills and mills for cutting-up and barking or rossing of pulpwood, reports of which were compiled for 1952, was 8,283 as compared with 7,934 for 1951 . Mills sawing less than $15,000 \mathrm{ft}$. b.m. are excluded but account for less than one-half of one per cent of the total lumber production. Employees numbered 60,931 and wages and salaries amounted to $\$ 135,540,707$. The logs, bolts and other materials and supplies of the industry were valued at $\$ 299,506,832$, the gross value of production was $\$ 568,023,148$ and net value $\$ 261,325,619$.

Lumber production in Canada reached its maximum in 1951 at $6,948,697,000$ ft. b.m. Average values were fairly uniform until 1916, but increased rapidly from 1917 to 1920 , to decline gradually during the following years to the lowest level for the entire period in 1932. With the exception of 1938 and 1949, increases took place each year from 1933 to 1951; a decrease of 2 p.c. occurred in 1952.

## 13.-Quantity and Value of Lumber Production and Value of All Sawmill Products, by Province, 1951 and 1952

| Province or Territory | Lumber Production |  |  |  | Value of All Sawmill Products |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity |  | Value |  |  |  |
|  | 1951 | 1952 | 1951 | 1952 | 1951 | 1952 |
|  | M ft. b.m. | M ft. b.m. | \$ | \$ | \$ | \$ |
| Newfoundland ...... | 41,981 | 55, 100 | 2,456,588 | 3,469,111. | 2,727,335 | 3,743,603 |
| Prince Edward Island. | 10.465 | 9,437 | 543,019 | 498,948 | 610,578 | 578,047 |
| Nova Scotia... | 331,906 | 296,915 | 19,987,788 | 18,101,419 | 21,534,108 | 20,162,764 |
| New Brunswi | 292,097 | 259,906. | 18, 892, 084 | 17,273,232 | 22,124,951 | 20, 816, 235 |
| Quebec. | 1,182,986 | 1,093,862 | $78,867,947$ | 75,064,381 | 89,401, 801 | 89, 264,991 |
| Ontario. | 820,696 | 840,484 | 60, 802,961 | $65,325,145$ | 76,072,011 | 83,158,216 |
| Manitoba..... | 60,071 | 61,052 | 3,873,547 | 4,001,844 | 4,112,135 | 4,207,534 |
| Saskatchewan | 78,694 | 78,478 409 | 4, 281,687 | 4,518,638 | 4.497,183 | 4,857,183 |
| Alberta...... | 398,295 | 409,570 | 20,405,750 | 21,457,863 | 22,667,881 | 23,862,564 |
| British Columbia | $3,723,877$ 7,629 | 3,696,459 | 296,883,313 | 272,860,148 | 347, 147, 390 | 316,723,587 |
| Yukon and N.W.T | 7,629 | 6,331 | 655,577 | 624,594 | 656,376 | 648,424 |
| Canada | 6,948,697 | 6,807,594 | 507,650,241 | 483,195,323 | 591,551,749 | 568,023,148 |

## 14.-Quantity and Value of Lumber Cut, by Kind, 1951 and 1952

| Kind of Wood | Quantity |  | Value |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 | 1951 | 1952 |
|  | M ft. b.m. | M ft. b.m. | \$ | 8 |
| Spruce. | 2,274,583 | 2,306,656 | 137,626,573 | 142,573,230 |
| Douglas fir | 1,778,048 | 1,742,677 | 143,413,098 | 132, 244, 365 |
| Hemlock. | 880,354 | 739,833 | $68,120,805$ | 55,601,867 |
| White pine. | 449,686 | 410,518 | 37,825,447 | 36,052,264 |
| Cedar. | 360, 919 | 373,758 | 39,635,595 | 31,537,656 |
| Yellow birch | 189,754 | 182,427 | 15,688,629 | 15,594,552 |
| Jack pine and lodgepole pine | 309,449 | 304, 135 | 17,018,456 | 18,307,302 |
| Maple. | 123,150 | 132,044 | 10,442,033 | 10,981,364 |
| Balsam fir | 173,007 | 204,289 | 10,534, 118 | 12,480,144 |
| Red pine. | 84,467 | 72,420 | 6,452,850 | 6,054, 162 |
| Other kinds | 325,280 | 338,837 | 20,892,637 | 21,768,417 |
| Totals. | 6,948,697 | 6,807,594 | 507,650,241 | 483,195,323 |

## 15.-Quantity and Value of Lumber, Shingles and Lath Produced, 1943-52

Nore.-Figures for 1908-42 are given in the corresponding table of previous Year Books, beginning with the 1931 edition.

| Year | Lumber Cut |  | Shingles Cut |  | Lath Cut |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | M ft. b.m. | \$ | Squares | 8 | M | 8 |
| 1943. | 4,363,575 | 151,899,684 | 2,565,752 | 10,020,804 | 114,029 | 554,278 |
| 1944. | 4,512,232 | 170,351,406 | 2,697,724 | 11,411,359 | 110,639 | 645,010 |
| 1945 | 4,514,160 | 181,045,952 | 2,665,432 | 11,737,224 | 117,731 | 752,245 |
| 1946. | 5.083,280 | 230,189,699 | 2,646,022 | 14,512,796 | 134,591 | 908,564 |
| 1947 | 5,877,901 | 322,048,356 | 3,107,248 | 24,449,305 | 151,151 | 1,239,824 |
| 1948. | 5,908,798 | 340,850,538 | 3,078,215 | 24,470,746 | 149,646 | 1,338,534 |
| 1949. | 5,915,443 | 334,789, 873 | 2,825, 261 | 19,568,633 | 129,895 | 1,136,208 |
| 1950 | 6,553,898 | 422,480,700 | 3,191,589 | 31,807,753 | 123,118 | 1,134,741 |
| 1951 | 6,948,697 | 507,650,241 | 2,982,362 | 27,977,418 | 104,872 | 1,042,196 |
| 1952 | 6,807,594 | 483,195,323 | 2,424,818 | 19,269,747 | 111,595 | 1,237,227 |

Lumber Exports.-Exports of planks, boards and square timber are given in Chapter XXII, Foreign Trade.

## Subsection 3.-The Pulp and Paper Industry*

The manufacture of pulp and paper has been the leading industry in Canada for many years and the post-war development of the industry has more than kept pace with the vast industrial growth of the nation. Pulp and paper stands first among all industries in value of production, in exports, in total wages paid and in capital invested. It is the largest consumer of electric energy and the largest industrial buyer of goods and services, including transportation, in the land. The industry has a newsprint output five times that of any other country and provides over onehalf the world's newsprint needs. Canada is also the world's greatest wood-pulp exporter and stands second only to the United States as a producer of pulp. Thus, this Canadian industry, with four-fifths of its output moving abroad, ranks as one of the major industrial enterprises of the world.

There are three classes of mills in the industry. In 1952, 34 were making pulp only, 26 were making paper only and 68 were combined pulp and paper mills.

[^155]The industry includes three forms of industrial activity: operations in the woods with pulpwood as a product, the manufacture of pulp and the manufacture of paper. Some of the important pulp companies operate sawmills to utilize the larger timber on their limits to the best advantage, and some lumber manufacturers divert a portion of their spruce and balsam logs to pulp-mills. Less than one-fifth of the pulpwood cut in Canada is exported in raw or unmanufactured form and a large portion of such exports is cut from private lands.
16.-Production, Consumption, Exports and Imports of Pulpwood, 1943-52

Note.-Figures for earlier years will be found in the corresponding table of previous Year Books.

| Year | Apparent Total Production of Pulpwood in Canada |  |  | Canadian Pulpwood Used in Canadian Pulp-Mills |  | Canadian Pulpwood Exported Unmanufactured |  | Imported Pulpwood Used in Canada |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity ${ }^{1}$ | Total Value | Average Value per Cord | Quantity ${ }^{1}$ | P.C. of <br> Total Production | Quantity ${ }^{1}$ | P.C. <br> Total Production | Quantity ${ }^{1}$ | P.C. of Total Con-sumption |
|  | cords | \$ | \$ | cords |  | cords |  | cords |  |
| 1943. | 8,801,368 | 110, 844,790 | 12.59 | 7,260,776 | 82.5 | 1,540,592 | 17.5 | 2,379 |  |
| 1944. | 8,668,566 | 124,363,926 | 14.35 | 7,169,430 | 82.7 | 1,499,136 | $17 \cdot 3$ | 8,209 | $0 \cdot 1$ |
| 1945. | 9,145,673 | 146,172,701 | 15.98 | 7,474,375 | 81.7 | 1,671,298 | $18 \cdot 3$ | 4,133 | $\cdots$ |
| 1946.. | 10,523,256 | 183,085, 359 | 17.40 | 8,667,875 | $82 \cdot 4$ | 1,855,381 | $17 \cdot 6$ | 16,881 | $0 \cdot 2$ |
| 1947.. | 11,484,522 | 237,488,741 | $20 \cdot 65$ | 9,500,542 | 82.7 | 1,983,980 | $17 \cdot 3$ | 50,508 | $0 \cdot 5$ |
| 1948. | 12,497,926 | 284, 656,819 | 22.78 | 10,180,580 | 81.5 | 2,317,346 | 18.5 | 75,969 | $0 \cdot 7$ |
| 19492. | 11,850, 254 | 270,697,980 | 22.84 | 10,237,976 | 86.4 | 1,612,278 | $13 \cdot 6$ | 5,491 |  |
| 1950.. | 12,873,476 | 285,762,620 | 22.20 | 11,138,578 | 86.5 | 1,734,898 | 13.5 | 28,220 | $0 \cdot 3$ |
| 1951.. | 15,053.910 | 381,920,846 | $25 \cdot 37$ | 12,182,737 | $80 \cdot 9$ | 2,871,173 | $19 \cdot 1$ | 46,634 | $0 \cdot 4$ |
| 1952.. | 14, 102,670 | 396,102,104 | 28.09 | 11,609,407 | $82 \cdot 3$ | 2,493,263 | 17.7 | 30,784 | 0. |

${ }^{1}$ Given in terms of rough or unpeeled wood.
${ }^{2}$ Newioundland included from 1949.
Pulp Production.-The manufacture of pulp, the second stage in this industry, is carried on by mills producing pulp only and also by paper manufacturers operating pulp-mills in conjunction with paper-mills to provide their own raw material. Such mills usually manufacture a surplus of pulp for sale in Canada or for export. Spruce, supplemented by balsam fir in the east and by hemlock in the west, is the most suitable species of wood for the production of all but the best classes of paper.

The preliminary preparation of pulpwood is frequently carried on at the pulpmill, but there are also a number of 'cutting-up' and 'rossing' mills operating on an independent basis, chiefly for the purpose of saving freight on material cut at a distance from the mill or on material intended for export. Pulpwood is measured by the cord ( $4^{\prime}$ by $4^{\prime}$ by $8^{\prime}$ of piled material). One cord of rough pulpwood contains approximately 85 cu . feet of solid wood, and one cord of peeled pulpwood 95 cu . feet.

Of the total 1952 pulp production, $74 \cdot 3$ p.c. was made in combined pulp- and paper-mills for their own use in manufacturing paper. The remainder was made for sale in Canada or for export. About 58 p.c. was groundwood pulp and almost 18 p.c. unbleached sulphite fibre, these being the principal components of newsprint paper. Bleached sulphite, bleached, semi-bleached and unbleached sulphate, soda fibre, semi-chemical, other grades and groundwood and chemical screenings made up the remainder. A considerable market has developed for screenings in connection with the manufacture of rigid insulating boards.

The manufacture of the $8,968,009$ tons of pulp produced in 1952 entailed the use of $11,640,191$ cords of rough pulpwood valued at $\$ 334,824,403$ and the equivalent of 317,556 rough cords of other wood (i.e., sawmill chips, slabs and edgings, sawdust, butt cores, etc.) valued at $\$ 8,242,632$. The total value of materials used in the manufacture of pulp was $\$ 389,372,852$.

## 17.-Pulp Production, Mechanical and Chemical, 1943-52

Notz.-Figures for earlier years will be found in the corresponding table of previous Year Books.

| Year | Mechanical Pulp |  | Chemical Fibre |  | Total Production ${ }^{\text {1 }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | tons | \$ | tons | \$ | tons | \$ |
| 1943. | 2,998,913 | 63,426,919 | 2,188, 026 | 130,010,210 | 5,272,830 | 194,519,152 |
| 1944. | 3,076,296 | 71,668,673 | 2,109,169 | 138, 140, 452 | 5,271,137 | 211,041,412 |
| 1945 | 3,341,920 | 86,375,001 | 2,154,267 | 144,084,969 | 5,600,814 | 231, 873, 123 |
| 1946 | 3,997, 848 | 111, 514, 231 | 2,427,087 | 172,756,674 | 6,615,410 | 287,624,227 |
| 1947 | 4,275,269 | 147,423,552 | 2,755,977 | 251, 273, 372 | 7,253,671 | 403, 853, 235 |
| 1948 | 4,413,513 | 168,343,496 | 2,997, 281 | 310,338,614 | 7,675,079 | 485, 966, 164 |
| $1949{ }^{2}$ | 4,718,806 | 166,591,741 | 2,891,418 | 272,355,430 | 7,852,998 | 445, 138,494 |
| 1950. | 4,910, 803 | 173,035, 433 | 3,314,250 | 323,330,963 | 8,473,014 | 502,583,925 |
| 1951 | $5,172,465$ | 213,953, 064 | $3,814,086$ | 503,997,803 | 9,314,849 | 727,880,005 |
| 1952. | $5,175,319$ | 217,352,245 | 3,518,127 | 423,789,033 | 8,968,009 | 650,021,180 |

${ }^{1}$ Includes screenings and unspecified pulps.
${ }^{2}$ Newfoundland included from 1949.

## 18.-PuIp Production, by Chief Producing Provinces, 1943-52

Note.-Figures for earlier years will be found in the corresponding table of previous Year Books.

| Year | Quebec |  | Ontario |  | Canada ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | tons | \$ | tons | \$ | tons | $\$$ |
| 1943. | 2,617,403 | 94,054,176 | 1,490,966 | 54,818,046 | 5,272,830 | 194,519,152 |
| 1944 | 2,767,081 | 105,042,991 | 1,316,365 | 54, 934,993 | 5,271,137 | 211,041,412 |
| 1945 | 2,887,176 | 114,197,036 | 1,468,682 | $62,596,260$ | 5,600,814 | 231, 873,122 |
| 1946 | 3,460,853 | 140,930,891 | 1,837,975 | 84,049,038 | 6,615,410 | 287,624,227 |
| 1947 | 3,751,579 | 194, 805, 327 | 2,100, 237 | 122,382,058 | 7,253, 671 | 403,853,235 |
| 1948 | 3,902,072 | 227,425,545 | 2,226,124 | 153, 870,832 | 7,675,079 | 485,966,164 |
| 1949 | 3,698,401 | 196,568,691 | 2,138,444 | 140,662,434 | 7,852,998 ${ }^{2}$ | 445, 138,494 ${ }^{2}$ |
| 1950 | 3,922,543 | 216, 299,900 | 2,297,518 | 156,390,753 | 8,473,014 | 502,583,925 |
| 1951. | 4,282,568 | 298, 100,313 | 2,484,551 | 219,571,231 | 9,314,849 | 727,880,005 |
| 1952. | 4,192,047 | 280,314,341 | 2,308,722 | 182,773,000 | 8,968,009 | 650,021,180 |

${ }^{1}$ Includes production in British Columbia, Manitoba, New Brunswick and Nova Scotia. ${ }^{2}$ Newfoundland included from 1949.

Pulp Exports.-The chief market for Canadian newsprint and pulp is the United States. Prior to the War this market alone absorbed about 85 p.c. of the pulp exports and 80 p.c. of the newsprint exports. In 1945, the proportions were 76 p.c. and 83 p.c., respectively, and in 1952,82 p.c. and 91 p.c., respectively.

## 19.-Exports of Pulp to the United Kingdom, United States and All Countries, 1943-52

| Year | United Kingdom |  | United States |  | All Countries |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | tons | \$ | tons | 8 | tons | \$ |
| 1943. | 263,392 | 17,349,975 | 1,269,043 | 80,969, 868 | 1,556,457 |  |
| 1944. | 292.808 290.885 | $21,393,993$ $22,276,514$ | $1,077,811$ $1,093,631$ | $77,081,637$ $79,589,366$ | $1,408,081$ $1,434,527$ | $101,563,024$ $106,054,911$ |
| 1945 | 290,885 119,973 | $22,276,514$ $10,122,012$ | $1,093,631$ $1,252,648$ | $79,589,366$ $99,972,972$ | $1,434,527$ $1,418,558$ | $106,054,911$ $114,020,659$ |
| 1947 | 136,976 | 14,741,287 | 1,499,302 | 156,121,526 | 1,698,712 | 177, 802,612 |
| 1948 | 170,227 | 21,359,288 | 1,591,043 | 184,983,027 | 1,797,998 | 211,564,384 |
| 19491 | 181,828 | 20,137,715 | 1,305,334 | 141,641, 380 | 1,557,348 | 171,504, 163 |
| 1950. | 117,921 | 13,128,894 | 1,694,444 | 191,005,507 | 1,846,143 | 208,555,549 |
| 1951. | 217,250 | 37,770,627 | 1,831,410 | 276,760,578. | 2,243,307 | 365,132,884 |
| 1952. | 210,285 | 35,208,295 | 1,588,978 | 225,082,376 | 1,940,579 | 291,863,498 |

[^156]World Pulp Statistics.-Figures of production, exports and imports of pulp for certain countries of the world have again become available after the interruption caused by World War II and are shown for 1952 in Table 20. It is estimated that these countries produce approximately three-quarters of the world supply of pulp.

## 20.-Production, Exports and Imports of PuIp, by Leading Countries, 1952

(Source: United States Pulp Producers Association)

| Country | Production | Exports | Imports |
| :---: | :---: | :---: | :---: |
|  | '000 tons | '000 tons | '000 tons |
| Canada. | 8,8971 | 1,941 | 55 |
| United States. | 16,464 | 212 | 1,938 |
| Finland.. | 2,071 | 949 | - |
| Norway. | 1,191 | - 590 | 8 |
| Sweden.. | 3,379 | 1,797 | - |

${ }^{1}$ Slightly lower than DBS figures given in Table 17, p. 466, owing to the exclusion of certain types of pulp by the Association.

Paper Production.-During 1952 there were 94 establishments producing paper and paper board in Canada as compared with 92 in 1951. In addition to newsprint, Canadian mills have a highly developed production of fine paper, wrapping paper, tissues, paper board and other cellulose products.

## 21.-Paper Production, by Type, 1943-52

Note.-Figures for earlier years will be found in the corresponding table of previous Year Books.

| Year | Newsprint Paper |  | Book and Writing Paper |  | Wrapping Paper |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | tons | \$ | tons | \$ | tons | 8 |
| 1943. | 3,046,442 | 152,962,868 | 122,174 | 19,047,039 | 145,545 | 15,614,453 |
| 1944. | 3,039,783 | $165,655,165$ | 155,498 | 23, 700, 310 | 156,721 | 16,699,663 |
| 1945 | 3,324,033 | 189,023,736 | 162,198 | 24,468,409 | 162,175 | 17,558,552 |
| 1946 | 4,162,158 | 280, 809,610 | 189,318 | 29,995,156 | 175,369 | 20,797,070 |
| 1947. | $4,474,264$ $4,640,336$ | $355,540,669$ $402,099,718$ | 210,762 231,608 | $39,727,187$ $45,178,968$ | $\begin{array}{r}188,742 \\ 207,128 \\ \hline\end{array}$ | $26,009,996$ $31,036,805$ |
| 19491 | 5,187,206 | 467,976,343 | 199,317 | 40,598,820 | 195,585 | 30,033,478 |
| 1950. | 5,318,988 | 506,968,207 | 214,097 | 47,356,410 | 222,840 | 37,776,291 |
| 1951. | 5,561,115 | 564,361,193 | 253,081 | 63,790, 259 | 257,332 | 49,664,005 |
| 1952........... | 5,707,030 | 600,515,960 | 229,061 | 57,644,636 | 222,529 | 45,356,720 |
|  | Paper Boards |  | Tissue and Miscellaneous Paper |  | Totals |  |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | tons | \$ | tons | \& | tons | $\$$ |
| 1943. | 568, 101 | 37,528,257 | 84,082 | 8,883,535 | 3, 366,344 | 234,036, 152 |
| 1945 | 595,131 | 39,091,667 | 104,026 | 10,399,036 | 4,044,376 | 255, 545, 841 |
| 1946 | 633,613 | 50,213,833 | 116.039 136.6 | $11,6: 6,045$ $15,140,721$ | $4,359,576$ $5,347,118$ | $282,837,614$ $396,956,390$ |
| 1947 | 744,377 | 66,126,302 | 156.937 | 19,697,123 | 5,775,082 | 507,101,277 |
| 1948 | 817,432 | 80, 861,700 | 167,142 | 23,166.651 | 6,063,616 | 582,346, 842 |
| 19491 | 797,023 | 80, 632,075 | 16), 838 | 22, 219,122 | 6, 539,863 | 641,459,838 |
| 1950 | 876, 894 | 92,531,711 | 179,216 | 25, 521,207 | 6,812,035 | 710,153,826 |
| 1952. | 961,493 870,204 | $113,469,950$ $105,885,677$ | 193, 250 | 32,744, 242 | 7, 225,271 | 824,029,619 |
|  | 870,204 | 105,885,677 | 172,976 | 2S,702,185 | 7,201,800 | 838,105,108 |

## ${ }^{1}$ Newioundland included from 1949.

Quebec produced nearly 49 p.c. of the total paper made in 1952, Ontario over 27 p.c., British Columbia almost 8 p.c. and Nova Scotia, New Brunswick, Manitoba and Newfoundland the remaining 16 p.c.
22.-Paper Production, by Province, 1951 and 1952

| Province | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value |
|  | tons | \$ | tons | 8 |
| Quebec.. | 3,511,669 | 339,554,493 | 3,515,193 | 400,666,379 |
| Ontario ......... | 3,019,235 | 251,918,611 | 1,963,403 | 246, 215,714 |
| British Columbia.......................... | 513,165 | 59,763,061 | 540,140 | 62,261,263 |
| Nova Scotia, New Brunswick, Manitoba and Newfoundland. | 1,181,202 | 122,793,484 | 1,183,064 | 128,964,752 |
| Totals. | 7,225,271 | 824,029,649 | 7,201,800 | 838,105,108 |

Exports of Newsprint.-Total exports of newsprint from Canada in the years 1943-52 are given in Table 23.
23.-Exports of Newsprint to the United Kingdom, United States and All Countries, 1943-52

| Year | United Kingdom |  | United States |  | All Countries |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | tons | \$ | tons | \$ | tons | \$ |
| 1943. | 30,427 | 1,773,834 | 2,544,691 | 129,787,019 | 2,810,288 | 144,707,064 |
| 1944. | 41,908 | 2,557,791 | 2,408,960 | 133,398,724 | 2,805,776 | 157, 190,834 |
| 1945. | 105,648 | 6,564,645 | 2,533,564 | 146,507,805 | 3,058,946 | 170,450,771 |
| 1946. | 84,888 | 5,954,814 | 3,323,238 | 224,782,463 | 3,858,467 | 265,864,969 |
| 1947 | 55,520 | 4,623,491 | 3,675,349 | 291, 892,729 | 4,220,779 | 342,293,158 |
| 1948 | 60,690 | 5,319,660 | 3,917,366 | 340,334,045 | 4,328,184 | 383,122,734 |
| 1949. | 108,213 | 9,930,070 | 4,346,414 | 395, 259,575 | 4,789,296 | 440, 054,067 |
| 1950 | 19,095 | 1,861,980 | 4,724,937 | 463,155,927 | 4,938,069 | 485, 746,314 |
| 1951. | 72,205 | 7,488,187 | 4,774,947 | 496,852,197 | 5,112,061 | 536,372,498 |
| 1952. | 131,005 | 14,575,722 | 4,850,962 | 534,372,859 | 5,327,430 | 591,790,209 |

${ }^{1}$ Newfoundlaṇd included from 1949.
World Newsprint Statistics.-Since 1913, Canada has led the world in the export of newsprint. Figures for the leading producing countries for the two latest years available are given in Table 24; 1939 figures are included for comparative purposes. The six countries listed accounted for 80 p.c. of the estimated world production in 1952, Canada contributing about 54 p.c.

## 24.-Estimated World Newsprint Production and Exports, by Leading Countries, 1939, 1951 and 1952

(Source: Newsprint Association of Canada)

| Country | Production |  |  | Exports |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1939 | 1951 | 1952 | 1939 | 1951 | 1952 |
|  | '000 tons | '000 tons | '000 tons | '000 tons | '000 tons | '000 tons |
| Canada (Including Newfoundland).. | 3,175 | 5,516 ${ }^{1}$ | 5,6871 | 2,935 | 5,112 | 5,666 |
| United States........................... | 939 | 1,125 | 1,147 | ${ }^{13}$ | 71 | 104 |
| United Kingdom.......................... | 848 | 590 | ${ }^{601}$ | $\begin{array}{r}42 \\ 43 \\ \hline\end{array}$ | 106 | 82 434 |
| Finland.... | 550 | 454 | 480 | 433 | 415 | 434 |
| Sweden. | 306 | 365 | 365 | 199 | 222 | 240 |
| Norway............................... | 222 | 180 | 167 | 188 | 145 | 138 |

[^157]Statistics of the Combined Pulp and Paper Industries.*-The manufacture of pulp, the manufacture of paper and the manufacture of products made of paper may, under certain conditions, be treated as three industries, for they are frequently carried on in separate plants by entirely independent companies. The manufacture of basic stock and the converting of this paper into stationery and other highly processed paper products are often combined in one plant. This further converting of paper within the pulp and paper industry itself represents only a small part of Canada's production of converted paper and boards, the bulk of which is still made in special converting mills classified in other industrial groups.

The presence of these different combinations in one mill makes it difficult to separate many of the statistics relating to the manufacture of pulp, basic paper and converted paper products. All converting operations carried on in paper mills in this industry are attributed to the particular industrial group of converting plants to which they properly belong. Including manufacturing operations as far as the basic paper-making stage, there were altogether 128 mills in operation in 1952. The employees numbered 57,803 and their salaries and wages amounted to $\$ 225,353,327$. If the pulp made for their own use in combined pulp and paper mills is disregarded, the total value of materials and supplies used in the industry as a whole can be considered as amounting to $\$ 497,046,828$ in $1952, \$ 483,014,009$ in 1951 , and $\$ 373,882,762$ in 1950 ; the gross value of production as $\$ 1,157,887,657$ in $1952, \$ 1,237,897,470$ in 1951, $\$ 954,137,651$ in 1950; and net value of production, $\$ 584,101,072$ in 1952, $\$ 679,257,743$ in 1951 and $\$ 511,142,983$ in 1950.

The pulp and paper industry is one of the leading single manufacturing industries in Canada. In 1952, it was first in net value of production, in gross value of production and in salaries and wages paid, and second in employment. Only the manufacturing stages of the industry are considered in these comparisons, no allowance being made for capital invested, men employed, wages paid or primary products sold in connection with the woods operations. These form an important part of the industry as a whole but cannot be separated from woods operations carried on in connection with sawmills and other industries. In world trade, generally speaking, pulp and paper are Canada's main commodities-usually more important than wheat and far more important than nickel. Newsprint alone, over a considerable period, has brought Canada more export dollars than wheat, nickel or any other single commodity. $\dagger$ The United States market absorbs, annually, about 85 p.c. of all pulpwood exports and over 80 p.c. of the pulp and the paper shipments of Canada. About one-half of the paper consumed in the United States is either of Canadian manufacture or is made from wood or pulp imported from Canada.

## Subsection 4.-The Veneer and Plywood Industries $\ddagger$

The production of hardwood plywood in Canada is largely confined to the eastern provinces. The changes in manufacturing methods applied to hardwood plywood have resulted in its adaptation to many new uses, particularly to attractive wall finishes for homes and other buildings, flush doors, radio and television cabinets and other home and office furniture.

[^158]Softwood plywood is produced almost solely in British Columbia. Douglas fir is the type most commonly manufactured because of the availability of largediameter logs of this species from which large sheets of clear veneer can be obtained. The use of synthetic resin adhesives is responsible for the production of a product that has become almost indispensable to the construction industry-for wall panels, concrete forms, roofing, sheeting, house sub-floors; for construction of silos, cribs and caissons; for box-car linings, bus bodies, trailers, power-driven and other types of watercraft; for box panels and crate linings, case goods and core-stock for furniture; for plywood-faced doors and for many other uses.

The heating of glued veneers in moulds by high-frequency electric fields (dielectric heating) permits the manufacture of shaped plywood, which is now being used for furniture, radio cabinets and similar products. The possibilities of this development are becoming more widely appreciated.

Veneers of Canadian manufacture are not confined to species native to Canada. A number of imported woods of special decorative value are veneered successfully and provide the furniture industry with a wide choice of finishes. Exports of veneer and plywood produced in Canada have increased in value from $\$ 969,256$ in 1938 to a high of $\$ 19,024,625$ in 1953.
25.-Veneer and Plywood Produced for Sale, by Type, 1949-52

| Type | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: |
| Veneer ( $1 / 10 \mathrm{in}$. Basis)- |  |  |  |  |
| Domestic softwood.............. M sq. $\mathrm{ft}^{\text {ft. }}$ | $\begin{array}{r} 139.092 \\ 1,507,973 \end{array}$ | $\begin{array}{r} 194,845 \\ 2,008,510 \end{array}$ | $\begin{array}{r} 331,148 \\ 3,466,307 \end{array}$ | $\begin{array}{r} 185,654 \\ 2,343.415 \end{array}$ |
| Domestic hardwood. . . . . . . . . . M sq. ft. | $\begin{array}{r} 156,462 \\ 3,997,363 \end{array}$ | $\begin{array}{r} 164,719 \\ 5,483,890 \end{array}$ | $\begin{array}{r} 203,521 \\ 7,350,044 \end{array}$ | $\begin{array}{r} 217,550 \\ 8,863,025 \end{array}$ |
| Imported wood. . . . . . . . . . . . . M sq. $\mathrm{sq}_{\text {. }} \mathrm{ft}$ | $\begin{array}{r} 6,595 \\ 481,303 \end{array}$ | $\begin{array}{r} 16,546 \\ 1,359,118 \end{array}$ | $\begin{array}{r} 16,406 \\ 1,442,139 \end{array}$ | $\begin{array}{r} 9,547 \\ 792,763 \end{array}$ |
| Totals, Vencer $\qquad$ Msq.f. | $\begin{array}{r} 302,149 \\ 5,986,639 \end{array}$ | $\begin{array}{r} 376,110 \\ 8,851,518 \end{array}$ | $\begin{array}{r} 551,075 \\ 12,258,490 \end{array}$ | $\begin{array}{r} 412,751 \\ 11,999,203 \end{array}$ |
| Plywood (1/4 in. Basis)- <br> Domestic softwood. $\qquad$ | $\begin{array}{r} 360,389 \\ 19,749,658 \end{array}$ | $\begin{array}{r} 389,010 \\ 22,860,818 \end{array}$ | $\begin{array}{r} 482,626 \\ 34,047,694 \end{array}$ | $\begin{array}{r} 464,417 \\ 32,418,606 \end{array}$ |
| Domestic hardwood $\qquad$ Msq. ft. | $\begin{array}{r} 70,583 \\ 8,082,851 \end{array}$ | $\begin{array}{r} 93,552 \\ 11,888,675 \end{array}$ | $\begin{array}{r} 95,610 \\ 13,078,960 \end{array}$ | $\begin{array}{r} 126,007 \\ 16,131,288 \end{array}$ |
| Imported wood............................. sq. it. | $\begin{array}{r} 3,246 \\ 637,170 \end{array}$ | $\begin{array}{r} 2,386 \\ 620,925 \end{array}$ | $\begin{array}{r} 5,247 \\ 1,523,694 \end{array}$ | $\begin{array}{r} 4,614 \\ 1,359,621 \end{array}$ |
| Totals, Plywood........ M sq. ft. | $\begin{array}{r} 434,218 \\ 28,469,679 \end{array}$ | $\begin{array}{r} 484,948 \\ \mathbf{3 5 , 3 7 0 , 4 1 8} \end{array}$ | $\begin{array}{r} 583,483 \\ 48,650,348 \end{array}$ | $\begin{array}{r} 595,038 \\ 49,909,515 \end{array}$ |

## Subsection 5.-The Wood-Using Industries

The wood-using group comprises thirteen industries,* other than sawmills and pulp mills, using wood as their principal raw material. Most of these industries obtain from the sawmills the wood they transform into planed and matched lumber, boxes, barrels, furniture, caskets and other manufactured or semi-manufactured products, but the veneer and plywood and excelsior industries usually manufacture their products direct from logs and bolts.

[^159]This wood-using group does not include every industry into which wood enters as a raw material but only those producing commodities whose chief component is wood. There are a number of industrial groups in which wood is an important raw material, such as the manufacture of agricultural implements, musical instruments, etc., and others, such as the manufacture of machinery, in which wood is necessary but only in comparatively small proportions.

Wood is used indirectly in the manufacture of all-metal products, as, for example, in the use of wooden patterns and wooden foundry boxes in making metal castings. Wood in the form of barrels, boxes and other containers also enters into the distribution of commodities of all kinds.

In 1952, the wood-using group, comprising 4,184 establishments, gave employment to 69,537 persons and paid out $\$ 163,890,274$ in salaries and wages. The gross value of its products was $\$ 599,606,383$ and the net value $\$ 272,829,694$.

The importance of secondary industry in providing employment will be appreciated when it is noted that the number of employees in the wood-using group was more than 69,000 , as compared with sawmills with approximately 61,000 employees and pulp and paper with about 58,000 in 1952.
26.-Wood Used by Wood-Using Industries, 1950-52

| Item | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: |
| Sawn lumber. . . . . . . . . . . . . . . . . . . . . . . . . M ft. b.m. | $\begin{array}{r} 1,893,861 \\ 120,604,966 \end{array}$ | $\begin{array}{r} 1,981,239 \\ 138,846,528 \end{array}$ | $\begin{array}{r} 2,049,314 \\ 145,056,681 \end{array}$ |
| Sawlogs, veneer logs, flitches.................. M it. b.m. | $\begin{array}{r} 274,275 \\ 18,393,062 \end{array}$ | $\begin{array}{r} 316,517 \\ 26,015,465 \end{array}$ | $\begin{array}{r} 312,421 \\ 26,100,966 \end{array}$ |
|  | $\begin{array}{r} 274,627 \\ 17,087,654 \end{array}$ | $\begin{array}{r} 267,000 \\ 19,314,591 \end{array}$ | $\begin{array}{r} 302,971 \\ 20,537,175 \end{array}$ |
| Other wood used.............................. \$ | 3,959,258 | 4,101,186 | 4,480,753 |
| 'Totals................................. \$ | 160,014,940 | 188,277,770 | 196,175,575 |

## Subsection 6.-The Paper-Using Industries

The paper-using group comprises three industries* engaged primarily in manufacturing commodities of paper and paperboard. Establishments engaged in printing, publishing, bookbinding and the allied graphic arts also consume large quantities of these materials, but, under the standard industrial classification adopted by the Dominion Bureau of Statistics in 1948, they are grouped separately.

Some paper-using establishments purchase paper as a raw material from the pulp and paper industry and merely subject it to some form of treatment to fit it for further manufacture in some other industry. This occurs in the manufacture of coated, sensitized or corrugated paper. Other firms purchase paper and subject it to some treatment to fit it for some definite final use such as in the manufacture of asphalt roofing or waxed wrapping paper. Another large group uses paper and paperboard as a raw material for conversion into paper bags, boxes, envelopes, laminated wallboard and other commodities.

[^160]In recent years the manufacture of containers and packages of various kinds has grown very rapidly since ways have been found of converting tough and cheap paper stocks into strongly made boxes which compete very favourably with the wooden crates and packing cases used formerly. Small attractive paper containers for use in the retail trade are growing in favour with the purchasing public and constitute an important branch of the paper-using industries.

Composition roofing and sheathing, consisting of paper felt saturated with asphalt or tar and in some cases coated with a mineral surfacing, is being increasingly used as a substitute for metal roofing, wooden shingles and siding materials. Woodfibre building boards, some of which are produced by lamination in the paper-using industries, are now used extensively in construction, especially for insulating purposes, replacing lumber and wood.lath.

The growth of the paper-using industries in Canada since 1923 reflects these developments. In 1923, the 152 establishments in this group employed 6,870 persons, distributed $\$ 7,442,102$ in salaries and wages and produced goods valued at $\$ 31,760,948$. In 1952, these industries comprised 415 plants, provided employment for 25,162 persons whose earnings totalled $\$ 67,328,956$ and produced products worth $\$ 352,261,134$.

## Subsection 7.-Printing, Publishing and Allied Industries

The printing trades group is made up of five closely related industries: printing and publishing, comprised of publishers who operate printing plants; printing and bookbinding, including general or commercial printers and bookbinders; lithographing, comprised of plants specializing in that process; engraving, stereotyping and electrotyping, including photo-engraving; and trade composition or type-setting for printers. A sixth industry covering publishers of periodicals who do not print their publications has been included since 1949. Although, strictly speaking, these publishers are not manufacturers, they are closely related to the printing trades which produce the plates, cuts, etc., and print newspapers, magazines, directories, year-books, almanacs, house organs and other periodicals for them.

In 1952, the printing trades employed 59,916 persons whose earnings totalled $\$ 177,373,133$. Their output was valued at $\$ 449,508,758$ and the raw materials used and services received cost $\$ 138,809,747$.

Periodicals valued at $\$ 184,719,634$ accounted for 45 p.c. of the value of printed matter and other products, daily newspapers alone contributing $\$ 132,531,769$. The value of periodicals is made up of $\$ 130,160,344$ received from advertising and $\$ 54,559,290$ received from subscriptions and sales of publications. In addition, the 1,405 publishers in the sixth industry reported revenues of $\$ 26,888,494$ from advertising and $\$ 8,710,218$ from sales of publications.

## CHAPTER XI.-MINES AND MINERALS

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Section 6. World Production of Certain Metallic Minerals and Fuels.

Nore.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

## Section 1.-Canada's Mineral Resources

The tremendous expansion that has taken place in Canada's mineral industry from the end of World War II to 1951 is reviewed in the 1952-53 Year Book, pp. 476-495. The information is brought up to June 1953 in the 1954 Year Book, pp. 482-506, and is continued to June 1954 in the following article.

## DEVELOPMENTS IN CANADA'S MINERAL INDUSTRY, JULY 1953 TO JUNE 1954*

In 1953, three years after it had attained the billion dollar goal in the annual value of its output, Canada's mineral industry had covered one-third of the intervening distance to a new goal of two billion dollars, preliminary value of output in 1953 being $\$ 1,331,211,503$. Whether this rate of growth would continue, and the industry would reach this new goal in another six years, was somewhat uncertain at the close of the present review period (June 1954). Year by year since 1944 when the output was valued at $\$ 485,819,114$ the industry has been setting new records. Rising metal prices have contributed notably during the post-war period to the annual production increases. Copper, for instance, rose from an average of $12 \cdot 67$ cents a pound in 1946 to a post-war peak average of 29.93 cents in 1953 ; nickel from 31.50 cents to 55.87 cents in the same period; zinc from 7.81 cents in 1946 to a post-war peak average of 19.90 cents in 1951; and lead from 6.75 cents to 18.40 cents in the same period. The main contributing factor, however, has been the increase in crude-oil production following the discovery of the Leduc field

[^161]in Alberta in February 1947. The developments that followed resulted in an increase in the value of crude-oil production from $\$ 14,989,052$ in 1946 to a record $\$ 198,111,542$ in 1953. Actually, with the major exceptions of gold and coal, all branches of the mineral industry have shared in the post-war expansion.

However, there has been some slowing in the tempo of activity. The prices of lead and zinc have declined $5 \cdot 23$ cents and $7 \cdot 94$ cents a pound, respectively, from the post-war peak averages of 1951 and this has led to a curtailment of operations at several properties. Production of iron ore, asbestos, and coal was declining in the closing months of the review period, July 1953-June 1954. Also, many of the projects connected with the pre-production development of mineral deposits, such as the construction of the 360 -mile railway to connect the QuebecLabrador iron-ore deposits with the port of Sept Iles, are now completed or are nearing completion and the stimulus they provided in mining expansion has largely spent its force.

Thus, the outlook for the mineral industry was less bright at the end of the review period than it had been the previous year or two, though it was far from unfavourable. Some monthly production figures have been rising, others declining, but the over-all productive potential of the industry has been increasing steadily. Crude oil pipelines and related facilities completed or under construction will be capable of handling $600,000 \mathrm{bbl}$. daily, close to three times the present rate of output. Moreover, the known reserves are considered to be sufficient to maintain this higher rate for many years. Within a decade Canada will be capable of producing $30,000,000$ or more tons of iron ore a year compared with the output of $6,501,060$ tons in 1953. The base-metal industry has undergone notable improvement as a result of recent discoveries and of expenditures totalling upwards of $\$ 300,000,000$ during the past several years in plant extension and in the construction of new units. Completion of a project at Winnipeg and another near Quebec City will give the cement industry a total capacity of $25,700,000 \mathrm{bbl}$. a year, compared with $22,500,000 \mathrm{bbl}$. early in 1953 . There has been a corresponding increase in the productive capacity of the asbestos industry as a result of mill construction and the development of new deposits. In the search for oil on the western plains tremendous quantities of natural gas are being disclosed, part of which will be flowing eastwards to Ontario and Quebec within a few years should present plans materialize.

The fact is that in the past ten to fifteen years Canada has been finding it has a mineral estate richer by far in resources than had been previously estimated. The development of this estate is still in a comparatively early stage, for as yet large areas remain wholly unexplored, or have been only partly explored for minerals. The development is being expedited by the use of air transportation in the outlying areas and by the demonstrated willingness of mining and exploration companies to take the necessary risks in expending large amounts on the search for and development of deposits.

The potentialities of this expanding mineral estate are indeed great and, although the aforementioned goal of two billion dollars is possibly more than six years away, it is by no means visionary. The indications are that iron-ore output alone will have reached a value of $\$ 400,000,000$ a year within a decade and that crude petroleum may equal or even exceed that amount. Actually, a combined value of a billion dollars a year for the two minerals does not appear far distant. Metal production, exclusive of iron ore, has already reached nearly $\$ 700,000,000$ in
annual value and a substantial increase in demand and the resultant higher prices could well raise this amount by 10 to 20 p.c., taking into account the increasing productive potential of the metal-mining industry. The non-metallic minerals exclusive of crude oil and natural gas but including coal, were valued at $\$ 413,785,000$ in 1953 and, again, the industries concerned are capable of considerably larger output than at present. Figures on the value of output of uranium are not published but it is evident from recent developments and from the interest being shown in the search for deposits that Canada's position as a leading source of supply is assured for years to come. This is particularly important in view of the developing uses of atomic energy in industry.

The following articles on the metals, the industrial minerals, crude petroleum and natural gas, and coal that follow, shed much further light on the potentialities of the mineral industry and provide informative accounts of the principal developments during the review period. They do not, however, deal with developments in Yukon Territory and the Northwest Territories as these are covered separately at pp. 24-25.

## The Metals

Probably the most noteworthy developments in metal mining during the review period were the completion of the 360 -mile railway into northern QuebecLabrador which opens the way to the establishment of a great new iron-ore industry in Canada, and the discovery of important base-metal deposits in the Manitouwadge area north of Lake Superior in northwestern Ontario. Of great significance, too, were the strides made by Gaspe Copper Mines Limited in building up a new coppermining operation in Gaspe, which is expected to get under way late in 1954, and the marked growth in iron-ore mining operations in the Steep Rock area of northwestern Ontario.

Production of metals in 1953 declined $\$ 19,000,000$ from the 1952 value to $\$ 708,913,000$, because of lower lead and zinc prices and of prolonged labour strikes in the Porcupine gold camp of Ontario and in the Noranda area of Quebec. However, the results of an enhanced production potential were seen, in part, in the increase of 23 p.c. in the volume of output of iron ore during 1953 , of 20 p.c. in silver output, 17 p.c. in lead, 7 p.c. in zinc and 2.4 p.c. in nickel. Several new sources of metal production were opened up. Manitoba joined the list of nickel producers with the entry into production of the Lynn Lake nickel-copper deposits. In northern Saskatchewan the commencement of production at the Crown-owned Ace-Fay property in the Beaverlodge area served to underline Canada's importance as a producer of uranium. In Quebec, the first production of copper and gold came from the Chibougamau area with the start of operations by the Opemiska Copper Mines (Quebec) Limited. Meanwhile, in northeastern New Brunswick developments in the Bathurst area point to the eventual establishment of a large-scale base-metals industry.

Accounts of developments in metal mining on a regional basis follow.
British Columbia.-British Columbia with its great wealth of minerals is Canada's second largest metal-producing province. Although declines in the prices of lead, zinc and gold have caused a temporary slackening in metal-mining activity, interest in the Province's mineral potentialities has remained at a high level as evinced by the widespread exploration being carried on, particularly in northern areas, and by various developments under way, such as the steady building up of substantial tungsten and iron-ore industries.

British Columbia's wealth of water-power resources is playing a vital role in the expansion of metal-mining activity in the Province. This is readily seen in the scope of operations of the Consolidated Mining and Smelting Company of Canada Limited, the Province's metal-mining giant, which now has a total output of 400,000 h.p. The latest addition to its hydro power was made by the Company in March 1954 when it set into operation the first two units, of $105,000 \mathrm{~h} . \mathrm{p}$. each, of its new $\$ 35,000,000$ Waneta power plant on the Pend d'Oreille River. The availability of water-power resources has also made possible the huge Kitimat aluminum project, where initial production started in 1954. A projected use of these same resources which will greatly benefit metal mining both in the Province and elsewhere is planned by Frobisher Limited and Quebec Metallurgical Industries Limited. These companies have been surveying the water-power resources of Yukon Territory and northern British Columbia and plan on establishing metallurgical industries in those northern areas for the treatment of ores from Canadian and world-wide sources.

British Columbia in 1953 accounted for 78 p.c. of the Canadian tonnage of lead produced and 47 p.c. of the zinc. Most of the output comes from the Sullivan mine of Consolidated Mining and Smelting Company near Kimberley, the largest lead-zinc-silver mine in the world. The Company is Canada's largest producer of silver and the only Canadian producer of antimony, indium and tin. It also produces bismuth and cadmium as by-products. The remainder of the Province's metal output is comprised mainly of copper, gold, iron ore and tungsten.

The continued decline in lead and zinc prices resulted in a steady decrease in the value of British Columbia's mineral output from a record $\$ 176,279,000$ in 1951 to $\$ 160,741,000$ in 1953. Eighteen producers have suspended operations; several have reduced operations considerably, one of these-Canadian Exploration Limitedhaving cut the milling rate at its Jersey mine by one-half; and several have postponed opening up new properties pending an improvement in the lead and zinc prices. Despite this, the Province's output of lead increased $48,000,000 \mathrm{lb}$. over 1952 to $307,178,000 \mathrm{lb}$. in 1953 , and zinc increased $27,000,000 \mathrm{lb}$. to $375,538,000 \mathrm{lb}$. Values, however, were down, lead declining almost $\$ 1,500,000$ to $\$ 40,471,000$ and zinc $\$ 16,000,000$ to $\$ 44,914,000$. On Jan. 1, 1954, Consolidated Mining and Smelting Company reduced its production of refined zinc by 25 p.c.

On the brighter side, copper, iron ore and tungsten all showed increased tonnages and values of output in 1953 and strong possibilities for continued growth. Copper production comes from the Granby Consolidated Mining, Smelting and Power Company Limited in the Yale district near Princeton, and from Britannia Mining and Smelting Company Limited, north of Vancouver. Interesting copper deposits are being explored and developed in the northwestern part of the Province in the Unuk area, 20 miles north of Premier, and in the areas east and north of Vancouver.

An important iron-ore industry is taking shape on Vancouver and Texada Islands. Production, all of which is shipped to Japan, comes from the Iron Hill mine of the Argonaut Company Limited, the larger producer, and from three deposits of Texada Mines Limited on Texada Island. Output in 1953 amounted to 988,000 tons valued at $\$ 6,745,000$, compared with 900,000 tons valued at $\$ 5,444,000$ in 1952.

The Province is now a leading producer of tungsten concentrates: its output in 1953 was $2,336,000 \mathrm{lb}$., an increase of 63 p.c. over the 1952 figure. Production comes mainly from the Emerald mine of Canadian Exploration Limited near Salmo. A second producer, Western Tungsten Copper Mines Limited, is carrying out considerable development work in its Red Rose mine near Hazelton.

Most of the silver output comes as a by-product of base-metal operations. Output in 1953 increased $3,700,000 \mathrm{oz}$. t. over 1952 to $11,480,000 \mathrm{oz} . \mathrm{t}$.

The Province's four gold producers-Pioneer Gold Mines of B.C. Limited and Bralorne Mines Limited in the Bridge River district, the Cariboo Gold Quartz Mining Company Limited in the Cariboo district, and Kelowna Mines Hedley Limited in the Osoyoos mining division-have been carrying out considerable underground development to expand reserves. Near the close of the review period underground development at Bralorne Mines revealed interesting ore at depth. The Province's gold production of $267,000 \mathrm{oz}$. t. in 1953 was little changed from 1952.

The Prairie Provinces.-Developments during the review period brought Saskatchewan and Manitoba, hitherto minor metal producers, rapidly to the forefront in Canadian mineral production-Saskatchewan as the leading Canadian producer of uranium ore, and Manitoba as Canada's second nickel-producing province. Metal production in the Prairie Provinces, otherwise, continued to be confined to the Flin Flon mine of Hudson Bay Mining and Smelting Company Limited on the Manitoba-Saskatchewan border, and to a subsidiary base-metal producer and two gold producers, all in Manitoba.

In northern Saskatchewan exploration and development activity in the search for uranium in the Beaverlodge area reached new levels. Of the record number of 18,000 claims staked in the Province during 1953, most were in this region. As a result of discoveries made during the review period, the area now extends from the Alberta boundary eastwards for about 80 miles along the north side of Lake Athabasca. Top-ranking developments in the area were the bringing into production of the Crown-owned Ace-Fay mine of Eldorado Mining and Refining Limited in April 1953, and the disclosure of a large deposit of uranium on the property of Gunnar Mines Limited. At the Ace-Fay property the new carbonate leaching plant has an initial capacity of 500 tons. Provision for the treatment of custom ores has been made in the form of underground storage bins and of special crushing and sampling equipment. Throughout the period Eldorado continued to work the nearby RA group of claims and the Bolger claims, along with those leased from Radiore Uranium Mines Limited. Gunnar Mines Limited carried out extensive work on its property in the St. Mary's Channel section of the area. In March 1954 the Company announced plans for the construction of a 1,250 -ton mill with output scheduled to start in September 1955. The value of the orebody has been placed by the Company at more than double the June 1953 estimate of $\$ 65,000,000$. Present reserves are estimated to be sufficient for from 10 to 12 years of operation.

Elsewhere in the Beaverlodge area, private companies explored nine properties by adits or shafts and 47 by diamond drilling. Surface trenching and prospecting were carried out on several others. Some exploratory and development activity was also carried on in the Stony Rapids-Porcupine River, Foster Lake, and Lac La Ronge regions.

Nickel and copper were added to Manitoba's metal output early in 1954 with the commencement of production at the Lynn Lake mine of Sherritt Gordon Mines Limited following one of the most ingenious feats ever performed in the history of

Canadian mining-the stripping and removal of the equipment of a mine and of a whole town to the site of a new industry 144 miles away. Using tractor trains supplemented by air transport the Company during the past few years moved the equipment of its former mine at Sherridon and the houses, school, etc., of the town, numbering to date 183 units, lock, stock and barrel to Lynn Lake. The new industry at Lynn Lake also necessitated the building of a 144 -mile railway from Sherridon to Lynn Lake which was completed in November 1953, and the construction of a power plant on the Laurie River, 44 miles south of Lynn Lake. The nickel concentrates from the Lynn Lake mine, and eventually the copper concentrates are to be treated at a refinery now nearing completion at Fort Saskatchewan, 15 miles northeast of Edmonton, Alta. The cost of the whole project without the railway, has been estimated at $\$ 46,800,000$. The first shipment of nickel concentrates to the Company's new nickel refinery was made early in 1954. Meanwhile, the copper concentrates are being shipped to Noranda, Que., for treatment by Noranda Mines Limited. The daily milling rate at the Lynn Lake mine will be 2,000 tons for an annual production of 8,500 tons of nickel, 4,500 tons of copper, $300,000 \mathrm{lb}$. of cobalt and 70,000 tons of fertilizer.

Hudson Bay Mining and Smelting Company continued to carry out a vigorous program of exploration and development work on its various properties in Manitoba and Saskatchewan. These include the Schist Lake mine and the Cuprus mine of its subsidiary, Cuprus Mines Limited, both in Manitoba. Late in 1953, Hudson Bay Mining and Smelting Company discovered the Coronation deposit near Phil Lake, $13 \frac{1}{2}$ miles southwest of Flin Flon in Saskatchewan. The Company reported a higher output of both copper and zinc in 1953 than in 1952, the output of zinc being $131,190,000 \mathrm{lb}$., the highest on record and largely attributed to the operation of the new zinc fuming plant in which the Company is treating zinc plant residues as well as current production.

Gold output in the Prairie Provinces comes as a by-product from Hudson Bay Mining and Smelting Company operations and from two gold producers in Mani-toba-San Antonio Gold Mines Limited in the Rice Lake district, and Nor-Acme Gold Mines Limited at Snow Lake. Output in 1953 totalled 219,705 oz. t., of which $110,650 \mathrm{oz}$. t. came from the Flin Flon mine. Silver is also produced as a by-product, output in 1953 amounting to $1,665,000 \mathrm{oz}$. t. compared with $1,592,000 \mathrm{oz}$. t. in 1952.

At the time of writing (June 1954) some interest was being shown in an ironore discovery 60 miles northwest of the town of Peace River. The discovery was reported as oölitic siderite, a lower grade concentrating ore.

Ontario.-The discovery of what appear to be important deposits of uranium in the Blind River and Bancroft areas of northern and southeastern Ontario, respectively, and of new sources of base-metal wealth north of Lake Superior is probably the most newsworthy feature of metal mining in Ontario during the review period. Coupled with this is the notable headway made in the expansion of the industry in general, and of its nickel and iron-ore production potential in particular.

The value of mineral output in the Province, Canada's leading mineral producer, rose $\$ 16,000,000$ over 1952 to $\$ 460,000,000$ in 1953 and represented 34 p.c. of the total value of Canadian mineral production. In metal-mining, Ontario continued to account for all production of cobalt and the platinum metals, a major share of the iron ore, and for over one-half of the copper and gold. With the exception of gold and silver, each of the principal metals and minerals produced in the Province showed an increase in both volume and value of output over 1952.

The continuing high demand for nickel for civilian and defence purposes further stimulated the expansion under way within the nickel-copper industry in the Sudbury area. The International Nickel Company of Canada Limited, the source of 73 p.c. of the world output of nickel, has practically completed the $\$ 150,000,000$ expansion program commenced almost a decade ago. The program has included the changeover from open-pit and underground mining to almost entirely underground mining, as well as the mining of low-grade ore at its Creighton mine through the utilization of caving, a low-cost bulk mining method. During the review period the Company further raised the capacity of the concentrator at its Creighton mine from 10,000 to 12,000 tons. At the end of 1953, International Nickel Company's nickel-producing capacity was over $275,000,000 \mathrm{lb}$. a year compared with $250,000,000 \mathrm{lb}$. at the end of 1952 . Capacity will be further increased by output from a $\$ 16,000,000$ plant now under construction in which nickeliferous pyrrhotite will be treated for the recovery of nickel and high-grade iron ore. The process involved is the result of years of research. It is expected that the plant will eventually produce $1,000,000$ tons of iron ore a year.

Falconbridge Nickel Mines Limited, the other major producer, is also expanding its nickel-producing capacity, and during the review period raised its sights to a production of $55,000,000 \mathrm{lb}$. by 1960 . Ore handled in 1953 totalled $1,298,000$ tons, an increase of 169,000 tons over 1952, of which 134,000 tons came from three new and independent producers in the area-Milnet Mines Limited, East Rim Nickel Mines Limited and Nickel Offsets Limited. Most of the Company output came from the Falconbridge and McKim mines.

The program involves the bringing in of six new mines, all on the rim of the Sudbury basin-the Falconbridge East, Mount Nickel, Hardy, Boundary, Longvack and Fecunis mines. Three of these, the Falconbridge East, Mount Nickel and Hardy mines, are expected to start production in 1954. The Boundary and Longvack mines have small ore reserves but they will contribute to production until the large Fecunis orebody comes into full operation in 1958. The expansion in refinery capacity at Kristiansand, Norway, includes a new cobalt refinery.

International Nickel Company accounts for 90 p.c. of Ontario's output of copper and Falconbridge Nickel Mines for most of the remainder. Output in 1953 rose to 130,000 tons, an increase of 5,000 tons over 1952.

The Canadian nickel industry is the source of all of Cansda's output of the platinum metals which in 1953 amounted to $296,000 \mathrm{oz} . \mathrm{t}$. compared with 280,000 oz. t. in 1952.

A high level of development activity was maintained throughout the review period in Ontario's three iron-ore fields-the Steep Rock and Michipicoten fields in northwestern Ontario which at present account for all of the Province's output of iron ore, and the Marmora field in southeastern Ontario from which initial production is expected late in 1954. Present plans indicate a total output of $12,000,000$ tons of iron ore from these fields by 1960 . Output in 1953 amounted to $\mathbf{2 , 5 2 9 , 4 6 4}$ long tons compared with 2,426,330 long tons in 1952. Most of Ontario's output is exported to the United States where it is in demand because of its high grade and good furnace qualities, and most of the ore used in Ontario blast furnaces is imported from the United States.

At Steep Rock Mines Limited, expansion plans are designed to increase production to $5,500,000$ long tons annually from an output of $1,301,000$ long tons in 1953. Production in 1954 is expected to equal that of 1953. During the review
period operations ceased at the Errington open pit and production was started from the Errington No. 1 underground mine and from the Hogarth open pit. A 70 -mile highway was built into the area to Atikokan, giving the settlement access by road to Port Arthur, 140 miles to the east.

Caland Ore Company, a subsidiary of Inland Steel Company which has leased the ' $C$ ' orebody from Steep Rock mines, has set under way a $\$ 50,000,000$ program to develop the deposit toward production. The Company's objective is $3,000,000$ tons annually which will eventually bring annual production from the Steep Rock area close to $10,000,000$ tons.

In the Michipicoten area, Algoma Ore Properties Limited has announced a $\$ 13,000,000$ four-year program to provide $50,000,000$ tons of iron ore or $30,000,000$ tons of high-grade sinter over the next 20 years. This is to be done by opening up a new ore zone in the Helen, Victoria and Alexander mines to full operation when present producing levels are exhausted. Output in 1953, which came from the Helen and Victoria underground mines, totalled $1,167,000$ long tons of high-grade sinter. Of this, 34 p.c. was shipped by rail to Algoma Steel Corporation at Sault Ste. Marie, Ont., and the remainder to the United States. Estimated production for 1954 is about $1,500,000$ tons.

In southeastern Ontario, Marmoraton Mining Company Limited, a subsidiary of Bethlehem Mines Corporation, moved toward initial production, expected in 1954, from its orebody at Marmora about 32 miles east of Peterborough. It proceeded with the stripping of the 120 -foot limestone capping over the orebody, the necessary construction for open-pit operations, and the erection of a docksite at Picton on Lake Ontario. The deposit contains an estimated $18,000,000$ tons of magnetite ore. This ore is to be concentrated and pelletized, the production objective being 500,000 tons of agglomerated concentrates per year. Output will be shipped to Bethlehem Steel Corporation's mills near Buffalo, N.Y., U.S.A.

Two other iron-ore deposits were in the news during the review period. What appears to be an extensive deposit of magnetite was discovered early in 1954 at Bruce Lake in northwestern Ontario, 30 miles southeast of Red Lake. Iron Bay Mines Limited is exploring the deposit. In Boston Township, six miles south of Kirkland Lake, Jones and Laughlin Steel Corporation took a two-year option on a large low-grade magnetite deposit owned by Dominion Gulf Company with a view to leasing the property if exploratory work proves successful.

Despite the fact that the Government of Canada lowered its incentive price for cobalt in ores and concentrates from the Cobalt area during the first quarter of 1953, the area continues to be the scene of much activity as the search for the metal continues and further extensions are made to mine and mill facilities. Shipments from the area in 1953 were made almost entirely to Deloro Smelting and Refining Company Limited at Deloro, Ont. Up to Mar. 31, 1954, the Company acted as an agent of the Canadian Government under the premium price plan, at which time the plan ended. The United States Government subsequently contracted with the Canadian Government to purchase ores from the Cobalt area at a price commensurate with that in effect prior to Mar. 31, 1954. During the review period, Cobalt Chemicals Limited placed its new custom smelter in the Cobalt area into full production at 15 tons of concentrates daily under the management of Quebec Metallurgical Industries Limited. Cobalt Chemicals was also appointed to act as a Canadian Government agent for the purchase of the area's ores and concentrates,

Most of the silver output comes from the Cobalt area and the remainder as a by-product from International Nickel Company's operations and from the Province's gold mines. Output in 1953 amounted to $5,051,000 \mathrm{oz}$. t., 22 p.c. below the 1952 figure.

The Province has long been Canada's leading gold producer and in 1953 accounted for 53 p.c. of the output. Production, which came from 38 gold mines in the Patricia, Thunder Bay, Porcupine, Kirkland Lake, and Larder Lake areas and as a by-product from the base-metal mines of the Sudbury area, in 1953 declined $331,000 \mathrm{oz}$. t. below the 1952 total of $2,183,000 \mathrm{oz}$. t.-the result of labour strikes in the Porcupine area and of the closing of five mines owing to high costs or depleted ore reserves. However, Kerr-Addison Gold Mines Limited, Canada's leading gold producer, maintained production at approximately 1952 levels while operations in the Thunder Bay and Patricia districts recorded favourable performances.

During the review period, exploratory activity in the search for new sources of mineral wealth was widespread in the Province, a record 27,000 claims being staked in 1953. A number of important finds were made, including interesting deposits of uranium ore in the Blind River and Bancroft areas which focussed attention on the Province as a possible future source of the ore. In the Blind River area the discovery of uranium-bearing ore by Peach Uranium and Metal Mining Limited and Preston East Dome Mines Limited set off a staking rush into the area in the summer of 1953. Staking spread rapidly eastward as far as the Temagami area near North Bay. Around Blind River, several companies carried out considerable development work on their properties and Algom Uranium Mines Limited, a subsidiary of Preston East Dome Mines, and Pronto Uranium Mines Limited, a subsidiary of Peach Uranium and Metal Mining, are each proceeding with development work with a view to production. In southeastern Ontario much staking in the search for uranium has been done, particularly around Bancroft. Centre Lake Uranium Mines Limited has been carrying out underground exploration of its property in the area.

Meanwhile, in the North Bay area, Beaucage Mines Limited, a subsidiary of Inspiration Mining and Development Company Limited, continued to explore its niobium (columbium)-uranium discoveries on and near the Manitou Islands in Lake Nipissing, and to seek an economical means of treating the ore.

Events during the period also pointed up Ontario's potentialities as a basemetal producer. The discovery of a large deposit of copper-zinc ore near Manitouwadge Lake, about 40 miles northeast of Heron Bay on Lake Superior, reported in December, set off Ontario's second great staking rush of the period. Geco Mines Limited, which was formed to explore the property, is planning production from the deposit. Other interesting finds have also been reported in the area. In May, the House of Commons passed a Bill authorizing the construction by the Canadian National Railways of a 27-mile railway line from Hillsport on the main line of the Canadian National Railways into the area at an estimated cost of $\$ 3,750,000$.

Meanwhile, in the Sudbury area, Ontario Pyrites Company Limited continued to explore its extensive sinc-copper-lead properties 18 miles northwest of Sudbury and research is being carried out on economical methods of extracting the metals from the ore. The Company is planning a daily milling rate of 1,500 tons.

Quebec.-The marked growth of the mineral industry in Quebec during the past few years has gone hand in hand with the Province's great industrial expansion, and has contributed notably to it. Events during the review period brought Quebec
to the threshold of production both from the Quebec-Labrador iron ore deposits of Iron Ore Company of Canada and from the copper development of Gaspe Copper Mines Limited in Gaspe. The Province's potentialities as a producer of iron ore were further pointed up by the discovery of other important deposits west of Ungava Bay. Of much significance, too, was the long-awaited commencement of production from the Chibougamau area.

Quebec is next to Ontario in annual value of Canadian mineral production. It is the second largest producer of copper, gold and zinc and the only producer of molybdenite, which is mined in Abitibi East County, and of titanium ore, which comes from the large deposits of ilmenite at Allard Lake in eastern Quebec. The Province also produces silver and lead. Mineral production in 1953 declined $\$ 18,000,000$ in value from 1952 to $\$ 252,826,000$ mainly because of the loss in output of copper, zinc and gold caused by labour strikes at Noranda Mines Limited, Quemont Mining Corporation Limited, Normetal Mining Corporation Limited, and Waite Amulet Mines Limited.

Top-ranking development in metal mining in Quebec is the establishment of a great new iron-ore industry in Quebec-Labrador where Iron Ore Company of Canada has already outlined over $400,000,000$ tons of iron ore, and where exploration during 1953 brought to light several new deposits of concentrating ore. During the review period the Company proceeded to put the finishing touches on the various phases of the great $\$ 250,000,000$ project preparatory to initial production in August 1954. The 360 -mile railway connecting Sept Iles with Schefferville (Knob Lake) was completed with the exception of the ballasting which will be finished by August 1954. At the northern terminus of the railway the new town of Schefferville is being built up rapidly. Dock construction and the installation of ore-handling machinery at Sept Iles were almost completed. Hydro-electric power for Schefferville and the mine will come from the Menihek dam and power-house, while power for the town of Sept Iles and the ore-handling equipment will come from the SteMarguerite power site. Mining will start from the Ruth No. 3 orebody which is close to the railway and which has been stripped for open-pit operations.

Much exploration of the Labrador Trough has been carried on during the past few years. Geological observations from aircraft indicate that the north end of the iron-bearing Trough may be at Diana Bay on Hudson Strait instead of 300 miles to the south as indicated on the most recent geological map of Canada. Several companies have secured concessions or claims in the Trough, some of which were actively explored during the review period. One of these companies, Fenimore Iron Mines Limited, which has recently undergone reorganization, is doing exploratory work on its properties near Ungava Bay. Drilling has outlined extensive deposits of low-grade iron ore which will require up-grading before marketing.

Most of Quebec's base-metal production comes from the western part of the Province, the chief source of output being the copper-gold-silver-pyrite Horne mine of Noranda Mines Limited. The output of copper in 1953 declined $29,881,000 \mathrm{lb}$. from 1952 to $107,811,000 \mathrm{lb}$., and of lead, $2,682,000 \mathrm{lb}$. to $18,358,000 \mathrm{lb}$. Zinc output increased $11,334,000 \mathrm{lb}$. to $201,131,000 \mathrm{lb}$. but decreased by $\$ 9,083,000 \mathrm{in}$ value to $\$ 24,055,000$.

Operations were suspended at the Noranda mine and smelter on Aug. 22, 1953, by a labour strike which lasted until Feb. 13, 1954. The Company treats ore from its Horne mine and custom ores and concentrates from other copper, gold and silver
mines. It recovers the copper and precious metals from the anodes at the electrolytic copper refinery of its subsidiary, Canadian Copper Refiners Limited, Montreal East.

During the review period Noranda Mines Limited contracted to bring the Macdonald Mines Limited property in the Noranda area into operation at a daily rate of 1,500 tons for the production of pyrite, zinc and sulphur. West Macdonald Mines Limited, as the new Company is known, is expected to be ready for production by the end of 1955 . The ore will be treated in a new $\$ 5,000,000$ plant to be built at Noranda. Noranda is building a sulphur-iron plant near Welland, Ont., to treat pyrite ore from the Horne mine and concentrates from the West Macdonald property. The Company is also building a plant at the Horne mine in which by-product pyrite will be pelletized for shipment to the Welland plant.

Copper production also comes from the copper-zinc ores of Waite Amulet Mines Limited, Quemont Mining Corporation Limited, Normetal Mining Corporation Limited, and East Sullivan Mines Limited all in western Quebec. In southern Quebec it comes from the zinc-lead-copper Suffield property of Ascot Metals Corporation Limited in the Eastern Townships and the copper-pyrite-zinc mine of Weedon Pyrite and Copper Corporation Limited in Wolfe County. A new producer, Quebec Copper Corporation Limited, commenced production in February 1954 on the former Huntingdon property in the Eastern Townships. In Montmagny County, Eastern Metals Corporation Limited proceeded with the underground exploration of its nickel-copper property. The Company plans to construct a 1,500-ton capacity concentrator. An associate company, Eastern Smelting and Refining Company Limited, was formed in May 1953 to construct and operate a smelter at Chicoutimi for the treatment of nickel and copper concentrates, a substantial quantity of which is to come from the operations of Eastern Metals Corporation.

The long-awaited production of copper and gold from the Chibougamau area began in December 1953 from the 400 -ton mill of Opemiska Copper Mines (Quebec) Limited. Much exploratory and development work has been carried out in the area since access to it was provided in the form of a highway from St. Felicien on the west side of Lake St. John a few years ago. Among the companies active in the area are Campbell Chibougamau Mines Limited, which is expected to start production in 1955 from a 1,700 -ton mill, and Chibougamau Explorers Limited, which is doing extensive development work on its property.

Hydro-electric power is expected to reach the Chibougamau area by 1955 and a Bill authorizing the construction by the Canadian National Railways of a 294-mile railway line into the area was passed in the House of Commons in May 1954. The railway, estimated to cost $\$ 35,000,000$, will run from Beattyville, near Barraute, northeast to Chibougamau and then southeast to St. Felicien.

Large new tonnages of copper ore are in the offing of Quebec's metal production as a result of the headway made by Gaspe Copper Mines Limited in preparing its $\$ 40,000,000$ copper project in Gaspe peninsula for production early in 1955. The new industry is taking shape about 60 miles west of the town of Gaspe where the Company has outlined an estimated $70,000,000$ tons of low-grade copper ore. Milling, which will be at a daily rate of 6,500 tons, the largest initial milling rate in Canadian mining history, is to start late in 1954 and will be followed a few months later by smelter production at the rate of 125 tons of copper anodes daily. A town, Murdochville, named after J. G. Murdoch, President of the parent company,

Noranda Mines Limited, has been founded with all the services of modern living. Hydro-electric power will be supplied from the Bersimis River power development on the north shore of the St. Lawrence River.

Quebec's largest zinc producer, Barvue Mines Limited, which commenced production in 1952, completed stripping the clay overburden from its large zincsilver deposit in Barraute township. During the review period it milled over 5,000 tons daily and produced over 5,000 tons of zinc concentrates monthly.

The base-metal industry has a new producer in United Montauban Mines Limited, which commenced the output of zinc and lead concentrates in a new 500 -ton mill at its property in Portneuf County just west of Quebec City in August 1953. All zinc concentrates produced in the Province are exported to the United States or to Europe.

Lead concentrates were produced by New Calumet Mines Limited in Pontiac County, Anacon Lead Mines Limited and United Montauban Mines Limited in Portneuf County, Golden Manitou Mines Limited in Abitibi County and by Consolidated Candego Mines Limited in North Gaspe County.

About 73 p.c. of Quebec's gold output comes from 16 producing mines all in western Quebec, and the remainder from base-metal operations, chiefly Noranda Mines and Quemont Mining Corporation in the same area. Lamaque Gold Mines Limited is the largest lode gold producer. Production from the Province declined $95,000 \mathrm{oz} . \mathrm{t}$. from 1952 to $1,019,000 \mathrm{oz}$. t. in 1953. New production has been added with the commencement of operations at Opemiska Copper Mines in the Chibougamau area where several other companies are actively developing properties. In the Noranda district preparations are being made to carry out underground development on the new gold-mining property of Eldrich Mines Limited.

Silver is recovered mainly as a by-product of base-metal mining, with a small production coming from gold-mining operations. Output in 1953 increased 201,000 oz. t. from 1952 to $4,737,000 \mathrm{oz}$. t.

Canada's sole producer of molybdenite is Molybdenite Corporation of Canada Limited about 25 miles north of Val d'Or in western Quebec. The Company ceased operations in mid- 1953 to expand its mine and mill facilities to 500 and 350 tons a day, respectively. Production was resumed in March 1954.

Meanwhile at Sorel, Quebec Iron and Titanium Corporation continued to operate its experimental smelting plant for the treatment of ilmenite ore from the deposits at Allard Lake. Production is in the form of iron and titanium dioxide concentrate. Shipments from Sorel during 1953 amounted to 141,000 tons of concentrate containing approximately 98,660 tons of titanium dioxide.

The Maritime Provinces.-Highlight of metal-mining activity in the Maritimes during the review period was the proving-up of one of Canada's largest basemetal orebodies at Austin Brook near Bathurst in New Brunswick by Brunswick Mining and Smelting Corporation Limited. The discovery, which was made late in 1952, brought widespread staking in its wake and the disclosure of other important orebodies in the area. In Nova Scotia, Mindamar Metals Corporation Limited, a subsidiary of Dome Mines Limited and the only metal-producer in the Maritime Provinces, has met with encouraging results from underground development work at its mine near Stirling in Richmond County.

The establishment of a base-metals industry at Bathurst has opened up new economic vistas to New Brunswick which has no metal production of any kind. Activity since the discovery has been maintained at a high level, over 40,000 claims being staked in 1953 in one of the greatest staking rushes in Canadian mining. Two major new orebodies were discovered within a five-mile radius of the original discovery at Austin Brook-the Anacon-Leadridge and the Larder "U" properties.

During the review period, Brunswick Mining and Smelting Corporation carried out extensive exploration by drilling on its large zinc-lead-pyrite deposit. In September 1953, the Company acquired the Anacon-Leadridge property to be developed simultaneously with the Austin Brook deposit, both of which are estimated to contain in excess of $60,000,000$ tons to a depth of 1,000 feet, averaging $5 \cdot 3$ p.c. zinc and 1.7 p.c. lead. The Company plans to build a 150 -ton test mill at the property, designed on the basis of metallurgical tests made in the mineral-dressing laboratories of the Department of Mines and Technical Surveys at Ottawa, and to commence testing early in 1955 . Underground development has been started at the Anacon-Leadridge property and the overburden is to be removed from the Austin Brook deposit which will be mined by open pit. The Company plans an initial production of 4,000 tons daily of lead, zine and pyrite concentrates. In co-operation with the provincial government it has built a 13 -mile highway connecting the Austin Brook deposit with Bathurst, and is building a branch line into the Anacon-Leadridge deposit. Power has been brought into the properties from the Nepisiguit Falls power plant.

Keymet Mines Limited had planned on bringing its lead-zinc-silver property, 15 miles north of Bathurst, into production early in 1954 but a fire destroyed the new 200-ton mill in April 1954. Construction of a second mill was started almost immediately and the Company hopes to place the mine into production by the autumn of 1954. Underground work at the property has been under way since January 1953.

Work is continuing on several other properties which were being actively explored in northeastern New Brunswick prior to the Bathurst discovery. These include the lead-zinc property of New Calumet Mines Limited at Orvan Brook, as well as a copper property of Noranda Mines Limited and a lead-zinc-silver property of the M. J. O'Brien Limited interests both in the Rocky Brook-Millstream area. Elsewhere in the Province, older properties, including manganese properties in the Bathurst area, are being re-examined.

In Nova Scotia the value of base-metal production, all of which comes from the mine of Mindamar Metals Corporation near Stirling, increased in 1953 to $\$ 3,211,000$ from $\$ 2,136,000$ in 1952 although the mine was in production for only eight months. Output comprised $15,148,000 \mathrm{lb}$. of zinc, $1,918,000 \mathrm{lb}$. of copper, $3,800,000 \mathrm{lb}$. of lead, $247,000 \mathrm{oz}$. t. of silver, and $3,400 \mathrm{oz}$. t. of gold. Mill output is approximately 600 tons daily.

Interest in Nova Scotia's base-metal potentialities has heightened as a result. of the Bathurst discoveries in New Brunswick, and aeromagnetic and scintillation surveys have been made over much of the Province including Cape Breton Island. In Colchester County, a lead-zinc property is being developed at Smithfield and a lead property is being explored at Gay River. In Cumberland County work is being done on a copper occurrence at Cap d'Or.

Newfoundland.*-The strides made in iron-ore mining in the Province and the resultant marked increase in production attracted major attention during the review period. Output, which comes from Dominion Wabana Ore Limited, wholly owned subsidiary of Dominion Steel and Coal Corporation Limited, and the sole producer, reached a record high of $2,393,000$ long tons in 1953, an increase of 916,000 long tons from 1952. The remainder of the Province's metal production, which comprises zinc, lead, copper, silver and gold, comes from the operations of Buchans Mining Company Limited near Red Indian Lake in central Newfoundland. With the exception of silver, the Company's production was considerably below 1952 levels. However, because of the marked increase in the value of iron-ore production, the total value of mineral output in the Province amounted to $\$ 33,688,000$ in 1953 compared with $\$ 32,512,000$ in 1952.

At Wabana, the record production achieved by Dominion Wabana Ore was the direct outcome of the extensive modernization and expansion program set under way in 1950 and completed late in 1953. Essentially all operations are submarine, extending in some parts about four miles out under the Atlantic Ocean. The program included the replacement of the cable-hauled tramcars with 22-ton diesel trucks, the interconnection of the Company's three mines, and the installation of the world's longest underground conveyor-belt system. In November 1953, a fourth mine, the Forsyth, was started with the sinking of a new 3,500-ft. slope. Approximately one-half of the output in 1953 was shipped to the United Kingdom, about 31 p.c. to the parent company at Sydney, N.S., and the remainder to Germany. Ore reserves at the Wabana mines have been estimated to be as high as $4,000,000,000$ tons.

Buchans Mining Company Limited operated its 1,350 -ton mill at an average rate of 950 tons a day. Production continued to come from the Lucky Strike, Oriental and Old Buchans deposits but the newer Rothermere Number One mine was the main source of ore supply. In 1953 the Company shipped concentrates containing $54,945,000 \mathrm{lb}$. of zinc, $5,525,000 \mathrm{lb}$. of copper and $35,723,000 \mathrm{lb}$. of lead compared with $61,034,000 \mathrm{lb}$. of zinc, $5,918,000 \mathrm{lb}$. of copper and $36,118,000 \mathrm{lb}$. of lead in 1952. The zinc, copper and lead concentrates also contained $654,000 \mathrm{oz} . \mathrm{t}$. of silver in 1953 compared with $639,000 \mathrm{oz}$. t. in 1952 and $7,575 \mathrm{oz} . \mathrm{t}$. of gold compared with $8,595 \mathrm{oz}$. t. in 1952. The Company is doing underground development work on the new orebodies located by drilling during the past few years.

Widespread exploration was carried on throughout the Island and in Labrador by various companies during the review period. Falconbridge Nickel Mines Limited continued to explore the Notre Dame Bay area where, in 1951, it located a copper property. Field parties of the Geological Survey of Canada discovered an interesting occurrence of scheelite, one of the principal ores of tungsten, in the area during the 1953 field season. Also, the Geological Survey carried out a magnetometer survey over the large area of Newfoundland between the 48th and 49th parallels, where the largest unexplored parts of the Province lie. Exploration in Labrador has revealed interesting occurrences of copper and iron.

## Industrial Minerals

Canada's resources of industrial minerals constitute a great source of actual and potential wealth. Entering as they do into practically every phase of industrial activity, industrial minerals are indispensable in the national economy; without abundant supplies, well distributed across the nation, the great strides in industrial development made in the past two decades could not have come about.

[^162]The term "industrial minerals" includes the various non-metallic minerals (exclusive of fuels) as well as rocks, sands, gravels and clays used for construction purposes.

Within the past ten years, annual production of industrial minerals in Canada has increased nearly four-fold in value from $\$ 80,235,946$ to $\$ 311,063,476$ (preliminary figure, 1953), whereas in the same period the value of production of metals has more than doubled to $\$ 708,912,835$. It should be borne in mind that whereas the dollar value of the refined metals incorporates the cost of fluxes, reagents, and refractories used in their processing, the value of industrial minerals refers, in general, to their value in the crude or semi-processed state. Dollar value, however, tells only part of the story; in tonnage produced, the industrial minerals far outdistance metals and coal combined.

About 50 industrial minerals are produced commercially at present in Canada, and there are many more that can be produced if demand for them arises.

Canadian chrysotile asbestos is known for its quality the world over. Production began in 1878 in the Eastern Townships of Quebec and has been continuous ever since. This area is still the world's greatest source of asbestos and reserves are vast. It supplies 95 p.c. of the Canadian production-and Canada supplies nearly 70 p.c. of the world output. In recent years asbestos has been found in several other parts of Canada and is now being produced near Matheson, Ont., and at Cassiar, B.C. A small mill is also being built at an asbestos deposit on the west coast of Newfoundland. Canadian output of asbestos in 1953 was 911,713 tons worth $\$ 87,633,124$, over 96 p.c. of which was exported. Recent years have witnessed a great program of modernization and expansion among the asbestos producers. One large new company is now planning a mill that will process 100,000 tons of asbestos annually.

Asbestos finds many uses: because of its fibrous nature it can be spun into yarn and made into cloth; mixed with cement, asbestos is used in the manufacture of shingles, pipe, flat and corrugated sheets. It is also used in brake linings, clutch facings and gaskets as well as for electrical insulation and thermal insulation. The shorter grades are used in the manufacture of asphalt floor tiles, in undercoatings for automobiles, as fillers in plastics and paints, and for many other purposes.

Barite or heavy spar, as it is sometimes called because of its great weight, is quarried at Walton, N.S., and at Parson and Brisco, B.C. Production in 1953 reached an all-time peak of 248,973 tons valued at $\$ 2,316,474$. British Columbia barite is white and is used as a filler for paints, rubber, paper, etc., and also in oil-well drilling muds. The deposit at Walton, N.S., which supplies the greater part of the production, is thought to be the largest in the world. The only other deposit of comparable size is found in Germany. It is pink in colour and finds its principal use in heavy drilling muds. These muds must be of high specific gravity in order to overcome the pressures of gas and water in deep wells and also to provide a medium that will float drill cuttings. Mast of the barite is shipped by sea for use in the region around the Gulf of Mexico and in South America. Barium chemicals made from barite find wide use in numerous industries. Barite is also used as a heavy aggregate in making the heavy concrete shields used in atomic energy plants.

Fluorspar-a beautiful glassy mineral of yellow, green, red, purple or violet colour-is obtained mainly from the Burin peninsula in Newfoundland where it occurs in veins in granite. Reserves of fluorspar in Newfoundland are among the
largest in the world, and have been estimated by the Newfoundland Geological Survey as "considerably in excess of $20,000,000$ tons," making the Province one of the world's major sources of this very important mineral. A small production has been obtained for many years from Madoc, Ont., and it was formerly produced at the Rock Candy mine in British Columbia. In 1953, a new occurrence of purple fluorspar was reported on the Alaska Highway at Lower Liard Crossing, B.C. The Canadian production in 1953 reached a new high of 90,078 tons valued at \$2,657,104.

Fluorspar is essential to aluminum production, is used as a flux in the steel industry, and is a raw material for the manufacture of hydrofluoric acid which itself has a great variety of uses. Other uses are in the manufacture of glass, enamel, and magnesium metal.

Canada is second among the nations in production of gypsum, a mineral composed of hydrous calcium sulphate. It is found in every province except Prince Edward Island and Saskatchewan, and is quarried in Newfoundland, Nova Scotia, New Brunswick, Ontario, Manitoba and British Columbia. Production in 1953 amounted to $3,765,763$ tons valued at $\$ 7,487,928$. Nearly three-quarters of the production is exported, mainly by sea, to gypsum-manufacturing plants along the Atlantic coast of the United States as far south as Florida.

In 1953, National Gypsum (Canada) Limited prepared to open up a very large gypsum deposit near Milford, N.S. Most of the production will be exported to the United States by boat from Dartmouth, N.S. Canada's largest producer is Canadian Gypsum Company Limited which has just completed a large new gypsum manufacturing plant at Montreal, Que., to make plaster, wall board, and lath from Nova Scotia gypsum. The largest manufacturer of gypsum products is Gypsum, Lime and Alabastine, Canada, Limited which operates several plants across Canada.

Gypsum finds its principal use as a construction material in the form of wall plaster, wall board, sheathing board, lath and tile, but quantities are also used for dental plaster, moulding plaster, surgical plaster, Keene's cement, agricultural gypsum, Portland-cement retarder, pottery, plasters and mineral filler.

It is potentially important as a chemical raw material: in some countries gypsum is used, for example, as a source of sulphuric acid but this use is not, as yet, economic on this continent. Associated with the gypsum in most localities are large deposits of anhydrite, or anhydrous calcium sulphate which is not utilized to any extent.

Rocks such as limestone, granite, shale, and sandstone form a very valuable part of the industrial mineral resources of Canada. Found in all parts of the country they are the basis of many industries: building-stone, cement, lime, crushed stone, brick and tile, refractories, silica, and so on. Exact statistics are difficult to obtain but it is estimated that in 1953 more than $32,000,000$ tons of rock were quarried in Canada.

Limestone is the most widely quarried and extensively used of all the rocks. In 1953 over $25,000,000$ tons were quarried. Practically every known variety of limestone except chalk is available as well as several unusual types such as brucitic limestone, and magnesitic dolomite. Brucitic limestone, found in Quebec, Ontario and British Columbia, contains granules of brucite (magnesium hydroxide) scattered through the limestone matrix. It is quarried near Wakefield, Que., by the Aluminum Company of Canada Limited for the production of magnesia, quicklime, hydrated lime, and agricultural limestone. The magnesia, in turn, is used for the making of
basic refractories and magnesium metal, and for various other uses, particularly in agriculture. Magnesitic dolomite is mined at Kilmar, Que., by Canadian Refractories Limited and converted into basic refractory products. In 1953, a large plant was built at Dundas, Ont., by Steetley of Canada, Limited, for the production of a refractory product known as "dead-burned dolomite" from the extensive dolomite deposits in that area. Building stone is produced from limestone in Ontario, Quebec and Manitoba. Marble is produced in Quebec, Ontario and British Columbia and is available in many of the other provinces. Crushed stone for road metal, concrete aggregate, railroad ballast, and numerous other uses is produced in a great many parts of Canada. Roofing granules are made from rhyolite, basalt, and slate in Quebec, Ontario and British Columbia.

The Portland cement industry, which uses limestone and cement as its main raw materials, is established in seven of the ten provinces. It has been expanding its production facilities steadily in recent years to keep pace with construction activity in Canada and at present has an installed capacity of about $23,000,000 \mathrm{bbl}$. of cement annually which places Canada well up among the nations of the world on a per capita production basis.

The lime industry also has been experiencing rapid growth in the past decade. Production in 1953 was $1,184,963$ tons valued at $\$ 13,457,648$ which is close to the all-time record. The growth of the lime industry was mainly caused by the rapidly growing chemical industry because over 80 p.c. of the lime produced now finds chemical use. Lime is made in all provinces except Nova Scotia, Prince Edward Island and Saskatchewan. Most of the production is marketed in the lump form (quicklime), but hydrated lime, which is a specially slaked dry powder, is steadily gaining in popularity.

Shales and clays suitable for the manufacture of brick and tile are found in all provinces and are being widely utilized by the ceramic industry. This is a rapidly growing industry and production to-day is nearly four times as great as it was ten years ago, reflecting, in part, the great activity in construction throughout Canada. Shales and clays that bloat on being heated are now being sought for the production of lightweight aggregates to supply the demand from the construction industry for lightweight building materials. Two new plants to make these products have been built recently and several others are in prospect.

A volcanic rock, known as perlite, that expands greatly on heating and yields a lightweight product that is incorporated into plasters and other building materials, has been found in British Columbia and has been quarried at Frangois Lake for use in Western Canada.

The granite-quarrying industry is active in Quebec, British Columbia, Ontario, Nova Scotia and Manitoba. In addition to use for building and monumental stone, granite is extensively used for road metal, concrete aggregate, and railway ballast. It is also used in minor quantities for poultry grit and in the making of artificial stone.

Sand and gravel together constitute the greatest tonnage of any mineral substance produced in Canada. In 1952, approximately $100,000,000$ tons of sand and gravel were used by the construction industry in this country. Owing to increasingly strict specifications, ind ustry is considering the manufacture of sand from rock in order to obtain exactly the kind of sand required and considerable research is being carried on to this end.

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Canada shares with Soviet Russia the distinction of being a producer of nepheline syenite. This is a quartz-free, white, igneous rock consisting of a mixture of soda feldspar, potash feldspar, and nepheline. It occurs in large uniform deposits in Eastern Ontario and is being worked near Lakefield, Ont., by American Nepheline Limited. The deposit there is five miles long, has an average height of 350 ft . above the surrounding country and is from one-quarter mile to one mile wide.

Nepheline syenite is produced mainly for use in the ceramic industry; it is pulverized for use as an ingredient in glass, pottery, vitrified china, floor and wall tile. When pulverized to micron size it is used as a pigment extender in paints, and as a filler in plastics, rubber, and insecticides. It is also used in scouring compounds, and as an additive in the manufacture of mineral wool. Because its high alumina content-about 23 p.c. by weight-may be easily leached out, nepheline syenite is a potential source of alumina.

Salt is one of the necessities of life and is an essential raw material for the chemical and food-processing industries. Salt is found in every province of Canada and truly may be said to be available in inexhaustible quantity. In Western Canada, for instance, it occurs in great underground beds extending for hundreds of miles from the southern part of Manitoba through Saskatchewan to the northern part of Alberta. It is produced in Ontario and Nova Scotia as well as in the Prairie Provinces. Most of the production is obtained by pumping water down holes drilled to the salt beds and then pumping the saturated brine back to the surface.

In 1953, production amounted to 946,650 tons with a value of $\$ 7,356,595$. About 53 p.c. of this was used by the chemical industry, principally in the form of brine. The chief primary chemical products made from salt are caustic soda, chlorine, and soda ash, but there is a host of secondary products. The fishing industry, meat packing, textile, leather, refrigeration, metallurgical, soap, and many other industries utilize salt. The only salt produced by direct mining in Canada is at Malagash, N.S., where a relatively impure salt is obtained, which after being crushed is sold throughout eastern Canada for use on highways and railways to remove ice in winter and to control dust in summer. At present, Canadian Rock Salt Company Limited is sinking a shaft near Windsor, Ont., in preparation for the mining of the pure rock salt available in that locality at a depth of $1,100 \mathrm{ft}$.

Silica is another material indispensable to Canadian industry. It is the principal constituent of many minerals but the chief commercial sources are quartzite, sandstone, sand, and quartz from quarries in Ontario, Quebec, Nova Scotia, Manitoba, and British Columbia. The products differ in the several provinces: chief are flux for metallurgical use, silica flour, moulding sand, and material for the making of ferrosilicon, silicon metal, artificial abrasives, silica brick, and other ceramic products. Quartz crystals of excellent quality are quarried in small quantity at Lyndhurst, Ont.-at present the only producing source on this continent. The quartz is used in the making of submarine-detection equipment.

Silica is also used in the chemical industry. Some recent products, known as silicones, which are derived from silica, coke and chlorine, are acclaimed as being among the most significant chemical developments in recent years. Silicones fill the gap between organic and silicate compounds, and their chemical structure promises an endless array of them. They are available in the form of colourless liquids, oils, greases, varnishes, and resins, and as special rubber products. Siliconetreated materials will "shed water like a duck's back."

In 1953, Canada produced 1,721,218 tons of silica worth \$1,799,463. Imports in the same period amounted to 703,221 tons valued at $\$ 1,928,438$. The imports consisted mostly of silica sand for the glass industry. As yet, a suitable glass sand has not been produced in Canada but intensive efforts are being made to locate a suitable domestic source.

Production of sodium sulphate in 1953 amounted to 112,881 tons valued at $\$ 1,704,313$. Not many years ago the alkali sloughs of Western Canada were looked upon as useless-even as dangerous in a cattle-producing area. Investigations in the 1920's showed them to contain well over $100,000,000$ tons of solid hydrous sodium sulphate, one deposit alone containing $25,000,000$ tons. To-day, four companies are producing the material which is sold for use in making kraft pulp, heavy chemicals and detergents.

Although Canada has no known deposits of native sulphur, such as those in the southern United States, it has vast resources of sulphur-bearing minerals from which continually increasing tonnages of elemental sulphur, sulphuric acid, and sulphur dioxide are being obtained. Sulphur and its compounds are used directly or indirectly by practically every industry; in fact, the trend of sulphuric acid sales provides a barometer of industrial activity. Adequate sources of sulphur are vital to any industrial nation but the necessary processes must be developed to make the sulphur available for industrial use. Such processes have been developed in Canada, and this country is within measurable distance of being self-sufficient in sulphur supplies. Eastern Canada and British Columbia produce very large quantities of pyrite, and other sulphide minerals-the pyrite mainly as an inexpensive by-product. For many years it has been utilized as a raw material for making sulphuric acid, for the sulphur is released when sulphide minerals are roasted or smelted, and can be recovered from the smelter gases. Recovery of both elemental sulphur and sulphuric acid from smelter gas was pioneered by the Consolidated Mining and Smelting Company Limited at Trail, B.C. At present, three metallurgical companies are recovering sulphuric acid from this source. Canadian Industries Limited operates the largest plant of its kind for the production of liquid sulphur dioxide from gas from the new oxygen flash-smelting process of International Nickel Company at Copper Cliff, Ont. The C.I.L. plant came into operation in 1953 and produces 90,000 tons annually of the liquid sulphur dioxide-equivalent to 45,000 tons of sulphur. It is used mostly by pulp mills.

Noranda Mines Limited completed a plant near Welland, Ont., late in 1954 to recover annually 18,000 tons of elemental sulphur and 36,000 tons of sulphur as sulphur dioxide from pyrite. In this process $\mathbf{7 5 , 0 0 0}$ tons of iron sinter will also be made.

On the Prairies, exceptionally pure elemental sulphur is being recovered from sour natural gas by Shell Oil Company of Canada at the rate of 11,000 tons, and by Royalite Oil Company at the rate of 10,000 tons, a year. The output is marketed with pulp mills on the West Coast. The Shell Oil plant capacity is being doubled to supply Gunnar Gold Mines' new uranium recovery plant at Beaverlodge, Sask.

In 1953, the equivalent of 358,850 tons of sulphur was produced in Canada from these various sources. This was somewhat less than imports which amounted to 359,105 tons in the same period. However, in the future it is expected that a steadily increasing proportion of sulphur will be produced from domestic sources.

In addition to the foregoing, many other industrial minerals are being produced in Canada and are making their contribution to the industrial prosperity of the nation. These include feldspar, mica, talc, soapstone, arsenic, serpentine, diatomite, and ochre. Many others such as actinolite, graphite, epsomite, flint pebbles, volcanic ash, corundum, and apatite have been produced in the past and can be produced again when the demand arises. Still others such as potash, witherite, celestite, rare-element minerals, and rare earths are known to occur in quantity and may come into production shortly, depending on the outcome of investigations now in progress. The steadily increasing demand for the industrial minerals now being produced and the development of uses for those at present lying dormant, make the prospects for increased production of these exceedingly useful materials very promising.

## Petroleum and Natural Gas

Extensive recent discoveries of petroleum and natural gas have created a phenomenal expansion in the oil industry and established a vast potential in the natural-gas field. Expansion in the oil industry, however, was not confined to exploration alone, for much progress was made in 1953-54 toward extending marketing facilities by the planning and construction of new refineries to process the oil and pipelines to transport it. Progress was also made in planning for the transportation of natural gas, particularly from Alberta, and authorization was given for the construction of an all-Canadian pipeline to be built across the prairies to Winnipeg, Man., and to continue eastward north of the Great Lakes to serve Ontario and western Quebec. The building of this line will mean an expenditure of hundreds of millions of dollars on development wells to produce the gas, processing plants to purify it, gathering lines to collect it, trunk lines to transport it and distribution lines to market it in Prairie and Central Canada towns and cities. The direct and indirect benefits to Canada of such a project will be enormous and large quantities of gas from Canadian sources will become available to supplement other fuels in the industrial areas of Ontario and Quebec and to provide fuel for mining and pulp and paper industries throughout northern Ontario.

A plan to build a natural gas pipeline from Peace River, Alta., to Vancouver, B.C., with lines southward to serve the Pacific Northwest area of the United States, is also under consideration.

Exploration and Discovery.-All four western provinces shared in the oil and gas exploration activities in 1953 and new and significant discoveries were made. In Manitoba the most promising discovery was at Roselea, a few miles from the producing Virden field in the southwest part of the Province. This discovery, and those of a somewhat similar nature in other provinces, has much significance for future developments because of its stratigraphic and structural relationships. Mississippian strata occur in the Williston basin and in the mountains and foothills of Alberta but thin out to the north and east owing to erosion after deposition, and it is on the up-dip wedging out-edge of these sediments that the oil has been found. The eastern and northern limit of these sediments has been outlined in a general way by widely spaced wells. It extends across the southwest corner of Manitoba, across southern Saskatchewan and trends northwest to cross Alberta, west of Edmonton into the Peace River area west of the town of Peace River, and
through northeast British Columbia to the Liard River where outcrops occur south of Fort Simpson. Thus, the eastern edge in a straight line, between various points where known, would be at least 1,200 miles long but probably greatly exceeds that length because of its sinuous outline. All this becomes, as is now being recognized, good prospective oil territory as the oil is held in the southwestward-dipping Mississippian porous strata at favourable locations near their eastern border by being sealed against overlying and overlapping younger beds.

In Saskatchewan there has been production of heavy oil from the Lloydminster and Coleville fields. Also, a considerable reserve of medium-grade oil has been established in a number of fields but particularly in the general Fosterton area. Marketing of this medium-grade oil has been difficult because it is not so desirable as light oil for refining and because it contains sulphur. Arrangements to solve this problem have not yet been put into effect and therefore when light oil was discovered in the Viking sand in the Smiley field it was hailed as of great importance to the Province. It now appears that the Smiley field will contain about $\mathbf{1 0 , 0 0 0}$ acres and, although the daily yield per well is moderate, the fact that the wells are relatively shallow and can be completed in a week has led to fast development because the oil can be marketed through the Interprovincial pipeline. This is the first light oil production from Saskatchewan and is of importance in the search for new fields of a similar type.

The Sturgeon Lake field was discovered in 1952. It lies 50 miles east of Grande Prairie in the Peace River area of Alberta and is a reef field somewhat similar to Leduc and Redwater. Further drilling in 1953 has revealed that this field may have a recoverable oil reserve of from 100 to 200 million barrels. Late in 1953, the Pembina field, 65 miles southwest of Edmonton and west of the Leduc-Bonnie Glen-Wizard Lake trend, was discovered. The oil occurs in a sand known as the Cardium in Upper Cretaceous shale of Colorado age. This sand is well known in the foothills from its occurrence in Turner Valley but previously it had not given commercial oil production although it was known to contain gas in a few places. It thins out eastward where the sand in it is replaced by shale. The sand is thus a wedge with southwest dip and in the thin up-dip edge the oil has accumulated. The productivity of individual wells in the Cardium may not be high since the permeability of the sand is rather low but the extent of the field could considerably exceed that of East Texas in the United States, an area of about 136,000 acres in which the productivity has been very large. Thus, the Pembins field may become the largest in area in North America. Its boundaries, however, are not yet known and although the expectation is that all wells drilled in 1953 are in one pool some of them are widely spaced.

In all, about 15 new fields were officially recognized in Alberta in 1953 but most of these had only a few wells in production at the end of the year.

In British Columbia, the drilling in the Peace River area has been primarily to discover gas reserves to supply the proposed pipeline to Vancouver, B.C., and the Pacific northwest area of the United States. There is, as yet, no oil production in British Columbia as a result of this drilling although encouraging shows have been found in a few wells. The gas reserves in the Peace River area are now estimated at $3,949,000,000,000 \mathrm{cu}$. feet based on 49 potentially productive wells in Alberta with a reserve of $1,775,000,000,000 \mathrm{cu}$. feet and 45 potentially productive wells in British

Columbia with a reserve of $2,174,000,000,000 \mathrm{cu}$. feet. This development, particularly in British Columbia, is very remarkable in that the first well in the Fort St. John field, where the main reserves occur, was completed late in 1951. In the past two years the increase in gas reserves in the Peace River area has been at the rate of $1,500,000,000,000 \mathrm{cu}$. feet a year, but at present there is no market except locally where the consumption is insignificant.

Demand and Markets for Canadian Crude Oil.*-The total demand for oil products in Canada in 1953 showed an increase of 10 p.c. from 1952, reaching $515,000 \mathrm{bbl}$ a day. The total production of crude oil was about one-third higher than the previous year and supplied about 43 p.c. of Canada's requirements. There was some restriction on output because of market limitations and the 1953 yield of more than $80,000,000 \mathrm{bbl}$. does not wholly reflect oil-well capacities in the various producing fields in Western Canada.

The Trans-Mountain and the Lakehead pipelines now provide a possible outlet for $600,000 \mathrm{bbl}$. of oil a day from Western Canada when the markets are developed to receive this volume. The pipeline capacity, therefore, is considerably in excess of the present demand since the yield in 1953 was $77,065,000 \mathrm{bbl}$. for Alberta, $3,000,000 \mathrm{bbl}$. for Saskatchewan, and $619,321 \mathrm{bbl}$. for Manitoba, a total of 80,684,321 bbl . or an average of over $221,000 \mathrm{bbl}$. a day. Of this amount about $120,000 \mathrm{bbl}$. a day were refined on the Prairies, leaving about $100,000 \mathrm{bbl}$. a day for the West Coast and Central Canada and for refining at Superior, Wis., U.S.A. The market for western Canadian oil on the West Coast has been restricted temporarily by imports from the Near East owing to cheap tanker rates so that for the near future the major part of the outlet will be eastward. The recent completion of Sun Oil Company's Sarnia refinery brings the refining capacity in that area to $109,500 \mathrm{bbl}$. a day and of the $29,600,000 \mathrm{bbl}$. processed there in 1953 , all but $5,224,000 \mathrm{bbl}$. were Western Canadian crude. In addition, the B. A. Clarkson refinery near Toronto, Ont., processed $5,777,000 \mathrm{bbl}$. in 1953 , of which $2,702,000 \mathrm{bbl}$. were from Western Canada, making a total of western Canadian crude oil processed in Ontario in 1953 of $27,527,990$ bbl. including $450,000 \mathrm{bbl}$. refined at Fort William. It is expected that, in 1954, this will be increased to approximately $35,140,000 \mathrm{bbl}$. or an average of about $96,250 \mathrm{bbl}$. a day. This, exclusive of normal growth, will come close to the saturation point for the outlet of western Canadian crude in central Canada unless it is decided to enter the Montreal market which now is largely supplied from Venezuela by tanker and by pipeline from Portland, Me. The Montreal refineries processed $56,275,000 \mathrm{bbl}$. of crude oil in 1953 representing slightly more than onethird of the oil refined in Canada. The abundance of oil in world markets at present makes the Montreal market highly competitive for western Canadian oil and it is doubtful whether oil could be supplied from this source without a considerable cut in price. Thus, the crude oil situation in Canada has changed in a few years from one in which very little oil was available from domestic production to one in which the supply now warrants a continual search for new markets. Presumably, in this respect, much will depend on the construction of new refinery facilities along and adjoining the Lakehead pipeline between Superior, Wis., and Sarnia, Ont. In this area the United States market would seem to offer good prospects but there is a duty of 10.5 cents a barrel on light crude oil entering the United States.

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## Coal

In a continuing struggle to maintain markets, the Canadian coal industry lost further ground to oil and natural gas during the review period. Nevertheless, the industry made every effort to secure or improve its position through the increased use of strip mining and of mechanization and by means of research and investigations into more economical mining of better-quality coals. In this effort it was assisted by the Mines Branch, Department of Mines and Technical Surveys, Ottawa, and by other research organizations.

Coal output in 1953 amounted to $15,900,000$ tons valued at $\$ 102,720,000$ a decrease of 10 p.c. in volume and 8 p.c. in value from 1952. The decline was greatest in Alberta, the largest producer, where it amounted to 18 p.c., followed by British Columbia with a 12-p.c. decrease.

Because of the substitution of fuel, diesel oil and natural gas for coal for domestic and building heating, for railway use and for power production, Canadian consumption of coal declined $7 \cdot 8$ p.c. in 1953 to $38,141,000$ tons. The decrease was almost evenly divided between domestic and imported coal. An idea of the rapid growth in the changeover from coal to oil in domestic and building heating during the past decade may be gained from the fact that, during the 1941-45 period, the oil consumed, estimated as the heat equivalent in terms of coal, amounted to almost 6 p.c. of the total fuel used. By 1953, this had spiralled to 45 p.c. of the total fuel used.

One of the heaviest losses encountered by the coal industry has been that of the shrinking railway market because of the railway conversion from coal to oilburning and to diesel locomotives. During 1953, the Canadian National Railways, as part of its five-year conversion program to be completed in 1956, converted 99 coal-burning steam locomotives to oil, mainly in Western Canada, which alone means a loss of approximately 297,000 tons of coal yearly. Moreover, Canadian railways added a further 206 diesel units to their rolling-stock during 1953, bringing the total number of diesels in use at the end of the year to 969 . In the production of thermal power, coal vies strongly with oil and natural gas. This type of power is coming into increasing use particularly in the Prairie Provinces where the economical supply of hydro-generated power has about reached its peak. The construction of one and possibly two large thermal plants is planned for the near future in Alberta, both near large reserves of coal.

Coal production by strip mining, a lower-cost method carried out in all provinces except Nova Scotia, increased 7-3 p.c. to 6,195,059 tons in 1953. In Saskatchewan, $99 \cdot 7$ p.c. of the output was strip mined, in Alberta almost 43 p.c., in New Brunswick about 73 p.c., and in British Columbia, 19 p.c. The average output per man-day in strip mining was estimated at 11.4 tons compared with $2 \cdot 6$ tons for underground.

The most outstanding development in mechanization in recent years is the 'Dosco Miner' developed in the mines of Dominion Steel and Coal Corporation Limited in Nova Scotia. The machine, which is rapidly coming into general use in eastern collieries, is capable of cutting coal from the longwall face without the aid of explosives and of loading it onto conveyors at the rate of 500 tons of coal per eight-hour shift.

During the review period, considerable research into the complex phenomena relating to rock pressures in mines, with special reference to the violent occurrence of "bumps" and "outbursts", continued to be carried out in Western Canada and in the Maritimes by the Department of Mines and Technical Surveys.

The industry's efforts to improve the quality of its products have been concentrated on the application of modern methods of beneficiation such as cleaning, drying and the briquetting of fines. During the review period the manufacture of briquettes increased in Western Canada particularly in the Mountain Park, Cascade and Crowsnest areas of Alberta, where briquettes suitable for locomotive use are prepared from coal fines. The production of these briquettes has aided materially in retaining some of the railway market. In 1953 the railways absorbed, for locomotive use, over 81 p.c. of the 708,493 tons of briquettes produced in Canada that year. A new plant for the manufacture of these briquettes was put into operation in the East Kootenay area of British Columbia.

Interest also increased in the possible production of briquettes for use in both domestic and industrial stokers, and an investigation into these possibilities was started at the Mines Branch, Department of Mines and Technical Surveys.

Nova Scotia and New Brunswick.-Nova Scotia produces high and medium volatile bituminous coking coals in the Sydney, Cumberland and Pictou areas and some non-coking bituminous from the Inverness area. Production in 1953 amounted to $5,787,000$ tons compared with $5,905,000$ tons in 1952 , and accounted for 77 p.c. of the total value of the Province's mineral output in 1953. Most of the major operations are completely mechanized. However, as much of the production comes from submarine workings, operators are faced with the problem of increasingly high transportation costs. To overcome this and to increase output, Dominion Steel and Coal Corporation Limited, the largest operator, is building a 6,225 -foot inclined tunnel into its workings at Glace Bay. The tunnel will be equipped with a belt-conveyor system to bring the coal to the surface with a single-track road for use in transporting men and material to and from the surface by rope haulage.

The Geological Survey of Canada continued to carry out coal research investigations at its Sydney office with a view to assisting development and prolonging the productive life of the Sydney coalfield. The office is operated in co-operation with the Nova Scotia Department of Mines and the Nova Scotia Research Foundation.

Output in New Brunswick is a high volatile bituminous coal from the Minto area. In 1953, it amounted to 721,000 tons compared with 743,000 tons in 1952.

Most of the coal produced in the Maritimes is used locally for industrial and domestic purposes; the remainder is shipped to Ontario and Quebec.

Saskatchewan.-Saskatchewan produces only lignite coal, chiefly from the Bienfait division of the Souris area, the main producing fields being the Estevan and Roche Percee divisions. Production in 1953 totalled $2,000,000$ tons, a decline of 62,000 tons from 1952. Approximately 65 p.c. of the output was shipped to Manitoba for domestic and industrial use.

Alberta.-Alberta produces almost all types of coal including a small tonnage of semi-anthracite. Production in 1953 dropped to $5,917,000$ tons from $7,195,000$ tons in 1952. About 59 p.c. of the output was bituminous and the remainder mainly subbituminous and lignite. Coking bituminous coal ranging from high to low volatile is produced in the Crowsnest, Nordegg and Mountain Park areas. Another large bituminous mine in the Mountain Park area was closed leaving the area with only one operating property. This mine and the one remaining operating mine in the Nordegg area are almost entirely dependent upon the continued use of coal by the
railways. Lower-rank bituminous non-coking coals are produced in the Lethbridge, Coalspur, Saunders and several other areas of the foothills. The coal in the Drumheller, Edmonton, Brooks, Camrose, Castor and Carbon areas is classed as subbituminous and that in the Tofield, Redcliff and several other areas is on the border of subbituminous and lignite. The Cascade area was the only field that produced semi-anthracite in 1953.

British Columbia.-Bituminous coking coal ranging from high to low volatile is mined on Vancouver Island and in the East Kootenay, Telkwa and Nicola areas. Small quantities of subbituminous coal have been produced mainly in the Princeton field. In the Kootenay (Crowsnest) area, the largest producing field, mediumtemperature oven (by-product) coke is manufactured for industrial consumption.

## Section 2.-Government Aid to the Mineral Industry*

Subsection 1.-Federal Government Aid
The Department of Mines and Technical Surveys.-The Federal Department of Mines and Technical Surveys came into being on Jan. 20, 1950, in the reorganization of the former Department of Mines and Resources. The Department has five branches-Surveys and Mapping Branch, Geological Survey of Canada, Mines Branch, Dominion Observatories, and Geographical Branch. The Department's functions include the administration of the Emergency Gold Mining Assistance Act and of the Explosives Act.

Surveys and Mapping Branch.-The Branch provides the base maps required for use in the development of Canada's natural resources, produces and distributes all Canadian aids to navigation, is responsible for legal surveys of federal lands, and provides a national system of levelling and precision surveys for use as geodetic control by federal, provincial and private agencies.

The Geodetic Survey provides the original surveys that form the framework or basic control for mapping throughout Canada and for engineering and surveying projects related to natural resources development. Survey stations are established at fairly regular intervals across Canada and are marked by permanent monuments whose latitudes, longitudes and elevations above mean sea-level are determined with a high degree of accuracy. The determination of geographical position by astronomical observations for mapping purposes in northern areas is being superseded by Shoran trilateration in which the adaptation of radar is meeting with success.

The Topographical Survey provides topographical maps that show all significant natural and artificial features fundamental to the study and economic development of mineral and other natural resources. The Topographical Mapping Section is responsible for the field surveys that provide ground control for mapping from aerial photographs, and the Air Survey Section plots and produces maps from these aerial photographs. The National Air Photographic Library indexes, preserves and distributes prints for all aerial photography done by or for the Federal Government. The Topographical Survey administers the Canadian Board on Geographical Names.

The Legal Surveys and Aeronautical Charts Division makes and records legal surveys of federal Crown lands in the Yukon and Northwest Territories, the National Parks and Indian lands and reserves. This Division prepares and distributes

[^164]aeronautical charts (for which the preparation of base maps involves planimetry derived from tri-camera aerial photography and altimetry derived from radar measurements), flight manuals and electoral maps.

The Canadian Hydrographic Service is responsible for the charting of the coastal and inland navigable waters of Canada, the analyses of tides and tidal current phenomena and the investigation of water-surface elevations of the St. LawrenceGreat Lakes waterway. The resultant data are published in the form of official navigation charts, volumes of Sailing Directions, Tide Tables and Water Level Bulletins.

The Map Compilation and Reproduction Division prepares, draughts and reproduces maps, charts and plans for lithographic printing in multi-colour. The work includes the preparation and photo-reproduction of air-chart bases, the reproduction and printing of air information for aeronautical charts, the preparation and printing of topographical maps, and the reproduction and printing of hydrographic charts.

The Branch had 17 geodetic, 33 topographic and 20 legal survey parties in the field in 1953. Nine ships and six motor launches were engaged in charting operations.

Geological Survey of Canada.-The primary function of the Geological Survey is to obtain information on the geology of Canada that will be of assistance in the search for and development of mineral deposits. The results of its activities also provide a basis for the appraisal and conservation of Canada's mineral resources generally, including water supplies, for soil surveys and for the solution of geological problems that frequently arise in construction projects. Reports issued by the Geological Survey include: memoirs with fairly complete descriptive accounts of the geology of particular areas and accompanied, as a rule, by geological maps; bulletins dealing with problems rather than areas; papers issued as soon as possible after the close of the field season, treating separately of each area and summarizing the information acquired; and the Economic Geology Series reports, dealing in a comprehensive way with mineral deposits of a particular type. Coloured geological maps are issued on various scales from one inch equalling a few hundred feet to one inch equalling eight or more miles, the common standard scales being one inch to one mile and one inch to four miles. Preliminary maps showing the geology in pattern are issued shortly after the field season ends for those areas where the search for metals or minerals is active.

In 1953, the Geological Survey had 79 parties in the field, one more than in 1952. The work undertaken included an aerial reconnaissance by conventional aircraft in northern Ungava covering the northern continuation of the QuebecLabrador iron belt, and the investigation of a folded belt of metamorphic rocks in northern Ellesmere Island, less than 500 miles from the North Pole.

The Regional Geology Division carries out geological surveys of the bedrock formations and associated ores and economic materials of Canada by means of annual programs of systematic investigations and geological mapping, mainly of areas that have been mapped topographically. It conducts airborne magnetometer surveys as an aid to regional geological mapping and prospecting.

The Palæontology Division carries out palæontological and stratigraphical investigations and studies that are of great importance in geological mapping, interpretation of structures, and exploration for natural fuels and minerals.

The Mineralogy Division prepares and distributes mineral and rock collections for use by prospectors and educational institutions, organizes and maintains a systematic collection of minerals for reference and exchange, and identifies mineral specimens sent in by the public.

The Radioactive Resources Division is concerned with the field and laboratory investigation of Canadian resources of radioactive raw materials and maintains free testing and advisory services for uranium prospectors. As agent of the Atomic Energy Control Board, the Division receives the results of analyses for uranium and thorium and reports on the development of radioactive mineral deposits. This information is incorporated in a confidential inventory.

The Pleistocene and Engineering Geology Division makes studies of the unconsolidated materials that mantle the bedrock throughout the greater part of Canada. The geological study of these materials is a prerequisite for many types of engineering and agricultural projects.

The Fuels Resources Division is engaged in the technical study and interpretation of rock cuttings from wells drilled for oil and natural gas with a view todirecting exploration for these minerals to localities offering the greatest promise of production. The Division also investigates the geology of coal deposits as a basis for estimating Canada's coal reserves and conducts research into the microscopic character of individual seams.

The Geological Cartography Division prepares cartographical representations for the reproduction of preliminary and standard geological maps, compiles and edits geological and related maps, prepares drawings for maps in the Airborne Magnetic series, and provides drawings, tracings, diagrams, designs, etc., as required.

The technical editing of all reports and map manuscripts published by the Geological Survey is conducted by the Geological Manuscripts Division, which also prepares quarterly and annual reports on the progress of field and office projects, supervises papers prepared for publication and supervises and assists in the preparation of geological map compilations.

Mines Branch.-The Branch is concerned in the main with the technological problems of the mineral industry and maintains well-equipped ore-testing, mineraldressing, fuel-research, ceramic, radioactivity and industrial minerals laboratories.

The Mineral Dressing and Process Metallurgy Division serves Canada's mineral industry through tests, investigations and research on all types of Canadian ores. The main purposes of these activities are to devise economic and efficient methods of processing ores-a service of special benefit to new mining ventures and particularly to those developing low-grade or complex deposits-and. to assist mine operators in solving problems encountered in mill practice. Much of the Division's recent research has been on the extraction of gold from complex ores and on the processing of titanium ores. As a service to industry and to assist the Department of National Defence, extensive investigations have been conducted on the corrosion of metals.

The Radioactivity Division is concerned with investigations of radioactive ores, particularly with the development and application of methods whereby marketable concentrates may be produced from individual uranium ores. The primary purposes of the Division's technical services and laboratory facilities are to help bring new properties into production by determining methods suitable for treatment of particular ores and to encourage the search for uranium deposits. Extensive
experimental and development work is conducted on the treatment of ores and products from the properties of Eldorado Mining and Refining Limited, a Crown company.

The work of the Industrial Minerals Division consists of tests, research and investigative work on industrial minerals, including water used for industrial purposes. The Division makes field studies of deposits, examines industrial processes utilizing them and conducts research into methods of beneficiating minerals from deposits of marginal and submarginal quality to bring them to the standards demanded by modern industry.

The Fuels Division studies the type, quality and uses of all fuels. It makes studies of production methods, largely for the purpose of devising cheaper and more efficient methods of mining, preparing, processing and utilizing coals. Work in the field or laboratories includes: the investigation of methods of mining, particularly of rock pressures in relation to the economical mining of coal at depth, and of coal preparation such as the cleaning and utilization of the low-grade finer sizes of bituminous coal which predominate in Canadian mining operations; the development of a coal-fired gas-turbine; investigations into the making of coke for foundry and other metallurgical uses, and into the increased use of Canadian coal in domestic stokers; high-pressure hydrogenation tests on coal for the production of synthetic liquid fuel, and hydrogenation as applied to the refining of oil from the bituminous sands of Alberta; and analyses of crude oils and natural-gas products.

The Physical Metallurgy Division aids the metal industries through the development of new alloys, new manufacturing techniques and new applications, and in activities aimed toward improving present practices in metal fabrication. It serves the Department of National Defence by extensive research and investigative work concerned broadly with the development of defence materials and prototype equipment and with the metallurgical problems of that Department. The Division also handles the metallurgical problems of the atomic energy project at Chalk River, Ont.

The Mineral Resources Division provides a mineral information service that is freely used by government departments, mining and allied industries, and others interested in mining or its significance in the Canadian economy. A mineral resources index inventory is maintained of all known occurrences and of mines, both active and potential, special attention being given to those minerals in which Canada is deficient. The Division makes economic studies of different phases of the mining industry. It gives technical advice as required for the administration of the Emergency Gold Mining Assistance Act and prepares reports, on request, to aid in the administration of such matters as: tax exemptions on new mining properties; tax deductions as an encouragement to prospecting for base metals, other minerals and petroleum; and tax allowances for the drilling of deep-test wells for oil in unproven fields.

Dominion Observatories.-The two main units of the Dominion Observatories are the Dominion Observatory at Ottawa, Ont., and the Dominion Astrophysical Observatory at Victoria, B.C. Permanent magnetic observatories are maintained at Agincourt, Ont., Meanook, Alta., and at Resolute Bay and Baker Lake, N.W.T. Seismic stations for recording earthquakes are operated at Victoria, Horseshoe Bay and Alberni, B.C.; Ottawa and Kirkland Lake, Ont.; Seven Falls and Shawinigan Falls, Que.; Halifax, N.S.; Saskatoon, Sask.; and Resolute Bay, N.W.T.

The Dominion Observatory, Ottawa, Ont., is responsible for the time service of Canada, which involves nightly astronomical observations of star positions and radio-broadcast services for distributing accurate time to all parts of Canada. Other astronomical activities centred at Ottawa include upper atmospheric studies by means of meteor observations, studies of the sun and its effect on earthly conditions, and mathematical studies of the atmospheres of the sun and stars. The geophysical work, also administered from Ottawa, includes the magnetic survey of Canada, with emphasis on aids to air and sea navigation, as well as field and observatory work of interest to the geophysical prospector. The methods of seismology are employed to study important aspects of the earth's crust in Canada and to assist in world-wide investigations of the earth's interior. Gravity observations are carried on throughout Canada with a generally similar purpose, special attention being paid to methods of locating mineral deposits.

The Dominion Astrophysical Observatory, Victoria, B.C., is devoted to fundamental research into the physical characteristics of the sun, stars, planets and the material of interstellar space. Its 73 -inch reflecting telescope is one of the largest in the world and through its use many important contributions have been made to astronomical knowledge.

The Geographical Branch.-The function of the Branch is to organize and make available all the geographical data on Canada and on foreign countries that might be of use in promoting the economic, commercial and social welfare of Canada. The work is of two kinds-the compilation of geographical material of national sigaificance, and geographical surveys in the field. The chief project at present is the compilation of an Atlas of Canada in co-operation with various Departments of the Federal Government.

The Dominion Coal Board.*-The Dominion Coal Board was established by the Dominion Coal Board Act (R.S.C. 1952, c. 86) which was proclaimed on Oct. 21, 1947. By this Act, the Board was constituted a department of Government to advise on all matters relating to the production, importation, distribution and use of coal in Canada. The Board is also charged with the responsibility of advising upon and administering transportation subventions.

Ancillary to these principal duties, the Board is empowered to undertake research and investigations with respect to:-
(1) the systems and methods of mining coal;
(2) the problems and techniques of marketing and distributing coal;
(3) the physical and chemical characteristics of coal produced in Canada with a view to developing new uses therefor;
(4) the position of coal in relation to other forms of fuel or energy available for use in Canada;
(5) the cost of production and distribution of coal and the accounting methods adopted or used by persons dealing in coal;
(6) the co-ordination of the activities of Government Departments relating to coal;
(7) such other matters as the Minister may request or as the Board may deem necessary for carrying out any of the provisions or purposes of the Act.

In addition, the Dominion Coal Board Act provides authority in the event of a national fuel emergency to ensure that adequate supplies of fuel are made available to meet Canadian requirements.

At the outset, the Board was concerned with the readjustment of the Canadian coal-mining industry to peacetime conditions and the implementation of the recommendations of the Royal Commission on Coal (1946). On the Board's

[^165]initiative, the system of transportation subventions, designed to equalize the competitive position of Canadian and imported coals in Central Canada markets, was reorganized and extended. As a result of the revised Government assistance, production reached record heights and the movement of Canadian coals to the Ontario and Quebec markets from Eastern and Western Canada increased greatly. Employment also increased as did average production per man-day.

However, starting in 1952, new economic and technological developments began to have an adverse effect on the situation. It became evident that the Canadian coal industry was being faced with problems that could not have been foreseen by the Royal Commission. The greatly expanded development of oil and natural gas in the western provinces has resulted in growing inroads by these fuels into the markets for locally produced coal. With the extension of pipelines and a plentiful supply of cheap imported residual oils, the impact of competing sources of energy on coal markets throughout Canada has been increasingly felt. Dieselization of the railways and conversion of coal-burning locomotives to oil has drastically cut, and threatens to virtually eliminate in the not too distant future, one of the main traditional outlets for Canadian coal. The situation has been worsened by other factors including increased transportation costs on the movement of Canadian coals and a widening price spread at the pithead in favour of the imported products.

As a result of these conditions, which have been aggravated by a succession of mild winters, the Canadian coal-mining industry reached a critical stage during the year ended Mar. 31, 1954, despite the fact that in that year $\$ 9,861,240$ was paid in transportation subventions as compared with $\$ 5,949,005$ in $1952-53$. The Board, in its studies and recommendations, has kept pace with developments and the Government, fully cognizant of the situation, is currently seeking as sound a solution as possible to the difficulties confronting the coal industry. The Board's recommendations as to a Canadian coal-production policy have been under study by an ad hoc Committee on coal subvention policy, composed of deputy ministers of the Departments concerned, preliminary to Government decision.

As agent of the Minister of Mines and Technical Surveys, the Board continued to handle applications for loans under the Maritime Coal Production Assistance Act (R.S.C. 1952, c. 179) and to administer the loans granted thereunder. The Board also continued to administer payments under the Canadian Coal Equality Act (R.S.C. 1952, c. 34) which provides a subsidy on Canadian coal used in the manufacture of coke for metallurgical purposes. During the year ended Mar. 31, 1954, 752,752 tons were bonused at a cost of $\$ 372,612$.

The Dominion Coal Board maintains a continuous review of Canada's energy requirements. Because of the growing impact of oil and natural gas on the markets for Canadian coal, study has been intensified on the relation of the competing sources of energy and of possible new outlets for the solid fuel. An Interdepartmental Committee on Energy, composed of representatives from the Board and Departments and agencies of the Government concerned, has recently been established to centralize all information concerning sources of energy and to investigate their relation to the national economy. Furthermore, a power survey of the Maritime Provinces is under way which, it is hoped, will disclose means whereby the price of power may be reduced with a consequent greater demand for coal, and the basic conditions defined under which an increasing development of coal-burning plants may be planned and put into operation.

The Board, since its inception, has worked toward the co-ordination of the activities of various Government Departments and other bodies relating to coal. On the matter of technical research as related to the marketing and distributing of coal, the Board has maintained close liaison with the Division of Fuels of the Department of Mines and Technical Surveys. Under the auspices of the Board, Dominion-provincial conferences on coal research have been held annually since 1949 for the purpose of co-ordination and exchange of ideas.

At the instance of the Board, an Interdepartmental Committee on the Supply to the Armed Forces of Fuel and Equipment for Heating was set up in 1949 to advise on the purchase and supply of fuel to the Armed Services. In addition, close contact has been maintained with the purchasing agents of those Government Departments using coal whom it has advised on questions connected with the buying of coal.

In a wider sphere, the Board has met on occasion with the Coal Policy Committee of the Provincial Ministers of Mines and has given consideration to recommendations made by the latter body relating to coal. It has also kept contact with trade and other associations concerned with the various phases of the Canadian coal industry in order to foster better mutual understanding of governmental and private endeavour. It has generally constituted a central agency through which representations could be made to the Government.

Pursuant to the recommendations of the Royal Commission, the Board has continued to work for a reduction of customs duties and sales tax on coal-mining machinery. It has also maintained its efforts to create a uniform system of coalmine cost-accounting.

The Dominion Coal Board consists of seven members including the Chairman who is its Chief Executive Officer with the status of a deputy minister. The Board is responsible to, and subject to the direction of, the Minister of Mines and Technical Surveys.

## Subsection 2.-Provincial Government Aid*

Nova Scotia.-Under the provisions of the Mines Act (S.N.S. 1950, c. 3), the Government of Nova Scotia may assist a mining company or operator in the sinking of shafts, slopes, deeps and winzes and the driving of adits, tunnels, crosscuts, raises and levels. This assistance may take the form of work performed under contract, the payment of bills for materials and labour, or the guarantee of bank loans. Any such work must be approved by the Department of Mines. The Government is also authorized to assist the mining industry to procure power on the most economical basis, and may guarantee the Nova Scotia Power Commission against any loss incurred on account of capital investments made for that purpose or revenue. Mining machinery and equipment that may be used in searching for, testing and mining minerals may be made available through the Government. Such equipment is under the direct supervision of the Chief Mining Engineer.

The Government of Nova Scotia is also empowered to make any regulations considered necessary for increasing the output of coal. Such regulations cover the appropriation, on payment, of unworked coal lands, operation of coal mines, loans or guarantees for loans. Close co-operation is maintained with the Federat Government in carrying out federal regulations made to secure increased production and economical distribution of coal from the mines of the Province.

* Compiled from material supplied by the provincial goveraments.

New Brunswick.-There are five divisions under the Mines Branch of the Department of Lands and Mines. The Mineral Lands Division administers the disposition of Crown mineral rights including the issuing of prospecting licences, recording of mining claims, issuing of mining licences and leases, and other matters pertaining thereto. Detailed and index claim maps are prepared for distribution. The Mine Inspection and Engineering Division administers the safety regulations governing operations under the Mining Act. Regular inspections of all mines are performed. Laboratory facilities are maintained. It is the responsibility of this Division to approve equipment used in mines. The Geological Division carries on general and detailed geological mapping and investigation. Maps and reports are prepared for distribution. Mineral and rock specimens are examined for prospectors. Preliminary examinations of mineral prospects are performed where requested and circumstances warrant. The Mine Assessment Division is responsible for collection of mining tax and royalties and the preparation of statistics concerning mineral production are prepared. The Bathurst Office Division serves as recording office for northeastern New Brunswick. In addition, claim maps as well as topographical, geological and aeromagnetic maps are available for inspection and distribution. The staff is prepared to provide information concerning the Mining Act and the use of various types of maps.

Quebec.-The Mining Act (R.S.Q. 1941, c. 196) authorizes the Quebec Department of Mines to build, maintain and improve roads needed for mining development. Such work is done by contract under the supervision of departmental engineers. The Act gives the Department considerable latitude in this respect. Certain major roads have been built to new mining districts and completely paid for; on the other hand, if a particular property requires a branch road from an established highway, the owner may be required to contribute a portion of the cost. To prevent the development of uncontrolled settlements in the vicinity of operating mines, the Department regulates the use of land and permits the establishment of well-organized communities. The municipal organization of such communities is jointly administered by the Department of Mines and the Department of Municipal Affairs.

The Department maintains well-equipped laboratories for the benefit of prospectors, geologists, engineers and mine operators. The facilities include equipment for mineralogy, petrography, ore-dressing, and analysis by wet or dry assays, spectrography or X-ray. Qualitative and mineralogical determinations are made free, but quantitative analyses are made for a fee according to a tariff schedule. The Mining Act provides free coupons to be used by prospectors in paying for such analyses.

At Val d'Or in western Quebec, the Department maintains a sampling and treatment plant where tests may be made on bulk samples and where precious metals may be recovered for prospectors at cost price. The treatment plant, which is fully equipped to carry out a wide variety of pilot-scale ore-dressing tests, is at the disposal of mine owners who wish to establish mill-flow sheets. At Thetford Mines, in the heart of the asbestos district, the Department maintains a laboratory where classification of asbestos is made according to standard designations or
grades. The Province has authorized the establishment of research laboratories to assist mining and metallurgical enterprises in the processes and techniques of extracting, transforming and utilizing ores.

The Department undertakes geological mapping and inspection. The work is divided between two branches, one responsible for reconnaissance (aerial) mapping, the other doing detailed mapping in mining districts and inspection of individual deposits or properties. Field parties are headed by geologists or mining engineers. The published reports on these investigations are distributed free upon request. During the field season, about 30 parties are maintained in different sections of the Province. In mining districts, offices in charge of resident geologists are maintained to collect, preserve and compile geological information disclosed by mining explorations and individual sheets of the compilation are made available to the public.

The Department employs inspectors whose duties are almost exclusively concerned with the safety of workmen in operating mines. Two Mobile Mine Rescue Stations are also operated and a mine rescue training program conducted.

In the field of education for prospectors, five-week courses at university level are organized each year at Laval and Montreal Universities. University scholarships are granted each year to deserving undergraduates and post-graduate students in mining, geology and metallurgy, thus contributing to the training of qualified engineers for the benefit of the mining industry. Lectures are given to prospectors at different localities throughout the Province.

Ontario.-The Ontario Department of Mines renders a multiplicity of services of direct assistance to the mining industry within the Province, as briefly enumerated below.

Mining Lands Branch.-This Branch handles all matters dealing with the recording of mining claims, assessment work, etc., and the final issuance of title to mining lands. As a service to the mining public, individual township maps are prepared and kept up to date showing lands open for staking and recorded and patented claims therein. As new surveys are made or later data become available, maps are revised in keeping with such information. District Mining Recorders maintain offices at strategic locations throughout the Province.

Geological Branch.-A continuing program of geological mapping and investigation is carried out by the geological staff of the Department. Detailed reports and geological maps of the aress studied are made available to the public. In many of the active areas of the Province, resident geologists are engaged to gather, and make available to the public, information concerning geological conditions, exploration and development within their respective districts. One geologist specializing in industrial minerals is maintained on the staff to examine deposits of this order to investigate methods of treatment and recovery of such minerals, and to compile data on the uses, specifications and markets for such products. Collection and dissemination of information on ground water resources is also a function of the Geological Branch. During the winter months, courses of instruction for prospectors are held in various centres throughout the Province.

Laboratories Branch.-The Provincial Assay Office, located in the East Block of the Parliament Buildings, Toronto, carries out wet analyses and assays of metal and rock constituents on a custom fee basis and also renders the same service free of charge to holders of valid assay coupons issued for the performance of assessment work on mining claims. The Timiskaming Testing Laboratories situated at Cobalt, in addition to performing fire assays and chemical analyses, conducts a bulk sampling plant mainly to assist the producers of the area in the marketing of the cobaltsilver ores. A Cable Testing Laboratory, wherein all hoisting ropes in use at the mines are periodically tested, is operated under the supervision of the Inspection Branch.

Inspection Branch.-The main function of this Branch is the regular examination of all operating mines, quarries, sand and gravel pits and certain metallurgical works with a view to ensuring proper conditions of health and safety to the men employed. District offices to serve the local areas are maintained in the major mining centres of the Province. Mine rescue stations in the principal mining sections are operated under the supervision of the Inspection Branch.

Exhibitions.-The Department each year presents displays pertaining to mining within the Province at such exhibitions as the Central Canada at Ottawa, the Canadian National at Toronto, and at other centres from time to time.

Publications Branch.-All maps and reports of the Department are distributed through the agency of the Publications Branch located at the main office of the Department.

Library.-A mining library for the use of the Department and the public is maintained within the Department. This library is comprised mainly of publications and maps of the Federal and Provincial Governments of Canada as well as of numerous periodicals and bulletins from the United States.

Mining Roads.-The most recent service of the Department is the provision of mining roads. In general, two classes of road-building are envisioned under this program. The first class of road contemplated is a mining access road, financed solely by the Department, for the purpose of opening up favourable areas for exploration; the second class of road, undertaken jointly by the Department and local mining operators, is intended to assist in the provision of required service roads to such operators.

Manitoba.-The Mines Branch of the Manitoba Department of Mines and Natural Resources offers four main services of assistance to the mining industry: (1) maintenance, by the Mining Recorder's office at Winnipeg and The Pas, of all records essential to the granting and retention of titles to every mineral location in Manitoba; (2) compilation, by the geological staff of the Branch, of information pertinent to mineral occurrences of interest both in the past and the present and expansion of this information by a continuing program of geological mapping; (3) enforcement of mine safety regulations and, by collaboration with industry, introduction of new practices, such as those concerned with mine ventilation and the training of mine rescue crews, which contribute to the health and welfare of mine
workers; and (4) maintenance of a chemical and assay laboratory to assist the prospector and the professional man in the classification of rocks and minerals and the evaluation of mineral occurrences.

Saskatchewan.-The assistance given to the mining industry by the Saskatchewan Government consists of: (1) the maintenance of a geology department, under a principal geologist; (2) resident geologists stationed in or near the principal mining areas; (3) geological survey parties and reports; (4) prospectors' school; (5) prospectors' assistance plan; and (6) native trainees plan.

The Geology Department has its headquarters at Regina. The principal geologist and staff are available at all times to give information and other help to interested parties.

A resident geologist is stationed at Uranium so as to give all possible assistance to prospectors in this area. During the summer months, geological survey parties study and map attractive areas and prepare reports which are made available to anyone interested. The prospectors' school gives basic training in geology, mineralogy and prospecting and exploration techniques to future prospectors. Prospecting has become a skilled and specialized trade and instruction in this field will help young men to get a start in a profession very vital to the mining industry of Canada. The prospectors' assistance plan, which is intended to encourage prospecting, assists bona fide prospectors by way of equipment and transportation and provides technical advice regarding geologically favourable areas.

The native trainees plan has a twofold purpose: (1) to train the Indians and Métis in the northern part of the Province to recognize the common minerals so that, as they go about their usual work, they will be aware of mineral indications that may be of value; (2) to train them to a point where they may be used as prospectors for the exploration companies and, by so doing, extend their means of livelihood beyond the hunting and trapping field.

Alberta.-Alberta Government assistance to the mining industry is diversified in character. The Mines Division of the Department of Mines and Minerals regulates coal mines and quarries and maintains standards of safety by inspection and certification of workers. The Workmen's Compensation Board also maintains safety standards and trains mine-rescue crews. The oil and gas industries are served in a similar way by the Petroleum and Natural Gas Conservation Board. Its regulatory measures, however, are also concerned with the prevention of waste of oil and gas resources and with giving each owner of oil and gas rights the opportunity of obtaining a fair share of production. This Board compiles periodic reports and annual records which are of invaluable assistance in oil development in Alberta. The mining industry is also served by the Research Council of Alberta which has made geological surveys of most of the Province and has carried forward projects concerned with the uses and development of minerals. The Council has studied the occurrence, uses and analysis of Alberta coals and their particular chemical and physical properties, the use of coals in the generation of power, the up-grading and the cleaning of coal and has also studied briquetting, blending,
abrasion loss, shatter and crushing strength, asphalt binders and dust-proofing of coal. Studies have been made of glass sands, salt, fertilizers, cement manufacture and brick and tile manufacture.

The Province from time to time has had Commissions examine various aspects of the mining industry when it was considered that their findings would be of assistance in developing such industries. The Province, together with the Canadian Association of Oil Well Drilling Contractors and the Western Canada Petroleum Association, maintains a detailed supervisory and safety training program concerned with the drilling of oil and gas wells. Of assistance also to mining companies and oil companies are the special deductions provided for in the Alberta Corporation Income Tax Act. These follow the parallel provisions in the Federal Income Tax Act.

British Columbia.-The Department of Mines of British Columbia provides the following services: (1) detailed geological mapping as a supplement to the work of the Geological Survey of Canada; (2) free assaying and analytical work for prospectors registered with the Department; (3) assistance in the field to the prospector by departmental engineers and geologists; (4) grubstakes, limited to a maximum of $\$ 500$, for prospectors; (5) assistance in the construction of mining roads and trails; and (6) inspection of mines to ensure safe operating conditions.

## Section 3.-Mining Legislation

Federal Mining Laws and Regulations.*-The Federal Government administers the mineral lands of the Yukon Territory and the Northwest Territories as well as those within Indian reserves and in National Parks.

Mining Acts and Regulations covering the Yukon and Northwest Territories are administered by the Lands Division, Northern Administration and Lands Branch, Department of Northern Affairs and National Resources. Grants issued for federal lands (the property of the Federal Government) in these regions reserve to the Crown the mines and minerals underlying such lands.

Mining rights on vacant and certain other federal lands may be acquired by entry or lease for a period usually of 21 years, renewable for further periods of like duration, on the terms and conditions specified in the various Acts and Regulations relating to federal lands.

The disposal of minerals occurring in Indian reserves is subject to the consent of the Indians occupying the reserve.

The Acts and Regulations governing mining and quarrying on federal lands are summarized in Report No. 828, entitled Mining Laws of Canada, issued in 1950 by the Mines Branch, Department of Mines and Technical Surveys, Ottawa. This publication also lists all the laws and regulations pertaining to mining on federal lands. Copies of these individual Acts and Regulations may be obtained by applying to the Northern Administration and Lands Branch, mentioned above. Another publication of interest in connection with mining regulations and available from the aforementioned Mines Branch is entitled Summary Review of Dominion Tax and Other Legislation Affecting Mining Enterprises in Canada.

[^166]Provincial Mining Laws and Regulations.*-All Crown mineral lands lying within the boundaries of the several provinces (with the exception of those within Indian reserves and National Parks which are under the jurisdiction of the Federal Government) are administered by the respective provincial governments.

The granting of land in any province, except Ontario and Nova Scotia, no longer carries with it mining rights upon or under such land. In Ontario, mineral rights are expressly reserved if they are not to be included. In Nova Scotia, all minerals belong to the Crown except limestone, gypsum and building materials and, in granting land from the Crown, the right to these minerals goes with the title. Some early grants in British Columbia, Alberta, Saskatchewan, Manitoba, New Brunswick and Quebec also included certain mineral rights. Otherwise, mining rights must be separately obtained by lease or grant from the provincial authority administering the mining laws and regulations. Mining activities may be classified as placer, general minerals (or veined minerals and bedded minerals), fuels (coal, petroleum, gas) and quarrying. Under these divisions of the provincial mining industry, regulations are summarized as follows:-

Placer.-In those provinces in which placer deposits occur there are regulations defining the size of placer holdings, the terms under which they may be acquired and held, and the royalties to be paid.

General Minerals.-These minerals are sometimes described as quartz, lode, or minerals in place. With the exception of British Columbia, the most elaborate laws and regulations apply in this division. In all provinces, except Alberta, a prospector's or miner's licence, valid for one year, must be obtained to search for mineral deposits, the licence being general in some cases but limited in others. A claim of promising ground of a specified size may then be staked. This claim must be recorded within a time limit, and payment of recording fees made, except in Quebec where no fees are required. Work to a specified value per annum must be performed upon the claim for a period of up to ten years. There is no time limit in British Columbia but $\$ 500$ assessment work, of which a survey may represent one-fifth, must be performed and recorded before a Crown grant may be obtained. In Quebec, a specified number of man-days of work must be performed and the excess may be carried forward for renewals of licence. Before mining can be commenced, a mining concession must be purchased for which it is necessary to produce an engineer's report indicating the presence of an orebody. The taxation applied most frequently is a percentage of net profits of producing mines or royalties. In the Province of Newfoundland, the provincial mining tax has been modified since Confederation on Mar. 31, 1949, to conform with the provincial obligations under the Federal-Provincial Tax Agreement. No other form of taxation or royalties now exists.

Fuels.-In provinces where coal occurs, the size of holdings is laid down, together with the conditions of work and rental under which they may be held. In Quebec, ordinary mining claims give rights to all mineral substances and to their development, and stakings for combustible natural gas, salt, coal, mineral

[^167]oil or naphtha, or iron sands may cover 1,280 acres per claim. Royalties are sometimes provided for. Acts or regulations govern methods of production. In the search for petroleum and natural gas, an exploration permit or reservation is usually required. However, in Alberta, Saskatchewan and British Columbia, leases usually follow the exploration reservation whether or not any discovery of oil or gas is made, because exploration costs are applicable in part on the first year's rental. In other provinces, except Manitoba, the discovery of oil or gas is usually prerequisite to obtaining a lease or grant of a limited area subject to carrying out drilling obligations and paying a rental, fees, or a royalty on production.

Quarrying.-Regulations under this heading define the size of holdings and the terms of lease or grant. On Quebec private lands, the quarry belongs to the owner; on Crown lands, mineral rights belong to the Crown and may be obtained in accordance with the provisions of the law, although the rights to exploit peat or marl must be obtained by special licence. In British Columbia quarry rights are not reserved in Crown grants.

Copies of mining legislation including regulations and other details may be obtained from the provincial authorities concerned.

## Section 4.-Statistics of Mineral Production*

The importance of mineral production, as compared with other primary industries in Canada, is indicated in Chapter XVII, and its part in the foreign trade of Canada is dealt with in Chapter XXII.

## Subsection 1.-Value and Volume of Mineral Production

Historical Statistics.--Definite records of the annual value of mineral production go back to 1886 only, although actual production began with the earliest settlements. The figures given in Table 1 are not strictly comparable throughout the whole period, as minor changes have been adopted in methods of computing both the metallic content of ores sold and the valuations of the products. Earlier methods resulted in a somewhat higher value than those now in use would have shown. However, the changes do not interfere with the general usefulness of the figures in showing the broad trends in the mineral industry.

Except for the 1920-30 period, the value of Canada's mineral production practically doubled each decade since the turn of the century. From $\$ 64,000,000$ in 1900 , it rose to $\$ 107,000,000$ in 1910 and $\$ 228,000,000$ in 1920. In 1930, it was $\$ 280,000,000$, rising to $\$ 530,000,000$ in $1940, \$ 1,045,000,000$ in 1950 and $\$ 1,331,211,503$ in 1953. Similarly, the revised index of physical volume of output from Canadian mines (see p. 514) advanced from $37 \cdot 6$ (average $1935-39=100$ ) in 1920 to $63 \cdot 9$ in 1930 and $125 \cdot 7$ in 1940 . In the next decade, however, the volume gain was not quite so rapid, the index standing at 145.4 in 1950 and 185.8 in 1953.

[^168]
## 1.-Value of Mineral Production, 188s-1953

| Year | Total Value | $\begin{gathered} \text { Value } \\ \text { per } \\ \text { Capita } \end{gathered}$ | Year | Total Value | Value per Capita | Year | Total Value | $\begin{gathered} \text { Value } \\ \text { per } \\ \text { Capita } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | 5 |  | \$ | 5 |  | \$ | \$ |
| 1886. | 10,221,255 | 2.23 | 1932. | 191,228,225 | 18.19 | 1943. | 530,053,966 | 44.94 |
| 1890. | 16,763,353 | $3 \cdot 51$ | 1933 | 221,495, 253 | 20.83 | 1944. | 485,819,114 | 40.67 |
| 1895. | 20,505,917 | 4.08 | 1934 | 278,161,590 | 25.90 | 1945 | 498,755, 181 | 41.32 |
| 1900. | 64,420,877 | 12.15 | 1935. | 312,344,457 | 28.80 | 1946. | 502,816,251 | 40.91 |
| 1905. | 69,078,999 | 11.51 | 1936. | 361,919,372 | 33.05 | 1947. | 644,869, 975 | 51.38 |
| 1910. | 106,823,623 | 15.29 | 1937. | 457,359,092 | 41.41 | 1918. | 820, 248,865 | 63.97 |
| 1915. | 137, 109, 171 | 17-18 | 1938 | 441, 823,237 | 39-62 | $1949{ }^{\text {a }}$ | 901,110,026 | 67.01 |
| 1920 | 227,859,665 | $26 \cdot 63$ | 1939 | 474,602,059 | $42 \cdot 12$ | 1950 | 1,045,450,073 | 76.24 |
| 1925. | 226, 583,333 | 24.38 | 1940 | 529,825, 035 | 46.55 | 1951 | 1,245,483,595 | 88.33 |
| ${ }_{19311}^{1930}$ | $279,873,578$ $230,434,726$ | $27-42$ $22-21$ |  | $560,241,290$ $566,768,672$ | $48 \cdot 69$ $48 \cdot 63$ | 1952. | $1,285,342,353$ $1,311,211,503$ | 89.07 90.06 |

[^169]${ }^{2}$ Includes value

Current Production.-Mineral production in Canada during 1953 reached a new high value of $\$ 1,331,200,000$, a figure $\$ 45,900,000$ or 3.6 p.c. above the previous year's total. The outstanding gain was in crude petroleum, which was $\$ 55,100,000$ above the recorded value for 1952 . Cement was up nearly $\$ 12,000,000$ and iron ore about $\$ 9,000,000$. In contrast, the output value for zinc dropped $\$ 34,400,000$, gold was lower by $\$ 13,400,000$ and coal was down nearly $\$ 8,300,000$.

The value of metals was down $2 \cdot 6$ p.c. from $\$ 727,900,000$ in 1952 to $\$ 708,900,000$ in 1953. Prolonged strikes at some of the gold mines curtailed output during the latter half of the year, so that the annual total amounted to $4,061,000 \mathrm{oz}$. t. valued at $\$ 139,800,000$ compared with $4,472,000$ oz. t. at $\$ 153,200,000$ in 1952 . Copper production was about 2 p.c. lower than in 1952 but higher prices raised the total value slightly to $\$ 150,600,000$. Zinc output rose 7 p.c. and lead gained $16 \cdot 8$ p.c., but price declines resulted in much lower values for these metals at $\$ 95,400,000$ and $\$ 52,000,000$, respectively. Iron-ore shipments at $6,500,000$ tons were the highest on record. Re-melt iron, a co-product of titanium ore smelting, was valued at $\$ 3,800,000$. Nickel at $\$ 160,900,000$ had the greatest value of any individual metal.

Mineral fuels, valued at $\$ 311,200,000$, in 1953 , increased 18 p.e. over 1952. Crude petroleum output increased to $81,300,000$ bbl. valued at $\$ 198,100,000$, thus leading all other minerals in value of production and exceeding gold which had held first place for nearly 25 years. On the other hand, coal production at $15,800,000$ tons recorded a drop of nearly $1,700,000$ tons from 1952, as several coal mines ceased operations. Natural gas output was close to $100,000,000,000 \mathrm{cu}$. feet valued at $\$ 11,000,000$.

Other non-metallic minerals were valued at $\$ 127,500,000$ in 1953 . Of that amount $\$ 87,600,000$ was for asbestos, which fell slightly in both quantity and value as compared with 1952. Barite output was nearly double the 1952 production but most of the other non-metals, such as feldspar, fluorspar, mica, tale and salt, showed little change.

A new high was established for structural materials at $\$ 183,600,000$ as compared with $\$ 168,800,000$ in 1952 . The increase was attributed to advances in the cement and clay products industries.

## 2.-Quantity and Value of Minerals Produced, 1951-53

| Mineral | 1951 |  | 1952 |  | 1953 ${ }^{\text {p }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
| Metallics |  |  |  |  |  |  |
| Antimony........... lb. | 6,702,164 | 1,436,713 | 2,330,900 | 601,483 | 1,530,000 | 344,290 |
| Beryllium ore........ Bismuth.......... lb lb | $\overline{230}, 298$ | $\stackrel{543,504}{ }$ | $\overline{162,373}$ | 347,224 | $\overline{98,821}$ | 197,308 |
| Cadmium............ | 1,326,920 | 3.556, 145 | 948,587 | ${ }^{2,086,891}$ | 1,315,989 | 2,631,978 |
| Cobalt................ " | 951,607 | 1,999,612 | 1,421,923 | 14,226,903 | 1,754,324 | 3,772,880 |
| Copper................... oz.t. | 539,941.589 | ${ }_{161,872,873}^{149,026,216}$ | $516,075,097$ $4,71,725$ | 143,246,016 | 503,224,887 $4,061,205$ | 139,826,286 |
| Indium................ ${ }^{\text {a }}$. |  | 1,368 |  |  | 6,000 | 13,500 |
| Iron ore.............. ton | 4,680,510 | 31,141,112 | 5,271,849 | 33,744,311 | 6,501,060 | 42,722,000 |
| Iron ingots............ " | 15,554 | 777,142 | 32,422 | 1,855,007 | 97,682 | 3,776,000 |
| Lead................ lb . | 316,462,751 | 58,229,146 | 337,683,891 | 54,671,021 | 394,458,042 | 51,969,847 |
| Magnesium and calcium. |  | 3,618,219 |  | 4,812,368 |  | 4,607,633 |
| Molybdenite.......... | 381,596 | 228,958 | 505,964 | 451399,831 | ${ }^{152,521}$ | ${ }_{160}^{114,390}$ |
| Nickel. | 275, 806, 272 | 151,269,994 | 281,117,072 | 151,349,438 | 287,931,430 | 160,861,368 |
| Palladium, rhodium, iridium, etc. . ....... oz.t. | $\underset{1}{164,905}$ | 7,950,107 | 157,407 | 7,559,109 | $\underset{1}{161,550}$ | 7,396,897 |
| Pitchblende products....... | 153,483 | 14,542,515 | 122,317 | 10,916,792 | 134, 108 | 12,237,355 |
| Selenium............. 1 l . | 382,603 | 1,239,633 | 242,030 | 786,599 | 356,500 | 1,312,600 |
| Silver............... oz. t. | 23, 125,825 | 21,865,467 | 25,222,227 | 21,065,603 | 30, 145,259 | 25,334,503 |
| Tellurium............ lb . |  |  |  |  | 16,430 | 28,758 |
| Tin... | 346,718 | 494,073 | 212,113 | 253,581 | 656,000 | 656,000 |
| Titanium ore......... ton | 1,674 | ${ }^{9,790}$ |  |  | - $\begin{array}{r}\text { 4, } 658 \\ \hline 584\end{array}$ | 5 ${ }^{27,566}$ |
| Tungsten concentrates. 1 lb . | 2,833 | 7,098 | 1,493,111 | 4,488,237 | 2,384,554 | 5,051,508 $95,398,683$ |
| Zinc.................. " | 682, 224,335 | 135,762,643 | 743,604,155 | 129,833,285 | 797,647,860 | 95,398,683 |
| Totals, Metallies |  | 745,588,728 | ... | 727,904,366 | ... | 708,912,835 |
| $\begin{aligned} & \text { Non-metallics } \\ & \text { (excluding Fuels) } \end{aligned}$ |  |  |  |  |  |  |
| Arsenious oxide...... lb . | 2,353, 362 | 129,435 | 1,708,351 | 76,876 | 1,424,250 | 78,333 |
| Asbestos............. ton | 973,198 | 81,584,345 | 929,339 | 89, 254, 913 | ${ }_{911,713}$ | $87,633,124$ 2,316.474 |
| Barite.. | 98, 113 | 1,131,917 | 136,002 | $\begin{array}{r} 1,521,162 \\ 1,074 \end{array}$ | 248,973 | 2,316,474 |
| Diatomite |  | ${ }_{551}^{3,148}$ | 20, 267 |  |  | 337,716 |
| Feldspar. | 40,749 74,211 | 2,189,875 | - 20,2087 | 2,523,408 | ${ }_{90,078}^{20,54}$ | 2,657,104 |
| Graphite............... | 1,569 | 2, 231,167 | 2,040 | ${ }_{255}, 732$ | 3,476 | 361,184 |
| Grindstone |  | 6,000 |  | 5,720 |  |  |
| Gypsum.............. " | 3,802,692 | 5,880, 853 | 3,590,783 | $6,538,074$ 194,922 | $3,765,763$ 9,297 | $\begin{array}{r}7,487,928 \\ \hline 172,037\end{array}$ |
| Iron oxide... | 13,342 | 262,277 | 11,487 | 194,922 | 9,297 |  |
| Magnesitic dolomite, brucite. |  | 2,437,773 |  | 2,715. 266 |  | 3, 122, 122 |
| Mica............... lb . | 4,961,508 | 447,650 | 2,014,941 | 194, 106 | 1,856,713 | ${ }_{166}^{171,372}$ |
| Mineral water . . . .imp. gal. | 325,300 | 146.971 | 311,495 | ${ }_{1}^{166.033}$ | 312,400 108,000 | 166,450 $1,402,000$ |
|  | 81,108 76,809 | 2,433,008 | 84,899 78 | 2,443,765 | 108,000 | 2,497,219 |
| Pearlite................ |  |  |  |  | 1,100 | 10,000 |
| Phosphate rock....... |  | ${ }^{95}{ }^{94}$ |  |  |  |  |
| Quartz............... | 1,904,885 | 2,258,468 | 1,783,081 | $2,253,500$ $7,774,815$ | $1,651,791$ 946,650 | 7,356,595 |
| Silica brick............ m | 3,510 | ${ }^{7}$ 465, 2298 | 3,544 | 606,394 | 4,155 | ${ }^{735,695}$ |
| Soapstone and talc.... ton | -24,846 | 283,624 2 | $\stackrel{25,032}{125}$ | 280,612 | 26,863 | - 1.744 .213 |
| Sodium sulphate...... | 192,371 371,790 | - | - ${ }_{423,788}^{122,590}$ | 3, ${ }^{1,7081,883}$ | - ${ }_{333,873}^{112,881}$ | 3,127,464 |
| Titanium dioxide. | 14,123 | 738,577 | 30,805 | 1,238,103 | 98,660 | 4,217,000 |
| Totals, Non-metallics. | ... | 115,706,983 | ... | 125,017,050 | ... | 127,457,625 |

[^170]2.-Quantity and Value of Minerals Produced, 1951-53-concluded

| Mineral | 1951 |  | 1952 |  | 1953] |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  |  | \$ |  | \$ |  | \$ |
| Fuels |  |  |  |  |  |  |
| Coal............... ton | 18,586,823 | 109,038,835 | 17,579,002 | 111,026, 149 | 15,760,000 | 102,100,000 |
| Natural gas......... M cu. ft. | 79,460,667 | 7,158,920 | 88,686,465 | 9,517,638 | 99,628,189 | 11,023,350 |
| Peat................ ton |  | 116,65, 1,100 |  | 143 |  |  |
| Petroleum, crude..... bbl. | 47,615,534 | 116,655,238 | 61,237,322 | 143,038,212 | 81,311,531 | 198,111,542 |
| Totals, Fuels | ** | 282,854,083 | ... | 263,582,319 | ... | 311,235,192 |
| Struetural Materials |  |  |  |  |  |  |
| Clay products, brick, tile, etc. |  | 23,527,656 |  | 24,961,528 |  | 29,220,283 |
| Cement.............. bbl. | 17,007,812 | 40,446,288 | 18,520,538 | 48,059,470 | 22,577,144 | 59,839,705 |
| Lime............... ton | 1,241,041 | 14,082,520 | 1,175,786 | 13,613,221 | 1,184,963 | 13,457,648 |
| Sand and gravel...... "* | 92,972,821 18,676,706 | 44,627,559 $28,649,768$ | $102,895,545$ $18,726,196$ | $51,339,043$ $30,835,356$ | $101,399,474$ $19,548,262$ | $50,800,061$ $30,288,154$ |
| Totals, Structural Materials. | ... | 151,338,791 | $\ldots$ | 158,848,618 | ... | 183,605,851 |
| Grand Totals. | $\cdots$ | 1,245,483,595 | *-* | 1,285,342,353 | ... | 1,351,211,503 |

Analysis of Current Value and Volume.-To assist in clearer and simpler interpretation of the trends in mineral production in Canada over the past ten years, the percentage of the total value contributed by each principal mineral in each year is given in Table 3. Values upon which percentages in this table are based are the annual values of mineral production, expressed in Canadian currency, as shown in Tables 1 and 2.

## 3.-Percentage of the Total Value Contributed by Principal Minerals, 1944-53

| Mineral | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 ${ }^{\text {p }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | p.c. | p.c. | p.e. | p.e. | p.e. | p.c. | p.c. | p.e. | p.c. | p.c. |
| Metalics |  |  |  |  |  |  |  |  |  |  |
| Copper | 13.4 | 11.9 | $9 \cdot 3$ | 14.2 | 13-1 | $11 \cdot 6$ | 11.8 | 11.9 | 11.4 | $11 \cdot 3$ |
| Gold. | 23.2 | 20.8 | $20 \cdot 7$ | 16.7 | $15 \cdot 1$ | 16.5 | 16.2 | 13.0 | 11.9 | $10 \cdot 5$ |
| Lead. | $2 \cdot 8$ | $3 \cdot 5$ | 4.8 | 6.9 | $7 \cdot 3$ | $5 \cdot 6$ | 4.6 | $4 \cdot 7$ | $4 \cdot 3$ | 3.9 |
| Nickel | 14.2 | 12.4 | 9.0 | 11.0 | $10 \cdot 6$ | 11.0 | 10.7 | 12.1 | 11.8 | $12 \cdot 0$ |
| Platinum metals | 1.7 | $5 \cdot 4$ | $2 \cdot 6$ | 1.5 | 2.0 | $2 \cdot 2$ | 1.7 | 1.8 | 1.4 | 1.5 |
| Silver | $1-2$ | $1 \cdot 2$ | $2 \cdot 1$ | 1.4 | 1.5 | 1.5 | 1.8 | 1.8 | 1.6 | 1.9 |
| Zinc. | 4.9 | 6.7 | 7-3 | $7 \cdot 2$ | 8.0 | $8 \cdot 5$ | $9 \cdot 4$ | 10.9 | 10.1 | 7-2 |
| Totals, Metalics ${ }^{\text {a }}$ | 63.5 | 63.6 | 57.8 | $61 \cdot 3$ | 59.6 | 59.8 | 59.0 | 59.9 | 56.7 | 53.2 |
| Non-matallics (ricluding Fuels) |  |  |  |  |  |  |  |  |  |  |
| Asbestor. | 4-2 | 4.6 | $5 \cdot 0$ | $5 \cdot 1$ | $5 \cdot 1$ | 4.4 | $6 \cdot 3$ | 6.5 | 6.9 | 6.6 |
| Gypsum. | $0 \cdot 3$ | 0.4 | 0.7 | 0.7 | 0.7 | 0.6 | $0 \cdot 6$ | $0 \cdot 5$ | 0.5 | $0 \cdot 6$ |
| Quarts. | $0 \cdot 3$ | 0.3 | 0.3 | $0 \cdot 3$ | 0.3 | 0.2 | $0 \cdot 2$ | 0.2 | 0.2 | $0 \cdot 1$ |
| Salt. | 0.8 | 0.8 | $0 \cdot 7$ | 0.7 | $0 \cdot 6$ | 0.6 | 0.7 | $0 \cdot 6$ | $0 \cdot 6$ | 0.6 |
| Sulphur. | $0 \cdot 4$ | 0.4 | 0.4 | $0 \cdot 3$ | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 |
| Totals, Non-mgtalmics | 7.7 | 8.0 | 8.7 | $8 \cdot 5$ | $8 \cdot 2$ | $7 \cdot 1$ | $9 \cdot 0$ | $9 \cdot 3$ | $9 \cdot 7$ | $9 \cdot 6$ |

${ }^{1}$ Includes minor items not specified.

## 3.-Percentage of the Total Value Contributed by Principal Minerals, 1944-53-concluded

| Mineral | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953D |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fuels | p.c. | p.c. | p.c. | p.c. | $\mathrm{p} c$. | pc. | p.c. | p.c. | p.c. | p.c. |
|  |  |  |  |  |  |  |  |  |  |  |
| Coal. | 14.5 | 13.5 | 15.0 | 12.0 | 13.0 | $12 \cdot 3$ | 10.5 | 8.7 | $8 \cdot 6$ | 7.7 |
| Natural gas | $2 \cdot 3$ | $2 \cdot 5$ | $2 \cdot 4$ | $2 \cdot 1$ | 1.9 | 1.3 | $0 \cdot 6$ | $0 \cdot 6$ | 0.7 | 0.8 |
| Petroleum | $3 \cdot 2$ | $2 \cdot 7$ | $3 \cdot 0$ | $3 \cdot 0$ | $4 \cdot 6$ | $6 \cdot 8$ | $8 \cdot 1$ | $9 \cdot 4$ | 11.1 | 14.9 |
| Totals, Fuels.................. | $20 \cdot 0$ | 18.7 | $20 \cdot 4$ | 17.1 | 19.5 | 20.4 | 19.2 | 18.7 | 20.4 | 23.4 |
| Structural Materials |  |  |  |  |  |  |  |  |  |  |
| Clay products....................... | 1.4 | 1.8 | $2 \cdot 4$ | $2 \cdot 2$ | $2 \cdot 1$ | 2.0 | $2 \cdot 1$ | 1.9 | 1.9 | $2 \cdot 2$ |
| Cement | $2 \cdot 4$ | $2 \cdot 9$ | $4 \cdot 0$ | $3 \cdot 4$ | $3 \cdot 4$ | $3 \cdot 6$ | $3 \cdot 4$ | $3 \cdot 2$ | $3 \cdot 7$ | $4 \cdot 5$ |
| Lime. | 1.4 | $1 \cdot 3$ | 1.4 | 1.3 | $1 \cdot 3$ | $1 \cdot 3$ | $1 \cdot 2$ | $1 \cdot 1$ | $1 \cdot 1$ | $1 \cdot 0$ |
| Sand and gravel | $2 \cdot 1$ | $2 \cdot 1$ | $3 \cdot 1$ | $3 \cdot 6$ | $3 \cdot 7$ | $3 \cdot 5$ | $3 \cdot 5$ | $3 \cdot 6$ | $4 \cdot 0$ | 3.8 |
| Stone. | 1.5 | $1 \cdot 6$ | $2 \cdot 2$ | $2 \cdot 6$ | $2 \cdot 2$ | $2 \cdot 3$ | $2 \cdot 5$ | $2 \cdot 3$ | $2 \cdot 4$ | $2 \cdot 3$ |
| Totals, Stroctural Materials.. | 8.8 | 9.7 | $13 \cdot 1$ | 13.1 | 12.7 | 12.7 | 12.7 | 12.1 | $13 \cdot 1$ | 13.8 |
| Grand Totals. | $100 \cdot 0$ | 100.0 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | 100.0 | 100.0 |

The total volume of mineral output attained a wartime peak in 1941 when the production index* stood at 132 . Principally because of the steady recession in the mining of gold and other principal metals during the next five years, the index gradually declined and reached a ten-year low point of 97 in 1946. Since then, sharp gains in the production of petroleum and other non-metals, together with moderate increases in metals output, resulted in a sustained advance to a record high level of 186 in 1953.

[^171]4.-Indexes of the Volume of Production of the Principal Mining Industries, 1944-53 ( $1935-39=100$ )

Nore.-Comparable figures from 1935 are given in the 1954 Year Book, p. 523.

| Mineral | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 ${ }^{\text {D }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Metallics- |  |  |  |  |  |  |  |  |  |  |
| Gold.... | 69.8 | 64-4 | $67 \cdot 6$ | 73.3 | 84.3 | 98.3 | 105.8 | $104 \cdot 0$ | 106.5 | 97.0 |
| Silver | 66.1 | $62 \cdot 7$ | $60 \cdot 7$ | 60.5 | $77 \cdot 9$ | 81.2 | 104.8 | $102 \cdot 7$ | $113 \cdot 3$ | 126.7 |
| Copper | $107 \cdot 3$ | 93.2 | 72.2 | 88.5 | $94 \cdot 5$ | $99 \cdot 0$ | 93.4 | 95.1 | 91.2 | $89 \cdot 6$ |
| Nickel | $141 \cdot 6$ | $126 \cdot 5$ | 99.1 | 122 -2 | 135.9 | $132 \cdot 8$ | 127.7 | 141.2 | 144-2 | 147.4 |
| Lead. | $78 \cdot 6$ | 89.4 | 91.2 | 83.3 | 86.1 | $67 \cdot 7$ | $64 \cdot 6$ | $61 \cdot 6$ | $65 \cdot 1$ | $76 \cdot 3$ |
| Zinc. | 153.1 | 143.8 | $130 \cdot 8$ | 115.5 | $130 \cdot 1$ | 141.5 | 145.9 | 153.0 | 170.6 | 186.4 |
| Non-metallics- |  |  |  |  |  |  |  |  |  |  |
| Gypsum. | 98.5 | $117 \cdot 3$ | $210 \cdot 1$ | $280 \cdot 0$ | $349 \cdot 3$ | 346.4 | $403 \cdot 6$ | 371.4 | 370-3 | 393.8 |
| Asbestos. | 120.9 | $135 \cdot 5$ | $150 \cdot 3$ | 163 -1 | 176.9 | 141.8 | 218.5 | $245 \cdot 3$ | $245 \cdot 2$ | 232-3 |
| Salt...................... | 168.3 | 161.8 | 129.5 | 178.9 | $177 \cdot 7$ | 181.2 | 207-2 | $233 \cdot 1$ | $234 \cdot 6$ | $231-2$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Coal. | $112 \cdot 3$ | $106 \cdot 6$ | $115 \cdot 6$ | 101.7 | $120 \cdot 6$ | 124.4 | $122 \cdot 9$ | $119 \cdot 4$ | 112-9 | 101-8 |
| Petroleum | $244 \cdot 1$ | $205 \cdot 1$ | 183.4 | 186.0 | $297 \cdot 0$ | $515 \cdot 0$ | 703.4 | 1,161-0 | 1,490.6 | 1,996.5 |
| Natural gas | 93.1 | 96.5 | 94.0 | 102.6 | 112.7 | 110.6 | 116.9 | 150.8 | 188.3 | 157.5 |
| Total Mining. | 104-1 | $100 \cdot 9$ | 97.1 | $106 \cdot 2$ | 122-2 | 131.7 | 145.4 | 161.8 | 174.7 | 185.8 |

## Subsection 2.-Provincial Distribution of Mineral Production

Since 1907 Ontario has been the principal mineral-producing province of Canada. In 1944 that Province accounted for 43 p.c. of Canada's total, but its share declined to 35 p.c. in 1953. Alberta's share of the total showed the greatest increase in the ten-year period, rising from 11 p.c. to 18 p.c., a gain accounted for by the tremendous increase in the crude petroleum output of that Province. The proportions contributed by Quebec and British Columbia remained the same at 19 p.c. and 12 p.e., respectively. Nova Scotia's share decreased from 7 p.c. to 5 p.c., Saskatchewan's from 5 p.c. to 4 p.c., and Manitoba's from 2.8 p.c. to 1.9 p.c. Newfoundland produced about 2.5 p.c. of the total mineral production of Canada in 1953. As compared with 1952, gains in value were registered for all provinces except Quebec, Saskatchewan and British Columbia.

## 5.-Value of Mineral Production, by Province, 1944-53

Nors.-Figures for 1899-1910 are given in the 1933 Year Book, p. 345; for 1911-28 in the 1939 edition, p. 323; and for 1929-43 in the 1946 edition, p. 323.

| Year | Newfoundland | Nova Scotia | New <br> Brunswick | Quebec | Ontario | Manitobs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | \$ |
| 1944. | ... | 33,981,977 | 4,133,902 | 90,182,553 | 210,706,307 | 13,830,406 |
| 1945. | ... | 32,220,659 | 4,182, 100 | 91,518,120 | 216,541,856 | 14,429,423 |
| 1946. | ... | 35,350,271 | 4,813,166 | 92,785,148 | 191,544,429 | 16,403,549 |
| 1947. | $\cdots$ | 34,255,560 | 5.812,943 | 115,151,635 | 249,797, 671 | 18,236,763 |
| 1948. | $\cdots$ | 56,400,245 | 7,003,285 | 152,038,867 | 294,239,673 | 26,081,349 |
| 1949. | 27,583,615 | 56,092,830 | 7,134,009 | 165,021,513 | 323,368,644 | 23,839,638 |
| 1950. | 25,824,047 | 59,482, 173 | 12,756,975 | 220,176,517 | 366,801,525 | 32,691,173 |
| 1951. | 32,410,443 | 59,727,256 | 9,564,617 | 255,530,071 | 444,667,203 | 30,045,992 |
| 1952. | 32,512,313 | 64,552,383 | 11,298,960 | 270,483,962 | 444,669,412 | 25,105,045 |
| 1953p...... | 33,688,389 | 67,100,707 | 11,732,174 | 252,826,012 | 460,476, 113 | 25,671,957 |
|  | Saskatchewan | Alberts | British Columbia | Northwest Territories | Yukon Territory | Canada |
|  | \$ | \$ | $\delta$ | \$ | \$ | \$ |
| 1944 | 22,291,848 | 51,066,662 | 57,246,071 | 1,440,069 | 939,319 | 485,819,114 |
| 1945. | 22,336,074 | 51,753,237 | 64,063,842 | 470.812 | 1,239,058 | 498,755, 181 |
| 1946. | 24,480,900 | 60,082,513 | 74,622,846 | 1,039,525 | 1,693,904 | 502,816,251 |
| 1947. | 32,594,016 | 67,432,270 | 116,772,621 | 2,720,988 | 2,095,508 | 644,869,975 |
| 1948. | 34,517,208 | 93,211,229 | 148,223,614 | 4,267,485 | 4,265,910 | 820,248,865 |
| 1949. | 36,054,536 | 113,728,425 | 136,385,911 | 6,801,729 | 5,099,176 | 901,110,026 |
| 1950. | 35,983,923 | 135,758,940 | 138.888, 205 | 8,050,899 | 9,035,696 | 1,045,450,073 |
| 1951. | 51,032,953 | 168,144,211 | 176,278,932 | 8,288,747 | 9,793,170 | 1,245,483,595 |
| 1952. | 49,506.094 | 196,811,654 | 170,071,244 | 8,944,835 | 11,386,451 | 1,285,342,353 |
| 1953p. | 48,136,364 | 245, 954,755 | 160,741,387 | 10,521,038 | 14,362,607 | 1,331,211,503 |



Nors．－The final figures of mineral production for 1953 beosme avallable just as this section of the Year Book went to press and are included in this table； 1953 figures given in other tables of the Chapter are preliminary and are therefore not quite in agreement with this final presentation．

| Mineral | New－ foundland | Nova Scotia | Now Brunswick | Quebec | Ontario | Manitoba | Saskat－ chewan | Alberta | British Columbia | North－ west Terries tories | $\begin{aligned} & \text { Yukon } \\ & \text { Territory } \end{aligned}$ | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Metallies |  |  |  |  |  |  |  |  |  |  |  |  |
| Antimony．．．．．．．．．．．．．．．．．．．lb． | － | － | － | － | － | － | － | － | 1，488，105 | － | － | 1，488，105 |
| 3 ${ }^{\text {3 }}$ | － | － | － |  | － | － | － | － | 291，862 | － | － | 291，862 |
| Bismuth．．．．．．．．．．．．．．．．．．．．lb． |  |  | － | 46，068 | ＝ | 二 | － |  | 71，298 | － | － | 117，386 |
| Cadmium．．．．．．．．．．．．．．．．1b． | － | － | － | 49，136 | － | 30，887 | 127， 010 | 二 | 180,421 721,862 | － | 238，42 | 209，557 |
| Cadmium．．．．．．．．．．．．．．．．．．18． | 二 | － | － | － | － | 61,974 | 254，020 | － | 1，443，724 | － | 476，852 | 2，236，570 |
| Cobalt．．．．．．．．．．．．．．．．． 1 lb ． | 二 | － | － | － | 1，002，545 | － | ， | － | 1. | － | ， | 1，602，545 |
| Copper．．．．．．．．．．．．．．．．．．lb．${ }^{\text {s }}$ ． |  | 1，576，360 | 二 | 109，839，871 | 4，4，013，077 | 18，822，890 | 61，176，869 | － | 48，295，970 | － | 二 | 4， S0B， 504,077 |
| Copper．．．．．．．．．．．．．．．．．．．．．．． | 1，684，862 | 1， 471,982 | － | 108，888，${ }^{32}$ ， 881,057 | 261， $77,587,439$ | 18，822，850 | 18，316，355 | － | 14，371，404 | － |  | 508， 604,074 $150,953,742$ |
| Gold．．．．．．．．．．．．．．．．oz．t． | 7，654 | 3，248 | － | 1，021，698 | 2，182，437 | ${ }^{131,309}$ | 88，327 |  | 264，876 | 289，829 | 88，080 | 4，055，723 |
|  | 263，451 | 111，796 | － | 35，166，845 | $75,119,481$ | 4，519，656 | 3，040，215 | 2，237 | 9，120，474 | 9，979，356 | 2，274，474 | 138，597，885 |
| Indium．．．．．．．．．．．．．．．．．．．．oz． $\mathrm{g}_{\mathrm{g}}$ ． | 二 | － | － | － | 二 | － | ＝ | － | 6,752 8,588 | － | － | 6,752 9,588 |
| Iron ore．．．．．．．．．．．．．．．．．ton | 2，686，481 | － | － | － | 2，832，090 | － | － | － | 991，247 | － | － | 6，509，818 |
| Iron ingoto ${ }^{8}$ | 14，201，842 | － | － |  | 23，137，897 | － | － | － | 6，783，105 | 二 | － | 44，102，944 |
| Iron ingots．．．．．．．．．．．．．．．．．．．ton | 二 | － | 二 | 4， $\begin{array}{r}107,370 \\ 4,084,039\end{array}$ | 二 | － | － | 二 | 二 | － | 二 | 107，370 |
| Lead．．．．．．．．．．．．．．．．．． 1 b ． | 35，403， 172 | 3，652，126 | － | 18，473，850 | 658，755 | － |  | － | 297， 834,712 | － | 31，590，973 | 387，411， 888 |
| 5 | 4，576，214 | 472，074 | － | 2，387，930 | 84，892 |  | － | － | 38，472，263 | － | 4，083，449 | 50，078， 822 |
| Magnesium and calcium．．．．．．${ }^{8}$ |  | － | － |  | 5，295，840 | － | － | － |  | － |  | 5，295，840 |
| Molybdenite 1b． | 二 | － | 二 | 323,007 215,527 | － | 二 | － |  | ＝ |  | － | 323,907 215,527 |
| Nickel．．．．．．．．．．．．．．．．．．．．．．lb． | － | － | － | － | 287，385，777 | － | － | － | － | － | － | 287，385，777 |
|  | － | － | － | － | 180，430，098 | － | － | － | － | － | － | 160，430，098 |
| Palladium，iridium，etc．．．．oz．t． | － | － | － | － | －168，018 | － | － | － | － | － | － | 168，018 |
| Platinum．．．．．．．．．．．．．．．oz．${ }_{\text {t．}}^{\text {¢ }}$ ． | － | 二 | 二 | － | 7，495，409 | 二 | 二 | － | － | 二 | － | 7，495，409 |
|  |  | － |  |  | 12，550，981 |  | － | － |  | 二 |  | 12，550，981 |
| Selenium．．．．．．．．．．．．．．．．lb． | － | － | － | 113，533 | 92，698 | 10，892 | 45，223 | － | － | － | － | 262，346 |
|  |  |  | － | 476，839 | 389，332 | 45，746 | 189，937 | － |  |  |  | 1，101，854 |
| Silver．．．．．．．．．．．．．．．．．．．．oz．t． | 648，389 | 226，225 | － | 4，571，373 | 5，154，619 | 429，508 | 1，257，622 | 6 | 9，308，874 | 63，592 | 6，639，127 | 28，299，835 |
| Tellurium | 544，712 | 190，052 | － | 3，840，410 | 4，330，395 | 360，830 | 1，056，528 | 5 | 7，820，385 | 53，424 | 5，577，530 | 23，774， 271 |
| Tellurium．．．．．．．．．．．．．．．．．．lb．${ }_{\text {\％}}$ | － | － | － | － | 4,525 7,019 | 33 58 | 138 238 | － | － |  | 二 | 4,694 8,215 |

6．－Detalled Mineral Production，by Province，1953－concluded

| Mineral | New－ foundland | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskat－ chewan | Alberta | British Columbia | North－ west Terri－ tories | Yukon Territory | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Metallies－concl． |  |  |  |  |  |  |  |  |  |  |  |  |
| Tin．．．．．．．．．．．．．．．．．．．．．．．．lb． | － | － | － | － | － | － | － | － | 1，092，228 | － | － | 1，092，228 |
| Titanm \＄ | － | － | － | － 2 | － | － | － | － | 581，746 | － | － | － 581,746 |
| Titanium ore．．．．．．．．．．．．．ton | － | － | － | 9，294 | － | － | 二 | － | 二 | 二 | － | 8，294 |
| Tungsten concentrates．．．．．${ }^{\text {8 }}$ | 二 | 二 | 二 | 80，085 | 48．780 | 二 | 二 | － | 2，$\square_{5} 5$ | 二 | 1．704 | 80,085 $2,446,028$ |
| Tungsten concentrates．．．．．．．lb． | 二 | － | 二 | 二 | 48,780 132,685 | 二 | 二 | 二 | $\stackrel{2,395,544}{5,556,000}$ | － | 1，704 | 2，446，028 $5,689,160$ |
| Zinc．．．．．．．．．．．．．．．．．．．．．．．．lb． | 56，003，584 | 14，698，698 | － | 200，859，247 | 171，787 | 31，532，737 | 99，929，241 | － | 382，300， 862 |  | 18，027，139 | 803，523，295 |
|  | 6，698．029 | 1，757，964 | － | 24，022，766 | 20，546 | 3，771，315 | 11，951，537 | － | 45，723， 183 | － | 2，156，046 | 96，101，386 |
| Totals，Metalics ${ }^{1}$ ．．．．．．．．．．§ | 27，969，110 | 3，003，848 | － | 103，189，634 | 370，596，091 | 14，395，152 | 34，808，830 | 2，242 | 130，314，245 | 10，032，780 | 14，568，826 | 708，880，758 |
| Non－metallies |  |  |  |  |  |  |  |  |  |  |  |  |
| Arsenious oxide．．．．．．．．．．．．．lb． | － | － | － | － | 1，403，740 | － | － | － | － | － | － | 1，403，740 |
|  | － | － | － |  | 56，150 | － | － | － |  | － |  | 56，150 |
| Asbestos．．．．．．．．．．．．．．．．．．．tion | 二 | － | 二 | 81，000，775 | 23,529 $4,063,404$ | 二 | 二 | 二 | 988，716 | 二 | 二 | 86，052，895 |
| Barite．．．．．．．．．．．．．．．．．．．．．ton， | － | 244，349 | － |  | 4，063， | － | 二 | － | 2，878 | 二 | － | ，247， 227 |
| 8istomite．．．．．．．．．．．．．．． 8 | － | 2，167，447 | － | － | － | － | － | － | 52，845 | － | － | 2，220，292 |
| Diatomite．．．．．．．．．．．．．．．．．．．ton | 二 | $15{ }^{3}$ | － | 二 |  | － | 二 | － |  | 二 | － |  |
| Feldspar． | 二 | 150 | 二 | $\overline{18}$ ，591 | 12,000 2,655 | － | 二 | － | 二 | 二 |  | 12,150 21,246 |
| 8 |  | － | － | 319，146 | 28，018 | － | － | － | － | － |  | 347， 164 |
| Fluorspar．．．．．．．．．．．．．．．．．．．ton | 87，693 | － | － |  | 876 | － | － | － |  | － |  | 88，569 |
| Graphite ${ }^{8}$ | 2，631，698 | － | － | － | 38，887 | － | － | － | － | － | － | 2，670，585 |
| Graphite．．．．．．．．．．．．．．．．．．．．．ton | 二 | － | － | － | 3，466 | － | － | ＝ | 二 | － | － | 3,466 366,528 |
| Grindstone．．．．．．．．．．．．．．．．ton | － | 二 |  | 二 | 366，528 | － | － | 二 | － | － | － | ${ }^{15}$ |
| Gypum |  |  | 900 |  | － | － |  | － |  |  | － | 900 |
| Gypsum．．．．．．．．．．．．．．．．．．．ton | 26，531 | 3，050，832 | 120，816 | － | 334，495 | 163，313 | － | － | 145，470 |  |  | 3，841，457 |
|  | 117，208 | 5，200，420 | 380，570 | － | 899，630 | 414，401 | － | － | 387，655 | － |  | $7,399,884$ 10,308 |
|  | － | － | － | 195，801 | 二 | 二 | － | － | 二 | 二 | － | 195，801 |
| Magnesitic dolomite，brucite．ton | － | － | － |  | － | － | － | － | － | － |  |  |
|  | 二 | － | 二 | 3，056，392 | $\overline{466} 513$ | 二 | 二 | 二 | $\overline{320}, 000$ | 二 | 二 | $3,056,392$ $2,265,128$ |
| Mica．．．．．．．．．．．．．．．．．．．．．．．ib． | 二 | － | － | 1，49，080 | 59，168 | 二 | 二 | － | 2，880 | － | － | －161，128 |
| Mineral water．．．．．．．．．．．．．．．gal． | － | － | ＝ | 309，285 | 300 150 | 二 | 二 | 二 | 二 | 二 | － | 309,585 165,484 |

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline  \& 二 \&  \& 二

246,323

$=$ \&  \& $$
\begin{array}{r}
113,345 \\
1,876,271 \\
1,31 \\
52,685 \\
= \\
1,450,770 \\
1,301,048 \\
779,046 \\
3,919,810 \\
1,467 \\
313,175 \\
13,310 \\
125,209 \\
\overline{3} \\
\hline
\end{array}
$$ \&  \&  \& $=$

$\bar{\square}$
$=$
$=$
$\overline{24}, 8885$
801,815
$=$ \&  \& 二
二
二
$=$
$=$
$=$
$=$
$=$
$=$ \& 二
＝
$=$
$=$
$=$
$=$
$=$
$=$
$=$ \&  <br>
\hline \multirow[t]{2}{*}{Totals，Non－metallics．．．．．$\$$ Fuels} \& 2，748，906 \& 9，045，282 \& 628，4 \& 91，606，108 \& 13，188，288 \& 977，465 \& 2，517，788 \& 601，515 \& 4，780，651 \& \& \& 126，039，8 <br>
\hline \& \& \& \& \& \& \& \& \& \& \& \& <br>

\hline \& \& $$
\left|\begin{array}{r}
5,787,026 \\
51,997,545
\end{array}\right|
$$ \& 8，747， \& \& \& \& 2，021， 304 \& 8，${ }^{8,17,17,474}$ \&  \& \& 10,611

189,786 \& $15,800,873$
102721,875 <br>
\hline \& \& \& 177，112 \& \& 9，708， \& \& 1，422， 1278 \& $89,651,605$
$8,723,870$ \& \& 28，108 \& \& 100，085，923 <br>
\hline roleum，crude \& \& \& 14，738 \& \& ${ }_{299}$ \& 658，514 \& 2，797， \& 76，818，383 \& \& 318， 889 \& \& 10，877，017 <br>
\hline Potrm， \& \& \& 20，633 \& \& 994，8 \& 1，714，808 \& 3，833，1 \& 193，761，844 \& \& 257，251 \& \& 200，582，276 <br>
\hline \multirow[t]{3}{*}{} \& － \& 51，997，54 \& 5，890，0 \& \& 878，4 \& 1，714，8 \& 7，795，65 \& 232，595，9 \& 8，862，6 \& 267，450 \& 180，788 \& 314，181，10 <br>
\hline \& \& 318 \& ${ }_{82}^{620}$ \& 8，070 \& 14，82 \& \& 742 \& 2，13 \& \& \& \& 29，7 <br>
\hline \& ， \& \& 2，104，469 \& 19，232， \& 18，497 \& 4，67 \& \& 7，915，227 \& 6，07 \& \& \& －${ }^{22,238,842,322}$ <br>
\hline \& \& \& 21，184 \& 424，305 \& ${ }^{659}$ ，062 \& \& \& \& \& \& \& 1，228，＇780 <br>
\hline \& ，942 \& \& 430，228 \& 4，238， 839 \& 7，714，252 \& 787，032 \& \& 430， 024 \& \& \& \& 14，484，013 <br>
\hline Sand and gravel．．．．．．．．．．ton \& 1，908，187 \& 1，523，083 \& 2， 6488,236 \& ${ }^{28,884,125}$ \& 43，858，099 \& 4，888，323 \& 4，770，${ }^{268}$ \& 7，651， 281 \& 7.494 \& － \& － \& 101，033，949 <br>
\hline \multirow[t]{2}{*}{Stone．．．．．．．．．．．．．．．．．．．．．ton on $_{\text {8 }}$} \& 1，023，622 \& 1，459，77 \& 1，288，${ }^{\text {a }}$ ， 21 \& 11， 830,482 \&  \& 1，524，629 \& 2，218，884 \& 5，097， 1820 \& 4，890 \& 二 \& \& $53,485,401$
1989 <br>
\hline \& －647，469 \& 623，644 \& 698，243 \& 13，915，864 \& 11，818， 882 \& \& \& \& 2，154，198 \& \& \& 30，613，061 <br>
\hline Totals，Structural Materlals．．．．．．．．．．．．．．．．．$\$$ \& 3，062，606 \& 3，817，733 \& 5，136，128 \& 57，086，039 \& 77，210，296 \& 8，226，080 \& 2，959，853 \& 15，863，595 \& 14，530， 278 \& \& \& 187，202，218 <br>
\hline ， \& 33，780，622 \& 67，364，408 \& 11，663，61 \& 251，881，781 \& 465，877，093 \& 25，204，112 \& 48，081，970 \& 248，863，295 \& 158，487，81 \& 10，300，2 \& 14，788， \& 1，336，303，503 <br>
\hline $1852 .$. \& 32，512，313 \& 64，552， \& 11，298，9 \& 33， \& 69, \& 25，105，0 \& 49，506，004 \& 186，811， \& 170，071， \& 8，944，8 \& 986， \& 42， <br>
\hline
\end{tabular}

${ }^{1}$ Figures for pitchblende not released for publication．

## Subsection 3.-Production of Metallic Minerals

The metals of chief importance in Canada are nickel, copper, gold, zinc, lead, iron, silver and those of the platinum group. These metals are dealt with individually in the following paragraphs. In addition, there are a number of metals produced in minor quantities, principally as by-products in the treatment of metalliferous ores (see Tables 2 and 6).


Nickel.-The total value of nickel produced in 1953 exceeded the value of gold for the first time since 1920. The total 1953 value of $\$ 160,900,000$ included refined nickel, nickel in oxides and salts, and nickel in matte exported. Export shipments amounted to 79,900 tons of refined nickel and 63,900 tons of nickel in matte.

The two principal producers, International Nickel Company of Canada Limited and Falconbridge Mines Limited operated at capacity during the year. Both have substantial expansions under way to meet long-term contracts for the United States Government as well as for expanding domestic demands. Three new mines in the Sudbury area of Ontario-East Rim Nickel Mines, Milnet Mines and Nickel Offsets Limited-shipped ore or concentrates to the Falconbridge smelter. In Manitoba, the railroad to the Lynn Lake nickel-copper project of Sherritt Gordon Mines Limited was completed in November 1953 and the first shipments of nickel moved early in 1954.

## 7.-Quantity and Value of Nickel Produced, 1944-53

Nors.-Figures for 1889-1910 are given in the 1929 Year Book, p. 368; for 1911-28 in the 1939 edition, p. 342; and for 1929-43 in the 1946 edition, p. 333.

| Year | Quantity | Value | Year | Quantity | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | 5 |  | tons | \$ |
| 1944. | 137,299 | 69, 204, 152 | 1949. | 128,690 | 99,173,289 |
| 1945. | 122,565 | 61,982,133 | 1950. | 123,659 | 112,104,685 |
| 1946. | 96,062 | 45,385, 155 | 1951. | 137,903 | 151,269,994 |
| 1947. | 118,626 | 70,650,764 | 1952. | 140,559 | 151,349,438 |
| 1948. | 131,740 | 86,904,235 | 1953p | 143,966 | 160,861,368 |

Copper.-In 1953 copper production recorded a decrease of $\mathbf{2 . 5}$ p.c. as compared with 1952, but the value increased by nearly 3 p.c. More than half of the 1953 output of 251,600 tons came from mines in Ontario. In Quebec, labour strikes in the Noranda area, which forced the mines and smelter to remain closed for some months, resulted in a decrease of 22 p.c. in output as compared with 1952. In Manitoba and Saskatchewan output was about the same in both years, while in British Columbia an increase of 15 p.c. was shown in 1953. Newfoundland continued to ship concentrates to smelters in the United States, and the recoverable copper in the concentrates shipped from the base-metal mine in Nova Scotia was more than twice the amount shipped in the previous year.

Development of the Sherritt Gordon nickel-copper mine at Lynn Lake, Man., has continued and shipments of copper concentrates to custom smelters started early in 1954.

## 8.-Copper Production, by Province, and Total Value, 1944-53

Norz.-Figures for 1886-1910 are given in the 1916-17 Year Book, p. 272; for 1911-28 in the 1939 edition, p. 335; and for 1929-43 in the 1946 edition, p. 331.

| Year | Newfoundland | Quebec | Ontario | Manitoba | Saskatchewan | British Columbia | Canada |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Quantity | Value |
|  | tons | tons | tons | tons | tons | tons | tons | \$ |
| 1944. | ... | 54,027 | 142,654 | 21,939 | 36,757 | 18,152 | 273,535 ${ }^{1}$ | 65,257,172 ${ }^{1}$ |
| 1945. | ... | 51,342 | 119,726 | 20,563 | 32,950 | 12,876 | 237,457 | 59,322,261 |
| 1946. | $\cdots$ | 34,899 | 89,712 | 19,250 | 31,356 | 8,750 | 183,967 | 46,632,093 |
| 1947. | ... | 42,561 | 113,934 | 15,316 | 33,151 | 20,900 | 225,862 | 91,541,888 |
| 1948. | ... | 48,813 | 120,383 | 18,960 | 31,074 | 21,502 | 240,732 | 107, 159,756 |
| 1949 | 3,617 | 67,822 | 113,042 | 16,960 | 34,960 | 27,055 | 263,456 | 104,719,151 |
| 1950. | 3,221 | 72,891 | 117,210 | 20,817 | 28,982 | 21,086 | 264,207 | 123, 211,407 |
| 1951. | 2.899 | 68,866 | 128,808 | 15,839 | 31,625 | 21,932 | 269,9701 | 149,026,2161 |
| 1952. | 2.959 | 68,846 | 125.343 | 9,374 | 30,344 | 20,786 | 258,038 ${ }^{2}$ | 146,679,040 ${ }^{2}$ |
| 1953D | 2,762 | 53,905 | 130,123 | 9,316 | 30,536 | 24,011 | 251,612 ${ }^{\text {a }}$ | 150,631,485 ${ }^{\text {2 }}$ |

[^172]Gold.-Gold is no longer the leading mineral in total value of production. It was surpassed in 1953 by petroleum, nickel and copper. Production of gold was reduced in that year by the strike action in the Porcupine district of Ontario and in the Noranda area of Quebec. The output of $4,061,000 \mathrm{oz} . t$. was a decline of 9 p.c. from 1952 and was the lowest figure reported since 1948. The gold mines received a slightly higher price for their product in 1953 but because of the smaller average premium on the Canadian dollar and the choice of selling in the open market the industry was still depressed by high operating costs and narrow profit margins. Production was lower in every province except Nova Scotia and in the Northwest Territories there was an increase of 18 p.c.

## 9.-Quantity and Value of Gold Produced, by Province, 1944-53

Nots.-Values are calculated at world prices in Canadian funds. Figures for 1862-1910 are given in the 1916-17 Year Book, pp. 268-269; for 1911-28 in the 1939 edition, pp. 336-337; and for 1929-43 in the 1946 edition, p. 332.

| Year | Newioundland |  | Nova Scotia |  | Quebec |  | Ontario |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
|  | oz. t. | 8 | oz. t. | 8 | oz. t. | 8 | oz. t. | 8 |
| 1944. | ... | ... | 5,840 | 224,840 | 746,784 | 28,751,184 | 1,731,836 | 66,675,686 |
| 1945 | ... | ... | 3,291 | 126,704 | 661,608 | 25,471,908 | 1,625,368 | 62,576,668 |
| 1946 | ... | ... | 4,321 | 158,797 | 618,339 | 22,723,958 | 1,813,333 | 66,639,988 |
| 1947. | ... | ... | 1,271 | 44,485 | 598,127 | 20,934,445 | 1,944,819 | 68,068,665 |
| 1948. |  |  | 188 | 6,580 | 770,625 | 26,971,875 | 2,095,377 | 73,338, 195 |
| 1949. | 9,269 | 333, 684 | 64 | 2,304 | 964,184 | 34,710,624 | 2,354,509 | 84,762,324 |
| 1950 | 9,254 | 352,115 | 65 | 2,473 | 1,094,645 | 41,651,242 | 2,481,110 | 94,406,236 |
| 1951. | 8,515 | 313,778 | 17 | 626 | 1,067,306 | 39,330,226 | 2,462,979 | 90,760,776 |
| 1952. | 8,595 | 294,551 | 1,433 | 49,109 | 1,113,204 | 38,149,501 | 2,513,691 | 86,144,190 |
| 1953 ${ }^{\text {d }}$ | 7,575 | 259,806 | 3,402 | 117,130 | 1,018,575 | 35,069,537 | 2,182,544 | 75,144,989 |
| Year | Manitoba |  | Saskatchewan |  | Alberta |  | British Columbia |  |
|  | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
|  | oz.t. | \$ | oz. t. | \$ | oz. t. | \$ | oz. t. | \$ |
| 1944. | 74,168 | 2,855,468 | 122,782 | 4,727,107 | 51 | 1,963 | 196,857 | 7,578,994 |
| 1945. | 70,655 | 2,720,218 | 108,568 | 4,179,868 | 7 | 269 | 186,854 | 7,193,879 |
| 1946. | 79,402 | 2,918,024 | 112,101 | 4,119,712 | 110 | 4,042 | 136,242 | 5,006,893 |
| 1947. | 72,906 | 2,551,710 | 93,747 | 3,281,145 | 78 | 2,730 | 249,011 | 8,715,385 |
| 1948. | 106,176 | 3,716,160 | 87,927 | 3,077,445 | 78 | 2,730 | 306,998 | 10,744,930 |
| 1949. | 137,399 | 4,946,364 | 94,208 | 3,391,488 | 115 | 4,140 | 304,307 | 10,955,052 |
| 1950. | 191,725 | 7,295,136 | 79,784 | 3,035,781 | 152 | 5,784 | 290,490 | 11,053,144 |
| 1951. | 163,914 | 6,040,231 | 110,216 | 4,061,460 | 97 | 3,574 | 289,992 | 10,686, 205 |
| 1952. | 141,947 | 4,864,524 | 93,585 | 3,207,158 | 111 | 3,804 | 273,059 | 9,357,732 |
| 1953 | 132,500 | 4,561,975 | 87,150 | 3,000,575 | 55 | 1,894 | 267,000 | 9,192,810 |
| Year |  |  | Northwest Territories |  | Yukon Territory |  | Canada |  |
|  |  |  | Quantity | Value | Quantity | Value | Quantity | Value |
|  |  |  | oz. t. | \$ | oz. t. | $\delta$ | oz. t. | \$ |
| 1944. |  |  | 20,775 | 799,838 | 23,818 | 916,993 | 2,922,911 | 112,532,073 |
| 1945. |  |  | 8,655 | 333,218 | 31,721 | 1,221,258 | 2,696,727 | 103,823,990 |
| 1946. |  |  | 23,420 | 860,685 | 45,286 | 1,664,260 | 2,832,554 | 104,096,359 |
| 1947. |  |  | 62,517 | 2,188,095 | 47,745 | 1,671,075 | 3,070,221 | 107,457,735 |
| 1948 |  |  | 101,625 | 3,556,875 | 60,614 | 2,121,490 | 3,529,608 | 123,536,280 |
| 1949 |  |  | 177,493 | 6,389,748 | 81,970 | 2,950,920 | 4,123,518 | 148,446,648 |
| 1950 |  |  | 200,663 | 7,635,227 | 93,339 | 3,551,549 | 4,441,227 | 168,988,687 |
| 1951. |  |  | 212,211 | 7,819,975 | 77,504 | 2,856,022 | 4,392,751 | 161,872,873 |
| 1952 |  |  | 247,581 | 8,484,601 | 78,519 | 2,690,846 | 4,471,725 | 153,246,016 |
| 1953 D |  |  | 292,741 | 10,079,073 | 69,663 | 2,398,497 | 4,061,205 | 139,826,286 |

Zinc.-The production of zinc continued to increase and reached an all-time high in 1953 with an output of 399,000 tons valued at $\$ 95,400,000$.

Newfoundland's production declined about 10 p.e. as compared with 1952 but Nova Scotia increased its output from 4,400 tons to 7,500 tons. Output of some of the mines in the Noranda area of Quebec was affected by labour disputes but other mines in the Province increased their production, advancing the provincial total to over 100,000 tons. In British Columbia there was an increase of 8 p.c. and in Yukon a rise of 76 p.c. The lowering of the prices of lead and zinc forced about 20 marginal producers in British Columbia to close down during 1953.

Production of refined zinc totalled 248,000 tons and domestic consumption remained steady at 51,000 tons. Zinc exported in ores and concentrates included 169,000 tons to the United States, 9,600 tons to Belgium, 6,900 to France, 4,200 to Great Britain and 3,200 to Norway.

## 10.-Quantity and Value of Zinc Produced, 1941-53

Norg.-Figures for 1911-28 are given in the 1939 Year Book, p. 347, and for 1929-43 in the 1946 edition, p. 335.

| Year | Quantity ${ }^{1}$ | Value | Average Price per lb. | Year | Quantity ${ }^{\text {l }}$ | Value | Average Price per lb. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | \$ | cts. |  | tons | \$ | cts. |
| 1944. | 275,412 | 23,685,405 | 4-30 | 1949. | 288,264 | 76,372,147 | 13.25 |
| 1945 | 258,607 | 33,308,556 | 6.44 | 1950. | 313,227 | 98,040, 145 | 15.65 |
| 1946 | 235,310 | 36,755,450 | 7.81 | 1951. | 341,112 | 135, 762,643 | 19.90 |
| 1947. | 207,863 | 46,686,010 | 11.23 | 1952 | 371,802 | 129,833,285 | $17 \cdot 46$ |
| 1948 | 234,164 | 65,237,956 | 13.93 | 1953D | 398,824 | 95,398,683 | 11.96 |

${ }^{1}$ Estimated foreign smelter recoveries and refined sine produced in Canada.
Lead.-Estimated lead production in 1953 amounted to 197,000 tons, an increase of 17 p.c. over 1952. The 1953 total included the lead in base bullion produced in Canadian smelters and the computed recoverable content of ores and concentrates exported. British Columbia accounted for 77.8 p.c. of the total, and its output moved up from 129,300 tons in 1952 to 153,000 tons in 1953. The Mackeno Mine came into production in Yukon Territory and its output added to that of the United Keno Mines brought the total for the Territory to 14,000 tons. In Quebec, there were two new contributors, United Montauban and Bowe Mines, but the total production for the Province declined by about 13 p.c. Nova Scotia's only lead producer more than doubled its output of the preceding year. Total refined lead production was about 166,000 tons. Canadian consumers used about 58,000 tons and 102,800 tons of piglead were exported. The lead content of concentrates exported was 61,600 tons, of which 40,600 tons went to the United States, 11,400 to Belgium and 9,600 to West Germany.
11.-Quantity and Value of Lead Produced from Canadian Ores, 1944-53

Norg.-Figures for 1887-1910 are given in the 1929 Year Book, p. 367; for 1911-28 in the 1939 edition, p. 341; and for $1929-43$ in the 1946 edition, p. 333.

| Year | Quantity | Value | Year | Quantity | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | \$ |  | tons | \$ |
| 1944 | 152,291 | 13,706,199 | 1949. | 159.775 | 50.488,879 |
| 1945. | 173,497 | 17,349,723 | 1950. | 165,697 | 47,886,452 |
| 1946. | 176,987 | 23,893,230 | 1951. | 158,231 | 58.229,146 |
| 1947 | 161,668 | 44,200,124 | 1952. | 168,842 | 54,671,021 |
| 1948. | 167,251 | 60,344, 146 | 1953D | 197,229 | 51,969,847 |

Iron Ore.-From 1944 the total annual production of iron ore has risen from 500,000 tons to $6,500,000$ tons in 1953. In 1953, the Wabana mine in Newfoundland produced over $1,000,000$ tons more than in 1952, a result of the mechanization program carried out in recent years. Ontario mines shipped about $4 \cdot 25$ p.c. more iron ore in 1953 than in 1952. The Errington Mine at Steep Rock was converted to underground operations and output commenced at the Hogarth open pit. Algoma Ore Properties Limited continued development work and increased the sintering plant facilities. The two mines in British Columbia shipped most of their iron ore to Japan.

The railroad being constructed from Sept Iles, Que., 360 miles northward to Knob Lake was completed early in 1954 and shipments started later in that year. The Quebec Iron and Titanium Corporation at Sorel, Que., produced 98,000 tons of re-melt iron as a co-product from smelting ilmenite ores. A plant is under construction at Welland, Ont., for the treatment of pyrites; one of the products will be an iron sinter suitable for use by the iron and steel industry. The International Nickel Company of Canada is building a plant at Copper Cliff, Ont., to recover iron concentrates from the treatment of low-grade nickel ores.

## 12.-Iron-Ore Shipments and Production of Pig-Iron, Ferro-Alloys and Steel Ingots and Castings, 1944-53

Note.-Figures for 1886-1910 are given in the 1936 Year Book, $\mu .373$; for 1911-28 in the 1939 edition,
p. 340 ; and for 1929-43 in the 1946 edition, p. 333 .

| Year | Iron-Ore <br> Shipments from <br> Canadian Mines | Production of Pig-Iron |  |  | Production of FerroAlloys | Production of Steel Ingots and Castings |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Nova Scotia | Ontario | Canada |  |  |
|  | tons | tons | tons | tons | tons | tons |
| 1944. | 553,252 | 395,802 | 1,456,826 | 1,852,628 | 182,428 | 3,024,410 |
| 1945. | 1,135,444 | 374,302 | 1,403,647 | 1,777,949 | 178,214 | 2,877,927 |
| 1946... | 1,549,523 | 317,180 | 1,089,072 | 1,406, 252 | 137,822 | 2,327,283 |
| 1947. | 1,919,366 | 354,789 | 1,606,787 | 1,962,848 ${ }^{1}$ | 227,123 | 2,945,952 |
| 1948 | 1,337,244 | 438,430 | 1,687,309 | 2,125,739 | 232,734 | 3,200,480 |
| 1949. | 3,675,096 | 472,885 | 1,681,600 | 2,154,485 | 202,092 | 3,180,377 |
| 1950. | 3,605, 261 | 513,029 | 1,804,092 | 2,317,121 | 180,499 | 3,383,575 |
| 1951. | 4,680,510 | 485,900 | 2,066,993 | 2,552,893 | 266,252 | 3,568,720 |
| 1952. | 5,271,849 | 395,262 | 2,286,323 | 2,681,585 | 232,117 | 3,703,111 |
| 1953p. | 6,501,060 | 440.005 | 2,572,261 | 3,012,266 | 150,595 | 4,115,469 |

${ }^{1}$ Includes production of 1,272 tons in British Columbia.
Silver.-Silver production continued its upward trend in 1953, amounting to $30,100,000$ oz.t. as compared with $25,200,000$ oz.t. in 1952. The larger contributors were British Columbia with nearly $11,500,000$ oz.t. and Yukon Territory with $6,200,000$ oz.t. In the extreme eastern and western areas of Canada, silver is recovered from silver-lead-zinc ores; in Ontario it occurs in the nickel-copper, silver-cobalt, and gold ores; in Quebee it comes from copper-gold-silver and silver-lead-zinc ores; and in Manitoba and Saskatchewan the complex ores of copper-gold-silver-zinc yield sizable quantities of silver.

## 13.- Quantity of Silver Produced, by Province, and Total Value, 1941-53

Nors.-Figures for 1887-1910 are given in the 1916-17 Year Book, p. 271; for 1911-28 in the 1939 edition, p. 345; and for $1929-43$ in the 1946 edition, p. 334.

${ }^{1}$ Includes relatively small quantities produced in Alberta.
Metals of the Platinum Group.-Included in this group are platinum, palladium, rhodium, ruthenium and iridium. Nearly all the platinoids produced in Canada come from the nickel-copper ores in the Sudbury area of Ontario. The platinum group residues are recovered from the electrolytic tanks in the nickel refinery at Port Colborne, Ont. The nickel-copper matte shipped by Falconbridge Nickel Company Limited contains some platinum-group metals which are recovered at the refinery in Norway. Production in 1953 amounted to 134,000 oz.t. of platinum valued at $\$ 12,200,000$ and 161,500 oz.t. of palladium, rhodium, etc., valued at $\$ 7,400,000$.

The industrial uses of the platinum metals have expanded in recent years, particularly for electrical and chemical equipment, jewellery, and medical and dental appliances.

## 14.-Quantity and Value of Platinum and Palladium ${ }^{1}$ Produced, 1944-53

Nore.-Records of the platinum production go back to 1887 but, prior to 1921, the amounts were comparatively small and the basis of calculation was not comparable with that now used. Figures for 1921-39 are given in the 1940 Year Book, p. 340, and for 1940-43 in the 1951 edition, p. 513.

| Year | Platinum |  | Palladium ${ }^{1}$ |  | Year | Platinum |  | Palladium ${ }^{\text {t }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | oz. t. | \$ | oz. t . | \$ |  | oz. t. | \$ | oz.t. | \$ |
| 1944 | 157,523 | 6,064,635 | 42,929 | 1,960,085 | 1949... | 153,784 | 11,603,002 | 182,233 | 8,289, 915 |
| $1945{ }^{2}$. | 208,234 | 8,017,010 | 458,674 | 18,671,074 | 1950.. | 124,571 | 10, 255, 929 | 148,741 | 7,578,144 |
| 1946. | 121,771 | 7,672,791 | 117,566 | 5, 162,801 | 1951.. | 153,483 | 14,542,515 | 164,905 | 7,950,107 |
| 1947. | 94,570 | 5,582,467 | 110,332 | 4,387,740 | 1952.. | 122,317 | 10,916,792 | 157,407 | 7,559,109 |
| 1948. | 121,404 | 10,622,850 | 148,343 | 6,295,132 | 1953P.. | 134,108 | 12,237,355 | 161,550 | 7,396,897 |

${ }^{1}$ Includes also iridium, rhodium, ruthenium and osmium. $\quad{ }^{2}$ Figures include an accumulated revision for previous years.


## Subsection 4.-Production of Non-Metallic Minerals (Excluding Fuels)

The most important minerals in this group are asbestos, gypsum, salt, sulphur; it also includes numerous other items such as magnesitic dolomite, peat moss, quartz, sodium sulphate, fluorspar, barite, nepheline syenite, feldspar, silica brick, mica, soapstone and talc, and graphite (see Tables 2 and 6).

Asbestos.-The producers of asbestos shipped about 912,000 tons valued at $\$ 87,600,000$ in 1953 as compared with 929,000 tons worth $\$ 89,300,000$ in 1952. A modernization and expansion program was under way in Quebec and a new mine in British Columbia was progressing favourably at the end of the year.

## 15.-Quantity and Value of Asbestos Produced, 1944-53

Nors.-Figures for 1896-1910 are given in the 1911 Year Book, p. 424; for 1911-28 in the 1939 edition, p. 354; and for 1929-43 in the 1946 edition, p. 353.

| Year | Quantity | Value | Year | Quantity | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | \$ |  | tons | \$ |
| 194. | 419,265 | 20,619,516 | 1949. | 574,906 | 39,746,072 |
| 1945. | 466,897 | 22,805,157 | 1950. | 875,344 | 65,854, 568 |
| 1946 | 558,181 | 25,240,562 | 1951. | 973,198 | 81,584,345 |
| 1977. | 661.821 | 33, 005, 748 | 1952. | 929,339 | $89,254,913$ |
| 1948. | 716,769 | 42,231,475 | 1953p | 911,713 | 87,633,124 |

Gypsum.-The production of gypsum was higher in 1953 than in 1952 by 175,000 tons, a result of continued demand by the building trades. Nova Scotia mines accounted for 79 p.c. of the Canadian total.
16.-Quantity of Gypsum Produced, by Province, and Total Value, 1944-53

Nors.-Figures for 1926-43 are given in the 1943-44 Year Book, p. 321.

| Year | Nova Seotia | New <br> Brunswick | Ontario | Manitoba | British Columbia | Canada |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | tons | tons | tons | tons | tons | \$ |
| 194. | 401, 284 | 42,040 | 90,288 | 38,330 | 24,222 | 596,164 | 1,511,978 |
| 1945 | 634,960 | 46,755 | 92,174 | 42,275 | 23,617 | 839,781 | 1,783,290 |
| 1946 | 1,538,738 | 38,839 | 122,524 | 63,187 | 47,649 | 1,810,937 | 3,671,503 |
| 1947 | 2,137,704 | 65,939 | 155,249 | 79,356 | 58,736 | 2,496,984 | 4,734,853 |
| 1948 | 2,795,848 | 61,534 | 182,303 | 94,698 | 82,426 | 3,216,809 | 5,548,245 |
| 1949 | 2,555,795 | 80,436 | 203, 187 | 94,918 | 79,913 | 3,014,249 | 5,423,690 |
| 1950 | 3,185,199 | 82,641 | 199,314 | 114,555 | 84,627 | 3,666,336 | 6,707,506 |
| 1951. | 3,190,030 | 109,469 | 262,581 | 134,704 | 105,908 | 3,802,692 | 5,880,853 |
| 1952. | 2,969,312 | 110,183 | 278,992 | 130,934 | 92,702 | 3,590,7831 | 6,538,074 |
| 1953 P | 2,981,528 | 120,000 | 336,997 | 165,890 | 133,348 | 3,765, 7632 | 7,487,928 ${ }^{\text {2 }}$ |

${ }^{1}$ Includes 8,660 tons valued at $\$ 54,881$ produced in Newfoundland.
${ }^{2}$ Includes 28,000 tons valued at $\$ 152,040$ produced in Newfoundland.

Salt. Salt is obtained from brine wells in the Provinces of Ontario, Manitoba and Alberta, but in Nova Scotia it is recovered by mining rock-salt and by evaporation from brine. Domestic production is sold principally to the dairy, meat-curing and canning industries, to fisheries, to highways and transport departments, to agriculturists for use as a soil sweetener, to chemical industries, and as table salt. About 50 p.c. of the salt production is used in making caustic soda, soda ash and related chemicals.
17.-Quantity of Salt Produced, by Province, and Total Value, 1914-53

Nors.-Figures for the years 1926-43 are given in the 1946 Year Book, p. 354.

| Year | Nova Scotia | Ontario | Manitoba | Saskatchewan | Alberta | Canada |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | tons | tons | tons | tons | tons | \$ |
| 194. | 38,809 | 603,806 | 27,267 | - | 25,335 | 695,217 | 4,074,021 |
| 1945 | 37,825 | 578,697 | 27,133 | - | 29,421 | 673,076 | $4,054,720$ |
| 1946. | 38,371 | 441,679 | 26,166 | - | 31,769 | 537,985 | 3,626,165 |
| 1977 | 40,107 | 633,766 | 24,974 | - | 29,698 | 728,545 | 4.436,930 |
| 1948 | 61,799 | 619,598 | 25,251 | $\stackrel{\rightharpoonup}{10}$ | 34,613 | 741,261 | 4,836,028 |
| 199. | 86,612 | 607,206 | 18,734 | 8,103 | 28,359 | 749,014 | 5,566,725 |
|  | 101,930 | 696,582 | 16,592 | 18,186 | 25,606 | 858,896 | 7,011, 306 |
| 1951. | 127,252 | 772,585 | 16.778 | 28,192 | 19,718 | 964,525 | 7,905,977 |
| 1958. | 138,845 | 757,025 | 18,113 | 33,540 | 24,380 | 971,903 | 7,774,815 |
| 1953P | 125,932 | 741,446 | 18,700 | 35,872 | 24,700 | 946,650 | 7,356,595 |

Sulphur.-Sulphur production statistics include the sulphur content of pyrite shipped and the sulphur content of the sulphuric acid and sulphur dioxide made from smelter gases. For statistical purposes the elemental sulphur, recovered during the treatment of natural gas, is not included in the mining industry as it is considered that these treatment plants are more closely allied to the chemical industry.

In 1953 the producers of sulphur shipped 334,000 tons, 90,000 tons fewer than in 1952; in the earlier year there were large shipments of pyrite from stockpiled production of previous years.
18.-Quantity and Value of Sulphur Produced, 1044-53

Note.-Figures for 1926-43 are given in the 1946 Year Book, p. 355.

| Year | Quantity | Value | Year | Quantity | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | 8 |  | tons | 8 |
| 1944.. | 248,088 | 1,755,739 | 1949.. | 261,871 | 2,039,384 |
| 1945. | 250,114 | 1,881,321 | 1950. | 301,172 | 2,189,660 |
| $1946 .$. | 234,771 | 1,784,666 | 1951. | 371,790 | 3,120,785 |
| 1947.. | 221,781 | 1,822,867 | 1952. | 423,788 | 3,851,183 |
| 1948.. | 229,463 | 1,836,358 | 1953p | 333,873 | 3,127,484 |

## Subsection 5.-Production of Fuels*

Coal.-Coal mining continues to be affected adversely by the substitution of fuel oil, natural gas and electricity for heating and power purposes. Output dropped off in 1953 for the third successive year, amounting to $15,900,000$ tons compared with $17,500,000$ in 1952. There were declines in all producing provinces but the principal loss was in Alberta where output dropped to $5,900,000$ tons from $7,200,000$ tons in 1952. Output in Nova Scotia was $5,800,000$ tons against $5,900,000$ in the preceding year and there was a slight decrease in Saskatchewan's production.

* Information on the coal reserves of Canada is given in the 1950 Year Book, pp. 516-518.


## 19.-Coal Production, by Province, 1944-53

Nors.-Figures for 1874-1910 are given in the 1911 Year Book, p. 419; for 1911-28 in the 1939 edition, p. 348; and for 1929-43 in the 1946 edition, p. 347.

| Year | Nova Scotia | New Brunswick | Saskatchewan | Alberta | British Columbia | Yukon Territory | Canada |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | tons | tons | tons | tons | tons | tons | \$ |
| 1944 | 5,745, 671 | 345, 123 | 1,372,766 | 7,428,708 | 2,134,231 | - | 17,026,499 | 70,433,169 |
| 1945 | 5,112,615 | 361, 184 | 1,532,995 | 7,800,151 | 1,699,768 | - | 16,506,713 | 67,588,402 |
| 1946. | 5,453,898 | 366,735 | 1,523,786 | 8,826,239 | 1,636,792 | - | 17,806,450 | 75,361,481 |
| 1947. | 4,118,196 | 345, 194 | 1,571,147 | $8,070.430$ | 1,763,899 | - | 15,868,866 | 77,475,017 |
| 1948 | 6,430,991 | 522,136 | 1,589,172 | 8,123,255 | 1,780,334 | 3,801 | 18,449,689 | 106,684,008 |
| 1949. | 6,181,779 | 540,806 | 1,870,487 | 8,616,855 | 1,906,963 | 3,153 | 19,120,043 | 110, 915, 121 |
| 1950 | 6,478,405 | 607,116 | 2,203,223 | 8,116,220 | 1,730,445 | 3,703 | 19,139,112 | 110, 140,399 |
| 1951 | 6,307,629 | 653,439 | 2,223,318 | 7,659,329 | 1,739,412 | 3,696 | 18,586,823 | 109,038,855 |
| 1952 | 5,905,265 | 742,823 | 2,083,465 | 7,194,757 | 1,644,250 | 8,442 | 17,579,002 | 111,026,149 |
| 1953. | 5,787,026 | 721,252 | 2,021,304 | 5,917,474 | 1,443,006 | 10,611 | 15,900,673 | 102,721,875 |

## 20.-Imports of Anthracite, Bituminous and Lignite Coal, 1944-53

Nors.-Figures for 1868-1910 are given in the 1911 Year Book, p. 420; for 1911-28 in the 1939 edition, p. 349; and for $1929-43$ in the 1946 edition, p. 348.

${ }^{1}$ Includes anthracite dust $\qquad$ ${ }^{2}$ Includes coal ex-warehoused for ships' stores. $\quad$ Canada also imported 142,435 tons of briquettes of coal or coke valued at $\$ 1,114,617$ in $1945,182,231$ tons valued at $\$ 1,449,221$ in 1946, 245,678 tons valued at $\$ 2,233,654$ in $1947,308,753$ tons valued at $\$ 3,204,839$ in $1948,186,971$ to os valued at $\$ 2,185,707$ in $1949,191,134$ tons valued at $\$ 2,316,570$ in $1950,170,157$ tons valued at $\$ 2,061,798$ in 1951, 155,597 tons valued at $\$ 1,868,619$ in 1952, and 128,673 tons valued at $\$ 1,601,376$ in 1953.
21.-Exports of Domestic Coal, 1944-53

Norm. -Figures for 1868-1910 are given in the 1911 Year Book, p. 421; for 1911-28 in the 1939 edition, p. 349; and for 1929-43 in the 1946 edition, p. 348.


The sources of coal consumed in Canada in the years 1944-53 are shown in Table 22 and detailed figures of coal made available for consumption in 1952 and 1953 are given in Table 23; the difference between the totals of the two tables in the same year is accounted for by the fact that coal received may be held in bond at Canadian ports and not cleared for consumption until required, while coal received in previous years may be taken out of bond (cleared for consumption) in a later year. Normally, the coal made available for consumption is greater than the apparent domestic consumption, as coal is landed at Canadian ports and reexported or ex-warehoused for ships' stores without being taken out of bond but, while remaining in bond at the port, it is available for domestic consumption if required.

## 22.-Consumption of Canadian and Imported Coal in Canada, 1944-53

Nore.-Figures for 1886-1910 are given in the 1921 Year Book, p. 354 ; for 1911-28 in the 1939 edition, p. 350; and for 1929-43 in the 1946 edition, p. 349.

| Year | Canadian Coal ${ }^{1}$ |  | Imported Coal 'Entered for Consumption' |  |  |  | Grand Total | Con-sumption Per Capita ${ }^{3}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | From United States | From United Kingdom | Tota |  |  |  |
|  | tons | p.e. | tons | tons | tons | p.c. | tons | tons |
| 1944. | 15,660,808 | $35 \cdot 7$ | 27,948,008 | 218,511 | 28,166,201 | $64 \cdot 3$ | 43,827,009 | 3-68 |
| 1945. | 15,227,819 | 38.3 | 24,505,241 | 28,388 | 24,521,528 | $61 \cdot 7$ | 39,749,347 | 3.29 |
| 1946. | 16,502,508 | 39.0 | 25,639,541 | 101,580 | 25,740,704 | 61.0 | 42,243,212 | $3 \cdot 45$ |
| 1947. | 14,673,967 | 34.0 | 28,410,149 | 52,777 | 28,462,242 | 66.0 | 43,136,209 | $3 \cdot 45$ |
| 1948. | 16,928,028 | 36.0 | 30,295,841 | 162,550 | 30,454,917 | 64.0 | 47,382,945 | 3.70 |
| 1949. | 18,104,626 | $45 \cdot 3$ | 21,501,583 | 331,457 | 21,833,057 | 54.7 | 39,937,683 | 2.97 |
| 1950. | 18,224,944 | $40 \cdot 6$ | 26,224,893 | 423,874 | 26,649,049 | $59 \cdot 4$ | 44,873,993 | 3.27 |
| 1951. | 17,571,154 | 39.8 | 26,232,211 | 291,656 | 26,523,921 | 60.2 | 44,095,075 | $2 \cdot 92$ |
| 1952. | 16,749,416 | 40.5 | 24,248,804 | 356,032 | 24,603,789 | 59.5 | 41,353,205 | 2.87 |
| 1953. | 15,240,105 | 40.0 | 22,548,793 | 352,383 | 22,900,392 | $60 \cdot 0$ | 38,140,497 | 2.58 |

[^173]23.-Coal Made Available for Consumption in Canada, 1952 and 1953

Note.-For details by provinces, see DBS annual report, The Coal Mining Industry.

| Grade | Canadian Coal |  |  |  | Coal Imported ${ }^{1}$ |  | Coal <br> Made Available for Consumption |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Produced |  | Exported |  |  |  |  |  |
|  | 1952 | 1953 | 1952 | 1953 | 1952 | 1953 | 1952 | 1953 |
|  | tons | tons | tons | tons | tons | tons | tons | tons |
| Anthracite. | - | - | - | - | 3,732,973 | 2,931,599 | 3,732,973 | 2,931,599 |
| Bituminous. | 12,679,402 | 11,479,395 | 246, 144 | 184,511 | 20,697, 298 | 19,485,972 | 33,130,556 | 30,780,856 |
| Subbituminous.... | 2,816,135 | 2,399,974 | 133 | 91 | - | - | 2,816,002 | 2,399,883 |
| Lignite. | 2,083,465 | 2,021,304 | 515 | 454 | - | - | 2,082,950 | $2,020,850$ |
| Totals | 17,579,002 | [15,900,673 | 246,792 | 185,056 | 24,430,271 | 22,417,571 | 41,762,481 | 38,133,188 |

${ }^{1}$ Coal reaching Canadian ports whether or not it is cleared through customs, exclusive of 104,553 tons of imported briquettes in 1952, and 104,216 tons in 1953.

Petroleum.-A special article on the Canadian crude petroleum situation up to the end of 1951 is given in the 1952-53 Year Book, pp. 524-527. That information is brought up to the end of 1952 in the 1954 Year Book, pp. 540-544, and to June 1954 in the survey at pp. 492-494 of this volume, and a special article on oil and gas pipelines in Canada is included in the Transportation Chapter.

In 1953, Canadian crude oil production totalled $81,311,531 \mathrm{bbl}$., an increase of $32 \cdot 8$ p.c. over the 1952 production of $61,237,322 \mathrm{bbl}$. Western Canada accounted for 99 p.c. of the total and Alberta yielded $77,065,000 \mathrm{bbl}$. or 95 p.c. There was an increase in Saskatchewan in 1953 with a yield of $3,000,000 \mathrm{bbl}$., and Manitoba, which had no production previous to 1951 , showed a yield of $619,321 \mathrm{bbl}$.

## 24.-Quantity and Value of Crude Petroleum Produced, by Province, 1944-53

Notr.-Figures for 1936-43 are given in the 1948-49 Year Book, p. 476.

| Year | New <br> Brunswick | Ontario | Saskatchewan | Alberta | Northwest Territories | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity |  |  |  |  |  |
|  |  | bbl. | bbl. |  | bbl. | bbl. |
| 1944. | 23,296 | 125,067 |  | 8,727,366 | 1,223,675 | 10,099,404 |
| 1945. | 30,140 | 113,325 | 14,374 | 7,979,786 | 345, 171 | 8,482,796 |
| 1946. | 28,584 | 123,082 | 118,686 | 7,137,921 | 177,282 | 7,585,555 |
| 1947. | 23,129 | 131,295 | 540, 117 | 6,770,477 | 227,474 | 7,692,492 |
| 1948. | 21,372 | 176,989 | 849,166 | 10,888,592 | 350,541 | 12,286,660 |
| 1949. | 19,544 17 | 260,670 | 782,188 $1,041,098$ | $20,087,418$ $27,548,169$ | 155,528 | $21,305,348$ $29,043,788$ |
| 1950. | 17,137 15,551 | 250,655 197,171 | $1,041,098$ $1,249,281$ | 27,548,169 | 186,729 227,449 | $29,043,788$ $47,615,5341$ |
| 1952. | 14,237 | 191,814 | 1,696,505 | 58,915,723 | 314,217 | 61,237,322 |
| 1953p...... | 14,500 | 298,710 | 3,000,000 | 77,065,000 | 314,000 | $81,311,531{ }^{3}$ |
|  | Value |  |  |  |  |  |
|  | 5 | 5 | \$ | \$ | \$ | \$ |
| 1944. | 32,832 | 296,420 | - | 14,468,061 | 632,587 | 15,429,900 |
| 1945. | 42,413 | 268,478 | 15,362 | 13,169,692 | 136,303 | 13,632,248 |
| 1946. | 40,018 | 291,719 | 135,990 | 14,347,933 | 173,392 | 14,989,052 |
| 1947. | 32,381 | 350,000 | 614,156 | 18,078,907 | 500,238 | 19,575,682 |
| 1948. | 29,920 | 608,109 | 976,541 | 35, 127,751 | 676,574 | 37,418,895 |
| 1949. | 27,362 | 901,143 | 836,941 | 58,999,936 | 353,108 | 61,118,490 |
| 1950 | 23,992 | 892,000 | 1,134,797 | 82,216,492 | 352,656 | 84,619,937 |
| 1951. | 21,771 | 677,905 | 1,659,045 | 113,870, 152 | 399,887 | 116,655,238 ${ }^{1}$ |
| 1952. | 19,932 | 641,037 | 2,256,352 | 139,512,432 | 379,160 | 143,038,212 ${ }^{2}$ |
| 1953D. | 20,300 | 997,691 | 4,300,000 | 190,890,000 | 376,800 | 198,111,542 ${ }^{\text {a }}$ |

${ }^{1}$ Includes $\mathbf{1 0 , 6 9 8}$ bbl. valued at $\$ 26,478$ produced in Manitobs.
${ }^{2}$ Includes 104,826 bbl. valued at $\$ 229,299$ produced in Manitoba.
${ }^{\mathbf{3}}$ Includes 619,321 bbl. valued at $\mathbf{\$ 1 , 5 2 6 , 7 5 1}$ produced in Manitoba.

Natural Gas Production.-Alberta accounts for almost 90 p.c. of Canada's production of natural gas. It is estimated that the total output for all provinces was almost $100,000,000,000 \mathrm{cu}$. feet in 1953 of which $88,000,000,000 \mathrm{cu}$. feet was from Alberta's wells. Ontario's production amounted to over $10,000,000,000 \mathrm{cu}$. feet in 1953. (See also the survey of the petroleum and natural gas industry up to June, 1954, pp. 492-494, and the article on the construction of pipelines in Canada, Chapter XIX.)

## 25.-Quantities of Natural Gas Produced, by Province, 1944-53

Norz.-Figures for 1920-28 are given in the 1940 Year Book, p. 347, and for 1929-43 in the 1946 edition, p. 350.

| Year | New Brunswick | Ontario | Saskatchewan | Alberta | Northwest Territories | Canads |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M cu. ft . | M cu. ft. | M cu. ft . | M cu. ft. | M cu. ft. | M cu. ft. | \$ |
| 194 | 702,464 | 7,082,508 | 119,116 | 37,161,570 | 1,500 | 45,067,158 | 11,422,541 |
| 1945 | 653,230 | 7,199,970 | 163,824 | 40,393,061 | 1,500 | 48,411,585 | 12,309,564 |
| 1946. | 541,010 | 7,051,309 | 209,569 | 40,097,096 | 1,500 | 47,900,484 | 12,165,050 |
| 1947. | 489,810 | 7,785,921 | 274,193 | 44, 106,643 |  | 52,656,567 | 13,429,558 |
| 1948 | 420,352 | 8,590,429 | 477,271 | 48,965,217 | 150,000 | 58,603,269 | 15,632,507 |
| 1949 | 375,035 | 8,024,213 | 812,916 | 51,179,779 | 65,234 | 60,457,177 | 11,620,302 |
| 1950. | 361,877 | 8,009,488 | 813,554 | 58,603,976 | 33,335 | 67,822,230 | 6,433,041 |
| 1951. | 261,579 | $8,442,842$ | 860,082 | 69, 876, 831 | 19,333 | 79,460,667 | 7,158,920 |
| 1952. | 202,042 | 8,302,190 | 1,007,491 | 79,149,895 | 24,847 | 88,686,465 | 9,517,638 |
| 1953P | 176,000 | 10,430,000 | 1,139,189 | 87,858,000 | 25,000 | 99,628,189 | 11,023,350 |

## Subsection 6.-Production of Structural Materials

Production of structural materials is dependent upon the activity of the construction industry; output in 1953 reached a record value of $\$ 183,605,851$. This group includes clay and clay products (brick, drain tile, sewer pipe, etc.), cement, lime, sand, gravel and stone.

## 26.-Value of Structural Materials Produced, by Province, 1944-53

Note.-Figures for 1926-43 are given in the 1946 Year Book, p. 355.

| Year | New- <br> foundland | Nova Scotia | $\stackrel{\text { New }}{\text { Brunswick }}$ | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | $\delta$ | \$ |
| 1944. | $\ldots$ | 1,081,805 | 1,637,409 | $14,597,540$ $17,051,353$ | 15,716,361 |
| 1946 | .... | 1,671,504 | 1, $1,817,401$ | 22,615,910 | 24,293,081 |
| 1947. | ... | 2,724,003 | 2,397,433 | 29,236,137 | 30,447,055 |
| 1948. |  | 3,419,820 | 2,456,778 | 39,415,625 | 35,208,061 |
| 1949. | 1,683,483 | 3,445,872 | 2,508,033 | 38,735,128 | 40,755, 195 |
| 1950. | 1,619,068 | 3,370,622 | 7,597,036 | 42,586,473 | 49,701,917 |
| 1951. | 1,490,381 | 3,476,399 | 4,029,324 | 51,450,113 | 60, 202,877 |
| 1952. | 2,283,326 | 3,350,941 | 4,856,861 | 57,566,708 | 66, 581,698 |
| 19538............... | 2,844,318 | 3,207,654 | 5,295,574 | 57,503,462 | 73,464,843 |
|  | Manitoba | Saskatchewan | Alberta | British Columbia | Canada |
|  | \$ | \$ | 8 | \$ | $\$$ |
| 1944. | 2,546,722 | 864,082 | 3,044,236 | 3,496,782 | 42,984,937 |
| 1945. | 3,212,917 | 834,564 | 3,305,941 | 3,777,922 | 48,419,673 |
| 1946 | 4,235,389 | 1,322,107 | 4,765, 108 | 5,399,721 | 66,120,221 |
| 1947. | 4,772,908 | 1,632,625 | 4,726,752 | 8,639,872 | 84,576,785 |
| 1948. | 6,050,453 | 1,426,836 | 7,089,427 | 10,060,246 | 105,127,246 |
| 1949 | 5,791,820 | 2,341,354 | 6,963,395 | 11,678,799 | 113,903,079 |
| 1950 | 6,507,817 | 2,021,376 | 8,377, 256 | 10,514,647 | 132,296,212 |
| 1951 | 7,487,168 | 2,490,726 | 9,322,492 | 11,384,311 | 151,333,791 |
| 1952 | 7,903,121 | $2,369,697$ | 10,828,838 | 13,067,428 | 168,808,618 |
| 1953p. | 8,506,680 | 2,706, 195 | 15,972,006 | 14, 105, 119 | 183, 605,851 |

Clay Products.-The sales value of clay products produced in 1953 was the highest recorded. Increases were shown in all provinces except New Brunswick and Manitoba. Common clays suitable for the production of building bricks and tile are found in all the provinces; production is greatest in Ontario and Quebec. Stoneware clays are produced largely from the Eastend and Willows areas in Saskatchewan and shipped to Medicine Hat, Alta., where, utilizing the cheap gas fuel, they are manufactured into stoneware, sewer pipe, pottery, tableware, etc. Stoneware clay also occurs in Nova Scotia and, although it has not been developed extensively for ceramic use, some is used for pottery. Two large plants and a few small plants manufacture fireclay refractories from domestic clay in British Columbia, Saskatchewan and Nova Scotia. Deposits of high-grade, plastic, white burning clays occur in northern Ontario and deposits yielding high-grade china clay have been found along the Fraser River in British Columbia but these have not been used on a commercial scale. Ball clays of high bond strength occurring in the white mud beds of southern Saskatchewan have not been developed to any extent.

## 27.-Value (Total Sales) of Clay Products Produced, by Province, 1944-53

Nots.-Figures for 1926-43 are given in the 1946 Year Book, p. 356.

| Year | Newfoundland | Nova Scotia | New <br> Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\$$ | \$ | \$ | \$ | \$ |
| 1944. | ... | 402,694 | 207,051 | 1,881,791 | 2,347,396 |
| 1945. | $\ldots$ | 433,455 | 232,783 | 2,534,630 | 3,107,189 |
| 1946. | ... | 671,466 | 336,971 | 3,457, 168 | 4,288,780 |
| 1947. | ... | 752,126 | 381,184 | 4,257,423 | 5,289,528 |
| 1948. | . | 1,031,685 | 434,772 | 5,123,908 | 6,563,754 |
| 1949 | 25,450 | 1,053,845 | 515,767 | 5,580,421 | 7,435,439 |
| 1950. | 31,089 | 1,126,969 | 681,139 | 6,324,387 | 9,323, 263 |
| 1951. | 32,183 | 1,202,428 | 740,861 | 6,776,430 | 10,484,341 |
| 1952. | 29,285 | 1,221,893 | 655,084 | 6,645,387 | 11,975,200 |
| 1953P ............. | 34,000 | 1,258,200 | 651,960 | 8,056,150 | 14,396,843 |
|  | Manitobs | Saskatchewan | Alberta | British Columbis | Canada |
|  | \$ | \$ | \$ | \$ | \$ |
| 1944. | 197,383 | 330,907 | 1,143,577 | 486,626 | 6,997,425 |
| 1945. | 269,917 | 271,288 | 1,401,875 | 661,955 | 8,913,092 |
| 1946. | 372,920 | 411,446 | 1, 808,971 | 859,645 | 12,207,367 |
| 1947. | 392,518 | 495,016 | 1,771,250 | 1,147,144 | 14,486, 189 |
| 1948. | 517, 181 | 509,593 | 2,055,738 | 1,392,417 | 17,629,048 |
| 1949. | 514,705 | 545,588 | 1,603,199 | 707,295 | 17,981,709 |
| 1950. | 690,730 | 581,506 | 1,950,309 | 1,081,496 | 21,790,888 |
| 1951. | 673,698 | 616,655 | 1,787,731 | 1,213,329 | 23,527,656 |
| 1952. | 575,088 | 711,778 | 1,964,618 | 1,183,195 | 24,961,528 |
| 1953D. | 565,804 | 726,000 | 2,042,356 | 1,488,970 | 29,220,283 |

Cement.-The production of cement has almost doubled since 1946 and imports have also been relatively high during the same period. The largest production is in Quebec and Ontario although there are active plants in most of the provinces.

## 28.-Quantity and Value of Production, Imports, Exports and Apparent Consumption of Portland Cement, 1944-53

Nork.-Figures for 1910-28 are given in the 1939 Year Book, p. 356, and for 1929-43 in the 1946 edition, p. 356.

| Year | Production ${ }^{1}$ |  | Imports |  | Exports |  | Apparent Consumption |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
|  | bbl. ${ }^{2}$ | \$ | bbl. ${ }^{2}$ | \$ | bbl. ${ }^{2}$ | \$ | bbl. ${ }^{2}$ | 5 |
| 1944. | 7,190,851 | 11,621,372 | 14,004 | 76,838 | 210,449 | 377,434 | 6,994,406 | 11,320,776 |
| 1945 | 8,471,679 | 14,246,480 | 32,653 | 141,539 | 281,944 | 535,012 | 8,222,388 | 13,853,007 |
| 1946. | 11,560,483 | 20,122,503 | 350,057 | 1,098,532 | 114,370 | 236,276 | 11,796, 170 | 20,984,759 |
| 1947. | 11,936,245 | 21,968,909 | 1,248,625 | 3,843,652 | 88,030 | 198,354 | 13,096,840 | 25,614,207 |
| 1948. | 14,127,123 | 28,264,987 | 1,120,671 | 3,995,173 | 72,999 | 200,575 | 15,174,795 | 32,059,585 |
| 1949. | 15,916,564 | 32,901,936 | 2,284,001 | 6,877,939 | 19,212 | 51,733 | 18,181,353 | $39,728,142$ |
| 1950. | 16,741,826 | 35,894,124 | 1,386,219 | 3,788,981 | 23,909 | 111,351 | 18,104,136 | 39,571,754 |
| 1951. | 17,007,812 | 40,446,288 | 2,327,431 | 7,447,859 | 2,590 | 12,386 | 19,332,653 | 47,881,761 |
| 1952. | 18,520,538 | 48,059,470 | 2,913,981 | 9,068,181 | 4,306 | 20,686 | 21,430,214 | 57,106,955 |
| 1953p.... | 22,577,141 | 59,839,705 | 2,482,783 | 7,403,158 | 14,728 | 77,559 | 25,045,196 | 67,165,304 |

[^174]${ }^{2}$ The barrel of cement equals

Sand, Gravel and Stone.-Deposits of sand and gravel are numerous throughout Eastern Canada, with the exception of Prince Edward Island where gravels are scarce. The local needs for these materials are usually supplied from the nearest deposits as their cost to the consumer is governed largely by the length of the haul. This accounts for the large number of small pits and the small number of large plants. Every province, except New Brunswick and Prince Edward Island, produces natural bonded sand but some grades particularly suitable for certain industries demand a much higher price than ordinary sand. Quebec and Ontario contributed 73 p.c. of the total quantity of sand and gravel in 1952. The greater part of the output is used in road improvement, concrete works and railway ballast, and most of the commercial plants are equipped for producing crushed gravel, a product that can compete with crushed stone.

The stone industry has two main divisions, stone quarrying and the stoneproducts industry. The granite, limestone, marble, sandstone and slate quarries of Canada yield high-grade structural and decorative materials and also supply requirements for chemical and other allied industries. The gross value of stone of all varieties produced in Canada in 1952, totalled $\$ 30,835,356$ as compared with $\$ 28,649,768$ in 1951.
29.-Quantity and Value of Sand, Sand and Gravel, and Stone Produced, 1951-53

| Material and Purpose | 1951 |  | 1952 |  | 1953 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Gross Value | Quantity | $\begin{aligned} & \text { Gross } \\ & \text { Value } \end{aligned}$ | Quantity | Gross Value |
|  | tons | \$ | tons | \$ | tons | \% |
| Sand- <br> Moulding sand. <br> For building, concrete, roads, etc. Other. $\qquad$ |  |  |  |  |  |  |
|  | 36,421 | 86,900 | 23,434 | 65,625 | 20,675 | 61,222 |
|  | 7,972,740 | 5,116,901 | 8,069,333 | 5,743,760 | 8,619,698 | 6,683,894 |
|  | 365,635 | 162,189 | 712,224 | 589,606 | 806,765 | 248,622 |
| Sand and Gravel- |  |  |  |  |  |  |
| For railway ballast....... | 6,991,189 | 2,291,532 | 7,122,550 | 2,403,865 | 8,436,245 | 3,032,939 |
| For concrete, roads, etc... | $62,305,240$ 3,412 | 27,941,202 | 68,157,943 | $31,125,978$ 1,159 18 | $\begin{array}{r}66,125,694 \\ 3,007 \\ \hline\end{array}$ | $32,228,212$ $1,074,757$ |
| Crushed gravel. | 11,889,370 | 8,077,894 | 14,911,452 | 10,451,023 | 14,316,963 | 10,155,755 |
| Totals, Sand and Gravel. | 92,972,821 | 44,627,559 | 102,895,545 | 51,339,043 | 101,033,949 | 53,485,401 |
| Stone- |  |  |  |  |  |  |
| Building................. | 124,185 | 4,575,321 | 109,205 | 4,229,790 | 118,233 | 4,270,095 |
| Monumental and ornamental. | 14,116 | 1,086,159 | 11,948 | 1,045,429 | 16,398 | 974,757 |
| Limestone for agriculture. | 571,018 | 1,368,320 | 466,817 | 1,203,345 | 515,223 | 1,251,850 |
| Chemical Uses- | 1,038,650 | 1,411,501 | 1,221,345 | 1,651,115 | 1,401,808 | 1,703,846 |
| Pulp and paper........... | 1,464,773 | 1,158,099 | - 456,522 | 1,310,368 | - 408,969 | 1,158,977 |
| Other.................. | 29,279 | 54,011 | 56,945 | 88,140 | 81,628 | 121,101 |
| Rubble and riprap........ | 1,600,180 | 2,123,705 | 1,977,855 | 2,435,767 | 1,199,162 | 1,873,574 |
| Crushed......... | 14,592,830 | 16,518,445 | 14,066,426 | 17,497,862 | 15,776,593 | 17,693,179 |
| Totals, Stone ${ }^{1}$ | 18,676,706 | 28,649,768 | 18,726,196 | 30,835,356 | 19,849,017 | 30,613,051 |

[^175]
## Section 5.-Industrial Statistics of the Mineral Industry

The scope of the annual statistics on mineral production published by the Dominion Bureau of Statistics includes a general review of the principal mineral industries, such as the copper-gold, silver-lead-zinc, and nickel-copper industries, as well as a section on metallurgical works. Additional data published at irregular intervals include such features as numbers of employees, wages and salaries paid and net value of sales.

The figures for 'net value of shipments' of industries given in Tables 30 and 31 are, in each table, the settlements received for shipments by producers and the additional values obtained when the smelting of ores is completed in Canada, less the cost of materials, fuel, etc. The totals indicate more nearly the actual returns to the different industries than do the values for the minerals in Table 2 of this Chapter where, with respect to copper, lead, zinc and silver, values are computed by applying the average prices for the year in the principal metal markets to the total production from mines and smelters with no reduction for fuel, electricity and other supplies consumed in the production process. Some imported ores and concentrates are treated in Canadian non-ferrous smelting and refining works, especially in the production of aluminum, where imported ore only is used, and of cobalt which comes mainly from African ores. The net sales of these plants include, therefore, the net value of the metals recovered from these imported ores and, to this extent, the net sales shown in Tables 30 and 31 include products of other than Canadian origin.
30.-Summary Statistics of the Mineral Industry, by Province, 1952

| Province or Territory | Plants or Mines | Employees | Salaries and Wages | Purchased Fuel, Electricity and Process Supplies ${ }^{1}$ | Net Value of Shipments ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | 5 |
| Newfoundland. | 783 | 4,585 | 13,835, 288 | 9,161,361 | 20,900,527 |
| Nova Scotia. | 621 | 13,578 | 40,857,352 | 13,583,087 | 51,711,623 |
| New Brunswick. | 379 | 1,596 | 4,096, 170 | 2,311,389 | 9,165,221 |
| Quebec. | 4,867 | 33,010 | 108,515,942 | 288,929,982 | 299,378,307 |
| Ontario. | 6,870 | 44,172 | 154,267, 119 | 256,779,927 | 360,214, 198 |
| Manitoba | 274 | 3,336 | 12,946,522 | 17,040,774 | 16,986,904 |
| Saskatchewan. | 761 | 2,113 | 8,024,308 | 29,835,969 | 40,505,709 |
| Alberta. | 4,387 | 12,107 | 39,677,562 | 13,366,664 | 177,256,475 |
| British Columbia | 956 | 17,820 | 62,223,703 | 174,312,254 | 121,282,853 |
| Northwest Territories. | 37 | 959 | 4,106,791 | 2,092,059 | 6,736,867 |
| Yukon Territory | 24 | 840 | 4,425,394 | 3,037,582 | 8,315,635 |
| Canada. | 19,958 | 134,116 | 452,976,151 | 810,451,048 | 1,112,454,319 |

[^176]A summary of the industrial statistics of the principal mineral industries operating in Canada in the years 1948 to 1952 is presented in Table 31.
31.-Summary Statistics of the Principal Mineral Industries, 1948-52


For footnotes, see end of table, p. 538.
31.-Summary Statistics of the Principal Mineral Industries, 1948-52-continued


For footnotes, see end of table, p. 538.
31.-Summary Statistics of the Principal Mineral Industries, 1948-5\%-concluded

| Industry and Year | Plants or Mines | Employees | Salaries and Wages | Purchased Fuel, <br> Electricity and Process Supplies ${ }^{1}$ | Net Value of Shipments ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | $\$$ | \$ | \$ |
| Fuels-concluded |  |  |  |  |  |
| Natural gas...................... . 1948 | 3,833 | 1,831 | 2,918,941 | 67,065 | 14,622,672 |
| 退 1949 | 3,927 | 2,223 | 4,713,266 | 63,512 | 17,519,000 |
| 1950 | 3,991 | 2,618 | 5,703,524 | 186,180 | 6,258,035 |
| 1951 | 3,985 | 2,658 | 6,491,234 | 174,884 | 6,516,339 |
| 1952 | 4,132 | 2,573 | 7,296,092 | 336,666 | 5,517,385 |
| Petroleum........................ 1948 | 2,581 | 1,641 | 4,391,929 | 2,052,808 | 35,336,167 |
| 1949 | 3,166 | 2,142 | 6,304,601 | 985, 707 | 60, 105,421 |
| 1950 | 3,849 | 2,417 | 7,848,539 | 1,714,101 | 82,881,844 |
| 1951 | 4,761 | 3,185 | 11,518,781 | 3,210,493 | 113,155, 236 |
| 1952 | 5,833 | 3,702 | 14,610,821 | 4,413,948 | 135,182,903 |
| Totals, Fuels............... 1948 | $\begin{array}{r} 6,765 \\ 7,421 \\ 8,203 \\ 9,061 \\ 10,236 \end{array}$ | $\begin{aligned} & 27,791 \\ & 28,595 \\ & 28,453 \\ & 28,490 \\ & 28,029 \end{aligned}$ | $\begin{aligned} & 65,814,477 \\ & 72,222,499 \\ & 74,491,043 \\ & 81,137,981 \\ & 87,935,137 \end{aligned}$ | $\begin{aligned} & 18,346,194 \\ & 16,54,200 \\ & 16,365,197 \\ & 19,932,844 \\ & 23,709,842 \end{aligned}$ | $\begin{aligned} & 135,588,984 \\ & 173,042,561 \\ & 184,815,362 \\ & 212,162,964 \\ & 232,767,209 \end{aligned}$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Clay products..................... . 1948 | 117 | 3,746 | $7,505,765$ | 4,026,603 | 13,602,445 |
| Clay product............... 1949 | 124 | 3,603 | 7,924,841 | 3,904,967 | 14,076,742 |
| 1950 | 134 | 3,663 | 8,583,912 | 4,655, 254 | 17, 135,634 |
| 1951 | 129 | 3,737 | 9,731,657 | 5,208,555 | 18,319, 101 |
| 1952 | 133 | 3,568 | 9,812,214 | 5,116,848 | 19,844,680 |
| Cement......................... 1948 | 8888 | 1,7231,721 | $\begin{aligned} & 4,356,086 \\ & 4,754,611 \end{aligned}$ | $\begin{aligned} & 12,857,198 \\ & 13,987,830 \end{aligned}$ | $\begin{aligned} & 17,704,519 \\ & 21,077,322 \end{aligned}$ |
|  |  |  |  |  |  |
|  |  | 1,781 | 5,235,735 | 15, 109,409 | 23,091,104 |
|  | 10 | 1,931 | $6,242,900$ | 16,392,344 | $26,631,501$$32,664,254$ |
|  | 11 | 2,239 | 7,849,057 | 18,365,676 |  |
| Lime............................. 1948 | 42 | 1,121 | 2,459,299 | 3,790,233 | 7,284,638 <br> 8,223,272 |
|  | 42 | 1,060 | 2,485,601 | 3,572,730 |  |
|  | 43 | 1,133 | 2,760,960 | 4,052,688 |  |
|  | 44 | 1,096 | $3,053,802$ | $4,279,967$ | $10,390,230$$9,784,399$ |
|  | 42 | 1,005 | 3,145,246 | $4,435,054$ |  |
| Sand and gravel................ 1948 | 6,102 | 4,197 | 7,057,193 | 1,101,024 | $29,528,572$$29,681,377$ |
|  | 6,952 | 3,863 | $7,491,081$$8,712,440$ | $1,500,164$$1,907,445$ |  |
|  | 7,348 | 4,1204,060 |  |  | 29,681, 34,527 4, |
|  |  |  | 10,414,559 | $\begin{aligned} & 1,301,870 \\ & 2,673,245 \\ & 2,673 \end{aligned}$ | $\begin{aligned} & 42,317,750 \\ & 48,665,798 \end{aligned}$ |
|  | 8,210 | 4,185 | 12,354,505 |  |  |
| Stone. . . . . | $\begin{aligned} & 554 \\ & 549 \\ & 589 \\ & 536 \\ & 493 \end{aligned}$ | $\begin{aligned} & 3,082 \\ & 3,728 \\ & 3,562 \\ & 3,861 \\ & 3,897 \end{aligned}$ | $\begin{array}{r} 5,990,922 \\ 7,615,572 \\ 7,548,241 \\ 9,218,694 \\ 10,230,640 \end{array}$ | $\begin{aligned} & 2,617,663 \\ & 3,399,603 \\ & 3,614,585 \\ & 4,677,322 \\ & 4,876,076 \end{aligned}$ | $\begin{aligned} & 15,330,890 \\ & 17,128,470 \\ & 22,280,772 \\ & 23,972,446 \\ & 25,959,280 \end{aligned}$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Totals, Structural Materials. . 1978 | $\begin{aligned} & 6,833 \\ & 7,675 \\ & 8,122 \\ & 8,310 \\ & 8,889 \end{aligned}$ | $\begin{aligned} & 13,869 \\ & 13,975 \\ & 14,259 \\ & 14,685 \\ & 14,894 \end{aligned}$ | $\begin{aligned} & 27,369,265 \\ & 30,271,776 \\ & 32,841,288 \\ & 38,661,612 \\ & 43,391,662 \end{aligned}$ | $\begin{aligned} & 24,392,721 \\ & 26,365,294 \\ & 29,339,381 \\ & 32,867,997 \\ & 35,466,899 \end{aligned}$ | $\begin{array}{r} 83,451,064 \\ 90,187,183 \\ 105,809,057 \\ 112,631,028 \\ 136,918,411 \end{array}$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| Grand Totals........... $\ldots$. 1948 | $\begin{aligned} & 14,315 \\ & 15,808 \\ & 17,095 \\ & 18,157 \\ & 19,957 \end{aligned}$ | $\begin{aligned} & 112,855 \\ & 116,507 \\ & 120,388 \\ & 128,871 \\ & 134,116 \end{aligned}$ | $\begin{aligned} & 282,001,582 \\ & 309,647,178 \\ & 333,444,697 \\ & 397,161,533 \\ & 452,976,151 \end{aligned}$ | $\begin{aligned} & 571,756,719 \\ & 584,083,511 \\ & 638,740,249 \\ & 816,032,901 \\ & 810,451,648 \end{aligned}$ | $\begin{array}{r} 727,950,430 \\ 800,217,336 \\ 914,960,924 \\ 1,095,088,743 \\ 1,112,454,319 \end{array}$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

${ }^{1}$ Includes freight and smelter charges and cost of ores treated. cost of process supplies, fuel, electricity, freight and smelter charges.

[^177]
## Section 6．－World Production of Certain Metallic Minerals and Fuels

Table 32 shows the production of certain metallic minerals and fuels in the different countries of the world for the year 1952．These figures are taken from the United Nations Statistical Yearbook 195s，which presents production figures for 1933－52 for a much more extensive list of mining and quarrying industries．The 1952 figures are provisional and have been converted from kilograms to ounces troy for gold and from metric tons to short tons for the other metals and fuels shown．

## 32．－World Production of Certain Metallic Minerals and Fuels，1952p

Nors．－Where dashes occur throughout this table they indicate that no figures were given in the United Nations Statistical Yearbook，either because there was no production or because the quantity was not available．

| Country | Gold | Silver | Copper | Iron | Lead | Zinc | Coal | Crude Petrol－ eum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ${ }^{\prime} 000 \mathrm{oz}$ ．t． | ＇000 oz．t． | ＇000 tons | ＇000 tons | ＇000 tons | ＇000 tons | ＇000 tons | ＇000 tons |
| Algeris．．．．．．．．．．．．．．．．．．． | －5 | 9.61 | － | 1，803．4 | $4 \cdot 6$ | 12.7 | 296.5 | $51 \cdot 0$ |
| Anglo－Egyptian Sudan．．．．．． | 1.51 | － | 0.41 | － | 二 | 二 | 二 | － |
| Argentins | $8 \cdot 01$ | 964－5 |  |  | 24.5 | 17.6 | 123.8 | 3，959－5 |
| Australia． | $982 \cdot 2$ | 11，278－5 | 17.9 | 1，958－8 | 249.9 | 219.9 | 21，753－0 |  |
| Austria． | － | － | $3 \cdot 1$ | $921 \cdot 5$ | 6.6 | 6.8 | $209 \cdot 4$ | 3，086－5 |
| Bahrain． | 1.3 | － | 二 | 二 | 二 | 二 |  | 1，664．5 |
| Belgian Cong | 368.8 | 4，726－2 | 226.72 | － | 二 | $108 \cdot 6$ | 278.9 | － |
| Belgium． | － | 7，- | $\cdots$ | 51.8 | － | $\checkmark$ | 33，492．6 | －74 |
| Bolivia． | $11 \cdot 00^{3}$ | 7，073－23 | $5 \cdot 2^{2}$ |  | $33 \cdot 12$ | $39 \cdot 2^{3}$ |  | 74.7 |
| Brasil． Britiah West ÄÖr | 141.0 | $\square$ | － | 1，804．51 | － | － | 2，161－6 | 108－1 |
| Brunei ．．． | － | － | － | － | － | － | － | 5，594．2 |
| Bulgaria |  |  | － | － | $\checkmark$ | － | 360.50 |  |
| Burma．．．． | － | 241 －1 | － | 二 | $6 \cdot 1$ | $4 \cdot 2$ | － | 142.2 |
| Cameroons，French | 4．371．0 | 25，$\overline{177}$ ． | 257.7 |  | －19．9 |  |  |  |
| Canada． | 4，471－9 | 25，177．2 | 257.7 | 2，861－67 | 164.9 | 388.1 | 15，496．3 | 8，678．5 |
| Chile． | 176.0 | 1，247．4 | 446.1 | 1，535．5 | $4 \cdot 4$ | － | 2，664－3 ${ }^{8}$ | 127.5 |
| China ${ }^{\text {a }}$ | $107 \cdot 510$ | － | － | $13 \cdot 2^{11}$ | － | － | 12，300．711 | － |
| Colomb | 422－2 | 122.2 | － | － | － | － | $460 \cdot 8^{12}$ | 6，012．0 |
| Cuba． | － | － | $19 \cdot 7$ | － | － | － | － | $1 \cdot 6$ |
| Cyprus． | － |  | 22.4 | － 7 | － |  |  |  |
| Czechoslova | $2 \cdot 110$ | 1，543－26 | － | 686.7 | － | － | 22，156－5 | 121.3 |
| Ecuador | 24.3 | 83.6 | － | － | $0 \cdot 1$ | － | － | $412 \cdot 3$ |
| Egypt． | 15－21 | － | － | － | － | － | － | 2，592－6 |
| El Salvad | 26.9 | $347 \cdot 2$ | － | － | － | － |  |  |
| Eritrea． | $1 \cdot 1{ }^{13}$ | － | － | － | － | － | － | － |
| Ethiopia | $21.2{ }^{2}$ | － | － | － | － | － | － | － |
| Fiji．．．． | $74 \cdot 3$ | － |  | － | $\square$ |  | － | － |
| Finland．． 7 Trasaman） | $19 \cdot 7$ | $151 \cdot 1$ | 22.4 | 二 | 0.4 | 11.3 |  |  |
| Frances．．．．．．．． | 33.2 44.9 | 707．33 | $\bigcirc 0.7$ | 14，583．6 | 13.8 | $\overline{16} \cdot 1$ | 61，029．44 | 385．7 |
| French Equatorial Africa． | 47.4 | － | － |  | $3 \cdot 4$ | 0.4 |  | － |
| French West Africa．．．．．．．． | 1.0 |  | － | － | $\square$ |  |  |  |
| Germany（Western only）．． | 1.415 | 4，137．8 ${ }^{1}$ | $2 \cdot 6$ | 4，516．2 | 56.9 | 89.0 | 135，890－74 | 1，934－6 |
| Gold Cosst．．．．．．．．．．．．．．． | $691 \cdot 5$ |  | － |  | － | － | － | － |
| Greece． | － | $209 \cdot 01$ | － | 87.1 | 6.2 | 10.0 | － | － |
| British． | 22－2 | － | － | － | － | － |  |  |
| French．．．．．．．．．．．．．．．． | $7 \cdot 2$ | － | － | － | － | － | － |  |
| Netherlands（Surinam）．． | 6.1 |  | － | － |  | － | － | － |
| Honduras． | $35 \cdot 3^{2}$ | 4，604－0 | 二 | $\overline{63.9}$ | 0.6 | － | － | － |
| Hong Kong | $2 \cdot 0^{10}$ | $\overline{16.111}$ | － | 63.9 110.2 | $0 \cdot 3^{12}$ | － | 1，763．71 |  |
| India ${ }^{17}$ ： | 252.9 | $19 \cdot 3$ | 10.41 | 2，441－6 | － | － | 40，569－5 | $331 \cdot 8^{1}$ |
| Indochins | － | － | － | － | － | － | $944 \cdot 7$ |  |
| Indones | $41.8{ }^{13}$ | － | － | － | － | － | 1，057－1 | 9，395－0 |
| Ira | － | $\square$ | － | 二 | 二 | 二 | 187．418 | 1，485－9 |
| Iraq．．． | 二 | － | － | － | － | － | $\overline{200.6}$ | 19，412－8 |

For footnotes，see end of table，p．540．

32．－World Production of Certain Metallic Minerals and Fuels，1952p－concluded

| Country | Gold | Silver | Copper | Iron | Lead | Zinc | Coal | Crude Petrol－ eum |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 000 oz．t． | ＇000 oz．t． | ＇000 tons | ＇000 tons | ＇000 tons | ＇000 tons | ＇000 tons | ＇000 tons |
| Italy． | 14.9 | 1，054－5 | 0．1 | $442 \cdot 0$ | 43.2 | 123.8 | 1，200－4 | $70 \cdot 0$ |
| Japan．． | 228.1 | 6，941－3 | $59 \cdot 1$ | $615 \cdot 1$ | $19 \cdot 3$ | 96.5 | 47，795－1 | $337 \cdot 3$ |
| Kenya．．．．．．．．．． | $10 \cdot 2$ | 6.4 | $\bigcirc$ | ］11．0 | －0．2 | － | $\overline{-1}$ |  |
| Korea（South only） | $15 \cdot 7$ | $6 \cdot 4$ | 0.7 | 11.0 | 0.2 | 0.6 | 634.9 |  |
| Kuwait． | $\overline{9 \cdot 8 \cdot 8}$ | 二 | 二 | $\overline{504} \cdot 9^{19}$ | － |  |  | 41，481．1 |
| Luxembourg |  | － | － | 2，396－4 | － | － | － |  |
| Malaya，Federati | $15 \cdot 61$ |  |  | 756.2 | － | － | － |  |
| Manchuria．． |  | 5 | － | － | － |  | 3，109．68，${ }^{\text {n }}$ |  |
| Mexico． | $459 \cdot 4$ | 50，354－4 | $64 \cdot 5$ | 374.8 | $271 \cdot 2$ | $250 \cdot 7$ | 1，453．9 | 12，188－3 |
| Moroceo－ |  |  |  |  |  |  |  |  |
| $\underset{\text { French }}{\text { Spanish }}$ | 二 | 1，360．01 | 二 | $329 \cdot 6$ $630 \cdot 5$ | 92.2 0.4 | $31 \cdot 3$ | $507 \cdot 1$ | $111 \cdot 3$ |
| Mozambique | 0.91 | － | － | － | － | － | 126.8 |  |
| Netherlands． | － | － | － | － | － | － | 13，814－2 | 788.3 |
| New Guinea | $94 \cdot 1^{1}$ | $38 \cdot 6{ }^{22}$ | － | － | － | － |  | 284.4 |
| New Zealand | $59 \cdot 2$ | $51 \cdot 4$ | － | 0.9 | － | － | $964 \cdot 5$ | － |
| Nicaragua． | $262 \cdot 3$ | － | － | － | 21 | － |  |  |
| Nigeria．．．．． | ${ }_{22}^{1 \cdot 1}$ | ${ }^{16} 11.9$ | 352.72 | 二 | 14.12 | 25.72 | $650 \cdot 4$ |  |
| Norway． | － | $147 \cdot 9$ | 16.5 | $573 \cdot 2^{23}$ | $0 \cdot 5$ | $6 \cdot 0$ | $499 \cdot 3$ | － |
| Pakistan | － | － | － | － | － | － | $671 \cdot 3{ }^{8}$ | $197 \cdot 1$ |
| Papua． | 0.31 |  |  | － | $\square$ |  |  |  |
| Peru． | $134 \cdot 9$ | 18，853．2 | $34 \cdot 4$ | － | $108 \cdot 1$ | $133 \cdot 0$ | 253.5 | 2，410•8 |
| Philippine | $469 \cdot 4$ | $633 \cdot 4$ | $14 \cdot 6$ | 722.0 | $2 \cdot 5$ | 1.8 | $153 \cdot 7$ |  |
| Poland． | － | － | $3 \cdot 1$ | $726 \cdot 4{ }^{6}$ | 2.1 | ＝ | $93,075 \cdot 8$ 487.2 | 253.5 |
| Portugal | $18 \cdot 4^{1}$ | － | $3 \cdot 1$ | 二 | $2 \cdot 1$ | － | ${ }^{487 \cdot 2}$ | 3，633．2 |
| Roumani | $112.5{ }^{16}$ | $482 \cdot 3^{10}$ | － | $324 \cdot 1$ | $3 \cdot 9^{2}, 10$ | － | $179 \cdot 7^{10}$ | 4，574．66 |
| Saar．． | － | － | － | － | － | － | 17，896．0 |  |
| Sarawak | 0.9 | － | － | － | － | － | － | 57.3 |
| Saudi Arabia | $73 \cdot 1^{1}$ | － | － |  | － | － | － | 44，861－9 |
| Sierra Leone． | $2 \cdot 6$ | ${ }^{16}$ | － | $774 \cdot 9$ | － | － |  | － |
| Southern Rhodesia | $496 \cdot 7$ | 80.4 | 16 | $39 \cdot 4$ | －1 |  | 2，820－8 |  |
| South－West Africa | ${ }^{13}, 22$ | 1，064－2 | $16 \cdot 3$ |  | $61 \cdot 4$ | $17 \cdot 1$ |  |  |
| Spain． |  | 549．8 | 8.4 | 1，587．3 | 47.5 23.8 | $94 \cdot 8$ | $13,267.4$ 382.5 | － |
| Sweden． | $70 \cdot{ }^{1}$ | 1，144－61 | 14.9 | 11，243．6 | 23.8 | $42 \cdot 9$ | $382 \cdot 5$ | － |
| Switzerlan | $\overline{64} .73$ | － | － | 58.4 | － | － | 二 | － |
| Tanganyik | $64 \cdot 73$ | － | － | － | － | 二 |  | 3，394．0 |
| Trunisia．． | － | $61 \cdot 1$ | － | 574－3 | 25.7 | $4 \cdot 1$ | － |  |
| Turkey | － 0 | －－ | 25.72 | 267.9 | 1.0 | 1.71 | $5,286 \cdot 7$ | 23.9 |
| Uganda． | 11，${ }^{0.28 .7}{ }^{\text {a }}$ | $1,17 \overline{6} \cdot 7$ | $\overline{37} .7$ | $\stackrel{\rightharpoonup}{1,197} \cdot 1$ | $0 \cdot 6$ | 二 | 30，$\overline{236}$－4 |  |
| U．S．S．R． | － | 1， |  |  | － |  | 330，693－3 ${ }^{8}$ | 51，808－6 |
| United Kingdom |  | 25.71 | － | 5，454－224 | $4 \cdot 4$ | 1.9 | 253，669－325 | $62 \cdot 2$ |
| United States of A | 1，927•026 | 39，841－126 | 924.5 | 55，482－627 | $384 \cdot 0$ | $666 \cdot 0$ | 499， $103 \cdot 3$ | 345－943－8 |
| Venezuela． | $0 \cdot 2$ |  |  | 1，390．0 |  |  | 27.8 | 104，305－1 |
| Yugoslavia | $44 \cdot 6$ | 2，578．5 | 40.8 | $357 \cdot 1$ | 87.1 | 52.7 | 1，114－4 | $167 \cdot 4$ |

${ }^{1} 1951$ figure．${ }^{2}$ Smelter production．${ }^{3}$ Exports．${ }^{4}$ Includes purchases by the Central and Mining Banks．${ }^{5}$ Consists of the Gold Coast，Nigeria and Sierra Leone．${ }^{6} 1948$ figure．${ }_{7}$ Shipments．${ }^{8}$ Includes lignite．${ }^{9}$ Excludes Formosa（Taiwan）and Manchuria， shown separately．${ }_{10} 1947$ figure．${ }_{11} 1946$ figure．${ }_{12}$ Only that coal transported by
${ }_{18}$ Fiscal
rail．${ }^{13} 1950$ figure．
${ }^{14}$ Excludes the Saar，shown separately．${ }^{15} 1949$ figure．
cluded in British West Africa．
year beginning Mar．20， 1952.
${ }_{17}$ Excludes Burma and Pakistan，shown separately．
2s separately．
2s
1951．${ }^{21}$ Less than 50 tons．
${ }_{24}$ Year of 53 weeks．${ }_{25}$ Gre ${ }^{22}$ Less than 50 oz ．t．${ }_{23}$ Includes ferro－titanium．
cast coal．$\quad{ }_{26}$ Includes Alaska．$\quad{ }_{27}$ Excludes manganiferous iron ores．

## CHAPTER XII.-POWER GENERATION AND UTILIZATION

## CONSPECTUS

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Norx.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p$. 1 of this volume.

## Section 1.-Water-Power Resources and Their Development*

Canadá, a land of many lakes and rivers, has been abundantly endowed by nature with great water-power resources which are well distributed across the country. In most sections, adequate precipitation and favourable topography result in numerous rivers on which falls and rapids frequently occur and offer excellent opportunities for the development of hydraulic power; with the exception of the prairies of the middle west, water-power resources of importance are found in virtually every part of the country. In British Columbia, where precipitation is high, the rivers flowing down the Pacific slope of the Rocky Mountains offer many fine power sites. Alberta, although a prairie province, also has mountain streams from the Rockies as well as great reserves of undeveloped power on its large northern rivers. The great Canadian Shield of Precambrian rock, which forms an arc around Hudson Bay, covers a portion of the Northwest Territories and northern Saskatchewan as well as a large part of Manitoba, Ontario, Quebec and Labrador; it is a rough, forest-covered, well-watered area characterized by innumerable lakes and by rivers with many falls and rapids. The water power of the Great Lakes-St. Lawrence River System forms part of the great resources of Ontario and Quebec upon which their status as the principal manufacturing provinces of Canada is dependent and which compensates in large degree for the lack of indigenous coal. In New Brunswick, Nova Scotia and on the Island of Newfoundland, precipitation is moderately heavy and the rivers, though not large, afford numerous possibilities for power developments of moderate size. In Labrador, the potential resources of the Hamilton River are outstanding.

An accurate comparison of Canada's water-power resources and their development with those of other countriest is not possible owing to incomplete world statistics and differing bases of tabulation. However, from figures available at the end of 1952, it appears that Canada ranks second among the countries of the world in total installed capacity, being exceeded only by the United States; in installation

[^178]per thousand population, Canada is exceeded only by Norway. Canada is in approximately fifth place in potential power resources but, on the whole, those resources are more readily available to prospective markets than are those of other countries that outrank Canada, an exception being the United States. In particular, might be mentioned the enormous potential resources of the great river systems of Africa and Asia.

Subsection 1.-Available and Developed Water Power in Canada
Table 1 gives a summary of the water-power resources of Canada and their development as at Dec. 31, 1953.
1.-Available and Developed Water Power, by Province, as at Dec. 31, 1953

| Province or Territory |  |
| :--- | :--- | ---: | ---: | ---: |

${ }^{1}$ Includes water wheels and hydraulic turbines installed.
The figures given in the first and second columns of the above table represent 24-hour power and are based upon rapids, falls and power sites of which the actual drop, or the head of possible concentration, has been measured or at least carefully estimated. Tabulations of potential power in Canada are still not complete as many unrecorded rapids and falls of undetermined power capacity exist on rivers and streams throughout the country, particularly in the less-explored northern districts. Apart from areas where definite studies have been carried out and the results recorded, no consideration has been given to the power concentrations that are feasible on rivers and streams of gradual gradient, where economic heads possibly may be reated by the construction of dams. Thus, the figures in Table $\mathbf{1}$ of available power, under the two conditions of stream flow, represent only the minimum water-power possibilities of Canada.

The third column of the table gives the total capacity of the water wheels actually installed. These figures should not be placed in direct comparison with those in the first and second columns to deduce the percentage of the available water-power resources that has been developed. At developed sites, the waterwheel installation averages 30 p.c. greater than the corresponding calculated maximum available power at the same sites. Figures of Table 1, therefore, indicate that the at present recorded water-power resources will permit of a turbine installation of nearly $66,000,000 \mathrm{~h}$. p. and that the turbine installation at Dec. 31, 1953, represents less than 23 p.c. of recorded water-power resources.


The development from year to year of Canada's water-power resources is a good index of the country's industrial growth and of the change in its economic life since the beginning of the present century. In 1900, prior to the inception of longdistance transmission of electricity, Canada's economy was based largely on agriculture and the total of hydraulic installations, mostly small mills, was only 173,000 h.p. After the successful solution of the problems of transmission of electric energy for use in distant communities, the development of large hydraulic projects became practicable and, by 1910 , total installation had risen to $977,000 \mathrm{~h} . \mathrm{p}$. In ensuing decades, the growth in installed capacity, partly speeded by war demands, proceeded at an accelerated rate.

The figures in Table 2, and the graph on p. 544, show clearly the consistent growth in the total capacity of hydraulic installations since the beginning of the century. In the period $1900-05$, the average annual increase was about $56,000 \mathrm{~h} . \mathrm{p}$., a rate that was stepped up sharply in subsequent years because of improvements in the transmission of electricity and the building of large central electric stations. During the period 1906-22, development proceeded at a fairly uniform rate of 150,000 h.p. per annum. The heavier demand for electricity during the prosperous 1920 's increased the rate of installation sharply in 1923 and it continued at about 377,000 h.p. per annum for the period 1923-35. As an aftermath to the economic depression, the rate of installation was low during the years 1936-39, whereas the power required for war purposes accounted for the high average rate of increase of $481,000 \mathrm{~h} . \mathrm{p}$. per annum during the period 1940-43. Few developments were undertaken in the later war years or in the immediate post-war period, so that only a small amount of new capacity came into operation in the 1944-47 period. However, the results of the later post-war program of construction are apparent in the large growth in the years $1948-53$ when the average rate was about $740,000 \mathrm{~h} . \mathrm{p}$. per annum. Present programs of expansion indicate a continuation of this rate of growth for some years.

## 2.-Hydraulic Turbine Horse-Power Installed, by Province, as at Dec. 31, Decennially 1900-50 and Annually 1951-53

Note.-Figures for each year 1900-30 are given in the 1939 Year Book, p. 362, for 1931-39 in the 1946 edition, p. 362, and for 1940-49 in the 1954 edition, pp. 556-557.

| Year | Newfoundland | Prince Edward Island | Nova Scotia | New <br> Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | h.p. | h.p. | h.p. | h.p. | h.p. | h.p. |
| 1900. | - | 1,521 | 19,810 | 4,601 | 82,864 | 53,876 |
| 1910. | - | 1,760 | 31,476 | 11,197 | 334,763 | 490,821 |
| 1920 |  | 2,233 | 37,623 | 21,976 | 955,090 | 1,057,422 |
| 1930 | - | 2,439 | 114,224 | 133,681 | 2,718,130 | 2,088,055 |
| 1940 | - | 2,617 | 139,217 | 133,347 | 4,320, 943 | 2,597,595 |
| 1950 | 262,810 | 2,299 | 150,960 | 133,111 | 6,372,812 | 3,513,840 |
| 1951 | 279,160 | 2,299 | 150,960 | 132,911 | $6,755,351$ | 3,718,505 |
| 1952. | 292,660 | 2,299 | 162,455 | 135,511 | 7,263,621 | 3,948,466 |
| 1953. | 311,150 | 1,900 | 162,433 | 164,130 | 7,719,122 | 4,006,686 |
|  | Manitoba | Saskatchewan | Alberta | British Columbia | Yukon and N.W.T. | Canada |
|  | h.p. | h.p. | h.p. | h.p. | h.p. | h.p. |
| 1900. | 1,000 | - 30 | 280 | 9,366 | 5 | 173,323 |
| 1910. | 38,800 | 30 | 655 | 64,474 | 3,195 | 977,171 |
| 1920. | 85,325 | 35 | 33,122 | 309,534 | 13,199 | 2,515,559 |
| 1930. | 311,925 | 42,035 | 70,532 | 630,792 | 13,199 | 6,125,012 |
| 1940. | 420,925 | 90,835 | 71,997 | 788,763 | 18,199 | 8,584,438 |
| 1950 | 595,200 | 111,835 | 107,225 | 1,284,208 | 28,450 | 12,562,750 |
| 1951. | 596,400 | 111,835 | 207,825 | 1,358,808 | 28,450 | 13,342,504 |
| 1952. | 716,900 | 111,835 | 207,825 | 1,432,858 | 31,450 | 14,305,880 |
| 1953. | 716,900 | 109,835 | 207,960 | 1,496,518 | 32,440 | 14,929,074 |

The availability of large amounts of hydro-electric energy has so fostered the economical utilization of the natural products from land, forest and mine that Canada is rapidly becoming highly industrialized. Low-cost power is fundamental in meeting the enormous requirements of the pulp-and-paper industry-Canada's largest industry and one of the world's great industrial enterprises; it also allows the economical mining, milling and refining of base and precious metals and facilitates their fabrication into a multitude of manufactured articles. Canada's outstanding growth in the post-war period has been made in conjunction with accelerated development of water-power resources. From hydro-electric plants ranging in capacity from a few hundred to more than $1,000,000 \mathrm{~h} . \mathrm{p}$., networks of transmission line carry power to most urban centres and to an increasing number of rural districts. This wide distribution of power has facilitated the decentralization of industry, enabling manufacturing processes to be carried on in many of the smaller centres of population. Economical domestic electrical service, too, contributes in no small measure to the high standard of living in Canada.


With a total capacity of $14,929,074$ h.p., present water-power plants in Canada, if operated at full load, would produce energy at a rate corresponding to the output of more than $149,000,000$ manual workers, on the commonly accepted basis of one mechanical horse-power equalling the working capacity of ten men.

Table 3 shows, under three classifications, the purposes for which the developed water power is primarily utilized.
2.-Developed Water Power, by Province and Industry, as at Dec. 31, 1953.

| Province or Territory | Turbine Installation |  |  | Total ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | In Central Electric Stations ${ }^{1}$ | $\begin{gathered} \text { In Pulp } \\ \text { and } \\ \text { Paper Mills }{ }^{2} \end{gathered}$ | In Other Industries ${ }^{3}$ |  |
|  | h.p. | h.p. | h.p. | h.p. |
| Newfoundland. | 126,850 | 182,300 | 2,000 | 311,150 |
| Prince Edward Island. | 387 | - | 1,513 | 1,900 |
| Nova Scotis. | 147,295 | 10,337 | 4,801 | 162,433 |
| New Brunswick. | 134,700 | 23,872 | 5,558 | 164,130 |
| Quebec. | 7,313,318 | 350.344 | 55,460 | 7,719,122 |
| Ontario. | 3,701,787 | 224,057 | 80,842 | 4,006,686 |
| Manitoba. | 715,000 | - | 1,900 | 716,900 |
| Saskatchewan | 106,500 | - | 3,335 | 109,835 |
| Alberta. | 205,900 | - | 2,060 | 207,960 |
| British Columbia. | 12,740 | - | 19,700 | 32,440 |
| Yukon and Northwest Territories. | 971,311 | 137,600 | 387,607 | 1,496,518 |
| Canada. | 13,435,788 | 928,510 | 564,776 | 14,929,074 |
| Percentages of total installation | 90.0 | 6.2 | $3 \cdot 8$ | $100 \cdot 0$ |

[^179]The central electric station classification totalling 13,435,788 h.p. represents 90 p.c. of the total developed water power as at Dec. 31, 1953. In 1900 the corresponding percentage was $33 \cdot 5$, thus showing the tremendous growth in central electric station installations since the inception of successful long-distance transmission of electricity. Central hydro-electric stations produced 94 p.c. of all electricity sold in or exported from Canada during 1953.

The pulp and paper turbine installation total of $928,510 \mathrm{~h} . \mathrm{p}$. includes only water power actually developed and directly used by pulp and paper companies. In addition, this industry is the greatest purchaser of central electric station power, buying more than 15 p.c. of all power sold for industrial purposes. Part of the purchased power is classed as secondary, being used for steam generation by electric boilers.

The 'other industries' group develops $564,776 \mathrm{~h} . \mathrm{p}$. solely for its own use. These diversified industries also provide a broad market for the power sold by the central electric stations.

The figure of total hydraulic installation in Canada, $14,929,074 \mathrm{~h} . \mathrm{p}$. is the cumulative total of all existing installations of water wheels and hydraulic turbines irrespective of whether or not the equipment has been in use during the year. It has been adjusted to Dec. 31, 1953, by the inclusion of new installations completed during the year and by deletion of those old units which were dismantled.

## Subsection 2.-Water-Power Developments in the Provinces and Territories, 1953

Although a tremendous amount of hydro-electric construction was carried out in Canada during 1953, the net increase in installed capacity of 623,194 h.p. was somewhat lower than that of recent years. However, plants and extensions under construction for operation in 1954 totalled $1,500,000 \mathrm{~h} . \mathrm{p}$. and those for later years about an equal amount. Projects undertaken or under investigation at rather remote locations emphasize the future economic value of other undeveloped sites in unsettled regions. Construction in the field of power distribution and in the building of thermal-electric plants also was active. Over-all progress in each of the provinces, principally covering hydro-electric development, is outlined below.

Atlantic Provinces.*-The Newfoundland Light and Power Company completed the construction of its second plant on the Horse Chops River, having a capacity of $10,000 \mathrm{~h} . \mathrm{p}$. in one unit; also investigations were carried out on Pipers Hole River on which there are three sites totalling about $31,000 \mathrm{~h} . \mathrm{p}$. The AngloNewfoundland Development Company has completed the modernization of its Bishop's Falls development on the Exploits River, resulting in an increase in capacity of $6,000 \mathrm{~h} . \mathrm{p}$. , making a total of $21,900 \mathrm{~h} . \mathrm{p}$. The Union Electric Light and Power Company investigated a site on the Trinity River where it is proposed to develop $2,000 \mathrm{~h} . \mathrm{p}$. under 260 -foot head. The Iron Ore Company made favourable progress on its development at Menihek Rapids on the Ashuanipi River, a tributary of the Hamilton River in Labrador, and it is expected that the plant of $12,000 \mathrm{~h} . \mathrm{p}$. in two units will be in operation in August 1954; ultimately two additional units may be installed.

No new developments were completed in Nova Scotia in 1953 but the Nova Scotia Light and Power Company Limited had under construction for 1954 operation a plant of $9,000 \mathrm{~h} . \mathrm{p}$. on the Nictaux River near Middleton. The Nova Scotia Power Commission is proposing to develop $6,000 \mathrm{~h} . \mathrm{p}$. under 22 -foot head on the Mersey River near Liverpool for 1955 operation.

The New Brunswick Electric Power Commission brought into operation in April its two-unit $27,000-\mathrm{h} . \mathrm{p}$. plant at The Narrows on the Tobique River. Active investigations were carried out on the Beechwood site on the St. John River with a view to building a plant initially of two units, each of $48,000 \mathrm{~h} . \mathrm{p}$. Surveys also were made of a site of about $10,000 \mathrm{~h} . \mathrm{p}$. on the Sisson River, a tributary of the Tobique River. The St. George Pulp and Paper Company Limited carried out a modernization program resulting in an increase in capacity of $2,812 \mathrm{~h} . \mathrm{p}$. in its plant on the Magaguadavic River. The plant is now rated at $7,812 \mathrm{~h} . \mathrm{p}$. in four units.

Quebec.-The Quebec Hydro-Electric Commission completed its Beauharnois Power-house No. 2 by a two-unit addition of $111,000 \mathrm{~h} . \mathrm{p}$., bringing over-all capacity of the development to $1,400,000 \mathrm{~h} . \mathrm{p}$. On the upper Ottawa River, the construction of the Commission's two-unit 32,000-h.p. Rapid II development proceeded on schedule with operation expected in June 1954. Construction was commenced on a 1,200,000-h.p. hydro-electric development on the Bersimis River about 62 miles

[^180]above its mouth, with $300,000 \mathrm{~h} . \mathrm{p}$. to be developed initially for 1956 operation. Part of the output of this plant will be transmitted to the Gaspe Peninsula by a 32 -mile submarine cable to be laid in 1954 on the bed of the St. Lawrence River.

The Aluminum Company of Canada Limited completed its $285,000-\mathrm{h} . \mathrm{p}$. Chute-a-la-Savanne development on the Peribonca River by bringing into operation the remaining four units each of $57,000 \mathrm{~h} . \mathrm{p}$. The Price Brothers and Company Limited brought into operation two new plants on the Shipshaw River-70,000 h.p. in two units at Chute-des-Georges and $9,000 \mathrm{~h} . \mathrm{p}$. in one unit below Lac Brochet. The Manicouagan Power Company completed the installation of the second unit of $56,200 \mathrm{~h} . \mathrm{p}$. in its plant near the mouth of the Manicouagan River, which is designed for six units to be added as required. The Ste. Marguerite Power Company proceeded with the construction of a two-unit 17,000-h.p. plant on that River for 1954 operation. The city of Mégantic had work in progress on the development of 4,500 h.p. on the Chaudière River, with operation of one 2,250-h.p. unit expected in May 1954. The Quebec Rural Electrification Bureau's two-unit development of $1,200 \mathrm{~h} . \mathrm{p}$. on the Petites Bergeronnes River at Lac des Sables was scheduled for completion early in 1954.

The Shawinigan Water and Power Company undertook the installation, for 1955 operation, of one additional unit in each of its Rapide Blanc, La Trenche, and La Tuque plants, having a combined total of $158,500 \mathrm{~h} . \mathrm{p}$. The diversion works to provide flow from the Megiscane and Susie Rivers into Gouin Reservoir were completed in August 1953. The MacLaren-Quebec Power Company completed the building of a new storage dam on the Lièvre River at the outlet of Kiamika Lake, and one was under construction on the Métis River by the Lower St. Lawrence Power Company. The Quebec Streams Commission carried out stream-flow regulation on a number of important rivers on which storage dams are operated. Reconstruction of dams on the St. Francis, Métis and Manouane Rivers was completed and repairs were made to the La Loutre power plant. Preliminary investigations of water-power sites on the Rupert, Chamouchouane and Bazin Rivers were carried out, also flood-control studies on the Ste. Anne de la Pérade and Salmon Rivers. Flood-protection works were built at a number of locations throughout the Province.

Ontario.-The Hydro-Electric Power Commission of Ontario completed its Otto Holden Generating Station on the Ottawa River above Mattawa by installing the eighth unit of $33,000 \mathrm{~h}$. p., bringing total capacity to $264,000 \mathrm{~h} . \mathrm{p}$. Good construction progress was made on the Commission's 12-unit 1,370,000-kw. Sir Adam Beck Generating Station No. 2 on the Niagara River at Queenston, and initial operation was scheduled for 1954. Excavation of the two large tunnels and of the canal and forebay was practically completed; concrete placing in the head works, tunnels and power-house was well advanced; and four penstocks and part of the powerhouse superstructure were erected. Plans for the development include a 15,000 -acre-foot pumped-storage reservoir adjacent to the forebay. At the Commission's Pine Portage Generating Station on the Nipigon River, two additional units each of $45,000 \mathrm{~h}$. . were being installed for operation in the autumn of 1954. Preliminary construction was begun on a development at Manitou Falls on the English River, which will have a total dependable peak capacity of $42,100 \mathrm{~h} . \mathrm{p}$. in three units for 1956 operation.*

[^181]The Great Lakes Power Company completed the construction of its two-unit 20,000-h.p. development at Scott Falls on the Michipicoten River. Good progress was made on the Company's McPhail Falls project, a few miles upstream on the same river, and operation of the two-unit $15,000-\mathrm{h}$. p. plant was planned for late 1954.

Prairie Provinces.*-No new hydro-electric units were brought into operation in Manitoba in 1953, but the Manitoba Hydro-Electric Board continued construction on its McArthur Falls development of $80,000 \mathrm{~h} . \mathrm{p}$. on the Winnipeg River. Four units each of 10,000 h.p. are scheduled for operation by December 1954 and plant completion in 1955. In connection with the Laurie River development of Sherritt-Gordon Mines Limited, a control and diversion dam was completed on the Loon River; surveys for a new development were made at a site about seven miles above the present plant.

In Alberta, Calgary Power Limited had under installation a third unit rated at 33,000 h.p. in its Ghost plant on the Bow River, which will bring plant capacity to 69,000 h.p. by June 1954. Construction was proceeding on the Bearpaw development, on the Bow River near Calgary, consisting of one unit of $22,000 \mathrm{~h} . \mathrm{p}$. for operation in late 1954 or early 1955. In connection with the Spray River development, two pump stations were being installed to raise water from Goat Creek into the Spray canal, thus substantially increasing the power output of the Spray and Rundle plants.

British Columbia. $\dagger$-The British Columbia Power Commission completed the installation of the final two units, each of 28,000 h.p., in the John Hart development on Campbell River, Vancouver Island, bringing total capacity to $168,000 \mathrm{~h} . \mathrm{p}$. To provide additional storage for this development, surveys and drilling were carried out at Buttle Lake for a dam to be built in 1954. The redevelopment of the dismantled Puntledge River plant was undertaken and a single unit of 35,000 h.p. driving a $30,000-\mathrm{kva}$. generator was being installed, with initial operation probably late in 1954. Contracts were awarded and work commenced on a development on the Spillimacheen River to consist of three units with a total capacity of $5,500 \mathrm{~h} . \mathrm{p}$. for 1955 operation. The Whatshan plant of $33,000 \mathrm{~h} . \mathrm{p}$. was badly damaged by two landslides during August and was not restored to full operation by the end of 1953 .

The British Columbia Electric Company Limited continued construction towards the installation of a fourth unit of $62,000 \mathrm{~h} . \mathrm{p}$. in its Bridge River plant for 1954 operation. The raising of the La Joie storage dam to provide increased reservoir capacity was also continued. Surveys were made covering a proposed development on Seton Creek to further utilize the water diverted through the Bridge River plant; active construction will begin in 1954 and it is planned to have the single unit of $58,000 \mathrm{~h} . \mathrm{p}$. driving a $42,000-\mathrm{kva}$. generator in operation in 1956 . A 4,860-h.p. turbine, which served a few years ago in a temporary capacity at Bridge River, was re-installed in the Jordan River No. 1 plant, bringing the capacity to 38,985 h.p.

[^182]Favourable progress was made by the Aluminum Company of Canada on its great Kemano-Kitimat project involving the diversion of the headwaters of the Fraser River through the Coast Range. The drilling of the 10 -mile 25 -foot-diameter diversion tunnel from Tahtsa Lake and of the penstock tunnel was essentially completed at the end of 1953. The underground power-house was completed and the work of installing three $140,000-\mathrm{h} . \mathrm{p}$. turbines and $106,000-\mathrm{kva}$. generators was well advanced for operation in May 1954. The 50 -mile transmission line from Kemano to Kitimat was virtually completed. The spillway for the Kenney Dam on the Nechako River was ready for operation. Ultimate capacity may be more than 2,000,000 h.p.

The Consolidated Mining and Smelting Company of Canada Limited expects to complete the construction of its Waneta development on the Pend d'Oreille River early in 1954. The plant will contain two turbines each of $105,000 \mathrm{~h}$. p. and ultimately two additional units may be installed. Alaska Pine and Cellulose Limited completed the installation of a 3,200-h.p. turbine, driving a $2,500-\mathrm{kva}$. generator in its plant at the outlet of Victoria Lake, Vancouver Island. Plant capacity is 4,400 h.p., the power being used principally for pumping purposes.

Yukon Territory.-The Yukon Hydro Company Limited, serving the town of Whitehorse, added a Pelton wheel of $940 \mathrm{~h} . \mathrm{p}$. driving an $875-\mathrm{kva}$. generator to its Porter Creek plant, to bring capacity to $1,390 \mathrm{~h} . \mathrm{p}$.

Surveys and investigations towards a major hydro-electric development, involving the storage of Yukon River headwaters and their diversion through the Coast Range, were carried out during the summer of 1953 and will be continued in 1954 by Ventures Limited and its subsidiary companies, Frobisher Limited and Quebec Metallurgical Industries Limited. Preliminary planning indicates that, initially, a development of about $25,000 \mathrm{~h} . \mathrm{p}$. may be made on one of the rivers on the Pacific slope in northern British Columbia.

## THE ST. LAWRENCE POWER PROJECT*

Joint international development of power in the International Rapids Section of the St. Lawrence River was officially begun on Aug. 10, 1954. Ceremonies held in the presence of government leaders from Canada and the United States marked the inauguration on that day of a $1,640,000-\mathrm{kw}$. project that has been the subject of international interest for more than forty years. The power thus to be provided is essential to the continued progress of Ontario, and in view of Ontario's important role in the national economy, to Canada as a whole.

The project will be a joint undertaking on the part of The Hydro-Electric Power Commission of Ontario and the Power Authority of the State of New York. The former was authorized by legislation of the Governments of Canada and of Ontario to construct the Canadian part of the work, and the latter was named by President Eisenhower as the entity to undertake the work on the United States side of the river. Each of the power authorities will assume the cost of the generating equipment installed in its own half of the power-house. They will share equally in all other costs of construction and in the total output of the generating station.

[^183]Ontario Hydro's interest in the St. Lawrence power development dates from as early as 1913 when the first investigations into the possibilities of the International Rapids Section were undertaken. Although interrupted by World War I, these investigations were completed in 1921 and the findings were submitted to the International Joint Commission which had been set up by the Boundary Waters Treaty of 1909 to deal with problems related to the use of international waters. This first formal statement was favourably received by the International Joint Commission, and a Joint Board of Engineers was set up to study how the power could best be developed. Following upon a report by the Joint Board, representatives of Canada and the United States, in 1932, signed The St. Lawrence Deep Waterway Treaty which called for the construction, as an international undertaking, of a combined seaway and power project in the International Rapids section of the river.

The Treaty was, however, not ratified, and because of the association of the navigation and the power aspects of the project, proved to be only the beginning of a series of discussions, proposals, and counter-proposals extending over a period of more than twenty years.

Between 1932 and 1945, because of the delays attending the St. Lawrence development, the Commission met increasing demands for power partly by the purchase or construction of small generating stations, but for the most part by increased amounts of purchased power. Since 1945 power requirements have doubled and have exceeded available supplies of purchasable power. To meet demand the Commission found it necessary to embark on an extensive construction program and fifteen new sources of power have been developed. Those either partially or wholly in service at the end of 1953 have contributed to increasing the dependable peak capacity of the Commission's systems by 84 p.c. from $1,937,500$ kw. in 1945 to $3,565,350 \mathrm{kw}$. Furthermore, agreements for the interchange of power were negotiated with the Detroit Edison Company in 1953 and in 1954 with the Niagara Mohawk Power Corporation of Syracuse, New York. These interconnections add to the security of the Commission's systems by making assistance available at times of emergency.

The construction program undertaken in 1945 has not only been extended from year to year with the increasing demands for power, but has also been adapted from time to time as authorization to proceed with the St. Lawrence power project continued to be delayed. For example, the Commission entered for the first time upon fuel-electric generation on a large scale in the construction of two large stations, one in Toronto and one in Windsor, with a combined installed capacity of $664,000 \mathrm{kw}$. at 60 cycles. The Sir Adam Beck-Niagara Generating Station No. 2, currently under construction and partially in service, was originally planned with an installed capacity of $450,000 \mathrm{kw}$. in six units, but was increased in ultimate installed capacity to $1,370,000 \mathrm{kw}$. by the inclusion of ten additional units and a pumped-storage scheme. (See furlher p. 547.) Other units at this station as they are placed in service and units in other stations under construction will assist in meeting power requirements up until 1957.

With the authorization to proceed with the development of the International Rapids Section of the St. Lawrence River, this project becomes the sixteenth new source of power in the Commission's construction program. It is the last major source of hydro-electric power available to the Commission within economic transmission distance of large load centres.

The frustrating delays which dogged the project for more than twenty years were, in part at least, attributable to the unavoidable association of the navigation and power aspects of the scheme, to which reference already has been made. Economically and physically the two aspects were very closely related, and uncertainty or postponement regarding the one necessarily involved the other. The power development must be a joint undertaking by Canada and the United States; the seaway, though interdependent with the power project, could be constructed by either country or by both countries entirely within their own national boundaries, or it could be constructed as a single international undertaking.

In 1951, Canadian spokesmen, aware of the urgent need for the development of power from the St. Lawrence River, and faced with seemingly insurmountable obstacles in the United States to the combined seaway and power project, began urging the construction of an all-Canadian seaway in association with the international power development. On Dec. 3, 1951, the Canadian Government signed an agreement with the Government of Ontario delegating to the Province the authority for the development of Canada's share of the power in the International Rapids Section of the St. Lawrence River. This agreement, which clarified and firmly established the Canadian policy regarding power, was later ratified by both Governments, and the Provincial Government in turn enacted legislation in October 1952. assigning to the Hydro-Electric Power Commission of Ontario the responsibility for constructing, operating, and maintaining the Canadian half of the power development.

Power aspects of the development were further clarified at the international level in October 1952 when the International Joint Commission approved an application by Canada and the United States to develop power from the International Rapids Section. More than two years were to pass, however, before United States policy regarding the power and navigation development was clearly defined. In July 1953, the Federal Power Commission announced its decision to grant, a licence to the Power Authority of the State of New York to undertake the United States share of the power development. Appeals against this decision by opponents requesting a re-hearing were dismissed. A final appeal was taken to the Supreme Court of the United States. On June 7, 1954, the Supreme Court rejected the appeal and thereby removed the last legal obstacle to the power project. It was then possible for Canada to proceed with an all-Canadian seaway. However, since the United States Government had, early in 1954, approved a measure of United States participation in the seaway, negotiations were continued by the two countries with regard to the navigation features of the scheme.*

The flow of the St. Lawrence River provides one of the most dependable sources of power in the world. The principal structures of the new development on the St. Lawrence River consist of two power-houses and two dams. The structure

[^184]incorporating the power-houses, in conjunction with a dam at the foot of the Long Sault Rapids, will establish a head-pond about 125 miles downstream from the eastern end of Lake Ontario. The development will make use of most of the mean difference of 92 feet in the water levels between Lake Ontario and Lake St. Francis. The operating head will range from $76 \cdot 6$ to $87 \cdot 6$ feet and the normal head will be 83 feet.

The construction operations in connection with the power houses and dams will not interrupt navigation in the present 14 -foot canal. The structure incorporating the power-houses will have a maximum height of 162 feet above the foundation and an over-all length of 3,300 feet. It will span the channel between the eastern end of Barnhart Island and the Canadian shore, almost three miles west of Cornwall, and will be bisected 'by the International Boundary. The Canadian power-house, simple and functional in style, will be of the modified outdoor type, having removable housings rather than the conventional superstructure over the generating equipment. Each of the two power-houses will have 16 generating units. The switchyard for the United States power-house will be on Barnhart Island, the switchyard for the Canadian power-house will be located on the Canadian mainland.

The Long Sault dam will reach from the upper end of Barnhart Island to the United States mainland and will control the levels of the water in the head-pond, allowing any excess water to by-pass the power-houses as required. This dam will be a concrete, gravity, curved-axis, spillway structure, 2,250 feet long and having a maximum height of about 145 feet above the foundation. Its discharge capacity will far exceed the maximum flow of the river. The spillway section will have thirty vertical lift gates, each 50 feet in width.

The Iroquois dam will be about 25 miles upstream from the Long Sault dam and located between Iroquois Point on the Canadian side and Point Rockway on the United States side of the river. Its main purpose will be to regulate the flow of water from Lake Ontario.

In addition, some 14 miles of dykes will be required as well as improvements in the river channels in order to meet certain navigation and power requirements.

Preparations for the building of cofferdams and for dewatering the construction sites were begun in July 1954, and work was proceeding by the late summer. The first units are scheduled to be placed in service in 1958.

When the head-pond is raised to full level, areas on both sides of the river will be inundated. On the Canadian side the flooded area, about 20,000 acres extending along a $46-$ mile stretch of the river, will include the village of Iroquois, the hamlets of Aultsville, Farrans Point, Dickinson's Landing, Wales, Moulinette, and Mille Roches, and one-third of the town of Morrisburg. Some 6,500 people in this area will be affected. Between thirty-five and forty miles of railway line and approximately thirty-five miles of highway must be relocated, and all trees and structures will be removed from the land to be inundated.

Proposals for community planning and rehabilitation are being developed and as these proposals receive acceptance they will become a part of the over-all plan for the re-establishment of the communities in the St. Lawrence valley.

The investigations of 1913 and subsequent years into the power possibilities of the St. Lawrence River were again continued and expanded in the area of the present proposed power development in April 1952 when Commission crews began an intensive survey of the physical structure of the river-bed and the surrounding terrain. In boats piloted by experienced rivermen, Hydro surveyors crossed the river at regular intervals, exploring its contours by means of echo-sounders, while delicate recording instruments reproduced an accurate picture of the river-bed itself. In the vicinity of the Long Sault Rapids it was not possible to use these methods to obtain the accurate information required since the small sounding boats could not navigate in the rapids. Furthermore, the turbulence of the water interfered with the operation of the echo-sounders. Hydro crews solved the difficulty by taking soundings from a marker suspended by a fine wire from a helicopter hovering over a given point. Surveyors also metered the flow of the river in key sections. By correlating these data with information previously obtained, engineers were able to construct hydraulic models of the International Rapids Section. The models accurately simulate river conditions in the 35 -mile section which they reproduce, duplicating to scale the shore line, the contours of the river-bed, and the flow of the water. They also provide the opportunity to test methods of carrying out the power project, assist in determining the best type of construction for the principal structures, and serve to indicate in advance of actual construction where substantial economies can be effected.

Other studies were undertaken to reveal the dyke-building qualities of the soil in the district and to determine the most appropriate locations for the dykes themselves.

When electric power is finally obtained from the St. Lawrence development, Canada's share will be fed into the grid serving the southern and northeastern part of the Province. In this highly productive area are located many of Canada's large industrial developments and the main sources of some of the country's vital raw materials. The supply of electric power has been an important factor in the productivity of the Province and the St. Lawrence power project will undoubtedly assist in its continuing economic development.

## Section 2.-The Central Electric Station Industry

Central electric stations are companies, municipalities or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. Stations are divided into two classes according to ownership, viz.: (1) com-mercial-those privately owned and operated by companies or individuals, and (2) municipal-those owned and operated by municipalities or governments. These are subdivided according to the kind of power used into (a) hydraulic, (b) fuel, and (c) non-generating. This last sub-class purchases practically all the power it resells; a few of these stations have generating equipment that is held for emergencies. The hydraulic stations contain water turbines and wheels with approximately 88 p.c. of the total capacity of hydro installations in all industries in Canada. The generators driven by this hydraulic equipment generate 96 p.c. of the total output of all central electric stations.

92428-36
4.-Electric Energy Generated, by Type of Station, 1938-52, and by Province, 1952

| Year | Generated by- |  | Total | Year, Province or Territory | Generated by- |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Water Power | Thermal Power |  |  | Water Power | Thermal Power |  |
|  | '000 kwh. | '000 kwh. | '000 kwh. | 1952 | '000 kwh. | '000 kwh. | '000 kwh. |
| 1938. | 25,687,568r | 466,592 ${ }^{\text {r }}$ | 26,154,160 | N'r'ld. | 228,875 | 4,416 | 233,291 |
| 1939. | 27,829,017 | 509,013 | 28,338,030 | P.E.I........ | 509 | 35,370 | 35,879 |
| 1940. | 29,524,248 | 585,035 | 30,109,283 | N.S......... | 461,296 | 503,475 | 964,771 |
| 1941. | 32,628,930 | 688,733 | 33,317,663 | N.B. | 455,500 | 297,387 | 752,887 |
| 1942. | 36,582,953 | 772,226 | 37,355, 179 | Que | 32,097,032 | 15,846 | 32,112,878 |
| 1943. | 39,660,312 | 819,281 | 40,479,593 | Ont. | 16,857,454 | 440,072 | 17,297,526 |
| 1944. | 39,553,352 | 1,045,427 | 40,598,779 | Man......... | 2,694,924 | 4,322 | 2,699,246 |
| 1945. | 39,131, 020 | 1999,034 | 40, 130,054 | Sask | 544,447 | 534,862 | 1,079,309 |
| 1946. | 40,692,395 | 1,044,592 | 41,736,987 | Alta......... | 760,296 2 | 413,706 | 1,174,002 |
| 1947. | $42,273,167$ $41,070,095$ | $1,151,632$ $1,319,586$ | $43,424,799$ $42,389,681$ | Y.C........ | 2,852,359 | 134,902 | 2,987,261 |
| 1949. | 42,779,199 | 1,639,374 | 44,418,573 | N.W.T..... | 70,838 | 1,310 | 72,148 |
| 1950. | 46,624,218 | 1,869,500 | 48,493,718 |  |  |  |  |
| 1951. | 52,955,002 | 1,896,842 | 54, 851, 844 |  |  |  |  |
| 1952. | 57,023,530 | 2,385,668 | 59,409,198 | $1952 \ldots$ | 57,023,530 | 2,385,668 | 59,409,198 |

## Subsection 1.-Statistics of Central Electric Stations*

The growth of the central electric station industry has been practically continuous since 1919, when statistics of kilowatt hours generated were first made available. The general movement has been strongly upward and, based on monthly data, the output of central stations during 1952 was more than eleven times that of 1919. The central electric station industry is one that is particularly suited to large-scale operation because of the huge outlay of capital necessary. Total horsepower installed increased almost continuously even during the depression years, mainly because large power projects planned before the depression were in process of construction. Expansion since the end of World War II has been spectacular and large additional developments are currently under way (see pp. 546-549). Installed capacity of the industry in hydro and thermal units is now about equal to one horsepower for every Canadian.
*Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

## 5.-Summary Statistics of Central Electric Stations, 1943-52

Norg.-Figures for 1917-31 are given in the 1940 Year Book, p. 369, and for 1932-42 in the 1950 edition, p. 564 .

| Year | Generating Power Plants | Revenue from Sale of Power ${ }^{1}$ | Power Equipment Main Plant | Kilowatt Hours Generated | Customers | Persons Employed | Salaries and Wages |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | h.p. | '000 | No. | No. | \$ |
| 1943. | 622 | 204,801,508 | 9,602,794 | 40,479,593 | 2,169,148 | 19,120 | 35,785,932 |
| 1944. | 626 | 215,246, 391 | 9,713,791 | 40,598,779 | 2,238,023 | 19,770 | 36,945,296 |
| 1945. | 600 | 215,105,473 | 9,666,947 | 40,130,054 | 2,333,230 | 21,283 | 39,521,365 |
| 1946. | 600 | 226,096,273 | 9,825,459 | 41,736,987 | 2,476,830 | 24,577 | 46,422,998 ${ }^{\text {r }}$ |
| 1947 | 607 | 243,705,976 | 9,601,157 | 43,424,799 | 2,643,327 | 26,704 | 54, 120,717 ${ }^{\text {F }}$ |
| 1948 | 635 | 257,377,490 | 10,038,541 | 42,389,681 | 2,822,027 | 29,349 | 61,974,958 |
| 19492 | 650 | 280,311,624 | 10,637,798 | 44,418,573 | 3,076,369 | 31,746 | 70,551,730 |
| 1950. | 665 | 323,833,465 | 11,703,161 | 48,493,718 | 3,269,824 | 46,193 r | 71, 773,595\% |
| 1951. | 647 | 374,643,376 | 12,781,610 | 54,851,844 | 3,439,750 | 47,467 r | 89,130,327 ${ }^{\text {t }}$ |
| 1952. | 562 | 415,494, 074 | 13,341,198 | 59,409,198 | 3,620,595 | 47,238 | 102,165,917 |

[^185]6.-Electric Energy Generated in Central Electric Stations, by Province, 1948-52

| Province or Territory | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 kwh. | '000 kwh. | '000 kwh. | '000 kwh. | '000 kwh. |
| Newfoundland. |  | 200,610 | 147,470 | 172,436 | 233,291 |
| Prince Edward Island | 21,932 | 24,950 | 29,050 | 32,768 | 35, 879 |
| Nova Scotia. | 677,661 | 717,473 | 762,339 | 887,908 | 964,771 |
| New Brunswi | 591,636 | 651,253 | 696,519 | 756,087 | 752,887 |
| Quebec. | 24,566,682 | 25,530,923 | 27,323,311 | 29,690,086 | 32,112,878 |
| Ontario | 11,095,608 | 11,324,407 | 12,718,518 | 15,985,056 | 17,297,526 |
| Manitob | 2,055,709 | 2,159,998 | 2,449,383 | 2,564,537 | 2,699,246 |
| Saskatchewan | 804,994 | 858,088 | 903,144 | 978,773 | 1,079,309 |
| Alberts. | 724,498 | 800,729 | 869,064 | 996,945 | 1,174,002 |
| British Columbi | 1,820,271 | 2,105,186 | 2,535,412 | 2,723,454 | 2,987,261 |
| Yukon and Northwest Territories | 30,690 | 44,956 | 59,508 | 63,794 | 72,148 |
| Canada | 42,389,681 | 44,418,573 | 48,498,718 | 54,851,844 | 59,409,198 |

Domestic Service.-Power used by domestic customers or for residential purposes amounts to over 14 p.c. of the total production of central electric stations. Details of the number of domestic customers served, the kilowatt hours delivered and the costs to the customers, exclusive of direct federal, provincial and municipal taxes on such service, are shown in Table 7. The average consumption per customer and average cost per kilowatt hour vary considerably as between municipalities and also as between provinces, but the differences in the average bills are smaller. The availability of low-cost power to domestic users contributes greatly to the high standard of living in Canada. Average consumption per customer is almost double that of 1939 and costs are 13 p.c. lower per kilowatt hour.

## 7.-Summary Statistics of Domestic Consumption of Electricity, 1943-52

| Year | Customers | Consumption | Average Consumption per Customer | Average Charge per <br> Annum | Average Charge per kwh. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | '000 kwh. | kwh. | \$ | cts. |
| 1943. | 1,852,367 | 2,843,612 | 1,535 | 27.70 | 1.80 |
| 1944 | 1,906,452 | 3,046,980 | 1,598 | 27.96 | 1.75 |
| 1945 | 1,987,360 | 3,365,497 | 1,693 | 28.05 | $1 \cdot 66$ |
| 1946. | 2,104,549 | 3,881,677 | 1,844 | 29.85 | $1 \cdot 62$ |
| 1947. | 2,246,253 | 4,383,222 | 1,951 | 31.28 | $1 \cdot 60$ |
| 1948. | 2,398,847 | 4,984,280 | 2,078 | 33-32 | $1 \cdot 60$ |
| 1949. | 2,619,831 | 5,678,847 | 2,168 | 34.47 | 1.59 |
| 1950. | 2,797,378 | 6,750,303 | 2,413 | 38.97 | 1.61 |
| 1951. | 2,951,988 | 7,726,114 | 2,617 | $43 \cdot 25$ | $1 \cdot 65$ |
| 1952. | 3,112,306 | 8,741,182 | 2,809 | $46 \cdot 48$ | $1 \cdot 65$ |

Farm Service.-Table 8 shows the number of farm customers, the average annual consumption, average annual revenue and the average revenue per kilowatt hour sold to these customers in each province in 1951 and 1952. Rural electrification has made considerable progress since the end of World War II. Farm customers added during 1952, totalled 23,525 and the national total at 359,870 increased by 7 p.c. over 1951. The relatively large numbers of farm customers in Ontario and the low average revenue per kilowatt hour is evidence of the assistance given in this field by the Ontario Government. It is estimated that about 57 p.c. of the farm dwellings in Canada enjoy the benefits of power-line service. Many other farms generate their own electricity by the use of engines, windmills, etc.
8.-Farm Service Furnished by Central Electric Stations, 1951 and 1952

| Year and Province | Customers | Consumption of Electric Energy |  | Revenue Received |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total Kilowatt Hours | Average kwh. per Customer | Total | Average per Customer | $\begin{gathered} \text { Average } \\ \text { per } \\ \text { kwh. } \end{gathered}$ |
| 1951 | No. | '000 | No. | \$ | \$ | cts. |
| Prince Edward Island. . | 3,956 | 3,292 | 832 | 190,181 | 48.07 | $5 \cdot 8$ |
| Nova Scotia. | 21,433 | 18,397 | 858 | 759,475 | $35 \cdot 43$ | $4 \cdot 1$ |
| New Brunswick. | 34,085 | 28,083 | 824 | 1,659,719 | $48 \cdot 69$ | $5 \cdot 9$ |
| Quebec. | 90,492 | 93,772 | 1,036 | 3,105,925 | $34 \cdot 32$ | $3 \cdot 3$ |
| Ontario. | 127,595 | 422,296 | 3,310 | 8,351,550 | $65 \cdot 45$ | $2 \cdot 0$ |
| Manitoba. | 23,777 | 58,841 | 2,475 | 1,684,036 | $70 \cdot 83$ | 2.9 |
| Saskatchewan. | 5,594 | 7,084 | 1,266 | 478,404 | 85.52 | 6.8 |
| Alberta. | 11,415 | 28,088 | 2,461 | 822,999 | 72-10 | 2.9 |
| British Columbia. | 17,998 | 41,278 | 2,293 | 931,110 | 51.73 | $2 \cdot 3$ |
| Totals, 1951 ${ }^{1}$ | 336,345 | 701,131 | 2,085 | 17,983,399 | $53 \cdot 47$ | 2.6 |
| 1952 |  |  |  |  |  |  |
| Prince Edward Island. | 3,769 | 3,025 | 803 | 250,617 | 66.49 | 8.3 |
| Nova Scotia. | 20,560 | 14,735 | 717 | 664,314 | 32.31 | $4 \cdot 5$ |
| New Brunswick. | 36,354 | 30,710 | 845 | 1,824,564 | $50 \cdot 19$ | $5 \cdot 9$ |
| Quebec.. | 95,397 | 116,873 | 1,225 | 3,535,841 | $37 \cdot 06$ | $3 \cdot 0$ |
| Ontario. | 133.409 | 480,894 | 3,605 | 9,372,808 | $70 \cdot 26$ | 1.9 |
| Manitoba. | 29,623 | 78,963 | 2,666 | 2,156,227 | 72.79 | $2 \cdot 7$ |
| Saskatchewan. | 8,591 | 13,117 | 1,527 | 705,491 | $82 \cdot 12$ | $5 \cdot 4$ |
| Alberta. | 13,818 | 37,960 | 2,747 | 1,024,527 | $74 \cdot 14$ | 2.7 |
| British Columbia. | 18,349 | 47,048 | 2,564 | 1,081,986 | 58.97 | $2 \cdot 3$ |
| Totals, 1952 | 359,870 | 823,325 | 2,288 | 20,616,375 | 57-29 | 2.5 |

${ }^{1}$ Does not include Newfoundland, Yukon Territory or Northwest Territories.
Equipment of Central Electric Stations.-Auxiliary equipment includes only thermal engines and generators operated by them in hydraulic stations and in non-generating plants and does not include spare equipment in thermal stations or spare hydraulic equipment in hydraulic stations. Such equipment is classed as main-plant equipment. The capacities of the equipment are the manufacturers' ratings and, for water wheels and turbines, the kilowatt hour capacities vary with the supply of water. The majority of the hydraulic stations are large, serving wide areas over transmission lines, whereas most of the plants with thermal engines are small, serving the needs of the local municipality. In 1952, the number of thermal engines decreased as compared with previous years. Larger units are being installed to replace, in some instances, two or three small units. Equipment data were not included for small industries or firms, particularly in Saskatchewan and Alberta, where output was largely consumed by their own plants.
9.-Main-Plant Equipment of Central Electric Stations, by Province, and Total Auxiliary-Plant Equipment, 1951 and 1952

Nots.-Kva. means kilo-volt-amperes.


Export and Import of Electric Power.-Electric energy is exported from Canada only under licence and an export tax of 0.03 cents per kilowatt hour is levied with some exceptions. The export duties for the years ended Mar. 31, 1950 to 1953 , were $\$ 431,895, \$ 608,602, \$ 743,407$ and $\$ 738,918$, respectively.

Exports for the years 1950-53 are shown in Table 10. There are also large interprovincial movements of electric energy from Quebec to Ontario, and smaller movements from Nova Scotia and Quebec to New Brunswick, Manitoba to Ontario, Saskatchewan to Manitoba and British Columbia to Alberta.

The water allowed to be diverted at Niagara Falls for power purposes was increased by $5,000 \mathrm{cu}$. feet per second to the Canadian side in November 1940, owing to a diversion of water from Long Lake and the Ogoki River from the James Bay watershed to the Great Lakes watershed. In 1941, a further increase of

9,000 c.f.s. to the Canadian plants and 12,500 c.f.s. to the United States plants was permitted, and in 1943 an additional 4,000 c.f.s. to Canadian plants, bringing the totals up to 54,000 c.f.s. for Canada and 32,500 c.f.s. for the United States. This increased water, with greater development of plants on the St. Lawrence River, made possible the increased export of both firm and secondary power to the United States (5,000 c.f.s. will produce about $150,000 \mathrm{~h} . \mathrm{p}$. at the Queenston, Ont., plant). During 1950-51, increased demands from domestic consumers and low water reduced the surplus energy available for export but exports increased in 1952 and decreased slightly in 1953.
10.-Electric Energy Exported from Canada, by Companies, and Imported from the United States, 1950-53

| Company | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: |
| Exported to United States- | '000 kwh. | '000 kwh. | '000 kwh. | '000 kwh. |
| Hydro-Electric Power Commission of Ontario...... | 361,458 | 392,036 | 374,772 | 352,129 |
| Hydro-Electric Power Commission of Ontario (surplus). | 347,246 | 717,387 | 744,878 | 616,066 |
| Canadian Niagara Power Company................. | 264,955 | 303,660 | 321,188 | 316,641 |
| Canadian Niagara Power Company (surplus)...... | 35,171 | 37,966 | 93,218 | 69,899 |
| Ontario and Minnesota Power Company | 36,867 | 39,340 | 42,312 | 44,212 |
| Maine and New Brunswick Electric Power Company | 36,830 | 39,129 | 27,610 | 28,666 |
| Maine and New Brunswick Electric Power Company (surplus) | 4,086 | 2,113 | 4,956 | 7,439 |
| British Columbia Electric Railway Company...... | 191,878 | 188,186 | 209,982 | 308,695 |
| Southern Canada Power Company | 2,308 | 2,976 | 3,220 | 3,787 |
| Southern Canada Power Company (surplus)........ | - | - | 11,616 | 28,777 |
| Quebec Hydro-Electric Commission, | 639,464 | 644,017 | 650,142 | 645,411 |
| Fraser Companies, Limited. . . . . . . . . . . . . . . . . . . . | 5,212 | 8,319 | 8,893 | 1,864 |
| Detroit and Windsor Subway Company........... | 317 | 325 | 352 | 360 |
| Other. | 75 | 68 | 71 | 84 |
| Totals, Exports | 1,925,867 | 2,375,522 | 2,493,210 | 2,424,030 |
| Imported from United States........... .......... | 2,531 ${ }^{\text {r }}$ | 8,956 | 19,985 ${ }^{\text {r }}$ | 178,799 |

## Subsection 2.-Ownership and Regulation of Central Electric Stations*

Water power is developed in Canada by provincial commissions, by municipalities and by private companies-hydro-electric plants. The first such provincial commission was formed in Ontario in 1906 to act as trustee for a group of municipalities to develop and distribute electricity. The Hydro-Electric Power Commission of Ontario now generates and purchases power, transmits it to rural and urban municipalities and serves large power customers. Similar commissions have been formed in most of the other provinces.

[^186]11.-Summary Statistics of Publicly Owned Central Electric Stations, 1943-52

| Year | Generating Power <br> Plants | Customers | Electric Energy Generated | Power Equipment (main-plant only) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Water Wheels and Turbines | Total |
|  | No. | No. | '000 kwh. | h.p. | h.p. |
| 1943. | 197 | 1,159,545 | 9,397,354 | 2,135,395 | 2,362,858 |
| 1944. | 202 | 1,484,784 | 14,910,198 | 3,092,295 | 3,340,268 |
| 1945. | 208 | 1,566, 776 | 14,599,195 | 3,118,324 | 3,372,826 |
| 1946... | 203 | 1,650,739 | 14,739,271 | 3,274,484 | 3,523,463 |
| 1947... | 230 | 1,772,919 | 15,759,275 | 3,380,900 | 3,665,032 |
| 1948. | 242 | 1,884,642 | 16,692,388 | 3,632,636 | 3,993,323 |
| 19491. | 259 | 2,033,418 | 17,686,684 | 3,784,484 | 4, 208,495 |
| 1950. | 270 | 2,200,957 | 20,061,314 | 4,558,449 | 4,987,095 |
| 1951. | 270 | 2,315,309 | 24,380,802 | 4,955,247 | $5,648,638$ |
| 1952. | 225 | 2,444,672 | 26,525,971 | 5,286,462 | 5,792,288 |

${ }^{1}$ Figures include Newfoundland since 1949.
A large portion of the power development in Quebec is connected with pulp and paper plants and with the aluminum industry. Such power plants are operated as separate organizations and deliver power to the parent companies at relatively low rates. Substantial blocks of power are also produced in Quebec for export to Ontario.

Table 12 shows statistics of municipally or publicly owned central electric stations, by province, for 1951 and 1952. Table 14 shows comparable statistics for commercial stations.
12.-Publicly Owned Central Electric Stations, by Province, 1951 and 1952

| Year and Province or Territory | Generating Power Plants | Customers | Electric Energy Generated | Power Equipment (main-plant only) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Water <br> Wheels and Turbines | Total |
| 1951 | No. | No. | '000 kwh. | h.p. | h.p. |
| Newioundland. | 1 | 263 | 237 | - | 264 |
| Prince Edward Island. | 1 | 2,435 | 8,526 | - | 4,190 |
| Nova Scotia. | 30 | 58,497 | 349,873 | 95,980 | 119,032 |
| New Brunswick | 10 | 88,224 | 262,072 | 12,600 | 101,801 |
| Quebec. | 23 | 435,689 | 7,462,343 | 1,446,935 | 1,446,935 |
| Ontario | 97 | 1,285,756 | 14,237,987 | 2,982,592 | 3,189,572 |
| Manitoba | 6 | 141,200 | 867,680 | 239,000 | 240.270 |
| Saskatchewan | 56 | 115,077 | 391,768 | - | 227,779 |
| Alberta. | 9 | 107,649 | 362,679 | - 1700 | 116,726 |
| British Columbis................ | 35 | 80,407 | 407, 365 | 170,600 | 194,009 |
| Yukon and Northwest Territories. | 2 | 112 | 30.272 | 7.540 | 8,060 |
| Canada, 1951 | 270 | 2,315,309 | 24,380,802 | 4,955,247 | 5,648,638 |
| 1952 |  |  |  |  |  |
| Newfoundland................. .. | 2 | 964 | 3,375 | - | 2,264 |
| Prince Edward Island. | 1 | 2,567 | 7,173 |  | 4,190 |
| Nova Scotia, | 24 | 60,969 | 395,674 | 104,680 | 104,680 |
| New Brunswi | 11 | 93,469 | 310,098 | 12,600 | 115, 161 |
| Quebec.. | 22 | 453,407 | 7,923,576 | 1,446,935 | 1,446,935 |
| Ontario. | 92 | 1,352,337 | 15,478,630 | 3,221,592 | 3,222,072 |
| Manitoba. | 8 | 153,643 | 1,030,681 | 315,000 | 316,270 |
| Saskatchewan | 41 | 128,234 | 453,956 | - | 272,301 |
| Alberta. | 8 | 115,617 | 322,845 | $\overline{7}$ | 116,515 |
| British Columbia,........... | 14 2 | 83,326 139 | 563,069 36,894 | 174,305 11,350 | 180.550 11.350 |
| Yukon and Northwest Territories.. |  |  |  |  |  |
| Canada, 1952. | 225 | 2,444,672 | 26,525,971 | 5,286,462 | 5,792,288 |

Summary statistics of privately owned central electric stations are given for the years 1943 to 1952 in Table 13.
13.-Summary Statistics of Privately Owned Central Electric Stations, 1943-52

| Year | Generating PowerPlants | Customers | Electric Energy Generated | Power Equipment (main-plant only) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Water <br> Wheels and Turbines | Total |
|  | No. | No. | '000 kwh. | h.p. | h.p. |
| 1943. | 425 | 1,009,603 | 31,082,239 | 7,069,774 | 7,239,936 |
| 1944. | 424 | 753,239 | 25,688,581 | 6,175, 674 | 6,373,523 |
| 1945. | 392 | 766,554 | 25,530,857 | 6,098,240 | 6,294,121 |
| 1946. | 397 | 826,091 | 26,997,716 | 6,104,383 | 6,301,996 |
| 1947. | 377 | 870,408 | 27,665,524 | 5,750,950 | 5,936,125 |
| 1948. | 393 | 937,385 | 25,697,293 | 5,837,670 | 6,045,218 |
| 19491. | 391 | 1,042,951 | 26,731,889 | 6,188,921 | 6,429,303 |
| 1950. | 395 | 1,068,867 | 28,432,404 | 6,471,350 | 6,716,066 |
| 1951. | 377 | 1,124,441 | 30,471,042 | 6,831,792 | 7,132,972 |
| 1952. | 337 | 1,175,923 | 32,883,227 | 7,264,376 | 7,548,910 |

${ }^{1}$ Figures include Newfoundland since 1949.
The predominant position of Quebec in the electric-power field can be seen from the figures of Table 14. Of the total power generated in Canada by all central electric stations in 1952, 41 p.c. was generated by privately owned or commercial stations in the Province of Quebec; this percentage decreased from 57 in 1943 as a result of the transfer in 1944 of the Montreal Light, Heat and Power Company and the Beauharnois Power Company to the publicly owned Quebec Hydro-Electric Commission.

## 14.-Privately Owned Central Electric Stations, by Province, 1951 and 1952

| Year and Province or Territory | Generating Power Plants | Customers | Electric Energy Generated | Power Equipment (main-plant only) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Water <br> Wheels and Turbines | Total |
| 1951 | No. | No. | '000 kwh. | h.p. | h.p. |
| Newfoundland. | 18 | 38,311 | 172,199 | 71,215 | 71,215 |
| Prince Edward Island | 6 | 10,517 | 24,242 | . 369 | 17,419 |
| Nova Scotia. | 21 | 92,161 | 538,035 | 40,178 | 202,247 |
| New Brunswick | ${ }^{6}$ | 27,065 | 494,015 | 89,000 | 90,255 |
| Quebec..... | 76 | 507,145 | 22,227,743 | 4,903,546 | 4,906,066 |
| Ontario | 44 | 39,878 | 1,747,069 | 393,648 | 440,373 |
| Manitoba | 3 | 52,968 | 1,696,857 | 355,500 | 356,345 |
| Saskatchewan | 62 | 11,675 | 587,005 | 106,500 | 136,092 |
| Alberta. | 84 | 78,145 | -634,266 | 205,900 | 239,588 |
| British Columbia | 51 | 264,295 | 2,316,089 | 663,486 | 670,010 |
| Yukon and Northwest Territories. | 6 | 2,281 | 33,522 | 2,450 | 3,362 |
| Canada, 1951 | 377 | 1,124,441 | 30,471,042 | 6,831,792 | 7,132,972 |
| 1952 |  |  |  |  |  |
| Newfoundland....... | 17 | 42,441 | 229,916 | 71,215 | 71,215 |
| Prince Edward Island. | 5 | 10,545 | 28,706 | 369 | 17,219 |
| Nova Scotia. | 22 | 97,449 | 569,097 | 39,710 | 149,859 |
| New Brunswick | 6 | 26,660 | 442,789 | 94,000 | 95,255 |
| Quebec. | 75 | 533,857 | 24,189,302 | 5,232,088 | 5,237,668 |
| Onterio. | 41 | 37,044 | 1,818,896 | 393,074 | 438,860 |
| Manitoba. | 3 | 55,042 | 1,668,565 | 393,000 | 393,845 |
| Saskatchewan. | 39 | 10,921 | 625,353 | 109,800 | 158,942 |
| Alberta. | 78 | 84,642 | 851,157 | 205,900 | 250,624 |
| British Columbia. | 45 | 274,900 | 2,424,192 | 722,770 | 732,061 |
| Yukon and Northwest Territories. | 6 | 2,422 | 35,254 | 2,450 | 3,362 |
| Canada, 1952.................. | 337 | 1,175,923 | 32,883,227 | 7,264,376 | 7,548,910 |

In 1952, all stations in Ontario produced a little more than one-half as much power as the Quebec stations. Of the total for Ontario stations 11 p.c. was produced by privately owned stations.

Because of the absence of free market determination of prices and regulation of services in an industry that is semi-monopolistic, regulation of electrical utilities has been attempted in most provinces. The governing bodies of the provincial electricpower commissions, their functions and activities are summarized by provinces in the following paragraphs. Certain privately owned utilities are also covered.

Newfoundland.-There are no publicly owned hydro-electric systems in Newfoundland. The largest water-power development in the Province is located at Deer Lake. The plant, which is operated by Bowater's Newfoundland Pulp and Paper Company Limited, has a total capacity of $150,000 \mathrm{~h} . \mathrm{p}$. This Company develops hydro-electric energy at Deer Lake mainly for its own use in the manufacture of pulp and paper and also supplies electric power to the Buchans Mining Company for its mining operations and to the Newfoundland Light and Power Company Limited which distributes electricity to consumers in Corner Brook and adjacent communities in the Bay of Islands sections.

The Anglo-Newfoundland Development Company Limited develops hydroelectric power at two plants situated at Grand Falls and Bishop's Falls with a total capacity of $59,900 \mathrm{~h} . \mathrm{p}$. The Company utilizes most of its hydro-electric power in the manufacture of pulp and paper and supplies light and power to the towns of Grand Falls, Bishop's Falls, Botwood and adjacent communities.

The Newfoundland Light and Power Company Limited has seven plants that develop hydro-electric energy with a total installed capacity of $55,400 \mathrm{~h} . \mathrm{p}$. It distributes electricity to the city of St. John's and the town of Bell Island and the iron-mining operations there.

The United Towns Electric Company Limited operates seven plants, of which five are located at Conception Bay and two on the Burin Peninsula. The Company sells light and power to communities on the Avalon and Burin Peninsulas and to the fluorspar mining operations at St. Lawrence on the Burin Peninsula. It developed $27,398,345 \mathrm{kwh}$. during 1953. The West Coast Power Company, a subsidiary of the United Towns Electric Company, operates a plant on Lookout Brook, a tributary of Flat Bay Brook which flows into St. George's Bay. It generated $15,166,800 \mathrm{kwh}$. in 1953.

Two small companies, the Clarenville Light and Power Company and the Union Electric Company, operate plants at Clarenville and Port Union, respectively.

Nova Scotia.-Legislation relating to the use of water power was first enacted in Nova Scotia in 1909 under "An Act for the Further Assistance of the Gold Mining Industry". In 1914, legislation was passed inttiating the development of water power in the Province and this was carried on in an investigatory manner in cooperation with the Federal Government until 1919 when the Nova Scotia Power Commission was created under the Power Commission Act. Certain investigatory work is still carried on in Nova Scotia by the Federal Government in close association with the Commission. The control of the water resources of the Province is vested in the Crown and is administered under the provisions of the Nova Scotia Water Act of 1919. The Commission pays the regular fees for water rights.

The function of the Commission is to supply electric power and energy by the most economical means available. The Rural Electrification Act of 1937 greatly
increased the possibilities for retail service by providing for financial assistance to equalize cost and revenue of extensions, the construction of which has been approved by the Governor in Council as qualifying under the Act. In 1941, an amendment to the Power Commission Act authorized the Commission, subject to the approval of the Governor in Council, to regulate and control the generation, transmission, distribution, supply and use of power in the Province.

Financially, the Commission is self-supporting, repaying borrowings from revenue. The balance sheet at Nov. 30, 1953, showed total fixed assets of $\$ 36,678,943$ including work in progress amounting to $\$ 575,166$. Current assets amounted to $\$ 596,508$. Liabilities are shown as follows: fixed $\$ 30,084,340$; current $\$ 1,621,145$; contingency and renewal reserves $\$ 3,413,504$; sinking fund reserves $\$ 5,761,883$; and general reserves and special reserves $\$ 1,998,798$.

The initial development of the Commission was an $800-\mathrm{h}$.p. installation on the Mushamush River which went into operation in 1921 and delivered 208,752 kwh. in the first complete year of operation. Succeeding years showed a marked growth in installed capacity, reaching $101,450 \mathrm{~h} . \mathrm{p}$. in hydraulic turbines, $3,167 \mathrm{~h} . \mathrm{p}$. in diesel units and $21,125 \mathrm{kw}$. in steam turbines by Nov. 30, 1953, with a total generation for that year of $417,219,885 \mathrm{kwh}$.

The territory of the Commission extends over the entire Province and embraces nine systems which include 25 generating stations and 4,114 miles of transmission and distribution lines, through which 51 wholesale and 27,246 retail customers received 402,928,690 kwh. during the year ended Nov. 30, 1953.

The installed capacity and annual output of the various systems of the Nova Scotia Power Commission are given in Table 15.

## 15.-Capacity and Output of the Nova Scotia Power Commission, Year Ended Nov. 30, 1953



New Brunswick.-The New Brunswick Electric Power Commission was incorporated under the Electric Power Act, 1920. Generating stations owned by the Commission are as follows:-

| Plant | Type | Capacity | Plant | Type | Capacity |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Musquash | Hydro. | $\begin{aligned} & \text { h.p. } \\ & 9,320 \end{aligned}$ | St. Stephen | Diesel. | $\begin{aligned} & \text { h.p. } \\ & 2,800 \end{aligned}$ |
| Tobique.. | Hydro. | 27,000 | Campobello. | Diesel. | 300 |
| Grand Lake | Steam.. | 58,700 | Grand Manan. | Diesel.. | 900 |
| Saint John. | Steam.. | 21,500 | Shippegan.. | .Diesel. | 2,500 |
| Chatham.. | Steam.. | 16,800 | St. Quentin. | Diesel. | 750 |
|  |  |  | Total |  | 140,570 |

All generating units, with the exception of diesel plants at St. Quentin and Grand Manan, are interconnected in a Province-wide grid system.

The statistical information given in Table 16 shows the growth of the Commission's undertakings since 1949.

> 16.-Growth of the New Brunswick Electric Power Commission, Years Ended Oct. 31, 1949-50 and Mar. 31, 1951-53

| Item | 1949 | 1950 | $1951{ }^{1}$ | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| High-voltage transmission |  |  |  |  |  |
| line $\ldots$............ miles | - 566 | 5.646 | ${ }_{5}^{694}$ | ${ }^{749}$ | 827 |
| Direct customers......... No. | 44,822 | 52,255 | 53,777 | 57,016 | 61, 612 |
| Plant capacities......... h.p. | 87,295 | 87,295 | 87,095 | 103,310 | 140,570 |
| Power generated... . . . . kwh. | 222,951,910 | 242,302,755 | 114,373,065 | 282,405,310 | 321,232, 150 |
| Capital invested......... | 27, 175, 441 | 31,357,828 | 33,857,407 | 38,286,374 | 48, 120,336 |
| Revenue............... \% | 4,073,979 | 4,768,746 | 2,385,054 | 6,255,615 | 7,059,588 |

${ }^{1}$ Five months-Nov. 1, 1950, to Mar. 31, 1951. The Commission's fiscal year-end changed in 1951 from Oct. 31 to Mar. 31.

Quebec.-The Quebec Streams Commission.-Created by S.Q. 1 Geo. V, c. 5, and given additional powers by 3 Geo. V, c. 6 (R.S.Q. 1925, c. 46) and 20 Geo. V, c. 34, the Quebec Streams Commission was authorized to ascertain the water resources of the Province, to make recommendations regarding their control, and to construct certain storage dams and operate them so as to regulate the flow of streams. It has assisted companies engaged in such work by the systematic collection of data on the flow of the principal rivers and on meteorological conditions, by investigation of numerous water-power sites and determination of the longitudinal profile of a large number of rivers, but mainly by the regulation of the flow of the principal power streams through the construction of storage dams.

From 1912 to 1925, a number of storage reservoirs were built or acquired by the Commission, charges being made to benefiting companies to cover interest and amortization on the capital invested as well as the cost of operation. Since 1925, companies or persons have availed themselves of the latitude given them by R.S.Q. 1925, c. 46, to build the necessary dams; such storages have been transferred to and are operated by the Commission, the cost of operation only being charged annually to the interested companies or persons. The Commission now controls and operates 28 storage reservoirs in the Province.

Among the rivers controlled by the Commission, either by means of dams on the rivers or by controlling the outflow of lakes at the headwaters, are: the St. Maurice, now developing $1,538,150 \mathrm{~h} . \mathrm{p} . ;$ the Gatineau, $528,000 \mathrm{~h} . \mathrm{p} . ;$ the Lièvre, $274,000 \mathrm{~h} . \mathrm{p} . ;$ the St. Francis, $100,000 \mathrm{~h} . \mathrm{p} . ;$ the Chicoutimi, $41,400 \mathrm{~h} . \mathrm{p} . ;$ the Au Sable, $33,200 \mathrm{~h} . \mathrm{p} . ;$ and the Métis, $15,700 \mathrm{~h} . \mathrm{p}$. The Commission also operates nine reservoirs on North River, two in the watershed of the Ste. Anne-de-Beaupré River, and one at the outlet of Lake Morin, on Rivière-du-Loup (lower).

Reservoirs not Controlled by the Quebec Streams Commission.-Among storagereservoirs not controlled or operated by the Commission are: the Lake St. John, the Lake Manouane and Passe Dangereuse on the Peribonca River, and the Onatchiway on the Shipshaw River; the Témiscouata Lake on Madawaska River, controlled by the Gatineau Power Company; Memphremagog Lake on the Magog River, controlled by the Dominion Textile Company; Témiscamingue and Quinze Lakes on the Ottawa River, controlled by the Federal Department of Public Works; Kipawa Lake on the Ottawa River, controlled by the Gatineau Power Company; and Dozois Lake on the upper Ottawa River, controlled by the Quebec HydroElectric Commission.

Power developments on the Saguenay River, benefiting from the Peribonca and Lake St. John reservoirs, have a total capacity of $1,950,000 \mathrm{~h} . \mathrm{p}$. now that the Chute-à-Caron (Shipshaw) project has been completed.

The Quebec Hydro-Electric Commission.-The Quebec Hydro-Electric Commission was established by S.Q. 8 Geo. VI, c. 22, with the object of supplying power to the municipalities, industrial and commercial undertakings and to citizens of the Province of Quebec at the lowest rates consistent with sound financial administration.

On Apr. 15, 1944, in accordance with the provisions of this Act, the Commission took over: (a) the system of Montreal Light, Heat and Power Consolidated for the generating and distribution of electricity; (b) the undertaking of the Montreal Island Power Company for the generating and distribution of electricity; and (c) all the shares of the capital stock of the Beauharnois Light, Heat and Power Company. Thus, the Quebec Hydro-Electric Commission now controls, among other assets, the following hydro-electric plants:*-

| Plant | River | Installed Capacity |
| :---: | :---: | :---: |
| Cedars. | St. Lawrence. | h.p. <br> 206, 400 |
| Sault-au-Recollet. | Rivière-des-Prairies | 45,000 |
| Beauharnois. | St. Lawrence. | 1,400,000 |
| Rapid VII. | Upper Ottawa. | 64,000 |
| Rapid II. | Upper Ottawa | 32,000 |

The Commission operates a public utility system which supplies electric light and power requirements to Greater Montreal and surrounding districts, embracing a population of nearly $2,000,000$. From the Cedars plant, electric energy is supplied to the Aluminum Company of America at Massena, N.Y., and through Beauharnois Light, Heat and Power Company power is sold to The Hydro-Electric Power Commission of Ontario. Sales involved are in the neighbourhood of $100,000 \mathrm{~h} . \mathrm{p}$. to Massena, N.Y., and 250,000 h.p. to Ontario.

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## 17.-Growth of the Quebec Hydro System, 1944-53

Note.-Figures for the years 1935-43 will be found in the 1950 Year Book, p. 572.

| Year | Municipalities Served | CustomersServed | Power Distributed |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Primary |
|  | No. | No. | h.p. | h.p. |
| 1944. | 61 | 298,767 | 1,060,000 | 897,000 |
| 1945. | 61 | 305, 049 | 1,045,000 | 883,000 |
| 1946. | ${ }_{61}^{61}$ | 309,022 | 1, 085,000 | 947,000 |
| 1947. | ${ }_{61}^{61}$ | 318,984 330,799 | $1,127,000$ $1,202,000$ | -980,000 |
| 1948. | 61 | 330,799 | 1,202,000 | 1,034,000 |
| 1949. | 61 | 349,347 | 1,233,000 | 1,119,000 |
| 1950. | 64 | 388,026 | 1,296,000 | 1,182,000 |
| 1951. | 66 | 387,218 | 1,312,000 | 1,312,000 |
| 1952 | 67 | 400,779 | 1,620,000 | 1,462,000 |
| 1953....... | 67 | 413,439 | 1,748,000 | 1,625,000 |

18.-Distribution of Quebec Hydro Primary Power, by Customer Group, 1948-53
(Coincident with Montreal System peak)

| System | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | h.p. | h.p. | h.p. | h.p. | h.p. | h.p. |
| Montreal System. | 620,000 | 669,000 | 730,000 | 803,000 | 873,000 | 997,000 |
|  | 36,000 | 70,000 | 65,000 | 171,000 | 189,000 | 213,000 |
| Beauharnois 25 -cycle System (H.E.P.C. of Ontario) | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 |
| Massena System. | 128,000 | 130,000 | 137,000 | 80,000 | 135,000 | 142,000 |
| Shawinigan System | - | - | - | 8,000 | 15,000 | 23,000 |
| Totals | 1,034,000 | 1,119,000 | 1,182,000 | 1,312,000 | 1,462,000 | 1,625,000 |

In addition to these generating and distributing systems, the Quebec HydroElectric Commission owns the 64,000-h.p. upper Ottawa River plant at Rapid VII, the $32,000-\mathrm{h} . \mathrm{p}$. Rapid II plant and also the Dozois Reservoir. Average primary power capacities for this Northern Quebec System (Cadillac-Noranda district) are as follows: 1948, 21,270 h.p.; 1949, 34,790 h.p.; 1950, 35,500 h.p.; 1951, 30,550 h.p.; and $1952,29,200 \mathrm{~h} . \mathrm{p}$.

Ontario.-The Hydro-Electric Power Commission of Ontario is a corporate body administering a province-wide enterprise for the production and distribution of electric power. The three members of the Commission are appointed by the Lieutenant-Governor in Council, who may also name one of the members to be Chairman. One commissioner must be a member, and two may be members, of the Executive Council of the Province of Ontario.

The Commission was created in 1906 by an enactment of the Ontario Legislature after consideration of recommendations made by advisory commissions. These had been appointed in response to public demand that the water powers of Ontario should be conserved and developed for the benefit of all the people of the Province.

The Commission operates under the authority of the Power Commission Act ( 7 Edw. VII, c. 19) passed in 1907 as an amplification of the Act of 1906 and subsequently modified by numerous amending Acts (R.S.O., 1950, c. 281). It is a separate entity, a self-sustaining public concern endowed with broad powers to produce, buy
and deliver electric power, and to perform certain regulatory functions with respect to the municipal electrical utilities that it serves. The enterprise represented by the Commission is generally known as the Ontario Hydro.

Initially, the undertaking proposed to purchase a block of $100,000 \mathrm{~h} . \mathrm{p}$. from the Ontario Power Company Limited at Niagara Falls and to distribute this to 13 municipalities which had signed the original contracts with the Commission to take power at cost. Construction of a transmission system to distribute power to the member municipalities was begun in 1909 and, by the end of the following year, power was being supplied to several of them. The Commission also built a short transmission line and a substation to serve Port Arthur with power purchased from the Kaminıstiquia Power Company. These two pionecr systems eventually grew into the Southern Ontario and the Thunder Bay Co-operative Systems.

The Southern Ontario System developed through a series of consolidations of various smaller systems. The establishment of the original Niagara System was followed in 1911 by the formation of the Severn System and subsequently of other systems to serve groups of municipalities in various sections of the Province. In 1924, the Severn and two other systems were consolidated to form the Georgian Bay System and in 1929 and 1930 a consolidation of four systems created the Eastern Ontario System. In 1944, the Southern Ontario System came into being through the consolidation of the Niagara, Georgian Bay, and Eastern Ontario Systems.

The Commission continued to operate the Thunder Bay System in the northern part of the province and, in addition, it undertook during the 1930's to operate, in trust for the provincial government, a group of unconnected systems serving mainly mining and pulp and paper industries, and known as the Northern Ontario Properties. In 1945, its services in northern Ontario were further extended by the purchase of the power system of the Northern Ontario Power Company Limited. On Jan. 1, 1952, the Northern Ontario Properties and the Thunder Bay System were merged for financial and administrative purposes and the consolidation continues to be known as the Northern Ontario Properties.

In the Southern Ontario System, and in the Not thern Ontario Properties as at present constituted, the Commission's customers include municipal electrical utilities, certain large industrial users, and retail customers in the Rural Power District of the Province and in a small group of municipalities known as local systems.

The Southern Ontario System serves the older and more populous part of Ontario lying south of a line drawn from Mattawa on the uppel Ottawa River approximately west to Georgian Bay. Primarily, it serves a group of 314 municipalities receiving power at cost under contracts established according to the provisions of the Power Commission Act. It is, therefore, referred to as a co-operative system.

The Northern Ontario Properties is not a co-operative system in the same sense, though it continues to serve, at cost, the municipalities that were formerly members of the Thunder Bay Co-operative System. It also continues to operate, in trust for the Province, a large part of the facilities serving the industrial and mining areas of northern Ontario. The Northern Ontario Properties comprises two divisions, the Northeastern and the Northwestern Divisions, which in themselves are integrated operational and administrative units. The two Divisions together serve the territory extending in the northern part of the Province from the Quebec boundary to the boundary of Manitoba. There is no power connection between the Divisions, but since 1950 the Northeastern Division has been interconnected with the Southern Ontario System.


The growth of Ontario Hydro's resources, both physical and financial, reflects the remarkable industrial and social development of the Province. In 1914, the Commission purchased its first generating station, Big Chute on the Severn River. Later in the same year, the first Commission-built generating station at Wasdell Falls, also on the Severn River, was placed in service. The program of purchase and construction of generating stations thus launched reached a climax in the construction of the great Queenston-Chippawa development, later renamed Sir Adam BeckNiagara Generating Station No. 1 in honour of the first Chairman of the Commission. This station first delivered power in 1922. Yet, commencing four years later, the Commission found it necessary to negotiate for the extensive purchase of power from large Quebec suppliers in order to satisfy Ontario's steadily growing power demands.

In 1953, primary and secondary load carried reached a maximum of $3,480,646$ kw ., and during the year a total of $20,912,445,364 \mathrm{kwh}$. was supplied from all the Commission's resources, generated and purchased.

During the past ten years, growing demands for power have taxed the capacities of the Commission's resources, and only by a most aggressive program of new construction has it been possible to keep pace with the increased requirements. With due allowance for revisions in the capacity of various sources, this program had served to bring the dependable peak capacity at the end of 1953 to $3,565,350 \mathrm{kw}$., an increase of $1,627,850 \mathrm{kw}$. since 1945. The combined output of the Otto Holden, Des Joachims, and Chenaux Generating Stations on the upper Ottawa River accounts for $710,000 \mathrm{kw}$. of this additional power. Other notable hydro-electric developments have been the George W. Rayner Generating Station in Ontario's northeastern mining area and Pine Portage Generating Station in the Northwestern Division. In 1953, a program of construction and expansion was completed at the large fuel-electric stations at Toronto and Windsor, named the Richard L. Hearn Generating Station and J. Clark Keith Generating Station, respectively. In the operation of these two stations, the Commission made its initial entry into fuelelectric generation on a large scale. In addition, the Commission, in 1953, established interconnections with the Detroit Edison Company at Windsor, Ont., and near Sarnia. Through these facilities mutual assistance may be provided at times of emergency. Furthermore, each of the interconnected systems will be able to take advantage of economies brought about by the exchange of any surplus energy that may from time to time become available. During 1953, the interconnecting facilities made a significant contribution towards meeting primary power and energy requirements in the Southern Ontario System and the Northeastern Division of the Northern Ontario Properties.

During 1953, the major generation projects under construction were the new Manitou Falls Generating Station on the English River, the addition of two units at Pine Portage Generating Station on the Nipigon River, and the Sir Adam BeckNiagara Generating Station No. 2, near Queenston on the Niagara River.

By far the largest of these projects is Sir Adam Beck-Niagara Generating Station No. 2. Initially, 12 units at the station will have an installed capacity of $900,000 \mathrm{kw}$. In order, however, to make maximum use of the water made available under the Niagara Diversion Treaty of 1950, plans were made for the subsequent incorporation of a pumped-storage installation and for the ultimate addition of four more units at the station itself, which will bring the total installed capacity of the project to $1,370,000 \mathrm{kw}$.

From the intake on the Niagara River, about two miles above Niagara Falls, water will be conveyed for about five miles by two hydraulic pressure tunnels that pass under the city of Niagara Falls and reach a maximum depth of over 300 ft . below the surface. From the point where the tunnels return to the surface, the water will flow through a $2 \frac{1}{3}$-mile canal to the forebay which adjoins the forebay of the Sir Adam Beck-Niagara Generating Station No. 1 immediately to the north. To the north of the canal will be the pumped-storage reservoir, some 700 acres in extent and capable of storing $650,000,000 \mathrm{cu} . \mathrm{ft}$. of water. At times of low demand, water will be raised by reversible pumps to a level varying from 60 to 86 ft . above the canal. At peak demand periods, it will return to the forebay through the pumps, functioning as turbines, and may provide up to $170,000 \mathrm{kw}$. at the same time augmenting the flow to the two Sir Adam Beck-Niagara Generating Stations. Thus, additional capacity can be made available at time of system peak, and fuller use can be made of all generating units at times of high demand, particularly when restrictions on the use of water would otherwise prevent the operation of generating facilities to capacity. Provision has been made in the headworks and in the widening of the canal itself for the eventual installation of the four additional units, when required, at Sir Adam Beck-Niagara Generating Station No. 2.

Acting upon the recommendations of the International Joint Commission, and working in close liaison with the United States Army Corps of Engineers, Ontario Hydro in 1953 began the construction of remedial works above the Falls on the Canadian side of the Niagara River. The works include a 1,500 -foot-long control dam at Grass Island Pool, and require both the excavation of channels and the filling in of the extremities of the crest on both sides of the cataract. The purpose is to enhance the scenic beauty of the Falls and reduce erosion at the centre by creating a more uniform flow over the 2,600 -foot crestline of the cataract, and at the same time to contribute to the most effective use of water for power production.

The addition of two units at Pine Portage Generating Station now being undertaken will complete the installations for which the station was originally designed and will bring the total dependable peak capacity of the four units to $118,300 \mathrm{kw}$. Construction of the new hydro-electric station at Manitou Falls on the English River was begun in 1953 and will have three units with a total dependable peak capacity of $42,100 \mathrm{kw}$.

The development of the International Rapids Section of the St. Lawrence River for power was also carried forward during 1953 when the Federal Power Commission of the United States granted a licence to the Power Authority of the State of New York to carry out the United States part of the work. The last legal obstructions to the undertaking were overcome in June 1954. (See special article, The St. Lawrence Power Project, pp. 549-553).

In October 1953, the complex program of frequency standardization entered its fifth year. By the end of the year, standardization operations had been completed for well over a third of the estimated number of customers requiring the standardization of equipment. The standardization operation had been completed in 84 municipalities and part of the work had been done in 26 others. Sixteen rural operating areas had been completely standardized and part of the work had been done in 15 other rural operating areas.

The basic principle governing the financial operations of the Commission is that electrical service is provided by the Commission to the municipalities, and by the municipalities to their customers, at cost. Cost includes all charges for operating and maintenance, for interest on capital investment, and reserves covering depreciation, contingencies and obsolescence, and for the stabilization of rates. It also includes a reserve for a sinking fund to retire the Commission's capital debt.

The undertaking from its inception has been self-supporting, apart from the assistance given by the provincial government which provides 50 p.c. of the capital cost of rural distribution facilities in pursuance of its long-established policy of assisting agriculture. The Province also guarantees the payment of principal and interest of all bonds issued by the Commission and held by the public.

The undertaking as a whole involves two distinct phases of operations as follows: The first phase of operations is the provision of the power supply-either by generation or purchase-and its transformation, transmission and delivery in wholesale quantities to municipal electrical utilities, certain large industrial customers, and rural operating areas. This phase of operations is performed by The Hydro-Electric Power Commission of Ontario. The second phase of operations is the retail distribution of electric energy. In most cities and towns, in many villages, and in certain thickly populated areas of townships, retail distribution of electric energy is conducted by municipal commissions under the general supervision of The HydroElectric Power Commission of Ontario as provided for in The Power Commission Act and the Public Utilities Act. These local commissions own and operate their own distribution facilities. The Hydro-Electric Power Commission of Ontario owns the distribution facilities and conducts retail distribution in a small number of municipalities through what are called local systems. Throughout most of rural Ontario, the Commission, on behalf of the respective townships, operates the distribution facilities and attends to all physical and financial operations connected with the retail distribution of energy to the customers in the rural operating areas. Since 1944, the rate structure applying to the Commission's farm, hamlet, commercial and summer service customers has been uniform throughout the Province.

The balance sheet of the Commission shows that gross investment in fixed assets at Dec. 31, 1953, amounted to $\$ 1,354,642,244$, against which there was an accumulated reserve for depreciation of $\$ 151,285,057$. Included in the gross investment is an amount representing rural assets under administration totalling $\$ 167,009,485$. Of this amount, $\$ 83,222,684$ represents the assistance given by the Province of Ontario for rural construction. The Commission's assets, allowing for the deduction of accumulated depreciation, stood at $\$ 1,491,302,267$.

The 332 municipal electrical utilities, which operate under cost or fixed-rate contracts with the Commission and distribute power in 337 municipalities in the Province, had a gross investment in fixed assets amounting to $\$ 214,595,383$. The provision for depreciation amounted to $\$ 54,282,571$. Municipal assets, after deduction of this depreciation reserve, were $\$ 336,613,672$, of which $\$ 140,068,857$ represented the equity of the municipalities in the Commission's Systems.

The following tables give statistics of resources generated and purchased, development program, distribution and service of the Commission.

## 19.-Resources of The Hydro-Electric Power Commission of Ontario Generated and Purchased (All Systems), December 1952 and 1953

| Year and System | Commission's Generating Stations |  |  |  | Power Purchased |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hydro-electric ${ }^{1}$ |  | Fuel-electric ${ }^{1}$ |  |  |  |
|  | kw. | h.p. | kw. | h.p. | kw. | h.p. |
| December 1952- <br> Southern Ontario System. <br> Northern Ontario PropertiesNortheastern Division...... Northwestern Division..... . <br> Totals, Resources. |  |  |  |  |  |  |
|  | 1,659,150 | 2,224,062 | 444,000 | 595, 174 | 687,100 | 921,045 |
|  | 301,600 | 404,290 | 300 | 402 | - |  |
|  | 259,800 | 348,257 |  | - | 1,400 | 1,877 |
|  | 2,220,550 | 2,976,609 | 444,300 | 595,576 | 688,500 | 922,922 |
| December 1953- <br> Southern Ontario System....... <br> Northern Ontario PropertiesNortheastern Division. Northwestern Division........... <br> Totals, Resources. |  |  |  |  |  |  |
|  | 1,671,150 | 2,240,147 | 652,000 | 873,995 | 681,100 | 913,003 |
|  | 297,700 | 399,062 | 500 | 670 |  |  |
|  | 261,100 | 350,000 | - | - | 1,800 | 2,413 |
|  | 2,229,950 | 2,989,209 | 652,500 | 874,665 | 682,900 | 915,416 |

${ }^{1}$ Dependable peak capacity-the amount of power subject to periodic change as equipment and water conditions vary, which the source is expected to be able to supply at the time of the system's peak demand. For the Commission-owned or Commission-operated generating stations, it is presumed that all units are available and that the supply of water is normal. Contractual stipulations govern the capacities of sources of purchased power.
20.-Summary of Development Program of The Hydro-Electric Power Commission of Ontario (1945-58), as at Dec. 31, 1953

| System and Development | In Service | Dependable Peak Capacity |
| :---: | :---: | :---: |
| Southern Ontario System- |  | kw. |
| DeCew Falls (extension)-Niagara Region... | September 1947. | 57,000 |
| Stewartville-Madawaska River............ | September 1948. | 63,000 |
| Additional power purchase contract-Polymer Corporation..................................... | November 1948 | 22,000 |
| Emergency fuel-electric units......... .. .. | January 1949-April 1950 | 47,000 |
| Des Joachims-Ottawa River..... .... .... | July 1950-February 1951 .... .. .. | 380,000 |
| Chenaux-Ottawa River......... . .. . | November 1950-September 1951... ... ... | 120,000 |
| Richard L. Hearn-Toronto..... ... .. | October 1951-June 1953..... | $388,000{ }^{1}$ |
| J. Clark Keith-Windsor...... ............ | November 1951-October 1953 | 264,000 ${ }^{2}$ |
| Otto Holden-Ottawa River. ${ }^{\text {Sir Adam Beck-Niagara G.S. No. } 2-\text { Niagara }}$ | January 1952-April 1953. | 210,000 |
| Sir Adam Beck-Niagara G.S. No. 2-Niagara <br> River (12 units) | 1954-56. | $900,000^{3}$ |
| Pumped-storage scheme............. | 1957. | 170,000 ${ }^{2}$ |
| Northern Ontario Properties- |  |  |
| Northeastern Division-Mississagi River. . . . . | July 1950............ . | 47,000 |
| Northwestern Division- |  |  |
| Ear Falls (extension)-English River | June 1948. | 6,000 |
| Aguasabon-Aguasabon River..... | October 1948 | 44,000 |
| Pine Portage-Nipigon River | $\left.\begin{array}{\|l\|}\text { July 1950-58,700 } \\ 1954 \\ -59,600\end{array}\right\}$ | 118,300 |
| Manitou Falls-English River | 1956. | 42,100 |

[^188]21.-Distribution of Power to Systems of The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1948-49 and Dec. 31, 1950-53
Nork.-Peak load generated and purchased, primary and secondary, in terms of generation.

${ }^{1}$ Owing to the change in the Commission's fiscal year to coincide with calendar year, figures shown here for 1950 cover the 14 months ended Dee. 31, 1950.
22.-Growth of The Hydro-Flectric Power Commission of Ontario, Years Ended Oct. 31, 1944-49 and Dec. 31, 1950-53

| Year | Municipalities Served | Ultimate Customers Served Directly or Indirectly | Total Power Distributed | Assets of Commission and Municipal Utilities |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | kw. | \$ |
| 1944. | 904 | 818,085 | 1,802,454 | 486,671,191 |
| 1945. | 922 | 869,712 | 1,939,505 | 524,839, 263 |
| 1946. | 924 | 910,563 | 1,935,972 | 549,680,339 |
| 1947. | 944 | 952,853 | 2,003,139 | 610, 133, 232 |
| 1948. | 970 | 1,004,127 | 1,887,317 | 708,708,622 |
| 1949. | 1,017 | 1,078,221 | 2,150,231 | 898,466,484 |
| $1950{ }^{2}$ | 1,132 | 1,187,117 | 2,714,565 | 1,080,200,039 |
| 1951. | 1,175 | 1,249,366 | 2,945,990 | 1,261, 739,406 |
| 1952. | 1,244 | 1,317,249 | $3,330,286$ | 1,442,511,467 |
| 1953. | 1,279 | 1,389,750 | 3,480,646 | 1,687,847,082 |

[^189]Manitoba.-The Manitoba Power Commission was established in 1919 for the purpose of distributing electric energy, both wholesale and retail, throughout the Province, with the exception of the Greater Winnipeg area. The utility currently operates under authority of an Act respecting the Manitoba Power Commission (R.S.M. 1940, c. 166), as amended.

The Commission's supply of electric energy for distribution is purchased from the Winnipeg Electric Company at various points, chiefly at or near the city of Winnipeg. Arrangements for the Commission's purchase of power are contained in the Seven Sisters Agreement of 1928 between the Province of Manitoba and the Winnipeg Electric Company. The Commission has gradually acquired practically all of the municipally owned and privately owned generating plants operating within its jurisdiction and has spread a network of transmission lines across the Province. All energy distributed is now generated by hydro power.

The Commission's program, started in the 1930's and designed to bring hydroelectric power at uniform service rates to all rural centres of 20 or over population, is now virtually complete and currently serves 481 centres. In 1942, the Manitoba

Electrification Enquiry Commission was appointed by the Provincial Government to study the feasibility of widespread farm electrification in the Province. It was concluded that, with the Manitoba Power Commission's network of transmission lines as a source of supply and with the economy in design of farm lines that had been worked out, it would be practicable to bring the benefits of hydro-electric power to over 90 p.c. of the farms in the Province, provided the farmers themselves were prepared to assist in certain organizational and operational matters. A test program undertaken in 1945 proved successful and, thereafter, the Commission conducted annual programs of farm electrification. By 1948, the Commission's annual goal of 5,000 farms was achieved and the program has proceeded at that rate ever since. Manitoba's farm electrification project on an area-coverage basis is now complete. The Manitoba Power Commission has connected electrical service to more than 39,000 farms, 75 p.c. of the Province's total. Over 90 p.c. of the citizens of the Province are now in areas where central electric station power is available to them. In all, the Commission now serves more than 95,000 customers and this figure will exceed 100,000 during 1954. The only farms remaining to be served are those in isolated pockets that may now be feasibly added to the Commission's system and farmers in previously-energized areas who have not yet availed themselves of the opportunity of taking service.

Saskatchewan.-Saskatchewan Power Corporation, established Feb. 1, 1949, and operating under the provisions of the Power Corporation Act 1950 (Statutes of Sask. 1950, c. 10), as amended, succeeded the Saskatchewan Power Commission which operated from Feb. 11, 1929, to Jan. 31, 1949. The main functions of the Saskatchewan Power Corporation are the generation, transmission, distribution, sale and supply of electric energy and steam. It is also authorized to produce or purchase, and to transmit, distribute, sell and supply natural or manufactured gas into which field the Saskatchewan Power Corporation stepped in 1952.

Particulars of the operations of the Saskatchewan Power Commission during the period 1929-48 and of the operations of the Saskatchewan Power Corporation during 1949-52 are given in earlier editions of the Year Book.

The Saskatchewan Power Corporation is experiencing extensive growth similar to that of its predecessor-Saskatchewan Power Commission. In 1953 the Corporation served 628 urban communities (with six customers and more) in retail sales and three urban communities (Saskatoon, Swift Current and Battleford) in bulk sales. Its activity is extended to the entire province with the exception of such cities as Regina and Weyburn which own and operate municipal plants and distribution systems, and Moose Jaw where the local plant and distribution system is owned and operated by National Light and Power Co. Limited. A certain number of small communities, the largest of them being the town of Kamsack, are not as yet served by the Saskatchewan Power Corporation. Some of these utilities, mostly privately owned, were taken over by the Corporation in 1953.

At the end of 1953 the Corporation served 122,676 customers. Of this total 22,570 customers were located in communities which were supplied with power in bulk sales and 100,106 customers were Saskatchewan Power Corporation's retail customers. The latter group comprised 82,591 customers in the communities considered as urban and 17,515 customers were classified as rural, predominantly farms. During 1953 all customers absorbed $398,211,673 \mathrm{kwh}$. of which $359,028,165 \mathrm{kwh}$.
were generated in Corporation plants and $39,183,508 \mathrm{kwh}$. were purchased in bulk from Regina and National Light and Power utilities. Total invested capital of the Corporation at the end of 1953 (including gas distribution) amounted to $\$ 49,900,004$.

During 1953 the Saskatchewan Power Corporation owned and operated four steam generating plants (at Estevan, North Battleford, Prince Albert, Saskatoon) and 10 diesel plants with capacities over 500 kw . each (at Assiniboia, Hudson Bay, Maple Creek, Meadow Lake, Moosomin, Shaunavon, Swift Current, Unity, Wynyard and Yorkton). The total available capacity of the Corporation in generating plants at the end of 1953 was assessed at $115,535 \mathrm{kw}$., of which $97,950 \mathrm{kw}$. was located in steam plants and $17,585 \mathrm{kw}$. in diesel plants.

At the end of 1953 the Saskatchewan Power Corporation owned and operated 18,256 miles of transmission and rural lines. Of this total, 5,205 miles of line were added to the system in 1953. They comprise 104 miles of 69,000 volt-line (KerrobertKindersley and Estevan-Weyburn), 253 miles of 24,000 volt-line (Ogema-Ormiston, Kennedy-Wawota, Revenue-Landis, Gravelbdurg-Bateman, Canwood-Big River, Unity-Vera and minor projects), and 4,848 miles of 13,800 volt-line in connection with rural electrification. Large substations were built in 1953 with the total capacity of $12,000 \mathrm{kva}$. (at Weyburn, Battleford, Unity and Yorkton).

## 23.-Growth of Saskatchewan Power Corporation (formerly Commission), 1945-53

Nors.-Figures for 1929-33 are given at p. 499 of the 1947 Year Book, and for 1934-44 at p. 578 of the 1950 edition.

| Year | Communities Served in Bulk and Retail Sales | Individual Customers in Communities Served | Power Distributed | Revenue |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | kwh. | \$ |
| 1945 | 150 | 40,968 | 106,539,448 | 2,677,289 |
| 1946. | 229 | 45,495 | 118,990, 127 | 3,141,652 |
| 1947. | 320 | 63,805 | 160,420,859 | 4,442,507 |
| 1948. | 366 | 71,009 | 186, 834, 305 | 5, 058, 142 |
| 1949 | 420 | 78,389 | 202,135,947 | 5, 629, 372 |
| 1950. | 454 | 84,361 | 235,926,656 | 6,363,597 |
| 1951. | 535 | 93,923 | 278,826,919 | 7,159,876 |
| 1952 | 582 | 107,942 | 332,674,176 | $8,553,619$ |
| 1953. | 631 | 122,676 | 398,211,673 | 10,363,752 |

Alberta.-Public ownership of power-generating and -distributing systems in Alberta is confined to certain urban municipalities. The regulatory authority over privately owned systems is the Board of Public Utility Commissioners, which has jurisdiction over the distribution and sale of electricity. The Board has power to hold investigation upon complaint made either by a municipality or by a utility company and, following such investigation, may fix just and reasonable rates.

There are three private utility services in the Province: Calgary Power Limited, Canadian Utilities Limited, and Northland Utilities Limited. A synopsis of these services is given below.

Calgary Power Limited.-This Company has eight hydro-generating plants on the Bow River and its tributaries, west of Calgary, namely: Horseshoe Falls, Kananaskis Falls, Ghost River, Cascade, Barrier, Spray, Rundle and Three Sisters. At Dec. 31, 1953, the Company's total plant capacity was $206,550 \mathrm{~h} . \mathrm{p}$. All the plants except Horseshoe Falls are operated by remote control from the Kananaskis Falls Plant.

The Company has four reservoirs on the Bow River and its tributaries: Lake Minnewanka, 180,000 acre-feet; Interlakes (Kananaskis Lakes), 90,000 acre-feet; Spray Lakes, 200,000 acre-feet; and Ghost, 74,000 acre-feet.

An agreement with the City of Medicine Hat provides an additional 33,500 h.p. to the Company from the city's steam plants. Power from these plants is fed into a transmission network which supplies the entire electrical requirements of the cities of Calgary, Red Deer and Wetaskiwin, about 290 towns, villages and hamlets, and a substantial industrial load in central and southern Alberta. This transmission network also ties in with the municipal utilities of Edmonton and Lethbridge, the Canadian Utilities Limited at Drumheller, Vegreville and Vermilion, and the East Kootenay Power Company in the Crowsnest Pass.

The Company has 3,810 miles of main transmission lines and 675 miles of distribution lines extending from Westlock in the north, Milk River and Waterton in the south, and from Chauvin, Macklin (Saskatchewan), Brooks and Bow Island in the east, to Nordegg, Banff and Crowsnest Pass in the west. The cities of Calgary and Red Deer, and the towns of Ponoka, Fort Macleod and Cardston are supplied on a wholesale basis. All other points on this system are supplied on a retail basis. At Dec. 31, 1953, about 1,800 oil wells were being supplied with electric-pumping service as were other users directly related to the oil industry, such as gathering stations, refineries and pipeline-pumping, and also industrial plants near Edmonton.

An extensive farm-electrification program is in progress in Alberta and at Mar. 31,1954 , the Company was serving approximately 19,202 farms over 13,000 miles of farmer-owned Rural Electrification Co-operative Association rural transmission lines. The program calls for the addition of from 3,000 to 4,000 farms each year for the next several years. Calgary Power undertakes the engineering, construction and operation of these co-operatives through a non-profit subsidiary (Farm Electric Services Limited), energy being supplied to the farm co-operative consumers at cost.

Canadian Utilities Limited.-Towns and villages northeast of Drumheller are supplied from a $19,000-\mathrm{kw}$. coal-fired steam plant in that city. Towns and villages north and east of Vegreville are served from a $9,000-\mathrm{kw}$. gas-fired steam plant located at Vermilion. Towns and villages north and west of Grande Prairie are served from a $3,195-\mathrm{kw}$. diesel-engine plant located in that centre. There are tie lines with the Calgary Power Limited system at Vermilion, Vegreville and Drumheller. The Company serves over 28,400 customers in approximately 235 towns, villages and hamlets, including 73 rural electrification associations in the Province, through a network of approximately 2,500 miles of transmission and distribution lines, in addition to 3,990 miles of Rural Association lines. Since 1949, rural electrification in the territory served has been extended to farmers on a co-operative basis whereby the farm or Rural Electrification Association system is constructed and operated at cost by the Company for the farmer. Over 4,200 farmers are now receiving electric power service.

Northland Utilities Limited.-This Company, with headquarters at Edmonton, supplies electric energy to 5,700 consumers in 26 communities. Diesel-generating plants are located at Jasper, Athabasca, High Prairie, McLennan, Peace River, Lac La Biche, Manning, Fairview and at Hay River, N.W.T. Low-voltage transmission lines extending from these generating stations supply electricity to 370 farms and 17 villages. The Company also operates a hydro plant at Jasper.

Northland Utilities Limited serves 1,300 consumers with natural gas at Dawson Creek, B.C., 362 consumers at Fairview and Bluesky, and 569 at Grande Prairie, Sexsmith, Spirit River and Rycroft.

British Columbia.-The British Columbia Power Commission was appointed Apr. 17, 1945, under the provisions of the Electric Power Act, "an Act to provide for improving the availability and supply of electric power". Operations were commenced in August 1945 with the acquisition of electrical properties in several parts of the Province. The following statement shows the growth in the number of customers to April 1953:-

| $\begin{gathered} \text { Year Ended } \\ \text { Mar. } \$ 1 \end{gathered}$ | Services Acquired | Services Installed | Total Services for Period | Cumulative Services to End of Period |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |
| 1946 (from August 1945).. | 13,270 | 832 | 14,102 | 14,102 |
| 1947. | 7,151 | 1,786 | 8,937 | 23,039 |
| 1948. | 1,000 | 3,431 | 4,431 | 27,470 |
| 1949. | 831 | 3,318 | 4,149 | 31,619 |
| 1950. | 4,686 | 3,321 | 8,007 | 39,626 |
| 1951. | 473 | 4,075 | 4,548 | 44,174 |
| 1952. | 103 | 2,600 | 2,703 $\}$ |  |
| Sold June 1951. | -325 | -640 | -965 $\}$ | 45,912 |
| 1953. | - | 3,597 | 3,597 | 49,509 |
| 1954. | - | 3,264 | 3,264 | 52,773 |

Highlight of recent expansion was the addition of the fifth and sixth generating units at the Commission's largest plant, the John Hart Development on Campbell River, Vancouver Island. The expansion, completed in the autumn of 1953 at a cost of about $\$ 4,500,000$, increased the capacity of the plant from 112,000 to 168,000 h.p. (i.e., 80,000 to $120,000 \mathrm{kw}$.). The John Hart Development has been almost continuously expanded since it was started in 1945. The first two units were placed in operation late in 1947, the third and fourth in the autumn of 1949.

The John Hart Development now serves, through Commission transmission and distribution systems, territory on Vancouver Island between Duncan and Campbell River, including the Comox Valley, Alberni, Lake Cowichan and Nanaimo-Duncan power districts. The B.C. Electric Railway Company Limited takes delivery of power at Nanaimo and transmits a large block for distribution in Victoria and environs, so that the John Hart Development serves the main areas of Vancouver Island. The facilities provided as a result of this development have led to the establishment of three major industries on Vancouver Island-sulphate pulp mills at Nanaimo and Port Alberni, and a newsprint mill near Campbell River.

Growth in the smaller communities of the Province served by the Commission in number of customers and in average consumption per customer has necessitated steady expansion of most of the 19 diesel generating stations.

Other hydro plants operated by the Commission are the Whatshan Development on Lower Arrow Lake, which was completed in the summer of 1951 with a capacity of $33,000 \mathrm{~h} . \mathrm{p}$. ( $22,500 \mathrm{kw}$.), and the Clowhom Falls Development with 4,000-h.p. capacity. The Whatshan plant serves much of the Arrow Lakes area, but its main market is the rich fruit and dairy district of the North Okanagan and the Kamloops area. The Clowhom Falls plant serves the Sechelt Peninsula, up-coast from Vancouver.

## 24.-Growth of the British Columbia Power Commission, Years Ended Mar. 31, 1951-54

| Item | 1951 | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: |
| Customers.............................. . No. | 44,174 | 45,912 | 49,509 | 52,773 |
| Installed plant capacity . . . . . . . . . . . . . . . kw. | 100,350 | 123,845 | 124,415 | 174,255 |
| Circuit Miles of Line- Transmission (high voltage).......... miles Dıstribution primaries............. "/ | 550 2,393 | 570 2,541 | ${ }_{2,704}^{590}$ | 624 2,995 |
| Power Requirements- |  |  |  |  |
| Generated. . . . . . . . . . . . . . . . . . . kwh. | $255,556,217$ $11,932,279$ | 375, ${ }^{235}, 761$ | 524,502,927 | 687,158,106 |
|  | 11,932,279 | 2,817,547 | 2,350,721 | $9.962,128$ |
| Totals, Power Requirements....kwh. | 267,488,496 | 378,753,308 | 526,853,648 | 697,120,234 |
| Annual revenue........................ \& | 4,064,641 | 4,895,230 | 5,902,344 | 7,103,853 |
| Capital Investment- |  |  |  |  |
| Generation plant..................... \$ | 18,384,774 | 24,748, 127 | $26,488,225{ }^{\text {r }}$ | 33,678,194 |
| Transmission plant................... ${ }_{\text {Distribution and general plants...... }}^{\text {d }}$ | $5,760,593$ $9,945,223$ | $8,206,878$ $12,359,770$ | 10,292,920r ${ }^{\text {r }}$ | $11,686,982$ $15,957,640$ |
| Totals, Capital Investment..... \$ | 34,090,590 | 45,314,775 | 50,982,563 r | 61,322,816 |

Sources of power for the year ended Mar. 31, 1954, were as follows:-

| Source of Power | kwh. | p.c. |
| :---: | :---: | :---: |
| Hydro-electric energy | 634,100,242 | 91.0 |
| Diesel-electric energy | 51,611,544 | $7 \cdot 4$ |
| Steam-electric energy | 1,446,310 | 0.2 |
| Purchased power.. | 9,962,128 | 1.4 |
| Totals. | 697,120,224 | $100 \cdot 0$ |

The Northwest Territories and Yukon Territory.-The Northwest Territories Power Commission was created by an Act of Parliament in 1948 to bring electric power to points in the Northwest Territories where a need developed and where power could be provided on a self-sustaining basis. By legislation, passed in 1949, the Act was extended to include Yukon Territory.

The Northwest Territories Power Commission has authority to construct and operate power plants as required in a territory having an area of over $1,500,000$ sq. miles. The Commission is continually investigating power needs in this large area and studying reports on hydro-electric power sites.

The Commission has a hydro-electric power development in operation on the Snare River about 94 miles northwest of Yellowknife, N.W.T. Power has been supplied from this plant to the mines in the Yellowknife area since the autumn of 1948 and, in the summer of 1949, » transmission-line connection was completed to augment the supply of power to the town of Yellowknife.

A diesel generating station and distribution system was put into operation at Fort Smith, N.W.T., in October 1950. This project supplies the various government establishments at Fort Smith, e.g., the Departments of Northern Affairs and National Resources, Transport, National Defence (R.C.C.S.), Health and Welfare, and Public Works as well as to the Royal Canadian Mounted Police and private commercial consumers and residents of the settlement.

A hydro-electric development was completed on the Mayo River approximately six miles north of Mayo Landing, Y.T., in December 1952. This plant is delivering power to the mining developments in that area and to the settlement of Mayo Landing.

The total capital investment of the Commission as at Mar. 31, 1954, was approximately $\$ 8,861,660$.

## Section 3.-Total Development of Electric Power from All Available Sources

In Section 1 of this Chapter total water-power resources are given with the proportion that, so far, has been developed. Table 3 of that Section analyses the hydraulic turbine installation by the proportions in central electric stations, in pulp and paper mills, and in other industries. This is useful material, but it does not take into account electric power developed in central electric stations or in other industries from sources other than hydraulic.

Section 2 covers the central electric station industry including stations under the public ownership of provincial and municipal governments and those under private ownership. Neither of these Sections, however, gives a complete presentation of the total electric power developed in Canada. All the hydraulic energy developed is not converted to electric power: there are a number of water wheels and water turbines used for direct drive that are not geared to electric generators. On the other hand, certain central electric stations in the Atlantic Provinces, Ontario and the Prairie Provinces generate electricity from steam or internal combustion engines. It is the purpose of this Section to show the total electric power generated from all available sources. Most of the power comes, of course, from central electric stations, the figures having been given in Table 4 of Section 2, p. 554. The total kilowatt hours of electric power generated by central electric stations is divided into that generated from water power and that generated from thermal engines of all kinds.

As shown in Table 25, total electric power generated by central electric stations in 1952 was $59,409,198,000 \mathrm{kwh}$. For a complete presentation, the power generated by manufacturing industries for their own use and the power generated by the primary mining industry for use in its own operations must be added. There are a few other sources of electric energy included, such as electric railways which produced $9,175,000 \mathrm{kwh}$. in 1952. This production has been taken into the annual total shown in Table 25. There are numerous small lighting and power plants on farms, rural homes, summer resorts, stores, etc., where electricity from central electric stations is not available and for these no data are available.

## 25.-Total Power Generated by Central Electric Stations, Manufacturing and Mining Industries, 1943-52

Note.-Figures for the years 1927-42 will be found in the 1948-49 Year Book, p. 516.

| Year | Central <br> Electric Stations |  | Manufacturing Industries |  | MiningIndustries |  | Total ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 kwh. | p.c. | '000 kwh. | p.c. | '000 kwh. | p.c. | '000 kwh. |
| 1943 | 40,479,593 | $92 \cdot 1$ | 3,211,610 | $7 \cdot 3$ | 248,848 | 0.6 | 43,951,190 |
| 1944. | 40,598,779 | 93.2 | 2,752,125 | $6 \cdot 3$ | 210,554 | 0.5 | 43, 571,276 |
| 1945 | 40,130,054 | 93.9 | 2,362,260 | $5 \cdot 5$ | 201,765 | 0.5 | 42,720, 374 |
| 1946 | 41,736,987 | $93 \cdot 4$ | 2,714,261 | 6.1 | 199,950 | 0.4 | 44,662,916 |
| 1947 | 43,424, 799 | 92-1 | 3,467,535 | $7 \cdot 4$ | 269,412 | 0.6 | 47, 174, 384 |
| 1948. | 42,389,681 | 89.7 | 4,590,677 | $9 \cdot 7$ | 270,522 | 0.6 | 47,262,060 |
| 1949 | 44,418,573 | 87.8 | 5,898,390 | $11 \cdot 7$ | 263,835 | 0.5 | 50,592,990 |
| 1950 | 48,493,718 | 88.1 | 6,266,051 | 11.4 | 264,232 | 0.5 | 55, 036, 765 |
| 1951. | 54,851,844 | 89.3 | 6,369,094 | 10.4 | 212,832 | 0.3 | 61,446,787 |
| 1952. | 59,409, 198 | 89.9 | 6,450,729 | 9.8 | 234,431 | 0.8 | 66, 103, 533 |

[^190]
## CHAPTER XIII.-THE FISHERIES

## CONSPECTUS

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Note.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

The immense fishery resources of Canada are derived from the waters of the North Pacific and North Atlantic, and from numerous lakes and rivers of the inland provinces. Canada ranks high in fishery production and leads the world in monetary returns from the export of fishery products. (See Chapter XXII for fisheries exports.)

## CANADA'S COMMERCIAL FISHERIES RESOURCES*

Canada has a coastline of nearly 18,000 miles. Counting the larger islands, some of which are centres for important fishing operations, the sea front totals something like 50,000 miles. The surface of Canada is drained by vast river systems which contain one-half the fresh water of the globe. The Great Lakes, Great Slave Lake and Great Bear Lake, virtually fresh-water oceans, are among the largest lakes in the world.

These Canadian coastal waters and the sprawling network of inland lakes and rivers teem with fish of many kinds. Best known perhaps are the cod and Iobster of the Atlantic Coast, the whitefish and lake trout of the inland lakes and rivers, and the Pacific Coast salmon runs. However, there are also many other kinds.

On the Atlantic Coast fishermen take other groundfish such as haddock, pollock, hake, cusk, redfish, $\dagger$ halibut, plaice, yellowtail, witch, flounder and skate. Types of shellfish, in addition to lobster, are clams and quahaugs, oysters and scallops, mussels, winkles and crabs. Of the fish species of the Atlantic occurring in schools (pelagic fish) and those entering the river estuaries, herring is the most important. Immature herring are landed in southern New Brunswick from the Bay of Fundy and are marketed under the name of "sardines". Other pelagic fish are the roving mackerel, the smelt, Atlantic salmon, alewives, swordfish and tuna. In fact more than 30 different kinds of fish, shellfish and marine mammals such as seals and whales are commercially taken by Canada's Atlantic fishermen. In addition, marine products such as Irish moss and other sea-grasses are harvested.

In the fresh-water areas, the whitefish and lake trout commercial fisheries are supplemented by catches of pickerel, lake herring, pike, perch, sturgeon, tullibee and goldeye.

[^191]Off the Pacific Coast, in addition to the valuable salmon catch, fishermen take great quantities of herring and halibut as well as soles, grey cod, lingcod, crabs and oysters.

During the past decade Canadians have developed a new appreciation of these vast fisheries resources available in the waters in and around Canada. More people are writing and reading and talking about fish and asking questions about how to buy and cook it. New interest is being shown in conservation measures designed to maintain a continuing yield of salmon, halibut, lobster and other heavily fished species, and the consumption of fish products has been going up, slowly but surely.

This increased attention being focussed on Canada's fisheries resources has developed mainly as a result of post-war changes in the world food-supply picture. The production of animal fats and proteins from sources other than the sea has not kept pace with increasing world populations. Nations that see no hope of increasing the production of protein food from their limited land areas have turned to the sea-the world's greatest storehouse of raw materials. Special agencies have been set up under the United Nations to help other countries develop the sea fisheries off their own shores. Canada, through the Colombo Plan, has contributed substantially towards the establishment of a fishing industry in Southeast Asia.

Other countries having limited sea fronts are sending their vessels thousands of miles across the ocean to share in the fishing grounds of the high seas. And Canadians have watched with concern as increasing numbers of these vessels fill their holds on the rich fishing grounds a few miles off Canadian shores. Their concern has been heightened by the belief expressed that the same pressure for food supplies from the sea may exist in Canada one hundred years from now. Alert to this possibility, both the commercial fishing industry and government agencies have initiated steps to develop the resources to the fullest extent. The industry has invested new capital in modern boats and gear. More fish are being caught and new products are being devised so that greater utilization of all species can be effected.

As a result of government activity there is now more fisheries legislation on the statute books than at any time in Canadian history. Of major importance in this respect are the bilateral and multilateral treaties worked out with other countries for the conservation and development of high seas fisheries off Canada's Atlantic and Pacific Coasts as well as those of the inland Great Lakes.

These are some of the factors that have given impetus to the ascendancy of fisheries in the national scene. Of course there are others-geographical and historical-which have long influenced the growth of Canada's fisheries.

It is climate that largely determines the life picture in water as in air. Fish are very much like land animals. They have their own preference in food and sirroundings. They tend to congregate in the regions where their particular food is most plentiful and the climate is agreeable. Food is undoubtedly the most important factor and food is dependent on sunlight, dissolved chemicals and temperature for its growth and on the ocean currents for its location.

The sardines, herring and many other similar forms of fish feed entirely on plankton. Some salmon find sustenance on the shrimp forms, others are fish-eating and the cod are almost entirely flesh eaters. All of these are completely dependent on the first link in the chain of "sea-food"-the plankton-plenitude of which determines the number of fish that any part of the sea will support. The great

92429-37 $\frac{1}{2}$
fisheries are close to land, or in the shallow seas less than 600 feet deep, where the nutrient elements and the plankton are most plentiful. The areas of these shallow seas where marine life abounds are greatest on the continental shelves which rim the world's land masses. Characteristically, the countries north of the equator have wide sloping shelves and, therefore, 98 p.c. of all commercial fishing is in the northern hemisphere.

Sixty per cent of the world's annual production of fish, which is estimated at about $26,000,000$ tons, is taken by six countries-China, Japan, Norway, the United Kingdom, the United States and Russia. Canada ranks next to these and contributes a million tons to the total each year. The wide sloping continental shelf on the Atlantic Coast with its submerged hills or "banks" is considered one of the most extensive and richest fishing grounds in the world. The United Kingdom, the United States and Norway as well as several other countries exploit these fishing grounds. Canada's historic rights in them, however, date back to her earliest colonial days.

The Atlantic Fisheries.-Approximately two-thirds of Canada's total catch comes from Atlantic waters. One-half of this catch is cod which still dominates the deepsea fisheries despite more than four centuries of exploitation. Although the old method of fishing with dories and long lines of baited hooks has largely given way to the modern otter trawler, a large part of the catch is still salted down in the holds of the vessels, to be processed for markets in the West Indies, South America and Europe. Of course many of the Canadian and United States vessels, being closer to home ports, now supply the filleting plants on the Atlantic shore with fresh fish. Haddock, hake, halibut, redfish and flatfish were at one time caught only incidentally by the codfishing fleets and the smaller species, such as redfish and flatfish, were thrown "over the side". Filleting operations resulted in the creation of markets for them and vessels now go to the Grand Banks especially for redfish, haddock or halibut, depending on the season.

Only in recent years has knowledge been gained of the extent of the exploitation of the fishing grounds of the Northwest Atlantic. After World War II, Canada, the United States and several other countries became concerned about the possibility of over-fishing the "banks". Subsequent international discussion led to the signing in 1949 of the International Northwest Atlantic Fisheries Treaty by Canada, the United States, the United Kingdom, France, Italy, Portugal, Norway, Denmark, Iceland and Spain, all of whom pursue the fisheries in the Northwest Atlantic. Under the treaty, the International Commission for the Northwest Atlantic Fisheries was formed to study the fisheries so that any signs of over-fishing or depletion of the stocks would be recognized should they occur. This treaty marked a milestone in the history of fisheries conservation in that it was the first time a group of nations formally committed themselves to a program of scientific investigation and regulation to the end that fish resources of a vast area of the high seas could be managed and utilized prudently. It was also the first time conservation action had been taken before a crisis had occurred.

Statistics gathered by the Commission have given the world some idea of the enormous yield of fish from Northwest Atlantic waters. The Convention area includes the waters off the west coast of Greenland, off Labrador, Newfoundland, Quebec, the Maritime Provinces and the New England States, to a line east of Flemish Cap. From these waters, in 1952, the ten nations participating in the convention took nearly $3,000,000,000 \mathrm{lb}$. of groundfish, of which slightly more
than $2,000,000,000 \mathrm{lb}$. were cod. Haddock landings amounted to $313,000,000 \mathrm{lb}$.; redfish, $225,000,000 \mathrm{lb}$.; flounders $117,900,000 \mathrm{lb}$.; and halibut, $7,500,000 \mathrm{lb}$. Hake, cusk and pollock were also included in the catch.

Even more astonishing, as a result of experimental fishing carried out under the sponsorship of the Canadian Government, is the fact that new stocks of cod and redfish hitherto apparently unexploited are being discovered around the Coast of Newfoundland.

Canada's share in the groundfish catch now amounts to nearly $1,000,000,000 \mathrm{lb}$., of which Newfoundland takes a little more than half. The Island of Newfoundland lands $500,000,000 \mathrm{lb}$. of cod, the bulk of it being salted and dried for export. Markets for Canadian salted cod began to deteriorate as a result of competition from other countries in the 1930's. Trade restrictions and currency difficulties caused a further decline in exports to the West Indies and other countries following World War II. It is an important question now whether Newfoundlanders can make a proper living by producing dried fish from the wealth ot fish near their shores. In recent years they have been trying to escape from dependence upon the dried fish trade by developing other and more lucrative markets for their fish, particularly those markets on the North American continent that demand fresh fish. Newfoundland has had substantial fisheries for herring, salmon, lobsters and clams and is trying to develop them in a diversification program. Being most advantageously situated for very great fisheries, Newfoundland may achieve new prominence with the evolution of more effective techniques for capturing the fish and for preparing them most suitably for whatever markets may be available.

Nova Scotia, being farthest out in the ocean, accounts for most of the remainder of the groundfish catch of cod, haddock, hake, halibut and redfish. However the lobster fishery jin the inshore waters of the Maritime Provinces exceeds the value of the cod catch. All the Atlantic Provinces have good lobster fisheries but the largest production is in Nova Scotia. There are extensive grounds in the Northumberland Strait area, around the southwestern coast of Nova Scotia and in the Bay of Fundy. The lobster fishery is heavily pursued because of the high returns to the fishermen. Restrictions on gear and seasons and other protective measures have to be enforced to ensure that breeding stocks are maintained. Lobsters are caught with baited traps which are so efficient that there is evidence that almost the entire legal-sized population is removed each year by the fishermen. Illegal fishing and poaching have created an acute problem for authorities since there is danger that if the regulations are not observed economic depietion could result. The attractiveness of lobster fishing compared with cod fishing is illustrated by the fact that in 1953, the lobster fishermen of Quebec, New Brunswick, Nova Scotia and Prince Edward Island earned $\$ 14,500,000$ for a catch of $42,000,000 \mathrm{lb}$. while the cod fishermen carned only $\$ 5,000,000$ for a catch of $183,000,000 \mathrm{lb}$.

New Brunswick and Nova Scotia produce considerable quantities of clams and quahaugs. Prince Edward Island and New Brunswick are the chief producers of oysters and the scallop beds off the coast at Digby, N.S., are famous. Exploratory fishing and other measures taken to expand these fisheries have not been encouraging, although some new beds of scallops have been found.

Herring, one of the most important food fishes of the world, are plentiful. More than $240,000,000 \mathrm{lb}$. are caught annually in Atlantic waters. One-third of the catch forms the basis of the important sardine canning industry in southern New Brunswick. Exploratory fishing has led to the discovery of new and valuable
stocks of herring in the Gulf of St. Lawrence and great possibilities are entertained for the future of the herring fishery as a food product when and if markets can be developed for them. The Fisheries Research Board of Canada, which conducts the biological research so essential to the full development of Canada's fisheries, has conducted an extensive program of exploratory fishing over several years, using various European-type fishing nets and trawls. In the southwestern portion of the Gulf of St. Lawrence in 1953 the Board used drift-nets and brought in catches of herring more than double the yield that a similar effort would produce in the North Sea.

Salmon, smelts and alewives are trapped as they enter the river mouths on their way to spawning beds, while mackerel and tuna are netted in open water. Swordfish, and sometimes tuna, are pursued with harpoons. Smelts are caught mainly in New Brunswick, a large share of the catch coming from the Miramichi River. The commercial Atlantic salmon fishery is limited only by the availability of supply. For some years the catch has shown a steady decline and a federalprovincial committee is now directing a research program designed to determine the causes of the decline and to rehabilitate the fishery.

Like the Atlantic salmon, the Maritime oyster fishery is limited only by the supply. Famed among epicures and always in great demand, the oyster is a slowgrowing bivalve and the fishermen with their tongs can remove them from the beds much faster than they can be replaced by natural reproduction. The fisheries scientists have experimented with methods of oyster cultivation and considerable success has been achieved. The areas of sea bottoms suitable for oyster growth are limited, however, and progress in the expansion of this industry through oyster farming is slow and uncertain.

One of the most interesting developments resulting from experimental fishing techniques demonstrated by the Fisheries Research Board was the introduction of dragging operations for flatfish in the coastal waters of Nova Scotia. The flounders, witch and plaice had never been exploited by the fishermen until the Board showed how it could be done with small drag-nets. The fishery has flourished into an important industry in the larger Nova Scotia bays, creating a new source of income for the fishermen.

Whales and seals are numerous in Atlantic waters around Newfoundland and have been the basis of important industries in that Province. But markets for the oil have been declining since 1952, resulting in a decrease in activities. In 1951, 585 whales were taken by six whaling ships operating out of Hawkes Harbour, Labrador, and Williamsport in White Bay. In addition, 55 minke whales and 3,102 potheads (blackfish) were caught at Dildo in Trinity Bay. In the following year markets were so unattractive that the larger whaling factories did not operate and most of the catch consisted of potheads.

The Newfoundland seal fishery, which is steeped in tradition, centres around two species of seals, the harp or "saddleback" and the hood or "bladdernose" In the winter they migrate from their homes within the Arctic Circle south to the Grand Banks of Newfoundland. The size of the herd has been estimated at about $3,000,000$ seals. In the spring when they start moving north again the sealing fleets from Norway, Denmark and Newfoundland make the kill. At one time, about 400 Newfoundland vessels carrying 13,000 sealers took part in the hunt. In 1953, only three Newfoundland vessels and two other vessels operated by Nova Scotia interests cleared from St. John's for the sealing grounds. The adult seals are taken for the oil, which is extracted from the blubber, and the pups are taken for their fur.

In 1951 when an exceedingly large catch of seals-about 440,000 -was recorded by all vessels from both sides of the Atlantic, some concern was expressed for the maintenance of the herds. Informal discussions took place between Canada, Norway, Denmark and France on the need for information as to the size of the herds and their productivity. Since then, a standard opening date for sealing has been agreed upon each year and a research program has been conducted. Tagging operations and aerial surveys carried out by the Fisheries Research Board have produced a great deal of new information which should prove useful if any joint conservation measures are found necessary in the future.

The Pacific Fisheries.-The continental shelf off Canada's Pacific Coast is not as extensive as that of the Atlantic, reaching out only from three to 60 miles from land. The valuable salmon constitutes the main prop of the fishing industry and, in terms of dollars and cents, are more valuable than any other fish in Canada. There are five species of salmon, all in abundance, ranging the Pacific coastline and ascending the rivers through most months of the year. The five species belong to a single race, distinct from that of the Atlantic salmon and the true trouts but grouped within the same general family. The popular names for them are sockeye, pink, coho, chum and spring. They differ considerably in size, habits, time of their returns to fresh water and in commercial quality. The sockeye is the most famous because its flesh is very red, very rich in oil and holds both colour and flavour well under all conditions of storage. It is the fish on which the salmoncanning industry of the Pacific Coast was built and it is especially the fish of British Columbia and the great Fraser River. All Pacific salmon spawn in fresh water. The young migrate to sea and when they reach maturity they return to fresh water to spawn and, after spawning, die. The biggest catches are taken when they begin their spawning run and come into estuary waters on the flood tides. About $150,000,000 \mathrm{lb}$. are taken annually by British Columbia fishermen using purseseines, gill-nets and trolls. A large portion of the catch is canned, production being as high as $2,000,000$ cases (case $=481-\mathrm{lb}$. tins) in some years.

Obviously the salt-water life of the salmon is largely beyond human control and, therefore, present conservation efforts are directed mainly towards three objects-ensuring a sufficient escapement of salmon to produce the eggs necessary for future runs, improving spawning areas that have been adversely affected by industrial developments and natural disturbances, and protecting the young salmon between their emergence from the gravel and their arrival in salt water.

The salmon's predictable habits make them highly vulnerable and rigid controls are put on the fishing operation. There are regulations governing the sizes of nets and methods of using them. There are certain areas, usually near the mouths of rivers, that are closed to fishing at all times. The controls, based on exhaustive biological research, are effective and it may be said that the fishery is being well managed now on a sustained-yield basis. But the productivity of the salmon depends largely on conditions in streams and lakes, primarily water height and water flow. Fluctuations in stream level and in stream flow can be extensive with devastating losses likely to occur under extreme conditions. Stream improvement measures, particularly to control stream flow, hold great promise for increasing salmon productivity and are being continually investigated. Hydro-electric power dams and water-storage impoundments for irrigation and flood control present obstructions to the ascent of salmon to the spawning grounds of major river systems. But power dams are not the only impediments to access by up-stream migrating
salmon to their spawning grounds. Natural falls, stretches of highly-turbulent and fast-running water also form obstacles, as do $\log$ jams in streams, produced by careless or thoughtless logging, or by natural windfalls. Remedies can be found for most of these and they are attended to by fisheries officials. The responsibility for maintaining the salmon and other anadromous fisheries of British Columbia lies with the Federal Government through its Department of Fisheries. (The term "anadromous" is used to describe fish, which, like salmon, ascend rivers from the sea, at certain seasons, for breeding.) Where power developments and other industrial enterprises have jeopardized the runs of salmon the problems have been co-operatively worked out to the satisfaction of all concerned and devices installed to protect the fish.

Scientific studies conducted by the Fisheries Research Board have revealed that with proper improvement and control of salmon streams, production can be increased. The prospects for successful development to increase production in certain streams are good and are being given careful attention. To what extent logging operations and general deforestation have contributed and are still contributing to the deterioration of salmon waters and to what degree present reforestation practices are improving the conditions has yet to be determined.

The migrations of the salmon lead them across international boundaries within territorial waters, with the result that Canadian fishermen compete with United States fleets for a share of the catch, particularly for the sockeye runs of the Fraser River. These runs, because of their international nature, are supervised by the International Pacific Salmon Fisheries Commission, a two-nation body responsible for regulating the fishery to assure the perpetuation of the species. Early work on the Fraser River sockeye by the Commission led to the removal of a major obstacle to free migrations at Hell's Gate, thus eliminating a serious complication in rehabilitating upper river runs.

The important halibut fisheries of British Columbia are also in international waters and bring Canadian fishermen in competition with the fishing fleets of the United States. This fishery also is regulated by an international body called the International Pacific Halibut Commission. It was established a quarter of a century ago when the stocks of halibut had declined as a result of intensive fishing.

The work of the Commission has been so accompanied by success that a new set of problems has been raised. The fishery has become so popular as a result of increased stocks of fish that quotas are taken up rapidly, leaving halibut longliners idle for several months of the year. Canada's share of the halibut catch annually amounts to between $20,000,000 \mathrm{lb}$. and $27,000,000 \mathrm{lb}$., taken within a few weeks and marketed throughout the year from cold storages.

The British Columbia herring fishery ranks next to salmon in monetary importance. These small fish appear in vast schools near the coast at certain times of the year and are caught in prodigious quantities. The year's landings run anywhere from $350,000,000 \mathrm{lb}$. to $400,000,000 \mathrm{lb}$., the bulk being processed at reduction plants as herring meal and oil. At one time, herring were dry-salted and marketed in the Orient but World War II eliminated this form of processing and unsettled conditions in China after the War prevented rapid rehabilitation of the dry-salt herring trade. However, because the price for herring oil has been uncertain, at times, the dry-salt herring production has recently been renewed on a limited scale.

In addition to these "big three" of the Pacific Coast fisheries, there are other operations of importance. Landings of sole and flounders, mostly taken by trawl-net in northern Hecate Strait, have been on the increase and total annually about $18,000,000 \mathrm{lb}$., destined for fresh fillet trade. Ling and black cod are worth mentioning, and clams, crabs and oysters also provide a small source of income to fishermen. A whaling fleet operating off the West Coast takes as many as 400 whales each season.

The oyster industry in British Columbia involves two species, the native variety called the Olympia oyster and the Japanese or Pacific oyster, a fast-growing variety which has been avidly cultivated and, commercially, has largely supplanted the native species. Expansion of the Pacific oyster industry is encouraged by research workers who devise and demonstrate efficient "farming" techniques, investigate new areas of production and new methods of planting the seed. The native Olympia oyster has not been developed to any extent largely because it occupies relatively high beach territory more subject to frost and drought.

Along British Columbia's irregular coastline, abundantly supplied with fjords and inlets, there are undoubtedly many valuable untapped fishery resources. The salmon, halibut and herring fisheries, whieh are highly efficient, and to a lesser extent certain of the minor fisheries such as crab, shrimp and smelt have had prior interest and attention because of their availability and abundance close to large centres of population. It seems hardly likely that much more can be done in adding new salmon or herring fishing grounds to those already known unless it be in an off-shore and deep-sea direction.

For other fisheries, however, further expansion is thought possible. For groundfish supplies, there are many areas of the inshore sea bottom yet unexplored where rich harvests may be made. For crabs, shrimps, oysters, clams, mussels and abalone and seaweed, only a small portion of the coastline has been assessed regarding the supplies available.

The off-shore areas present opportunities for an increase in British Columbia's marine fisheries. But such developments require utilization of larger and more stalwart vessels, installation of modern aids of navigation and a certain degree of exploratory prospecting either by government or industry to determine the potentialities of the areas in relation to existing market demands.

The need for development of the high seas fisheries of the Pacific Ocean and a method of unified control for the purposes of wise management has been recognized by Canada, the United States and Japan-the three countries mainly concernedin the North Pacific Fisheries Convention signed at Tokyo in 1952. It brings Japan into association with Canada and the United States in co-operative measures to preserve and perpetuate the fish stocks of the North Pacific. The treaty recognizes the concept of the freedom of the high seas but it attempts to get recognition of the fact that where a fishery has been developed and is under conservation by one or more parties jointly, other nations which have not contributed to its development might be asked to abstain from fishing these resources as long as they continue to be fully utilized and under scientific study and regulations. It will be one of the responsibilities of the International North Pacific Fisheries Commission, set up under the treaty, to make scientific studies of the resources of the North Pacific and to see whether species, which one or more of the countries abstain from fishing, continue to meet the conditions of abstention. The Commission, like that of its

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counterpart on the Atlantic, has no regulatory powers but can make recommendations to the governments of the three member countries. It is unique in scope and objectives in that under the terms of the treaty it must undertake work involving new procedures and principles for which it has no precedents: for instance, the principle of abstention from fishing for certain species now fully utilized by one or more of the three countries, provided that conservation is practised and governmental regulations are enforced. Under this principle Canada and Japan will not fish for salmon in the eastern Bering Sea and Japan will not fish for salmon, halibut and herring which originate on the Canadian-United States side of the North Pacific.

Some international fisheries have not been referred to international commissions because the problems are less acute and the values of the fisheries smaller. Effective informal arrangements for investigation have, however, been made such as for the elusive pilchard which at one time appeared in great numbers off the British Columbia coast.

The Fresh-Water Fisheries.-The fresh-water fisheries of Canada in terms of volume are small compared with the operations on the coasts. They are little known to the public and the world at large, except perhaps in the sport-fishing sense. It is a fact, nevertheless, that Canada has the greatest fresh-water commercial fisheries in the world. The St. Lawrence waterway system with its chain-like series of inland seas and the Prairie Provinces' network of lakes and streams form a great cornucopia, overflowing with whitefish, yellow pickerel, blue pickerel, tullibee, trout, pike, saugers, eels and other varieties. Though there are fluctuations in the catch from year to year, the total yield has risen steadily in volume and now averages around $100,000,000 \mathrm{lb}$.-about one-sixth the size of the British Columbia catch.: Two-thirds of the total comes from Ontario and Manitoba, each province producing annually between $30,000,000 \mathrm{lb}$. and $35,000,000 \mathrm{lb}$. of fish. Saskatchewan and Alberta rank next in production, followed by Great Slave Lake in the Northwest Territories, Quebec and New Brunswick.

In Ontario the fisheries are centred in two regions-the Great Lakes which are fished almost exclusively in the summer, and northwestern Ontario which is mainly a winter fishing operation and resembles those of the Prairie Provinces. On the Great Lakes, fish are taken inshore and on off-shore banks similar in nature to those of the Atlantic "banks". In a shallow lake like Erie the commercial varieties may be caught out in the middle of the lake. But in the deeper lakes the fish are mainly in the inshore areas. The inshore fishery is done largely with pound nets, hoop nets, seines and hooks and the fishermen use gasoline launches, skiffs and rowboats. The off-shore fishery is largely a gill-netting operation performed by a fleet of unique vessels called tugs which are designed to set and haul gill nets by mechanical means.

The Great Lakes fish populations, particularly the lake trout, have declined in recent years. Fishermen blame the parasitic sea lamprey, an eel-like creature which feeds on the blood and body juices of fish. The lamprey attaches itself to its victim by means of its sucker-like mouth and rasps a hole in the body with its sharp teeth. Because the fishermen of both Canada and the United States share in the Great Lakes fishery, an international agreement, providing for joint action in these waters in fishery research and in the elimination of the predator sea lamprey was signed at Washington in September 1954. In Canada, a Great Lakes Fisheries Research Committee was formed in 1953 by the Federal Government and the Ontario Provincial Government to co-ordinate and expand fishery research in Canadian waters and it is this agency which will provide the working nucleus of

Canada's share in this new program. The Committee is giving equal emphasis to general fisheries research and lamprey control. In the general program, research is being conducted into stocks of whitefish and lake trout and the possible utilization of the less popular species that enter the nets of the commercial fishermen. Hydrographic surveys are an important aspect of this work. In the lamprey control program, devices are being installed at the mouths of rivers frequented by lampreys at spawning time. The installations are electrified weirs which paralyse the lamprey and prevent it from reaching suitable spawning areas.

Manitoba's commercial fishing industry is based on a rich heritage of lakes and streams. Lake Winnipeg, the seventh largest fresh-water lake in North America, provides almost one-half of the Province's total catch. From this lake comes the Selkirk whitefish which is in great demand in the United States. The famous Winnipeg goldeye also first made its appearance from Lake Winnipeg catches. Of the three-score fish-producing lakes, most important are Lake Manitoba, Lake Winnipegosis, Lake St. Martin, Lake Dauphin, South Indian Lake, Gods Lake, Island Lake and the Manitoba portion of Reindeer Lake. In Alberta and Saskatchewan where the number of full-time fishermen in past years has been few, the commercial fishing industry is growing steadily. The total catch in Saskatchewan is now around $10,500,000 \mathrm{lb}$. and in Alberta about $10,000,000 \mathrm{lb}$.

Lake Athabasca, straddling the Alberta-Saskatchewan border, yields about $500,000 \mathrm{lb}$. of whitefish, lake trout and other fish each year to the Chipewyan and Cree Indians. Since 1926 its commercial putput has totalled $20,000,000 \mathrm{lb}$. of fish. Lac La Ronge in Saskatchewan has been fished since 1922 and its current commercial production is nearly $1,000,000 \mathrm{lb}$. a year. Reindeer Lake, located across the Saskatchewan-Manitoba border, is another rich provider and in one year when fishing was intense, fishermen hauled out $2,500,000 \mathrm{lb}$. It is not known what the lake could stand on a sustained basis but its record over the past 14 years shows that its catch of whitefish and lake trout represents 10 p.c. of the entire production of the Province. Lesser Slave Lake in Alberta has yielded up to $5,000,000 \mathrm{lb}$. of fish a year while other northern lakes such as Wollaston, Big Peter Pond and Ile à la Crosse each produce annually about $500,000 \mathrm{lb}$.

The gill net is the chief fishing gear used in the Prairie Provinces. In the summer operation, fishermen operate motor-driven boats and skiffs. In the winter the nets are set through holes cut in the ice and the fishermen establish camps on the ice right at the fishing grounds; usually staying out a week at a time under semi-Eskimo conditions. Living accommodation is a caboose which is hauled to the camp-site.

Quebec's fresh-water commercial fisheries are based on the streams and rivers which flow into the St. Lawrence River, although some of the northern waters are also fished. In addition to the fresh-water species found in other provinces, Quebec fishermen catch a number of salt-water fish which frequent the rivers at certain periods. Eels and sturgeon rank as the most valuable of Quebec's inland fisheries. Most of the catch of eels is caught around the Isle of Orleans, near Quebec, and in the Richelieu River at Iberville. About $500,000 \mathrm{lb}$. are taken annually and shipped frozen in boxes or in trucks equipped with special fresh-water tanks to brisk markets in the United States. Shipments are also made to European countries. In New Brunswick, the fresh-water fishing industry is a small enterprise compared to the tidal fisheries and the total production of alewives, shad, eels, salmon and suckers amounts to $500,000 \mathrm{lb}$. annually.

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The Northern Fisheries.-Perhaps the greatest opportunity for expansion of the fresh-water fisheries lies in Canada's northern areas. The Yukon and Northwest Territories contain two of the earth's largest lakes and two mighty rivers, besides literally thousands of lesser waters, many of which have not been explored. On the northern edge of the Continent is the Arctic Coast which extends roughly 10,000 miles from the Bering Sea to Hudson Strait.

In the northland lakes and rivers, a few species, like the inconnu, the Arctic grayling or "bluefish" and the Arctic char, have not been found anywhere else in Canada. Others like whitefish, trout, salmon, pike and pickerel are familiar to most Canadians. The sports fish have gained fame among the anglers for their huge size and fighting characteristics. The food fish have achieved similar recognition from the commercial operators for their abundance and table qualities. As the line of civilization pushes northward, it is expected that greater use will be made of these resources. The business of exporting fish is now well established in the northern areas of the three Prairie Provinces and at Great Slave Lake. Great Slave is one of the greatest single producers of whitefish and lake trout and has yielded more than $40,000,000 \mathrm{lb}$. of fish since commercial fishing began in 1945. In view of the importance of the fish of this and other lakes as a food supply to the native Indians, the Federal Government permits commercial fishing in the Northwest Territories only when it is evident that the commercial "take" will not affect the continuity of supply of fish to the natives. Landings of whitefish and lake trout from Great Slave are thus limited to an annual quota of $9,000,000 \mathrm{lb}$.

The scattered communities of Indians, Eskimos and white residents in the north have long depended on fish for food both for themselves and their sled dogs. Along the Arctic Coast, the Eskimos depend on the beluga, the seal and various kinds of fish for practically all their daily requirements. The beluga, commonly called a "white whale" is actually a mammal of the dolphin or porpoise family. A successful summer whaling season means prosperity for all Eskimos in the community.

Moreover, the migrations of beluga to the mouth of the Churchill River from Hudson Bay give Manitoba the distinction of being an inland province with a whale fishery. Operating under a permit granted by the Minister of Fisheries and with a quota set each season by the federal authorities, an establishment at Churchill renders the animals into oil and meal. Local Indians are employed to hunt the belugas.

The Eskimos make great use of the seals found in the Arctic waters, the oil making good dog food, the meat providing substantial dinner fare and the skin making waterproof boots and parkas. Large amounts of Arctic char, herring, whitefish and inconnu are eaten and an Eskimo who starts the winter with less than eight to ten thousand fish can look to lean days ahead.

The Fisheries Research Board is attempting to find out more about the fisheries resources along the Arctic Coast and around the Islands of the District of Franklin. The Board operates a specially constructed research boat, the Calanus, which has been making regular trips to Eastern Arctic waters each summer since 1949. These studies are now being extended to Hudson Bay and the Beaufort Sea. In Ungava Bay, the Board has found that both the Atlantic cod and the Greenland shark provide possibilities of exploitation by the Eskimo populations there and the federal authorities have tried to educate the inhabitants to take greater advantage of the supply.

The Yukon Territory has its share of the better-known food and game fish but, while they are important as a local food supply and as a tourist attraction, they are not significant enough to support a commercial enterprise for export purposes. In the Yukon, king salmon are caught by the white residents who use an ingenious device known as a fish-wheel, unique in Canada's commercial fisheries. The Indians use gill nets set in eddies and the majority of the fish are filleted, smoked and dried for winter use. Both fish-wheels and nets bring in small quantities of other fish such as the whitefish, inconnu and Arctic grayling.

In the southwest Yukon, the Alsek River and its tributaries contain rainbow trout, actually a landlocked steelhead, and a few land-locked sockeye salmon. The larger Yukon lakes produce whitefish, lake trout and "least herring" or cisco. For the sportsmen, there are "bluefish", Dolly Varden trout, rainbow trout and pike.

Great Bear Lake and Great Slave Lake are linked by the mighty Mackenzie River which drains a quarter of Canada and is comparable in size to the St. Lawrence. This river system and the thousands of lakes in the Territories constitute a great food reservoir for the local residents. Fishing is a staple summer industry of the Indians and of all those white residents who have to travel by dog-team during the winter. In the Mackenzie Valley the sled dogs alone consume each year several million pounds of fish-whitefish, herring and inconnu-and most of it comes from the Mackenzie River in the summer and autumn when the Indians gather around the trading posts where fishing is good. Great Bear Lake provides fish for the Indians in sufficient quantity but it holds little prospect for commercial fishing because the fish populations form merely a fringe inhabiting the near-shore zone and could not survive a large-scale operation.

The commercial development of the fisheries for export purposes in the Northwest Territories has special possibilities. The lower Mackenzie River could be commercially fished, particularly from the Sans Sault rapids north to the delta but such a venture is not yet practicable because the catch would have to be shipped a thousand miles by refrigerator barges to Great Slave during a very short navigable season.

The area is a fisherman's paradise, of course, but access is difficult and only Great Slave Lake has been developed to any extent for the accommodation of sports fishermen.

The first half of the twentieth century with its two world wars and great depression brought fluctuations of fortune to the fisheries industry but it has been, on the whole, an era of increasing development and prosperity in this field. The increased use of trawlers, the development of quick-freezing and filleting equipment and cold-storage facilities have all helped to make the industry much more diversified than formerly. Modern methods of packaging and canning have been adapted to fishery products. Certain varieties of fish such as British Columbia salmon, Atlantic lobster, halibut and whitefish command premium prices on the world market so that, although not the greatest fish exporting nation (Norway exports larger quantities), Canada's exports lead the world in terms of dollar value. The marketed value of the nation's fisheries topped the $\$ 200,000,000$ mark in 1951, three-quarters of the amount being obtained from outside markets. This is not a high figure when compared with the production of some other Canadian industries but for the people of the coastal provinces and the northern territories it is a dominating factor in their economic life.

Canada, by wise management policies and by full utilization of all available resources, is in a position to play an increasingly important part in producing fish to meet the food needs of the world's populations.

## Section 1.-Governments and the Fisheries

## Subsection 1.-The Federal Government*

The British North America Act gave the Federal Government full legislative responsibility for the regulation of the coastal and the inland fisheries of Canada. Under the Act, laws are made for the protection, conservation and development of the fisheries throughout the country. The provinces, however, have property rights in the non-tidal fisheries and have been delegated certain administrative responsibilities in varying degree. Consequently, though all the regulations governing fishing are made by the Federal Government, the work of administering the fisheries (enforcing the different laws and regulations, inspecting fish products, issuing licences, etc.) is done in some cases by federal officers and in others by provincial officers, according to arrangements made with the different provinces and without duplication of staff.

Specifically, all tidal or sea fisheries, except those of Quebec, are administered by the Federal Department of Fisheries while the fresh-water or non-tidal fisheries, with some exceptions, are administered by the provincial departments. The exceptions are the Yukon and Northwest Territories, Nova Scotia, New Brunswick and Prince Edward Island where the fresh-water fisheries are federally administered.

The work required in the conservation, development and general regulation of the nation's coastal and fresh-water fisheries is performed by three agencies under the Minister of Fisheries:-
(1) The Department of Fisheries proper, with headquarters at Ottawa and area offices under Chief Supervisors at Vancouver, Winnipeg, Halifax and St. John's.
(2) The Fisheries Research Board of Canada, with headquarters at Ottawa and seven stations across Canada.
(3) The Fisheries Prices Support Board, with headquarters at Ottawa.

The Department of Fisheries.-The chief responsibilities of the Department of Fisheries throughout Canada are, in brief, to conserve and develop Canada's primary fishery resources; to encourage the development of the fishing industry in the national economy; to inspect fish products, establish standards of quality and promote the optimum utilization of the resource; and to develop a proper public understanding of the resource and the industry.

The larger part of the Department's staff is stationed in the field, working in the four above-mentioned spheres, and is comprised mainly of a protection staff and an inspection staff. The protection officers, including those on the Department's 74 patrol and protection vessels, are concerned with the enforcement of the conservation regulations under the Fisheries Act and other Acts designed to ensure a continuing maximum yield of fish. The inspection officers are responsible for the inspection of fish products and processing plants under the Fish Inspection Act and relevant sections of the Meat and Canned Foods Act.

[^192]The conservation program of the Department is carried out by the Conservation and Development Service. Protection officers not only enforce regulations pertaining to restricted areas, close seasons, limitations in location and types of gear, but they inspect spawning streams and keep them clear of obstructions. Engineers of this Service construct fishways to enable fish to by-pass dams. Hatcheries are maintained to restock waters where the fisheries are under federal administration.

To ensure a high standard of quality, inspection of fish and fish products is carried out by the Inspection and Consumer Service. Fish inspection laboratories are maintained on the Atlantic and the Pacific Coasts. The Service also has a staff of home economists at Ottawa who operate a test kitchen and carry out demonstrations and lectures on methods of preparing and cooking fish and fish products.

Through the mediums of printed material, films, radio and exhibitions, the Information and Educational Service informs the public on the various aspects of the industry and the work of the fisheries service with the object of developing a better understanding of the resource and those engaged in its exploitation. The Service works closely with the Conservation and Development Service in matters concerning conservation of fisheries, and with the Inspection and Consumer Service toward encouraging increased consumption of Canadian fish products in both North American and export markets.

The Markets and Economics Service, which has a staff of economists and market analysts, is responsible for bringing together a fund of factual information, through surveys and other means, on the primary fisheries and on the processing, transportation and distribution of fishery products. Such facts and their interpretation form the basis for development and for other programs of the Department. In the marketing field continual study and interpretation is carried out on market trends in the foreign and the domestic fields. In co-operation with the Department of Trade and Commerce and its Trade Commissioner Service, work is being done on the development and extension of export markets for Canadian fish.

In addition to providing these regular services, the Department assists the commercial fishing industry in several special ways. For the purpose of promoting efficient primary fishing operations and improving the marketing of fishery products, assistance is provided for the construction of draggers and long-liners and for baitfreezing and storage facilities on the Atlantic Coast. For each new trawler built in Canada, the owner is eligible for a licence to operate a used trawler imported from either the United Kingdom or the United States and registered in Canada after payment of duty. An applicant wanting only one trawler may import a used one from the United Kingdom without having to lay down a new keel in Canada. This policy applies to ships purchased from any country entitled to most-favourednation treatment in accordance with Canada's obligations as a signatory of the General Agreement on Tariffs and Trade.

In 1953 an additional service to fishermen was provided through the establishment by the Government of the Fishermen's Indemnity Fund which affords lowcost protection from losses of boats and lobster traps through storms and other causes. The Fund, which is administered as a regular service within the Department, meets a long-standing need on the part of the small-scale individual fishermen. Vessels valued at from $\$ 250$ to $\$ 7,500$ may be insured with payment of a premium of 1 p.c. of the appraised value. By Mar. 31, 1954, a total of 1,515 fishing vessels with an appraised value of $\$ 2,109,637$ were covered under the Fund.

The lobster trap protection plan provides that, generally speaking, any lobster fisherman having 32 or more traps may obtain protection up to approximately 50 p.c. of the value of his traps for premiums ranging from five cents to 25 cents per trap depending on the length of the season and on the value of the traps. Although the plan did not come into effect in some areas until the spring of 1954, 234 fishermen with 44,927 traps were insured as at Mar. 31, 1954.

A study is being made of the possibility of extending the program to include other types of fishing equipment that are subject to periodic loss or damage and for which no commercial insurance is available.

The Department also provides assistance in the education of fishermen by making payments to educational institutions that have agreed to carry out educational work among them.

The Fisheries Research Board.-The functions of the Fisheries Research Board of Canada, which was established in 1937, cover a wide field in the interests of conservation, development and management of the fishery resources of the country. In 1953 the membership of the Board was increased from 15 to 19 to allow for wider regional representation and a permanent chairman was appointed.

The work of the Board is, generally, biological and technological in character and is carried out at seven stations: the Biological Station at St. Andrews, N.B., with its substation at Ellerslie, P.E.I.; the Pacific Biological Station, Nanaimo, B.C.; the Central Fisheries Research Station, Winnipeg, Man.; the Newfoundland Fisheries Research Station, St. John's, N'f'ld.; the Atlantic Fisheries Experimental Station, Halifax, N.S.; the Pacific Fisheries Experimental Station, Vancouver, B.C.; and the Gaspe Fisheries Experimental Station at Grande Rivière, Que.

Scientific investigations are an important part of the development of the commercial fishing industry and provide the basis for conservation measures put into effect by the Department. Almost all the principal stocks of commercial fish are under observation by the Board's biologists. Many species, such as Pacific salmon, Atlantic salmon, Atlantic groundfish, lobster, herring, albacore, whitefish, whales, oysters and clams, are being studied intensively. The studies provide knowledge of the life history, growth rate, reproduction, distribution, enemies, diseases, etc., of the fishes, shellish and sea mammals. Special investigations are undertaken as problems arise. The Board has completed a survey of the fisheries resources of the Northwest Territories and is exploring the fisheries resources of Canada's Eastern Arctic.

Fundamentally, the objective of the Board's technological investigations is to eliminate waste through the utilization of all fishery products that come out of the waters and the putting of those products to the best possible use in the light of current knowledge. The Board's knowledge is continually expanding through basic and applied research and this is helping to bring about a wider distribution of fishery products, a higher level of quality in the products marketed, a better understanding of the use of fish in general nutrition and of fish by-products for food, medicinal and industrial purposes.

The Fisheries Prices Support Board.-Under the Fisheries Prices Support Act, passed in 1944, this Board was set up in July 1947 to recommend to the Government price-support measures when severe price declines occur. The Board functions under the direction of the Minister of Fisheries and consists of a chairman, who is
a senior officer of the Department of Fisheries, and five members chosen from private and co-operative firms in the industry, representative of the various fishproducing regions of Canada.

The Board has authority to buy quality fishery products under prescribed conditions and to dispose of them by sale or otherwise, or to pay to producers the difference between a price prescribed by the Board and the average price the product actually commands. The Board has no power to control prices nor has it any jurisdiction over operations in the fishing industry or the fish trade.

Money necessary for dealings in fishery products is available to the Board from the Consolidated Revenue Fund to a maximum aggregate amount of $\$ 25,000,000$ but only on recommendation of the Federal Treasury Board and authorization of the Governor in Council.

The Board maintains a small staff for administrative and research activities. The work is closely integrated with that of the Department's Markets and Economics Service and, where possible, services required by the Board are carried out by Department personnel. The Board has carried out field surveys on market conditions and possibilities, and on factors affecting the income of fishermen in the various producing areas. It keeps the financial position of fishermen under continuous review and makes recommendations to the Government on the basis of the facts as it finds them. Special investigations are made when serious problems arise in particular areas.

International Fisheries Conservation.-Fisheries regulation is sometimes needed on the high seas in international waters and international treaties have had to be made. Canada's obligations under such treaties with the United States and other countries are administered by the Department of Fisheries.

Canada and the United States have led the world for years in joint fisheries conservation development. Major examples of this joint effort are the International Fisheries Commission, concerned with the preservation of the halibut stocks of the North Pacific and the Bering Sea, and the International Pacific Salmon Fisheries Commission, concerned with the conservation and development of the sockeye salmon of the Fraser River. Investigations carried out under the Commission's auspices, subsequent regulation and limitation of catches and, in the case of salmon, the construction of fishways appear to have been successful in arresting and reversing an earlier trend towards depletion of these fisheries. Another example of restoring a depleted marine resource by international agreement and action is that of the fur seals of the Pribilof Islands in the Bering Sea. Under the Provisional Fur Seal Agreement, Canada receives 20 p.c. of the fur-seal skins taken annually by the United States Government from the Pribilofs. Only surplus animals are killed.

In 1949, the Government of Canada became a signatory, along with nine other countries, to the International Northwest Atlantic Fisheries Convention which came into force in 1950. The work of the Commission, established under this Convention, concerns the scientific investigations of the fishery resources of the northwest Atlantic. The Commission has no regulatory powers but can make recommendations to the respective governments regarding measures that may be necessary for maintaining the stocks of fish that support the international fisheries in the Convention area. Treaty signatories are: Canada, Denmark, Iceland, the United States, the United Kingdom, France, Italy, Norway, Portugal and Spain. Headquarters of the Commission is at Halifax, N.S.

A step towards international action in regulating the high seas fisheries of the northern Pacific Ocean was achieved in December 1951, when Canada, the United States and Japan conferred at Tokyo and reached an agreement on fisheries problems. The resulting convention was ratified by the three contracting governments and instruments of ratification were deposited at Tokyo in June 1953. The treaty is known as the International Convention for the High Seas Fisheries of the North Pacific Ocean and aims at providing the maximum sustained yield of the fishery resources of the northern Pacific non-territorial waters with each of the parties assuming obligations to encourage conservation measures. The Commission established under this Convention will study the northern Pacific fisheries, determine the application of the treaty principles and will promote and co-ordinate the scientific studies necessary for ascertaining conservation programs. Temporary headquarters of the Commission is at Vancouver, B.C.

Canada is a member of the International Whaling Commission and is obligated to collect biological data on whales caught by Canadian vessels. Whaling operations are conducted off the Newfoundland and British Columbia coasts.

## Subsection 2.-The Provincial Governments*

An outline of the work undertaken by each of the provincial governments in connection with administration of commercial and game fisheries is given in the following paragraphs.

Newfoundland.-The union of Newfoundland with Canada on Mar. 31, 1949, brought about a transfer of some responsibilities in fisheries administration. The Newfoundland Fisheries Board remained the agency of government in the supervision of salt-codfish marketing, but fish and plant inspection, operation of bait depots, etc., became the concern of the Federal Department of Fisheries. The Board, formerly responsible to the Government of Newfoundland through the Commissioner for Natural Resources, became responsible to the Minister of Fisheries for Canada.

The Provincial Government is concerned mainly with improvement and development in fishing and production methods and has conducted experiments in long-lining and deep-water trawling, in the construction of multi-purpose fishing craft and in the exploration of potential fishing grounds. Steps are being taken to secure more efficient use of fisheries salt. Loans have been made available to processors for the establishment or development of fishing fleets and processing plants, and to fishermen for the construction and purchase of modern vessels capable of a greater variety of fishing operations and larger production.

In 1951, the Governments of Canada and Newfoundland established the Newfoundland Fisheries Development Committee, consisting of representatives of fishermen, processors and exporters, and of both Governments. The objective of this Committee is to establish the role of each sector of the industry and each government, jointly or severally, in the organization and development of the fisheries. Action has been taken by both Governments in certain matters considered as necessary preliminaries to an over-all program, such as an economic and sociological survey of fishing settlements and the encouragement of the use of community rather than individual stages and rooms by shore fishermen.

[^193]The inland waters of Newfoundland, which provide excellent sport fishing, are not commercially exploited to any significant degree. The lakes and ponds remain under the authority of the Natural Resources Branch of the Provincial Department of Mines and Resources, but the rivers and streams-the resort of migratory fish such as salmon and sea trout-passed under federal jurisdiction as a consequence of the union. Matters of conservation and guardianship are, therefore, mainly or wholly the concern of the Federal Department of Fisheries, although to the extent to which they affect the ponds and lakes, they are subject to provincial or joint action.

Prince Edward Island.-The major responsibility for aid to the fisheries of this Province is undertaken by the Federal Government. Prince Edward Island, however, has established a Department of Industry and Natural Resources which administers the commercial and game fisheries.

Consultations were held in 1950 when marine architects and fishing ports were visited along the Atlantic seaboard with a view to obtaining the best information on boats and gear most adaptable to the Province's coastal waters. These studies resulted in the adoption of the $60-\mathrm{ft}$. Island Dragger. During the search for information on boats, much was learned of the possibility of adapting the drag-net principle to smaller boats and experiments were conducted to ascertain power requirements and general feasibility. The major part of the revenue of the commercial fishermen of the Province is provided by lobster, smelt and oyster catches.

The streams of the Province are mostly spring-fed and fairly constant in flow, thus providing excellent spawning grounds and nurseries for game fish, of which speckled trout are by far the most important. The problem is to increase the production of trout of a size attractive to anglers and comprehensive biological investigations are being carried on by the Fisheries Research Board to attain this objective by determining the most efficient procedure in stocking, managing and cropping. The Province provides the sites for these investigations and the Conservation and Development Branch of the Federal Department of Fisheries builds the necessary dams and supplies the fish required for experimental purposes.

Nova Scotia.-The basic responsibility for the administration of tidal and inland fisheries in Nova Scotia is undertaken by the Federal Government. The Province, however, supplements the activities of this authority through its Department of Trade and Industry. In practice, a system of co-operative effort has been worked out between the two authorities with each free to carry out individual responsibilities and specific programs. Provincial activities fall into three sectionsdevelopment, administration and research.

Development.-Development activities include engineering services, financial assistance to the fisheries industry generally, and educational services to the fishermen.

Engineering services are related to the design, construction and equipment of boats, vessels and fish-processing plants. A marine engineer is employed for these services and for the extension of consultant services to all persons interested in the industry. Financial assistance is extended, by way of loans, for the construction and modernization of fish-processing plants and to fishermen for the acquisition of boats and engines. Where the requirements of large new plants have exceeded the capacity of local authorities, the Province has provided such utilities as water lines and rail sidings; the Province also operates a bait freezer at Cheticamp.

Educational services extended to fishermen comprise instruction in basic navigation, rules of the road, and care and maintenance of marine engines by means of short courses at selected outports and a permanent school maintained at Lunenburg. This educational program is assisted by grants under the Canadian vocational training program of the Federal Department of Labour.

Administration.-The Nova Scotia Fisheries Act serves to supplement federal jurisdiction and is administered jointly by the Department of Trade and Industry and the Federal Department of Fisheries. The Act requires fish-processing plants and fish buyers to obtain annual licences, which are issued by the Department of Trade and Industry only on the recommendation of inspectors of the Federal Department of Fisheries and the certification of the Department of National Health and Welfare as to compliance with standards of construction, operation and sanitation contained in federal regulations.

Information obtained from the licensing activities and other statistics supplied by the Federal Department of Fisheries enables the Provincial Department of Trade and Industry to handle inquiries in respect of the fisheries industry.

Research.-Provincial fisheries research activities have been confined largely to the inland trout and salmon fisheries. The Department of Trade and Industry has carried out a five-year program of water control on the LaHave River in the interests of salmon preservation and development; has undertaken experiments in fertilization of lakes and in partial poisoning of lakes to reduce the numbers of coarse fish in competition with trout for the available food supply; and has conducted some special studies of trout populations and salmon migrations. Research activities of this nature have been continued under the direction of the Nova Scotia Research Foundation.

New Brunswick.-The commercial fisheries of New Brunswick are under the jurisdiction of the Federal Department of Fisheries. Since 1945, a Fisheries Division has been in operation under the provincial Department of Industry and Development. In 1946, a Fishermen's Loan Board was established to provide financial assistance to bona fide fishermen for the purchase of new boats and engines. Since its formation the Board has lent over $\$ 2,016,747$ of which $\$ 992,108$ has been repaid. It has modernized the deep-sea fishing fleet by the introduction of a most effective small dragger, 51 units of which are operating in the area of the Gulf of St. Lawrence and three in the Bay of Fundy. Seven additional modern units are under construction. The Fisheries Division is promoting experiments on flounder dragging as well as on the seining of herring in the Gulf of St. Lawrence area.

Quebec.-The Minister of Game and Fisheries administers both the sea and the inland fisheries of Quebec. The Department is composed of two divisions-the Division of Maritime Fisheries and the Division of Fish and Game, the latter being charged with the administration of the inland fisheries.

Sea Fisheries.-Quebec is the only province administering its own sea fisheries. For the benefit of producers and fishermen, it provides a system of cold-storage plants for the freezing and preservation of fish. Since the erection of the first plant in 1932, the network has grown to 50 plants with a daily freezing capacity of 250 tons of fish and a storage capacity of $16,000,000 \mathrm{lb}$. These cold-storage plants also perform a valuable service to fishermen by providing them with frozen bait. In addition, the Department owns and maintains 115 snow houses where fish may be chilled before being sent to storage or filleting plants, 40 culling sheds, and three artificial drying plants where $6,000,000 \mathrm{lb}$. of fish may be processed annually.

The Department maintains a staff of inspectors, fish wardens, technicians and technologists to administer fishery legislation and to assist in the application of new techniques for the expansion of the industry. The central administration is located at Quebec City, with an office at Gaspe for the administration of coldstorage plants. Statistics are compiled by the Department of Trade and Commerce in co-operation with the inspectors of the Maritime Fisheries Division.

Fish inspection is carried out under federal and provincial legislation by provincial inspectors, who are vested with additional powers for export purposes by the Federal Government.

Educational work among the fishermen and producers is also conducted by the Department in order to teach the latest methods of fish preparation and obtain high-quality products. The new Fisheries Training School at Grande Rivière gives to fishermen of all ages the opportunity of taking free theoretical and practical courses in fishery, and the Superior School of Fisheries at Ste. Anne-de-la-Pocatière trains technologists in a four-year course. Encouragement is given to the cooperative associations of fishermen through the Social Economic Service of the latter institution. Under a maritime credit system, fishermen are able to obtain loans from credit unions for the purchase of boats and gear. The Department adheres to the federal-provincial agreement on the building of draggers and longliners and assumes the building costs on a five-year capital refunding plan.

The fish trade is being promoted by advertising campaigns in newspapers and magazines, cooking demonstrations, educational films and free distribution of fish recipes and publicity leaflets, as well as by exhibits at fairs.

Hydrographical research in the Gulf of St. Lawrence, studies on the location of new fishing grounds as well as experiments on sea-fish biology are conducted by a Marine Biological Station at Grande Rivière and two substations on the North Shore and Magdalen Islands. This research has brought into use new types of modern fishing vessels recommended to fishermen. The Department also operates a Limnological Laboratory at Quebec City for studying the biology of the freshwater fish of the St. Lawrence River and tributaries.

Inland Fisheries.-The Division of Fish and Game exercises jurisdiction over the inland waters. Three hundred full-time wardens are employed and licences are required for sport-fishing and hunting, the revenue from which is applied to the improvement of fishing and hunting conditions. Five hatcheries are maintained at strategic points throughout the Province: St. Faustin, Lachine, Baldwin's Mills, Tadoussac and Gaspe. These establishments distribute speckled trout, Atlantic salmon and grey trout fry, fingerlings and older fish.

The Department administers five parks or reserves in all of which, except for Mount Orford Park, excellent fishing may be found. The Gaspesian and Laurentides Parks are renowned for their trout fishing. The Chibougamau Reserve and the La Vérendrye Park, situated on the height of land, are eminently suited to canoe trips in search of pickerel, pike and grey or speckled trout. Four salmon streams, all under the jurisdiction of the Fish and Game Division, are open to anglers: the Romaine River, the St. Jean River, the Petite Cascapédia River and the Matane River. The Department co-operates with sportsmen through a joint committee composed of departmental officials and the directors of the larger fish and game associations. The committee studies the maintenance of satisfactory fishing and hunting conditions and other problems arising out of the ever-changing conditions of modern life and their effect on the wildlife of the Province.

The Biological Bureau of the Province, located at the University of Montreal, and the big piscicultural laboratory at Quebec City, with its two stations for practical work located in the Mont Tremblant and Laurentides Parks, study problems connected with marine life.

Ontario.-The fishery resources of Ontario are administered by the Division of Fish and Wildlife, Department of Lands and Forests. The Division operates under the authority of the Fisheries Act (Canada), the Special Fishery Regulations for the Province of Ontario, the Ontario Game and Fisheries Act and the Regulations connected therewith.

Commercial Fishing.-The commercial fishing industry in Ontario provides employment for about 4,000 persons directly and for many more indirectly, and produces an annual harvest of from $30,000,000 \mathrm{lb}$. to $37,000,000 \mathrm{lb}$. of fish. The industry, although widely scattered throughout the Province, is centred chiefly on the Great Lakes, particularly Lake Erie which is noted for its whitefish, herring and blue pickerel. Lake Superior continues to be the leading producer of lake trout. Other principal species of fish taken commercially are: yellow pickerel, herring or ciscoes, sturgeon, pike, catfish (including bullheads), carp and suckers. Many of the smaller inland lakes are commercially fished, especially those in the northwestern portion of the Province, and careful management of these lakes is essential to ensure continued production.

The types of fishing boats in use vary from small craft to $60-\mathrm{ft}$. tugs, and types of gear also vary from the most common gill net, pound and trap nets, seines and baited hooks to small hand-operated seines and dip nets. Fishing methods and equipment have been rapidly modernized during the past few years. Diesel-driven steel-hull tugs have replaced steam-driven wooden tugs. Such aids as depthsounding devices, radar, ship-to-shore and ship-to-ship communications have been developed and a better knowledge of the fish and their movements has been established from biological research findings. Modern icing facilities and transportation methods are in use, as well as new types of fishing gear. Nylon gill nets are replacing cotton and linen nets and a very efficient and economical trap-net is gradually replacing the pound-net in Lake Erie and other waters.

Excellent co-operation and understanding of the complex problems involved in the administration and management of Ontario's fresh-water fishing industry by the Government and the fishermen, through their local associations and the Ontario Council of Commercial Fisheries, is working to the advantage of the industry as a whole.

Angling.-In Ontario, with its estimated water area of 64,441 sq. miles, angling constitutes one of the most widely distributed recreations. There are 144 different kinds of fish in the Province, including such species as lake and speckled trout, yellow pickerel, black bass, pike and maskinonge. Though it is difficult to measure the value of sport fishing to the Province, the annual revenue from the sale of angling licences (mainly to non-residents as residents require a licence for Provincial Parks only) is in the neighbourhood of $\$ 2,000,000$.

In order to maintain Ontario's reputation for excellent game-fishing, the wise management of this renewable resource is a prime factor, and a well-trained field staff of conservation officers and biologists is located in the 22 forestry districts of the Province.

Provincial Hatcheries.-Ontario operates 28 hatcheries and rearing stations. Excellent results have been produced in the culture and distribution of the various species of both commercial and game fish. Hundreds of millions of fry and fingerlings, comprising whitefish, herring, pickerel, trout (lake, speckled, brown and Kamloops), maskinonge, bass and ouananiche are distributed annually. Two of the finest trout-rearing stations on this continent are located in Ontario at Dorion near Port Arthur and at Hill Lake near Englehart.

Fisheries Research.-Research in Ontario is carried on in the Great Lakes where commercial fisheries problems are being investigated, and in inland waters where game-fish populations are being studied. The Manitoulin Island station conducts studies relating to the removal and utilization of the less valuable species and the effects of this removal on stocks of the more valuable commercial and game species. In Algonquin Park, a careful record of angling quality is kept in a number of test lakes to allow evaluation of management techniques. Certain of the more barren lakes are being treated with inorganic fertilizer and its effect on the microscopic organisms and fish is recorded.

The habits of lake trout and eastern brook or speckled trout are being studied in order to provide additional information on the proper management of these species. The increase in the sea lamprey and the drastic drop in production of lake trout in recent years in Lake Huron (including Georgian Bay and North Channel) are believed by many authorities to be directly related and have led to considerable joint research by the Ontario Government and by Federal and State Governments in the United States. Co-operation is maintained in the exchange of biological findings and, where practicable and feasible, the results are applied in an attempt to control this menace.

Established fish-management principles are applied by biologists in the various forestry districts. Their program includes such projects as biological surveys and investigations, bass harvesting, coarse fish removal, sea lamprey control, creel census studies, fish tagging and other related subjects.

Manitoba.-The fisheries of Manitoba are administered by the Provincial Department of Mines and Natural Resources. Supervision of the various commercial operations are carried out by officers using patrol boats in summer and bombardier snowmobiles in winter; in addition trucks and cars are used for routine patrols throughout the year. Departmental officers, working in co-operation with federal authorities, give special attention to the quality of the fish, a program that has been found to be beneficial to the industry as a whole.

During 1953, production from commercial fishing amounted to $16,036,300 \mathrm{lb}$. from summer operations and $15,301,800 \mathrm{lb}$. from winter operations, a total of $31,338,100 \mathrm{lb}$. Estimated value as marketed was $\$ 5,960,000$. Pickerel, whitefish and saugers were the most important species caught.

The filleting trade each year assumes more importance and plants are being expanded and improved. High-quality fillets in attractive packages are becoming "best sellers" in the retail trade. Winnipeg is the principal domestic market but approximately 90 p.c. of the catch is exported to the United States.

The fish cultural program in Manitoba for 1952-53 included the operation of five fish hatcheries, two egg collecting camps, a temporary trout hatchery and a trout rearing station. Four of the five hatcheries are situated on the commercially fished lakes, and one, a sport fish hatchery, in the Whiteshell Forest Reserve.

During the year, $170,010,000$ pickerel fry and eyed eggs, $73,450,000$ whitefish eggs and fry, $2,091,158$ trout fingerlings, and 43,786 adult perch and northern pike were distributed in the fishing waters of the Province.

Biological survey parties conducted investigations regarding speckled trout in northern Manitoba, lake and stream surveys in the Porcupine and Duck Mountains, the fishes of South Indian Lake and the sauger-pickerel relationship in the southern part of Lake Winnipeg. The fish in one small lake were poisoned with derrisroot powder and rainbow trout were introduced.

Saskatchewan.-The administration of fisheries in the Province of Saskatchewan comes under the Fisheries Branch of the Provincial Department of Natural Resources with head office at Prince Albert. Most of the fisheries resources are concentrated in the northern half of the Province, where the lakes have always been a source of food to the fur traders, trappers, prospectors and the Cree and Chipewyan Indians who inhabit the area, and also provide food and supplementary income to the settlers and homesteaders on the agricultural fringe.

There are approximately 129 commercially fished lakes in the Province and the principal species of fish include lake trout, whitefish, pickerel, northern pike, sturgeon, cisco, Aretic grayling, goldeye, mullet, perch and burbot. The growth of the filleting industry has been of particular significance, 15 filleting plants having been established since 1945. That the fishery resources are important to mink ranchers in the Province is shown by the fact that in the year ended Mar. 31, 1953, 68 fur-farm fishing licences were issued and 20,280 mink were fed under these licences; 702 domestic licences and 1,502 free licences to Indians were also issued.

There has been marked development recently in sport fishing. For the fiscal year 1952-53 there were 50,113 resident and 6,615 non-resident angling licences sold, compared with 6,000 resident and 1,500 non-resident licences sold in 1945.

The main endeavour in the fish cultural activities in the Province during the past few years has been to extend the range of the Arctic grayling species from the Far North into the Churchill River area, and to introduce eastern brook trout and certain warm-water species into areas where preliminary study seems to indicate suitable environment. To a large extent the indiscriminate planting of fish has been discontinued. A fish hatchery is operated at Fort Qu'Appelle for the hatching of pickerel, rainbow, brown and lake trout, and two experimental ponds have been built to facilitate the study, under controlled conditions, of the introduction of warm-water species from the United States. An experimental hatchery has been established at Lac la Ronge, where Arctic grayling and lake trout eggs have been hatched. An Arctic grayling spawn camp has also been established in the Fond-du-lac River, near Black Lake and a pickerel spawn camp is located on the Montreal River, near Lac la Ronge.

The management of the provincial water areas is conducted on a scientific basis. In 1947, a large-scale biological program was undertaken and more than 100 water areas have since been studied. The main emphasis has been on the study of productivity of the various water areas as well as the inter-relationship of the species and life histories. In so far as known facts will permit, the management of the various lakes has been placed on a sustained-yield basis. Experiments are in progress on the introduction of non-native species into suitable water areas. Where sport-fishing pressure has increased, such as on Lac la Ronge, Last Mountain Lake and Qu'Appelle Lakes, a creel census has been established and the annual harvest is
recorded. The Fisheries Laboratory, established in 1949 at the University of Saskatchewan, has three permanent biologists on its staff; usually about 12 students of the University are employed each summer on biological surveys.

The Fisheries Branch has conducted a program of education designed to acquaint people of the Province with the importance of scientific research and the necessity of certain regulations governing the administration of fisheries. Three colour and sound films have recently been made on sport fishing.

Alberta.-Commercial and game fishing are administered by the Fisheries Branch of the Department of Lands and Forests.

Regulations under the Alberta Fishery Act, designed to improve the packing, handling, processing, storage and quality of commercial fish, have been well received and supported by the Alberta industry. In line with a policy for producing goodquality fish, lakes in which whitefish are infected with pike tapeworm and that do not meet the quality standard have been closed to commercial fishing.

Biological surveys of many lakes and streams taken over the last ten years have provided an opportunity to observe the result of former management policies. It was found that the classical tenets of trout-stream management, including close seasons, legal minimum, feeder stream closure and hatchery plants, were inadequate or incorrect. A new management plan is being conducted featuring the 'fallowing' of smaller tributary streams, abolition of the legal size minimum, except in the case of lake trout, a continuous open season on large streams and rivers and the removal of close seasons for pike, pickerel and perch. Trout-rearing stations and a provincial trout hatchery support trout-stream populations whenever required in cases of natural disaster, severe winter kill, introduction of new species or areas that have no spawning grounds.

British Columbia.-The Provincial Department of Fisheries was organized in 1901-02 and soon became very active in fish-cultural work, building and operating fish hatcheries and instituting scientific research into various fishery problems.

Broadly speaking, the administrative and regulative jurisdiction over the fisheries in British Columbia rests with the federal authority. When British Columbia entered Confederation in 1871, the Government of Canada undertook to protect, conserve and promote the fisheries of the Province, and one of the important functions of the Provincial Department of Fisheries is to observe these aspects and to keep the Provincial Government informed through the appropriate Minister.

The ownership of the fisheries in the non-tidal waters is vested in the Crown, in the right of the Province, as are the shell-fisheries, such as oyster-fishing and clam-fishing in the tidal waters. The authority to administer and regulate these fisheries is vested in the Province, although the regulations covering them are made under federal Order in Council on the advice and recommendation of the Province.

The provincial Fisheries Act provides for the taxation of the fisheries and, under civil and property rights, for the regulation and control of the various fishprocessing plants under a system of licensing. Provision is also made for the settlement by arbitration of disputes regarding fish prices that may arise between the fishermen and operators of the various licensed plants. The administration of the Act involves the collection of revenue and the supervision of plant operations.

Net-fishing in the non-tidal waters of the Province, including commercial fishing, is regulated and administered by the Provincial Department of Fisheries, while authority for regulation of the game fisheries in the non-tidal waters is vested
in the Game Commission, a branch of the Provincial Government administration. The Game Commission operates a number of trout hatcheries and egg-taking stations for re-stocking purposes.

The harvesting of marine plants of commercial importance in British Columbia, including the kelps, has recently been placed under the Provincial Department of Fisheries for regulation and control. Some research has already been done on a few of the more important species and more will be undertaken as required.

The Provincial Department of Fisheries has established a marine laboratory at Ladysmith on Vancouver Island for the purpose of conducting biological research into those species over which the Province has control, principally oysters, clams and other forms of shell-fish as well as marine plants. This research is conducted with the object of encouraging the industry to produce better products more economically and of enabling the Department to regulate the various species so that maximum exploitation may be obtained on a sustained-yield basis. The Department co-operates closely with the research work done by the Fisheries Research Board of Canada, particularly on the Pacific Coast.

## Section 2.-Fishery Statistics*

## Subsection 1.-Primary Production

The total marketed value of all fishery products in Canada (exclusive of Newfoundland) was $\$ 149,821,000$ in 1952, representing a decline of almost 15 p.c. from the record peak of $\$ 175,718,000$ in 1951. The landings of fish also dropped by about 10 p.c., from $1,448,000,000 \mathrm{lb}$. to $1,315,000,000 \mathrm{lb}$. The lower production of the West Coast fisheries accounted for these declines.

The data for Newfoundland are not included in the following tables because comparable statistics are not available. In 1952, the landings of fish in Newfoundland were estimated at $575,000,000 \mathrm{lb}$., with a value to the fishermen of about $\$ 13,000,000$; the total value of all fishery products was approximately $\$ 27,500,000$.

[^194]
## 1.-Marketed Values of All Products of the Fisheries, 1870-1952

(Exclusive of Newfoundland)

| Year | Value | Year | Value | Year | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 |  | \$'000 |  | \$'000 |
| 1870. | 6,577 | 1915............... | 35,861 | 1944. | 89,440 |
| 1875.... | 10,350 | 1920................. | 49,241 | 1945. | 113,871 |
| 1880. | 14,500 | 1925 | 47,942 | 1946. | 121,125 |
| 1885. | 17,723 | 1930 ............... | 47,804 | 1947. | 123,900 |
| 1890 | 17,715 | 1935 | 34,428 | 1948 | 139,749 |
| 1895. | 20,199 | 1940................ | 45,119 | 1949. | 131,138 |
| 1900 | 21,558 | 1941. | 62,259 | 1950. | 151,982 |
| 1905 | 29,480 | 1942. | 75,117 | 1951. | 175,718 |
| 1910. | 29,965 | 1943 ................ | 85,595 | 1952. | 149,821 |

Three provinces accounted for 81 p.c. of the total marketed value of fisheries products in 1952; British Columbia's share was 39 p.c., a substantial decrease from the previous year, followed by Nova Scotia with 28 p.c. and New Brunswick with 14 p.c.

## 2.-Marketed Value of All Products of the Fisheries, by Province, 1948-52

Nore.-Figures for the years 1917-47 are given in the corresponding table of previous Year Books beginning with the 1922-23 edition.

| Province or Territory | 1948 |  | 1949 |  | 1950 |  | 1951 |  | 1952 - |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. |
| Newfoundland <br> Prince Edward Island | 3,634 | 3 | 2,705 | 2 | 3.321 | 2 | 3,213 | 2 | 3,759 | 3 |
| Nove Scotia. . . . . . | 36,091 | 26 | 35,040 | 27 | 38,165 | 25 | 40,296 | 23 | 42,435 | 28 |
| New Brunswick | 20,122 | 14 | 17,428 | 13 | 18,053 | 12 | 21,155 | 12 | 20,504 | 14 |
| Quebec. | 5,943 | 4 | 5,112 | 4 | 5,563 | 4 | 5,511 | 3 | 6,113 | 4 |
| Ontario | 6,394 | 5 | 6,184 | 5 | 7,034 | 5 | 7,925 | 4 | 8,344 | 6 |
| Manitoba | 5,415 | 4 | 4,800 | 4 | 6,600 | 4 | 7,524 | 4 | 5,960 | 4 |
| Saskatchewe | 1,282 | 1 | 1,026 | 1 | 1,360 | 1 | 1,749 | 1 | 1,440 | 1 |
| Alberta. | 636 | - | 562 | - | 768 | - | 862 | 5 | 943 | $\cdots$ |
| British Columbia | 58,704 | 42 | 56,120 | 42 | 68,821 | 45 | 85,221 | 50 | 58,098 | 39 |
| Yukon............. | $\overline{1,528}$ | $\underline{1}$ | 2,161 | - | 2,297 | $\bigcirc$ | 2,262 | 1 | 2,225 | 1 |
| Totals | 139,749 | 100 | 131,138 | 100 | 151,982 | 100 | 175,718 | 100 | 149,821 | 100 |
| Totals, Sea Fish | 123,991 | 89 | 115,921 | 88 | 133,445 | 88 | 154,829 | 88 | 130,367 | 87 |
| Totals, Inland Fish | 15,758 | 11 | 15,217 | 12 | 18,537 | 12 | 20,889 | 12 | 19,454 | 13 |

## 3.-Quantity of Sea and Inland Fish Landed, by Province, 1948-52

Nore.-Figures for the years 1918-47 are given in previous editions of the Year Book beginning with the 1947 edition.

| Province or Territory | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Newioundland . ${ }^{\text {Pre.. }}$ |  |  |  |  |  |
| Prince Edward Island Nova Scotia. | 30,682 | 27,525 | 29,225 | 27,187 | 32,661 |
| Nova Scotia. | 376,609 | 364,332 | 378,484 | 381,800 | 396,623 |
| New Brunswi | 225,317 | 189,235 | 239,671 | 227,003 | 254,599 |
| Quebec. | 101,414 | 106,114 | 117,459 | 101,999 | 127,563 |
| Ontario. | 29,101 | 34,060 | 32,754 | 30,971 | 38,044 |
| Manitoba | 31,529 | 29,503 | 31,468 | 35,458 | 31,338 |
| Saskatchewan | 8,076 | 7,473 | 8,731 | 11,513 | 10,612 |
| Alberta. | 7,224 | 6,302 | 7,067 | 8,399 | 9,657 |
| British Columbia | 613,903 | 546,312 | 638,497 | 616,492 | 406,452 |
| Yukon Territory | - | - | - | 7, | - |
| Northwest Territories | 7,805 | 9,101 | 7,866 | 7,478 | 7,042 |
| Totals | 1,431,660 | 1,319,957 | 1,491,222 | 1,448,300 | 1,314,591 |
| Totals, Sea Fish, Totals, Inland Fish | $\begin{array}{r} 1,344,132 \\ 87,528 \end{array}$ | $\begin{array}{r} 1,229,749 \\ 90,208 \end{array}$ | $\begin{array}{r} 1,399,262 \\ 91,960 \end{array}$ | $\begin{array}{r} 1,349,941 \\ 98,359 \end{array}$ | $\begin{array}{r} 1,211,662 \\ 102,929 \end{array}$ |

In 1952, salmon was still the most valuable of all the leading species of fish, even though both the quantity landed and the marketed value were lower than in the previous year. Lobsters, cod and herring followed in that order. The most notable decline occurred in the quantity and value of herring.

Table 4 shows the quantities of the main species of the commercial fisheries landed (primary products only) and values marketed (primary and secondary products). Minor items, and secondary products not specifically derived from one particular kind of fish, are grouped in the item "Other".

## 4.-Quantities Landed and Values of All Marketed Products of the Chief Commercial Fisheries, 1948-52

(Exclusive of Newfoundland)
Nors.- The quantity landed excludes the weight of livers, but the value of liver products is included in the value for the species concerned.

4.-Quantities Landed and Values of All Marketed Products of the Chief Commercial Fisheries, 1948-52-concluded

| Item | 1948 | 1949 | 1950 | 1951 | 1952 | Increase or <br> Decrease 1952 compared with 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3,390 467 | 3,406 473 | 3,430 619 | 4,468 1,060 | 4,164 781 | -304 -279 |
| Scallops. . . . . . . . . . . . . . . . . . . ${ }^{\prime} 000 \mathrm{lb}$ lb. | $\begin{aligned} & 871 \\ & 501 \end{aligned}$ | $\begin{aligned} & 437 \\ & 217 \end{aligned}$ | $\begin{aligned} & 769 \\ & 424 \end{aligned}$ | 571 332 | 1,113 | +542 +395 |
| Pike $\qquad$ | 6,780 717 | 6,673 541 | 6,122 688 | 7,239 822 | 6,636 602 | -603 -220 |
| Ling cod. . . . . . . . . . . . . . . . '000 Ib. | 6,586 879 | 7,263 871 | 4,638 523 | 4,746 826 | 4,242 542 | -504 -284 |
| Rosefish........................... ${ }^{\prime} 000 \mathrm{lb}$. | 1,319 83 | 2,046 142 | 2,070 130 | 4,054 310 | 7,999 502 | $+3,945$ +192 |
| Other......... . . . . . . . . . . $\mathbf{\Sigma}^{\prime} 000$ | 8,006 | 7,456 | 5,898 | 8,916 | 8,549 | -367 |
| Total Values...... ... $\mathbf{\$ ' 0 0 0}^{\prime}$ | 139,826 | 131,138 | 151,982 | 175,718 | 149,821 | -25,897 |

The value of the equipment used in primary operations of the commercial fisheries in 1952 increased to $\$ 102,943,000$ from $\$ 92,427,000$ in 1951 . Of the total investment in the agencies of primary production, 86 p.c. was employed by the sea fisheries.

## 5.-Capital Investment in Sea and Inland Fisheries, 1951 and 1952

(Exclusive of Newfoundland)

| Kind of Equipment | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: |
| Sea Fisheries- | No. | \$'000 | No. | \$'000 |
| Trawlers. | 9 | 1,775 | 19 | 4,077 |
| Draggers. | 169 | 5,402 | 229 | 5,875 |
| Vessels-gasoline, diesel and sail | 2,153 | 24,978 | 2,121 | 27,638 |
| Boats-gasoline, diesel, sail and row | 26,506 | 20,514 | 25,926 | 23,024 |
| Packers, carrying boats and scows. | 1,798 | 2,632 | 1,323 | 3,077 |
| Herring nets.. | 43,864 | 1,160 | 43,079 | 1,174 |
| Mackerel nets | 27,432 | 836 | 25,861 | 790 |
| Salmon nets, traps and seines | 15,026 | 5,416 | 13,686 | 5,019 |
| Smelt nets............. | 13,642 | , 554 | 14,652 | 585 |
| Other nets, weirs and sei | 7,559 | 3.572 | 6,622 | 3,702 |
| Tubs of trawl, skates of gear, hand lines | 83,417 | 1,648 | 69,663 | 1,375 |
| Lobster traps and pounds.. | 1,962,353 | 7,346 | 1,977,761 | 7,836 |
| Other gear................................... | ... | 170 | ... | 616 |
| Premises-piers, wharves, ireezers, ice-houses, small fish-and smoke-houses. | 7.860 | 3,551 | 7,734 | 3,886 |
| Total Values, Sea Fisheries Equipment | ... | 79,554 | ... | 88,674 |
| Inland Fisheries- |  |  |  |  |
| Fish carriers and tugs. | 193 | 1,868 | 188 | 528 |
| Boats (gasoline and diesel), skiffs, canoes | 7,551 | 2,563 | 7,942 | 4,360 |
| Gill nets. |  | 5,171 |  | 5,271 |
| Other nets, weirs and seines | 6,769 | 1,238 | 6,884 | 1,036 |
| Other gear.......... |  | 586 |  | 905 |
| Premises - piers, wharves, freezers, ice-houses, small fish- and smoke-houses. | 1,898 | 1,447 | 2,618 | 2,169 |
| Tetal Values, Inland Fisheries Equipment. | ... | 12,873 | ... | 14,269 |
| Grand Totals | ... | 92,427 | ... | 102,943 |

## 6.-Persons Employed in the Primary Fishing Industry, 1950-52

(Exclusive of Newfoundland)

| Persons Employed in- | Sea Fisheries |  |  | Inland Fisheries |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 | 1951 | 1952 | 1950 | 1951 | 1952 |
|  | No. | No. | No. | No. | No. | No. |
| Steam trawlers and vessels. | 112 | 218 | 460 | - | - | - |
| Draggers. | 722 | 903 | ${ }^{918}$ | - | - | - |
| Vessels.... | 8,769 | 8,857 | 8,394 | - | - | - |
| Boats. | 35,427 | 34,337 | 33,344 | 10,974 | 10,764 | 10,465 |
| Packers, carrying boats and scow | ${ }^{617}$ |  | . 797 |  | 139 | - 126 |
| Fishing, not in boats............. | 3,000 | 2,603 | 1,953 | 7,303 | 6,545 | 7,803 |
| Totals, Employed | 48,647 | 47,740 | 45,866 | 18,405 | 17,448 | 18,394 |

## Subsection 2.-The Fish-Processing Industry

In 1952, a total of 635 firms were engaged in the fish-processing industry in Canada (including Newfoundland). The marketed value of their products was $\$ 134,725,000$, about 17 p.c. lower than in 1951; this decrease was mainly accounted for by a drop in the value of British Columbia fisheries.

## 7.-Summary Statistics of Fish-Processing Establishments, 1948-52

| Item | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Establishments- |  |  |  |  |  |
| Newfoundland. ........ ........... No. |  |  |  | 38 | 40 |
| Prince Edward Island. . . . . . . . . . . . . . . " | 65 | 62 | 57 | 55 | 54 |
| - Nova Scotia. | 203 | 212 | 208 | 203 | 198 |
| New Brunswick | 162 | 153 | 170 | 178 | 176 |
| Quebec. | 107 | 104 | 94 | 96 | 89 |
| British Columbia | 63 | 68 | 68 | 69 | 78 |
| Totals, Establishments......... No. | 600 | 599 | 597 | 639 | 635 |
| Employees- |  |  |  |  |  |
| Male............................................................. | 10,329 6,168 | 10,417 5,670 | 10,176 5,748 | 12,346 6,360 | 11,606 5,945 |
| Totals, Employees. | 16,497 | 16,087 | 15,924 | 18,706 | 17,551 |
| Salaries and wages . . . . . . . . . . . . . . . . . $\$^{\prime} 000$ | 17,041 | 16,970 | 18,622 | 24,744 | 24,426 |
| Fuel and electricity used....... ... ........ " | 1,782 | 1,731 | 1,729 | 2,724 | 2,533 |
| Materials used..... | 74,588 | 69,090 | 74,446 | 101,621 | 86,458 |
| Value of Products. | 115,821 | 111,919 | 128,968 | 163,010 | 134,725 |

## CHAPTER XIV.-FURS

## CONSPEGTUS

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Nore.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p$. 1 of this volume.

## Section 1.-The Fur Industry

The fur industry was at one time the most vigorous and remunerative industry in Canada and it still contributes many millions of dollars annually to the national income. Until the end of the 19th century practically all Canadian furs were wildcaught and, although fur-farming has developed rapidly during the present century, trapping continues to provide nearly 57 p.c. of the income from raw furs produced in Canada.

Wild fur-bearers are still taken, even in settled areas of this country, but the populations of such animals have, in general, been so reduced by the advance of settlement that the principal trapping areas now lie in the Northwest Territories and the northern parts of the provinces. Many wild animals, including some important fur-bearers, are subject to marked fluctuations in numbers from year to year, and these fluctuations are often greatest and most nearly regular in northern regions. The number of pelts of certain wild species taken annually is notably affected by these fluctuations.

Another and perhaps more important factor governing the 'take' of wild-animal furs is the fluctuation in demand and in price consequent on changes in fashion. Thus, the vogue of recent years for short-haired furs, resulting from the desire of women to present as slender a silhouette as possible while wearing a fur coat, has caused a decrease in demand for fox and other long-haired pelts and a corresponding decrease in the number of such pelts taken by trappers. In areas, such as parts of the Northwest Territories, where these furs were formerly a staple source of income, this style change has resulted in serious hardship. It is obvious that the problems thus created cannot be solved by wildlife-management practices.

The most important aspects of management of the fur-trapping industry are: constant practical scientific research, maintenance of suitable habitat and its improvement where possible, sound and balanced regulation of the harvest of furbearers, provision of competent and adequate field staffs, and free education of trappers with respect to the principles of wildlife management. By these means many areas depleted of fur-bearers have once again become productive. Such means will become increasingly important in maintaining Canada's position as a major producer of raw furs.

Most of the fur resources of the provinces of Canada are under the administration of the respective provincial governments. Exceptions include those resources within the boundaries of the National Parks and the Indian reserves, which are the concern of the Federal Government. Also of Federal concern are the fur resources of Yukon Territory and the Northwest Territories. The Canadian Wildlife Service of the Department of Northern Affairs and National Resources (see pp. 40-41) is responsible for all Federal Government interests in wildlife resources except for those activities closely related to Indian affairs. The Service co-operates with interested provincial government and other agencies and handles federal interests in relevant national and international problems.


## Section 2.-Provincial and Territorial Fur Resources and Management*

Newfoundland.-The Province of Newfoundland, stretching 900 miles northward from a latitude of $47^{\circ} \mathrm{N}$. has climatic and habitat conditions suited to the raising of wild fur-bearing animals. The Island supports beaver, muskrat, marten, otter, lynx, fox, ermine and mink; mink were not indigenous to the Island but were introduced since 1935 through animals escaping from mink ranches. The Labrador

[^195]area, also, is noted for its fine furs, particularly Labrador mink, and muskrat, marten, otter, beaver, fox, lynx, ermine and red squirrel are numerous enough to warrant trapping.

Wild fur trapping was a basic autumn and winter employment in the Province before World War II but defence construction and maintenance and industrial expansion so changed the economy of the people that trapping is now purely a parttime occupation engaged in only when other employment is not available. In fact the future of the industry may be impaired because few members of the younger generation are receiving the training necessary to the successful trapper.

Throughout the Province, the long-haired fur-bearers were once the basis of the fur industry and the decline in the prices of their fur was mainly responsible for the decline in trapping. As a result, the fox and lynx populations have built up so that they have assumed predator status and are not now protected by regulations.

Beaver management was started in 1935 and the Island of Newfoundland was repopulated by the transfer of live animals. This program proved so successful that during four open seasons in the years 1946-53 the catch numbered 30,000 beaver valued at $\$ 550,000$. The success of this venture has led to the institution of a similar program in northern Labrador. The Labrador area, north of the Hamilton River drainage, has been without beaver for a hundred years.

Other fur bearers have not been managed except through the usual close seasons provided by regulations; for open seasons, regulations on fur-bearing animals differ according to climatic zone and provide for the taking of animals only during that season when the fur quality of the pelt is at its highest.

Prince Edward Island.-Wild fur-bearing animals are very plentiful on Prince Edward Island. Red fox, skunk and raccoon have become so numerous and their depredations among Island poultry flocks so alarming that all protection has been removed and bounties are paid on all three species. Beaver, too, have increased to the point where they have become a nuisance in this highly agricultural province: they have plugged road and railway culverts and their dams have flooded pulpwood stands and extensive tracts of farmlands. There is now an annual open season on beaver (Nov. 10-Dec. 31) and some trapping permits are issued in the out-of-season period.

Ten years ago muskrats had become quite scarce but their population has increased. They are now the best revenue producers because they are easily trapped, and more than 3,000 of them are taken annually. Their increase is attributed largely to the shortening of the trapping season from Nov. 1-Mar. 31 to Nov. 10Dec. 31 and the strict enforcement of trapping regulations, which prohibit the setting of traps within ten feet of a muskrat house or den or the damaging of that house or den. Mink are also increasing in number, and are protected by the same shortened trapping season as are muskrat. Mink, moreover, is the only fur-bearing animal ranched to any extent in the Province.

Nova Scotia.-Nova Scotia is not a large producer of wild fur pelts. There is usually a six-week open season (Nov. 1-Dec. 31) for mink, otter, weasel and muskrat. The present low market prices for long-haired fur has discouraged the trapping of wildcat, fox and raccoon and these animals have been removed from the protected list. For the trapping of fur-bearers, other than beaver, no licence is required.

Since 1931, the Department of Lands and Forests has been redistributing live beaver, which had been almost completely trapped out before that time. To-day beaver is an important part of the trappers' catch in all the counties of the mainland, where a ten-day autumn season has been instituted. A few live beaver have also been introduced into Cape Breton Island over the years and a further release of 50 animals in 1953 completed this project but no open seasons have yet been proclaimed for the Island. The Department of Lands and Forests collects, packs and ships all beaver pelts and these are marketed in graded lots.

The red squirrel has become increasingly important as a fur-bearer and in 1954 the laws were changed to permit trapping during the regular season and shooting of these animals through the rabbit season which lasts until the end of February.

In Nova Scotia, trapping is not a full-time occupation but is a source of additional income to guides, woods workers and farmers who live near fur-producing areas.

Export figures are compiled as a by-product of the collection of royalties on furs exported. Exports of wild-animal furs in 1953-54 included: 29,498 deer hides, 553 red fox, 12 cross fox, 202 silver fox, 2,252 mink, 57,185 muskrat, 174 otter, 1,852 raccoon, 5,509 weasel, 248 wildcat, 82,743 red squirrel, 31 rabbit (snowshoe hare), 10 lynx, 3,165 beaver and a few pelts of skunk, seal, housecat, etc.

Quebec.-Wild fur is still a very important asset to the Province of Quebec, despite the invasion of the forest for industrial purposes. The total number of pelts taken in 1952-53 was 327,180 valued at $\$ 1,287,733$. In the following season the number increased to 336,967 but the value dropped to $\$ 1,139,117$. The average value of each of the basic furs-beaver, mink, muskrat, weasel and squirrel-was lower in the 1953-54 season, while prices of red and white fox remained the same. A few types, such as otter, fisher and raccoon, showed an increase in this respect. Pelts produced in 1953-54 included: muskrat, 190,457 ; squirrel, 45,929 ; weasel, 35,008 ; beaver, 19,079 ; mink, 12,896 ; seal, 8,073 ; white fox, 7,893 ; red fox, 4,841 ; raccoon, 3,370 ; deer, 3,115 ; otter, 2,269 ; lynx, 1,068 ; fisher, 1,032 ; skunk, 746 ; marten, 492; black, blue, cross and silver fox, 381 ; bear, 196; wolf, 88 ; and lynx cat, 34. On this take, the tax rate per pelt, which varies from one cent on squirrel to $\$ 2$ on fisher, resulted in a royalty revenue to the Province of $\$ 70,660$.

The administration of the fur resources of Quebec is under the jurisdiction of the Department of Game and Fisheries. Under the game laws and regulations, it is unlawful to hunt, catch or trap fur-bearing animals out of season, or in season without a licence; to use poison to hunt or kill any animals; to destroy or damage lairs or burrows of fur-bearing animals; or to keep in captivity, without special permit, any game protected by law. Regulations also cover the marketing of furs. It is not permissible to buy or sell any fur or pelt for commercial purposes without a licence; neither is it permissible to ship any fur outside the Province, or from one place to another within the Province, or to a tanner, without a permit attached to the bill of lading or without royalty having been paid and each pelt having been stamped or sealed.

By Order in Council of Aug. 17, 1945, the first registered game territory for trappers was set up by the Provincial Government in the Counties of East Abitibi and West Abitibi; in 1946 the County of Pontiac was organized, in 1947 Temiskaming and in 1952 the northern part of the County of Laviolette.

Regulations provide mainly that the land under lease must not exceed 50 sq. miles. The lessee, who pays an annual rental of $\$ 10$, is rèsponsible for his own land which he must occupy 15 days before the opening of the trapping season and evacuate 15 days after its close. Each year he must make an inventory of his land and report on the location of the beaver huts thereon. He must hold a special permit to hunt beaver and must prove that there are at least five huts on his land. The quota allowed at the outset is one beaver per hut; as the population increases, the quota is raised to $1 \frac{1}{2}$ beavers per hut. Beaver pelts must be specially labelled before marketing.

The present registered game territory extends over 30,000 sq. miles. More than 400 trappers hold permits and the quota allowed for the capture of beaver, negligible at the outset, was 5,227 in 1953-54. Three additional areas will be under production by 1956 and two areas 'are now (1954) under initial organization. Steps are being taken also to assist in the re-establishment of marten, the population of which has been steadily decreasing.

Ontario.-Ontario's fur and big game wealth is administered by the Division of Fish and Wildlife, Ontario Department of Lands and Forests, under the authority of the Ontario Game and Fisheries Act, the Wolf and Bear Bounty Act, and regulations thereunder.

In the production of wild-caught fur, Ontario leads all other Canadian provinces In the season of 1952-53 wild fur taken in Ontario was valued at almost $\$ 4,000,000$. Included in this were the pelts of 122,600 beaver, valued at $\$ 1,612,000$. Other important species, in order of decreasing total value, were muskrat, mink, otter, raccoon, fisher, weasel, marten, skunk, red fox and lynx.

Much credit for the high production of wild fur in Ontario is attributed to the efficient system of fur management now in effect. Throughout most of the chief fur-producing areas all trappers-the great majority of whom are Indians-are holders of Registered Trapline Licences. Under this system each trapper is registered with the Province as the sole permittee on a defined trapping area. Thus, competitive trapping has been almost entirely eliminated in all but the primarily agricultural areas of the Province, and the Department is in a position to set quotas to restrict the annual take of the less abundant species during times of scarcity. Such species as beaver, marten, fisher and lynx, comparatively rare in the Province a few years ago, have now attained populations which permit larger annual harvests to be taken than have been possible for many years.

Manitoba.-The fur resources of Manitoba represent one of the major phases of development by the government. Wild fur taken in 1952-53 totalled $\$ 2,116,157$ and royalties to the Province amounted to $\$ 149,689$. Value of the take was 16 p.c. below the 1951-52 figure.

Two major conservation projects have been responsible for the rehabilitation of wild fur. The Province has reclaimed old marshlands as Fur Rehabilitation Blocks where muskrat trapping is carried out under special permits. Since 1940 a total of $2,378,684$ muskrats with a gross value of $\$ 5,002,166$ has been taken from five such Fur Rehabilitation Blocks having a total area of 2,013,440 acres.

The second great stride in fur conservation has been the institution of Registered Traplines throughout the northern part of the Province. Beaver production in this area has risen from a forced close season until 1944 to a record crop of 22,850 beaver
in 1951-52 with an estimated value of $\$ 359,560$. Registration of traplines and areas is being steadily continued and this work is now reaching into the southern areas of the Province.

Total wild fur production decreased slightly in the 1952-53 season, reflecting lowering prices and a slackening of market demand. Manitoba, however, produced 24,197 beaver, $27,611 \mathrm{mink}$ and 578,885 muskrats during the year, and other pelts taken included: squirrel, 241,067 ; weasel, 105,831; jack rabbit, 5,318 ; silver, blue, cross, white and red fox, 3,282 ; otter, 1,571 , and lesser numbers of coyote, timber wolves, skunk, badger, fisher, marten, bear and lynx.

Fur ranching is also a major industry in the Province, with a harvest of $\$ 2,099,470$ for the year ending Dec. 31, 1952. A total of 496 fur farms are licensed at present.

Saskatchewan.-The wild fur industry in Saskatchewan has undergone a period of rapid reorganization in the past ten years. A policy of one trapper for any one area has been inaugurated throughout the Province, a system providing security for trappers on their trap lines.

As a result of unethical practices and lack of management, beaver were almost extinct in Saskatchewan in 1944, and the trapping industry, in general, was at a very low ebb. A committee was appointed by the Government in 1945 to consider this unfortunate condition and to recommend steps necessary to encourage and assist trappers dependent on fish and game for their livelihood, particularly in isolated northern areas.

A Fur Marketing Service was established in Regina to give fur producers a local auction where their fur could be graded, displayed and sold to the highest bidder. In 1946, a Fur Conservation Agreement was concluded with the Federal Government by the Province in which the two Administrations agreed to spend certain moneys annually for the purpose of managing fur and game and improving wildlife habitat in the northern isolated areas for the benefit of the residents of those areas. The particular interest of the Federal Government in this region lay in the welfare of Treaty Indians who are their wards. Regulations under the Agreement gave Indians, métis and whites equal rights and security on their community, family or individual traplines. Local trappers' councils were elected by the trappers to act as spokesmen on their behalf when dealing with the Provincial Department of Natural Resources. During the subsequent five years 3,600 live beaver were moved from settled areas to new homes in the northern frontier where they were required for propagation purposes and for the improvement and maintenance of water levels. The result of this action has been a steady increase in the population of beaver, while the take has increased from approximately 400 pelts in 1943-44 to 23,000 in 1952-53.

In 1946, the south Saskatchewan muskrat trapping program was inaugurated. Each trapper in settled areas obtains a permit which describes the area on which he is authorized to trap muskrats and the quota he may take from it-based on the number of houses and bank runs located therein. It is estimated that five muskrats per house will survive a winter and that three may be trapped, leaving the others for propagation. Thus, general close seasons are a thing of the past and muskrats existing in any section can be trapped on the basis of the program. As a result, average yearly production since that date has been almost tripled in relation to the average yearly production for a similar period prior to 1946. The 1953 crop numbered almost $1,000,000$ muskrats, the fourth highest ever recorded in the Province.

Other fur animals of economic importance are fisher, fox, lynx, marten, mink, otter, squirrel and rabbit. These animals have fluctuated in population as well as in pelt value in past years but the increased production of beaver and muskrats has helped stabilize the income of the trapper. Even though most fur prices have declined in recent years, the income received from Saskatchewan wild fur pelts has been maintained.

Badger, raccoon and wolverine are at present of little economic importance. Wolves and coyotes are on the predator list as well as foxes in settled areas and very comprehensive programs of control have been carried on to reduce the population of these animals.

By 1948, it was quite apparent that bounties did not have the desired effect of reducing the coyote population. A paid-hunter program was, therefore, introduced, in co-operation with the rural municipalities, in which all field personnel were directly responsible to the Department of Natural Resources. Under strict supervision these men used guns, traps, cyanide guns or coyote-getters and poison. The program has been extremely successful and coyotes are no longer a problem in settled areas. A $\$ 10$ bounty has been continued on wolves, but bait treated with poison placed out on large lakes in isolated areas has been the most direct line of control. Here again, only employees of the Department are allowed to handle the poison. This work is becoming increasingly important not only to protect game that is necessary to the welfare of people living in the north country but also to reduce the chances of spreading the rabies epidemic which has been apparent in the West during the past two years as well as hydatid disease which has been found in some species of big game.

The weasel is a valuable fur bearer as well as a controller of rodents and, to increase its population, there has been a demand to have the close season extended throughout the greater part of the settled areas. However, closure in large areas does not seem to increase the weasel population, and the Department is carrying on biological studies to ascertain the effect of trapping on these valuable fur bearers at various degrees of intensity over a period of years.

Alberta.-The current wild fur trade of Alberta depends mainly on the fine fur group consisting of muskrat, ermine, beaver, mink and squirrel. This group accounted for 97 p.c. of the total value of the 1952-53 catch. The depressed condition of the market for long-haired coarse-furred pelts, including fox, skunk, lynx and rabbit, has kept the trapping of these animals at a low level for some years. During the 1952-53 season, the prices of furs generally remained low, except for a few species. Statistics show that more pelts were taken but the financial return to the trappers decreased.

Wild fur production in Alberta is controlled through the registered trapline system. During the past few years, except for very slight fluctuations, the number of registered traplines has remained fairly constant in the neighbourhood of 3,000 , of which approximately 800 have been registered by Treaty Indians. The registration fee of $\$ 10$ per line is paid by the Federal Government on behalf of the Indians. The stabilized trapline situation is accounted for by the prevalence of both muskrat and beaver. Before the institution of the system, the beaver was almost extinct in the Province, but in the ten years of beaver management the population has increased until it is now necessary to trap and remove beaver from areas where they are not wanted and where they cause considerable damage. Muskrat presents the same
problem and if complaints, after investigation, are found to be justified special permits are issued for the removal of the animals. In 1952-53, 290 special muskrat permits and 719 beaver permits were issued.

Timber wolves, cougars and coyotes are considered predators and bounties were paid on all wolves and cougars killed between Apr. 1, 1952, and Mar. 31, 1953. Grizzly, black and brown bear are also classed as predatory and are unprotected throughout the Province.

Late in 1952 a special problem arose when a rabies epidemic broke out in the northern part of the Province. Trappers were employed to reduce the number of animals that might spread the disease and $a$ double trapline was set on the edge of the forested area completely surrounding the settled area of the Province.

The wildlife resources of Alberta are administered by the Department of Lands and Forests under the Game Act and the Game Regulations.

British Columbia.-Effective control of fur-bearing animals in British Columbia commenced in 1926 when the registered trapline system went into effect. Under this system registered trappers are granted exclusive rights over a designated area. They are given a sketch map and legal description of the territory and are required to submit an annual 'return of catch' outlining the amount and kind of fur obtained. Through these returns an accurate check is made of the fur taken from each district. The system of registered traplines has worked remarkably well and is practically trouble-free.

Registered traplines cover all lands except private property, National Parks, Indian reserves, municipalities and certain other reserved areas. Trapping on private property may be pursued by the property owner himself or by someone to whom the owner has given permission, provided the trapper obtains a Special Firearms Licence which costs $\$ 10$ and which must be held by all trappers; this licence entitles the legal holder to hunt all types of large and small game. In 1953, 2,933 such licences were granted, several hundred fewer than the usual yearly average. In addition, about 1,500 Indians were also engaged in trapping: because they are not required to be licensed at the present time, their take is not recorded and the fur records for the Province are incomplete to that extent.

Fur-bearers in the Province include bear, badger, beaver, fisher, fox, lynx, marten, mink, muskrat, otter, raccoon, skunk, squirrel, weasel and wolverine. Wolf, coyote, cougar and wildcat are classed as predators, although the pelts of these animals are sometimes marketable. There is no close season on the predators or on raccoon, skunk, wolverine and black and brown bear. Raccoons and foxes have become so numerous in certain parts of the Province that they also may be considered as predators.

Trapping seasons are confined to the winter months, usually commencing Nov. 1, but beaver may be taken in some areas as late as May 24. Beaver are covered by tagging regulations, under which the trapper is required to submit a yearly estimate of the number of beaver left on his trapline. Before setting out to trap, he makes known to the game warden of his area the number of animals he wishes to take. If it is not excessive he receives a tag which must be attached to each pelt. Trappers are not allowed to take more than 25 p.c. of the total population of beaver in their areas and this has played an important part in saving the beaver from extinction. In fact, the animals are now so numerous in some areas
that it has become necessary to move them to districts where their activity will not cause damage. Nuisance animals are usually liberated on Indian traplines that need re-stocking.

Muskrat and squirrel are consistently the most important source of revenue among British Columbia furs. At one time marten was most in demand, but now mink appears to be taking precedence.

It is unlawful to ship fur out of or into the Province without permission and also to ship fur within the Province without plainly labelling the parcel with the sender's name, address and the number of his Special Firearms Licence. These regulations enable the game authorities to keep close control over fur shipments. Almost all of the raw fur business is centred in Vancouver and a game warden is posted there to supervise fur sales and fur traders. His regular visits to the traders keep infractions of the regulations at a minimum.

Low prices caused by changes in fashion and other factors such as the relatively high wages in construction and other industries, have made trapping fur for a livelihood unattractive in recent years. Little trapping is carried on to-day as compared with earlier years and, in consequence, fur bearers have become quite prevalent in all parts of the Province. The number of pelts upon which royalty was paid during 1953 was 450,117 , of which 77 p.c. were squirrel; 11 p.c. muskrat; 4 p.c. mink; 3 p.c. weasel; and 2 p.c. beaver. The remainder included badger, bear, fisher, silver, red and cross fox, lynx, marten, otter, raccoon, skunk and wolverine.

Yukon Territory.-Registered trapline legislation, introduced in 1950, has been completed throughout Yukon Territory and 390 individual trapline registrations have been approved for the area extending from the southern border to the 65 th parallel of latitude. North of the 65th parallel the trappers, who are nomadic bands of Indians, have registered on two group-trapping areas: one, for the Loucheaux Band No. 10 of Old Crow, has 32 registrations approved for heads of families, and the other, for the Loucheaux Band No. 7 of Fort McPherson, N.W.T., has 28 registrations. The initial registration fee for a trapline, either group or individual, is $\$ 10$ and the annual renewal fee is $\$ 5$.

During the past few years, trapline activities have been discouraged by low fur prices and trappers have been forced to find other occupations. As a consequence, the over-all picture of the fur population is good. Beaver, fox, lynx and squirrel are more prevalent and marten, mink and muskrat are more than holding their own in number; on the other hand, fisher, wolverine, otter and weasel are scarce. The predators, wolves and coyotes, appear to be increasing. Pelts taken in the 1952-53 season included: squirrel, 186,345 ; muskrat, 52,604 ; beaver, 2,202 ; marten, 1,923; weasel, 1,827 ; mink, 747 ; lynx, 408; red, white, cross and silver fox, 105; otter, 50 ; fisher, 42 ; and bear, 22.

The only fur-bearing animal on a quota is beaver: trappers are permitted to shoot or trap one beaver from each beaver house, including bank beaver. Trapping may be prohibited over an area covered by a trapline permit if this is considered necessary for the conservation of breeding stock. During the months of March and April in 1953 and again in 1954, a lethal control program was conducted against predators, particularly wolves. Poisoned bait was distributed by aircraft over a large number of lakes where wolf concentrations were observed.

Game-law enforcement is in the hands of the Royal Canadian Mounted Police; in addition, six Federal Park Wardens and 10 Class A Guides act as game guardians.

Northwest Territories.-Utilization of fur and game resources in the Northwest Territories is governed by the Northwest Territories Game Ordinance. Trapping privileges are available only to resident Indians and Eskimos and those white persons who were licensed to hunt and trap in the Territories prior to 1938 and who have continued to reside therein. Provision is also made for the issue of General Hunting Licences to the descendants of these white persons.

Because of the nomadic nature of the Eskimo and the large areas over which he must hunt and trap, there is no provision for trapline registration in the Franklin and Keewatin Districts, though a number of game preserves have been established in the Territories to preserve the fur and game therein for the natives. Largest of these is the Arctic Islands Game Preserve comprising all the Arctic Islands north of the mainland plus a large area on the mainland.

Provision under the Game Ordinance for the establishment of registered traplines became effective in the Mackenzie District on July 1, 1949. Under this legislation exclusive trapping rights in limited areas are granted to the trappers to encourage them to manage carefully the fur-bearers found there and to effect improvements leading to increased fur production. The Mackenzie District is divided into 12 Warden Districts (including Wood Buffalo Park) covering 386,615 sq. miles -over half under registration. There are 319 individual registered areas and 118 group registered areas.

The downward trend of the fur market during the past few years has caused trappers to lose interest in trapline activities: many have obtained employment elsewhere and others have refused to trap very far away from the settlements. The fur take reflects this lack of interest: though lynx, marten, otter and weasel have remained steady and slight increases are noted for fisher, wolf and wolverine, the take of beaver, fox, mink, muskrat and squirrel has shown a decided decrease. Pelts taken in the 1952-53 season were: muskrat, 250,367; squirrel, 68,611; white fox, 36,474 ; weasel, 12,418 ; beaver, 6,339 ; mink, 5,395 ; marten, 5,002 ; lynx, 1,575; black, blue, cross, red and silver fox, 1,227; wolf, 531 ; otter, 143 ; wolverine, 102; and fisher, 30.

Beaver and marten are taken on a quota basis: trappers are permitted to shoot or trap one beaver for each occupied beaver lodge. In areas where beaver are scarce and where conditions are suitable, transplant operations are carried out. Close seasons are established when it becomes apparent that a particular species of furbearing animal is being over-trapped. A wolf-poisoning program is carried out in areas where these animals have become detrimental to desirable wildlife.

Game-law enforcement is in the hands of wardens stationed at the principal settlements in the Mackenzie District; elsewhere in the Territories it is handled by the Royal Canadian Mounted Police.

## Section 3.-Fur Farming

Fur-bearing animals were first raised on farms in Prince Edward Island around 1887 and in Quebec in 1898; to-day fur farming is carried on in all provinces of Canada. Foxes were the first fur-bearers to be raised in captivity on a commercial scale but mink, chinchilla, raccoon, marten, fisher, fitch, nutria and others are now being reared. Mink are the most numerous, followed by the various types of foxes and these two far outnumber all other kinds of fur-bearing animals.


There was a slow and steady increase in the number of fur farms until 1920 when 587 were reported, followed by a period of more rapid growth from 1920 to 1938 when the number reached 10,454. After the outbreak of hostilities in 1939 and the loss of the London and other European markets, prices declined; many fur farms went out of production. Though prices rose considerably after the War, operating costs also increased and the number of fur farms, particularly those conducted in conjunction with other farming operations, continued to decrease. By 1952 , only 2,518 reported but, despite this decrease in number, volume of production has been maintained.

Though the earliest and most intensive fur-farming operations were concerned with fox-raising in the Maritime Provinces and Quebec, the sharp decline in the popularity of fox furs and the steady rise in mink resulted in Ontario and Western Canada taking predominant positions in the raising of fur animals. A distribution of the 306,523 animals on fur farms at Dec. 31, 1952, showed 14 p.c. in British Columbia, 48 p.c. in the Prairie Provinces, 25 p.c. in Ontario, 8 p.c. in Quebec and 5 p.c. in the Maritime Provinces.

Furs have for centuries been used for clothing and adornment and the demands of fashion, encouraging the development of new colour phases in fox and mink, have been an important incentive to the fur-farming industry. There have always been mink mutations in the wild state but these unusual animals stood little chance of survival and such pelts were exceedingly rare. Starting with wild-caught mink, breeders have, by cross-breeding, produced mink furs in a variety of colours. Among 92428-40
the earliest mutations to appear was an attractive bluish-gray mink which became known as 'Platinum' mink. Then mutations were cross-bred and a still greater profusion of colour combinations appeared, notably the 'Sapphire' mink, a cross of the steel-blue 'Aleutian' with the blue-gray 'Platinum'. Other unusual colour patterns are the 'Royal Pastel', a beautiful brown mink with a bluish cast, and an exquisite snow-white mink.

In 1937, some chinchillas were imported into Saskatchewan and later into other provinces. These valuable little animals have a rich, soft fur. Although the original cost of chinchillas is high the outlay for raising them is small. A steady increase in the number on farms has resulted and 11,571 were reported in Canada in 1952 valued at $\$ 2,122,889$.

## Section 4.-Statistics of Fur Production*

Total Fur Production Statistics.--Early records of raw-fur production were confined to the decennial censuses, when account was taken of the number and value of pelts obtained by trappers. In 1920, the Dominion Bureau of Statistics commenced an annual survey of raw-fur production, basing the statistics on information supplied by the licensed fur traders, and continued this for some years. More recently, annual statements based on royalties, export tax, etc., have been made available by the provincial game departments (except Prince Edward Island), and these statements are now used in the preparation of the statistics issued annually by the Bureau. Figures for Prince Edward Island are based on returns supplied to the Dominion Bureau of Statistics by fur traders in that Province.
1.-Pelts of Fur-Bearing Animals Produced, with Percentage Sold from Fur Farms,
Years Ended June 30, 1934-53

| Year | Pelts |  | Percentage of Value Sold from Fur Farms ${ }^{1}$ | Year | Pelts |  | Percentage of Value Sold from Fur Farms ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Value |  |  | Number | Value |  |
|  |  | \$ |  |  |  | \$ |  |
| 1934. | 6,076,197 | 12,349,328 | 30 | 1944. | 6,324,240 | 33,147,392 | 28 |
| 1935. | 4,926,413 | 12,843,341 | 31 | 1945. | 6,994,686 | 31,001,456 | 31 |
| 1936. | 4,596,713 | 15,464,883 | 40 | 1946. | 7,593,416 | 43,870,541 | 30 |
| 1937 | 6,237,640 | 17,526,365 | 40 | 1947. | 7,486,914 | 26,349,997 | 37 |
| 1938 | 4,745,927 | 13, 196,354 | 43 | 1948. | 7,952,146 | 32,232,992 | 37 |
| 1939. | 6,492,222 | 14,286,937 | 40 | 1949 | 9,902,790 | 22,899,882 | 33 |
| 1940 | 9,620,695 | 16,668,348 | 31 | 1950 | 7,377,491 | 23,184,033 | 34 |
| 1941 | 7,257,337 | 21, 123,161 | 26 | $1951{ }^{2}$. | 7,479,272 | 31,134,400 | 36 |
| 1942 | 19,561,024 | 24,859,869 | 19 |  | 7,931,742 | 24,215,061 | 43 |
| 1943. | 7,418,971 | 28,505,033 | 24 | 1953 | 7,568,865 | 23,349,680 | 43 |

${ }^{1}$ Approximate.
${ }^{2}$ Figures prior to 1952 do not include Newfoundland.
Ontario leads the provinces in value of fur production, accounting for 26 p.c. of the total in the 1952-53 season. The numbers of pelts taken in Alberta and in Saskatchewan were greater than in Ontario but, in these provinces, squirrel pelts, which are lower-priced furs, made up a large part of the total. In Ontario the more valuable mink and beaver pelts brought the total value to a higher level.

[^196]
## 2.-Pelts of Fur-Bearing Animals Produced, by Province, Years Ended June 30, 1952 and 1953

| Province or Territory | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pelts | Value | Percentage of Total Value | Pelts | Value | Percentage of Total Value |
|  | No. | \$ |  | No. | 8 |  |
| Newfoundland. | 53,183 | 151,521 | $0 \cdot 6$ | 35,825 | 72,297 | $0 \cdot 3$ |
| Prince Edward Island | 15,679 | 215,756 | $0 \cdot 9$ | 13,894 | 111,759 | $0 \cdot 5$ |
| Nova Scotia.... | 123,934 | 527,013 ${ }^{\text {r }}$ | $2 \cdot 1$ | 196,717 | 489,491 | $2 \cdot 1$ |
| New Brunswick | 79,575 | 210,916 | 0.9 | 63,311 | 214,900 | $0 \cdot 9$ |
| Quebec..... | 394,647 | 2,343,787 | $9 \cdot 7$ | 395,761 | 2,157,388 | 9-2 |
| Ontario. | 1,111,715 | 6,012,145 | $24 \cdot 9$ | 1,255,189 | 6,040,596 | $25 \cdot 9$ |
| Manitoba. | 1,239,173 | 4,461,815 | $18 \cdot 4$ | 1,122,945 | 4,215,639 | 18.0 |
| Saskatchewan | 1,164,379 | 2,139,569 | 8.8 | 1,493,384 | 2,667,532 | $11 \cdot 4$ |
| Alberta. | 2,216,112 | 4,492,376 | $18 \cdot 6$ | 1,828,586 | 4,199,326 | 18.0 |
| British Columbia | 665,826 | 2,038,738 | 8.4 | 528.221 | 2,056,406 | $8 \cdot 8$ |
| Yukon Territory. | 171,274 | 173,252 | 0.7 | 246,379 | 247,001 | $1 \cdot 1$ |
| Northwest Territories. | 696,245 | 1,448,173 | 6.0 | 388,653 | 877,345 | 3.8 |
| Canada | 7,931,742 | 24,215,061 ${ }^{\text {r }}$ | $100 \cdot 0$ | 7,568,865 | 23,349,680 | $100 \cdot 0$ |

The average prices of the main kinds of pelts taken in 1952-53 were generally lower than in 1951-52. Mutation mink pelts dropped from $\$ 21.99$ to $\$ 20.55$ and standard mink from $\$ 16.89$ to $\$ 15.18$. Most types of fox pelt decreased in price, silver fox falling from $\$ 11.48$ per pelt to $\$ 7.43$, but white fox advanced from $\$ 8.16$ to $\$ 8.86$. The average value of beaver pelts was $\$ 13.90$ in 1952-53 compared with $\$ 14.91$ in the previous year, muskrat was $\$ 1.26$ compared with $\$ 1.42$, squirrel increased slightly from 43 cents to 45 cents, and otter advanced from $\$ 21.10$ to \$22.62.

## 3.-Pelts of Fur-Bearing Animals Taken, by Kind, Years Ended June 30, 1952 and 1953



Fur-Farm Statistics.-The post-war downward trend in number of fur farms continued through 1952 when there were 2,518 farms compared with 3,072 in 1951. From 1951 to 1952 the value of fur animals on these farms dropped from $\$ 10,195,561$ to $\$ 9.560,702$ and the operating revenues from $\$ 12,400,000$ to $\$ 11,100,000$.

The number of farms reporting foxes in 1952 decreased by 38 p.c. from 1951 to 380 , and the number of foxes on these farms was lower by 49 p.c., totalling 7,366 and valued at \$140,261. Mink farms also declined from 2,324 in 1951 to 2,089 in 1952 and the number of mink on farms dropped to 287,213 valued at $\$ 7,284,860$ in 1952, which was 4,912 fewer in number and $\$ 737,548$ less in value than in 1951. Production of fox pelts in 1952 was 42 p.c. lower than in 1951 and that of mink pelts increased 7.5 p.c.
4.-Fur Farms and Value of Fur-Bearing Animals, by Province, 1949-52

| Province | Fur Farms |  |  |  | Values of Fur-Bearing Animals on Fur Farms |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 | 1950 | 1951 | 1952 | 1949 | 1950 | 1951 | 1952 |
|  | No. | No. | No. | No. | \$ | \$ | \$ | $\$$ |
| Newfoundland. ${ }_{\text {Prince Edward Island...... }}$ | 179 | 127 | 88 | 60 | 158,108 | 146,908 | 101,565 | 75,845 |
| Nova Scotia. . . . . . . . . . . . | 163 | 130 | 110 | 82 | 154,987 | 184,051 | 195,171 | 143,795 |
| New Brunswick | 136 | 105 | 95 | 72 | 109,319 | 125,469 | 149,377 | 103,351 |
| Quebec. | 718 | 561 | 389 | 248 | 1,179,718 | 1,306,429 | 1,043,629 | 1,112,157 |
| Ontario. | 1,104 | 952 | 903 | 628 | 2,540,036 | 2,977,794 | 3,205,643 | 2,865,994 |
| Manitoba. | 509 | 489 | 467 | 432 | 1,236,157 | 1,686,174 | 1,644,672 | 1,655,693 |
| Saskatchewan | 253 | 203 | 180 | 157 | 510,402 | 564,484 | 556,443 | 430,380 |
| Alberta | 657 | 601 | 519 | 503 | 1,576,938 | 1,978,989 | 1,768,280 | 1,553,926 |
| British Columbia | 330 | 324 | 321 | 336 | 1,277,560 | 1,473,988 | 1,530,781 | 1,619,561 |
| Totals | 4,049 | 3,492 | 3,072 | 2,518 | 8,743,225 | 10,444,286 | 10,195,561 | 9,560,702 |

5.-Fur-Bearing Animals on Fur Farms, as at Dec. 31, 1949-52
(Exclusive of Newfoundland)

| Kind of Animal | 1949 |  | 1950 |  | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Value | No. | Value | No. | Value | No. | Value |
|  |  | 8 |  | \$ |  | \$ |  | $\delta$ |
| Chinchilla. | 5,685 | 1,428,708 | 6,053 | 1,350,860 | 8,530 | 1,799,963 | 11,571 | 2,122,889 |
| Fisher. .......... | 116 | 10,600 | 99 | 9,860 |  | 4,520 | 31 | 1,910 |
| Fitch............ | 85 | 519 | 43 | ${ }^{225}$ | ${ }^{1}$ |  |  |  |
| Fox, blue......... | + 738 | 28,220 | - $\begin{array}{r}557 \\ 6.857\end{array}$ | $\begin{array}{r}21,359 \\ 187 \\ \hline 14\end{array}$ | 4.269 |  | ${ }^{148}$ |  |
| Fox, new-type. | 9,734 19,578 | 265,694 504,799 | 6,857 16,279 | 187,574 <br> 431,267 | 4,260 9,707 | 341,839 | 2,783 4,380 | 140,261 |
| Fox, other. | 150 | 1,839 | 118 | 1,628 | 100 |  | 55 |  |
| Marten. | 371 | 30.790 | 327 | 31,020 | 255 | 21,970 | 166 | 9,305 |
| Mink. | 263,673 | 6,469,273 | 286,152 | 8,408,379 | 292,125 | 8,022,408 | 287,213 | 7,284,860 |
| Nutria. | 67 | 1,650 | 38 | 1.430 | 58 | 4,175 |  | 15 |
| Raccoon | 147 | 1,009 | 114 | 623 | 124 | 623 | 132 | 539 |
| Other. | 8 | 124 | 9 | 61 | 12 | 63 | 44 | 938 |
| Totals | 300,352 | 8,743,225 | 316,646 | 10,444,286 | 315,485 | 10,195,561 | 306,523 | 9,560,702 |

[^197]6.-Value of Fur-Bearing Animals and of Pelts Sold from Fur Farms, 1919-52
(Exclusive of Newfoundland)

| Kind of Animal | 1949 |  | 1950 |  | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Animals | Pelts | Animals | Pelts | Animals | Pelts | Animals | Pelts |
|  | 8 | \$ | \$ | 8 | \$ | 8 | \$ | \$ |
| Chinchilla. | 404, 161 | 150 | 518,750 |  | 416,318 |  | 326,122 |  |
| Fisher. | 975 | 177 |  | 1 | 1 | 1,436 | 1 | , 209 |
| Fitch............ | 75 | ${ }^{28} 280$ | 185 | 20.277 |  | ( ${ }^{1} 8,167$ |  | ${ }^{1}$ |
| Fox, blue..... . . . | ${ }_{2}^{210}$ | 37,802 | 185 4.287 | 20,277 |  | ( $\begin{array}{r}8,167 \\ 15888\end{array}$ |  | 4,093 68.769 |
| Fox, new-type..... | -2,642 | 427,964 | 4,287 | 283,573 | 8,248 | 158,368 | 4,432 | 68,769 15,468 |
| Fox, silver....... | 16,615 92 | 505,404 1,788 | 14,567 ${ }_{13}$ | 463,181 ${ }_{930}$ | 8,248 | 369,478 | 4,432 | 155,468 433 |
| Marten............. | 6,081 | 1,210 | 2,754 | 2,841 | 6,313 | 1,194 | 1 | 433 1.043 |
| Mink............... | 288,411 | 7, 820,747 | 431,212 | 10,064,005 | 547,647 | 10,875,371 | 541,516 | 10,026,982 |
| Nutria. |  | - 2 | 1 1, | 11 | , | 10,875, | 51, | 1 |
| Raccoon | 42 | 26 | 1 | 1 | 1 | 39 | 1 | 34 |
| Other.. | 300 | - | 730 | 700 | 1,649 | 1,483 | 1,894 | 3,908 |
| Totals.... | 719,684 | 8,795,550 | 972,498 | 10,835,507 | 980,175 | 11,418,055 | 873,964 | 10,260,939 |

${ }^{1}$ Included in "Other".

## Section 5.-Marketing of Furs

Montreal, Que., is the leading Canadian fur mart, although auction sales are also held at Vancouver, B.C., Edmonton, Alta., Regina, Sask., and Winnipeg, Man. The Saskatchewan Government maintains a Fur Marketing Service at Regina to assist producers in that Province.

Grading.-The grading of furs to secure uniformity was introduced in 1939 by the Federal Department of Agriculture so that furs may be purchased by grade without the necessity of buyers from other countries personally examining the pelts. Grading offers many advantages to the producer as well as to the trade in general. It educates the rancher as to the proper value of his pelts and creates an incentive to improve the quality of the product; it furnishes guidance in the planning of future matings, aids in raising the standard of quality of the entire crop of pelts and helps in advancing the level of prices for high-quality pelts.

Exports and Imports.-Before World War II, Canada marketed fur pelts mainly in the United Kingdom but that market was practically dormant during the war years and the fur trade was carried on mainly with the United States. A definite revival of trade with the United Kingdom took place after the War but almost 80 p.c. of Canadian fur exports still go to the United States.

The Canadian fur trade, both export and import, is chiefly in undressed furs, the value of dressed and manufactured furs going out of or coming into Canada being a comparatively small proportion of the total. Exports consist largely of furs which Canada produces in greatest abundance, mink being the most valuable followed by beaver, muskrat and fox. On the other hand, furs such as Persian lamb, certain types of muskrat, rabbit, squirrel, sheep and lamb, which are not produced to any extent in Canada, make up the major portion of the imports.

Exports and imports of all furs to and from the United States, the United Kingdom and all countries are given for the years 1952 and 1953 in Table 7.

## 7.-Exports and Imports of Furs, by Kind, 1952 and 1953

| Kind of Fur | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | All Countries | United Kingdom | United States | $\underset{\text { Countries }}{\text { All }}$ |
|  | Exports |  |  |  |  |  |
|  | \$ | \$ | \$ | 8 | 8 | $\$$ |
| Undressed- |  |  |  |  |  |  |
| Beaver. | 820,565 | 2,408,969 | 3,480,460 | 984,890 | 1,898,689 | 3,070,087 |
| Ermine. | 69,648 | 363,729 | 433,399 | 128,598 | 491,883 | 621,026 |
| Fisher | 95,741 | 31,389 | 151,681 | 91,068 | 55,755 | 155,399 |
| Fox, all types | 440,476 | 538,764 | 1,047,008 | 194,037 | 389,587 | 644,370 |
| Lynx.... | 81,934 50,393 | 3,736 228,870 | 86,618 281,710 | 50,806 18,372 | 24,734 143,152 | 76,757 164,401 |
| Mink. | 1,034,963 | 14,061,757 | 15,161,795 | 871,664 | 12,799,444 | 13,792,160 |
| Muskrat | -542,125 | 844,035 | 1,416,453 | 912,300 | 578,192 | 1,508,141 |
| Otter. | 11,393 | 103,968 | 115,451 | 27,293 | 41,063 | 75, 237 |
| Rabbit | 742 | 31,161 | 31,903 | 108 | 19,053 | 19,161 |
| Raccoon | 9,466 | 67,987 | 77,453 | 13,338 | 60,894 | 75,032 |
| Seal. | 36,993 | - | 36,993 | - | . 810 | ${ }^{21} 810$ |
| Skunk. | 41,809 | 16,139 | 58,855 | 9,706 | 11, 336 | 21,407 |
| Squirrel | 769,511 | 32,696 | 813,989 | 562,534 | 54,655 | 618,835 |
| Weasel. | 11,264 | 160,265 | 171,529 | 14,684 | 143,242 | 157,926 |
| Wolf. | 9,683 | 69,822 | 79,505 | 5,722 | 27,711 | 33,498 |
| Other | 22,144 | 13,189 | 62,306 | 7,940 | 20,600 | 35,681 |
| Dressed-- |  |  |  |  |  |  |
| Fox....................... | - 204 | - | 5,132 | T 102 | $\bar{\square}$ | 2,568 |
| Other. | 204 | 282,364 | 372,016 | 1,102 | 480,769 | 663,093 |
| Manufactured............. | 3,846 | 483,298 | 521,275 | 2,786 | 567,245 | 605,027 |
| Totals. . . . . . . . . . | 4,052,900 | 19,742,138 | 24,405,531 | 3,896,948 | 17,808,914 | 22,340,616 |
|  | Imports |  |  |  |  |  |
|  | \$ | \$ | \$ | \$ | 8 | 8 |
| Undressed- |  |  |  |  |  |  |
| China and Jap mink...... | $\bar{\square}$ | 122,702 | 122,702 | - | 52,854 | 191,922 |
| Fox . . . . . . . . . . . . . . . . . . | 21.798 | 30,532 | 56,165 | 8,598 | 14,740 | 23,338 |
| Kolinsky | 72,176 | 46,706 192 | 145,678 192 | 185,772 |  | 253,017 3,204 |
| Mank......................... | 20,996 | 1,626,513 | 1,647,629 | 37,157 | 2,066,675 | 2,123,205 |
| Muskrat. | 74,946 | 4,295,741 | 4,597,657 | 1,664 | 4,247,601 | 4,250,425 |
| Opossum |  | 5,180 | 5,180 | - | 11,382 | 11,382 |
| Persian lamb | 1,235,900 | 6,484,650 | 9,459,602 | 1,158,074 | 4,209,819 | 5,816,202 |
| Rabbit... | 8,994 | 429,490 | 1,011,136 | $\cdots$ | 192,394 | 728,393 |
| Raccoon. | - | 259,829 | 259,829 | 122 851 | 417,555 | 417,555 |
| Sheep and lamb. | $\overline{7}$ | 390,001 | 675, 667 | 132,851 | 517,290 | 858,945 |
| Squirrel................... Other............... | 38,204 149,675 | 193,320 640,039 | 282,981 $1,513,186$ | 36,804 205,503 | 153,815 728,273 | 274,970 $1,643,047$ |
| Dressed- |  |  |  |  |  |  |
| Astrakhan. Russian hare.. | 1,519 | 15,711 | 22,966 | - | 2,099 | 2,099 |
| Rabbit .................... | 7,667 | 10,056 | 56,917 | 18,188 | 8,985 | 92,031 |
| Sheep skins................ | 469 | 334,201 | 346,662 | 3,467 | 346,222 | 367,864 |
| Hatters furs.............. | 31.560 | 576,368 | 954,612 | 121,971 | 695,742 | 1,360,553 |
| Other..................... | 44,174 | 1,099,532 | 1,160,089 | 48,957 | 1,458,143 | 1,606,996 |
| Manufactured............... | 325,398 | 847,945 | 1,194,973 | 296,664 | 745,631 | 1,076,579 |
| Totals. | 2,033,476 | 17,408,708 | 23,513,823 | 2,255,670 | 15,872,424 | 21,011,727 |

## Section 6.-The Fur-Processing Industry*

The rather general term "fur processing" includes the fur-dressing and -dyeing industry and the fur-goods industry. The former is concerned with the dressing or dyeing of pelts on a custom basis, and the latter is a manufacturing industry that makes up fur goods such as coats, scarves and gloves.

Fur-dressing and -dyeing industry statistics were first recorded in 1917, when 12 establishments with 512 employees reported receipts of $\$ 1,071,805$. Eight establishments in 1924 reported a revenue of $\$ 1,120,895$, expenditures of $\$ 162,013$ on dyes, chemicals and other materials used, and expenditures of $\$ 561,233$ on salaries and wages to 539 employees. Of the $3,473,909$ skins treated in that year, muskrat pelts made up 47 p.c., rabbit 19 p.c. and squirrel 10 p.c.

The greatest number of skins treated was reported in 1941, when 14,592,079 were handled, but almost 53 p.c. of those were rabbit skins so that the revenue for that year was only $\$ 2,476,289$. The record revenue reported was that for 1949 , when $\$ 6,691,418$ was received and rabbit skins constituted 38 p.c. of the total processed.

In 1953, the number of skins treated was $11,001,366$, of which muskrat comprised 44 p.c., squirrel 15 p.c., Persian and other types of lamb 14 p.c. and rabbit 13 p.c.

## 8.-Principal Statistics of the Fur-Dressing Industry, 1950-53

| Item | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: |
| Establishments............................. No. | 22 | 20 | 17 | 16 |
| Employees on Salaries- |  |  |  |  |
| Male...................................... ${ }_{\text {F }}^{\text {Female. }}$ | 120 44 | 100 37 | 82 30 | 74 24 |
| Employees on Wages- |  |  |  |  |
| Male........................................ . ${ }^{\text {No. }}$ | 1,187 | 940 | 942 | 900 |
| Female...................................... ${ }^{\text {. }}$ | 282 | 228 | 226 | 216 |
| Salaries paid................................... ${ }^{\text {. }}$ \% | 653,165 | 600,593 | 460,998 | 440,036 |
| Wages paid....... ............ .... ......... \$ | 2,766,881 | 2,538,783 | 2,865,534 | 2,749,531 |
| Cost of materials used (dyes, chemicals, etc.)... | 1,294, 259 | 1,076,825 | 1,177,345 | 1,026,173 |
| Pelts treated................................ No. | 13,639,110 | $9,768,616$ | 12,085,066 | 11,001,366 |
| Amount received for treatment of furs.......... \% | 6,514,772 | 5,302,761 | .6,061,850 | 5,920,014 |

Statistics for the fur-goods industry, on a comparable basis, are available from 1921, when 219 establishments reported a gross value of production of $\$ 13,639,609$, employees numbered 2,621 and salaries and wages amounted to $\$ 3,013,706$. Cost of materials used in the manufacturing process totalled $\$ 8,118,833$. Principal statistics for the industry for the years 1950 to 1953 are given in Table 9.

[^198]9.-Principal Statistics of the Fur-Goods Industry, 1950-53

${ }^{1}$ Value of factory shipments. See text p. 633.
Changes in living habits and standards in the past quarter-century are reflected in the type of goods produced by the fur-goods industry. For example, in 1921 there were 31,604 ladies' fur coats and jackets produced whereas, in 1953, the number was 220,717 . The manufacture of men's fur coats showed a decided reversal in the market; there were 5,692 men's fur or fur-lined coats manufactured in 1921 but only 352 in 1953.

## CHAPTER XV.-MANUFAGTURES

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Nore.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

This Chapter deals with manufacturing in Canada in three Parts. Part I briefly considers post-war growth of manufacturing within the historical framework of Canadian development with major emphasis on the year 1952 and the fifteen leading industries. Part II provides general statistical analyses including: manufacturing statistics from 1917; detailed treatment of current production under various groupings and individual industries; and principal factors in manufacturing production such as capital, employment, salaries and wages and size of establishment. Part III deals with the provincial and local distribution of manufacturing production.

## PART I.-REVIEW OF CANADIAN MANUFACTURING

Canada is to-day an industrialized society, obtaining its major source of income and finding its major source of employment in manufacturing operations. This process, beginning in the 1860 's, gathered momentum in World War I but was not an economic force until the early years of World War II. Nevertheless, some Canadian industries became competitive with those of other countries in both quality and price long before World War II. One of the earliest examples was the farm
implements industry; another was the pulp and paper industry, which was able to compete successfully in important foreign markets in the 1920's and still remains the leading manufacturing industry.

The first phase of development took place between 1867 and 1900. Rising prosperity until 1873 brought about continuing expansion of manufacturing capacity particularly in such fields as flour and grist-mill products, leather boots and shoes, and $\log$ products such as lumber, lath and shingles. Manufacturing weathered the depressed economic conditions of the latter part of the 1870 's and a good part of the 1880's, aided particularly by the high quality of Canadian natural resources and the fact that they could be developed at low cost, partly because of their growing accessibility as the railway network expanded in Canada and partly because cheap ocean transport became available.

The period 1900 to 1920 was characterized by rapid population increase and the opening up of the West. The program of railway construction, the growth of cities and towns, the equipping of western farms and the extension of community facilities in both Eastern and Western Canada gave great impetus to the production of capital goods. World War I brought about a notable acceleration of industrial diversification with particularly striking effects on the refining of non-ferrous metals, the expansion of the steel industry and the shipbuilding and aircraft industries. Following the War, international competition became very keen and Canadian industries experienced some adjustment, particularly in the short though severe recession of 1921 . This check was temporary and expansion was resumed up to the crest of 1929 with particular emphasis on pulp and paper, transportation equipment, non-metallic mineral products and chemicals. As a result of the depression of the 1930 's when economic activity was at a low ebb, Canadian industries were unprepared for the avalanche of military orders following 1939; nevertheless, conversion to war production was accomplished in two years. Expansion of productive capacity in manufacturing during the war years was particularly striking in such fields as tool making, electrical apparatus, chemicals and aluminum.

About two-thirds of the industrial structure created during that period was found to be adaptable to peacetime uses after the War. Although reconversion, modernization and expansion necessitated large capital outlays and although supply shortages slowed down the implementation of the program, most of the work was completed by the end of 1947 . From 1950 onward, two developments contributed particularly to manufacturing expansion in Canada. First, the intensive search for new minerals and other natural resources brought about a number of important discoveries and rapid development followed in such fields as crude oil, natural gas, iron ore, non-ferrous metals and a number of less important metals. This new development and the resulting need for equipment for exploration and processing gave great impetus to Canadian industries producing capital goods. Further, the availability of a greater quantity and variety of indigenous raw materials led to the creation of more processing capacity and to the establishment of advanced rawmaterial and power-using industries. Foremost among these was the chemical industry, which became increasingly diversified. In particular, major discoveries of oil and gas made feasible the establishment of such industries in central Alberta notwithstanding the great distance to the principal markets of the North American Continent.

The second development was the outbreak of the war in Korea, leading to the establishment of a three-year $\$ 5,000,000,000$ defence program. Three industries in particular received great stimulus from the rearmament program: the aircraft industry, which, for the first time, began production of jet aircraft and jet aircraft engines; the electronics industry, which produced a great variety of new items, from equipment for Canada's northern radar screen to infantry pack radio sets; and the shipbuilding industry, which not only revived after several years of decline following the end of World War II but which drew increasingly on Canadian equipmentproducing industries to fit out, power and arm the newly built naval vessels. A major characteristic of the expansion of Canadian manufacturing industries encouraged by the rearmament program was the adaptability of many of the new developments to civilian use. An outstanding example was the comparative ease with which a television industry was established in Canada.

Developments in 1952.-The manufacturing industry continued to advance during 1952 under the impetus of a strong consumer goods market, increased private investment spending for construction, machinery and equipment as well as higher governmental expenditures for goods and services. At the beginning of the year, over-all production and employment levels were about the same as in 1951 but the changing pattern of demand was bringing about a shift in emphasis away from the consumer and toward an improvement in Canada's industrial and defence potential. However, by mid-1952 a considerable strengthening in consumer demand had taken place. The removal, early in the year, of the special excise taxes on durables and the suspension of consumer credit regulations stimulated hard-goods purchasing. In addition, average personal income in real terms was rising significantly. Consumers appeared to be showing less resistance to prevailing prices, which had roughly stabilized, and many buyers, who in the post-Korean buying boom had bought ahead of their current needs, seemed to be returning gradually to the market for replacement needs. This increase in consumer demand continued throughout the second half of 1952 but was not enough to cause a resurgence of inflationary pressures. However, it did help to eliminate some of the soft spots that had existed previously and it also contributed toward some firming in over-all activity.

The gross value of production of the manufacturing industries continued its upward trend in 1952 reaching $\$ 16,982,687,035$, a $3 \cdot 6-\mathrm{p}$ c. increase over 1951. Part of the 1952 advance in value was accounted for by an increase of $2 \cdot 2$ p.c. in the physical volume of production and the balance by price increases. The index of physical volume of production stood at $246 \cdot 3(1935-39=100)$, being four points above the record wartime level attained in 1944. Accompanying the rise in output was an increase of 2.4 p.c. in the number of persons employed and of 11.0 p.c. in the amount of salaries and wages paid. Salary and wage payments at $\$ 3,637,620,160$ were the highest on record, and exceeded the previous high reported in 1951 by $\$ 361,339,243$.

No definite trend was established in 1952. Although the durable goods industries as a unit operated at a higher level of production than the consumer industries, both divisions reported advances and declines. In the durable goods sector the transportation equipment group reported the greatest advance in production with
an increase of 18.4 p.c. followed by non-metallic mineral products with an increase of 1.2 p.c. and electrical apparatus and supplies with 0.2 p.c. The iron and steel products group was practically unchanged, while the wood group reported a decline of 3.0 p.c. and non-ferrous metal products a decline of $1 \cdot 1$ p.c. In the non-durable goods sector the greatest increase in the volume of production was reported by the tobacco group with an increase of 14.2 p.c., followed by leather products with 9.4 p.c., products of petroleum and coal $7 \cdot 3$ p.c., foods and beverages $5 \cdot 2$ p.c., clothing $3 \cdot 1$ p.c. and chemicals and allied products 1.7 p.c. A decline in volume amounting to 11.7 p.c. was reported by the textiles (except clothing) group, of 6.8 p.c. by rubber products, of $5 \cdot 0$ p.c. by paper products, and of 1.2 p.c. by printing, publishing and allied industries.

Manufacturing establishments reporting in 1952 numbered 37,929. Of these, 948 were located in Newfoundland, 224 in Prince Edward Island, 1,533 in Nova Scotia, 1,077 in New Brunswick, 12,024 in Quebec, 13,172 in Ontario, 1,531 in Manitoba, 1,022 in Saskatchewan, 2,150 in Alberta, 4,225 in British Columbia and 23 in the Yukon and Northwest Territories. These plants furnished employment to $1,288,382$ persons who received $\$ 3,637,620,160$ in salaries and wages. They also produced goods with a selling value at the factory of $\$ 16,982,687,035$ and spent $\$ 9,146,072,494$ for materials, while the value added by manufacture totalled $\$ 7,443,533,199$. It should be remembered that the value added by manufacture does not represent the manufacturers' profits. The value added is obtained by subtracting the cost of materials, including fuel and electricity, from the value of products. The difference represents the value added to the materials by labour. It is this difference which the employer of labour uses to pay for the abour itself, the overhead expenses, interest and profits. Compared with the previous year, there was an increase of $\$ 502,586,416$ in the value added by manufacture.

Development in Canada's Leading Industries.-In Canada fifteen leading industries account for approximately half the value of manufacturing production. The largest industry, pulp and paper, had a gross value of output of $\$ 1,158,000,000$ in 1952. In little over half a century the Canadian industry has become one of the major enterprises of the world. Several factors were responsible for this growth: Canada possesses over half of the pulpwood resources of North America, cheap and abundant water power is found close to pulpwood stands, and extensive river systems can be used to transport pulpwood to the mills. Other important factors include the steady growth of population on the North American Continent, the increase in literacy, the rise of voluminous metropolitan dailies, the adoption of technical improvements in the printing and building trades and the growth of modern merchandising techniques. In recent years, extensive development in the field of nonpaper uses for dissolving pulp, such as rayon and plastics, has contributed to the growth of the industry.

In the period 1946-52, the industry, with a capital investment of $\$ 600,000,000$, tripled its value of production and increased its volume of output by 50 p.c. Newsprint output advanced 37 p.c., mechanical pulp 29 p.c., chemical pulp 45 p.c., paperboard 27 p.c., and wrapping paper 27 p.c. The significance of the industry in the post-war period is indicated by the fact that it ranked first in wages paid, first in
new investment, first in exports as well as first in value of output. It produced one-quarter of the world's output of wood-pulp and supplied 30 p.c. of the world's total pulp exports. It provided more than one-half the world's newsprint and a significant amount of other grades of paper and paperboard.

In 1952 the output of newsprint continued to expand, registering a 3-p.c. increase over 1951. However, easing demand conditions for market pulp and paper products resulted in rather substantial cutbacks as compared with the previous year. Even in the newsprint sector some levelling in demand occurred in North America in 1952 with shipments to domestic and United States consumers being only slightly above 1951. On the other hand, shipments to overseas markets expanded by over 28 p.c.

Five of Canada's fifteen largest manufacturing industries are included in the foods and beverages group. The slaughtering and meat-packing industry ranked second in 1952 with a gross value of production of $\$ 864,000,000$, butter and cheese eighth with production of $\$ 379,000,000$, flour mills thirteenth with $\$ 274,000,000$, miscellaneous food preparations fourteenth with $\$ 266,000,000$ and bread and other bakery products fifteenth with $\$ 260,000,000$. The level of activity in Canada's food-processing establishments exerts a major influence on over-all employment and income. The food industries have experienced a wide shift in the importance of various markets. Production for overseas trade received considerable impetus during World War I and continued active in the following period. By 1939, Canadian salmon, bacon, flour and canned fruits and vegetables were being shipped to Europe in large quantities and the United States also provided an attractive market for r great variety of processed foods. During World War II producers turned out bacon, canned meats, cheese and dried milk. and ${ }^{*}$.eggs in record quantities to meet Allied requirements. However, in the post-war period United Kingdom contracts have been continued at progressively lower levels and fewer commodities have been involved with each succeeding year and surplus products have been absorbed by Canada's growing population and increased per capita consumption.

The non-ferrous metal smelting and refining industry, the third largest manufacturing industry in Canada, had a gross value of production of $\$ 837,000,000$ in 1952. Canada is one of the world's leading producers of non-ferrous metals, standing first in the production of nickel, second in aluminum and zinc, and fourth in copper and lead. Canada has been the world's leading exporter of non-ferrous metals for over a decade. The most important of this country's base-metal orebodies were discovered before the turn of the century but their complexity prevented early exploitation. Unlike many important deposits elsewhere, which consist largely of oxides or of sulphides of a single metal, they were found to contain ores of two or more base metals intimately associated and frequently containing appreciable quantities of precious metals, such as gold, silver and platinum. Their development has been one of the most notable triumphs of Canadian skill and enterprise. During World War I and throughout the 1920's, large sums of money were spent on the discovery and improvement of smelting and refining techniques. Later, as the success of these processes was assured, plants were built that ranked among the greatest and most highly integrated of their kind in the world. Once in operation,
these establishments were in a position to reap the economies of large-scale production. Cheap water power, numerous by-products and locations near the ore-bodies were other advantages which enabled Canadian firms to sell large tonnages of refined metal in the world's markets at competitive prices. Unfortunately, they were soon to be faced with the general decline in industrial demand for metals which characterized the early 1930's. High United States tariffs also restricted sales in that country. It was not until about 1935 that industrial recovery and the first stages of rearmament in Europe led to production again approaching capacity. During World War II many ore-bodies were "high graded", removing the best ore and losing the lower-grade deposits. After the War, production declined owing not only to a fall in demand but also because of a return to better conservational practices. Improved technology has permitted the treatment of rock which formerly would have been classified as waste. However, the past few years have witnessed a renewed defence demand and the output of base metals in Canada during 1952 reached a post-war peak. Although production of copper was down 4 p.c. as the result of a strike, output of all other major base metals was up from the previous year. Nickel production increased by 2 p.c., lead production by 7 p.c., zinc by 9 p.c. and aluminum by 12 p.c.

The transportation equipment group includes three of Canada's largest industries: motor-vehicles ranked fourth with a production of $\$ 767,000,000$, railway rolling-stock ninth with $\$ 332,000,000$ and motor-vehicle parts twelfth with $\$ 277,000,000$. The establishment and rapid growth of the motor-vehicle industry in Canada was particularly influenced by early tariff policies and by the strong demand for North American type vehicles in many Commonwealth countries and the existence of trade preferences granted by some of these territories to Canada. Another characteristic of the industry has been American ability to supply relatively low-cost components and sub-assemblies, patent rights, technical and managerial skill, research facilities and large amounts of investment capital. During the post-war period, the Canadian motor-vehicle industry has tripled its capacity. In 1939 there was one passenger car for every $9 \cdot 5$ persons in the country; in 1952 there was one for every 6.3 persons. In the latter year the industry was particularly stimulated by the reduction, in April and May, of excise taxes and suspension of consumer credit regulations. Domestic sales expanded rapidly and, along with sizable export orders and defence contracts, kept the industry at peak levels of activity for the remainder of the year.

Canada's railway rolling-stock industry experienced periods of extraordinary activity during and immediately after the two World Wars. It also encountered several years of moderate prosperity in the 1920's and became one of the nation's most depressed industries a few years later. Generally speaking, the level of activity in this industry has been closely linked with the financial position of the Canadian railways. The facilities of locomotive and car-building companies, dependent almost entirely upon the railways' program of new investment in rolling stock, have been used in an intermittent fashion and prolonged plant shut-downs have not been uncommon. On the ether hand, outlay on repair and maintenance has usually been necessary on a continuing basis and railway shops and parts suppliers have been
less exposed to extreme fluctuations in production and employment. Exports of railway rolling-stock were relatively insignificant before 1944 . In that year a program for the rehabilitation of European railways was undertaken and, since that time, contracts for France, Belgium, India, South Africa and Rhodesia, as well as countries in the Middle East and South America, have been completed.

The fifth largest manufacturing industry, petroleum products, had a gross value of output of $\$ 660,000,000$ in 1952 , and is of tremendous significance in terms of Canada's balance of payments and strategic importance to the defence of North America. Measured in either bulk or value terms, world production of crude oil is the most important commodity entering international trade. Canada's growing industrialization is reflected in the rising rate at which crude oil is used and per capita consumption is now the second highest in the world. There have been three definite phases in the use of oil. The first, which began soon after 1860, was based on kerosene but light petroleum fractions were soon accepted as a cheap and efficient substitute. Other fractions, which make up the rich and complex mixture of hydrocarbons in crude petroleum, ranging from explosively volatile wet gases to heavy oils, waxes and asphalts, were beyond the technology of the day to unravel and the capacity of the economy to absorb. World War I and the maturity of the internal-combustion engine marked the second phase. The price of gasoline rose sharply and drilling activity increased all over the world. By 1930, surplus oil production had become general once more and from then until World War II there was from 20 to 25 p.c. surplus capacity in all branches of the industry. With kerosene consumption declining and the gasoline phase becoming general, middle distillates and the heavier ends overhung the market and frequently were sold at distress prices. Phase three, which developed out of the Second World War, is now asserting itself. For the first time, most refineries have few surplus products. Nearly everything from a barrel of crude is being marketed, it now being possible to gear production closely to fluctuations in demand. Behind all this lies modern refinery equipment and techniques, which are being used to 'crack' heavy fractions down to lighter ones and, more important still, the domestic oil heater and the diesel engine. Middle distillate consumption has been increasing much more rapidly than that of gasoline in recent years and now serves to underwrite much of the growing demand for crude oil. Although the history of the Canadian crude oil industry dates back almost 100 years, production did not begin to reflect the amount of exploratory drilling done in the Western Provinces until 1936 when Turner Valley was definitely established as a major oil field. Scattered discoveries of little commercial importance had been made before that time and natural gas had been found in abundance. With the exception of the discovery of the heavy crude area at Lloydminster in 1944, no other outstanding developments took place until early 1947 when the Leduc field was discovered. Output had been falling off but in the few years since the Leduc field came into production the Canadian oil outlook has been transformed. In 1947, domestic sources supplied less than 10 p.c. of the nation's needs. Since then, production has greatly increased and existing wells are now capable of producing nearly 50 p.c. of domestic petroleum requirements.

In 1952 the sawmill-products industry produced almost $\$ 568,000,000$ worth of planks and boards, shingles, railway ties and other sawmill products and thus ranked sixth among Canada's manufacturing industries. Since the early days of Canada, the growth of the lumber industry has reflected the expansion of the Canadian economy. During World War II, output was limited only by production facilities and the availability of manpower. Large quantities of lumber were used domestically for the construction of defence establishments and for new munitions factories in the first two years of the War. Later on, demand gradually increased for lumber to make boxes, barrels and crates required for the overseas shipment of munitions, food and supplies. Large volumes of lumber were also used in connection with shipbuilding and aircraft construction and for such essential purposes as mining, manufacture of railway rolling-stock and wartime housing. Besides fulfilling the domestic requirements, which took an increasing percentage of total production as the War proceeded, Canada maintained at high level its exports to the United Kingdom, to other Commonwealth countries and to the United States. By 1945, out of a total production of $4,500,000,000$ board feet, 56 p.c. was used at home, 19 p.c. was exported to the United Kingdom and 21 p.c. to the United States. For most of the period since the end of the War, demand for sawmill products has continued to exceed the supply and lumber prices have more than doubled in the past few years.

With production at $\$ 504,000,000$ in 1952 , the primary iron and steel industry ranked seventh in Canadian manufacturing. After World War II the industry added greatly to its steel-making plant and by 1942 domestic output had reached $2,900,000$ ingot tons annually. In recent years greater emphasis has been placed upon modernization and on adding rolling mill and other fabricating facilities in order to permit greater integration and more efficient operation of existing plants. As a result of recent outlays, Canada is now virtually self-sufficient in tin plate. Large-scale production of cold rolled strip, large-diameter oil and gas line pipe, special alloys and stainless steel is also being carried out in this country. Other items, such as rails, bars, rods, wire products and hot rolled plate and sheet in certain widths, are relatively important products of Canadian mills. Current imports tend to be confined to products not made in quantity in Canada, such as large items beyond the capacity of Canadian mills, Bessemer skelp for the production of pipe, special steel sheet material for large transmission towers and certain wire products, forgings and castings. The future development of the industry is linked with the tremendous progress being made in iron-ore production.

The rubber industry ranked tenth in 1952 with a gross output of $\$ 287,000,000$. This industry forms an adjunct of considerable importance to the cotton yarn and cloth and synthetic textiles industries which supply it with fabrics, yarns, etc., used in manufacturing such items as tires, hose and belting. The importance of the industry lies in the fact that Canada ranks among the leading countries of the world as a manufacturer of rubber goods and also that the industry makes a significant contribution to Canada's export trade. Tire sales in 1952 were 9 p.c. higher than in 1951 but sales of waterproof and canvas footwear were down 2 p.c. and there
was a drop in other principal standard production items such as belting, hose and packing. Consumption of rubber in 1952 involved $41 \cdot 6$ p.c. synthetic rubber, 41.5 p.c. natural rubber and 16.9 p.c. reclaim.

The men's factory clothing industry ranked eleventh with output at $\$ 277,000,000$ in 1952. This was the only textile industry to rank currently within the major fifteen compared with three in 1949. Recovery in the clothing and leather-products industries from the slack conditions prevailing during the latter part of 1951 began early in 1952. The initial cause for the upturn in activity was caused by depleted inventories at both the retail and factory levels but, once under way, recovery was given added impetus by increased retail sales from April onwards. At the same time there were a number of underlying negative factors qualifying the industry's recovery. Credit played a growing role in the increase of retail sales. Despite this increase, clothing prices fell slightly as compared with 1951 and the volume of imports assumed a larger percentage of domestic disappearance at the end of the year.

## Part II.-ANALYSES OF MANUFAGTURING STATISTICS

## Section 1.-Growth of Manufacturing

This Section gives a summary of the growth of manufacturing in general, as shown by comparable principal statistics, i.e., establishments, employees, salaries and wages paid, cost of materials and value of products. Also, it includes information on the consumption of manufactured products as well as a treatment of value and volume data.

## Subsection 1.-Historical Statistics of Manufacturing

It is impossible to give absolutely comparable statistics of manufacturing over a long period of years. From 1870 to 1915 statistics were collected only in connection with decennial or quinquennial censuses and there was inevitably some variation in the information collected. The annual Census of Manufactures was instituted in 1917 and, while numerous changes have been made since then in the information collected and the treatment of the data, an effort has been made to carry all major revisions, as far as possible, back to 1917, so that the figures for the period since then are on a reasonably comparable basis.

Beginning in 1952, the Bureau of Statistics changed its policy with regard to the collection of statistics on the production of manufactured goods. Firms in several industries where year-end inventory changes were known to be insignificant were requested to report value of shipments f.o.b. plant instead of gross value of products. Under the "value of products" concept, establishments were asked to report the factory selling value of the products made whether sold or not, the unsold portion being assigned the average selling value of similar articles sold during the year. Under the "value of shipments" concept, establishments are required to report their sales during the year regardless of when the products were made, an
item usually readily available from the firms' records. The changeover was made to provide increased ease in reporting for the majority of plants and at the same time to produce more reliable and useful statistics.

## 1.-Summary Statistics of Manufactures, 1917-52

Note.-Statistics of manufacturing from 1870 have been published, but between that year and 1917 figures are not on a comparable basis to the series given below. Statistics for significant years will be found in the 1943-44 Year Book, p. 363. Statistics of the non-ferrous metal-smelting industries were included in manufactures in 1925 for the first time.

| Year | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products ${ }^{1}$ | Gross <br> Value of <br> Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | 8 | \$ | 8 | \$ |
| 1917 | 21,845 | 606,523 | 497,801,844 | 1,539,678,811 | 1,281,131,980 | ${ }^{*} 2,820,810,791$ |
| 1918. | 21,777 | 602,179 | 567,991,171 | 1,827,631,548 | 1,399,794,849 | 3,227, 426,397 |
| 1919 | 22,083 | 594,066 | 601,715,668 | 1,779,056,765 | 1,442,400,638 | 3,221,457,403 |
| 1920. | 22,532 | 598,893 | 717,493,876 | 2,085, 271, 649 | 1,621, 273,348 | $3,706,544,997$ |
| 1921. | 20,848 | 438,555 | 497,399,761 | 1,365,292,885 | $1,123,694,263$ | 2,488,987,148 |
| 1922. | 21,016 | 456,256 | 489,397, 230 | 1,272,651,585 | 1,103,266, 106 | 2,375,917,691 |
| 1923 | 21,080 | 506,203 | 549,529,631 | 1,456,595,367 | 1,206,332,107 | 2,662,927,474 |
| 1924. | 20,709 | 487,610 | 534, 467,675 | 1,422,573,946 | 1,075,458,459 | 2,570,561,931 |
| $1925{ }^{2}$ | 20,981 | 522,924 | 569,944, 442 | 1,571,788,252 | $1,167,936,726$ | 2,816,864,958 |
| $1926{ }^{2}$ | 21,301 | 559,161 | 625,682,242 | 1,712,519,991 | 1,305,168,549 | $3,100,604,637$ |
| $1927{ }^{2}$ | 21,501 | 595,052 | 662, 705,332 | 1,741,128,711 | 1,427,649,292 | 3,257,214,876 |
| $1928{ }^{2}$ | 21,973 | 631,429 | 721,471,634 | 1,894,027,188 | 1,597,887,676 | 3, 582, 345, 302 |
| 19292 | 22,216 | 666,531 | 777, 291, 217 | $2,029,670,813$ | 1,755,386,937 | 3,883,446, 116 |
| $1930{ }^{2}$ | 22,618 | 614,696 | 697, 555,378 | 1,664,787,763 | 1,522,737, 125 | $3.280,236,603$ |
| 1931 | 23,083 | 528,640 | 587, 566,990 | 1,221,911,982 | 1,252,017,248 | $2,555,126,448$ |
| 1932. | 23,102 | 468,833 | 473,601,716 | 954,381, 097 | 955, 860,724 | 1,980,417,543 |
| 1933. | 23,780 | 468,658 | 436,247, 824 | 967,788,928 | 919,671, 181 | 1,954,075, 785 |
| 1934. | 24, 209 | 519,812 | 503,851, 055 | 1,229,513,621 | 1,087,301,742 | 2,393,692,729 |
| 1935. | 24,034 | 556,664 | 559,467,777 | 1,419, 146,217 | 1,153, 485, 104 | 2,653,911, 209 |
| 1936. | 24,202 | 594,359 | $612,071,434$ | 1,624,213,996 | 1,289, 592,672 | 3,002,403,814 |
| 1937. | 24,834 | 660,451 | 721, 727, 037 | 2,006,926,787 | 1,508,924, 867 | 3,625,459,500 |
| 1938 | 25, 200 | 642,016 | $705,668,589$ | 1,807,478,028 | 1,428,286,778 | 3,337,681,366 |
| 1939. | 24,805 | 658,114 | 737,811, 153 | 1,836, 159,375 | 1,531,051,901 | 3,474,783,528 |
| 1940 | 25,513 | 762, 244 | 920,872,865 | 2,449, 721,903 | 1,942,471,238 | $4,529,173,316$ |
| 1941. | 26,293 | 961,178 | 1,264,862,643 | 3,296, 547,019 | 2,605,119,788 | 6,076,308,124 |
| 1942 | 27,862 | 1,152,091 | 1,682, 804, 842 | 4,037, 102, 725 | 3,309,973,758 | 7,553,794,972 |
| 1943. | 27,652 | 1,241,068 | 1,987, 292,384 | 4,690,493,083 | $3,816,413,541$ | 8,732,860,999 |
| 1944. | 28,483 | 1,222,882 | 2,029,621,370 | 4,832,333,356 | $4,015,776,010$ | 9,073,692,519 |
| 1945. | 29,050 | 1,119,372 | 1,845,773,449 | 4,473,668,847 | $3,564,315,899$ | 8,250,368,866 |
| 1946. | 31,249 | 1,058,156 | 1,740,687,254 | 4,358,234,766 | 3,467,004,980 | 8,035,692,471 |
| 1947. | 32,734 | 1,131,750 | 2,085, 925,966 | 5,534, 280,019 | 4,292,055,802 | 10,081,026,580 |
| 1948. | 33,420 | 1,155,721 | 2,409,368,190 | 6,632,881,628 | 4,938,786,981 | 11,875, 169,685 |
| 19493 | 35,792 | 1,171,207 | 2,591,890,657 | 6,843,231,064 | 5,330,566,434 | 12,479,593,300 |
| 1950. | 35,942 | 1,183,297 | 2,771,267,435 | 7,538,534,532 | 5,942,058,229 | 13,817, 526, 381 |
| 1951. | 37,021 | 1,258,375 | 3,276,280,917 | 9, 074, 526,353 | 6,940,946,783 | 16,392,187, 132 |
| 1952. | 37,929 | 1,288,382 | 3,637, 620,160 | $9,146,172,494$ | 7,443,533,199 | 16,982,687,0354 |

${ }^{1}$ For 1924 and subsequent years the net value of production is computed by subtracting the cost of fuel and electricity and the cost of materials from the gross value. Figures prior to 1924 are not comparable because statistics for cost of electricity are not available. $\quad{ }^{2}$ A change in the method of computing the number of wage-earners in the years 1925 to 1930, inclusive, increased the number somewhat over that which the method otherwise used would have given. In 1931, however, the method in force prior to 1925 was re-adopted. ${ }^{3}$ Newfoundland included from $1949 . \quad$ In 1952, gross value of products was replaced by value of factory shipments, see text immediately preceding this table.
2.-Summary Statistics of Manufactures, by Province, Significant Years, 1917-52


[^199]
## 2.-Summary Statistics of Manufactures, by Province, Significant Years, 1917-52-

concluded

| Province or Territory and Year | Estab-lishments | Employees | Salaries and Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net Value of Products ${ }^{1}$ | Gross Value of Products ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | $\delta$ |
| Manitoba- |  |  |  |  |  |  |
| 1917. | 732 | 18,939 | 16,513,423 | 69,715,149 | 42,280, 801 | 111,995,950 |
| 1920 | 747 | 23,728 | 32,372,081 | 92,729,271 | 62,776,912 | 155, 506, 183 |
| 19293 | 861 | 24,012 | 31,224,596 | 87,832,324 | 63,925,015 | 155, 266, 294 |
| 1933 | 1,010 | 18,871 | 18,687,430 | 44,579,898 | 37,390,275 | 83,934,777 |
| 1939 | 1,087 | 23,910 | 28,444, 798 | 82,408,293 | 48,810,544 | 134,293,595 |
| 1944 | 1,290 | 40,937 | 62,758,081 | 226, 234,925 | 120,339,926 | 352,334,594 |
| 1946 | 1,357 | 38,367 | 61,018,345 | 223,096,935 | 122,780,805 | 351,887,099 |
| 1949 | 1,520 | 41,956 | 86,088,380 | 299, 101,498 | 167,335, 495 | 474,681,912 |
| 1951 | 1,512 | 41,459 | $100,170,966$ | 349, 203,612 | 192,848,667 | 551,346,046 |
| 1952. | 1,531 | 43,365 | 112,147,572 | 347, 664,650 | 216,814,306 | 574,037,212 ${ }^{\text {2 }}$ |
| Saskatchewan- |  |  |  |  |  |  |
| 1917. | 560 | 6,230 | 5,403,332 | 22,040,674 | 13,894,179 | 35,934, 853 |
| 1920. | 554 | 6,709 | 9,571,175 | 34,894,105 | 22,610,861 | 57, 504,966 |
| 19293 | 594 | 7,025 | 9,105,597 | 51,003,566 | 23,002,952 | 75,368,605 |
| 1933. | 673 | 4,782 | 4,848,763 | 19,124,030 | 11,478,634 | 31,559,387 |
| 1939. | 737 | 6,475 | 7,346,127 | 38,782, 135 | 20,283, 273 | 60,650,589 |
| 1944. | 1,054 | 12,361 | 17,703, 103 | 131,215,017 | 40,833,333 | 175,349,234 |
| 1946. | 955 | 11,957 | 17,956,317 | 126,595,761 | 38,459,630 | 168,356,619 |
| 1949 | 962 | 10,841 | 22, 273,942 | 164,349,341 | 47,356,949 | 215, 742,708 |
| 1951. | 973 | 11,023 | 26,290,294 | 185,151,455 | 61,088,606 | 250,813,026 |
| 1952. | 1,022 | 11,307 | 29,489,862 | 172,388,119 | 80,934,157 | 258,931,776 ${ }^{2}$ |
| Alberta- |  |  |  |  |  |  |
| 1917. | 636 | 9,461 | 8,662,417 | 42,632,212 | 23,883,673 | 66,515,885 |
| 1920. | 666 | 10,955 | 15, 210,628 | 56,139,646 | 29,812,891 | 85,952,537 |
| 19293 | 736 | 12,216 | 14,585,734 | 62,500,175 | 36,824,969 | 100,966,196 |
| 1933. | 874 | 9,753 | 9,573,468 | 29,425,975 | 18,876,929 | 49,395,514 |
| 1939. | 961 | 12.712 | 14,977,700 | $53,151,149$ | 32,618,153 | 87,474,080 |
| 1944. | 1,165 | 22,186 | 33,227,729 | 172,082,537 | 77,415,753 | 252,949,894 |
| 1946. | 1,315 | 22,649 | 34,939,088 | 169,425, 176 | 83,735,011 | 257,031,867 |
| 1949 | 1,685 | 26,425 | $55,115,554$ | 251,364,059 | 114,681,296 | 371,995, 120 |
| 1951. | 2,118 | 29,105 | 69,135,587 | 309,430,618 | 141,649,574 | 458,281,384 |
| 1952. | 2,150 | 31,765 | 82,527,194 | 331,817,141 | 178,221,013 | 518,410,811 ${ }^{2}$ |
| British Columbia-- |  |  |  |  |  |  |
| 19174. | 1,133 | 37,943 | 35,426,675 | 87,637,833 | 71,673,094 | 159,310,927 |
| 19204. | 1,306 | 34,360 | 49, 135,005 | 125,405,084 | 104,851,641 | 230,256,725 |
| 19293 , | 1,569 | 48,153 | 57,764,968 | 141, 145,838 | 113,082, 137 | 260,418,645 |
| $1933{ }^{\circ}$ | 1,552 | 28,417 | 28,469,225 | 70,166,220 | 59,034,923 | 133, 879.330 |
| 1939. | 1,710 | 42,554 | 53,881,994 | 136,655, 872 | 103,263,292 | 247,948,600 |
| 1944 | 2,116 | 96,062 | 178, 639,118 | 303,560,016 | 337, 137,197 | 655,844,689 |
| 1946. | 2,731 | 75,484 | 137,506.645 | 335, 708,533 | 293,352, 652 | 644,527,898 |
| 1949 | 3,493 | 82,934 | 196,403,722 | 531, 112,329 | 409,665,348 | 959,008,088 |
| 1951. | 3,897 | 93,647 | 262,626,283 | 789,840,417 | 592,448,565 | $1,404,880,341$ |
| 1952. | 4,225 | 92,667 | 283,530,976 | 751,011,248 | 556,172,312 | 1,332,481,862 ${ }^{2}$ |
| Yukon and N.W.T. |  |  |  |  |  |  |
| 1939. | 5 | 55 | 97,766 | 138,500 | 92,054 | 242,968 |
| 1944 | 12 | 67 | 118,972 | 189,718 | 280,803 | 489,256 |
| 1946. | 13 | 92 | 200,560 | 172,845 | 408,727 | 646,295 |
| 1949. | 18 | 148 | 359,068 | 643,807 | 604,896 | 1,377,453 |
| 1951. | 18 | 152 | 405,690 | 1,097,991 | 758,986 | 2,018,909 |
| 1952. | 23 | 164 | 530,126 | 1,075,561 | 1,022,974 | 2,288,039 ${ }^{2}$ |

${ }^{1}$ See footnote 1, Table 1. shipments; see text on pp. 633-634.
${ }^{2}$ In 1952, gross value of products was replaced by value of factory ${ }^{3}$ See footnote 2, Table 1. 4 Includes Yukon Territory.

In order to retain some continuity with the past, Table 3 continues the historical series on the chief component material classification basis. Similar statistics under the Standard Classification groups (see pp. 644-655), worked back to 1945, are given in Table 10, pp. 636-637.
3.-Summary Statistics of Manufactures, by Industrial Group, Significant Years, 1917-52

| Industrial Group and Year | Estab-lishments | Employees | Salaries and Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net <br> Value of Products ${ }^{1}$ | Gross <br> Value of Products ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Vegetable Products- | No. | No. | 8 | 8 | $\delta$ | \$ |
| 1917................ | 4,151 | 62,777 | 45,915,557 | 367,214,061 | 183,782,501 | 550,996,562 |
| 1920. | 4,549 | 74,241 | 77,750,189 | 536,828,044 | 239,328,371 | 776,156,415 |
| 19293 | 5,350 | 91,032 | 95,853,121 | 431,595,751 | 341,688,938 | 783,706,883 |
| 1933. | 5,916 | 75,416 | 68,535,349 | 226,879,373 | 196,820,952 | 432,315,617 |
| 1939 | 5,872 | 99,447 | 104,248,785 | 356,726, 153 | 292, 129,840 | 659,624,014 |
| 1944 | 5,941 | 130,679 | 183,943,948 | 763,606,750 | 485,551,491 | 1,270,518,297 |
| 1946 | 5,916 | 137,170 | 206,893,681 | 871,436,061 | 575,963,454 | 1,469,914,130 |
| 1949 | 5,903 | 143,032 | 285, 536,723 | 1,236,409,496 | 754,329,727 | 2,020,565,833 |
| 1951 | 5,862 | 144,762 | 339, 272, 100 | 1,485,063,324 | 926,401,068 | 2,445,848,786 |
| 1952. | 5,826 | 144,572 | 365,783,661 | 1,477,824,823 | 1,006, 127,373 | 2,519,179,224 ${ }^{2}$ |
| Animal Products- |  |  |  |  |  |  |
| 1917. | 5,486 | 46,994 | 35,753,133 | 320,302,039 | 124,103,990 | 444,406,029 |
| 1920 | 4,823 | 48,687 | 54, 291, 606 | 400,496,354 | 152,995, 130 | 553,491,484 |
| 19293 | 4,490 | 67,670 | 62,081,423 | 345,351,882 | 127,929,857 | 477,761,855 |
| 1933. | 4,496 | 53,111 | 46,453,188 | 179,429,948 | 87,629,444 | 271,068,210 |
| 1939. | 4,362 | 69,358 | 68,231,871 | 333,647,306 | 122,821,410 | 461,983,262 |
| 1944 | 4.388 | 94,195 | 129,215,389 | 835,586,247 | 246,064,720 | 1,092,015,647 |
| 1946 | 4,528 | 102,844 | 151,517, 837 | 849,242,804 | 271, 279,430 | 1,132,233,759 |
| 1949 | 4,231 | 102,657 | 197,189,519 | 1,158,872,220 | 369,545,771 | 1,543,930,584 |
| 1951. | 4,030 | 100,487 | 222,271, 019 | 1,425,565,514 | 402,417,994 | 1,846, 134, 158 |
| 1952. | 3,912 | 102,038 | 242,380,359 | 1,325,004,126 | 457,008,034 | 1,801,102,780 ${ }^{2}$ |
| Textlle and Textile Products- |  |  |  |  |  |  |
| 1917. | 1,067 | 76,978 | 47,764,436 | 131,225,032 | 109,904,530 | 241,129,562 |
| 1920 | 1,304 | 87,730 | 84,433,609 | 256,233,300 | 173,741,035 | 429,974,335 |
| 19293 | 1,534 | 103,881 | 94, 969,433 | 217,954,088 | 180,469,064 | 403, 205, 809 |
| 1933 | 1,740 | 95,707 | 72,813,424 | 143, 184, 861 | 131,065,992 | 279,475, 267 |
| 1939 | 1,930 | 121,022 | 107,117,035 | 203,618, 197 | 181,927,898 | 392,657,759 |
| 1944. | 2,481 | 153,122 | 195,805, 681 | 419,988,642 | 351,186,488 | 781,771,688 |
| 1946 | 3,082 | 164,737 | 228,018,323 | 459,664,221 | 418, 263,665 | 888,658,943 |
| 1949 | 3,234 | 186,328 | 342,930,642 | 669, 108,586 | 606,402,697 | 1,290,314,474 |
| 1951 | 3,343 | 190.054 | 389,843, 607 | $861,474,177$ | 681,616,663 | 1,559,977,021 |
| 1952 | 3,346 | 183,158 | 400,480,854 | 819,392,316 | 688,806,368 | 1,524,985,439 ${ }^{2}$ |
| Wood and Paper Produets- |  |  |  |  |  |  |
|  | 7,263 | 152,277 | 113,359,997 | 148,277,935 | 245,372,487 | 393,650,422 |
| 1820. | 7,881 | 144,391 | 172,368,578 | 309,813,724 | 417, 256, 115 | 727,069,839 |
| 19293 | 7,392 | 164,572 | 192,088,948 | 313,797, 201 | 381,485,477 | 724,972,308 |
| 1933. | 7,891 | 105,080 | 102,218,652 | 134,663,641 | 184, 233,540 | 341, 336,701 |
| 1939 | 8,538 | 144,782 | 165,287,455 | 246, 292, 820 | 303,662,441 | 579, 892, 183 |
| 1944 | 10,452 | 189,674 | 284,436,559 | 497,656,158 | 550,826,986 | 1,093, 725, 822 |
| 1946 | 11,994 | 224, 121 | 366,049,562 | 679,343,485 | 749,055, 011 | 1,484,436,122 |
| 1949 | 15,866 | 262,835 | 579,896,808 | 1,061,229,176 | 1,184,539,519 | 2,325,304,849 |
| 1851. | 16,817 | 281,204 | 735, 283, 683 | 1,453,475,873 | 1,660,280,363 | 3,209,391,543 |
| 1952. | 17,403 | 280,337 | 783,737,813 | 1,479,484,588 | 1,607,001,792 | 3,184,797,667 ${ }^{2}$ |
| Iron and Its Products- |  |  |  |  |  |  |
| 1917. | 1,495 | 161,745 | 161,875,424 | 378,193,116 | 371,792,489 | 749,985,605 |
| 1920 | 1,789 | 164,087 | 231,595,911 | 377,499,134 | 411,875,057 | 789,374, 191 |
| 19293 | 1.224 | 142,772 | 203,740,658 | 405,818,468 | 367,465,582 | 790,726,338 |
| 1933 | 1,334 | 73,348 | 72, 296, 179 | 98,793,191 | 109,198, 169 | 216,828,992 |
| 1939. | 1,394 | 121,041 | 158,559,728 | 262,292,781 | 275,774,796 | 553,468,880 |
| 1944 | 2.192 | 411,944 | 818,452,454 | 1,104,083,922 | 1,390,703.087 | 2,540,992,974 |
| 1946 | 2,358 | 249,279 | 475,812,983 | 635,344, 199 | 735,459,371 | 1,405,542,865 |
| 1949 | 2,658 | 265,474 | $678,924,105$ | 1,197,956,715 | 1,219,303,992 | 2,468,376,349 |
| 1951. | 2.758 | 303,497 | 910,549,175 | 1,724,318,073 | 1,641,346,745 | 3,432,209,864 |
| 1952. | 2,973 | 333,132 | 1,084,755,540 | 1,951,542,870 | 1,902,423,464 | 3,922,647,073 ${ }^{2}$ |

[^200]${ }^{2}$ See footnote 4, Table 1.
${ }^{3}$ See footnote 2, Table 1.

## 3.-Summary Statistics of Manufactures, by Industrial Group, Significant Years,

 1917-52-concluded| Industrial Group and Year | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net Value of Products ${ }^{1}$ | Gross <br> Value of <br> Products ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | 8 | 8 |
| Non-ferrous Metal Products- |  |  |  |  |  |  |
| 1917. | 296 | 18,220 | 15, 898,890 | 46,445,469 | 41,039, 351 | 87,484,820 |
| 1920 | 324 | 23,162 | 27,895,343 | 48, 434, 120 | 52,847,178 | 101,281, 298 |
| 19293 | 408 | 39,867 | 54,501,806 | 124,900,632 | 150,415, 215 | 283,545,666 |
| 1933. | 478 | 25,273 | 28,099,026 | 71,990,608 | 88,427,984 | 164,765,604 |
| 1939. | 526 | 44,563 | 59,684,858 | 242,063, 177 | 155,808,806 | 416,060,459 |
| 1944 | 635 | 104,314 | 182,909,292 | 549,317,062 | 399,498,519 | 992,345,975 |
| 1946 | 740 | 84,853 | 150,366,178 | 413,022,247 | 278,461,262 | 719,191, 106 |
| 1949 | 897 | 100,614 | 251,869,627 | 749,678,627 | 558,467,028 | 1,353,329,383 |
| 1951 | 909 | 117,740 | 345,482,742 | 1,113,974,070 | 760,219,708 | 1,929,608,127 |
| 1952. | 953 | 120,138 | 384,610,020 | 1,058,309,597 | 810,854,261 | 1,930,991,789 ${ }^{2}$ |
| Non-metallic Mineral Products- |  |  |  |  |  |  |
| 1917. | 1,075 | 20,795 | 18,224,724 | 36, 994,392 | 58,092,396 | 95,086,788 |
| 1920. | 846 | 25,500 | 32,351,764 | 69,856,558 | 80,205,472 | 150,062,030 |
| 19293. | 843 | 29,257 | 38,958,390 | 112,573,103 | $99.065,847$ | 229,774,300 |
| 1933. | 770 | 16,975 | 19,282,401 | 69,077,701 | 52,817,078 | 131,325, 706 |
| 1939. | 809 | 23,026 | 30,067,934 | 107, 979,292 | 85, 511, 631 | 208,166,781 |
| 1944. | 748 | 31,590 | 56,130,338 | 234, 714,319 | 152,525, 053 | 416, 268,879 |
| 1946. | 910 | 36,493 | 63,848,640 | $240,485,869$ | 173,638, 196 | 446,484,682 |
| 1949. | 1,097 | 42,691 | 104,377,854 | 469,437, 193 | 261,691,705 | 780,188,518 |
| 1951 | 1.124 | 47,120 | 138,026,862 | 606, 994,396 | 375, 221, 419 | 1,044,425,433 |
| 1952. | 1,158 | 48,327 | 156,392,092 | 634,846,809 | 429,518,608 | 1,130,487,677 ${ }^{2}$ |
| Chemicals and Allied Products- |  |  |  |  |  |  |
| 1917. | 539 | 56,153 | 51,505,484 | 29,068,092 | 131,381,995 | 230,450,087 |
| 1920 | 464 | 17,653 | 22,193,421 | 62, 644,608 | 65, 183,212 | 127,827,820 |
| 19293 | 554 | 16,694 | 22,639,449 | $55,184,337$ | 78,785,911 | 138,545,221 |
| 1933. | 696 | 15,397 | 18,738,629 | 34,271,854 | 55, 394, 284 | 92,820,761 |
| 1939. | 808 | 22,595 | 31,567,558 | $65,230,839$ | 89,046,832 | 159, 536,984 |
| 1944. | 981 | 81,822 | 137,422,977 | 360,412,749 | 355, 260,598 | 733,569, 232 |
| 1946. | 1,017 | 37,278 | 66,538,532 | 159,308,350 | 203,639,442 | 376, 288, 264 |
| 1949. | 1,022 | 40,499 | 98,568,559 | 238,377,149 | 279,038,860 | 536,156,674 |
| 1951. | 1,024 | 44,913 | 128,993,172 | 318,228,683 | 373, 176,901 | 716, 287, 268 |
| 1952. | 1,062 | 46,971 | 145,647,388 | 313,340,224 | 407,215, 284 | 744,030,244 ${ }^{2}$ |
| Miscellaneous Industries- |  |  |  |  |  |  |
| 1917. | 473 | 10,584 | 7,504,199 | 11,958,675 | 15,662,241 | 27,620,916 |
| 1920. | 552 | 13,442 | 14,613,455 | 23, 465, 807 | 27,841,778 | 51,307.585 |
| 19293 | 421 | 10,786 | 12,457,989 | 22,495,351 | 28,081,046 | 51, 207,736 |
| 1933.................. | 459 | 8,351 | 7,810,976 | 9,497,751 | 14,083,738 | 24, 138,927 |
| 1939.. ... ............ | 566 | 12,280 | 13,045, 929 | 18,308,810 | 24,368,247 | 43,393, 206 |
| 1944. | 665 | 25,542 | 41,304, 732 | 66,967,507 | $84,159,068$ | 152,484, 005 |
| 1946 | 704 | 21,381 | 31,641,518 | 50,387, 530 | 61,245,149 | 112,942,600 |
| 1949. | 884 1.154 | 27,077 | 52, 596, 820 | 62, 161, 902 | 97,247,135 | 161,426,636 |
| ${ }_{1952}^{1951 .}$ | 1.154 1.296 | 28,598 29,709 | $66,558,557$ $73,832,433$ | $85,432,243$ $86,427,141$ | $120,265,922$ $134,578,015$ | 208,304,932 |
|  |  |  | 73,832,433 | 80,427,141 | 134,578,015 | 223,865,172 |

[^201]${ }^{2}$ See footnote 4, Table 1.
${ }^{3}$ See footnote 2, Table 1.

The figures in Table 4 show the trends of development in Canadian manufacturing industries since 1917. Interesting comparisons may be made by studying the average figures given.
4.-Significant Statistics of Manufactures for Certain Years, 1917-52

| Item | 1917 | 1920 | 19291 | 1933 | 1939 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Establishments.................. No. | 21,845 | 22,532 | 22,216 | 23,780 | 24,805 |
| Totals, employee | 606,523 | 598,893 | 666,531 | 468,658 | 658,114 |
| Averages, per establishment | 27.8 | $26 \cdot 6$ | $30 \cdot 0$ | $19 \cdot 7$ | 26.5 |
| Totals, salaries and wages.......... \$ | 497,801, 844 | 717,493,876 | 777, 291,217 | 436,247,824 | 737,811,153 |
| Averages, per establishment...... 8 | 22,788 | 31,843 | 34,988 | 18,345 | 29,744 |
| Averages, per employee.......... | 821 | 1,198 | 1,166 | 931 | 1,121 |
| Employees on salaries, $\ldots . . . . . . .$. . No. | 64,918 | 78,334 | 88,841 | 86,636 | 124,772 |
| Averages, per establishment...... "\% | 85, 353, $3 \cdot 0$ | $141,837{ }^{3 \cdot 5}$ | 175,553,710 | $139.317{ }^{3 \cdot 6}$ | $21783{ }^{5 \cdot 0}$ |
| Salaries......................... | 85,353,667 | 141,837,361 | 175,553,710 | 139,317, 946 | 217,839,334 |
| Employees on wages .............. . No. | 541,605 | 520,559 | 577,690 | 382,022 | 533,342 |
| Averages, per establishment...... " | 24.8 | 23.1 | 26.0 | 16-1 | 21.5 |
| Wages..... | 412,448,177 | 575,656,515 | 601,737,507 | 296,929,878 | 519,971,819 |
| Averages, per wage | 762 | 1,106 | 1,042 | 777 | 975 |
| Cost of materials | 1,539,678,811 | 2,085,271,649 | 2,029,670,813 | 967,788,928 | 1,836,159,375 |
| Averages, per establish | 70,482 | 92,547 | 91,361 | 40,698 | 74,024 |
| Averages, per employ | 2,539 | 3,482 | 3,045 | 2,065 | 2,790 |
| Values added in manufacture ${ }^{2} \ldots . .$. \% | 1,281,131,980 | 1,621,273,348 | 1,755,386,937 | 919,671,181 | 1,531,051,901 |
| Averages, per establishment ${ }^{2}$..... 8 | 58,646. | 71,954 | 79,015 | 38,674 | 61,724 |
| Averages, per employee ${ }^{2} \ldots \ldots \ldots$. \% | - 2,112 | 2,707 | 2,634 | 1,962 | 2,326 |
| Gross value of products | 2,820,810,791 | 3,706,544,997 | 3,883,446,116 | 1,954,075,785 | 3,474,783,528 |
| Averages, per establishment...... | 129,128 | 164,501 | 174,804 | 82,173 | 140,084 |
| Averages, per employee.......... \$ | 4,651 | 6,189 | 5,286 | 4,170 | 5,280 |
|  | 1944 | 1946 | 1949 | 1951 | 1952 |
| Establishments.................. No. | 28,483 | 31,249 | 35,792 | 37,021 | 37,929 |
| Totals, employees | 1,222,882 | 1,058,156 | 1,171,207 | 1,258,375 | 1,288,382 |
| Averages, per establishment | 42.9 | 33-9 | $32 \cdot 7$ | $34 \cdot 0$ | 34.0 |
| Totals, salaries and wages.......... \$ | 2,029,621,370 | 1,740,687,254 | 2,591,890,657 | 3,276,280,917 | 3,637,620,160 |
| Averages, per establishment...... \$ | 71,257 | 55,704 | 72,415 | 88,498 | 95,906 |
| Averages, per employee. . . . . . . . . \% | 1,660 | 1,645 | 2,213 | 2,604 | 2,823 |
| Employees on salaries............. No. | 192,558 | 181,006 | 221,551 | 247,787 | 263,027 |
| Averages, per establishmen | 6.8 | 5.8 | 6-2 | 6.7 | 6.9 |
| Salaries... | 418,065,594 | 410,875,776 | 628,427,937 | 816,714,604 | 923,905,251 |
| Employees on wages.............. No. | 1, 2,171 | 2,270 | 2,836 | 3,296 | 1, 3,513 |
|  | 1,030,324 | 877,150 | 949,656 | 1,010,588 | 1,025,355 |
| A verages, per establishmen | 36.2 | 28.1 | 26.5 | 27.3 | $27 \cdot 0$ |
| Wages.................. | 1,611,555,776 | 1,329,811,478 | 1,963,462,720 | 2,459,566,313 | 2,713,714,909 |
| Averages, per w | 1.564 | 1,516 | 2,068 | 2,434 | 2,647 |
| Cost of materials... | 4,832,333,356 | 4,358,234,766 | 6,843,231,064 | 9,074,526,353 | 9,146,172,494 |
| Averages, per establishment | 169,657 | 139,468 | 191,194 | 245,118 | 241,139 |
| Valuers added in manufacture ${ }^{\text {a }}$........ | 3,952 | 4,119 | 5,843 | 7,211 | 7.099 |
|  | 4,015,776,010 3 | 3,467,004,980 | 5,330,566,434 | $6,940,946,783$ | 7,443,533,199 |
| Averages, per establishment ${ }^{2}$ | 140,989 | 110,948 | 148,932 | 187,487 | 196,249 |
| Averages, per employe | 3,284 | 3,276 | 4,551 | 5,516 | 5,777 |
|  | 9,073,692,519 | 8,035,692,471 | 12,479,593,300 | 16,392,187,132 | 16,982,687,035 ${ }^{3}$ |
| Averages, per establishment...... 8 | 318,565 | 257, 150 | 348,670 | 442,781 | 447,7493 |
| Averages, per employee..... .... \$ | 7,420 | 7,594 | 10,655 | 13,026 | $13,181^{3}$ |

${ }^{1}$ The method of computing the number of wage-earners in 1925-30, inclusive, increased the number somewhat over that which otherwise would have been given. There was, therefore, a proportionate reduction in the averages for 1925-30 per employee and wage-earner. In 1931, the method in force prior to 1925 was re-adopted. $\quad{ }^{2}$ Net values of products; see footnote 1, Table 1, p. 634.
gross value of products was replaced by value of factory shipments; see text on pp. 633-634.
Consumption of Manufactured Products.-The value of all manufactured products made available for consumption in 1952 was $\$ 17,215,524,423$, a figure obtained by adding to the value of manufactured products the value of the imports of manufactured and partly manufactured goods and deducting the value of exports. More accurate statistics could be presented were it possible to exclude the duplications involved when the products of one manufacturing establishment become the material worked upon in another. Iron, vegetable, wood and paper, animal and textile products were, in that order, the leading groups in the value of finished
products made available for consumption in 1952. Animal, wood and paper, and nonferrous metal products were also manufactured in greater quantities than required for home consumption, providing export balances in these groups. Canada imports large quantities of iron and steel, textiles, chemicals and non-metallic mineral products despite large home production. Recent expansion of the iron and steel, chemical and non-ferrous metal industries will enable Canada to meet more requirements for home consumption and to export greater quantities in the future.

## 5.-Consumption of Manufactured Products, Significant Years, 1929-52, and by Industrial Groups, 1951 and 1952

| Year and Industrial Group | Gross Value of Products Manufactured ${ }^{2}$ | Manufactured and Partly Manufactured Goods ${ }^{1}$ |  | Value of Manufactured Products Available for Consumption |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Value of Net Imports | Value of Domestic Exports |  |
|  | \$ | \$ | \$ | 8 |
| 1929 | 3,883,446,116 | 939,130,201 | 686, 876,071 | 4,135,700,246 |
| 1933 | 1,954,075, 785 | 298,068,344 | 365,232,113 | 1,886,912,016 |
| 1939 | 3,474,783,528 | 542,364,930 | 646, 853,938 | 3,370, 294,520 |
| 1944 | 9,073,692,519 | 1,302,413,996 | 2,668,575,781 | 7,707,530,734 |
| 1946 | 8,035,692,471 | 1,390, 123,100 | 1,701,677,026 | 7,724,138,545 |
| 1949 | 12,479,593,300 | 2,043,583,929 | 2,017,055,615 | 12,506, 121,614 |
| 1950 | 13,817,526,380 | 2,289,162,070 | 2,239,733,915 | 13,866,954,535 |
| Industrial Group, 1951 ${ }^{3}$ |  |  |  |  |
| Vegetable products | 2,445,848,786 | 263,617,019 | 244,721,869 | 2,464,743, 936 |
| Animal products. | 1,846, 134, 158 | 70,126,024 | 101,562,405 | 1,814,697,777 |
| Textile and textile products | 1,559,977,021 | 303,558,270 | 34,935,831 | 1,828,599,460 |
| Wood and paper products. | $3,209,391,543$ | 128,972,748 | 1,316,442,025 | 2,021,922,266 |
| Iron and its products. | 3,432, 209, 864 | 1,291,364,316 | 323,702,566 | 4,399,871,614 |
| Non-ferrous metal products. | 1,929,608,127 | 244, 526, 262 | 457,569,880 | 1,716,564,509 |
| Non-metallic mineral products | 1,044,425,433 | 251,828,723 | 85,510,539 | 1,210,743,617 |
| Chemicals and allied products | 716,287,268 | 189, 719,193 | 131,689,729 | 774,316,732 |
| Miscellaneous industries..... | 208,304,932 | 290,997,274 | 52,956.412 | 446,345,794 |
| Totals, 1951 | 16,392,187,132 | 3,034,709,829 | 2,749,091,256 | 16,677,805,705 |
| Industrial Group, 19523 |  |  |  |  |
| Vegetable products | 2,519,179,224 | 238,550,554 | 235,150,632 | 2,522, 579, 146 |
| Animal products. | 1,801, 102,780 | 46,431,555 | 89,096,924 | 1,758,437,411 |
| Textile and textile product | 1,524,985,439 | 250, 207,749 | 26,088,173 | 1,749,105,015 |
| Wood and paper products. | 3,184,797,667 | 128,533,506 | 1,271,578,274 | 2,041,752,899 |
| Iron and its products............. . . | 3,922,647,073 | 1,359,518,854 | 384,612,567 | 4,897,553,360 |
| Non-ferrous metal products | 1,930,991,789 | 245, 819,343 | 571, 140,444 | 1,605,670,688 |
| Non-metallic mineral products | 1,130,487,677 | 249,979,373 | 96, 045,997 | 1,284,421,053 |
| Chemicals and allied products.. | 744, 630, 244 | 185, 943,668 | 124,565,264 | 806,008,648 |
| Miscellaneous industries... | 223,865,142 | 420,396,731 | 94,265,670 | 549,996,203 |
| Totals, 1952. | 16,982,687, $035{ }^{2}$ | 3,125,381,333 | 2,892,543,945 | 17,215,524,423 |

${ }^{1}$ Figures for the years 1929 and 1933 are for the fiscal years ended Mar. 31 of the following years; for 1939-52 they are for the calendar year. Net imports are total imports less foreign products $1 e$-exported. ${ }^{2}$ In 1952, gross value of products was replaced by value of factory shipments; see text on p. 633 f . ${ }^{3}$ Consumption figures for the major standard industrial classification groups (see p. 644) cannot be calculated as statistics of imports and exports are still compiled on the component material classification basis.

## Subsection 2.-Value and Volume of Manufacturing Production

Value of Manufacturing Production.-In the interpretation of manufacturing values over a number of years, variations in the level of prices must be borne in mind. In recent years, owing to violent changes in prices, unadjusted value series, used in isolation, have become increasingly inadequate as indicators
of economic trends. Of necessity, interest has shifted to measures of volume. The index number of wholesale prices (based on $1935-39=100$ ) stood at $148 \cdot 9$ in 1917, $203 \cdot 2$ in 1920, $124 \cdot 6$ in 1929, $87 \cdot 4$ in 1933, $99 \cdot 2$ in 1939, $138 \cdot 9$ in 1946 and $226 \cdot 0$ in 1952. Index numbers of the prices of fully or chiefly manufactured goods on the same base were: $150 \cdot 9$ in 1917, $208 \cdot 2$ in $1920,123 \cdot 7$ in 1929, $93 \cdot 3$ in 1933 , $101 \cdot 9$ in 1939, $138 \cdot 0$ in 1946 and $230 \cdot 7$ in 1952.

Volume of Manufacturing Production.-Since real income is ultimately measured in goods and services, the growth of the volume of manufacturing production, as distinguished from its value, becomes a matter of great significance. The important thing to know is whether consumers are getting more goods and services and not whether they are expending more dollars and cents. The field of industrial production, because of its dominating position in the national economy, has attracted increasing attention. This, in turn, has resulted in the need for more accurate measurements of physical output.

During the past few years, the Dominion Bureau of Statistics has been engaged in the reconstruction of the index of industrial production* which was first published in 1926 and later subjected to several major revisions. The latest reconstruction was made possible by the availability of a great deal of basic data. Annual statistics valuable for this project have been collected by the Bureau from the end of World War I to the present and the scope of the monthly information has been greatly expanded. Applying methods developed through the experience of the past quartercentury, it has been possible to compute an index with a fair measure of accuracy from 1935 to the present.

The manufacturing sector is divided, at the major group level, into durable manufactures and non-durable manufactures, for the reason that the movement of durable goods normally varies from that of non-durables. There tends to be greater fluctuation in durables from prosperity to depression, the demand for non-durables being more constant.

[^202]
## 6.-Index of the Total Volume of Manufacturing Production, classified on the Basis of Durable and Non-durable Goods, 1935-52

$(1935-39=100)$

| Year |  | Durable <br> Manu- <br> factures | All Manufactures | Year | Nondurable factures | Durable Manufactures | All Manufactures |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1935. | $89 \cdot 0$ | 82.7 | 86.5 | 1944. | $179 \cdot 8$ | $340 \cdot 1$ | 242-3 |
| 1936. | $97 \cdot 1$ | 93.1 | $95 \cdot 5$ | 1945. | $176 \cdot 3$ | $262 \cdot 1$ | $209 \cdot 8$ |
| 1937. | $106 \cdot 7$ | $113 \cdot 2$ | 109.3 | 1946... | $180 \cdot 2$ | $205 \cdot 1$ | 189.9 |
| 1938. | 98.9 | 103.2 | $100 \cdot 6$ | 1947.. | 191.2 | $233 \cdot 5$ | $207 \cdot 7$ |
| 1939. | $108 \cdot 2$ | $107 \cdot 9$ | $108 \cdot 1$ | 1948. | $197 \cdot 1$ | 244-4 | $215 \cdot 5$ |
| 1940. | $124 \cdot 6$ | 149-7 | $134 \cdot 4$ | 1949. | 198.2 | 246.3 | $217 \cdot 0$ |
| 1841. | 148.7 | $218 \cdot 5$ | $175 \cdot 9$ | 1950. | $208 \cdot 3$ | 259 -1 | 228.1 |
| 1942. | 169.4 | 288.1 | $215 \cdot 7$ | 1951. | 214.0 | $285 \cdot 9$ | $242 \cdot 1$ |
| 1943. | 171.5 | 333.0 | $234 \cdot 5$ | 1952 | $215 \cdot 2$ | $294 \cdot 8$ | $246 \cdot 3$ |

The period 1935-52 was characterized by unprecedented industrial expansion. Emerging from a depression practically world-wide in scope, industrial operations in Canada entered a period of rapid growth which was maintained throughout the war and post-war years without important interruption.

The volume of output of manufactures rose steeply after the outbreak of hostilities in 1939. Productive facilities responded quickly to the urgent requirements of the Armed Forces. In the early days of the War, production assignments allotted were comparatively simple but, as pre-war weapons became obsolete and as Canada proved capable of turning out larger and more complex equipment, the assignments constantly shifted, changed and grew more difficult. The production figures merely suggest the magnitude of the achievement. They cannot describe the tremendous effort needed to convert a semi-agricultural country into a wartime arsenal nor the complications that arose because of shortages of manpower, tools and materials.

The productive peak was reached in 1944, when weapons, supplies and equipment were rolling off the assembly lines at a record-breaking pace. The end of hostilities and the subsequent reconversion to peace-time production were attended by declines in output in 1945 and 1946. The upward trend was resumed, however, in 1947. The rate of advance slackened moderately in 1948 and 1949 but regained most of its 1947 impetus in 1950 when the renewal of hostilities in Korea resulted in heavy anticipatory buying on the part of consumers and in growing expenditures for national defence. In 1951, the index of the volume of manufacturing production had practically equalled the record wartime level of $242 \cdot 3$ established in 1944, and a new record of $246 \cdot 3$ was reached in 1952.

A problem confronting business economists is to determine how much of the post-war industrial 'drive' was caused by normal growth factors and how much of it was caused by the backlog of war-accumulated demand. Though it is true that the greatest demand accumulation took place in housing and consumer durables, nondurables such as textiles and clothing also started the post-war period with a sizable backlog of unfilled demand. It is now becoming apparent, after the vigorous pace of business following the outbreak of hostilities in Korea, that a considerable portion of this demand has been satisfied and some industries, notably textiles, clothing and some major appliances, are experiencing difficulties. However, general prospects appear bright. The increased productive activity which will result from the present very high level of capital investment is not as yet fully reflected in current production statistics. Huge expansion and development programs are well under way in iron ore, steel, aluminum and other metals, oil, chemicals, motor-vehicles, electric power, and in a number of other industries.

Non-durable Manufactures.-The trend of output during 1935-52 in the nondurable sector of manufacturing was visibly smoother than in the durable sector. Except in two years, 1938 and 1945, there was no interruption in the upward movement of production during the period under review. Despite the fact that war contracts quickened the pace of output in some of the industries, production continued
to expand after the War, although at a slower rate. Unlike durable goods, nondurable commodities are mostly consumer goods and are less influenced by sudden changes in the international situation or the capital investment programs of producers and governments. By 1951, the non-durables index of output had reached $214 \cdot 0$ and, by $1952,215 \cdot 2$, the highest on record.

## 7.-Indexes of the Volume of Manufacturing Production of the Groups Comprised within the Non-durable Manufactures Classification, 1943-52

$(1935-39=100)$
Nots.-Indexes for the years 1935-42 are given in the 1954 Year Book, p. 629.

| Year | Foods | Beverages | Tobaceo and Tobacco Products | Rubber Products | Leather Products | Textile Products (except Clothing) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1943. | 156.0 | 162.0 | 183.8 | 147.0 | $151 \cdot 1$ | $172 \cdot 1$ |
| 1944... | 171.1 | $190 \cdot 5$ | $200 \cdot 6$ | 149.0 | $149 \cdot 6$ | 162.0 |
| 1945. | $170 \cdot 0$ | $205 \cdot 1$ | $230 \cdot 2$ | $180 \cdot 2$ | $155 \cdot 0$ | $160 \cdot 5$ |
| 1946. | $177 \cdot 2$ | $234 \cdot 4$ | 204-4 | 158.0 | 167.9 | 161.7 |
| 1947........................ | 181.5 | 249.4 | 211 -9 | $230 \cdot 7$ | 148.7 | 172.9 |
| 1948. | 183.0 | $270 \cdot 9$ | 215.8 | $227 \cdot 6$ | $129 \cdot 6$ | $180 \cdot 2$ |
| 1949. | $180 \cdot 3$ | 285.7 | 224.4 | $208 \cdot 5$ | 133.5 | 186.0 |
| 1950.. | $183 \cdot 6$ | 282.9 | $227 \cdot 5$ | 251.9 | 126.8 | $212 \cdot 4$ |
| 1951. | 188.7 | $297 \cdot 7$ | $212 \cdot 2$ | $264 \cdot 3$ | $117 \cdot 0$ | $208 \cdot 6$ |
| 1952. | 195.5 | 323.6 | $242 \cdot 3$ | $246 \cdot 4$ | 128.0 | $184 \cdot 1$ |
|  | Clothing (Textile and Fur) | Paper <br> Products |  | ing, hing d d des | ducts of troleum d Coal | Chemicals and Allied Products |
| 1943. | 156.7 | $140 \cdot 0$ |  |  | 150.0 | $369 \cdot 3$ |
| 1944. | $147 \cdot 1$ | 149.1 |  |  | 171.8 | $390 \cdot 4$ |
| 1945. | $146 \cdot 6$ | $161 \cdot 2$ |  |  | $167 \cdot 5$ | $292 \cdot 8$ |
| 1946. | $152 \cdot 9$ | 188.9 |  |  | $167 \cdot 4$ | $237 \cdot 7$ |
| 1947. | 147-7 | $207 \cdot 4$ |  |  | $181 \cdot 2$ | $245 \cdot 5$ |
| 1948. | 156.0 | 217-7 |  |  | 199.0 | $243 \cdot 2$ |
| 1949. | 159.4 | 213.7 |  |  | 218.0 | $239 \cdot 5$ |
| 1950. | $155 \cdot 7$ | $230 \cdot 4$ |  |  | $243 \cdot 5$ | 253.7 |
| 1951. | 149.7 | 247.8 |  |  | 274.8 | 267.8 |
| 1952.. | $154 \cdot 4$ | $235 \cdot 5$ |  |  | $295 \cdot 1$ | $272 \cdot 4$ |

Durable Manufactures.-The tremendous increase in physical output during the war years was mostly concentrated in the durable goods sector. When war was declared in September 1939, there were virtually no armament works, no production of large ships and large aircraft, no guns and no tanks. Within a few years Canadian plants were turning out naval and merchant ships, war aircraft, military vehicles, ammunition and hundreds of other war items. The new volume index of durable manufactures reached a peak of $340 \cdot 1$ in 1944, declined sharply to $205 \cdot 1$ in 1946 and increased again to. $294 \cdot 8$ in 1952.

## 8.-Indexes of the Volume of Manufacturing Production of the Groups Comprised within the Durable Manufactures Classification, 1943-52

( $1935-39 \simeq 100$ )
Nors.-Indexes for the years 1935-42 are given in the 1954 Year Book, p. 630.

| Year | Wood Products | Iron and Steel Products | Transportation Equipment | Non-ferrous Metal Products | Electrical Apparatus and Supplies | Nonmetallic Mineral Products | $\begin{gathered} \text { Mis- } \\ \text { cellaneous } \\ \text { Manu- } \\ \text { factures } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1943. | 148.4 | $362 \cdot 4$ | $562 \cdot 8$ | 284-9 | $310 \cdot 5$ | $211 \cdot 6$ | $314 \cdot 6$ |
| 1944. | 153.4 | 326.2 | 693.7 | 256.2 | $312 \cdot 1$ | 205-3 | $317 \cdot 1$ |
| 1945. | $155 \cdot 6$ | $265 \cdot 2$ | $453 \cdot 7$ | 193.4 | $258 \cdot 1$ | 195.8 | 275.9 |
| 1946. | $175 \cdot 0$ | $222 \cdot 6$ | $221 \cdot 5$ | $160 \cdot 1$ | $247 \cdot 3$ | 221.4 | 225.0 |
| 1947. | $195 \cdot 6$ | $249 \cdot 9$ | $239 \cdot 5$ | 182.8 | 316.8 | $269 \cdot 8$ | $233 \cdot 4$ |
| 1948. | $200 \cdot 7$ | $270 \cdot 4$ | $232 \cdot 6$ | $201 \cdot 6$ | 328.5 | 283.7 | $224 \cdot 5$ |
| 1949. | $202 \cdot 3$ | $264 \cdot 5$ | $243 \cdot 9$ | $200 \cdot 5$ | 333.8 | $284 \cdot 4$ | $261 \cdot 6$ |
| 1950. | $215 \cdot 1$ | $263 \cdot 2$ | $262 \cdot 2$ | 212.8 | $367 \cdot 6$ | $314 \cdot 6$ | 281.7 |
| 1951. | $220 \cdot 6$ | $292 \cdot 2$ | $315 \cdot 0$ | $234 \cdot 7$ | $392 \cdot 3$ | $342 \cdot 1$ | $283 \cdot 2$ |
| 1952. | $214 \cdot 1$ | $292 \cdot 3$ | $373 \cdot 1$ | $232 \cdot 2$ | $393 \cdot 1$ | $346 \cdot 1$ | $280 \cdot 7$ |

## Section 2.-Production by Industrial Groups and Individual Industries

In 1949 two major changes were adopted in the compilation of manufacturing statistics-statistics for Newfoundland were included and the system of classification was changed. By the Standard Classification the industries are grouped under the 17 major headings listed in Table 9 instead of the nine groups listed in Table 3 which were formerly used as the main basis of classification. Summary statistics for the main groups on the new basis are given for 1945-52 in Table 10, while 1951 and 1952 statistics for individual industries are presented in detail in Tables 11 and 12. Table 14 gives the industries on the basis of the origin of the materials used.

## Subsection 1.-Manufactures Classified on the Standard Classification Basis

Table 9 shows the changes in the nature of manufacturing production since the end of World War II with regard to numbers employed, salaries and wages paid, and gross value of products. The values of both wages and products are naturally more affected by price changes than the numbers of employees. Furthermore, during periods of curtailed production there is a tendency for wage-earners to be put on part time, while the number of salaried employees responds less quickly to reduction in output. Thus, variation in number of employees would normally be less pronounced than that in money values.

The most notable change took place in the transportation equipment group which, in the first four years after the War, showed a decline of $31 \cdot 2$ p.c. in employees and of $17 \cdot 1$ p.c. in salaries and wages and only a small increase in value of products. However, in the following three years the picture changed, this group showing higher increases than any other group in all three categories.
9.-Percentage Variations in Employment, Salaries and Wages, and Gross Value of Products in the Main Industrial Groups, 1949 Compared with 1945, and 1952 with 1949.

| Industrial Group | $\begin{gathered} 1949 \\ \text { Compared with } \\ 1945 \end{gathered}$ |  |  | $\begin{gathered} 1952 \\ \text { Compared with } \\ 1949 \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employees | Total Salaries and Wages | Gross Value of Products | Employees | Total Salaries <br> Wages | Value of Factory Shipments ${ }^{1}$ |
|  | p.c. | p.c. | p c. | p.c. | pe. | p.c. |
| Food and beverages. | +8.12 | $+48.5{ }^{2}$ | $+49.5{ }^{2}$ | $+3.3$ | +29.2 | +20.5 |
| Tobacco and tobacco products. | $-12.2$ | +39.1 | $+42.3$ | -13.2 | $+16.0$ | $+25.2$ |
| Rubber products......... | -11.8 | $+23.2$ | -1.6 | +4.1 | +35.9 | $+60.6$ |
| Leather products. | +2.3 | $+38.0$ | $+25.6$ | -8.0 | $+10.8$ | +4.0 |
| Textile products (except clothing) | +18.9 | +78.6 | $+65.1$ | $-6.5$ | +14.4 | $+16.9$ |
| Clothing (textile and fur). | +17.8 | $+57.1$ | $+52 \cdot 6$ | $-0.1$ | +16.5 | $+17.3$ |
| Wood products. | +28.92 | $+86.7{ }^{2}$ | $+83.92$ | +7.3 | $+33.1$ | $+38.9$ |
| Paper products | $+20.7^{2}$ | $+80 \cdot 5^{2}$ | $+95 \cdot 1{ }^{2}$ | $+8.5$ | $+40 \cdot 5$ | $+38.2$ |
| Printing, publishing and allied trades ${ }^{3}$... | +31.2 | +81.2 | +84-1 | $+4 \cdot 3$ | $+31 \cdot 6$ | $+29.9$ |
| Iron and steel products................... | -3.4 | +31.6 | +49.0 | $+15.6$ | $+49 \cdot 3$ | +50.4 |
| Transportation equipment................ | -32.4 | $-17.1$ | +2.8 | $+39.7$ | +74.7 | +69.6 |
| Non-ferrous metal products.... | +1.1 | $+39.9$ | +58.0 | $+14.0$ | +45.8 | $+40.1$ |
| Electrical apparatus and supplies | $+26.7$ | $+79.5$ | $+110 \cdot 9$ | +23.8 | $+58.5$ | +47.2 |
| Non-metallic mineral products. | +38.8 | $+96.0$ | +88.6 | $+11.7$ | +43.7 | $+42.0$ |
| Products of petroleum and coal | +26.2 | $+73 \cdot 7$ | +97.6 | $+16.2$ | $+59.8$ | $+46.2$ |
| Chemical products.. | -32.6 | $-6.0$ | $+17 \cdot 8$ | $+15.4$ | $+47.1$ | $+35 \cdot 6$ |
| Miscellaneous industries | 4 | 4 | 4 | $+13.0$ | +44-9 | $+44 \cdot 3$ |
| Averages, All Groups ${ }^{\text {3 }}$ | $+3 \cdot 6^{2}$ | +39.22 | $+50 \cdot 0^{2}$ | +10.0 | +40.3 | +36.1 |

[^203]
## 10.-Summary Statistics of Manufactures, by Industrial Group, Alternate Years, 1945-51 and 1952

Note.-Figures for 1946, 1948 and 1950 will be found in the 1952-53 Year Book, pp. 611-613.

| Industrial Group and Year | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products | Gross Value of Products ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food ${ }^{2}$ and Beverages- | No. | No. | 8 | \$ | 8 | \$ |
| 1945. | 8,872 | 156,396 | 224,908,882 | 1,336,820,028 | 558,247,045 | 1,921,774,601 |
| 1947 | 8,869 | 167,865 | 276.245,015 | 1,656,529,086 | 695,092,932 | 2,383,975, 675 |
| 1949. | 8,558 | 170,024 | 332,536,319 | 2,009,246,062 | 834,017,547 | 2,882,581,753 |
| 1951 | 8,388 | 172,493 | 392,859,435 | 2,419,206,798 | 985, 240,884 | 3,450,030,515 |
| 1952 | 8,263 | 175,552 | 429,650,055 | 2,333,089,054 | 1,091,944,158 | 3,472,516,950 |
| Tobaceo and Tobaceo Products- |  |  |  |  |  |  |
| 1945. | 86 | 12,164 | 15,738, 041 | 79,176,519 | 42,985,992 | 122,543,932 |
| 1947 | 91 | 10,880 | 16,234, 772 | 97, 121,002 | 49,221,094 | 146,793,011 |
| 1949 | 72 | 10,686 | 21,896,378 | 113,357,196 | 58,529,226 | 172,420,213 |
| 1951. | 62 | 9,826 | 24,438,218 | 119,590,053 | 59,033,325 | 179,177,093 |
| 1952. | 61 | 9,277 | 25,405,072 | 144,537,670 | 70,777,110 | 215,914,370 |
| Rubber Products- |  |  |  |  |  |  |
| 1945 | 55 | 23,490 | 39,111,477 | 78,500,892 | 98,836,225 | 181,413,226 |
| 1947 | 60 | 23,475 | 46, 613,893 | 82,934,625 | 110,673,007 | 196,307,734 |
| 1948 | ${ }_{67}^{62}$ | 20,729 23 | 48, 172,207 | 73,895,718 | 101, 705,513 | 178,503,559 |
| 1952 | 70 | 21,582 | $64,357,696$ $65,477,683$ | $146,951,650$ $120,799,295$ | $161,184,980$ $162,493,060$ | 311,678,489 |

[^204]
## 10.-Summary Statistics of Manufactures, by Industrial Group, Alternate Years, 1945-51 and 1952-continued

Note:-Figures for 1946, 1948 and 1950 will be found in the 1952-53 Year Book, pp. 611-613.

| Industrial Group and Year | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products | Gross <br> Value of Products ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Leather Products- | No. | No. | 8 | \$ | 8 | \$ |
| 1945. | 706 | 34,123 | 43, 268, 635 | 95,006,015 | 71,297,713 | 167, 888,463 |
| 1947 | 792 | 35,724 | 52,628,612 | 123,894,474 | 86,646,061 | 212,430,165 |
| 1949 | 747 | 34,900 | 59,699,886 | 117,869,462 | 91, 157,684 | 210,804,174 |
| 1951 | 711 | 31,578 | 59,668,764 | 135, 114, 110 | 84,885,048 | 221,882,794 |
| 1952. | 701 | 32,103 | $66,153,490$ | 115, 714,505 | 101,511,149 | 219,200,929 |
| Textile Products (except Clothing)- |  |  |  |  |  |  |
| 1945 | 664 | 66,011 | 88,372,938 | 217, 289,281 | 165,689,522 | 391,182,025 |
| 1947 | 747 | 73,979 | 116,228,736 | 289,986,732 | 215, 170,493 | 514,844,838 |
| 1949 | 847 | 77,773 | 156,166,554 | 339, 644, 950 | $285,641,367$ | 636,824, 130 |
| 1951 | 892 | 81,710 | 185,030,489 | 495, 304, 102 | 337,936,447 | 846,477,303 |
| 1952 | 918 | 72,739 | 178,689,466 | 418,522,518 | 312,627,434 | 744,141,645 |
| Clothing (Textile and Fur)- |  |  |  |  |  |  |
| 1945. | 2,676 | 99,959 | 131,478,496 | 251,899,847 | 222,307,384 | 476,754,319 |
| 1947 | 3,121 | 110,329 | 166,951,727 | 311,018,817 | 300,527,093 | 614,594,703 |
| 1949 | 3,058 | 117,752 | 206,512,782 | 371,128,833 | 352,741, 236 | 727,498,836 |
| 1951 | 3,083 | 115,733 | 222,364,947 | 405,347,118 | 370,672,177 | 780,012,025 |
| 1952. | 3,041 | 117, 668 | 240,539,672 | 443,956,596 | 405,091,338 | 853,151,206 |
| Wood Products |  |  |  |  |  |  |
| 1945 | 7,656 | 93, 209 | 119,833,932 | 240,482,275 | 208,979,657 | 454,447, 165 |
| 1947 | 9,744 | 120,434 | 186,467,946 | 398,854,196 | 365,050,223 | 771,403,332 |
| 1949 | 11,191 | 121,632 | 224,902,644 | 436,637,453 | 393,928,758 | 840,355,634 |
| 1951 | 11,975 | 131,278 | 283,062,074 | 610,807,577 | 529,300,377 | 1,153,376,772 |
| 1952. | 12,467 | 130,468 | 299,430,981 | 618,979,510 | 534,155,313 | 1,167,629,531 |
| Paper Products- |  |  |  |  |  |  |
| 1945. | 475 | 60,819 | 109,627,174 | 255, 265,326 | 241, 121,150 | 536,859,861 |
| 1947 | 502 | 73,445 | 168,632,394 | 410,456,570 | 443, 374, 435 | 911,238,813 |
| 1949 | 524 | 76,471 | 208,348,621 | 494,300, 501 | 532,288,636 | 1,093,080,326 |
| 1951 | 547 | 82,889 | 276,521,006 | $683,488,653$ | 827,924,962 | 1,589,842, 162 |
| 1952 | 543 | 82,965 | 292,682,283 | 694,190,401 | 736,217,142 | 1,510,148,791 |
| Printing, Publishing and Allied Trades- |  |  |  |  |  |  |
| 1945 | 2,312 2,458 | 43,565 52,096 | $74,257,775$ $101,611,652$ | $52,655,848$ $82,585,466$ |  |  |
| 1947 | 2,458 | 52,096 61,834 | $101,611,652$ $141,489,984$ | $82,585,466$ $124,684,351$ | $178,667,051$ $250,162,704$ | 263,632,152 |
| 1951 | 4,019 | 64,694 | 170,828,730 | 152,753,412 | 295,642,569 | 452,142,515 |
| 1952. | 4,124 | 64,485 | 186,250,715 | 160,393,787 | 326,662,173 | 490,934,851 |
| Iron and Steel Products- |  |  |  |  |  |  |
| 1945 | 1,903 | 169,278 | 313,966,173 | 395,624,098 | 527,473,688 | 952,482,150 |
| 1947 | 2,200 | 162,399 | 334,044, 246 | 451, 289,335 | 580,342,444 | 1,064,654,410 |
| 1949 | 2,347 | 163,622 | 413,227,553 | 619,499,256 | 760,934, 249 | 1,419,145,725 |
| 1951 | 2,435 | 183,323 | 547,314,615 | 860, 565,510 | 991,334,800 | 1,904,650, 130 |
| 1952. | 2,625 | 189,191 | 617,010,924 | 947,993,190 | 1,134,043,024 | $2,135,031,744$ |
|  |  |  |  |  |  |  |
| 1945............ | 504 | 154,844 | 326,748.794 | 498, 241,686 | 523,910,119 | 1,034,666,913 |
| 1947 | 562 | 104,348 | 230,898,680 | 426,573, 091 | 366, 151,761 | 803,611,372 |
| 1949 | 596 | 104,750 | 270,852,111 | 584,064,330 | 466,529,164 | 1,063,211, 331 |
| 1951 | 599 | 122,517 | 368, 106,433 | 870,178,794 | 657,424,400 | 1,541, 5899,828 |
| 1952. | 617 | 146,360 | 473,118,450 | 1,009,470,570 | 778,347,604 | 1,803,699,823 |
| Non-ferrous Metal Products- |  |  |  |  |  |  |
| 1945 | 436 | 44, 221 | 81,889,942 | 337, 872,041 | 180,653,076 | 548,853,026 |
| 1947 | 503 | 43,344 | 91,046,568 | 434,517,197 | 201, 162.856 | 668,074,514 |
| 1949 | 532 | 44,698 | 114,591, 106 | 537,218,214 | 289, 125,045 | 867,043,028 |
| 1951 | 536 | 50,114 | 150,733, 704 | 797,412,763 | 406,616,836 | 1,253,599,168 |
| 1952. | 552 | 50,938 | 167,045, 084 | 744,596,427 | 414,920,456 | 1,215, 118,447 |

${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text on p. 633.

## 10.-Summary Statistics of Manufactures, by Industrial Group, Alternate Years, 1945-51 and 1952-concluded

Nore.-Figures for 1946, 1948 and 1950 will be found in the 1952-53 Year Book, pp. 611-613.

| Industrial Group and Year | Estab lishments | Employees | Salaries and <br> Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net Value of Products | Gross Value of Products ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | 8 | \$ | 8 | \$ |
| Electrical Apparatus and Supplies- |  |  |  |  |  |  |
| 1945..................... | 247 | 44,129 | 76,468,795 | 92,041,030 | 135,919,899 | 230,531,874 |
| 1947. | 296 | 52,736 | 103,891,016 | 162,131,266 | 200,859, 040 | 366,506, 203 |
| 1949. | 365 | 55,916 | 137,278,521 | 212,460,413 | 269,341,983 | 486,286,355 |
| 1951. | 373 | 67,626 | 194,749,038 | 316,561,307 | 353,602,872 | 676,008,959 |
| 1952. | 401 | 69,200 | 217,564,336 | 313,713, 170 | 395,933,805 | 715,873,342 |
| Non-metailic Mineral Products- |  |  |  |  |  |  |
| 1945. | 700 | 20,269 | 32,959,877 | 41,488,955 | 76,318,456 | 130,704,796 |
| 1947. | 863 | 26,443 | 50,456,143 | 66,266,546 | 115,277,990 | 201,786,910 |
| 1949. | 1,020 | 28,139 | 64,594,354 | 78,401,065 | 143,872,615 | 246,457,799 |
| 1951. | 1,042 | 31,522 | 86,078,972 | 109,011,701 | 195,348,829 | 334,875,398 |
| 1952. | 1,057 | 31,422 | 92,818,919 | 115, 217,568 | 203,692,859 | 350,051,630 |
| Products of Petroleum and Coal- |  |  |  |  |  |  |
| 1945. | 80 | 11,532 | 22,904,418 | 188,899,911 | 65, 637, 131 | 270,166,984 |
| 1947 | 80 | 12,769 | 28,689,932 | 257,420,851 | 84, 073,746 | 361,333,008 |
| 1949 | 77 | 14,552 | 39,783,500 | 391,036, 128 | 117,819,090 | 533,730,719 |
| 1951. | 82 | 15,598 | 51,947,890 | 497,982,695 | 179,872,590 | 709,550,035 |
| 1952. | 101 | 16,905 | 63,573,173 | 519,629,241 | 225,825, 749 | 780,436,047 |
| Chemicals and Allied Products- |  |  |  |  |  |  |
| 1945. | 986 | 61,339 | 107,050,824 | 228,855,956 | 252,944, 165 | 498, 630,798 |
| 1947 | 1,046 | 39,237 | 78,993,517 | 238,310,157 | 234, 056,973 | 488,307,293 |
| 1949 | 1,037 | 41,328 | 100,690,662 | 280,008,945 | 288, 171,551 | 587,398,215 |
| 1951. | 1,037 | 45,664 | 131,310,151 | 366,957,695 | 384,026, 141 | 776,489,391 |
| 1952. | 1,075 | 47,694 | 148,075,675 | 357,818,760 | 414,087,592 | 796,562,234 |
| Miscellaneous Industries- |  |  |  |  |  |  |
| 1945. | 692 | 24,024 | 37,187,275 | 83,549,139 | 59,608,689 | 144,523,599 |
| 1947 | 800 | 22,247 | 36,291,117 | 44,390,608 | 65, 708, 603 | 111,532,447 |
| 1949 | 893 | 26,401 | 51,147,475 | 59,778, 187 | 94,600,066 | 156,363,321 |
| 1951. | 1,173 | 28,756 | 66,908,755 | 87,292,415 | 120,899,546 | 210,804,555 |
| 1952. | 1,313 | 29,833 | 74,133,582 | 87,550,232 | 135, 203, 233 | 225, 620, 866 |

${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text on p. 633.
Table 11 presents, for the years 1951 and 1952, detailed statistics of the individual industries under which all industrial plants in Canada are classified. In interpreting these figures it should be remembered that they do not refer to individual products but to all the products made in an industry. For example, the value of shipments of the confectionery industry amounting to $\$ 98,356,141$ in 1952 does not imply that this was the value of confectionery shipped. What it means is that the firms whose principal product is confectionery had a value of shipments amounting to $\$ 98,356,141$. This figure, in addition to confectionery, includes the shipments of all the subsidiary products made by these firms, such as ice cream, which was valued at $\$ 2,754,789$, and bread and other bakery products valued at $\$ 2,632,228$. Confectionery is also produced as a subsidiary product by firms credited to other industrial classifications. The quantities and values of the principal individual commodities produced are given in Table 12. Commodities produced in small quantities are not included but the list covers approximately 75 p.c. of total production.

| Group and Industry | 1951 |  |  |  |  |  | 1952 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products | Gross Value of Products | Estab-lishments | $\begin{gathered} \text { Em- } \\ \text { ployees } \end{gathered}$ | Salaries and Wages | Cost of Materials | Net Value of Products | Value of Factory Shipments ${ }^{1}$ |
|  | No. | No. | 8 | \$ | \$ | 8 | No. | No. | \$ | \$ | § | \$ |
| Food and Beverages-Bakery Products- |  |  |  |  |  |  |  |  |  |  |  |  |
| Biscuits....... | 46 | 6,176 | 11,920,673 | 34,863,609 | 36,208,624 | 71,899,578 | 47 | 6,181 | 13,017,891 | 35,253,637 | 39,534,718 | 75,650,100 |
| Bread and other bakery products.. | 2,607 | 32,252 | $67,115,919$ | 121,376,693 | 116,352,428 | 245, 288,370 | 2,585 | 33,011 | 74,244,786 | 122,229,789 | 129,740,849 | 260,181,410 |
| Beverages- | 510 |  | $16,048,878$ |  |  |  | 514 | 2 | 5 | 5 | 40 | 188 |
| Breweries. | 63 | 8,449 | 27,489,309 | 45,905,901 | 112,741,266 | 161,159,033 | 61 | 8,163 | 30, 143, 552 | 49,713,488 | 126,465,413 | 178,768,806 |
| Distilled liquors | ${ }_{20}^{20}$ | 4,643 | 12,938,163 | 43,393, 190 | 68,097,335 | 113,695,516 | 21 | 4,784 | 14,129,557 | 43,188, 519 | 70,733,919 | 115, 984,960 |
| Wines........ | 26 | 556 | 1,677,916 | 4,356, 877 | 5,614,554 | 10,098, 170 | 25 | 556 | 1,820,480 | 4,026,160 | 6,179,858 | 10,332,557 |
| Canning and ProcessingFish processing. | 633 | 14,911 | 24,744, 189 | 101,621,086 | 58,665,035 | 163,010,208 | 635 | 14,354 | 24,426,351 | 86,457,993 | 45,734, 589 | 134,725,304 |
| Fruit and vegetable preparations. | 459 | 16,401 | 30, 107, 576 | 116,052,675 | 81,999,840 | 200,779,150 | 462 | 16,020 | 31,992,856 | 120,602,514 | 88,490, 233 | 211,787,559 |
| Dairy Products - |  | 16,401 | 30,107,57 | 110,052,075 | 81,30, 840 | 200,70, |  | 16,020 | 31,592,856 | 120,02,514 | 88,10, 233 |  |
| Butter and cheese | 1,690 | 20,900 | 46,781,550 | 284, 602,975 | 82,416, 262 | 373,745,860 | 1,602 | 20,435 | 48,826,388 | 281,366,628 | 90,409, 864 | 378,794,866 |
| Cheese, processed | 24 | 997 | 2,333,401 | 21,111, 152 | 5,122,815 | 26,349,068 | 22 | 1,050 | 2,816,857 | 20,346, 838 | 5,014,444 | 25,482,566 |
| Condensed milk | 31 | 1,495 | 3,752,507 | 53,113,387 | 12,554,063 | 67, 051, 828 | 31 | 1,590 | 4,276,300 | 56,774, 144 | 13,802,905 | $72,229,860$ |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Feeds, stock and poultry, prepared | 648 | 5,505 | 12,179,857 | 144,617,180 | 27,953,403 | 174,509,795 | 671 | 5,938 | 13,392,352 | 148,801,788 | 29,987,343 | 181,080,732 |
| Feed mills. | 663 | 1,494 | 2, 132,923 | 19,759,811 | 4,110,636 | 24,460,263 | 646 | 1,503 | 2,311,169 | 20,523,365 | 3,906,791 | 25,036,386 |
| Flour mills. | 108 | 4,864 | 13,596,597 | 242, 132,072 | 37,078,324 | 280, 866,778 | 99 | 4,961 | 14,688,635 | 236, 194,234 | 36,360,848 | 274, 208,040 |
| Foods, breakfast | 20 | 1,254 | 3,586,673 | 11,179,392 | 12,179,023 | 23,695,909 | 19 | 1,373 | 3,991,363 | 10,818,892 | 13,464,846 | 24,636,246 |
| Meat Products Animal oils and fats. | 14 | 343 | 1,023,989 | 2,644,751 | 1,684,344 | 4,568,678 | 16 | 318 | 990,554 | 1,700,937 | 1,478,785 | 3,430,314 |
| Sausage and sausage casings. | 77 | 1,013 | 2,241,088 | 13,098,706 | 4,714,222 | 18,040,208 | 78 | 1,126 | 2,527,874 | 11,594,221 | 5,561,582 | 17,407,137 |
| Slaughtering and meatpacking. | 155 | 20,914 | $62,108,875$ | 767,366,797 | 120,488,594 | 892,090,641 | 154 | 22,864 | 71,378,013 | 700,369,951 | 158,761,279 | 863,776,155 |
| Miscellaneous Food Indus-tries- |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 195 | 8,821 | 16,867,348 | 48,795, 224 | 40,311,474 | 90,220,866 | 182 | 9,285 | 18,703,410 | 52,891,618 | 44,341,932 | 98,356,141 |
| ducts. |  |  | 1,259,310 |  | 3,501,282 | 8,064,035 | 13 | 558 | 1,397,762 | 4,587,616 | 3,809,928 |  |
| Sugar refining. .......... | 12 | 3.562 | 10,272,939 | 107,540,497 | 28,728,247 | 139, 109, 277 | 12 | 3,492 | 11,044,491 | 93,303, 708 | 33,044, 822 | $129,038,298$ |
| Miscellaneous foods, n.e.s... | 328 | 9,194 | 20,965, 126 | 192, 185, 529 | 65,324,778 | 260,430,714 | 325 | 9,563 | 23,203,080 | 190,029,289 | 73,007,555 | 266,030,492 |
| Totals, Food and Beverages.. | 8,388 | 172,493 | 392,859,435 | 2,419,206,798 | 985,240,884 | 3,450,030,515 | 8,263 | 175,552 | 429,650,055 | 2,333,089,054 | 1,091,944,158 | 3,472,516,950 |


11.-Principal Statistics of Individual Manufacturing Industries, elassifled on the Standard Classification Basis, 1951 and 1952—continued


| Wood ProductsFurniture | 1,430 | 27,274 | 61,429,275 | 90,323,522 | 98,474,043 | 190, 907, 429 | 1,557 | 27,188 | 65,889,501 | 96,063,263 | 106,056,091 | 204, 265,922 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% Saw and Planing Milis- |  |  | 1,420,275 | 0,323,522 | 8,47,013 | 10, 007,428 |  |  | -5,809,501 | 30,003,203 | 100,050,881 |  |
| Flooring, hardwood........ | 29 | 1,768 | $4,033,546$ 40 | 89,978,183 | 6,603,380 | 15, 800,285 | 26 | 1,463 | 3,587,950 | 6,916,692 | 5,169,748 | 12,281,016 |
| Sash, door and planin | 7,698 | 19,357 | - $43,460,0586$ | 109,505,507 | 271,865,508 | 591,551,749 | 8,283 | 19,5251 | - $43,98680,707$ | ${ }_{299} 11,508,832$ | 261,325,619 | $191,451,085$ $588,023,148$ |
| Veneers and plyw | 47 | 7,163 | 18,176,975 | 31,202,287 | 40,732,585 | 72,522,267 | 50 | 7,815 | 20,591,308 | 33,972,787 | 38,436,503 | 588,023,148 $73,126,024$ |
| os Other Wood IndustriesBeekeepers' and poultrymen's supplies. | 6 | 53 | 89,433 | 191,549 | 228,225 | 426,185 | 6 | 42 | 80,509 | 113,116 | 145,015 | 5,203 |
| Boxes and baskets, | 169 | 3,842 | 7,388,688 | 12,185,755 | 12,591,358 | 25,116,183 | 179 | 3,985 | 8,347,575 | 13,587,048 | 13,482,584 | 27,447,364 |
| Coffins and cas | 57 | 1,300 | 2,701,758 | 3,707,392 | 4,302,664 | 8,118,738 | 60 | 1,312 | 2,845,835 | 3,818,364 | 4,625,387 | 8,548,504 |
| Cooperage | 136 | 891 | 1,819,843 | 4,431,813 | 2,515,852 | 7,038,590 | 111 | 780 | 1,710,166 | 4,204,828 | 2,710,401 | 7,017,448 |
| Excelsior | 13 | 165 | 301,150 | 358,931 | 500,856 | 883,880 | 13 | 167 | 323,787 | 336,140 | 518,281 | 888,735 |
| Lasts, trees and shoe findings | 14 | 511 | 981,778 | 790,991 | 1,426,884 | 2,246,656 | 14 | 547 | 1,135,505 | 940,847 | 1,699,435 | 2,673,062 |
| Woodenware | 32 | 703 | 1,233,906 | 1,209,177 | 1,720,595 | 2,989,254 | 29 | 724 | 1,283,342 | 1,278,658 | 1,688,892 | 3,033,515 |
| Wood turning | 76 | 1,333 | 2,503,939 | 2,944,006 | 3,931,855 | 6,986,896 | 80 | 1,200 | 2,474,942 | 2,822,125 | 3,744,654 | 6,669,928 |
| Miscellaneous wood products, n.e.s. | 334 | 4,503 | 9,882,496 | 31,803,751 | 17,470, 173 | 50,023,397 | 331 | 4,789 | 11,632,947 | 38,438,722 | 22,632,745 | 61,938,577 |
| Totals, Wood Pr | 11,975 | 131,278 | 283,062,074 | 610,807,577 | 529,300,372 | 1,153,376,772 | 12,467 | 130,468 | 299,430,981 | 618,979,510 | 534,155,313 | 1,167,629,531 |
| Paper Products- |  |  |  |  |  |  |  |  |  |  |  |  |
| Boxes and bags, paper | 187 | 13,384 | 32,235, 169 | 102,219,244 | 68,939,995 | 172,230,166 | 185 | 13,074 | 34,440,614 | 102,604,735 | 68,368,996 | 172,150,881 |
| Pulp and paper | 126 | 57,291 | 213,169,906 | 483,014,009 | 679, 257,743 | 1,237,897,470 | 128 | 57,803 | 225,353, 327 | 497,046,828 | 584,101,072 | 1,157,887,657 |
| Roofing pape | 26 | 2,333 | 6,213,829 | 19,824,477 | 21,424,467 | 41,879,206 | 26 | 2,294 | 6,735,777 | 19,334,385 | 21,820,715 | 41,813,738 |
| Miscellaneous pa | 208 | 9,881 | 24,902,102 | 78,430,923 | 58,302,757 | 137,835,320 | 204 | 9,794 | 26,152,565 | 75, 204,453 | 61,926,359 | 138,296,515 |
| Totals, Paper Produc | 547 | 82,889 | 276,521,006 | 683,488,653 | 827,924,962 | 1,589,842,162 | 543 | 82,965 | 292,682,283 | 694,190,401 | 736,217,142 | 1,510,148,791 |
| Printing, Publishing and <br> Allied Industries- |  |  |  |  |  |  |  |  |  |  |  |  |
| Commercial PrintingPrinting and bookbinding. | 1,623 | 23,213 | 57,218,345 | 55, 113, 171 | 93,607,704 | 150,031, 501 |  | 22,898 | 61,776,455 | 56,570,169 | 102,375,524 | 160,278,195 |
| Trade composition...... | 46 | 765 | 2,320,718 | 316,262 | 3,377,659 | 3,730,934 | 50 | 766 | 2,582,946 | 301,951 | 3,735,732 | 4,074,127 |
| Engraving, Stereotyping and Allied Industries- |  |  |  |  |  |  |  |  |  |  |  |  |
| Engraving, stereotyping and electrotyping | 124 | 4,277 | 14,304,835 | 5,226,191 | 20,912,265 | $26,421,385$ |  |  | 15,074, 207 |  |  |  |
| Lithographing.............. | 71 | 4,521 | 12,693,770 | 15,893, 567 | $21,227,486$ | $37,357,946$ | 72 | 4,205 | 13,026,746 | $15,014,368$ | $23,537,578$ | $38,802,206$ |
| Printing and Publish Printing and publis |  |  |  |  |  |  |  |  |  |  |  |  |
| Printing and publishing...... Publishing (only) of period- |  |  | 76,241,56 |  |  |  |  |  | 9 |  | 154,760,420 | 2 |
| icals. | 1,354 | 4,618 | 8,049,497 | 19,228,318 | 18,654,535 | 37,882,853 | 1,405 | 4,569 | 8,877,582 | 21,584,040 | 19,842,053. | 41,426,093 |
| Totals, Printing, Publishing and Allied Industries. | 4,019 | 64,691 | 170,828,730 | 152,753,412 | 295,642,569 | 452,142,515 | 4,124 | 64,485 | 186,250,715 | 160,393,787 | 326,662,173 | 490,934,851 |

[^205]| Group and Industry | 1951 |  |  |  |  |  | 1952 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estab-lishments | Employees | Salaries and Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net Value of Products | Gross Value of Products | $\begin{gathered} \text { Estab-1 } \\ \text { lish- } \\ \text { ments } \end{gathered}$ | $\underset{\text { ployees }}{\text { Em- }}$ | Salaries and Wages | Cost of Materials | Net Value of Products | Value of Factory Shipments ${ }^{1}$ |
|  | No. | No. | \$ | 8 | $\xi$ | \$ | No. | No. | \$ | \$ | 8 | 8 |
| Iron and Steel Products- |  |  |  |  |  |  |  |  |  |  |  |  |
| Agricultural implements...... | 81 | 17,236 | 52, 217,430 | 96,469,032 | 72,719, 250 | 171,172, 496 | 85 | 18,046 | 62,423,716 | 109,827,515 | 93,778, 210 | $205,775,487$ |
| Boilers, tanks and platework.. | 64 | 7,490 | 24,268,698 | 27,339,236 | 46,829,163 | 75,081,142 | 74 | 8,159 | $28,269,151$ | 36,028,035 | 53,455,691 | $90,428,315$ |
| Bridge building and structural steel | 34 | 8,608 | 28,278,426 | 48,652,449 | 59,903,113 | 109,650,351 | 38 | 10,824 | 37,418,880 | 62, 135,893 | 76,308,313 | 139,716,836 |
| Castings, iron............... | 205 | 17,462 | 52, 128,413 | 75,003,538 | 86,683, 461 | $165,174,661$ | 203 | 15,937 | 51, 142,241 | 78,461,149 | $89,181,703$ | 170,968,719 |
| Hardware, tools and cutlery.. | 297 | 14,289 | 39,480, 334 | $39,022,361$ | 75,716,095 | $116,457,701$ | 339 | 14,350 | 43,664,871 | 40,353, 012 | 81,558,005 | 123,741, 049 |
| Heating and cooking apparatus | 110 | 8,075 | 22,032,374 | $36,235,145$ | 36,817,015 | 74, 138,736 | 115 | 8,599 | 24,831,396 | 37,280,645 | 48,351,702 | 86,839,474 |
| Machinery, household, office and store. | 67 | 9,900 | 26,116, 107 | 39,694,393 | 51,156,419 | 91,748,638 | 72 | 9,855 | 29,390,495 | 41,040,567 | 56,758,816 | 98,768, 609 |
| Machinery, industrial......... | 300 | 22,326 | 67, 286,913 | 79, 106, 152 | 120,611,361 | 201,990,057 | 317 | 22,497 | 73,820,422 | 81, 396,443 | 143,291,450 | 227,025,874 |
| Machine shops. | 559 | 6,231 | 16,218,976 | 10,814,175 | 25,472,584 | 36,954, 135 | 614 | 6,557 | 18,377, 267 | 13,167,819 | 27,675, 228 | 41,574,469 |
| Machine tools. | 12 | 1,928 | 5,681,423 | 4,250,817 | 6,856,338 | 11,270,140 | 13 | 2,299 | 7,771,039 | 5,009,013 | 11, 306,320 | 16,507,908 |
| Primary iron and stee | 57 | 33,393 | 108,561,802 | 223,011, 814 | 209,472,365 | 464,587, 486 | 58 | 35,001 | 124,387,290 | 239,001, 158 | 233,577,318 | 504,000,394 |
| Sheet metal products. | 277 | 17,437 | 49,037,352 | 108,335, 172 | 86,629,030 | 197, 114, 226 | 304 | 17,341 | 52,568,840 | 115,072, 180 | 96, 233,575 | 213, 585, 114 |
| Wire and wire goods. | 117 | 8,859 | 26,829,253 | 37,773, 731 | 67,288,945 | 106,511,920 | 116 | 8,662 | 27,795,355 | 38,024,516 | $66,194,940$ | 105,659,511 |
| Miscellaneous iron and steel products. | 255 | 10,089 | $29,177,114$ | 34,857,495 | 45,179,661 | 82,798,441 | 277 | 11,064 | 35, 149,961 | 51, 195, 245 | 56,371, 753 | 110,439,985 |
| Totals, Iron and Steel Products. | 2,435 | 183,323 | 547,314,615 | 860,565,510 | 991,334,800 | 1,904,650,130 | 2,625 | 189,191 | 617,010,924 | 947,993,190 | 1,134,043,024 | 2,135,031,744 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Aircraft and parts..... | 23 | 19,198 | $59,558,317$ | 36,291,613 | 79,403,570 | 117,188,078 | 38 | 33,356 | 108,667,004 | 115,286,096 | 127,296,867 | 244,607,320 |
| Bicycles and parts............. | 7 | 1,054 | 2,916,941 | 4,224,024 | 4,121,721 | 8,496,915 | 9 | 932 | 2,843,674 | 3,255,112 | 4,263,178 | $7,645,126$ |
| Boat building..... | 228 | 1,531 | 3,132,876 | 2,643,394 | 4,373,433 | 7,130,624 | 221 | 1,514 | 3,320,082 | 3,142,453 | 4,848,322 | 8,103,016 |
| Carriages, wagons and sleighs. | 48 | . 812 | 1,738,997 | 3,782,837 | 3,039,022 | 6,899,470 | 48. | 21.905 | 2,053,752 | 2,778,437 | 5,118,842 | $7,981,478$ |
| Motor-vehicles.. | 19 | 30,479 | 101,342,774 | $469,114,484$ | 271, 113,834 | 742,895, 888 | 19 | 31.102 | 113,607,071 | 497, 474, 097 | 267,099,575 | $767,354,984$ |
| Motor-vehicle part | 161 | 21,197 | $65,283,163$ | 142,840,935 | 117,021,089 | 263, 133,094 | 172 | 21,791 | 72,607,789 | 145, 666,823 | 127,222,358 | $276,785,167$ |
| Railway rolling-stoc | 37 | 33,410 | 94, 028, 834 | 175,964,789 | $119,895,329$ | $300,627,241$ | 36 | 36.084 | 108,318,766 | 181, 620, 234 | 145,760,789 | $332,164,783$ |
| Shipbuilding. . . | 76 | 14,836 | 40, 104,531 | 35,316,718 | 58,456,402 | 95, 218,518 | 74 | 20,676 | 61,700,312 | $60,247,318$ | 96, 737, 673 | 159,657,949 |
| Totals, Transportation <br> Equipment.................... | 599 | 122,517 | 368,106,433 | 870,178,794 | 657, 424,400 | 1,541,589,828 | 617 | 146,360 | 473,118,450 | 1,009,470,570 | 778,347,601 | 1,803,699,823 |


| Non-ferrous Metal Products- |  | 156 | 20,583,599 | 395 | 42,391,900 | 87,417,572 | 8 | ,295 | 23,657,893 | ,385 | ,969,019 | 9,647,575 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brass a | 153 | 10,077 | 29,318,076 | 121,703,878 | 56, 776,303 | 179,997,887 | 153 | 9,711 | 31,034,274 | 121,374,319 | 61,126, 829 | 184,671,951 |
| Jewellery and silverware | 209 | 5,738 | 13,315,583 | 29,314,583 | 20.705,029 | 50,374,213 | 215 | 5,548 | 13,486,371 | 22,612,299 | 22, 135,745 | 45, 106, 237 |
| Non-ferrous metal smelting and refining | 17 | 22,814 | 75,474,505 | 553,658,940 | 262,972,790 | 861,315,930 | 17 | 24,608 | 87,964,295 | 519,781, 231 | 266,721,382 | 837,074,065 |
| White metal alloys............ | 51 | 3,376 | 9,512,342 | 46,540,008 | 18,674,676 | 66,023,915 | 55 | 3,238 | 9,525, 283 | 34,689,608 | 17,921,841 | 53,379,433 |
| Miscellaneous non-ferrous metal products......... | 22 | 953 | 2,529,598 | 2,702,958 | 5,696, 138 | 8,469,651. | 24 | 538 | 1,376,968 | 2,123,585 | 3,045,640 | 5,239,186 |
| Totals, Non-ferrous Metal Products. | 536 | 50,114 | 150,733,704 | 797,412,763 | 406,616,836 | 1,253,599,168 | 552 | 50,938 | 167,045,084 | 744,596,427 | 414,920,456 | 1,215,118,447 |
| Electrical Apparatus and Supplies- |  |  |  |  |  |  |  |  |  |  |  |  |
| Batteries. | 25 | 2,139 | 6,139,832 | 23,983,736 | 13,367,364 | 37,721,35 | 26 | 2,094 | 6,455,438 | 25,253, 692 | 15, 084, 340 | 40,708,740 |
| Radios and radio par | 70 | 10, 131 | 28,268,089 | 41,158,787 | 43,845, 136 | 85,624,192 | 91 | 11,756 | 33,984,529 |  |  |  |
| and appliances | 87 | 8,803 | 24,052,114 | 54,789, 621 | 54, 129, 163 | 110,012,514 | 86 | 8,150 | 24,011,232 | 41,355, 257 | 54, 171,130 | 96,608,108 |
| Machinery, heavy el | 50 | 25,296 | 75,598,912 | 96,604,451 | 123,141,325 | 221,569, 105 | 52 | 25,796 | 86,853,545 | 90,300, 105 | 144,997,080 | 237,312,982 |
| Miscellaneous electrical apparatus and supplies. | 141 | 21,257 | 60,690,091 | 100,024, 712 | 119,119,884 | 221,081,792 | 146 | 21,404 | 66,260,192 | 94,322,365 | 122,226,955 | 218,640,810 |
| Totals, Electrical Apparatus and Supplies. | 373 | 67,626 | 194,749,038 | 316,561,307 | 353,602,872 | 676,008,959 | 401 | 69,200 | 217,564,936 | 313,713,170 | 395,933,805 | 715,873,342 |
| Non-metallic Mineral Products- |  |  |  |  |  |  |  |  |  |  |  |  |
| Abrasives, artificial | 19 | 2,989 | 9,675,282 | 17,668,167 | 23,433,673 | 44,920,949 | 20 | 2,607 | 9,248,935 | 13,967,649 | 19,437,527 | 36,717,228 |
| Asbestos produ | 16 | 1,948 | 5,386,693 | 9, 157,249 | 9,900,136 | 19,637,451 | 17 | 1,826 | 5,448,895 | 9,306, 930 | 9, 795, 730 | 19,638,570 |
| Cement | 10 | 1,943 | 6,304,906 | 7,324,048 | 26.631,501 | 43,023,845 | 11 | 2,251 | 7,921,299 | 8,611,572 | 32,664,254 | 51,029,930 |
| Concrete | 427 | 5,169 | 12,449,150 | 23,076,549 | 27,772,451 | 52,441,096 | 451 | 6,030 | 16,412,602 | 31,044, 970 | 34,816, 262 | 67,756,528 |
| Clay products from domestic clay. | 129 | 3,873 | 10,258,994 | 794,4 | 18,319,10 | 23,527,65 | 133 | 3,717 | 10,456, 108 | 840,756 | 19,844,680 | 24,961,528 |
| Clay products from imported clay. | 35 | 2,526 | 6,372,732 | 4,382,230 | 11,695,364 | 16,948,304 | 34 | 2,432 | 6,300,265 | 4,050,520 | 10,781,714 | 15,667,596 |
| Glass and glass p | 113 | 6,527 | 17,660,204 | 20,551,774 | 30,818,885 | 54,913,292 | 114 | 6,516 | 19, 102,882 | 22,192,757 | 32,694,612 | 58,779,800 |
| Gypsum produc | 10 | 1,138 | 3,304,295 | 8,463,839 | 9,577,148 | 18,886, 007 | 11 | 1,230 | 3,708,426 | 8,115,956 | 9,436,849 | 18,355, 812 |
| Lime | 44 | 1,117 | 3,143,122 | 921,266 | 10,390, 230 | 14,670, 197 | 42 | 1,012 | 3,170,476 | 1,014,789 | 9,784,399 | 14,219,453 |
| Salt | 12 | 748 | 1,830,334 | 1,596,119 | 6,631,889 | 9,201, 265 | 12 | 677 | 2,021,384 | 2,014,335 | -5,995,833 | 9,056,079 |
| Sand-lime bric | 5 | 198 | 541,034 | 512,094 | 1,254,547 | 1,855,135 | , | 183 | 540,108 | 516,331 | 1,064,330 | 1,652,594 |
| Stone products | 161 | 2,270 | 6,198,170 | 6,733,301 | 11,206,251 | 18,705,651 | 155 | 2,142 | 6,203,703 | 7,354,093 | 11,923,780 | 20,105,980 |
| Miscellaneous non-metallic mineral products. | 61 | 1,076 | 2,954,056 | 7,830,582 | 7,717,653 | 16,144,550 | 53 | 799 | 2,283,836 | 6,186,910 | 5,452,889 | 12,110,532 |
| Totals, Non-metallic Mineral Products. | 1,012 | 31,522 | 86,078,972 | 109,011,701 | 195,348,829 | 334,575,398 | 1,057 | 31,422 | 92,818,919 | 115,217,568 | 203,692,859 | 350,051,630 |

[^206]11.-Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1951 and 1952-concluded

| Group and Industry | 1951 |  |  |  |  |  | 1952 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estab-lishments | $\left\|\begin{array}{c} \text { Em- } \\ \text { ployees } \end{array}\right\|$ | Salaries and Wages | Cost of Materials | Net Value of Products | Gross Value of Products | Estab-lishments | $\underset{\text { ployees }}{\text { Em- }}$ | Salaries and Wages | Cost of Materials | Net Value of Products | Value of Factory Shipments ${ }^{1}$ |
|  | No. | No. | \$ | 8 | 8 | \$ | No. | No. | \$ | 3 | 8 | \$ |
| Products of Petroleum and Coal- |  |  |  |  |  |  |  |  |  |  |  |  |
| Coke and gas producte. | 30 | 4,987 | 14,869, 264 | 59,515,556 | 43,970,068 | 110,609,519 | 29 | 4,920 | 16,375, 336 | 63, 107,093 | 43,919,907 | 113,990,070 |
| Petroleum products. | 52 | 10,611 | 37,078,626 | 438,467,139 | 135,902,522 | 598,940,516 | 55 | 11,661 | 46,145,422 | 453,954,688 | 178,523,582 | 660,356,584 |
| Miscellaneous products of petroleum and coal. |  | - | - | - | - | - | 17 | 324 | 1,052,415 | 2,567,460 | 3,382,260 | 6,089,393 |
| Totals, Products of Petroleum and Coal | 82 | 15,598 | 51,947,890 | 497,982,695 | 179,872,590 | 709,550,035 | 101 | 16,905 | 63,573,173 | 519,629,241 | 225,825,749 | 780,436,047 |
| Chemicals and Allied Produets- |  |  |  |  |  |  |  |  |  |  |  |  |
| Acids, alkalies and salts.. | 29 | 7,371 | 24, 579,398 | 39,238,794 | 67,456,301 | 117,822,758 | ${ }_{39} 9$ | 7,591 | 27,208,422 | $37,777,278$ $38,450,277$ | $65,243,067$ $38,406,176$ | $114,187,526$ $78,743,491$ |
| Mertilizers............... | 39 | 3,218 | 10,310,069 | 35,294,282 | 37,427,873 | 74,488,720 | 39 | 3,205 | 11,325,300 | 38,450,277 | 38,406,176 | $78,743,491$ $88,022,387$ |
| preparations.............. | 206 114 | 7,481 5,859 | 18,917,850 $16,129,180$ | $28,414,566$ $55,700,822$ | $60,115,166$ $48,430,359$ | $89,248,867$ $104,839,285$ | 213 | 7,457 $\mathbf{5}, 784$ | $20,481,873$ | $\begin{aligned} & 27,350,129 \\ & 5,118.889 \end{aligned}$ | $\begin{aligned} & 59,920,653 \\ & 53,554,297 \end{aligned}$ | $88,022,387$ $107,406,164$ |
| Primary plastics.............. | ${ }_{16} 1$ | 1,648 | 5,402,853 | 20,571,434 | 18,091,655 | -39,370,423 | 16 | 1,850 | 6,505,167 | 18,774,923 | 15,129,313 | 34,638,754 |
| Soaps, washing compounds and cleaning preparations. | 130 | 3,742 | 11,506, 281 | 41,757,694 | 30,943,090 | 73,718,714 | 136 | 3,756 | 12,755,324 | 35,013,348 | 48,368,279 | 84,461,282 |
| Toilet preparations............ | 97 | 1,800 | 3,775,166 | 8,223,549 | 14,211,418 | 22,535,080 | 101 | 1,870 | 4,244,777 | 9,720,012 | 17,224,337 | 27,059,783 |
| Vegetable oils. | 13 | 751 | 2,316,979 | 48,729,012 | 10,849,240 | 60,202,123 | 13 | 723 | 2,428,287 | 44,478,536 | 6,872,308 | 51,931,990 |
| Other Chemical Industries- Adhesives............... | 29 | 714 | 1,971,906 | 6,280,084 | 4,787,488 | 11,437,037 | 30 | 706 | 2,128,897 | 6, 106,121 | 4,365,376 | 10,838,879 |
| Coal tar distillation | 11 | 468 | 1,442,776 | 7,077, 237 | 4,331,465 | 12,077,290 | 11 | 500 | 1,679,495 | 7,143,102 | 4,835,360 | 12,634,276 |
| Gases, compressed. | 51 | 1,247 | 3,681,376 | 2,408,694 | 12,387,572 | 15, 378,363 | 47 | 1,250 | 3,889,969 | 2,425, 663 | 13,307,400 | 16, 201, 464 |
| Inks......... | 34 | 828 | 2,452,014 | 5,208,361 | 5,289,170 | 10,582,762 | 34 | 854 | 2,584,220 | 4,839,331 | 5,995,401 | 10,923,553 |
| Polishes and dressings | 49 | 800 | 1,852,790 | 6,399,459 | 6,768,318 | 13,244,675 | 51 | 751 | 1,928,870 | 7,734,894 | 8,129,702 | 15,966, 171 |
| ducts, n.e.s. | 219 | 9,737 | 26, 971,513 | 61,653,707 | 62,937,026 | 131,543,294 | 239 | 11,397 | 33,694, 741 | 64,886,257 | 72,735,923 | 143,546,514 |
| Totals, Chemical and Allied Products. | 1,037 | 45,664 | 131,310,151 | 366,957,695 | 384,026,141 | 776,489,391 | 1,075 | 47,694 | 148,075,675 | 357,818,760 | 414,087,592 | 796,562,234 |


${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text on p. 633.

# 12.-Quantity and Value of the Principal Commodities Produced by the Manufacturing Industries, 1951 and 1952 



[^207]
## 12.-Quantity and Value of the Principal Commodities Produced by the Manufacturing Industries, 1951 and 1952-continued

| Group and Commodity | $\begin{gathered} \text { Unit } \\ \text { of } \\ \text { Measure } \end{gathered}$ | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity | Value | Quantity | Value |
|  |  |  | \$ |  | \$ |
| Clothing-concluded <br> Hats, women's and children's... <br> Hosiery, all kinds. <br> Shirts, fine, work and sport <br> Sport suits, slacks and other sport clothing, n.e.s <br> Suits, men's and youths', fine woollen. <br> Underwear | $\begin{aligned} & \text { doz. } \\ & \text { doz. pr. } \\ & \text { doz. } \end{aligned}$ | 455,968$10,260,704$ | $\begin{aligned} & 13,380,773 \\ & 72,638,392 \\ & 46,843,961 \end{aligned}$ | $\begin{array}{r} 605,398 \\ 10,026,210 \\ 2,051,663 \end{array}$ | $\begin{aligned} & 15,846,600 \\ & 66,767,222 \\ & 49,441,244 \end{aligned}$ |
|  |  |  |  |  |  |
|  |  | 1,882,667 |  |  |  |
|  | $\cdots$ | . | 11,606,959 | . ${ }^{\text {a }}$ | 12,782,298 |
|  | No. | 1,321,472 | 49,625,259 | 1,266,799 | 48,270,674 |
|  | doz. | 5,217,439 | 51,520,713 | 4,635,950 | 36,112,246 |
| Wood Products- <br> Boxes, wooden. <br> Lumber, planed. <br> Lumber, sawn. <br> Pulp, wood, made for sale. <br> Sash, door, and other mill work. |  |  |  |  |  |
|  | Mft. b.m. short ton *. | $\begin{aligned} & 2,566,214 \\ & 5,311,997 \\ & 2,727,274 \end{aligned}$ | 13,490,637 | $\begin{aligned} & \mathbf{2 , 8 6 2}, 930 \\ & 5,037,029 \\ & 1,551,541 \end{aligned}$ | 14,082,390 |
|  |  |  | 216,958,904 |  | 230,006,551 |
|  |  |  | 365,780,466 |  | 341,885,440 |
|  |  |  | 413,831, 246 |  | 222,874,102 |
|  |  |  | 60,154,474 |  | $61,195,367$ |
| Paper Products- <br> Bags, paper. <br> Boxes, paper. <br> Paper boards, all types <br> Paper, newsprint, wrapping and book. |  |  |  |  |  |
|  | $\ldots$ | .. | 43,165,603 |  | 41,339,022 |
|  |  | $\cdots$ | 126,066, 844 |  | 127,933,804 |
|  | ton | .. | 128,409, 233 | 870,204 | 105, 885,607 |
|  | " | .. | 677,815,457 | 6,158,620 | 703,517,316 |
| Printing, Publishing and Allied Industries- |  |  |  |  |  |
| Books and catalogues, printed and bound, chiefly for advertising. | ... |  | 24,404,237 |  | 28,619,400 |
| Other advertising matter, printed | ... | .. | 35,446,079 |  | 39,083,479 |
| Periodicals printed by publish-ers- |  |  |  |  |  |
| Subscriptions and sales. | ... | .. | 58,334, 894 |  | 63,269,508 |
| Gross revenue from advertising | ... | . | 140,732,810 |  | 157, 048,838 |
| Periodicals printed for publishers. |  |  | 21,737, 681 |  | 22,572,361 |
| Sheet forms, commercial, printed | ... | . | 37,322,201 |  | 44,494,118 |
| Iron and Steel Products- |  |  |  |  |  |
| Bars, iron and steel, hot rolled, sold | net ton | 587,160 | 73,105,972 | 600,302 | 81,124,625 |
| Boilers, heating and power. |  |  | 18,588,095 |  | 18,942,207 |
| Castings, grey iron, made for sale. | ton | .. | 47,497,584 | 242,194 | 48,194,914 |
| Farm implements and parts..... |  | $\cdots$ | 188,183,920 |  | 194,688,000 |
| Forgings. steel and other. | ... | . | 23,795,775 | .. | 32,024,227 |
| Hardware, builders and other. $\because$ | $\cdots$ | . | 41,248,167 | $\cdots$ | 38,406,000 |
| Machinery, industrial, household, office and store. |  |  | 482,723,179 |  | 517,326,995 |
| Pig iron, sold..................... | net ton | 726,357 | . 36,891,960 | 752,963 | 37,998,156 |
| Pipes, tubing and fittings, iron and steel | ... | .. | 92,200,000 |  | 99,530,000 |
| Rolled iron and steel forms, semifinished, sold. | net ton | 447,334 | 33,513,655 | 399,753 | 34,946,164 |
| Sheets, bars and other cold rolled products, sold | net | 599,895 | 99,960,581 | 573,923 | 99,765,009 |
| Steel ingots and castings, sold | net ton | 295,279 | 52,227,452 | 265,723 | 57,178,291 |
| Steel shapes erected, bridge, etc. | 倍 | 295,270 | 69,854,008 |  | 70,679,068 |
| Steel shapes, structural, made in primary mills. | net ton | 223,281 | 21,612,870 | 212,919 | 22,140,506 |
| Stoves, coal, wood, electric and |  |  |  |  |  |
| Tools, hand, all kinds. | $\ldots$ |  | $40,734.025$ $34,009,230$ | . | $45,871,119$ $37,596,038$ |
| Wire, wire rope and cable, steel.... | ... | . | 37,682,984 | .. | 39,321,521 |
| Transportation Equipment- |  |  |  |  |  |
| Aircraft, including parts and repairs. | $\cdots$ |  | 95,115, 771 | . | 158,626,498 |
| Automobile parts and accessories, including tires, etc. | No. |  | 654,775,454 |  | 630, 928,868 |
| Automobiles, commercial......... |  | 132,706 | 212,806,695 | 149,611 | 244,474,471 |
| Automobiles, passenger | " | 282,714 | 438,613,532 | 283,534 | 417,654,448 |
| Buses. |  |  | 10,476,480 | 565 | 8,772,823 |
| Cars, freight, complete........... | " | 10,612 | 75,341,642 | 11,905 | 88,242,963 |
| Locomotives, diesel-electric, new. | ... | 267 | 41,893, 150 | 226 | 38,306,186 |
| Ships and ship repairs. |  | .. | 91,852,926 | .. | 147,909,551 |

## 12.-Quantity and Value of the Principal Commodities Produced by the Manufacturing Industries, 1951 and 1952-concluded

| Group and Commodity | $\begin{gathered} \text { Unit } \\ \text { of } \\ \text { Measure } \end{gathered}$ | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Quantity | Value | Quantity | Value |
|  |  |  | \$ |  | \$ |
| Non-ferrous Metal Products- |  |  |  |  |  |
| Jewellery....... | $\cdots$ | . | 16,012,399 |  | 18,522,000 |
| Kitchenware, aluminum | $\ldots$ |  | 9,130,152 |  | 8,142,097 |
| Silverware.................. | $\ldots$ |  | 11,843,568 |  | 10,415,876 |
| Smelter and refinery products... | ... | $\cdots$ | 861,315,930 |  | 837,074,065 |
| Electrical Apparatus and Sup-plies- |  |  |  |  |  |
| Batteries, electric, and parts..... | $\ldots$ | . | 31,562,595 |  | 32,004,341 |
| Radio sets and accessories....... | ... |  | 48,447,556 |  | 39,465,857 |
| Refrigerators, household, mechanical. | No. | 277,911 | 54,547,398 | 244,394 | 46,033,194 |
| Television sets.................. |  | 48,657 | 12,902,090 | 141,946 | 30,072,795 |
| Wires and cable, electric......... | $\cdots$ | .. | 123,768,524 | .. | 121,652,458 |
| Non-metallic Mineral Products Abrasives, artificial. Coke, gas-house. Concrete, ready-mixed Gas, sold. Glass, pressed and blown (bottles, sealers, etc.) |  |  |  |  |  |
|  | ton | 265,656 | 30,748, 225 | 211,363 | 24,918,618 |
|  |  | 3,931,626 | 59, 848,832 | 4,076,655 | 58,701,110 |
|  | cu. yd. | 1,557,664 | 17,290,381 | 1,994,079 | 23,415,036 |
|  | '000 cu. ft. | 25,959,987 | 29,087,074 | 26,277,503 | 30,911,194 |
|  | ... | . | 36,009,205 | . | 37,078,343 |
| Chemicals and Allied Products- |  |  |  |  |  |
| Calcium and sodium compounds. . | ... | . | 46, 165,361 | .. | 46,435,000 |
| Enamels, lacquers and varnishes. | ib. |  | 46,408,649 |  | 44,916,036 |
| Explosives................... | 1 b . | 155,490,062 | $22,005,688$ $11,100,940$ | 167,806,672 | $26,289,267$ $28,896,000$ |
| Gases, compressed and liquefied. Medicinal and pharmaceutical preparations. | ... | .. | $11,100,940$ $82,131,000$ | .. $\cdots$ | $28,896,000$ $81,432,000$ |
| Paints, mixed, ready for use..... | Imp. gal. | 11,090,935 | $41,521,166$ | 10,553,583 | 40,013,956 |
| Synthetic resins. |  |  | 23,097,000 |  | 19,100,000 |
| Soap. | lb. | 197,221,000 | 37,674,000 | 196,090,000 | 39,675,000 |
| Toilet preparation............... | ... | .. | 30,873, 102 |  | 37,280,597 |
| Miscellaneous- |  |  |  |  |  |
| Bags, hand, and hand luggage... |  | . | 11,381,286 |  | 12,946,610 |
| Brooms and household brusbes.. | doz. | . | 5,063,469 | 806,276 | 5,129,065 |
| Cans, metal, for food, ............ | ... | . | 54, 965, 224 |  | 59,491,789 |
| Furniture, wood and metal...... |  |  | 146,388,264 |  | $156,832,663$ $329,531,770$ |
| Gasoline. ......................... | Imp. gal. $\ldots$ | 1,845,846,568 | $300,360,166$ $39,011,541$ | $2,063,056,519$ | $329,531,770$ $32,678,619$ |
| Mattresses.......................... | $\cdots$ |  | 16,579,619 |  | 18,213,780 |
| Mops, floor........................ | doz. | 273,113 | 2,071,366 | 301,895 | 2,387,808 |
| Oil, fuel........................... | Imp.gal. | 1,768,713,720 | 172,483,868 | 1,867,078,810 | 186,538,200 |
| Pianos, organs, and parts........ | ... | , | 4,506,567 |  | 5,288,556 |
| Scientific and professional equipment. | ... | .. | 36.996,345 |  | 43,991,817 |
| Sporting goods................... | ... |  | 11,513,559 |  | 11,305,286 |
| Springs, bed and other furniture.. | ... |  | 7,554,986 |  | 8,551,009 |
| Toys and games................. | ... |  | 16,485,795 | .. | 18,432,144 |

## Subsection 2.-Manufactures Classified by Origin of Materials

The distinction made between farm materials of Canadian and of foreign origin is based on whether materials are indigenous to Canada rather than on their actual source. Thus, the industries included in the foreign origin classes are those depending upon materials that cannot be grown in Canada, such as tea, coffee, spices, cane sugar, rice, rubber, cotton, etc. Industries included in the Canadian origin classes may, however, be using large quantities of imported materials.

The mineral origin group includes, in addition to non-ferrous metals so largely produced in Canada, the manufactures of iron and steel, of petroleum, and of other mineral substances, the raw materials for which are very largely imported. Products of mineral origin, with the exception of fuels, are nearly all durable goods. A high standard of living and advanced industrial organization is usually indicated by a relatively large production and consumption of mineral products. During periods of depression when the production of capital goods is curtailed, employment in the industries of the farm group, which produce mainly consumer goods, exceeds that of the mineral group. The industries of the mineral group in 1952 employed the largest number of persons and paid out by far the highest amount in salaries and wages. The average salary and wage was $\$ 3,233$ for the mineral group, $\$ 2,788$ for the forest group and $\$ 2,422$ for the farm group.
13.-Principal Statistics of Manufacturing Industries, classified according to Origin of Material Used, by Main Group, 1939, 1944, 1951 and 1952

| Year and Origin of Material Used | Estab-lishments | Employees | Salaries and Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net <br> Value of Products | Gross <br> Value of Products ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | \$ |
| 1939 |  |  |  |  |  |  |
| Farm origin. | 10,203 | 220,210 | 217,724,965 | 778, 250,125 | 491,620,133 | 1,289, 993, 021 |
| Mineral origi | 3,474 | 210,752 | 280,054,303 | 669,728,573 | 598,024,704 | 1,321,444,094 |
| Forest origin. | 8,430 | 142,091 | 160,798,500 | 244, 944,997 | 297,563,280 | $572,335,960$ |
| Marine origin | 523 | 5.369 | 3,638,794 | 18,114,698 | 10,311,304 | 28,816,536 |
| Wildlife origin | 384 | 4,604 | 5,396,623 | 11,592,066 | 8,251,880 | 19,961, 526 |
| Mixed origin. | 1,791 | 75,088 | 70,197,968 | 113,528,916 | 125,280,600 | 242,232,391 |
| Grand Totals, 1939 | 24,805 | 658,114 | 737,811,153 | 1,836,159,375 | 1,531,051,901 | 3,474,783,528 |
| Farm Origin GroupFrom field crops.. From animal husbandry. |  |  |  |  |  |  |
|  | 6,096 | 124.708 | 126,311,033 | 410,994,461 | 335,287,457 | 759,964,866 |
|  | 4,107 | 95,502 | 91,413,932 | 367, 255,664 | 156,332,676 | 530,028,155 |
| Totals, Farm Orlgin..... | 10,203 | 220,210 | 217,724,965 | 778,250,125 | 491,620,133 | 1,289,993,021 |
| Canadian origin.......... Foreign origin | 9,382 | 171,460 | 168,260,771 | 630, 779, 223 | 366,146,937 | 1,011, 294, 132 |
|  | 821 | 48,750 | 49,464, 194 | 147,470,902 | 125,473,196 | 278,688,889 |
| 1944 |  |  |  |  |  |  |
| Farm origin | 10,329 | 287,756 | 394,716,309 | 1,781,014,374 | 870,995, 104 | 2,688,731,415 |
| Mineral origin | 4,479 | 634,542 | 1,208,779,764 | 2,258,796,792 | 2,312,260,844 | 4,708, 104,244 |
| Forest origin. | 10,347 | 186,680 | 278,171,969 | 495,531,476 | 541,521,976 | 1,082,160, 284 |
| Marine origin | 535 | 9,664 | 10,327, 695 | 45,906,542 | 22,066,801 | 68,882,879 |
| Wildlife origin | 535 | 6.190 | 9,430, 191 | 28,076,572 | 15,728,926 | 43,985, 177 |
| Mixed origin. | 2,258 | 98,050 | 128,195,442 | 223,007,600 | 253,202,359 | 481,828,520 |
| Grand Totals, 1944.... | 28,483 | 1,222,882 | 2,029,621,370 | 4,832,333,356 | 4,015,776,010 | 9,073,692,519 |
| Farm Origin GroupFrom field crope. From animal husbandry |  |  |  |  |  |  |
|  | 6,307 | 164,514 | 226,751,705 | 888,435,918 | 563,349,320 | 1,477,008,962 |
|  | 4,022 | 123,242 | 167,964,604 | 892,578,456 | 307,645,784 | 1,211,722,453 |
| Totals, Farm Origln.... | 10,329 | 287,756 | 394,716,309 | 1,781,014,374 | 870,995,104 | 2,688,731,415 |
| Canadian origin Foreign origin. |  | 225,077 |  | 1,507,501,822 | 668,958,344 | 2,202,655,904 |
|  | 836 | 62,679 | 91,422,560 | 273,512,552 | 202,036,760 | 486.075,511 |

[^208]13.-Principal Statistics of Manufacturing Industries, classified according to Origin of Material Used, by Main Group, 1939, 1944, 1951 and 1952-concluded

| Year and Origin of Material Used | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | \$ |
| 1951 |  |  |  |  |  |  |
| Farm origin | 9,816 | 312,239 | 702,709,511 | 3,281,635,418 | 1,553,106.072 | 4,892,471,242 |
| Mineral origin | 6,109 | 517,079 | 1,537,131,218 | 3,757.080,165 | 3,137,209,177 | 7,104,016,198 |
| Forest origin. | 16,417 | 274,584 | 716, 106,975 | 1,441,823,451 | 1,631,955,643 | 3,168,940,064 |
| Marine origin. | 633 | 14,911 | 24,744,189 | 101,621,086 | 1,58,665,035 | 163,010,208 |
| Wildlife origin | 632 | 7,389 | 17,551, 829 | 39,177,043 | 26,991,961 | 66,512,307 |
| Mixed origin. | 3,414 | 132,173 | 278,037, 195 | 453, 189,190 | 533,018,895 | 997,237,113 |
| Grand Totals, 1951. | 37,021 | 1,258,375 | 3,276,280,917 | 9,074,526,353 | 6,940,946,783 | 16,392,187,132 |
| Farm Origin GroupFrom field crops. From animal husbandry. |  |  |  |  |  |  |
|  | 6,142 | 180.788 | 416,421,285 | 1,739,956,828 | 1,060,429, 903 | 2,839,625,828 |
|  | 3,674 | 131,451 | 286,288,226 | 1,541,678,590 | 492,676, 169 | 2,052,845,414 |
| Totals, Farm Origin.... | 9,816 | 312,239 | 702,709,511 | 3,281,635,418 | 1,553,106,072 | 4,892,471,242 |
| Canadian origin | 8.947 | 242,208 | 534,880,813 | 2,739,054,575 | 1, 174, 031, 701 | $3,957,392,807$ |
| Foreign origin | 869 | 70,031 | 167,828,698 | 542,580,843 | 379,074,371 | $935,078,435$ |
| 1952 |  |  |  |  |  |  |
| Farm origin. | 9,681 | 310.448 | 751,930,860 | 3,127,662,069 | 1,694, 737,971 | 4,882,070,311 |
| Mineral origin | 6,438 | 553,525 | 1,789,646.188 | 3,951, 508,235 | 3,545,121,461 | 7,718,043,252 |
| Forest origin | 17,011 | 273,744 | $763,289.772$ | 1,468, 429,908 | 1,574,623,762 | 3,140.882,405 |
| Marine origin | 635 | 14,354 | 24.426.351 | 86,457,993 | 45,734, 589 | 134,725,304 |
| Wildlife origin | 613 | 7,249 | 18,748,284 | 43,086,798 | 28,912,404 | 72,307,412 |
| Mixer origin. | 3,551 | 129,062 | 289,578, 705 | 469,027,491 | 554,403,012 | 1,034,658,351 |
| Gand Totals, 1952.... | 37,929 | 1,288,382 | 3,637,620,160 | 9,146,172,494 | 7,443,533,199 | 16,982,687,035 |
| Farm Origin Group- |  |  |  |  |  |  |
| From field crops......... | 6,114 | 175,519 | 438,429,742 | 1,695,982, 351 | 1,116,653,002 | 2,852,611,414 |
|  | 3,567 | 134,929 | 313,501,118 | 1,431, 679,718 | 578,084,969 | 2,029,458,897 |
| Totals, Farm Origin.... | 9,681 | 310,448 | 751,930,860 | 3,127,662,069 | 1,694,737,971 | 4,882,070,311 |
| Canadian origin......... | 8,797 | 246,825 | 584,371,370 | 2,659,556,833 | 1,321,738,620 | 4,027,895,006 |
| Foreign origin........... | 884 | 63,623 | 167,559,490 | 468,105,236 | 1,372,999,351 | 854, 175,305 |

${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text on p. 633.

## Subsection 3.-Manufactures Classified by Type of Ownership

Figures showing the classification of manufacturing establishments by type of ownership are available from 1946, although the figures for that year are not strictly comparable with those for succeeding years owing to the later inclusion of the fish curing and packing industry.

Of the 37,929 establishments operating in 1952, 1,405 in the periodical publishing industry were unclassifiable, leaving 36,524 establishments in the four categories of ownership shown in Table 14. Individual ownership numbered 16,388 establishments, partnerships 5,633 , incorporated companies 13,491 and co-operatives 1,012 . These figures compare with $15,925,5,531,13,166$ and 1,045 establishments, respectively, in 1951, with 1,354 in the periodical publishing industry being unclassifiable. Table 14 gives the percentage distribution of the four categories of ownership for the years 1946-52.

As is to be expected, the smaller establishments, regardless of type of products manufactured, are usually carried on under individual ownership. In that category, industries conducted on a small scale contain a large number of establishments, the percentage decreasing as the scale of operation increases, as the following figures for 1951 and 1952 show:-

| Group | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Average <br> Number of <br> Employees per Establishment | Percentage of Individual Ownership Establishments to the Total | Average Number of Employees per Establishment | Percentage of Individual Ownership Establishments to the Total |
| Wood products. | 11.0 | $61 \cdot 3$ | $10 \cdot 4$ | $62 \cdot 0$ |
| Printing, publishing and allied trades | - 16.1 | 46.5 | $15 \cdot 6$ | $46 \cdot 1$ |
| Food and beverages.............. | $20 \cdot 6$ | 47.9 | 21.2 | $47 \cdot 7$ |
| Miscellaneous manufacturing industries. | 24.5 | $33 \cdot 2$ | 22.7 | 36.5 |
| Non-metallic mineral products...... | $30 \cdot 3$ | 33.2 | $29 \cdot 7$ | $33 \cdot 7$ |
| Clothing (textile and fur) .......... | 37.5 | $27 \cdot 6$ | 38.7 | 26.4 |
| Chemicals and allied products...... | 44.0 | 15.8 | $44 \cdot 4$ | 16.8 |
| Leather products.................... | $44 \cdot 4$ | $31 \cdot 2$ | $45 \cdot 8$ | $30 \cdot 2$ |
| Iron and steel products.............. | $75 \cdot 3$ | $25 \cdot 6$ | $72 \cdot 1$ | 26.2 |
| Textiles (except clothing)........... | $91 \cdot 6$ | $27 \cdot 6$ | $79 \cdot 2$ | $29 \cdot 0$ |
| Non-ferrous metal products......... | 93.5 | 28.4 | $92 \cdot 3$ | $27 \cdot 5$ |
| Tobacco and tobacco products...... | $158 \cdot 5$ | $40 \cdot 3$ | $152 \cdot 1$ | 37.7 |
| Paper products.................... | $151 \cdot 5$ | $10 \cdot 1$ | $152 \cdot 8$ | 8.8 |
| Products of petroleum and coal...... | $190 \cdot 2$ | $2 \cdot 4$ | $167 \cdot 4$ | $3 \cdot 0$ |
| Electrical apparatus and supplies.... | $181 \cdot 3$ | 12.3 | $172 \cdot 6$ | 12.0 |
| Transportation equipment.......... | $204 \cdot 5$ | $32 \cdot 4$ | $237 \cdot 2$ | 28.4 |
| Rubber products.................... | $344 \cdot 1$ | $9 \cdot 0$ | $308 \cdot 3$ | $10 \cdot 0$ |
| All Groups................ | $34 \cdot 0$ | $44 \cdot 6$ | $34 \cdot 0$ | $43 \cdot 2$ |

14.-Percentage Distribution of Establishments in Manufacturing Industries, ${ }^{1}$ classified by Type of Ownership, by Province and Industrial Group, 1951 and 1952, with Totals for 1946-52.

| Year and Province |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: |

[^209]
## 14.-Percentage Distribution of Establishments in Manufacturing Industries, 1 classified by Type of Ownership, by Province and Industrial Group, 1951 and 1952, with Totals for 1946-52-concluded.

| Year, Province and Industrial Group | Individual Ownership | Partner- ships | Incorporated Companies | Co-operatives | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1951-concluded | p.c. | p.c. | p.c. | p.c. | p.c. |
| Industrial Grour- |  |  |  |  |  |
| Food and beverages.. | $47 \cdot 9$ | 11.4 | 28.9 | 11.8 | $100 \cdot 0$ |
| Tobacco and tobacco products. | $40 \cdot 3$ | $3 \cdot 2$ | 51.6 | 4.9 | $100 \cdot 0$ |
| Rubber products............. | $9 \cdot 0$ | ${ }^{9.0}$ | $82 \cdot 0$ | - | $100 \cdot 0$ |
| Leather products................ | $31 \cdot 2$ | 12.8 | 56.0 | - | $100 \cdot 0$ |
| Textile products (except clothing) | $27 \cdot 6$ | 13.5 | $58 \cdot 7$ | -0.2 | $100 \cdot 0$ |
| Clothing (textile and fur). | $27 \cdot 6$ | $19 \cdot 2$ | 53.2 |  | $100 \cdot 0$ |
| Wood products........... | $61 \cdot 3$ | $19 \cdot 7$ | 18.7 | $0 \cdot 3$ | $100 \cdot 0$ |
| Paper products...................... | $10 \cdot 1$ | 4.2 | $85 \cdot 7$ |  | $100 \cdot 0$ |
| Printing, publishing and allied industries | 46.5 25.6 | 16.2 14.7 | $36 \cdot 9$ 59.7 | $0 \cdot 4$ | $100 \cdot 0$ |
| Transportation equipment. | $32 \cdot 4$ | 14.0 | $53 \cdot 6$ | - | $100 \cdot 0$ |
| Non-ferrous metal products. | $28 \cdot 4$ | 13.2 | 58.4 | - | $100 \cdot 0$ |
| Electrical apparatus and supplies | $12 \cdot 3$ | $7 \cdot 0$ | $80 \cdot 7$ | - | $100 \cdot 0$ |
| Non-metallic mineral products. . | $33 \cdot 2$ | $17 \cdot 2$ | $49 \cdot 6$ | - | $100 \cdot 0$ |
| Products of petroleum and coal. | $2 \cdot 4$ | $1 \cdot 2$ | 94.0 | $2 \cdot 4$ | $100 \cdot 0$ |
| Chemicals and allied products..... | 15.8 | $5 \cdot 7$ | $78 \cdot 1$ | 0.4 | $100 \cdot 0$ |
| Miscellaneous manufacturing industries. | $33 \cdot 2$ | $14 \cdot 7$ | 51.8 | $0 \cdot 3$ | $100 \cdot 0$ |
| Province- 1952 |  |  |  |  |  |
|  |  |  |  |  |  |
| Newfoundland | $51 \cdot 2$ | $34 \cdot 1$ | 14.5 | $0 \cdot 2$ | $100 \cdot 0$ |
| Prince Edward Island | $47 \cdot 5$ | $19 \cdot 0$ | 25.8 | $7 \cdot 7$ | $100 \cdot 0$ |
| Nova Scotia. | $54 \cdot 1$ | $15 \cdot 2$ | 28.7 | $2 \cdot 0$ | $100 \cdot 0$ |
| New Brunswic | 54.0 | $12 \cdot 2$ | $30 \cdot 8$ | $3 \cdot 0$ | $100 \cdot 0$ |
| Quebec. | $49 \cdot 8$ | 11.2 | $34 \cdot 9$ | $4 \cdot 1$ | $100 \cdot 0$ |
| Ontario. | $39 \cdot 0$ | $15 \cdot 8$ | $43 \cdot 1$ | $2 \cdot 1$ | $100 \cdot 0$ |
| Manitoba | $40 \cdot 3$ | $16 \cdot 1$ | $42 \cdot 0$ | $1 \cdot 6$ | $100 \cdot 0$ |
| Saskatehewan | 57.7 | 16.0 | 21.2 | $5 \cdot 1$ | $100 \cdot 0$ |
| Alberta. | 51.7 | 19.7 | $25 \cdot 8$ | 2.8 | 100.0 |
| British Columbia. | $36 \cdot 6$ | $20 \cdot 1$ | 41.9 | 1.4 | $100 \cdot 0$ |
| Yukon and Northwest Territories | 47.8 | 8.7 | $43 \cdot 5$ | - | $100 \cdot 0$ |
| Canada, 1952. | 44.9 | 15.4 | 36.9 | 2.8 | $100 \cdot 0$ |
| Industrial Grour- |  |  |  |  |  |
| Food and beverages. | 47.7 | 11.5 | $29 \cdot 3$ | 11.5 | $100 \cdot 0$ |
| Tobacco and tobacco products | $37 \cdot 7$ | $3 \cdot 3$ | $54 \cdot 1$ | $4 \cdot 9$ | $100 \cdot 0$ |
| Rubber products...................... | $10 \cdot 0$ | 7-1 | $82 \cdot 9$ | - | $100 \cdot 0$ |
| Leather products...................... | $30 \cdot 3$ | $13 \cdot 1$ | $56 \cdot 6$ | - | $100 \cdot 0$ |
| Textile products (except clothing)...... | $29 \cdot 0$ | $12 \cdot 4$ | $58 \cdot 6$ | - | $100 \cdot 0$ |
| Clothing (textile and fur).............. | 26.4 | $19 \cdot 3$ | $54 \cdot 3$ | 0.2 | $100 \cdot 0$ |
| Wood products........................ | 62.0 8.8 | 19.7 3.5 | $18 \cdot 1$ 87.7 | 0.2 | $100 \cdot 0$ 100.0 |
| Printing, publishing and allied industries | $46 \cdot 1$ | 16.0 | 37.5 | 0.4 | 100.0 |
| Iron and steel products................. | $26 \cdot 2$ | 14.2 | $59 \cdot 3$ | $0 \cdot 3$ | $100 \cdot 0$ |
| Transportation equipment | 31.6 | $12 \cdot 6$ | 55.8 | - | $100 \cdot 0$ |
| Non-ferrous metal products.............. | 27.5 | 12.9 | $59 \cdot 6$ | - | $100 \cdot 0$ |
| Electrical apparatus and supplies....... | 12.0 | $6 \cdot 2$ | 81.8 | 二 | $100 \cdot 0$ |
| Non-metallic mineral products......... | 33.7 | 16.5 | 49.8 | $\overline{-}$ | $100 \cdot 0$ |
| Products of petroleum and coal......... | 3.0 16.8 | 2.0 6.2 | 93.0 76.6 | 2.0 0.4 | $100 \cdot 0$ $100 \cdot 0$ |
| Miscellaneous manufacturing industries. | 36.5 | 13.9 | $49 \cdot 4$ | 0.2 | $100 \cdot 0$ |

${ }^{1}$ Four main categories of ownership only; the non-classifiable group is not included.

On the basis of employment provided, incorporated companies are by a very wide margin the most important factor in the employment field and establishments operating under individual ownership are not as important as their large numbers would seem to indicate.
15.-Percentage Distribution of Employment in the Manufacturing Industries, ${ }^{1}$ classifted by Type of Ownership, by Province and Industrial Group, 1951 and 1952, with Totals for 1946-52.

| Year, Province and Industrial Group | Individual Ownership | Partner- ships | Incorporated Companies | Co-operatives | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | p.c. | p.c. | p.c. | p.e. | p.c. |
| 1946 (estimated). | 7.9 | $4 \cdot 7$ | 86.5 | 0.9 | $100 \cdot 0$ |
| 1947.............. | 7.5 | 4.5 | $87 \cdot 0$ | $1 \cdot 0$ | $100 \cdot 0$ |
| 1948. | $7 \cdot 1$ | $4 \cdot 4$ | 87.5 | $1 \cdot 0$ | $100 \cdot 0$ |
| 1949. | $6 \cdot 8$ 6.3 | 4.2 3.9 | 88.0 88.8 | 1.00 | $100 \cdot 0$ $100 \cdot 0$ |
| 1050.... |  |  |  |  |  |
| Province- 1951 |  |  |  |  |  |
| Newfoundland.. | 8.8 | $7 \cdot 3$ | 83.9 | 5 | $100 \cdot 0$ |
| Prince Edward Island | $20 \cdot 5$ | $13 \cdot 1$ | $61 \cdot 4$ | $5 \cdot 0$ | $100 \cdot 0$ |
| Nova Scotia. | $10 \cdot 8$ | $4 \cdot 3$ | $83 \cdot 6$ | $1 \cdot 3$ | $100 \cdot 0$ |
| New Brunswick | $10 \cdot 4$ | $3 \cdot 6$ | $84 \cdot 3$ | 1.7 | $100 \cdot 0$ |
| Quebec....... | $7 \cdot 6$ | $3 \cdot 6$ | 88.0 | 0.8 | $100 \cdot 0$ |
| Ontario. | $4 \cdot 1$ | $3 \cdot 1$ | $92 \cdot 4$ | 0.4 | $100 \cdot 0$ |
| Manitobs. | $5 \cdot 7$ | $4 \cdot 3$ | 88.7 | $1 \cdot 3$ | $100 \cdot 0$ |
| Saskatchewan | 13-3 | 6.3 | $69 \cdot 7$ | $10 \cdot 7$ | $100 \cdot 0$ |
| Alberta.... | 13.5 | $8 \cdot 1$ | $75 \cdot 8$ | $2 \cdot 6$ | $100 \cdot 0$ |
| British Columbia | $5 \cdot 9$ | $5 \cdot 0$ | $87 \cdot 0$ | $2 \cdot 1$ | $100 \cdot 0$ |
| Yukon and Northwest Territories | $25 \cdot 7$ | $6 \cdot 6$ | $67 \cdot 7$ | - | $100 \cdot 0$ |
| Canada, 1951 | 6.1 | 3.7 | 89.3 | 0.9 | $100 \cdot 0$ |
| Indubtrial Group- |  |  |  |  |  |
| Food and beverages................. | 10.5 | $4 \cdot 0$ | 80.5 |  |  |
| Tobseco and tobacco products.......... | 1.3 0.2 | 0.4 0.4 | $95 \cdot 6$ 99.4 | $2 \cdot 7$ | $100 \cdot 0$ $100 \cdot 0$ |
| Rubber products. | 0.2 7.2 | 0.4 5.6 | 99.4 $87 \cdot 2$ | 二 | $100 \cdot 0$ $100 \cdot 0$ |
| Textile products (except clothing)....... | 2.5 | 1.8 | 95.7 | - | $100 \cdot 0$ |
| Clothing (textile and fur)............... | 8.8 | 9.5 | $81 \cdot 7$ | - | $100 \cdot 0$ |
| Wood products........... | 20.4 | $10 \cdot 3$ | $69 \cdot 0$ | $0 \cdot 3$ | $100 \cdot 0$ |
| Paper products. | 0.6 | 0.3 | $99 \cdot 1$ | - | $100 \cdot 0$ |
| Printing, publishing and allied industries. | $9 \cdot 2$ | $5 \cdot 1$ | 84.5 | $1 \cdot 2$ | $100 \cdot 0$ |
| Iron and steel products................. | $2 \cdot 3$ | $2 \cdot 0$ | 95.7 | - | $100 \cdot 0$ |
| Transportation equipment. | $0 \cdot 7$ | $0 \cdot 5$ | 98.8 | - | $100 \cdot 0$ |
| Non-ferrous metal products. | $2 \cdot 2$ | 1.4 | 96.4 | - | $100 \cdot 0$ |
| Electrical apparatus and supplies........ | $0 \cdot 6$ | $0 \cdot 6$ | 98.8 | - | $100 \cdot 0$ |
| Non-metallic mineral products.......... | $5 \cdot 5$ | $4 \cdot 1$ | $90 \cdot 4$ | 1 | $100 \cdot 0$ |
| Products of petroleum and coal. . . . . . Chemical products................. | $\overline{1.1}$ | $\overline{0.5}$ | 98.9 98.0 | 1.1 0.4 | $100 \cdot 0$ 100.0 |
| Miscellaneous manufacturing industries. | $8 \cdot 1$ | 4.8 | 86.8 | $0 \cdot 3$ | $100 \cdot 0$ |
| Province- 1952 |  |  |  |  |  |
| Newioundland. | $9 \cdot 4$ | $8 \cdot 0$ | $82 \cdot 6$ | - | $100 \cdot 0$ |
| Prince Edward Island. | $19 \cdot 6$ | 11.5 | 64.0 | $4 \cdot 9$ | $100 \cdot 0$ |
| Nova Scotia. | $10 \cdot 2$ | 3.8 | $84 \cdot 7$ | $1 \cdot 3$ | $100 \cdot 0$ |
| New Brunswick | $10 \cdot 3$ | $3 \cdot 4$ | 84.6 | 1.7 | $100 \cdot 0$ |
| Quebec. | $7 \cdot 3$ | $3 \cdot 6$ | 88.3 | 0.8 | $100 \cdot 0$ |
| Ontario. | $4 \cdot 0$ | $3 \cdot 0$ | $92 \cdot 6$ | 0.4 | $100 \cdot 0$ |
| Manitoba. | $5 \cdot 4$ | $4 \cdot 5$ | 89.0 | $1 \cdot 1$ | $100 \cdot 0$ |
| Saskatchewan | 13.0 | 6.2 | $70 \cdot 2$ | $10 \cdot 6$ | $100 \cdot 0$ |
| Alberta. | $12 \cdot 3$ | $7 \cdot 3$ | 78.2 | $2 \cdot 2$ | $100 \cdot 0$ |
| British Columbis | $5 \cdot 9$ | $5 \cdot 3$ | 86.7 | $2 \cdot 1$ | $100 \cdot 0$ |
| Yukon and Northwest Territories. | $19 \cdot 5$ | $3 \cdot 1$ | $77 \cdot 4$ | - | $100 \cdot 0$ |
| Canada, 1952. | $5 \cdot 9$ | $3 \cdot 6$ | 89.6 | 0.9 | $100 \cdot 0$ |

${ }^{1}$ Four main categories of ownership only; the non-classifiable group is not included.
15.-Percentage Distribution of Employment in the Manufacturing Industries, ${ }^{1}$ classified by Type of Ownership, by Province and Industrial Group, 1951 and 1952, with Totals for 1946-1952-concluded.

| Year and Industrial Group | Individual Ownership | Partnerships | Incorporated Companies | Co-operatives | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Indubtrial Group- ${ }^{1952-}$ concluded | p.c. | p.c. | p.c. | p.c. | p.c. |
| Food and beverages.................. | $10 \cdot 4$ | $4 \cdot 2$ | $80 \cdot 4$ | $5 \cdot 0$ | $100 \cdot 0$ |
| Tobacco and tobacco products | $1 \cdot 2$ | 0.4 | $95 \cdot 7$ | $2 \cdot 7$ | $100 \cdot 0$ |
| Rubber products. | $0 \cdot 2$ | $0 \cdot 5$ | $99 \cdot 3$ | - | $100 \cdot 0$ |
| Leather products. | $7 \cdot 0$ | $5 \cdot 6$ | $87 \cdot 4$ | - | $100 \cdot 0$ |
| Textile products (except clothing)...... | $2 \cdot 7$ | $2 \cdot 0$ | $95 \cdot 3$ | .- | $100 \cdot 0$ |
| Clothing (textile and fur). | $8 \cdot 1$ | $9 \cdot 2$ | $82-7$ | - | $100 \cdot 0$ |
| Wood products. | $20 \cdot 7$ | $10 \cdot 5$ | $68 \cdot 4$ | $0 \cdot 4$ | $100 \cdot 0$ |
| Paper products. | $0 \cdot 5$ | $0 \cdot 3$ | $99 \cdot 2$ | - | $100 \cdot 0$ |
| Printing, publishing and allied industries | $8 \cdot 9$ | 4.8 | 85.1 | $1 \cdot 2$ | $100 \cdot 0$ |
| Iron and steel products................. | 2.4 | 1.9 | $95 \cdot 6$ | $0 \cdot 1$ | $100 \cdot 0$ |
| Transportation equipment. | 0.5 | $0 \cdot 4$ | 99.1 | - | $100 \cdot 0$ |
| Non-ferrous metal products. | 1.9 | 1.5 | $96 \cdot 6$ | - | $100 \cdot 0$ |
| Electrical apparatus and supplies. | $0 \cdot 4$ | $0 \cdot 5$ | $99 \cdot 1$ | - | $100 \cdot 0$ |
| Non-metallic mineral products... | $5 \cdot 5$ | $4 \cdot 0$ | $90 \cdot 5$ | - | $100 \cdot 0$ |
| Products of petroleum and coal........ |  |  | 99.0 | 1.0 | $100 \cdot 0$ |
| Chemicals and allied products......... | 1.2 | 0.6 4.9 | 97.9 | $0 \cdot 3$ | $100 \cdot 0$ |
| Miscellaneous manufacturing industries. | $8 \cdot 6$ | $4 \cdot 9$ | $86 \cdot 3$ | 0.2 | $100 \cdot 0$ |

${ }^{1}$ Four main categories of ownership only; the non-classifiable group is not included.
16.-Percentage Distribution of Employment in the Forty Leading Industries, by Type of Ownership, 1951 and 1952

|  | Year and Industry | Individual Ownership | Partnerships | Incorporated Companies | Co-operatives | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | p.c. | p.c. | p.e. | p.c. | p.c. |
|  | Pulp and paper. . . . . . . . . . . . . . . . . | - | - | $100 \cdot 0$ | $\overline{0}$ | $100 \cdot 0$ |
|  | Slaughtering and meat packing....... | $2 \cdot 0$ | 1.5 | 93.6 | $2 \cdot 9$ | $100 \cdot 0$ |
|  | Non-ferrous metal smelting and refining | - | - | $100 \cdot 0$ |  | $100 \cdot 0$ |
|  | Motor-vehicles....................... |  |  | $100 \cdot 0$ |  | $100 \cdot 0$ |
|  | Petroleum products |  |  | 98.5 | 1.5 | $100 \cdot 0$ |
|  | Sawmills. | 29.8 | $13 \cdot 3$ | 56.5 | $0 \cdot 4$ | $100 \cdot 0$ |
| 8 | Primary iron and stee | $1 \overline{11.8}$ | $\overline{3.9}$ | $100 \cdot 0$ 62.1 | $22 \cdot 2$ | $100 \cdot 0$ |
|  | Rubber goods, including footwe | $0 \cdot 2$ | $0 \cdot 4$ | 99.4 |  | $100 \cdot 0$ |
| 10 | Railway rolling-stock........... |  | - | $100 \cdot 0$ | - | $100 \cdot 0$ |
| 11 | Flour mills.... | $1 \cdot 2$ | $3 \cdot 4$ | $93 \cdot 6$ | 1.8 | $100 \cdot 0$ |
| 12 | Cotton yarn and cloth | - | - | $100 \cdot 0$ | - | $100 \cdot 0$ |
| 13 | Motor-vehicle parts.. | 1.4 | $0 \cdot 9$ | $97 \cdot 7$ | - | $100 \cdot 0$ |
| 14 | Miscellaneous food preparations. | 4.7 | $2 \cdot 8$ | $92 \cdot 5$ | - | $100 \cdot 0$ |
| 15 | Bread and other bakery products | $27 \cdot 2$ | $7 \cdot 5$ | $64 \cdot 9$ | 0.4 | $100 \cdot 0$ |
| 16 | Clothing, men's factory. | $5 \cdot 9$ | $8 \cdot 9$ | $85 \cdot 2$ | - | $100 \cdot 0$ |
| 17 | Machinery, heavy electrical.......... | $0 \cdot 1$ | - | 99.9 | - | 100.0 |
|  | Electrical apparatus and supplies, miscellaneous. | 0.4 | $0 \cdot 7$ | 98.9 | - | 100.0 |
| 19 | Machinery, industrial................ | 1.8 | 1.4 | 96.8 |  | $100 \cdot 0$ |
| 20 | Fruit and vegetable preparations...... | $4 \cdot 6$ | $3 \cdot 3$ | $88 \cdot 7$ | $3 \cdot 4$ | $100 \cdot 0$ |
| 21 | Clothing, women's factory. | $8 \cdot 4$ | $9 \cdot 9$ | 81.7 | - | $100 \cdot 0$ |
| 22 | Sheet metal products.................. | 2.8 | $2 \cdot 3$ | 94.9 | - | $100 \cdot 0$ |
| 23 | Printing and publishing.............. | $6 \cdot 2$ | 2.8 | 89.8 | 1.2 | $100 \cdot 0$ |
| 24 | Furniture. | $11 \cdot 6$ | 9.4 | $79 \cdot 0$ | - | $100 \cdot 0$ |
| 25 | Brass and copper products. | 2.2 | 1.6 | $96 \cdot 2$ | - | $100 \cdot 0$ |
| 26 | Sash, door and planing mills. | 18.0 | $8 \cdot 6$ | $73 \cdot 1$ | $0 \cdot 3$ | $100 \cdot 0$ |
| 27 | Feeds, stock and poultry, prepared.... | 16.4 | $7 \cdot 6$ | 58.4 | $17 \cdot 6$ | $100 \cdot 0$ |
| 28 | Boxes and bags, paper. | 1.6 | 0.8 | $97 \cdot 6$ | - | $100 \cdot 0$ |
| 29 | Agricultural implements. | $0 \cdot 5$ | 0.9 | $97 \cdot 6$ | $1 \cdot 0$ | $100 \cdot 0$ |
| 30 | Synthetic textiles and silk............ | $0 \cdot 3$ | $0 \cdot 2$ | $99 \cdot 5$ | - | $100 \cdot 0$ |
| 31 | 1 Castings, iron......... | $2 \cdot 9$ | $2 \cdot 9$ | $94 \cdot 2$ | - | $100 \cdot 0$ |
| 32 | Fish processing. | $9 \cdot 4$ | 2.8 | $79 \cdot 9$ | $7 \cdot 9$ | $100 \cdot 0$ |
| 33 | Breweries. | - | $0 \cdot 4$ | $99 \cdot 6$ |  | $100 \cdot 0$ |
| 34 | 4 Printing and bookbinding | 14.8 | $8 \cdot 2$ | $75 \cdot 3$ | 1.7 | $100 \cdot 0$ |
| 35 | Sugar refining . . . . . . . . . | $\bar{\square}$ | - | $100 \cdot 0$ | - | $100 \cdot 0$ |
| 36 | Miscellaneous paper goods. | $2 \cdot 4$ | 1.0 | $96 \cdot 6$ | - | $100 \cdot 0$ |
| 37 | 7 Miscellaneous chemical products. | 1.5 | $0 \cdot 5$ | $98 \cdot 0$ | - | $100 \cdot 0$ |
| 38 | Footwear, leather . . ${ }^{\text {Acids, }}$ | 6.5 | 4.0 | 89.5 100.0 | - | $100 \cdot 0$ |
| 4 | Acids, alkalies and salts | - | - | $100 \cdot 0$ | 二 | $100 \cdot 0$ |

16.-Percentage Distribution of Employment in the Forty Leading Industries, by Type of Ownership, 1951 and 1952-concluded

| Year and Industry |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

## Subsection 4.-Leading Manufacturing Industries

The rank of the ten leading industries in 1952, from the standpoint of gross value of production, is compared with their respective ranks in significant years since 1922 in the following statement:-

|  | Rank in- |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Industry | 1988 | 1989 | 1983 | 1989 | 1944 | 1949 | 1950 | 1951 | 1952 |
| Pulp and paper | 2 | 1 | 1 | 2 | 5 | 1 | 1 | 1 | 1 |
| Slaughtering and meat packing. | 3 | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 2 |
| Non-ferrous metal smelting and refining. |  | 9 | 2 | 1 | 2 | 3 | 4 | 3 | 3 |
| Motor-vehicles. . | 6 | 4 | 11 | 5 | 7 | 4 | 3 | 4 | 4 |
| Petroleum products. | 9 | 10 | 6 | 6 | 14 | 5 | 5 | 5 | 5 |
| Sawmills... | 4 | 5 | 14 | 8 | 11 | 6 | 6 | 6 | 6 |
| Primary iron and steel. | 20 | 16 | 31 | 11 | 13 | 8 | 7 | 7 | 7 |
| Butter and cheese. | 5 | 6 | 5 | 4 | 10 | 7 | 8 | 8 | 8 |
| Railway rolling-stock | 24 | 7 | 23 | 16 | 16 | 9 | 16 | 10 | 9 |
| Rubber goods, including footwear | 21 | 11 | 4 | 14 | 15 | 15 | 11 | 9 | 10 |

[^210]The depression of the 1930's resulted in a rearrangement in the ranking of many industries which for some proved to be temporary. Also, during World War II the industries engaged in producing war equipment, such as shipbuilding, aircraft, automobiles and miscellaneous chemical products, advanced to higher positions but when the War ended industries engaged in the production of consumer goods again advanced their positions. Pulp and paper, after a lapse of a number of years, resumed its premier place in 1948. In 1952, the first eight industries retained their 1951 ranking, but railway rolling-stock and rubber goods, including footwear, exchanged positions to become ninth and tenth respectively.

## 17.-Principal Statistics of the Forty Leading Industries, ranked according to Value of Factory Shipments, 1952

|  | Industry | Estab lishments | $\underset{\text { ployees }}{\text { Em- }}$ | Salaries and Wages | Cost of Materials | Net Value of Products | Value of Factory Shipments ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | No. | \$ | 8 | s | 8 |
|  | Pulp an | 128 | 57,8 | 225, 353,327 | 497,046,828 | 584.101,072 | 157,887,657 |
|  | Slaughtering | 154 | 22,864 | 71,378,013 | 700, 369,951 | 158,761,279 | 863,776,155 |
|  |  |  | 24,608 | 87,964,295 | 519,781 |  |  |
|  | Motor-veh | 19 | 31,102 | 113,607,071 | 497, 474,097 | 267,099,575 |  |
|  | Petroleum prod | 55 | 11,661 | 46, 145,422 | 453,954,688 | 178,523,582 | 660,356,584 |
|  | Sawmills | 283 | 60,931 | 135,540,707 | 299, 506,832 | 261,325,619 | ${ }^{568,023,148}$ |
|  | Primary |  | 35,001 | 124,387, 290 | 239,001,158 | 233,577,318 | 504,000,394 |
|  | Butter and c | 02 | 20,435 | 48,826,388 | 281,366 | 90,40 | 378,794,866 |
| 9 | Railway rolling-st | 36 | 36,084 | 108,318,766 | 181,620, 234 | 145.760,789 | 332, 164,783 |
|  | $\begin{gathered} \text { Rubber go } \\ \text { wear..... } \end{gathered}$ | 70 | 21,5 | 65,477,683 | 120,799, 295 | 162,493,060 | 286,654,629 |
| $11$ | Clothing, | 587 | 35 | 70,782,226 | 151,357,963 | 125,282,646 | 277,426,014 |
| 12 | Motor-vehicl | 172 | 21,791 | 72,607,789 | 145,666, | 127, 222,3 | 276, 785, 167 |
|  | Flour mill |  | 4,961 | 14,688,635 | 236, 194,234 | 36,360,848 | 274,208,040 |
| 14 | Miscellaneous food preparation | 325 | 9,563 | 23, 203,080 | 190,029, 289 | 73,007,555 | 266,030,492 |
| 15 | Bread and other bakery |  |  | 74,244,786 | 122,229,789 | 129,740, 849 |  |
| 16 | Aircraft and |  | 33,356 | 108,667,004 | 115,286,096 | 127, 296, | 244,607,320 |
| $176$ | Machinery, heavy ele | 52 | 25.796 | 86,853,545 | 90,300, 105 | 144,997 | 237, 312,982 |
|  | Machinery, industr | 317 | 22,497 | 73,820,422 | 81,396,443 | 143, 291, 450 | 227,025,874 |
| 2 | Cotton yarn and cloth | 57 | 22,969 | 53,705,770 | 143,584, 722 | 78,954,978 | 226,402,425 |
|  | Electrical apparatus | 146 | 21,404 | 66,260, 192 | 94,322,365 | 122,226,955 | 810 |
| ${ }_{20}^{21]}$ | Printing and publishin |  | 27,873 | 84,912,779 | 61,789,469 | 154,760,420 | 218,523,462 |
|  | Clothing, women's fact | 853 | 28,433 | 60, 193, 172 | 113,479,386 | 103,426,871 | 217,441,071 |
|  | Sheet metal products |  | 17,341 | 52,568,8 | 115,072,180 | 96,233 | 213,585,114 |
|  | Fruit and vegetable preparations | 462 | 16.020 | 31,992,856 | 120,602,514 | 88,490,233 | 211, 787,559 |
| $25$ | Agricultural implem |  | 18,046 | 62,423,716 | 109,827,515 | 93,778,210 | 205,775,487 |
| $26]$ | Furnitur | 1,557 | 27,188 | 65,889, | 96,063,263 | 106,056 | 204, 265,922 |
| ${ }_{98}^{27}$ | Sash, door and planing mill | 1.728 | 19,525 | 43,986 | 116,98 | 71,91 | 191,45 |
| 29 | Brass and | 153 | 9,711 | 31,034, 274 | 121,374,319 | 61,126,829 | 184,671,951 |
|  |  |  |  | 13,392,352 | 148,801,788 | 29,967 343 |  |
|  | Brewerie | 61 | ${ }_{8,163}^{5,18}$ | 30, 143,552 | 49,713,488 | 126,465,413 | 178,768,806 |
| 31 | Boxes and | 185 | 13,074 | 34,440,614 |  | 68,36 |  |
|  | Castings, iro | 03 | 15,937 | 51, 142,241 | 78,461.149 | 89,181,703 | 170, 968,719 |
| ${ }_{24}^{33}$ | Printing and | 1,669 | 22,898 | 61,776,455 | 56,570,169 | 102,375,524 | 160, 278, 195 |
| $34$ | Shipbuildin | 74 | 20,6 | 61,700 | 60,247,318 | 96,737 | 159,057,949 |
|  | Synthetic textiles and | 48 | 15,723 | 42,708 | 63,780 | 90,00 |  |
| 36 | Miscella | 238 | 11,397 | 33,694,741 | 64,886,257 | 72,735,9 | 143,546,514 |
|  | Bridge |  |  | 418,880 | ,135,893 |  |  |
|  | Tobacco, cigars and cigare | 47 | 7,58 | 22,036,719 | 73,168.064 | 64.864,521 | 138,423,959 |
|  | M iscellaneous paper good |  |  | 26 | 75, 204,453 | 61,926,359 | 515 |
| ${ }_{40}^{39}$ | Fish processing | 635 | 14,35 | 24,426,35 | 86,457,993 | 734, | 134,725,304 |
|  | Totals, | 24,82 | 873,50 | 2,543,867,74 | 6,938,508,8 | 5,157,616,93 | 12,386,942,375 |
|  | Totals, All Industrie | 37,929 | 1,288,382 | 3,637,620,160 | 9,146,172,49 | 7,443,533,19 | 16,982,687,035 |
|  | Percentages of leading industries to all industries. | $65 \cdot 4$ | 67.8 | 69.9 | 75.8 | $69 \cdot 3$ | 73.8 |

[^211] see text on p. 633.

## Section 3.-Principal Factors in Manufacturing Production

## Subsection 1.-Salaries and Wages in Manufacturing Industries

Statistics of earnings and hours of work of wage-earners and salaried employees in manufacturing will be found in Chapter XVIII on Labour.

In 1952, the 37,929 manufacturing establishments employed 263,027 salaried employees and $1,025,355$ wage-earners, a total of $1,288,382$ persons. Out of every 1,000 persons employed in these industries, 204 were classed as salary-earners and 796 as wage-earners; the former earned 25 p.c. and the latter 75 p.c. of the total amount paid out as remuneration for services. It is interesting to note the reduction in the disparity between average annual salaries and wages that has taken place in recent years. Whereas, in 1939, average annual wages were only 56 p.c. of average annual salaries, in 1943 the percentage rose to 76 , declined to 69 in 1947 and increased to 75 in 1952. The average salary in 1952 amounted to $\$ 3,513$, which was 101 p.c. higher than in 1939 , and the average wage was $\$ 2,647,171$ p.c. higher than in 1939.

## 18.-Total and Average Annual Salaries and Wages Paid in Manufacturing Industries, Significant Years, 1917-52


#### Abstract

Norg. -The averages of wage-earners and earnings for the years $1933-45$ are strictly comparable with thoee for the years up to 1924 but not with those for the intervening years. The figures for the latest years -as for the earlier-represent the earnings for complete man-years of work, with no allowance for periods of unemployment. The difference amounts to about 3 or 4 p.c. in the total figures and affects chiefly the seasonal industries.


| Year | Annual Salaries |  |  |  | Annual Wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Salaried Employees |  | Total Salaries | Average Salaries | WageEarners |  | Total <br> Wages | Average Wages |
|  | Male | Female |  |  | Male | Female |  |  |
|  | No. | No. | § | \$ | No | No | \$ | \$ |
| 1917. | 64, |  | 85,353,667 | 1,315 |  | 605 | 412,448, 177 | 762 |
| 1920 | 78. |  | 141,837,361 | 1,811 |  |  | 575,656,515 | 1,106 |
| 1922. | 71. |  | 129,836,831 | 1,814 | 384 |  | 359,560,399 | 935 |
| 1924. | 54.379 | 15,641 | 130,344,822 | 1.862 | 322,719 | 94,871 | 404, 122,853 | 968 |
| 1926. | 58,245 | 17,092 | 142,353,900 | 1,890 | 374,244 | 109,580 | 483,328,342 | 999 |
| 1929. | 67,731 | 21,110 | 175,553,710 | 1,976 | 454,768 | 122,922 | 601,737,507 | 1,042 |
| 1933. | 67,875 | 18,761 | 139,317,946 | 1,608 | 287,266 | 94,756 | 296,929,878 | 777 |
| 1938. | 98,165 | 26,607 | 217,839,334 | 1,746 | 415,488 | 117,854 | 519,971,818 | 975 |
| 1944 | 126,858 | 65,700 | 418,065,594 | 2,171 | 744,635 | 285,689 | 1,611,555,776 | 1,564 |
| 1945 | 128,601 | 62,106 | 417,857,619 | 2,191 | 680,620 | 248,045 | 1,427,915,830 | 1,538 |
| 1946. | 127,002 | 54,004 | 410,875, 776 | 2,270 | 662,699 | 214,451 | 1,329,811,478 | 1,516 |
| 1947. | 135, 248 | 55,852 | 474,693,800 | 2,484 | 721,407 | 219,243 | 1,611,232,166 | 1,713 |
| 1948. | 141,038 ${ }^{\text {r }}$ | 57,192: | 532,594,959 r | 2,687 | 738,721r | 218,770 ${ }^{\text {r }}$ | 1,876, 773, 231 r | 1,960 |
| 1949 | 157,516 | 64,035 | 628,427,937 | 2,836 | 732,457 | 217,199 | 1,963,462,720 | 2,067 |
| 1950. | 164,475 | 66,578 | 692,633,349 | 2,998 | 736,477 | 215,767 | 2,078,634,086 | 2,183 |
| 1951. | 176,943 | 70,844 | 816, 714,604 | 3,296 | 792,394 | 218,194 | 2,459,566,313 | 2,434 |
| 1952. | 188,235 | 74,792 | 923,905,251 | 3,513 | 810,060 | 215,295 | 2,713,714,909 | 2,647 |

Ontario has a larger proportion of females among its salaried employees than any of the other provinces. This situation prevails in Quebec with regard to wageearners owing, no doubt, to the textile industries of the Province. The importance of the textile industries in providing employment for females is strikingly illustrated by the fact that, of all female wage-earners engaged in the manufacturing industries of Canada in 1952, 43 p.c. were classed in the textile and clothing groups.

The average salary in 1952 was $\$ 3,513$, more than double the average in 1939. Salaried employees in Ontario were the highest paid, those in Quebec second, followed by British Columbia and Manitoba. The location of head offices of many large corporations at Toronto, Montreal, Vancouver and Winnipeg tends to raise the average salaries in the provinces in which these cities are located.

The average wage in 1952 was $\$ 2,647$ as compared with $\$ 975$ in 1939. The manufacturing industries of British Columbia paid the highest average wage among the provinces. Ontario was second, followed by Saskatchewan, Alberta and Newfoundland. The high figures shown for the Yukon and Northwest Territories in this respect reflect the unusual conditions under which industry is carried on in those regions and are not representative. Statistics of the distribution of employees by province and by industrial group, together with average annual earnings, are given for 1951 and 1952 in Table 19.
19.-Employees and Annual Salaries and Wages Paid in Manufacturing Indus tries, by Province and Industrial Group, 1951 and 1952

| Year, <br> Province and Industrial Group | Annual Salaries |  |  |  | Annual Wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Salaried Employees |  | Total Salaries | Average Salaries | WageEarners |  | Total Wages | $\begin{gathered} \text { Average } \\ \text { Wages } \end{gathered}$ |
|  | Male | Female |  |  | Male | Female |  |  |
| 1951 | No | No. | § | \$ | No | No. | \$ | 8 |
|  |  |  |  |  |  |  |  |  |
| Province- |  |  |  |  |  |  |  |  |
| Newioundland. | 1.697 | 298 | 4,757,011 | 2,384 | 6,488 | 1,139 | 17,924,235. | 2,350 |
| Prince Edward Island | ${ }_{3} 362$ | ${ }^{92}$ | 11.678, 604 | 1,715 2.500 | $\begin{array}{r} \\ \hline\end{array} 906$ | 1375 3.400 | 1,680,949 | 1,312 2,024 |
| Nova Scotia. | 3,662 | 1,004 | 11,664,070 | 2,500 2,75 | 22,446 | 3,400 | 52, 311,684 | 2,024 |
| New Brunswic | r $\begin{array}{r}2,709 \\ 57\end{array}$ | 1.880 21.843 | $9,893,725$ $256,228,103$ | 2,757 3,241 | 17,296 | 3,620 92 92 | $43,653,157$ $749,373,577$ | 2,087 2,216 |
| Quebee. | 57,222 85,433 | 21,843 <br> 38.404 | $256,228,103$ $432,056,989$ | 3,241 3,489 | 245,869 378,862 | $\begin{array}{r}92,248 \\ 96 \\ \hline\end{array}$ | $749,373,577$ <br> $1,237,329,993$ | 2,216 2,602 |
| Ontario | 85,433 5,709 | 31,404 2,072 | $432,056,989$ $23,729,367$ | 3,489 3,050 | 378,862 25,992 | 96,734 7,686 | 1,237,329,993 | 2,602 2,270 |
| Saskatchew | 2,183 | 813 | 7,322,831 | 2,444 | 7,050 | 977 | 18,967,463 | 2,363 |
| Alberta | 5,001 | 1.457 | 16,521,056 | 2,558 | 19,556 | 3,091 | 52,614,531 | 2,323 |
| British Columbia <br> Yukon and Northwest <br> Territories. | 12,939 | 3,971 | 53,668,749 | 3,174 | 67,826 | 8,911 | 208,957,534 | 2,723 |
|  | 26 | 10 | 94,099 | 2,614 | 103 | 13 | 311,591 | 2,686 |
| Canada, 1951. | 176,943 | 70,844 | 816,714,604 | 3,296 | 792,394 | 218,194 | 2,459,566,313 | 2,434 |
| Industrial Group-Food and beverages. |  |  |  |  |  |  |  |  |
|  | 24,423 | 9,803 | 100,673,433 | 2,941 | 103,254 | 35,013 | 292,186,002 | 2,113 |
| Tobacco and tobacco products. | 943 | 533 | 5,408,847 | 3,665 | 3,317 | 5,033 | 19,029,371 | 2,278. |
| Rubber products | 3,762 | 1,524 | 17,767.922 | 3,361 | 13,585 | 4,183 | 46,589,774 | 2,622 |
| Leather products. | 2,917 | 1,188 | 13,398,095 | 3,264 | 16,077 | 11,396 | 46,270,669 | 1,684 |
| Textile products (except elothing) | 7,360 | 3,748 | 40,597,090 | 3,655 | 44,402 | 26,200 | 144,433,399 | 2,046 |
| Clothing (textile and fur). | 9,759 | 6,066 | $53,405,045$ | 3,375 | 30,972 | 68,936 | 168,959,902 | 1,691 |
| Wood products. | 20,208 | 3,030 | 52,278,571 | 2,250 | 102,972 | 5,068 | 230,783,503 | 2,136 |
| Paper products. | 10,213 | 3,902 | $61,238,472$ | 4,338 | 60,115 | 8,659 | 215,282,534 | 3,130 |
| Printing, publishing and allied industries. | 15,005 | 9,269 | 66,737,821 | 2,749 | 31,469 | 8.951 | 104,090,908 | 2,575 |
| Iron and steel products | 25,691 | 9,106 | 126,490,198 | 3,635 | 140,730 | 7,796 | 420,824,417 | 2,833 |
| Transportation equipment | 14,913 | 4,562 | 72,702,273 | 3,733 | 99,461 | 3,581 | 295,404,160 | 2,867 |
| Non-ferrous metal products. $\qquad$ | 7,186 | 2,684 | 35,379,886 | 3,585 | 36,923 | 3,321 | 115,353,818 | 2,866 |
| Electrical apparatus and supplies. | 12,401 | 5,164 | 60,924,133 | 3,468 | 36,435 | 13,626 | 133,824,905 | 2,673 |
| Non - metallic minera! products | 3,904 | 1,390 | 17,453,958 | 3,297 | 24,176 | 2,052 | $68,625,014$ | 2,616 |
| Products of petroleum and |  |  | $18,506,609$ | 3,662 |  | 71 | $33,441,281$ | 3,172 |
| Chemicals and allied |  |  |  |  |  |  | 33,41,281 |  |
| products............ | 10,282 | 5,395 | 52,970,452 | 3,379 | 24,477 | 5,510 | 78,339,699 | 2,612 |
| Miscellaneous manufacturing industries. | 4,156 | 2,246 | 20,781,799 | 3,246 | 13,556 | 8,798 | 46,126,956 | 2,063 |

19.-Employees and Annual Salaries and Wages Paid in Manufacturing Industries, by Province and Industrial Group, 1951 and 1952 -concluded

| Year, <br> Province and Industrial Group | Annual Salaries |  |  |  | Annual Wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Salaried Employees |  | Total Salaries | Average Salaries | WageEarners |  | Total Wages | Average Wages |
|  | Male | Female |  |  | Male | Female |  |  |
| 1952 | No. | No. | \$ | \$ | No. | No. | \$ | § |
| Province- |  |  |  |  |  |  |  |  |
| Newfoundland | 1,985 | 340 | 5,452,693 | 2,345 | 6,976 | 1,002 | 19,781,158 | 2,479 |
| Prince Edward | 343 | 84 | 814,983 | 1,909 | 974 | 394 | 1,990,639 | 1,455 |
| Nova Scot | 3,755 | 1,101 | 12,884, 551 | 2,653 | 24,768 | 3,747 | 62,360,836 | 2,187 |
| Quebec. | . 60,365 | 23,019 | 290,383, 844 | 3,482 | 253,334 | 92,980 | 835,560,859 | 2,413 |
| Ontar | 91,717 | 40,644 | 488,513,049 | 3,691 | 384,448 | 92,887 | 1,355,673,356 | 2,840 |
| Manitobs | 5,818 | 2,202 | 25,815,971 | 3,219 | 27,387 | 7,958 | 86,331,601 | 2,443 |
| Saskatchew | 2,285 | 844 | 8,152,103 | 2,605 | 7,163 | 1,015 | 21,337, 759 | 2,609 |
| Alberta. | 5,275 | 1,609 | 19,880,392 | 2,888 | 21,487 | 3,394 | 62,646,802 | 2,518 |
| British Columbia........ | 13,903 | 4,020 | 61,191,597 | 3,414 | 66,315 | 8,429 | 222,339,379 | 2,975 |
| Yukon and Northwest | 33 | 8 | 116,078 | 2,831 | 111 | 12 | 414,048 | 3,366 |
| Canada, 1952 | 188,235 | 74,792 | 923,905,251 | 3,513 | 810,060 | 215,295 | 2,713,714,909 | 2,647 |
| Indubtrial Group- |  |  |  |  |  |  |  |  |
| Food and beverages...... Tobacco and tobacco | 24,663 | 10,216 | 108,239,778 | 3,103 | 104,881 | 35,792 | 321,410,277 | 2,285 |
| products. | 907 | 508 | 5,549,328 | 3,922 | 3,111 | 4,751 | 19,855,744 | 2,526 |
| Rubber products.......... | 3,884 | 1,438 | 19,007,855 | 3,572 | 12,357 | 3,903 | 46, 469,828 | 2,858 |
| Leather products. <br> Textile products (except clothing). <br> Clothing (textile and fur). <br> Wood products | 2,998 | 1,310 | 14,631,149 | 3,396 | 15,843 | 11,952 | 51,522,341 | 1,854 |
|  | 7,657 | 3,851 | 42,574,356 | 3,700 | 38,613 | 22,618 | 136,115, 110 | 2,223 |
|  | 9,630 | 6,014 | 55, 701, 719 | 3,561 | 31,260 | 70,764 | 184, 837,953 | 1,812 |
|  | 21,156 | 3,175 | 57, 563,254 | 2,366 | 100,973 | 5,164 | 241,867,727 | 2,279 |
| Paper products. <br> Printing, publishing and allied industries. | 10,561 | 4,075 | 67,584,381 | 4,618 | 60,238 | 8,091 | 225,097,902 | 3,294 |
|  | 15,219 | 9,372 | 73,846,566 | 3,003 | 31,312 | 8,582 | 112,404, 149 | 2,818 |
| Iron and steel products... | 27,693 | 9,639 | 144,825, 158 | 3,879 | 144,788 | 7,071 | 472,185, 766 | 3,109 |
| Transportation equipment Non-ferrous metal products. | 18,863 | 5,906 | 96,831,129 | 3,909 | 117,358 | 4.233 | 376,287,321 | 3,095 |
|  | 7,534 | 2,674 | 39,508,846 | 3,870 | 37,463 | 3,267 | 127,536,238 | 3,131 |
| Electrical apparatus and supplies. | 13,823 | 5,69 | 72, 039, 772 | 3,691 | 36,896 |  |  |  |
| Non - metallic mineraj products. |  |  |  |  | 36, | 12,78 | 145,525 | 2,929 |
|  | 3,871 | 1,380 | 18,437,688 | 3,511 | 24,211 | 1,960 | 74,381,231 | 2,842 |
| Products of petroleum and coal. | 4,222 | 1,403 | 23,018,760 | 4,092 | 11,197 | 83 | 40,554,413 | 3,595 |
| Chemicals and allied products. | 10,842 | 5,709 | 60,021,601 | 3,626 | 25,508 | 5,635 | $88,054,074$ | 2,827 |
| Miscellaneous manufacturing industries. | $\begin{array}{r} 4,712 \end{array}$ | 2,426 | $24,523,911$ | 3,436 | 14,051 |  |  |  |
|  |  |  | 24,523,911 |  |  | 8,644 | 49,609,671 | 2,186 |

Average Annual Earnings in the Forty Leading Industries.-In 1952 there were 30 industries with average salaries of $\$ 3,500$ or over, as compared with 22 industries in this range in 1951. Indicative of the rapidly changing pattern of remuneration in manufacturing is the fact that, in 1945, the last year of the War, no industry paid an average annual salary of over $\$ 3,000$, the highest being $\$ 2,935$ reported by the brewing industry. The highest average salary in 1952, amounting to $\$ 5,069$, was received by office and supervisory employees in the pulp and paper industry. This industry also occupied the premier position in 1951 with $\$ 4,688$. Other industries paying $\$ 4,000$ or more were as follows: breweries, $\$ 4,891$; motorvehicles, $\$ 4,645$; bridge building and structural steel, $\$ 4,386$; primary iron and steel, $\$ 4,385$; miscellaneous iron and steel products, $\$ 4,323$; petroleum products, $\$ 4,276$; boxes and bags, paper, $\$ 4,121$; boilers, tanks and platework, $\$ 4,060$; motorvehicle parts, $\$ 4,059$; iron castings, $\$ 4,023$; non-ferrous metal smelting and refining,
$\$ 4,007$; and brass and copper products, $\$ 4,001$. In 17 others, salaries were between $\$ 3,500$ and $\$ 4,000$, and in the remaining ten they were under $\$ 3,000$. The sawmill and butter and cheese industries with $\$ 1,688$ and $\$ 2,292$, respectively, paid the lowest salaries.

The increase in average wages since 1945 paralleled that of salaries. In 1945 there were only four industries averaging over $\$ 2,000$ whilst in 1952 there were 36. In 1945 the highest average annual wage was $\$ 2,365$ paid by the motorvehicle industry, and in 1952 it was $\$ 3,774$ paid by the petroleum products industry, which displaced pulp and paper as the leading industry having the highest wage of $\$ 3,531$ in 1951. The highest wages are usually paid by industries in which the proportion of skilled workers is high and that of female workers is low. There were seven industries in 1952 with average annual wages of $\$ 3,300$ or over. These were: petroleum products, $\$ 3,774$; pulp and paper, $\$ 3,669$; non-ferrous metal smelting and refining, $\$ 3,489$; primary iron and steel, $\$ 3,437$; motor-vehicles, $\$ 3,419$; breweries, $\$ 3,388$ and agricultural implements, $\$ 3,369$. In eight industries, average wages ranged between $\$ 3,000$ and $\$ 3,500$; in twelve, between $\$ 2,500$ and $\$ 3,000$; in nine others, between $\$ 2,000$ and $\$ 2,500$, and in the remaining four they were below $\$ 2,000$. This latter group, which includes fruit and vegetable preparations, leather footwear, men's factory clothing and women's factory clothing, is composed of industries made up of a large number of small establishments and is one in which the proportion of female workers is high. Employment by sex, and average annual earnings in the forty leading industries are given in Table 20.

## 20.-Employees and Annual Salaries and Wages Paid in the Forty Leading Industries, 1951 and 1952

Note.-Industries ranked according to the aggregate salaries and wages paid.

|  | Year and <br> Industry | Annual Salaries |  |  |  | Annual Wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Salaried Employees |  | Total Salaries | Average Salary | WageEarners |  | Total Wages | $\begin{gathered} \text { Average } \\ \text { Wage } \end{gathered}$ |
|  |  | Male | Female |  |  | Male | Female |  |  |
|  | 1951 | No. | No. | \$ | \$ | No. | No. | § | 8 |
|  | Pulp and paper | 7,174 | 2,239 | 44, 126,918 | 4,688 | 47,164 | 714 | 169,042,988 | 3,531 |
|  | Sawmills:.... | 11,395 | 705 | 19,507,788 | 1,612 | 49,825 | 490 | 112,550,819 | 2,237 |
|  | Primary iron and stee | 3,128 | 978 | 16,744,000 | 4,078 | 28,884 | 403 | 91,817, 802 | 3,135 |
|  | Motor-vehicles | 4,245 | 1,413 | 23, 267, 271 | 4,112 | 24,500 | 321 | 78,075,503 | 3,146 |
|  | Railway rolling-stock | 2,154 | 300 | 9,228,292 | 3,761 | 30,842 | 114 | 84,800,542 | 2,739 |
|  | Printing and publishing | 7,792 | 4,316 | 33,623,767 | 2,777 | 13,162 | 2,030 | 42,617,798 | 2,805 |
|  | Machinery, heavy electrical | 4,697 | 1,773 | 21,481,397 | 3,320 | 14,886 | 3,940 | 54,117,515 | 2,875 |
|  | Non-ferrous metal smelting and refining. $\qquad$ | 3,193 |  | 13,816,942 | 3,686 | 19,005 | 61 | 61,657,563 | 3,234 |
|  | Machinery, industrial | 4,477 | 1,754 | 22,026,229 | 3,535 | 15,595 | 500 | 45, 260,684 | 2,812 |
| 10 | Bread and other bakery products. | 3,656 | 1,209 | 11,920,659 | 2,45C | 20,773 | 6,614 | $55,195,260$ | 2,015 |
| 11 | Motor-vehicle parts | 2,390 | 957 | 12,855,397 | 3,841 | 15,369 | 2,481 | $52,427,766$ | 2,937 |
| 12 | Rubber goods and footwear. | 3,762 | 1,524 | 17,767,922 | 3,361 | 13,585 | 4,183 | 46,589,774 | 2,622 |
| 13 | Clothing, men's factory... | 2,665 | 1,500 | 14,751,945 | 3,542 | 8,831 | 19,736 | 47,564,221 | 1,665 |
| 14 | Slaughtering and meat packing | 3,502 | 1,208 | 16,824,332 | 3,572 | 13,363 | 2.841 | 45,284,543 | 2,795 |
| 15 | Furniture. | 3,477 | 1,086 | 14,195, 631 | 3,111 | 20,854 | 1,857 | 47, 233,644 | 2,080 |
| 16 | Electrical apparatus and supplies, misc.. | 3,775 | 1,628 | 18,713,133 | 3,463 | 11,128 | 4,726 | 41,976,958 | 2,648 |
| 17 | Aircraft and parts | 4,122 | 1,363 | 19,417,203 | 3,540 | 13,365 | 348 | 40, 141, 114 | 2,927 |
| 18 | Cotton yarn and cloth | 1,327 | 916 | 8,265,512 | 3,685 | 16,376 | 9,013 | 50,469,321 | 1,988 |
| 19 | Printing and bookbinding | 3,795 | 1,729 | 17,150,131 | 3,105 | 12,466 | 5,223 | 40,068,214 | 2,265 |
| 20 | Clothing, women's factory | 2,580 | 1,689 | 14,847,672 | 3,478 | 6,202 | 18,217 | 41,916,610 | 1,717 |
| 21 | Agricultural implements. | 2,482 | 716 | 10,727,332 | 3,354 | 13,871 | 167 | 41,490,098 | 2,956 |
| 22 | Castings, iron | 1,549 | 591 | 8,371,382 | 3,912 | 14,977 | 345 | 43, 757,031 | 2,856 |
| 23 | Sheet metal products | 2,498 | 957 | 12,778,709 | 3,699 | 12,211 | 1,771 | 36,258,643 | 2,593 |
| 24 | Butter and cheese. | 3,746 | 1,630 | 11,665, 107 | 2,170 | 14,542 | 982 | 35, 116,443 | 2,262 |
|  | .Synthetic textiles and silk. | 2,300 | 978 | 11,692,668 | 3,567 | 10,651 | 4,068 | 33,001,070 | 2,242 |

## 20.-Employees and Annual Salaries and Wages Paid in the Forty Leading Industries, 1951 and 1952-continued

| Year and Industry |  | Annual Salaries |  |  |  | Annual Wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Salaried } \\ & \text { Employees } \end{aligned}$ |  | Total | $\begin{aligned} & \text { Average } \\ & \text { Salary } \end{aligned}$ | WageEarners |  | Total | AverageWage |
|  |  | Male | Female |  |  | Male | Female |  |  |
| 1951-concluded |  | No. | No. | 8 | \$ | No. | No. | 8 | s |
|  | Sash, donr and planing mills. | 3,058 | 627 | 9,621,964 | 2,611 | 15,502 | 170 | 30,838,716 | 1,968 |
| 27 | Shipbuilding............... | 1,440 | 383 | 6,104,848 | 3,349 | 12,927 | 86 | 33,999,683 | 2,613 |
| 88 | Hardware, tools and cutlery. | 1,873 | 941 | 9,785,622 | 3,477 | 9,729 | 1,746 | 29,694,712 | 2,588 |
| 29 | Petroleum products......... | 2,845 | 905 | 14,414,140 | 3,844 | 6,799 | 62 | 22,664,477 | 3,303 |
| 30 | Footwear, leather. | 1,676 | 710 | 7,590,611 | 3,181 | 9,750 | 7,863 | 28,256,825 | 1,604 |
|  | Boxee and bags, paper. | 1,364 | 704 | 8,148,180 | 3,940 | 6,451 | 4,865 | 24,086,979 | 2,129 |
| 32 | Fruit and vegetable preparations. | 1,675 | 902 | 7,033,709 | 3,079 | 7,270 | 6,554 | 22,173,867 | 1,604 |
|  | Brass and copper products... | 1,341 | 568 | 7,006,881 | 3,670 | 7,525 | 643 | 22,311,195 | 2,732 |
|  | Iron and steel products, misc. | 1,421 | 380 | 6,827,761 | 3,791 | 7,880 | 408 | 22,349,353 | 2,697 |
| 35 | Bridge building and structural steel. | 1,621 | 357 | 8,035,027 | 4,062 | 6,578 | 52 | 20,243,399 | 3,053 |
| 6 | Radios and radio parts...... | 2,225 | 919 | 11,876,204 | 3.777 | 3,758 | 3,229 | 16,391,885 | 2,346 |
| 37 | Breweries. | 1,442 | 399 | 8,056,046 | 4,376 | 6,504 | 104 | 19,433,263 | 2,941 |
| 38 | Chemical products, misc. | 2,097 | 858 | 10,317,357 | 3,491 | 5,491 | 1,291 | 16,654,156 | 2,456 |
|  | Wire and wire products.. | 1,174 | 502 | 6,341,636 | 3,784 | 6,384 | 799 | 20,487,617 | 2,852 |
| 40 | Machinery, household, office and store. | 1,252 | 569 | 5,901,175 | 3,241 | 6,892 | 1,187 | 20,214,932 | 2,502 |
|  | Totals, Forty Leading Industries. | 122,385 | 43,438 | 553,728,510 | 3,339 | 581,862 | 120,204 | 1,788,232,983 | 2,549 |
|  | Grand Totals, All Industries, $1951 .$. | 176,943 | 70,844 | 816,714,604 | 3,296 | 792,394 | 218,194 | 2,459,566,313 | 2,434 |
|  | 1952 |  |  |  |  |  |  |  |  |
| 1 Pulp and paper............ |  | 7,256 | 2,237 | 48,119,514 | 5,069 | 47,575 | 735 | 177,233,813 | 3,669 |
|  | Sawmills. | 12,068 | 787 | 21,693,711 | 1,688 | 47,585 | 491 | 113, 846,996 | 2,368 |
|  | Primary iron and steel | 3,308 | 1,019 | 18,972, 041 | 4,385 | 30,344 | 330 | 105,415,249 | 3,437 |
|  | Motor-vehicles. | 4,453 | 1,472 | 27,518,997 | 4,645 | 24,857 | 20 | 86,088,074 | 3,419 |
|  | Aircraft and parts. | 7,302 | 2,428 | 34, 533, 237 | 3,549 | 22,559 | 1,067 | 74, 133,767 | 3,138 |
|  | Railway rolling stock, | 2,290 | 346 | 10,390,581 | 3,942 | 33,292 | 156 | 97,928,185 | 2,928 |
|  | Non-ferrous metal smelting and refining. | 3,468 | 598 | 16,290,926 | 4,007 | 20,474 | 68 | 71,673,369 | 3,489 |
|  | Machinery, heavy electrical. | 5,357 | 2,011 | 27,582,743 | 3,744 | 15,199 | 3,229 | 59,270,802 | 3,216 |
|  | Printing and publishing.... | 7,915 | 4,502 | 37,770,291 | 3,042 | 13,401 | 2,055 | 47,142,488 | 3,050 |
|  | Bread and other bakery products. | 3,634 | 1,212 | 12,952,387 | 2,673 | 21,448 | 6,717 | 61,292,399 | 2,176 |
|  | Machinery, industrial. | 4,724 | 1,861 | 24, 238, 970 | 3,681 | 15,440 | 472 | 49,581,452 | 3,116 |
| 10 | Motor-vehicle parts.. | 2,581 | 1,031 | 14,660,736 | 4,059 | 15,819 | 2,360 | 57,947,053 | 3,188 |
| 112 | Slaughtering and meat packing. | 3,552 | 1,246 | 17,695,965 | 3,688 | 14,856 | 3,210 | 53,682,048 | 2,971 |
|  | Clothing, men's factory.... | 2,750 | 1,576 | 15,984, 766 | 3,695 | 9,687 | 21,570 | 54,797,460 | 1,753 |
|  | Miscellaneous electrical apparatus and supplies. | 3,984 | 1,808 | 21,545,991 | 3,720 | 11,319 | 4,293 | 44,714,201 | 2,864 |
|  | Furniture........ | 3,611 | 1,121 | 15,672,421 | 3,312 | 20,609 | 1,847 | 50,217,080 | 2,236 |
| 12 | Rubber goods, including footwear | 3,884 | 1,438 | 19,007,855 | 3,572 | 12,357 | 3,903 | 46,469,828 | 2,858 |
|  | Agricultural implements. | 2,544 | 749 | 12,720, 196 | 3,863 | 14,566 | 187 | 49,703,520 | 3,369 |
|  | Printing and bookbinding. | 3.888 | 1,799 | 18,995, 283 | 3,340 | 12,258 | 4,953 | 42,781,172 | 2,486 |
|  | Shipbuilding.......... | 1.677 | 482 | 7,849,545 | 3,636 | 18,424 | 93 | 53,850,767 | 2.908 |
|  | Clothing, women's lactory | 2,358 | 1,650 | 14,656, 246] | 3,657 | 5,998 | 18,427 | 45,536,926 | 1,864 |

## 20.-Employees and Annual Salaries and $W$ ages Paid in the Forty Leading Industries, 1951 and 1952-concluded

| - | Year and Industry | Annual Salaries |  |  |  | Annual Wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Salaried Employees |  | Total Salaries | Average Salary | WageEarners |  | Total Wages | Average Wrge |
|  |  | Male | Female |  |  | Male | Femstle |  |  |
|  | 1952-concluded | No. | No. | \$ | \% | No. | No. | \$ | \% |
| 22 | Cotton yarn and clo | 1,601 | 955 | 8,994,590 | 3,519 | 13,038 | 7,375 | 44,711,180 | 2,190 |
| 23 | Sheet metal products | 2,618 | 965 | 13,782,327 | 3,847 | 12,161 | I,597, | $38,786,513$ | 2,819 |
| 24 | Castings, iron. | 1,639 | 589 | 8,963,232 | 4,023 | 13,411 | 298 | 42,179,009 | 3,077 |
| 25 | Butter and cheese. | 3,524 | 1,674 | 11,912,465 | 2,292 | 14,319 | 918 | 36,913,923 | 2,423 |
| 26 | Petroleum products. | 3,207 | 1,046 | 18,186,998 | 4,276 | 7,342 | 66 | 27,958,424 | 3,774 |
| 27 | Sash, door and planing mills. | 3,177 | 616 | 10,615,311 | 2,799 | 15,529 | 203 | $33,371,596$ | 2,121 |
| 28 | Hardware, tools and cutlery. | 2,022 | 1,019 | 11,509,823 | 3,785 | 9,728 | 1,581 | 32,155,048 | 2,843 |
| 29 | Synthetic textiles and silk. . | 2.373 | 1,015 | 12,899,801 | 3,807 | 9,213 | 3,122 | $29,808,704$ | 2,417 |
| 30 | Footwear, leather. | 1,735 | 807 | 8,556,737 | 3,366 | 9,718 | 8,437 | 32,535,264 | 1,792 |
| 31 | Bridge building and structural steel. | 1,926 | 410 | 10,246,240 | 4,386 | 8,453 | 35 | 27,172,640 | 3,201 |
| 32 | Miscellaneous iron and steel products. | 1,574 | 408 | 8,569,018 | 4,323 | 8,679 | 403 | 26,580,943 | 2,927 |
| 33 | Boxes and bags, paper...... | 1,527 | 761 | 9,428,736 | 4,121 | 6,330 | 4,456 | 25,011, 878 | 2,319 |
| 34 | Radios and radio parts. . . . . | 2,733 | 1,034 | 13,610,875 | 3,613 | 4,261 | 3,728 | $20,373,654$ | 2,550 |
| 35 | Miscellaneous chemical products. | 2,454 | 961 | 12,085, 270 | 3,539 | 6,499 | 1,483 | 21,609,471 | 2,707 |
| 36 | Fruit and vegetable preparations. | 1,723 | 939 | 8,757.719 | 3,290 | 6,982 | 6,376 | 23,235,137 | 1,739 |
| 37. | Brass and copper products... | 1,331 | 579 | 7,642,712 | 4,001 | 7,151 | 650 | $23,391,562$ | 2,999 |
| 38 | Breweries . . . . . . . . . . . . . . . | 1,282 | 374 | 8,100,019 | 4,891 | 6,420 | 87 | 22,043,533 | 3,388 |
| 39 | Machinery, household, office and store. | 1.428 | 576 | 6,860,486 | 3,423 | 6,865 | 986 | 22,530,009 | 2,870 |
| 40 | Boilers, tanks and platework | 1,646 | 500 | 8,713,295 | 4,060 | 5,884 | 129 | 19,555, 856 | 3,252 |
|  | Totals, Forty Leading Industries. | 132,124 | 46,601 | 638,288,056 | 3,571 | 600,050 | 118,413 | 1,993,230,993 | 2,774 |
|  | Grand Totals, All Industries, 1952....... | 188,235 | 74,792 | 923,905,251 | 3,513 | 810,060 | 215,295 | 2,713,714,909 | 2,647 |

Average Earnings of Wage-Earners.-In comparing earnings by provinces or groups, consideration should be given to the type of industries in each case since the distribution of industries has a very definite regional significance. In some industries a labour force possessing deftness and speed or the ability to exercise muscular strength is necessary, in others the labour force must exercise craftsmanship or possess a high degree of technical knowledge. Workers in the latter industries naturally command relatively higher wages than those in industries where employees are routine workers.

The ranking of provinces and industries as regards annual earnings is, in many cases, different from that of weekly or hourly earnings since the factors of number of weeks worked per year and number of hours worked per week enter into the picture.

The figures for the years 1943 to 1945 given in Table 21 are based on an analysis of a pay-list covering one week in the month of highest employment. For this reason the figures do not refer to any particular month, since the month of highest employment might be May for one firm and October for another; they represent the summation of the different months of highest employment as reported by all
the firms. For a particular industry, however, the month of highest employment is more significant because then it coincides for a great number of firms engaged in the same industry. The figures since 1946 are based on returns received from establishments employing 15 or more persons; figures for 1946 and 1947 refer to the last week in November, whereas those for later years refer to the last week in October.

## 21.-Average Annual, Weekly and Hourly Earnings of Male and Female Wage-Earners Employed in Manufacturing Industries, 1943-52

Nore.-Butter and cheese factories and fish-curing and -packing plants are excluded in the years 1943
to 1945, and $s$ awmills are also excluded in 1945. By including sawmills, weekly earnings in 1945 would
have been about $\$ 34.35$ for male wage-earners.

| Year | Average Earnings |  |  | Average Hours Worked per Week |
| :---: | :---: | :---: | :---: | :---: |
|  | Annual | Weekly | Hourly |  |
|  | \$ | \$ | cents | No. |
| Male Wage-Earners- |  |  |  |  |
| $1943{ }^{1}$ | 1,726 | 33.80 | $67 \cdot 1$ | $50 \cdot 4$ |
| 19441 | 1,761 | 34.95 | 71.2 | $49 \cdot 1$ |
| 19451 | 1,739 | $35 \cdot 04$ | $73 \cdot 6$ | $47 \cdot 6$ |
| $1946{ }^{2}$. | 1,702 | 36.23 | 80.7 | 44.9 |
| 19472. | 1,909 | 41-35 | $92 \cdot 1$ | $44 \cdot 9$ |
| $1948{ }^{\text {a }}$ | 2,175 | 45.73 | $102 \cdot 3$ | $44 \cdot 7$ |
| 1949 2. | 2,291 | $47 \cdot 33$ | $106 \cdot 6$ | 44.4 |
| $1950{ }^{3}$. | 2,419 | 50.93 | 114.2 | $44 \cdot 6$ |
| $1951{ }^{2}$. | 2,693 | 56.46 | $131 \cdot 3$ | 43.0 |
| $1952{ }^{\text {3 }}$. | 2,915 | 60.85 | $140 \cdot 2$ | $43 \cdot 4$ |
| Female Wage-Earners- |  |  |  |  |
| 1943 | 987 | 19.33 | 43.1 | 44.8 |
| $1944{ }^{1}$. | 1,051 | 20.89 | 47.9 | $43 \cdot 6$ |
| 1945 : | 984 | 19.84 | 46.5 | $42 \cdot 7$ |
| $1946{ }^{2}$ | 943 | 20.08 | $50 \cdot 2$ | 40.0 |
| 19472 | 1,067 | 23.11 | 58.2 | 39.7 |
| $1948{ }^{2}$. | 1,233 | 25.91 | $65 \cdot 1$ | 39.8 |
| 1949 3. | 1,315 | $27 \cdot 18$ | 68.3 | $39 \cdot 8$ |
| $1950{ }^{3}$. | 1,376 | 29.00 | 72.5 | $40 \cdot 0$ |
| $1951{ }^{3}$. | 1,492 | 31-27 | 82.5 | 37.9 |
| $1952{ }^{3}$. | 1,638 | 34-17 | $86 \cdot 3$ | $39 \cdot 6$ |
| All Wage-Earners- |  |  |  |  |
| 1943 ². | 1,525 | 29.87 | 61.2 | 48.8 |
| $1944{ }^{1}$. | 1,564 | 31.05 | $65 \cdot 4$ | 47.5 |
| $1945{ }^{1}$. | 1,538 | 30.98 | 66.9 | 46.3 |
| $1946{ }^{2}$ | 1,516 | $32 \cdot 38$ | $74 \cdot 1$ | $43 \cdot 7$ |
| $1947{ }^{2}$. | 1,713 | 37,19 | $85 \cdot 1$ | $43 \cdot 7$ |
| $1948{ }^{3}$. | 1,960 | 41.25 | $94 \cdot 6$ | $43 \cdot 6$ |
| 1949 ². | 2,067 | 42.61 | 98.4 | 43.3 |
| $1950{ }^{2}$. | 2,183 | 45.94 | $105 \cdot 6$ | 43.5 |
| $1951{ }^{2}$. | 2,434 | 51-32 | 122.2 | 42.0 |
| 1952 2. | 2,647 | $55 \cdot 17$ | 129.5 | $42 \cdot 6$ |

[^212][^213]Average annual earnings as shown in Tables 22 and 23 are calculated on the basis of the total amount of wages paid during the year; weekly earnings are based on an analysis of the pay-list for the last week in October for establishments employing 15 or more persons.
22.-Average Annual, Weekly and Hourly Earnings of Wage-Earners in the Manufacturing Industries, by Province and Industrial Group, 1951 and 1952

| Year, <br> Province and Industrial Group | Average Earnings |  |  | Average Hours Worked per Week |
| :---: | :---: | :---: | :---: | :---: |
|  | Annual | Weekly | Hourly |  |
|  | \$ | \$ | cents | No. |
| 1951 |  |  |  |  |
| Province |  |  |  |  |
| Newfoundland ${ }^{1}$ | 2,350 | $52 \cdot 37$ | $115 \cdot 1$ | 45.5 |
| Prince Edward Island | 1,312 | $34 \cdot 10$ | $74 \cdot 3$ | 45.9 |
| Nova Scotia. | 2,024 | 44.77 | 103.4 | $43 \cdot 3$ |
| New Brunswick. | 2.087 | 46.87 | $105 \cdot 8$ | $44 \cdot 3$ |
| Quebec........ | 2.216 | $47 \cdot 26$ | $109 \cdot 9$ | 43.0 |
| Ontario. | 2,602 | 53.87 | 129.5 | 41.6 |
| Manitoba..... | 2,270 | 48.46 | 116.5 | 41.6 |
| Saskatchewan. | 2,363 | 49.18 | 118.8 | 41.4 |
| Alberta.... | 2,323 | $50 \cdot 39$ | 122.0 | 41.3 |
| British Columbia. | 2,723 | $58 \cdot 65$ | $150 \cdot 0$ | $39 \cdot 1$ |
| Yukon and Northwest Territories | 2,686 | .. | .. | .. |
| Canada, 1951. | 2,434 | $51 \cdot 32$ | 122.2 | 42.0 |
| Industrlal Group |  |  |  |  |
| Food and beverages. | 2,113 | 44-79 | 103.2 | 43.4 |
| Tobacco and tobacco products | 2,279 | 51.75 | $124 \cdot 7$ | 41.5 |
| Rubber products..... | 2,622 | $54 \cdot 69$ | $132 \cdot 1$ | 41.4 |
| Leather products. | 1,684 | 33.61 | 89.4 | 37.6 |
| Textile products (except clothing) | 2,046 | $40 \cdot 00$ | 99.0 | $40 \cdot 4$ |
| Clothing (textile and fur)............ .......... | 1,691 | 33.21 | 90.5 | 36.7 |
| Wood products......................... . . . . . . . . | 2,136 3,130 | $48 \cdot 18$ 63.98 | $112 \cdot 3$ $137 \cdot 6$ | 42.9 46.5 |
| Paper products................................ Printing, publishing and allied trades....... | 3,130 2,575 | $63 \cdot 98$ 54.24 | $137 \cdot 6$ $135 \cdot 6$ | 46.5 40.0 |
| Iron and steel products........................... | 2,833 | 58.86 | 138.5 | $42 \cdot 5$ |
| Transportation equipment....................... . | 2,867 | 58.18 | $138 \cdot 2$ | $42 \cdot 1$ |
| Non-ferrous metal products....................... | 2,866 | 57.56 | 137.7 | 41.8 |
| Electrical apparatus and supplies..... ...... ... | 2,673 | 56.03 | $135 \cdot 0$ | 41.5 |
| Non-metallic mineral products.. | 2,616 | $54 \cdot 77$ | 121.7 | $45 \cdot 0$ |
| Products of petroleum and coal....... ......... | 3,172 | $67 \cdot 15$ | 162.2 | 41.4 |
| Chemicals and allied products... | 2.612 | 52.78 | $123 \cdot 6$ | 42.7 |
| Miscellaneous industries.......... ............. | 2,063 | $41 \cdot 63$ | $99 \cdot 6$ | 41.8 |
| 1952 |  |  |  |  |
| Province |  |  |  |  |
| Newfoundland........ | 2,479 | 54.42 | 123.4 | $44 \cdot 1$ |
| Prince Edward Island...... . . . | 1,455 | 43.53 | 96.3 | 45.2 |
| Nova Scotia.............. . | 2,187 | 46.89 | $110 \cdot 6$ | $42 \cdot 4$ |
| New Brunswick.. | 2,201 | $48 \cdot 33$ | $109 \cdot 6$ | 44.1 |
| Quebec.......... | 2,413 | $50 \cdot 64$ | $115 \cdot 1$ | 44.0 |
| Ontario.. | 2,840 | 58.27 | 138.4 | 42-1 |
| Manitoba... ..... .... | 2,443 | $51 \cdot 17$ | 123.0 | 41.6 |
| Saskatchewan. | 2,609 | $52 \cdot 87$ | 127.7 | 41.4 |
| Alberta... | 2.518 | $55 \cdot 10$ | $133 \cdot 1$ | 41.4 |
| British Columbia | 2,975 | $62 \cdot 21$ | 158.3 | $39 \cdot 3$ |
| Yukon and Northwest Territories..... | 3,366 | . | .. | .. |
| Canada, 1952. | 2,647 | $55 \cdot 17$ | 129.5 | 42.6 |

[^214]22.-Average Annual, Weekly and Hourly Earnings of Wage-Earners in the Manufacturing Industries, by Province and Industrial Group, 1951 and 1952-concluded

| Industrial Group | Average Earnings |  |  | Average Hours Worked per Week |
| :---: | :---: | :---: | :---: | :---: |
|  | Annual | Weekly | Hourly |  |
| 1952-concluded Indubtrul Group | 3 | \$ | cents | No. |
| Food and beverages. | 2,285 | 47.75 | $110 \cdot 8$ | $43 \cdot 1$ |
| Tobacco and tobacco products. | 2,526 | 50.96 | 124.9 | $40 \cdot 8$ |
| Rubber products.. | 2,858 | 58.04 | $137 \cdot 2$ | $42 \cdot 3$ |
| Leather products. | 1,854 | 38.38 | $93 \cdot 6$ | 41.0 |
| Textile products (except clothing) | 2,223 | $45 \cdot 68$ | $105 \cdot 0$ | $43 \cdot 5$ |
| Clothing (textile and fur) ......... | 1,812 | 37.39 | 93.7 | $39 \cdot 9$ |
| Wood products.. | 2,279 | $51 \cdot 86$ | 118.4 | $43 \cdot 8$ |
| Paper products.. | 3,294 | $64 \cdot 27$ | $142 \cdot 5$ | $45 \cdot 1$ |
| Printing, publishing and allied trades | 2,818 | $59 \cdot 64$ | 149.1 | $40 \cdot 0$ |
| Iron and steel products................ | 3,109 | 63.09 | 147.4 | 42.8 |
| Transportation equiproent.. | 3,095 | $64 \cdot 13$ | $151 \cdot 6$ | $42 \cdot 3$ |
| Non-ferrous metal products.. | 3,131 | 62.35 | 148.1 | $42 \cdot 1$ |
| Electrical apparatus and supplies | 3,929 | 59.28 | $140 \cdot 8$ | 42.1 |
| Non-metallic mineral products...... ... ....... | 2.842 | 58-27 | 129.2 | $45 \cdot 1$ |
| Products of petroleum and coal. | 3,595 | 72-33 | $174 \cdot 3$ | 41.5 |
| Chemicals and allied products. | 2,827 2,186 | $56 \cdot 56$ $44 \cdot 05$ | 133.7 103.9 | $42 \cdot 3$ $42 \cdot 4$ |

${ }^{1}$ Includes fish processing for the first time and since this is a seasonal industry. annual earnings are
lower than weekly or hourly earnings would indicate; average annual earnings for this industry were $\$ 1,151$ as compared with $\$ 2,806$ for other industries of the Province.
23.-Average Annual, Weekly and Hourly Earnings of Male and Female Wage-Earners in the Manufacturing Industries, by Province and Industrial Group, 1951 and 1952.

| Year and Province | Male |  |  |  | Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Annual Earnings | Average Weeky ings | Average Hourly Earn- | Average Hours Worked per Week | Average Annual ings | Average Weekly Earn- | Average Hourly Earnings | Average <br> Hours <br> Worked <br> per <br> Week |
|  | \$ | \$ | cents | No. | \$ | \$ | cents | No. |
| Newfoundland ${ }^{1}$. | 2,613 | 56.80 | 123.2 | $46 \cdot 1$ | 852 | 18.51 | 45.7 | $40 \cdot 5$ |
| Prince Edward Island. | 1,521 | 38.33 | $82 \cdot 6$ | $46 \cdot 4$ | 808 | $20 \cdot 34$ | 45.8 | $44 \cdot 4$ |
| Nova Scotia. | 2,179 | 48.30 | 111.3 | 43.4 | 998 | $22 \cdot 14$ | $51 \cdot 6$ | 42.9 |
| New Bıunswick. | 2,275 | 51.42 | 113.0 | $45 \cdot 5$ | 1,188 | 26.86 | 68.7 | $39 \cdot 1$ |
| Quebec.. | 2,528 | 53.58 | $119 \cdot 6$ | 44.8 | 1,385 | 29.37 | 77.7 | 37.8 |
| Ontario. | 2,848 | $58 \cdot 60$ | 138.2 | $42 \cdot 4$ | 1,635 | $33 \cdot 66$ | 88.8 | 37.9 |
| Manitoba. | 2,532 | 53.21 | $125 \cdot 5$ | 42.4 | 1,382 | 29.07 | $75 \cdot 7$ | 38.4 |
| Saskatchewan. | 2,473 | 51.58 | 123.4 | 41.8 | 1,568 | $32 \cdot 69$ | $84 \cdot 7$ | 38.6 |
| Alberta. | 2,449 | 52.83 | $127 \cdot 0$ | 41.6 | 1,531 | 33.04 | $85 \cdot 6$ | 38.6 |
| British Columbia. | 2,871 | 61.70 | $156 \cdot 2$ | 39.5 | 1,599 | $34 \cdot 36$ | $95 \cdot 7$ | $35 \cdot 9$ |
| Yukon and Northwest Territories | .. | . | .. | .. | .. | . | . | .. |
| Canada, 1951 | 2,693 | 56.46 | $131 \cdot 3$ | 43.0 | 1,492 | $31 \cdot 27$ | 82.5 | $37 \cdot 9$ |

${ }^{1}$ See footnote to Table 22.
23.-Average Annual, Weekly and Hourly Earnings of Male and Female Wage-Earners in the Manufacturing Industries, by Province and Industrial Group, 1951 and 1952-concluded.

| Year, <br> Province and Industrial Group | Male |  |  |  | Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Annual Earnings | Average Weekly Earnings | Average Hourly Earnings | Average Hours Worked per Week | Average Annual Earnings | Average Weekly Earnings | Average Hourly Earnings | Average Hours Worked per Week |
| 1951-concluded Industrial Group | \$ | \$ | cents | No. | \$ | \$ | cents | No. |
| Food and beverages | 2,371 | 50.67 | $112 \cdot 6$ | $45 \cdot 0$ | 1,370 | 29.29 | 75-1 | 39.0 |
| Tobacco and tobacco products. | 2,657 | $60 \cdot 49$ | $138 \cdot 1$ | 43.8 | 2,030 | $46 \cdot 24$ | $115 \cdot 6$ | $40 \cdot 0$ |
| Rubber products. | 2.861 | 59.77 | $142 \cdot 3$ | 42.0 | 1,848 | 38.59 | $97 \cdot 7$ | 39.5 |
| Leather products | 1,992 | 39.71 | $102 \cdot 6$ | 38.7 | 1,251 | 24.95 | $69 \cdot 3$ | 36.0 |
| Textile products (except clothing) | 2,292 | $44 \cdot 81$ | 106.7 | 42.0 | 1,627 | 31.82 | $84 \cdot 4$ | 37.7 |
| Clothing (textile and fur)........ | 2,383 | $47 \cdot 14$ | 121.5 | 38.8 | 1,380 | 27.28 | $76 \cdot 2$ | 35.8 |
| Wood products. | 2,166 | 48.98 | 113.9 | $43 \cdot 0$ | 1,525 | $34 \cdot 47$ | $84 \cdot 9$ | $40 \cdot 6$ |
| Paper products....... | 3.347 | 67.87 | $143 \cdot 8$ | $47 \cdot 2$ | 1,630 | 33.05 | $80 \cdot 8$ | 40.9 |
| Printing, publishing and allied trades. | 2,917 | 61.87 | $152 \cdot 4$ | 40.6 | 1,374 | 29.11 | $76 \cdot 6$ | 38.0 |
| Iron and steel products. ......... | 2,886 | 59.95 | $140 \cdot 4$ | 42.7 | 1,885 | $39 \cdot 16$ | 98.4 | 39.8 |
| Transportation equipment...... | 2,895 | $58 \cdot 66$ | $139 \cdot 0$ | 42.2 | 2,096 | 42.45 | 109.7 | 38.7 |
| Non-ferrous metal products. | 2,979 | $59 \cdot 68$ | $142 \cdot 1$ | $42 \cdot 0$ | 1,618 | $32 \cdot 40$ | 81.0 | 40.0 |
| Electrical apparatus and supplies. | 2,932 | 61.24 | $144 \cdot 1$ | 42.5 | 1,982 | 41-41 | 107.0 | 38.7 |
| Non-metallic mineral products . | 2,699 | 56.31 | $124 \cdot 3$ | $45 \cdot 3$ | 1,646 | $34 \cdot 33$ | $85 \cdot 4$ | $40 \cdot 2$ |
| Products of petroleum and coal. . | 3,181 | 67.32 | $162 \cdot 6$ | 41.4 | 1,750 |  |  |  |
| Chemical and allied products.. | 2,845 | 57.03 | 131.7 | $43 \cdot 3$ | 1.579 | $31 \cdot 64$ | 79.9 | $39 \cdot 6$ |
| Miscellaneous industries... | 2,411 | 48.93 | 113.0 | $43 \cdot 3$ | 1,529 | 31.01 | 78.5 | 39.5 |
| $1952$ <br> Province |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Newfoundland | 2,705 | 58.78 | 131.8 | $44 \cdot 6$ | 903 | $19 \cdot 62$ | 48.8 | 40.2 |
| Prince Edward Isl | 1,719 | $48 \cdot 13$ | $104 \cdot 4$ | $46 \cdot 1$ | 801 | 22.41 | 54.8 | $40 \cdot 9$ |
| Nova Scotia | 2,349 | 50.41 | 118.9 | $42 \cdot 4$ | 1,113 | 23.89 | 56.2 | $42 \cdot 5$ |
| New Branswic | 2,376 | 52.19 | 116.5 | 44.8 | 1,340 | 29.42 | 72.1 | 40.8 |
| Quebec. | 2,741 | 57.74 | 126.9 | 45.5 | 1,519 | $32 \cdot 00$ | 79.8 | $40 \cdot 1$ |
| Ontario | 3,094 | $63 \cdot 60$ | $148 \cdot 6$ | 42.8 | 1,788 | 36.78 | $93 \cdot 6$ | $39 \cdot 3$ |
| Manitoba | 2,698 | $56 \cdot 34$ | 133.5 | 42.2 | 1,562 | $32 \cdot 63$ | $82 \cdot 2$ | 39.7 |
| Saskatchew | 2,730 | $55 \cdot 30$ | $132 \cdot 3$ | 41.8 | 1,753 | $35 \cdot 52$ | 91.3 | 38.9 |
| Alberta | 2,653 | 58.30 | 138.8 | 42.0 | 1,661 | 36.48 | 95.5 | 38.2 |
| British Columbia | 3,127 | 65-35 | $164 \cdot 6$ | 39.7 | 1,776 | $37 \cdot 11$ | $102 \cdot 5$ | $36 \cdot 2$ |
| Yukon and Northwest Territories | .. |  |  |  | . |  | .. |  |
| Canada, 1952 | 2,915 | 60.85 | $140 \cdot 2$ | 43.4 | 1,638 | $34 \cdot 17$ | 86.3 | 39.6 |
| Industrial Grour |  |  |  |  |  |  |  |  |
| Food and beverag | 2,564 | 54-36 | $121 \cdot 6$ | $44 \cdot 7$ | 1,467 | $31 \cdot 12$ | $79 \cdot 6$ | $39 \cdot 1$ |
| Tobacco and tobacco products.. | 2.975 | 60.24 | 141.4 | $42 \cdot 6$ | 2,231 | $45 \cdot 18$ | $113 \cdot 8$ | $39 \cdot 7$ |
| Rubber products................ | 3.117 | $63 \cdot 60$ | $148 \cdot 6$ | 42.8 | 2,039 | $41 \cdot 62$ | 102.5 | $40 \cdot 6$ |
| Leather products. | 2,218 | 46.04 | $109 \cdot 1$ | 42.2 | 1,371 | 28.45 | $72 \cdot 2$ | 39.4 |
| Textile products (except clothing) | 2,477 | 50.73 | 113.5 | 44.7 | 1,788 | 36.63 | 88.9 | 41.2 38.8 |
| Clothing (textile and fur) | 2.579 | 54.06 | 127.2 | $42 \cdot 5$ 44.0 | 1,473 | $30 \cdot 85$ 37.36 | $79 \cdot 5$ $90 \cdot 9$ | 38.8 41.1 |
| Wood products Paper products........................$~$ | 2.312 3.499 | $52 \cdot 80$ 67.89 | $120 \cdot 0$ 149.2 | 44.0 45.5 | 1,637 1,774 | $37 \cdot 36$ $34 \cdot 40$ | $90 \cdot 9$ 82.7 | $41 \cdot 1$ 41.6 |
| Paper products. <br> Printing, publishing and allied trades. | 3,499 3,179 | 67.89 67.84 | $149 \cdot 2$ $167 \cdot 1$ | $40 \cdot 6$ | 1,500 | 32.00 | 84.2 | 38.0 |
| Iron and steel products........... | 3,159 | 64.05 | 149.3 | 42.9 | 2,088 | $42 \cdot 35$ | $105 \cdot 6$ | $40 \cdot 1$ |
| Transportation equipment | 3,127 | $64 \cdot 66$ | $152 \cdot 5$ | $42 \cdot 4$ | 2,201 | 45.51 | 118.2 | 38.5 |
| Non-ferrous metal products | 3.250 | 64.52 | $152 \cdot 9$ | 42.2 | 1,771 | $35 \cdot 18$ | 85.8 | $41 \cdot 6$ |
| Electrical apparatus and supplies. | 3,181 | $64 \cdot 59$ | $150 \cdot 9$ | 42.8 | 2,201 | $44 \cdot 67$ | 111.4 | $40 \cdot 1$ |
| Non-metallic mineral products.. | 2.931 | $60 \cdot 20$ | $132 \cdot 3$ | 45.5 | 1,750 | $35 \cdot 94$ | 89.4 | $40 \cdot 2$ |
| Products of petroleum and coal. . | 3.607 | $72 \cdot 50$ | $174 \cdot 7$ | 41.5 | 1,984 |  |  |  |
| Chemical and allied products | 3.073 2.574 | $61 \cdot 20$ 52.98 | $143 \cdot 0$ 119.6 | $42 \cdot 8$ 44.3 | 1,718 1,555 | $34 \cdot 21$ $32 \cdot 00$ | 86.4 80.4 | $39 \cdot 6$ 39.8 |
| Miscellaneous industries..... | 2,574 | $52 \cdot 98$ | 119.6 | $44 \cdot 3$ | 1,555 |  |  |  |

Average Earnings of Salaried Employees.-Beginning with 1946, the survey of weekly earnings and hours worked by wage-earners was expanded to include salaried employees. The survey covers establishments employing 15 persons or over and refers to the last week in November for 1946 and 1947 and to the last week in October for 1948-52. Earnings and hours worked are reported for male and female wage and salary earners in 13 groups of hours, ranging from 30 or less to 65 or more. The earnings reported for the week constitute the gross amount paid before deductions for income tax, unemployment insurance, etc. Weekly and hourly earnings as well as hours worked are thus obtained directly from the tabulated results of the reports. Annual earnings are calculated on the basis of weekly earnings correlated with the results of the annual Census of Industry.
24.-Average Annual, Weekly and Hourly Earnings of Male and Female Salary-Earners Employed in Manufacturing Industries, 1946-52

| Year | Average Earnings |  |  | Average Hours Worked per Week |
| :---: | :---: | :---: | :---: | :---: |
|  | Annual | Weekly | Hourly |  |
|  | \$ | \$ | cents | No. |
| Male Salary-Earners- |  |  |  |  |
| $1946{ }^{\text { }}$. | -• | 53.21 | 126.7 | 42.6 |
| $1947{ }^{1}$. | . | $60 \cdot 21$ | $146 \cdot 1$ | $41 \cdot 2$ |
| $1948{ }^{2}$. | 3,147 | 63.47 | 154.4 | $41 \cdot 1$ |
| 19492 | 3,317 | 65.37 | $160 \cdot 2$ | 40.8 |
| $1950{ }^{2}$. | 3,507 | 69.35 | 172.5 | 40.2 |
| $1951{ }^{2}$. | 3,852 | 77.55 | 193.9 | 40.0 |
| $1952{ }^{2}$. | 3,985 | $82 \cdot 60$ | $207 \cdot 0$ | 39.9 |
| Female Salary-Earners- |  |  |  |  |
| $1946{ }^{1}$. |  | 25.91 | $65 \cdot 6$ | $39 \cdot 5$ |
| $1947{ }^{1}$. | . | 28.68 | $73 \cdot 7$ | 38.9 |
| $1948{ }^{2}$. | 1,551 | 31.26 | $80 \cdot 5$ | 38.8 |
| $1949{ }^{2}$. | 1,655 | 32.62 | 84.5 | 38.6 |
| $1950{ }^{2}$. | 1,739 | $34 \cdot 38$ | 89.5 | 38.4 |
| $1951{ }^{\text {2 }}$. | 1,907 | 38.42 | $100 \cdot 6$ | 38.2 |
| $1952{ }^{2}$. | 2,323 | 41.26 | $108 \cdot 6$ | 38.0 |
| All Salary-Earners- |  |  |  |  |
| $1946{ }^{1}$. | * | 43.85 | 106.7 | 41.1 |
| $1947{ }^{\text { }}$. |  | 49.78 | 123.2 | $40 \cdot 4$ |
| $1948{ }^{2}$. | 2,687 | 52.91 | 131.3 | 40.3 |
| $1949{ }^{2}$. | 2,836 | 54.85 | 136.8 | $40 \cdot 1$ |
| $1950{ }^{2}$. | 2,998 | 58.74 | 148.0 | 39.7 |
| $1951{ }^{2}$. . | 3,256 | 65.98 | 167.0 | 39.5 |
| $1952{ }^{2}$. | 3,513 | 70.75 | 179.6 | $39 \cdot 4$ |

[^215]${ }^{2}$ Based on the last week in October.

## 25.-Average Annual, Weekly and Hourly Earnings of Salary-Earners in the Manufacturing Ind ustries, by Province and Industrial Group, 1951 and 1952

| Year,Province and Industrial Group | Average Earnings |  |  | Average Hours Worked per Week |
| :---: | :---: | :---: | :---: | :---: |
|  | Annual | Weekly | Hourly |  |
| 1951 | \$ | \$ | cents | No. |
| Province |  |  |  |  |
| Newfoundland. | 2,383 | 62.04 | 144-3 | $43 \cdot 0$ |
| Prince Edward Island | 1,715 | $46 \cdot 90$ | $108 \cdot 1$ | $43 \cdot 4$ |
| Nova Scotia | 2,500 | 58.43 | $140 \cdot 1$ | 41.7 |
| New Brunswick | 2,757 | 57.65 | $137 \cdot 9$ | 41.8 |
| Quebec. | 3,241 | $64 \cdot 67$ | 162-9 | $39 \cdot 7$ |
| Ontario. | 3,489 | $67 \cdot 29$ | 172.5 | 39.0 |
| Manitoba | 3,050 | 60.57 | $150 \cdot 3$ | $40 \cdot 3$ |
| Saskatchewan | 2,444 | $56 \cdot 35$ | 136.4 | 41.3 |
| Alberta. | 2,558 | $62 \cdot 06$ | $150 \cdot 3$ | 41.3 |
| British Columbia. | 3,174 | $71 \cdot 10$ | 177.8 | $40 \cdot 0$ |
| Yukon and Northwest Territories | .. | . | .. | .. |
| Canada, 1951. | 3,296 | 65.98 | $16 \%$-0 | $39 \cdot 5$ |
| Industrial Group |  |  |  |  |
| Food and beverages. | 2,941 | 61.78 | $152 \cdot 5$ | 40.5 |
| Tobacco and tobacco products | 3,665 | 66.73 | 178.9 | 37.3 |
| Rubber products.. | 3,361 | 63.90 | 166.8 | 38.3 |
| Leather products | 3,264 | 56.30 | $140 \cdot 0$ | $40 \cdot 2$ |
| Textile products (except clothing) | 3,655 | 65.41 | $164 \cdot 3$ | $39 \cdot 8$ |
| Clothing (textile and fur).... | 3,375 | 57.54 | $145 \cdot 7$ | 39.5 |
| Wood products.... | 2,250 | $64 \cdot 48$ | 155.4 | 41.5 |
| Paper products | 4,338 | $79 \cdot 57$ | $204 \cdot 6$ | 38.9 |
| Printing, publishing and allied trades | 2,749 | 57.20 | $149 \cdot 7$ | 38.2 |
| Iron and steel products........ | 3,635 | $67 \cdot 65$ | $173 \cdot 0$ | 39.1 |
| Transportation equipment. | 3,733 | 71.39 | $174 \cdot 1$ | 41.0 |
| Non-ferrous metal products | 3,585 | 73.63 | 185.9 | $39 \cdot 6$ |
| Electrical apparatus and supplies | 3,468 | $64 \cdot 82$ | $167 \cdot 1$ | 38.8 |
| Non-metallic mineral products.. | 3,297 | $66 \cdot 34$ | 168.8 | $39 \cdot 3$ |
| Products of petroleum and coal | 3,662 | $74 \cdot 52$ | 194-1 | 38.4 |
| Chemicals and allied products. | 3,379 | $66 \cdot 37$ | $171 \cdot 9$ | $38 \cdot 6$ |
| Miscellaneous industries...... | 3,246 | $60 \cdot 89$ | $156 \cdot 5$ | 38.9 |
| 1952 |  |  |  |  |
| Province |  |  |  |  |
| Newfoundland. | 2.345 | $62 \cdot 62$ | 146.7 | 42.7 |
| Prince Edward Island | 1,909 | 49.63 | $120 \cdot 2$ | 41.3 |
| Nova Scotia. | 2,653 | $60 \cdot 30$ | $142 \cdot 6$ | $42 \cdot 3$ |
| New Brunswick | 2,910 | 61.83 | $149 \cdot 0$ | 41.5 |
| Quebec.... | 3,482 | 68.88 | 174.4 | 39.5 |
| Ontario.. | 3,691 | $72 \cdot 73$ | 186.5 | $39 \cdot 0$ |
| Manitoba | 3,219 | 64-14 | $160 \cdot 8$ | 39.9 |
| Saskatchewan | 2,605 | 58.08 | $140 \cdot 0$ | 41.5 |
| Alberta...... | 2,888 | $67 \cdot 20$ | $165 \cdot 9$ | 40.5 |
| British Columbia. | 3,414 | $74 \cdot 54$ | 188.2 | $39 \cdot 6$ |
| Yukon and Northwest Territories | 2,831 | .. | .. | .. |
| Canada, 1952 | 3,513 | $70 \cdot 75$ | $179 \cdot 6$ | 39.4 |
| Industrial Group |  |  |  |  |
| Food and beverages. | 3,103 | 64-68 | $159 \cdot 7$ | 40.5 |
| Tobacco and tobacco products | 3,922 | $68 \cdot 33$ | $182 \cdot 2$ | 37.5 |
| Rubber products............ | 3,572 | ${ }_{67} 63$ | 174.8 | 38.7 |
| Leather products. | 3,396 | 58.74 | $145 \cdot 4$ | $40 \cdot 4$ |
| Textile products (except clothing).... | 3,700 | $68 \cdot 65$ | $174 \cdot 2$ | $39 \cdot 4$ |
| Clothing (textile and fur).......... | 3,561 | $60 \cdot 73$ | 153.7 | 39.5 |
| Wood products......... | 2,366 | $67 \cdot 77$ | $163 \cdot 3$ | 41.5 |
| Paper products. | 4,618 | $83 \cdot 19$ | $216 \cdot 6$ | 38.4 |
| Printing, publishing and allied trades. | 3,003 | 61.13 | $161 \cdot 3$ | $37 \cdot 9$ |
| Iron and steel products............... | 3,879 | 71.71 | 183.4 | 39.1 |
| Transportation equipment. | 3,909 | $77 \cdot 61$ | 186.1 | 41.7 39.0 |
| Non-ferrous metal products...... | 3,870 3,691 | 78.70 70.83 | 201.8 184.0 | $39 \cdot 0$ 38.5 |
| Electrical apparatus and supplies | 3,691 | $70 \cdot 83$ | 184.0 | 38.5 38.4 |
| Non-metallic mineral products. | 3,511 | 71.45 | 186.1 259.5 | 38.4 36.7 |
| Products of petroleum and coal. | 4,092 3,626 | $95 \cdot 23$ 71.48 | $259 \cdot 5$ 186.1 | $36 \cdot 7$ 38.4 |
| Miscellaneous industries..... | 3,436 | 66.57 | 173.8 | $38 \cdot 3$ |

26.-Average Annual, Weekly and Hourly Earnings of Male and Female Salary-Earners in the Manufacturing Industries, by Province and Industrial Group, 1951 and 1952.

| Year, <br> Province and Industrial Group | Male |  |  |  | Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Annual Earnings | Average Weekly Earnings | Average Hourly Earnings | Average Hours Worked per Week | Average Annual Earnings | Average Weekly Earnings | Average Hourly Earnings | Average <br> Hours Worked per Week |
|  | 8 | \$ | cents | No. | \$ | \$ | cents | No. |
| 1951 <br> Province |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Newfoundland. . . . . . . . . . . . . . | 2,604 | 70.71 | 163.3 | $43 \cdot 3$ | 1,135 | 30.80 | $73 \cdot 3$ | 42.0 |
| Prince Edward Island. .. ... .... | 1,918 | 55.98 | 126.4 | $44 \cdot 3$ | 1,917 | 26.75 | 64.8 | 41.3 |
| Nova Scotia | 2,821 | 67.83 | $160 \cdot 4$ | $42 \cdot 3$ | 1,329 | 31.95 | 79.5 | $40 \cdot 2$ |
| New Brunswick | 3,175 | 68.64 | $161 \cdot 1$ | $42 \cdot 6$ | 1,467 | 31.72 | 79.1 | $40 \cdot 1$ |
| Quebec........ | 3,769 | 75.77 | 188.0 | $40 \cdot 3$ | 1,858 | 37.32 | 98.0 | 38.1 |
| Ontario. | 4,135 | $79 \cdot 67$ | 201.7 | $39 \cdot 5$ | 2,051 | 39.49 | 104-2 | 37.9 |
| Manitobs. | 3,519 | $70 \cdot 20$ | $173 \cdot 3$ | 40.5 | 1,756 | 35.06 | 88.5 | $38 \cdot 6$ |
| Saskatchewan | 2,764 | 64.97 | 156.2 | 41.6 | 1,584 | 37.25 | 91.1 | $40 \cdot 9$ |
| Alberta. | 2,870 | 71.12 | 171.0 | 41.6 | 1,487 | 36.86 | 91.5 | $40 \cdot 3$ |
| British Columbia............. | 3,606 | $81 \cdot 66$ | 203-1 | $40 \cdot 2$ | 1,767 | $40 \cdot 03$ | 102.4 | 39.1 |
| Yukon and Northwest Territories | .. | .. | .. | .. | .. | .. | .. | .. |
| Canada, 1951 | 3,852 | 77.55 | 193.9 | 40.0 | 1,907 | $38 \cdot 42$ | $100 \cdot 6$ | $38 \cdot 2$ |
| Industrial Group |  |  |  |  |  |  |  |  |
| Food and beverages......... | 3,406 | 71.15 | 173 -1 | $41 \cdot 1$ | 1,785 | 37.29 | 95.4 | $39 \cdot 1$ |
| Tobacco and tobacco products... | 4,380 | 78.21 | $208 \cdot 6$ | 37.5 | 2,379 | 42.41 | 115.2 | 36.8 |
| Rubber products............... | 3,926 | 74.59 | $194 \cdot 2$ | 38.4 | 1,967 | 37.40 | 98.4 | 38.0 |
| Leather products................. | 3,795 | 66.47 | 161.3 | 41.2 | 1,958 | $34 \cdot 33$ | $90 \cdot 1$ | 38.1 |
| Textile products (except clothing) | 4.465 | $79 \cdot 67$ | $196 \cdot 7$ | 40.5 | 2,063 | 36.78 | $95 \cdot 8$ | $38 \cdot 4$ |
| Clothing (textile and fur)....... | 4,157 | 72.45 | $179 \cdot 3$ | $40 \cdot 4$ | 2,116 | 36.85 | 96.2 | 38-3 |
| Wood products . . . . . . . . . | 2,407 | $74 \cdot 34$ | 174.9 | $42 \cdot 5$ | 1,204 | 37.16 | 96.0 | $38 \cdot 7$ |
| Paper products. . . . . . . . . . ${ }^{\text {a }}$. ${ }^{\text {a }}$ | 5,147 | 93.92 | $239 \cdot 0$ | 39.3 | 2,224 | $40 \cdot 60$ | 106.8 | 38.0 |
| Printing, publishing and allied trades. | 3.352 | $69 \cdot 61$ | $180 \cdot 8$ | 38.5 | 1,773 | 36.83 | 97.4 | 37.8 |
| Iron and steel products.......... | 4.195 | 78.15 | 197.3 | $39 \cdot 6$ | 2,056 | 38.30 | 101.0 | 37.9 |
| Transportation equipment | 4.214 | $80 \cdot 85$ | 195.8 | 41.3 | 2.162 | 41.51 | $104 \cdot 0$ | 39.9 |
| Non-ferrous metal products. | 4,188 | 85.63 | 213 -0 | $40 \cdot 2$ | 1,968 | $40 \cdot 21$ | $105 \cdot 5$ | 38.1 |
| Electrical apparatus and supplies. | 4,055 | 75.51 | 192.1 | $39 \cdot 3$ | 2,060 | 38.37 | 102.0 | 37.6 |
| Non-metallic mineral products... | 3,793 | 76.94 | 192.8 | 39.9 | 1,904 | 38.61 | 102.7 | 37.6 |
| Products of petroleum and coal.. | 4,147 | 81.92 | 211.7 | $38 \cdot 7$ | 2,161 | 42.72 | $115 \cdot 1$ | 37.1 |
| Chemicals and allied products... | 4,061 | 78.79 75.50 | $202 \cdot 5$ | 38.9 | 2,079 | $40 \cdot 31$ | 106-1 | 38.0 |
| Miscellaneous industries....... | 3,960 | $75 \cdot 50$ | 188.3 | $40 \cdot 1$ | 1,925 | 36.73 | $99 \cdot 3$ | $37 \cdot 0$ |
| 1952 |  |  |  |  |  |  |  |  |
| Province |  |  |  |  |  |  |  |  |
| Newfoundland. ....... | 2,529 | 71.47 | 166.2 | $43 \cdot 0$ | 1,275 | 31.55 | 76.4 | 41.3 |
| Prince Edward Island. . | 2,117 | $59 \cdot 33$ | 142-3 | 41.7 | 1,050 | 29.40 | $72 \cdot 4$ | 40.6 |
| Nova Scotia. | 2,936 | 68.54 | 158.7 | 43.2 | 1,691 | 34.74 | 87.3 | 39.8 |
| New Brunswi | 3,258 | 71.50 | 169.4 | $42 \cdot 2$ | 1,867 | 35.44 | 89.7 | 39.5 |
| Quebec. | 3.929 | $79 \cdot 92$ | 199.8 | $40 \cdot 0$ | 2,310 | $40 \cdot 52$ | $106 \cdot 1$ | 38.2 |
| Ontario. | 4.236 | 85.77 | $216 \cdot 6$ | $39 \cdot 6$ | 2,461 | $42 \cdot 24$ | 112.0 | 37.7 |
| Manitoba.... | 3,638 | $73 \cdot 66$ | $182 \cdot 3$ | $40 \cdot 4$ | 2,114 | $37 \cdot 27$ | 96.8 | 38.5 |
| Saskatchewan | 2,871 | 67.22 | $160 \cdot 0$ | 42.0 | 1,883 | 38.11 | 94.6 | $40 \cdot 3$ |
| Alserta. ${ }^{\text {British Columbia }}$ | 3,183 3,785 | $76 \cdot 73$ 84.76 | 187.6 211.9 | $40 \cdot 9$ 40.0 | 1.919 2.131 | $40 \cdot 55$ 42.00 | 102.9 | 39.4 |
| Yukon and Northwest Territories | 3,785 | 84.76 | 21.9 | $40 \cdot 0$ | 2,131 | 42.00 | 109.7 | 38.3 |
| Canada, 1952. | 3,98; | 82.60 | $207 \cdot 0$ | 39.9 | 2,323 | 41.26 | 108.6 | 38.0 |

26.-Average Annual, Weekly and Hourly Earnings of Male and Female Salary-Earners in the Manufacturing Industries, by Province and Industrial Group, 1951 and 1952-concluded.

| Year and <br> Industrial Group | Male |  |  |  | Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Annual ings | Average Weekly Earnings | Average Hourly ings | Average Hours Worked per Week | $\begin{aligned} & \text { Average } \\ & \text { Annual } \\ & \text { Earn- } \\ & \text { ings } \end{aligned}$ | Average Weekly Earnings | Average Hourly ings | Average Hourd Worked per Week |
| 1952 -concluded | \$ | \$ | cents | No. | 8 | 8 | cents | No. |
| Industrial Group |  |  |  |  |  |  |  |  |
| Food and beverages. | 3,500 | $73 \cdot 74$ | 179.4 | 41.1 | 2.145 | $39 \cdot 65$ | $102 \cdot 5$ | 38.7 |
| Tobacco and tobacco products... | 4,408 | 78.96 | 209.4 | 37.7 | 3,055 | $47 \cdot 34$ | $127 \cdot 3$ | 37.2 |
| Rubber products. | 3,999 | 78.53 | $200 \cdot 8$ | 38.1 | 2,415 | 40.87 | 107.8 | 37.9 |
| Leather products. | 3,864 | 69.22 | 168.0 | 41.2 | 2,326 | $35 \cdot 35$ | $92 \cdot 1$ | 38.4 |
| Textile products (except clothing) | 4,313 | 82.79 | 207.0 | $40 \cdot 0$ | 2,480 | 39.50 | 103.1 | 38.3 |
| Clothing (textile and fur)........ | 4,136 | 76.11 | 188.9 | $40 \cdot 3$ | 2,639 | 38.74 | $100 \cdot 9$ | 38.4 |
| Wood products. | 2,505 | $77 \cdot 06$ | $180 \cdot 9$ | $42 \cdot 6$ | 1,435 | 38.83 | 101.1 | 38.4 |
| Paper products................. | 5.318 | $97 \cdot 11$ | $250 \cdot 9$ | 38.7 | 2,803 | 43.80 | $117 \cdot 1$ | $37 \cdot 4$ |
| Printing, publishing and allied trades | 3,498 | $74 \cdot 67$ | $196 \cdot 5$ | 38.0 | 2,200 | 38.48 | $102 \cdot 3$ | $37 \cdot 6$ |
| Iron and steel products......... | 4,369 | 82.53 | 208.9 | 39.5 | 2,473 | $40 \cdot 62$ | 106.9 | 38.0 |
| Transportation equipment....... | 4,346 | 87.79 | 206.6 | $42 \cdot 5$ | 2,516 | 44.92 | 114.6 | $39 \cdot 2$ |
| Non-ferrous metal products...... | 4,402 | 90.39 | 229.4 | $39 \cdot 4$ | 2,373 | 42-38 | $112 \cdot 1$ | 37.8 |
| Electrical apparatus and supplies. | 4,170 | 81.92 | $211 \cdot 1$ | 38.8 | 2,527 | 42.95 | 114.2 | 37.6 |
| Non-metallic mineral products... | 3,951 | 82.48 | $211 \cdot 5$ | 39.0 | 2,276 | $41 \cdot 15$ | 111.8 | 36.8 |
| Products of petroleum and coal.. | 4.620 | 108.63 | $293 \cdot 6$ | 37.0 | 2,504 | $51 \cdot 57$ | 143.6 | 35.9 |
| Chemicals and allied products... | 4,205 | $84 \cdot 46$ | $218 \cdot 2$ | 38.7 | 2,527 | $42 \cdot 95$ | 113.3 | 37.9 |
| Miscellaneous industries......... | 3,962 | 80.66 | $204 \cdot 2$ | 39.5 | 2,413 | $40 \cdot 57$ | 113.0 | 35.9 |

A survey of weekly earnings of salaried employees, classified by (1) managerial and professional employees and (2) office workers, was made for the first time in 1951; it will be repeated every third year. Results of the 1951 survey show that weekly earnings for both sexes in 1951 averaged $\$ 98.38$ for managerial and professional employees and $\$ 51.14$ for office workers. Newfoundland with $\$ 116.20$ for both sexes was the highest paying province as regards managerial and professional employees, while British Columbia with $\$ 55.75$ was the highest paying province for office workers.

In the managerial classification, male employees in the paper products group were the highest paid, followed by textile products (except clothing), transportation equipment and iron and steel products. Managerial employees in the tobacco products group were the lowest paid. In the same category, female employees in the transportation equipment group were the highest paid and those in the miscellaneous group were the lowest paid.

As for office workers, the tobacco products group paid the highest salaries to both men and women and printing, publishing and allied industries paid the lowest salaries to men and leather products industries the lowest to women.
27.-Average Weekly Earnings of Salaried Employees in the Manufacturing Industries, classified by Managerial and Professional Employees and Office Workers, by Province and Industrial Group, 1951.

| Province and Industrial Group | Managerial and Professional Employees |  |  | Office Workers |  |  | All Salaried Employees |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | $\mathrm{Fe}-$ male | Both Sexes | Male | Fe male | Both Sexes | Male | $\mathrm{Fe}-$ male | Both <br> Sexes |
| Newfoundland | 121-37 | - | 116-20 | 52-93 | 30-19 | 47.02 | $70 \cdot 71$ | $30 \cdot 80$ | 62-04 |
| Prince Edward |  |  |  |  |  |  | 55.98 | 26.75 | 46.90 |
| Nova Scotia. | 89.34 |  | 88.62 | 57.87 | $31 \cdot 66$ | 49.00 | 67.83 | 31.95 | 58.43 |
| New Brunswi | 93.54 |  | 93-40 | 53.97 | 31.51 | 44.96 | 68.64 | 31.72 | 57.65 |
| Quebec. | $101 \cdot 30$ | 56.35 | \$9-57 | 58.82 | 36-54 | 50.04 | 75-77 | 37-32 | 64.67 |
| Ontario | 100.13 | 57.80 | 98.81 | 62.44 | 38.86 | 52.02 | $79 \cdot 67$ | 3949 | 67.29 |
| Manito | 88.56 | - | 87.91 | 55.69 | 34-53 | 47.28 | $70 \cdot 20$ | 3506 | $60 \cdot 57$ |
| Saskatche | 79.98 |  | 79.53 | 51.31 | 36.97 | 44.73 | 64.97 | $37 \cdot 25$ | 56.35 |
| Alberta | $89 \cdot 66$ |  | 89-23 | 57.25 | 36.48 | 49.32 | 71.12 | 36.86 | 62.06 |
| British Columb | 101.78 | 59.14 | $100 \cdot 95$ | 65.46 | 39.52 | 55.75 | 81-66 | 40.03 | $71 \cdot 10$ |
| Total | 99.73 | 57.04 | 98.38 | 60.68 | 37.77 | 51.14 | 77-55 | 38.42 | 65.98 |
| Induetrial Group |  |  |  |  |  |  |  |  |  |
| Food and beverag | 87.54 | 57.65 | 86.89 | 56.49 | 36.72 | 48.31 | 71.15 | 37-29 | 61.78 |
| Tobacco and tobacco pro | 86.56 | - | 87.06 | 70-18 | 41.53 | 56.47 | 78.21 | $42 \cdot 41$ | 66.73 |
| Rubber products. | 98.26 | - | 97-48 | 56.32 | 37.09 | 48.40 | 74.59 | 37.40 | 63.90 |
| Leather products | 91.58 |  | $90 \cdot 22$ | 53.97 | 33.56 | 45.78 | 66.47 | 34-33 | 56.30 |
| Textile products (except clothing) | 105.45 | 54-65 | 103-41 | 58.75 | 36.08 | 48.21 | 79.67 | 36.78 | 65.41 |
| Clothing (textile and fur) | 99.62 |  | 95.67 | 55.32 | $35 \cdot 55$ | 44.92 | $72 \cdot 45$ | 36.85 | 57.54 |
| Wood products. | 97-48 | 59.47 | 96-70 | 61.33 | 36.69 | 52-56 | 74.34 | $37 \cdot 16$ | 64.48 |
| Paper products | 126-91 | 58.22 | 125.26 | 67-67 | 40.06 | 56.87 | 93.92 | $40 \cdot 60$ | 79.57 |
| Printing, publishing and allied industries. | 93.55 | 54-20 | 90.05 | 53.89 | 35.65 | 45.02 | 69.61 | 36.83 | 57.20 |
| Iron and steel products. | 102.32 | 58.37 | 101.60 | 63.14 | 37.94 | 53.99 | 78.15 | 38.30 | 67.65 |
| Transportation equipment. | 104.51 | 60.71 | 104-15 | 66.15 | 41.32 | 57.79 | $80 \cdot 85$ | 41.51 | 71.39 |
| Non-ferrous metal products. | 101.79 | 57.75 | 100.99 | 63.70 | 39.67 | 52.87 | $85 \cdot 63$ | 40.21 | 73.63 |
| Electrical apparatus and supplies | 97.51 | 57.99 | 96.41 | 62.06 | 37.83 | $52 \cdot 67$ | 75-51 | 38.37 | 64.82 |
| Non-metallic mineral products. . | 98.31 | - | 97.87 | $59 \cdot 17$ | 38.24 | $50 \cdot 64$ | 76.94 | $38 \cdot 61$ | 66.34 |
| Products of petroleum and coal.. | $101 \cdot 13$ | - | 99.87 | $63 \cdot 15$ | 40.72 | 56.48 | 81-92 | 42.72 | 74-52 |
| Chemical and allied products. | 95.77 | 55.44 | 93-97 | 56.55 | 39.41 | 47.81 | 78.79 | $40 \cdot 31$ | 66.37 |
| Miscellaneous industries... | 97-11 | $52 \cdot 44$ | $95 \cdot 30$ | 56.66 | $36 \cdot 20$ | 45.96 | 75.50 | 36.73 | 60.89 |

'Real' Earnings of Employees.-When the index number representing the average yearly earnings is divided by the Consumer Price Index, on the same base, a measure of 'real' wages is obtained. Index numbers for 1943-52 are given in Table 28.

## 28.-Average Yearly Earnings, and Index Numbers of Earnings, Consumer Price Index and Real Wages of Wage-Earners in Manufacturing Industries, 1943-52

Nore.-Figures for 1931-42 are given in the 1947 Year Book, p. 560.

| Year | Wages Paid | Average WageEarners | Average Yearly Earnings | Index Numbers ( $1949=100$ ) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Yearly Earning: | $\begin{gathered} \text { Consumer } \\ \text { Price } \\ \text { Index } \end{gathered}$ | Real Value of Average Yearly Earnings |
|  | \$ | No. | \$ |  |  |  |
| 1943. | 1,598,434,879 | 1,047,873 | 1,525 | 73.8 | $74 \cdot 2$ | 99.5 |
| 1944. | 1,611,555,776 | 1,030,324 | 1,564 | $75 \cdot 7$ | $74 \cdot 6$ | 101.5 |
| 1945. | 1,427,915,830 | -928,665 | 1.538 | 74.4 | 75.0 | 99.2 |
| 1946. | $1,329,811,478$ 1,611 $1,823,166$ | 877,150 940,650 | 1,516 | 73.3 82.9 | 77.5 84.8 | $94 \cdot 6$ 97.8 |
| 1948. | 1,611,232,166 | 940,650 957,491 | 1.713 1.960 | 82.9 94.8 | 84.8 97.0 | 97.8 97.7 |
| 1949. | 1,963,462,720 | 949,656 | 2,067 | 94.8 100.0 | 97.0 100.0 | 97.7 100.0 |
| 1950. | 2.078,634,086 | 952, 244 | 2,183 | $105 \cdot 6$ | $102 \cdot 9$ | $102 \cdot 6$ |
| 1951 | 2.459,566.313 | 1,010,588 | 2,434 | 117.8 | 113.7 | $103 \cdot 6$ |
| 1952. | 2.713.714,909 | 1,025,355 | 2,647 | 128.1 | 116.5 | $110 \cdot 0$ |

Percentages of Salaries and Wages to Net Value of Products.-Table 29 shows the relation between salaries and wages paid by manufacturers and the total net value of production. Figures of gross production are often used in such calculations, but the values out of which the wages of employees must come in the long run are the values added to the raw materials while they are in the factory. Such added values constitute the real production of the manufacturing plant and are alone available for payment of salaries and wages, interest, rent, taxes, repairs and al! other overhead charges that ordinarily must be met. The percentage of salaries declined steadily with the increasing manufacturing production from 1924 to 1929, while from 1931 to 1935 and again in 1938 and 1939, the percentage of salaries to value added was above normal owing to decreased industrial activity. It should be borne in mind, however, that salaried employees increased 276 p.c. during the period 1924-52 while wage-earners increased 146 p.c. The percentage of wages has fluctuated much less than that of salaries. The number of wage-earning employees may be adjusted more rapidly to the activity of the industry and wage levels likewise may be adjusted more readily to the price levels of the products. Of the increase in the net value of production since 1939,49 p.c. was passed along in increased salaries and wages.
29.-Percentage of Salaries and Wages Paid to the Total Net Value of Manufacturing Production, 1943-52

| Year | Value Added by Processes of Manufacture ${ }^{1}$ | Salaries Paid | Wages Paid | Percentages- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | of Salaries to Value Added | of Wages to Value Added | of Total Salaries and Wages to Value Added |
|  | \$ | \$ | \$ | p.c. | p.c. | p.c. |
| 1943 | 3,816,413,541 | 388,857,505 | 1,598,434, 879 | $10 \cdot 2$ | 42.0 | $52 \cdot 2$ |
| 1944 | 4,015, 776,010 | 418,065,594 | 1,611,555,776 | $10 \cdot 4$ | $40 \cdot 2$ | $50 \cdot 6$ |
| 1945 | 3,564,315,899 | 417,857,619 | 1,427,915,830 | 11.7 | $40 \cdot 1$ | 51.8 |
| 1946 | 3,467,004,980 | 410,875, 776 | 1,329,811,478 | 11.8 | 38.4 | $50 \cdot 2$ |
| 1947 | 4,292,055,802 | 474,693,800 | 1,611,232,166 | 11.0 | $37 \cdot 6$ | $48 \cdot 6$ |
| 1948 | 4,938,786,981 | 532,594,959 | 1,876,773,231 | 10.8 | 38.0 | $48 \cdot 8$ |
| 1949 | 5,330,566,434 | 628,427,937 | 1,963,462,720 | 11.8 | 36.8 | $48 \cdot 6$ |
| 1950. | 5,942,058,229 | 692,633,349 | 2,078,634,086 | 11.6 | 35.0 | 46.6 |
| 1951 | 6,940, 946,783 | 816.714,604 | 2,459,566,313 | 11.8 | $35 \cdot 4$ | $47 \cdot 2$ |
| 1952. | 7,443,533,199 | 923,905, 251 | 2,713,714,903 | $12 \cdot 4$ | 36.5 | 48.9 |

${ }^{1}$ Equivalent to "net value of products"; see footnote 1, Table 1, p. 634.

## Subsection 2.-Capital, Repair and Maintenance Expenditures

Prior to 1944 the following information on capital investment was collected: (1) fixed capital-land, buildings, fixtures, machinery, tools and other equipment; and (2) working capital-inventory value of raw materials, stocks in process, fuel and miscellaneous supplies on hand; inventory value of finished products; cash, bills and accounts receivable, prepaid expenses, etc. This information was replaced in 1944 by the collection of expenditure statistics on fixed capital, repairs and maintenance. Although it is now impossible to calculate the total investment in the fixed and current assets in manufacturing, it is still possible to calculate the investment in fixed assets. Total investment in fixed assets can be obtained with an approximate degree of accuracy by starting with the total investment in 1943, which amounted to $\$ 3,002,900,000$, and adding the expenditures to date and then deducting on a
straight-line basis the normal rates of depreciation allowed by the Income Tax Department. Comparative figures of the investment in fixed assets since 1939 are as follows:-

| W | Year | Amount | Average per Employee |
| :---: | :---: | :---: | :---: |
|  |  | 8 | \% |
| 1939. |  | 2,168,900,000 | 3,296 |
| 1943. |  | 3,002,900,000 | 2,420 |
| 1948. |  | 4,055,500,000 | 3,509 |
| 1949. |  | 4,262,800,000 | 3,640 |
| 1950. |  | 4,394,700,000 | 3,714 |
| 1951. |  | 4,760,800,000 | 3,783 |
| 1952... |  | 5,253,400,000 | 4,078 |

Between 1939 and 1943 there was a decrease of $\$ 876$ in the value of fixed assets per employee, owing to a decline in the replacement of and additions to buildings and equipment during the war years and also to an increase in the number of shifts worked and a resulting increase in number of employees. After the War, investment in fixed assets increased rapidly. Old plants were modernized and new plants were built to take care of expanded home markets resulting from higher purchasing power and increased population. The net result in this development was an increase of $\$ 782$ in the value of buildings and equipment per employee between 1939 and 1952.
30.-Capital, Repair and Maintenance Expenditure by the Manufacturing Industries, by Province and Industrial Group, 1951 and 1952, with Totals for 1944-52.

| Year and Province | Capital Expenditure |  |  | Repair and <br> Maintenance Expenditure |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Construction | Machinery and Equipment | Total | Construction | Machinery and Equipment | Total |
|  | \$'000,000 | 8'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| 1944. | $61 \cdot 3$ 75.9 | $150 \cdot 1$ $204 \cdot 2$ | 211.4 280.1 | 60.7 | $173 \cdot 5$ | 234.2 |
| 1946. | $75 \cdot 9$ $132 \cdot 2$ | 204.2 $205 \cdot 0$ | $280 \cdot 1$ 337.2 | $63 \cdot 1$ 56.8 | $170 \cdot 6$ $164 \cdot 3$ | $233 \cdot 7$ 221.1 |
| 1947. | 184.7 | $343 \cdot 2$ | 527.9 | $62 \cdot 4$ | 210.7 | $273 \cdot 1$ |
| 1948 | 184.8 | $394 \cdot 2$ | 579.0 | 78.9 | 253.9 | 332.8 |
| 1949. | 156.6 | 379.2 | $535 \cdot 8$ | 66.7 | $267 \cdot 2$ | 333.9 |
| 1950. | $135 \cdot 4$ | $367 \cdot 1$ | $502 \cdot 5$ | $67 \cdot 6$ | 279 -0 | $346 \cdot 6$ |
| 1951 |  |  |  |  |  |  |
| Province |  |  |  |  |  |  |
| Newioundland....... | 3.4 | 6.4 | 9.8 | 1.2 | $4 \cdot 2$ | $5 \cdot 4$ |
| Prince Edward Island. | $0 \cdot 2$ | $0 \cdot 2$ | $0 \cdot 4$ | $0 \cdot 1$ | $0 \cdot 2$ | $0 \cdot 3$ |
| Nova Scotia. | 1.8 | $10 \cdot 6$ | 12.4 | $5 \cdot 0$ | $6 \cdot 4$ | 11.4 |
| New Brunswick | $4 \cdot 2$ | 13.3 | 17.5 | 1.7 | 7.8 | 9.5 |
| Quebec. | 54.7 | $143 \cdot 8$ | 198.5 | 21.3 | 96.6 | 117.9 |
| Ontario.. | 137.8 | $257 \cdot 4$ | 395.2 | $39 \cdot 4$ | $170 \cdot 4$ | 209.8 |
| Manitoba. | 7.9 | $9 \cdot 7$ | $17 \cdot 6$ | $2 \cdot 5$ | $7 \cdot 5$ | $10 \cdot 0$ |
| Saskatchewan. | 3.7 | 9.5 | 13.2 | 1.2 | 2.4 | $3 \cdot 6$ |
| Alberta. | 12.7 | 23.9 | $36 \cdot 6$ | $2 \cdot 7$ | 5.8 | 8.5 |
| British Columbia | 41.2 | $50 \cdot 2$ | 91.4 | 9.9 | 35.7 | $45 \cdot 6$ |
| Totals, 1951 | $267 \cdot 6$ | 525.0 | 792.6 | 85.0 | $337 \cdot 0$ | 422.0 |

30.-Capital, Repair and Maintenance Expenditure by the Manufacturing Industries, by Province and Industrial Group, 1951 and 1952, with Totals for 1944-52-concluded.

| Year, Province and Industrial Group | Capital Expenditure |  |  | Repair and Maintenance Expenditure |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Construction | Machinery and Equipment | Total | Construction | Machinery and Equipment | Total |
| 1951-concluded <br> Indubtrial Group | \$'000,000 | 8'000,000 | \$'000,000 | \$ 0000,000 | \$'000,000 | \$'000,000 |
| Food and beverages. | 28.0 | 51.1 | $79 \cdot 1$ | 11.8 | $34 \cdot 3$ | 46.1 |
| Tobacco and tobacco produ | 0.5 | 1.7 | $2 \cdot 2$ | 0.4 | 1.3 | 1.7 |
| Rubber products.......... | $2 \cdot 0$ | $5 \cdot 9$ | $7 \cdot 9$ | 0.9 | $5 \cdot 5$ | 6.4 |
| Leather products. | 0.9 | 1.9 | 2.8 | $0 \cdot 6$ | $2 \cdot 1$ | 2.7 |
| Textile products (except clothing) | $9 \cdot 9$ | $29 \cdot 2$ | $39 \cdot 1$ | 4.0 | 16.7 | 20.7 |
| Wood products...... | 11.2 | 27.4 | $38 \cdot 6$ | 7.7 | $24 \cdot 5$ | $32 \cdot 2$ |
| Paper products. | 41.7 | 83.2 | 124.9 | 9.7 | 69.0 | 78.7 |
| Printing, publishing and allied trades.. | 6.3 | 18.0 | $24 \cdot 3$ | 1.7 | $4 \cdot 6$ | $6 \cdot 3$ |
| Iron and steel products................ | $47 \cdot 1$ | $50 \cdot 1$ | $97 \cdot 2$ | 13.0 | 58.9 | 71.9 |
| Transportation equipment | 21.8 | $27 \cdot 1$ | 48.9 | 6.9 | 21.5 | 28.4 |
| Non-ferrous metal products. | $22 \cdot 4$ | 26.0 | 48.4 | 6.9 | $30 \cdot 3$ | 37.2 |
| Electrical apparatus and supplie | $16 \cdot 3$ | $15 \cdot 6$ | 31.9 | $2 \cdot 2$ | 11.4 | $13 \cdot 6$ |
| Non-metallic mineral products | 11.5 | 18.9 | $30 \cdot 4$ | 4.7 | $15 \cdot 6$ | $20 \cdot 3$ |
| Products of petroleum and coal | 21.7 | $37 \cdot 3$ | $59 \cdot 0$ | $8 \cdot 3$ | 8.8 | $17 \cdot 1$ |
| Chemicals and allied products. | $18 \cdot 2$ | 38.5 | $57 \cdot 7$ | $4 \cdot 0$ | 24.8 | 28.8 |
| Miscellaneous................ | $3 \cdot 0$ | $4 \cdot 4$ | $7 \cdot 4$ | 0.8 | $3 \cdot 0$ | 3.8 |
| Capital items charged to operating expense. | - | $79 \cdot 6$ | $79 \cdot 6$ | - | - | - |
| $\begin{gathered} 1952 \\ \text { PRovince } \end{gathered}$ |  |  |  |  |  |  |
| Newioundland | $5 \cdot 4$ | $9 \cdot 7$ | 15.1 | 0.9 | $8 \cdot 5$ | $9 \cdot 4$ |
| Prince Edward Island | 0.4 | 0.6 | 1.0 | 0.2 | $0 \cdot 2$ | 0.4 |
| Nova Scotia. | $6 \cdot 7$ | 10.2 | 16.9 | $7 \cdot 0$ | $8 \cdot 1$ | $15 \cdot 1$ |
| New Brunswick | 3-1 | $10 \cdot 6$ | $13 \cdot 7$ | $1 \cdot 1$ | $8 \cdot 5$ | $9 \cdot 6$ |
| Quebec. | $66 \cdot 0$ | $164 \cdot 9$ | $230 \cdot 9$ | $25 \cdot 5$ | 103.9 | 129.4 |
| Ontario | $158 \cdot 3$ | 318.9 | $477 \cdot 2$ | $43 \cdot 6$ | . $179 \cdot 5$ | $223 \cdot 1$ |
| Manitoba | $3 \cdot 1$ | 8.7 | 11.8 | $3 \cdot 4$ | $9 \cdot 4$ | 12.8 |
| Saskatchewan | $3 \cdot 5$ | 6.2 | $9 \cdot 7$ | 1.4 | 2.8 | $4 \cdot 2$ |
| Alberta. | $43 \cdot 4$ | 31.8 | $75 \cdot 2$ | $4 \cdot 1$ | $7 \cdot 1$ | 11.2 |
| British Columbia | 53.7 | $67 \cdot 4$ | $121 \cdot 1$ | $8 \cdot 0$ | $35 \cdot 5$ | 43.5 |
| Totals, 1952. | $343 \cdot 6$ | 629.0 | 972.6 | 95.2 | 363.5 | 458.7 |
| Industrial Group |  |  |  |  |  |  |
| Food and beverages. | 26.6 | $50 \cdot 7$ | 77.3 | $12 \cdot 5$ | 36.0 | 48.5 |
| Tobacco and tobacco prod | 0.5 | 1.8 | $2 \cdot 3$ | 0.5 | $1 \cdot 3$ | 1.8 |
| Rubber products...... | 2.7 | $7 \cdot 3$ | 10.0 | 0.9 | $6 \cdot 0$ | $6 \cdot 9$ |
| Leather products. | $0 \cdot 6$ | 1.7 | $2 \cdot 3$ | $0 \cdot 6$ | 2.0 | $2 \cdot 6$ |
| Textile products (except clothing)..... | $7 \cdot 0$ | 24.5 | 31.5 | $3 \cdot 8$ | $15 \cdot 6$ | $19 \cdot 4$ |
| Clothing (textile and fur).......... . . | $1 \cdot 6$ | $11 \cdot 1$ | $12 \cdot 7$ | $1 \cdot 3$ | $4 \cdot 4$ | $5 \cdot 7$ |
| Wood products............ | $9 \cdot 3$ | 22.5 | 31.8 | $6 \cdot 1$ | 23.5 | 29.6 |
| Paper products ..................... | $33 \cdot 6$ | 95.9 | 129.5 | $8 \cdot 3$ | 72.9 | $81 \cdot 2$ |
| Printing, publishing and allied trades.. | $3 \cdot 3$ | 11.0 | $14 \cdot 3$ | 1.5 | $4 \cdot 1$ | 5.6 |
| Iron and steel products............... | $46 \cdot 2$ | 89.7 | 135.9 | 16.1 | $64 \cdot 8$ | $80 \cdot 9$ |
| Transportation equipment. | $37 \cdot 1$ | $25 \cdot 0$ | $62 \cdot 1$ | 11.6 | $31 \cdot 1$ | $42 \cdot 7$ |
| Non-ferrous metal products. | $35 \cdot 1$ 21.8 | 35.6 | $70 \cdot 7$ 40.4 | 8.5 2.8 | $34 \cdot 2$ 11.7 | $42 \cdot 7$ 14.5 |
| Electrical apparatus and supplies Non-metallic mineral products. | 21.8 11.2 | $18 \cdot 6$ $23 \cdot 1$ | $40 \cdot 4$ $34 \cdot 3$ | 2.8 3.9 | 11.7 16.6 | 14.5 20.5 |
| Non-metallic mineral products....... Products of petroleum and coal...... | $11 \cdot 2$ $41 \cdot 1$ | $23 \cdot 1$ 36.4 | $34 \cdot 3$ $77 \cdot 5$ | 3.9 11.2 | 16.6 9.5 | 20.5 20.7 |
| Products of petroleum and coal........ Chemicals and allied products...... | $41 \cdot 1$ $61-2$ | 36.4 79.8 | 77.5 141.0 | $11 \cdot 2$ 4.5 | $9 \cdot 5$ 26.6 | $20 \cdot 7$ $31 \cdot 1$ |
| Miscellaneous industries..... | $4 \cdot 7$ | $4 \cdot 1$ | 8.8 | $1 \cdot 1$ | $3 \cdot 2$ | $4 \cdot 3$ |
| Capital items charged to operating expense. | - | $20 \cdot 2$ | $90 \cdot 2$ | - | - | - |

## Subsection 3.-Size of Manufacturing Establishments

The size of a manufacturing establishment is generally measured either by the value of product or by the number of employees but each of these methods has its limitations. The former measure has to be adjusted for changes in the price level and, as between industries, it makes those in which the cost of raw materials is relatively high appear to operate on a larger scale. The latter takes no account
of the differences in capital equipment at different times or in various industries and, obviously, the increased use of machinery may lead to an increase in production concurrently with a decrease in number of employees.

Size as Measured by Gross Value of Products.-In 1929, the 719 establishments producing over $\$ 1,000,000$ each had an aggregate value of products of $\$ 2,516,064,954$, or 62 p.c. of the total for all manufacturing establishments. In 1931 the number of plants in that category was 482, their output being valued at $\$ 1,451,658,954$, or 53 p.c. of the total. However, by 1944 , war demands resulted in manufacturing establishments with a production of $\$ 1,000,000$ increasing in number to 1,376 with an output of about 75 p.c. of the total value of manufactures. In 1946, with the decline in production of the large war plants, the manufactures of establishments with an output of $\$ 1,000,000$ or over declined to 67 p.c. of the total manufactures although the number of plants increased to 1,442 . In 1947, the number of plants increased to 1,716 and the proportion of their production to the total for all plants was 72 p.c. As a result of increased prices and expansion in the physical volume of production in the years 1947-52, establishments with a production of $\$ 1,000,000$ or over increased to 2,397 in 1952 and their contribution to the total output rose to 78 p.c.
31.-Manufacturing Establishments and Total and Average Production, classified by Value of Product Group, 1929, 1939, 1944 and 1950-52


Size as Measured by Number of Employees.-In 1929, establishments employing 501 or more persons accounted for 27 p.c. of the total number of employees engaged in manufacturing. The tendency then in evidence of increasing concentration of production into larger units was checked by the depression, the proportion decreasing in 1933 to 21 p.c. (central electric stations included) but rising again to 26 p.c. in 1939. The same also held true for establishments employing 101 or more persons. In 1929 they employed 62 p.c. of the total, in 1933, 56 p.c., and in 1939,62 p.c.

The effect of World War II on the concentration of industries into large units is illustrated by the increase in the number of establishments employing 501 or more hands. In 1939 such establishments numbered 172 and employed 26 p.c. of the employees engaged in manufacturing; by 1944 the number had increased to 383 and the percentage of total employees to 47 . In a further subdivision of this group in 1944 it was found that 226 establishments employed between 500 and 999 persons, 56 between 1,000 and 1,499 , and 101 employed over 1,500 . There were 12 plants employing over 7,000 persons, the largest having an employment of slightly over 13,000 .

As a result of the resumption of peace-time production, the larger establishments declined in size so that, by 1952, only 76 establishments employed over 1,500 persons. The two largest plants employed over 12,000 persons, the next employed over 11,000 , followed by three employing over 9,000 and six between 5,000 and 9,000 persons.

## 32.-Manufacturing Establishments, classified by Number of Employees and by Province, 1951 and 1952

| Year, <br> Province or Territory | Employees- |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { Up } \\ \text { to } \\ 499 \end{gathered}$ | $\begin{aligned} & 500 \\ & \text { to } \\ & 799 \end{aligned}$ | $\begin{aligned} & \hline 800 \\ & \text { to } \\ & 999 \end{aligned}$ | $\begin{gathered} 1,000 \\ \text { to } \\ 1,499 \end{gathered}$ | $\begin{aligned} & 1,500 \\ & \text { or } \\ & \text { Over } \end{aligned}$ | Total |
| 1951 | No. | No. | No. | No. | No. | No. |
| Newfoundland . | 820 | 二 | - | 1 | 1 | 822 |
| Prince Edward Island | 237 | - | - |  |  | 237 |
| Nova Scotia | 1,465 | 4 | - | 4 | 1 | 1,474 |
| New Brunswick | 1,074 | 6 | 2 | 1 | 1 | 1,084 |
| Quebec. | 11,726 | 62 | 23 | 26 | 24 | 11,861 |
| Ontario. | 12,840 | 88 | 33 | 29 | 35 | 13,025 |
| Manitoba. | 1,505 | 3 | 1 | - | 3 | 1,512 |
| Saskatchewan | 973 | - | - | - | - | 973 |
| Alberta. | 2,114 | 3 | - | 1 | - | 2,118 |
| British Columbia | 3.872 | 15 | 5 | 3 | 2 | 3,897 |
| Yukon and Northwest Territories. | 18 | - | - | - | - | 18 |
| Canada, 1951. | 36,644 | 181 | 64 | 65 | 67 | 37,021 |
| 1952 |  |  |  |  |  |  |
| Newfoundland....... | 946 | - | - | 1 | 1 | 948 |
| Prince Edward Island | 224 | - | - | - | - | 224 |
| Nova Scotia. | 1,523 | 4 | 1 | 1 | 4 | 1,533 |
| New Brunswick | 1,068 | 5 | 2 | 1 | 1 | 1,077 |
| Quebec...... | 11,893 | 61 | 25 | 26 | 19 | 12,024 |
| Ontario... | 12,982 | 93 | 23 | 28 | 46 | 13,172 |
| Manitoba. | 1,522 | 4 | - | 2 | 3 | 1,531 |
| Saskatchewan | 1,022 | - | - |  | - | 1,022 |
| Alberta. | 2,144 | 4 | 1 | 1 | - | 2,150 |
| British Columbia. | 4,200 | 14 | 4 | 5 | 2 | 4,225 |
| Yukon and Northwest Territories .. | 23 | - | - | - | - | 23 |
| Canada, 1952. | 37,547 | 185 | 56 | 65 | 76 | 37,979 |

33.-Establishments and Employees in Manufactures, classified by Number of Employees per Establishment, 1929, 1939, 1944, and 1950-52


[^216]Size of Establishment in Leading Industries.-Table 34 summarizes the degree of concentration in some of the leading industries of Canada. Concentration is extremely marked in the case of motor-vehicles, non-ferrous metal smelting and refining, railway rolling stock, cotton yarn and cloth, primary iron and steel, pulp and paper and heavy electrical machinery. On the other hand, the degree of concentration is low in such industries as women's factory clothing, miscellaneous food preparations, furniture, butter and cheese, bread and other bakery products, fruit and vegetable preparations, sawmills and men's factory clothing.
34.-Percentage Importance of Establishments, each Employing $\mathbf{2 0 0}$ or more Persons, in the 25 Leading Industries, 1951 and 1952


# PART III.-PROVINCIAL AND LOCAL DISTRIBUTION OF MANUFAGTURING PRODUCTION 

## Section 1.-Provincial Distribution of Manufacturing Production

Ontario and Quebec are by far the most important manufacturing provinces of Canada. Their combined production in 1952 amounted to $\$ 13,548,408,451$ or 80 p.c. of the total gross value of manufactured products as determined by factory shipments.

Table 1 shows the predominance of these two Provinces in most of the industrial groups. In 1952, Quebec led in the manufacture of tobacco and tobacco products, textiles (except clothing), clothing (textile and fur), leather products, paper products and products of petroleum and coal. In the production of wood products, British Columbia with 38 p.c. held the dominant position, outranking both Ontario and Quebec which accounted for 26 and 21 p.c., respectively, of total production. In each of the other industrial groups, Ontario led by a wide margin.
1.-Summary Statistics of Manufactures of Each Province, elassified by Industrial Group, 1951 and 1952

| Province and Industrial Group | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products | Gross Value of Products ${ }^{1}$ | Estab-lishments | $\left\lvert\, \begin{gathered} \text { Em- } \\ \text { ployees } \end{gathered}\right.$ | Salaries <br> and <br> Wages | Cost of Materials | Net <br> Value of Products | Value of Factory Shipments ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 |  |  |  |  |  | 1952 |  |  |  |  |  |
|  | No. | 3,413 | 8 | $\$$ | \$ | 8 | No. | No. | \$ | 3 1 | $\begin{gathered} 8 \\ \\ 10,973,710 \end{gathered}$ | 8 |
| Newfoundland |  |  |  |  |  |  |  |  |  |  |  |  |
| Food and beverages.. |  |  | 5,105,057 | 13,398,634 | 12,182,314 | 26,470,584 | 77 | 3,319 | 5,447,180 | 13,473,827 |  | 25,200,071 |
| Textile products (except clothing) |  | 103 | 205.288 | 555,276 | 562,822 | 1,136,352 | 5 | -95 | 214, 141 | 524,744 | 502,634 | 1,044,991 |
| Clothing (textile and fur)........ |  | +306 | -360,758 | 435,754 | 501,953 | -946,755 | ${ }^{3}$ | . 210 | -287,235 | 399,106 | - 400,027 | - 805,462 |
| Wood products........... |  | 1,445 | 1,311,581 | $\begin{array}{r}3,036,950 \\ \hline\end{array}$ | 2, 681,859 | 5,836,337 | 790 | 1,838 | $1,885,417$ $14,420,551$ | $4,339,012$ $23,876,477$ | $3,425,874$ 36,859 | 7,916,282 |
| Paper products....................... |  | 3,279 | 13,392,916 | $23,133,696$ | 34, 174, 834 | $59,958,553$ | 3 | 3,538 | 14,420,551 | 23,876,477 | 36,359,335 | 62,812, 294 |
| Printing, publishing and allied industries. |  | 378 | 924,009 | 394, 288 | 1,270,863 | 1,702, 273 | 29 | 402 | 994,249 | 432, 106 | 1,430,900 | 1,902,464 |
| Iron and steel products.............. |  | 247 | 569,747 | 388,511 | 839,541 | 1,267,625 | 9 | 273 | 661.696 | 499,114 | \$58,327 | 1,502,120 |
| Transportation equipment |  | 115 | 201,420 | 226,266 | 281,715 | 513,445 | 6 | 77 | 141,140 | 112,114 | 184,354 | 305,456 |
| Non-metallic mineral products |  | 110 | 205,035 | 304,852 | 329,935 | 676,960 | 15 | 284 | 627,149 | 573,698 | 741,381 | 1,540,752 |
| Chemicals and allied products. |  | 74 | 159,912 | 659,436 | 315,925 | 988,021 | 5 | 75 | 187,565 | 637,423 | 545, 434 | 1,197,423 |
| Miscellaneous industries ${ }^{2}$. |  | 152 | 245,525 | 583,636 | 548,426 | 1,145,708 | 6 | 192 | 367,528 | 609.998 | 587,038 | 1,232,369 |
| Totals, Newfoundland | 822 | 9,622 | 22,681,246 | 43,117,299 | 53,690,187 | 100,642,613 | 948 | 10,303 | 25,233,851 | 45,477,620 | 56,109,014 | 105,459,684 |
| Prince Edward Island |  |  |  |  |  |  |  |  |  |  |  |  |
| Food and beverages.............. | 125 | 1,066 | 1,481,952 | 13,613,570 | 3,210,597 | 17,055.728 | 118 | 1,088 | 1,606,793 | 12,564,752 | 3,521,200 | 16,340,543 |
| Textile products (except clothing)... | 3 | 62 | 94, 817 | 1,411,862 | 213,084 | 1,630,720 | 3 | 63 | 100,541 | 867,372 | 303,645 | 1,177,279 |
| Wood products...................... | 84 | 260 | 254, 191 | 632,293 | 473,131 | 1,125,796 | 80 | 239 | 254,011 | 601, 474 | 465,580 | 1,086,625 |
| Printing, publishing and allied industries. | 9 | 155 | 297,629 | 147,953 | 443,907 | 603,953 | 9 | 155 | 323,865 | 160,292 | 469,790 | 641,965 |
| Iron and steel products. | 5 | 116 | 192,989: | 243,341. | 239,717 | 488,747 | 4 | 46 | 87,155 | 214,056 | 224,450 | 444,019 |
| Transportation equipment | 4 | 6 | 2,980 | 3.210 | 4,075 | 7,855 | 3 | 131 | 287, 132 | 220,070 | 393,466 | 628,699 |
| Miscellaneous industries ${ }^{3}$. | 7 | 70 | 134,995 | 1,125,519 | 462,286 | 1,600.640 | 7 | 73 | 146,125 | 1.158,383 | 578.966 | 1,750,541 |
| Totals, Prince Edward Island... | 237 | 1,735 | 2,459,553 | 17,177,748 | 5,046,797 | 22,523,439 | 224 | 1,795 | 2,805,622 | 15,786,399 | 5,957,097 | 22,069,621 |



| Quebee |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food and beverages... | 2,692 | 42,677 |  |  |  |  | 2,651 |  |  | 90 | 279,540,314 |  |
| Tobacco and toh |  |  | 20,280, 534 | 61,800,486 | 50, 157, 594 | 112,307,742 |  | 7,336 | 21,041,422 | 71,815,464 | 6C,652,121 | 132,844,059 |
| Rubber product | 24 | 7,184 | 17,423,541 | ${ }^{24} 4,938,363$ | 28,790, 508 |  | 26 | 6,139 | 16,284, 215 | 22,280, 838 | 28,677, 642 | 52,695,709 |
| Leather produc | 376 | 16,505 | 28,328,584 | 54,123,288 | 41,770,858 | 96,455,777 | 373 | 17,439 | 32,689, 885 | 53,140,219 | 50,763,981 | 104, 527,968 |
| Textile products (e | 410 | 46,853 | 103,729,626 | 263,393, 294 | ${ }^{185,190,074}$ | 456, 085, 491 | 426 | ${ }^{40,217}$ | 98,668.596 | ${ }_{25,}^{216,479,182}$ | 187, 980, 226 | 391, 704, 853 |
| Clothing (textile an | 1,760 | 66.356 | ${ }^{123,042,915}$ | ${ }^{233,449,850}$ | 215,995,017 | 451,385.849 | 1,761 | 68,57 | 135, 164,476 | 256,909, | 240,33 | 499, 253,391 |
| Wood products | 3.402 |  | 57, | ${ }^{136}$ 23, | 106, | 245 | 3,376 |  |  |  |  |  |
| Paper products |  | 32,916 | 107,805,568 | 276, 155,679 | 320, 554,707 | 635,187,414 | 182 | 32,373 | 112,797,702 | 286,617,502 | 291,411,210 | 617,7 |
| Printing, pub | 1,064 | 16,088 | 44, 160,737 | ,525,364 | 76,372,410 | 118, 753, | 1,123 | 17,501 | 48,732,647 | 44, 737, 185 | 86,145,435 | 131,781,750 |
| Iron and steel |  | 41,897 | 117,810,838 | 158, 102.712 | 20, 704, 537 | 372,094 | 607 | 43,456 | 136,688,752 | ${ }^{182,321,966}$ | 254,007, 847 |  |
| Transpor | 106 | 31,016 | 85, 105, | 119,943, 948 | 105,580, 217 | 229,059,337 | 119 | 42,011 | 122, 154,810 | ${ }^{175,952,017}$ | 166, 651, 190 |  |
| -ert | 158 |  | 48,754, 139 | 285, 375, | 127,395,511 | 439,395,936 |  | 17,893 | 56,446,911 | 273,540,186 | 146,155,'174 | 449,728,502 |
| Electrical appara | 76 | 18,611 | 52,751,108 | 78,932,314 | 91,855,377 | 172,319,9 | , | 19,104 | 59,385, 171 | 73,340,961 |  |  |
| Non-metallic mineral |  |  | 23,771, | 32,314.0 | ${ }^{566.523}$ | 99,303. | 292 | 9,430 | 26,33 | 34,494, | 57 | 102,538,532 |
| Product |  | ${ }^{3,351}$ | ${ }_{50}^{11.427,570}$ | 191,756, 322 | 64,077, 116 | 267,814,499 |  |  | 13,782,117 | ${ }^{184,056,167}$ | 88, ${ }^{\text {827, }}$ | 284,943,192 |
| Chemicals and allied pro Miscollaneous industries | $\begin{aligned} & 338 \\ & 380 \end{aligned}$ | $\begin{array}{r} 18,382 \\ 8,237 \end{array}$ | $50,654,738$ $17,060,203$ | $\begin{array}{r} 103,605,293 \\ 24,986,418 \end{array}$ | $\begin{array}{r} 122,869,316 \\ 31,296,830 \end{array}$ | $233,719,861$ <br> 56,945, 171 | 346 434 | $\begin{array}{r} 19,604 \\ 8,863 \end{array}$ | 58,228,015 | $101,063,826$ <br> $27,178,574$ | $124,797,630$ <br> $37,421,536$ | $232,829,744$ <br> 65,346,712 |
| Totals, Quebe | 11,861 | 417,182 | 1,005,601,68 | 2,696,638,64 | 2,083,933,75 | 4,916,157,419 | 12,024 | 429,698 | 1,125,944,703 | 2,745,618,113 | 2,288,643,279 | 5,176,234,825 |
| Ontarlo |  |  |  |  |  |  |  |  |  |  |  |  |
| Food | , 089 | 69,531 | 165, 907,880 | 948,643,352 |  | 391, | 3,003 | 70,677 | 181,321,491 | 912,694,477 |  |  |
| Tobacco and to |  | 1,883 | 3,921,151 | 57,228,474 | 8,335,889 | 65,756, |  | 1,807 | 4,107,403 | 72,222,438 | ,640, | 82,074,914 |
| Rubber | 37 | 15,825 | 46,832, | 121,981,5 | 132,244 | 256, ${ }^{\text {a }}$, ${ }^{\text {a }}$, | 39 | 15,403 | 49,083,911 | ${ }_{98,486,975}$ | 132,633 , | 233, 733,185 |
| eather | 251 | 13,3 | 28,366 | 73, 170, | 38,026 | 112,428 | 24 | 12,92 | 30, 184 | 55,656,85 | 45, 321, | ${ }^{102,230,921}$ |
| Textile products (ex |  | 30,107 | 71,445,451 | 197,482,7 | 135, 254, | 337,792, | 372 | 28,051 | 70,812,94 | 174, 167, 242 | 129,388, | 308,647,722 |
| Clothing (textile | 1,013 | 38,800 | 80,496,204 | 132,559,992 | 124,852,909 | 259,093, |  | 38,453 | 84,986. | 143, 922,33 | 130, 977, | 276,607 |
| Wood products | 2,672 | 36,657 | 79,856,745 | 144, 142,923 | 135, 155,404 | 282,780,362 | 2,681 | 36,320 | 85, 105, | 154,331,327 | 143,919 | 302,026,688 |
|  | 267 | 32,445 | 106,323,628 | 261,444,514 | 295, 350,337 | 579,360,978 | 263 | 32,514 | 111,522,670 | 253,155,865 | 258,425,' | 532,919,908 |
| Printing, publishing |  |  |  |  |  |  |  |  |  |  |  |  |
| Iron and steel products | 1,24 | 117,135 | 362,390 | 599,773 | 662,930 | 1,29 | 1,352 | 120, 13 | 402, 148 , | 653 , |  | 1,443,1 |
| Transpor |  | 70, 188 | 225,573,390 | 683,679,9 | 480,023,097 | $1,171,884,153$ |  | 79,948 | 279,900, | 751,620 | 520,2 | ,281,285,205 |
| Non-ferrous metal pro | 306 | 27.692 | 82,906,847 | 322,748,682 | 256,892,371 | 598,631 |  | 26,862 | 88,921,99 | 310,605,712 | 249,564, | 580,332,492 |
| Flectrical apparatus | 247 | 47,681 | 138,733,370 | 230,639,879 | 255,317,000 | 490, 151,476 | 261 | 48,533 | 154, 292,664 | 232,082,332 | 288,585,8 | 525, 284,664 |
| Non-metalli | 490 | 16,510 | 47,742,385 | 59,548,181 | 106,503,220 | 180,848,596 | 48 | 15,756 | 49,454,872 | 59,911,633 | 107,535,72 | 181.930,849 |
| P | 30 | 7.882 | 26,375,744 | 142,543,034 | 66,530,591 | 220,884,12 | 36 | 8,303 | 31, 129,861 | 161,661,705 | 71,979,78 | 246,583,557 |
| Chemicals and alied | 513 | 22,762 | 67,419,86 | 217,922,90 | 212, 596,448 |  |  |  |  | 212, 188,8 |  | 466,018,240 |
| Mi | 590 | 17,988 | 43,838,182 | 56,333,844 | 77,939,851 | 135,798,482 | 652 | 18,318. | 47,516,10 | 54,682,91 | 84,986,77 | 141,323,368 |
| Totals, Ontarlo. | 13,025 | 599,433 | 1,669,386,982 | 4,344,394,367 | 3,569,400,065 | $8,074,731,217$ | 13,172 | 609,696 | 1,844,186,405 | 4,387,431,403 | 3,811,106,57 | 8,372,173,626 |

For footnotes, see end of table, p. 694.

| Province and Industrial Group | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net Value of Products | Gross Value of Products ${ }^{1}$ | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products | Value of Factory Shipments ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1951 |  |  |  |  |  | 1952 |  |  |
|  | No. | No. | 8 | \$ | \$ | \$ | No | No. | \$ | \$ | $\$$ | \$ |
| Manitoba |  |  |  |  |  |  |  |  |  |  |  |  |
| Food and beverages | 362 | 9,562 | 24,448,189 | 189, 035, 487 | 58,152,796 | 249,714, 120 | 367 | 9,941 | 26,516,058 | 178,636,866 | 64, 584,380 | 245, 662, 067 |
| Leather products. . . . . . . . . . . | 29 <br> 29 | 716 | 1,201,385 | $3,735,315$ | 2,031,586 | 5,799,701 | 27 | 717 | 1,327,879 | 3,121,518 | 2,242,035 | 5,397,640 |
| Textile products (except clothing) | 25 165 | ¢ 844 | 1,624,955 | 8,712,742 | 2,877, 131 | 11,649,992 | 26 | 787 | 1,569,927 | 7,560,959 | 3,101,644 | 10,725, 181 |
| Wood products.. | 322 | 3,118 | 1 6,494,451 | 13,028,441 | 11,183,704 | 24,501,739 | 342 | 3,330 | 7,605,901 | 15,981,691 | 13,036,726 | 29,340,345 |
| Paper products................... | 21 | 1,370 | 3,961,724 | 11,351, 157 | 14,889,803 | 27,274,150 | 21 | 1,364 | 4, 137, 209 | $11,515,144$ | 14,244,480 | 26,824,474 |
| Printing, publishing and allied industries <br> Iron and steel products. | 280 | 3,714 | 8,865,980 | 7,813,524 | 15,871,733 | $23,901,511$ | 273 | 3,856 | $9,619,921$ | 8,554,092 | 17, 153, 224 | 25,929,483 |
|  | 112 | 4,899 | 13,252,922 | 17,004,394 | 26,898, 294 | 44,843, 490 | 120. | 5,243 | 15,492,882 | 19,826, 108 | 30,520,792 | 51,309,495 |
| Transportation equipment | 22 | 7,215 | 19,296, 284 | 20,730,683 | 20,890,924 | 42,341,851 | 23 | 7,754 | 22, 172,832 | 25, 469,695 | 24,081,824 | 50,217, 104 |
| Non-ferrous metal products. | 19 | 463 | 1,369,016 | 20,798,001 | -197,646 | 21,134,934 | 17 | 682 | 2,344,399 | 13,522,793 | 1,947,981 | 16,315,436 |
| Electrical apparatus and supplie | 18 | 698 | 1,515,509 | 3,866,371 | 3,541,017 | 7,476,642 | 18 | 699 | 1,559,881 | 4,264, 444 | 4,104,575 | 8,437,469 |
| Non-metallic mineral products. | 41 | 907 | 2,329,910 | 3,399,444 | 6,930,042 | 11,821,314 | 38 | 851 | 2,401,052 | 3,321,210 | 7,876,567 | 12,498,737 |
| Products of petroleum and coal | 5 | 533 | 1,542,057 | 18,105,182 | 3,864,512 | 22,960,245 | 6 | 552 | 1,915,808 | 20,354, 471 | $5,671,537$ | 27,222, 765 |
| Chemicals and allied products | 42 | 735 | 1,648,868 | 7,310,831 | 5,366,330 | 12,819,198 | 43 | 726 | 1,750,973 | 6,960,325 | 5, 505, 452 | 12,601,574 |
| Miscellaneous industries ${ }^{6}$. | 49 | 602 | 1,233,680 | 1,093,989 | 2,334,592 | 3,509,617 | 51 | 565 | 1,235,334 | 1,124,626 | 2,391,360 | 3,585,979 |
| Totals, Manitoba.Saskatche | 1,512 | 41,459 | 100,170,966 | 349,203,612 | 192,848,667 | 551,346,046 | 1,531 | 43,365 | 112,147,572 | 347,664,650 | 216,814,306 | 574,037,212 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Food and beverage | 222 | 5,0037 | 12, 297, 608 | 100,645,066 | 31,036, 221 | 133,231, 555 | 225 | 5,110 | 13,616,023 | 94, 117, 855 | 38,004, 787 | 133,742,853 |
| Leather products. . . . . | 7 |  |  | $1,673,007$ |  |  | 3 | 12 | 27,478 | 52,880 |  | -56,181 |
| Textile products (except clothing) | 5 | 115 | 238,450 |  | 331,460 | 2,018,652 | 7 | 136 | 293,948 | 1,216,734 | 308,084 | 1,540,040 |
| Wooding (textile and fur) | 15434 | . 209 | 2387,871 | 812,814 | 752,811 | 1,572,923 | 15 | 214 | 481,419 | 933,361 | -946,242 | 1, 888,632 |
| Wood products. |  | 1,706 20 | $\begin{array}{r} 2,682,964 \\ 44,573 \end{array}$ | $\begin{array}{r} 5,068,882 \\ 39,170 \end{array}$ | $\begin{array}{r} 5,380,088 \\ 112,955 \end{array}$ | $\begin{array}{r} 10,627,539 \\ 153,150 \end{array}$ | 466 4 | $\begin{array}{r} 1,723 \\ 25 \end{array}$ | 3,014, 207 | $5,800,872$ 63,648 | 6,550,768 | $12,550,690$ 208,062 |
| Printing, publishing and allied industries. | 182 | 20 | 44,573 | $38,170$ | $112,955$ | $153,150$ | 4 | 25 | 55,750 | 63,648 | 142,520 | 208,062 |
|  |  | 1,432 | 3,316,025 | 2,119, 825 | 5,265,611 | 7,495,948 | 182 | 1,477 | 3,570,945 | 2,463,343 | 5,782,921 | 8,360,783 |
| Iron and steel products. | $49$ | 708 | $\begin{array}{r} 1,593,176 \\ 77,131 \end{array}$ | $\begin{array}{r} 3,137,589 \\ 100,835 \end{array}$ | $\begin{array}{r} 2,600,009 \\ 148,170 \end{array}$ | $\begin{array}{r} 5,834,296 \\ 255,323 \end{array}$ | 52 | 758 | 2,013,029 | 3,739,849 | $3,569,110$ | 7,432, 233 |
| Transportation equipment. | 6 27 | 26 |  |  |  |  | ${ }^{7}$ | 28 | [ 73,993 | 120,535 | 151, 183 | - 277,873 |
| Non-metallic mineral products. | 27 | $365$ | $934,487$ | $1,023,052$ | $2,242,603$ | $3,439,824^{1}$ | 30 | 440 | 1,157,452 | 998,454 | 2,520,518 | 3,742,767 |


| Products of petroleum and cosl...... Chemicals and allied products. Miscellaneous industries ${ }^{8}$. | $\begin{array}{r} 81 \\ 8 \\ 813 \end{array}$ | $\begin{aligned} & 764 \\ & 163 \\ & 512 \end{aligned}$ | $\begin{array}{r} 2,470,190 \\ 500,009 \\ 1,797,810 \end{array}$ | $\begin{aligned} & 36,189,669 \\ & 33,94,, 356 \\ & 34,347,090 \end{aligned}$ | $\begin{array}{r} 9,317,334 \\ 819,704 \\ 3,081,640 \end{array}$ | $\begin{array}{r} 46,902,653\| \| \\ 1,842,123 \\ 37,439,040 \end{array}$ | $\begin{gathered} 10 \\ 8 \\ 13 \end{gathered}$ | $\begin{aligned} & 848 \\ & 160 \\ & 376 \end{aligned}$ | $\begin{array}{r} 3,207,440 \\ 540,034 \\ 1,438,144 \end{array}$ | $\begin{aligned} & 37,055,526 \\ & 25,530,857 \\ & 25,294,205 \end{aligned}$ | $\begin{array}{r} 12,477,870 \\ 714,927 \\ 9,765,216 \end{array}$ | $\begin{array}{r} 51,261,972 \\ 1,270,308 \\ 36,599,382 \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Totals, Saskatche | 973 | 11,023 | 26,290,294 | 185,151,455 | 61,088,606 | 250,813,026 | 1,022 | 11,307 | 29,489,862 | 172,388, 119 | 80,934,157 | 258,931,776 |
| Alberta |  |  |  |  |  |  |  |  |  |  |  |  |
| Food and be | 417 | 9,537 | 23,847,300 | 189, 955, 325 | 54, 939, 830 | 246, 955, 138 | 413 | 10,415 | 27,462, 378 | 193,498, 314 | 63,557,265 | 259,318,747 |
| Leather products | 11 |  | 108,488 | 122,376 | 148,565 | 273,173 | 11 |  | 119,624 | 123,716 | 132,375 | 258,320 |
| Textile products.(except clothing | 12 | 165 | 304,828 | 2,681,606 | 619,700 | 3,314,362 | 16 | 188 | - 382,851 | 2,326,953 | 505,413 | 2,846,405 |
| Clothing (textile and fur) | ${ }_{1}{ }^{31}$ | ${ }^{973}$ | 11,741,438 | $4,378,407$ <br> $29,842,150$ | 2, $2,502,104$ | 7,202,106 | 1, ${ }^{28}$ | 6,770 | $1,855,806$ $12,781,437$ | 4.061,064 | 3,528,218 | 7,611,852 |
| Wood products. | 1,111 | 6,613 203 | $11,343,241$ 510,732 | $29,842,150$ 1,993 | $20,577,822$ $1,402,296$ | $51,207,703$ $3,420,422$ | 1,115 8 | 6,770 290 | $12,781,437$ 829,219 | $32,719,866$ $3,527,219$ | $24,052,046$ $2,881,437$ | $57,614,363$ $6,454,700$ |
| Paper products <br> Printing, publishing and allied industries | 244 | 203 2,041 | 510,732 $4,849,132$ | $1,993,868$ $4,087,784$ | $1,402,296$ $9,360,997$ | $3,420,422$ $13,547,826$ | -843 | 2,106 | 829,219 $5,581,171$ | $3,527,219$ $4,401,058$ | $2,881,437$ $11,405,197$ | $6,454,700$ $15,917,517$ |
| Iron and steel products | 118 | 2,718 | $7,300,975$ | 8,446,821 | 12,383, 121 | 21,089, 553 | 132 | 2,965 | 8,856,067 | 11,527,923 | 15,029,515 | 26,865, 104 |
| Transportation equipment | 22 | 2,742 | 7,498,983 | 8,313,244 | 7,936,616 | 16,507,533 | 24 | 3,337 | 9,699,413 | 10,471,301 | 10,896,858 | 21,610,398 |
| Non-ferrous metal product | 7 | 67 | 169,735 | 941,339 | 440,091 | 1,390,028 | 8 |  | 225,293 | 807,907 | 562,363 | 1,378,484 |
| Electrical apparatus and suppl | 4 | 16 | 37,977 | 73,236 | 120,469 | 195,757 | 4 | 32 | 78,316 | 246,818 | 210,137 | 465,188 |
| Non-metallic mineral products | 67 | 2,012 | $5,102,847$ | 6,070,483 | 10,957,774 | 18, 147,022 | 70 | 2,250 | 6,129,240 | 8,014,928 | 14,302,760 | 23,449,751 |
| Products of petroleum and coal | 11. | 1,037 | 3,542,452 | 48.929.517 | 12, 100,423 | 62,779,632 | 16 | 1,334 | 5,359,984 | 55,763,985 | 22,750,836 | 81,009,131 |
| Chemicals and allied prod | 24 | ${ }_{6}^{613}$ | 1,965,484 | 2,867,162 | 6,274,323 | 9,891,475 | 24 | 650 | 2,187,580 | 3,605,491 | 6,609,079 | 11,030,815 |
| Miscellaneous industries ${ }^{\text {b }}$ | 31 | 308 | 810,974 | 727,300 | 1,585,443 | 2,359,654 | 37 | 335 | 978,814 | 720,598 | 1,797,514 | 2,580,036 |
| Totals, | 2,118 | 29,105 | 69,135,587 | 309,430,618 | 141,649,574 | 458,281,384 | 2,150 | 31,765 | 82,527,194 | 331,817,141 | 178,221,013 | 518,410,811 |
| British Columbla |  |  |  |  |  |  |  |  |  |  |  |  |
| Food and | 644 | 17,025 | 42,052,495 | 221,553,032 | 100,450,968 | 326, 137, 658 | 660 | 15,971. | 43,300,311 | 199, 133,794 | 98,963,775 | 302,372,613 |
| Rubber products | 4 | 35 | 85,959 | 28,427 | 131,226 | 167,272 | 3 | 32 | 91,730 | 27,630 | 162,694 | 199,788 |
| Leather products | 24 | 476 | 947,667 | 2,077,778 | 1,607,018 | 3,718,889 | 21 | 477 | 1,018,812 | 2,017,938 | 1,629,115 | 3,679,037 |
| Textile products (except | 30 | 647 | 1,450,148 | 4,815,001 | 2,280,738 | 7,193,321 | 32 | 626 | 1,476,230 | 4,688,143 | 2,331,881 | 7,114,597 |
| Clothing (textile and fur) | 73 | 1,579 | 2,855,757 | 5,073,477 | 4,748,183 | 9,871,830 | 68 | 1,471 | 3,027,822 | 4,923,204 | 4,596,785 | 9,578,507 |
| Wood products | 2,009 | 38,793 | 106,537, 243 | 238,427,022 | 219,875, 798 | 462,793,788 | 2,284 | 38,413 | 110,676, 285 | 226, 917,957 | 206,830,907 | 438,827,553 |
| Paper products | 39 | 7,283 | 25,769,733 | 61,056,896 | 100, 259,343 | 167, 239, 160 | 41 | 7,504 | 29,362,428 | 65, 273,106 | 79,932,424 | 152,088,527 |
| Printing, publishing and allied industries | 383 | 4.871 | 12,700,145 | 8,972,689 | 21,890,577 | 31,139,582 | 390 | 4,572 | 14,229,827 | 9,880,238. | 23,214,061 | 33,401,806 |
| Iron and steel produc | 263 | 7,502 | 22,865,841 | 38,783,984 | 42,655,758 | 82,648,965 | 269 | 7,438 | 25,676,159 | 39,380, 883 | 44,284,475 | 84,952,965 |
| Transportation equipmen | 115 | 4.484 | 13,804,078 | 9,352,207 | 19,141,099 | 28,896,917 | 116 | 4.810 | 16,576,865 | 13,379, 707 | 24,036,464 | 37,863,405 |
| Non-ferrous metal produ | 41 | 4,532 | 14,625, 693 | 133,419,048 | 16,810,296 | 152,559,667 | 46 | 4,623 | 16,531, 248 | 120, 181,711 | 4,561,153 | 127,689,668 |
| Electrical apparatus and supp | 27 | 505 | 1,471, 601 | 2, 822,711 | 2,619,995. | 5,484,684 | 34 | 672 | 1,920,429 | 3,672,005 | 3,614,156 | 7,347,041 |
| Non-metallic mineral produc | 69 | 1,409 | 3,828,741 | 3,906,280 | 6,732,843. | 12,140,659 | 72 | $1,269$. | 3,926, 617 | 4,752,251 | 7,311,816 | 13,704,945 |
| Products of petroleum and coal | 10 | 993 | 3, 212,274 | 31,370,490 | 15,981,694 | 48,903,299 | 10 | 1,138 | 4,219,776 | 29,185, 599 | 14,960, 266 | 45,740,742 |
| Chemicals and allied product | 81 | 2,470 | 7,793,044 | 26,258,994 | 32,039,118 | 58,664,098 | 85 | 2,474 | 8,437,784 | 25, 383, 650 | 33,595,414 | 59,370,258 |
| Miscellaneous industries ${ }^{\text {s }}$ | 85 | 1,043 | 2,625,864 | 1,922,381 | 5,223,911 | 7,320,552 | 94 | 1,177 | 3,058,653 | 2,213,432 | 6,146,926 | 8,550,410 |
| Totals, British Colun | 3,897 | 93,647 | 262,626,283 | 789,840,417 | 592,448,563 | 1,404,880,341 | 4,225 | 92,667 | 283,530,976 | 751,011,248 | 556,172,312 | 1,332,481,862 |

For footnotes, see end of table, p. 694.
1.-Summary Statistics of Manufactures of Each Province, classified by Industrial Group, 1951 and 1952-concluded

| Province and Industrial Group | Estab-lishments | $\left\|\begin{array}{c} \text { Em- } \\ \text { ployees } \end{array}\right\|$ | Salaries and Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net <br> Value of Products | Gross <br> Value of Products ${ }^{\text { }}$ | Estab-lishments | $\left\|\begin{array}{c} \text { Em- } \\ \text { ployees } \end{array}\right\|$ | Salaries and Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net <br> Value of Products | Value of Factory Shipments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 |  |  |  |  |  | 1952 |  |  |  |  |  |
|  | No. | No. | 8 | \$ | \$ | 8 | No. | No. | \$ | 8 | 8 | \$ |
| Yukon and N.W.T. |  |  |  |  |  |  |  |  |  |  |  |  |
| Food and beverages. | 577 | 17 | 26,936 | 50,649 | 57,254 | 115,578 | 5 | 14 | 31,599 | 60,657 | 63,394 | 132,290 |
| Printing, publishing and allied industries <br> Miscellaneous industries ${ }^{10}$. |  | 65 | 149,359 | 277, 524 | 362,764 | 656,376 | 11 | 56 | 166,544 | 297,626 | 344,435 | 654,424 |
|  |  |  |  | 7 |  |  | 3 | 18 | 48,180 | 9,805 | 72,370 |  |
|  |  | 70 | 229,395 | 769,818 | 338,968 | 1,246,955 |  | 76 | 282,803 | 707,473 | 542,775 | 1,412,450 |
| Totals, Yukon and N.W.T | 18 | 152 | 405,690 | 1,097,991 | 758,986 | 2,018,909 | 23 | 164 | 530,126 | 1,075,561 | 1,022,974 | 2,288,039 |

${ }^{1}$ In 1952, gross value of production was replaced by value of factory shipments; see text, p. 633 ${ }^{2}$ In 1951, includes tobacco and tobacco products, and leather products; in 1952, includes tobacco and tobacco products, leather products and products of petroleum and coal. Figures for these industries are confidential and cannot be published separately, ${ }^{3}{ }^{3}$ Includes tobacco and tobacco products, leather products, non-metallic mineral products and chemicals and allied products, figures for which ${ }_{5}^{\text {are confidential and cannot be published separately. }{ }^{4} \text { Includes electrical apparatus and supplies, figures for which are confidential and cannot be published separately. }}$ Includes non-ferrous metal products and products of petroleum and coal, figures for which are confidential and cannot be published separately. ${ }_{7}$ Includes rubber products, figures for which are confidential and cannot be published separately. ${ }^{7}$ Figures are confidential and are included in Miscellaneous Industries. 1951, includes leather products and non-ferrous metal products; in 1952 , includes non-ferrous metal products. Figures for these industries are confidential and cannot be published separately. $\quad$ Includes tobacco and tobacco products, figures for which are confidential and cannot be published separately. ${ }^{10}$ In 1951 , includes printing, publishing and allied trades, non-ferrous metal products and products of petroleum and coal; in 1952, includes non-ferrous metal products, products of petroleum and coal, and chemicals and allied products. Figures for these industries are confidential and cannot be published separately.

## 2.-Concentration of Manufacturing Production in each Province, 1951 and 1952

| Province or Territory | 1951 |  |  | 1952 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Establishments Employing 500 or More Persons | Percentage of Total Number of Establishments in Province | Provincial <br> Percentage <br> of <br> Number <br> of <br> Employees <br> Accounted <br> for by these <br> Estab- <br> lishments | Number of Establishments Employing 500 or More Persons | Percentage of Total Number of Establishments in Province | Provincial <br> Percentage of Number of Employees Accounted for by these Establishments |
| Newfoundland. | 2 | 0.2 | $32 \cdot 6$ | 2 | 0.2 | $33 \cdot 2$ |
| Prince Edward Island | - | - | - | - | - | - |
| Nova Scotis.. | 9 | 0.6 | 29.2 | 11 | 0.7 | $34 \cdot 5$ |
| New Brunswick | 10 | 0.9 | 34.4 | 9 | 0.8 | $33 \cdot 0$ |
| Quebec..... | 135 | $1 \cdot 1$ | $37 \cdot 7$ | 130 | $1 \cdot 0$ | 37.5 |
| Ontario... | 185 | 1.4 | $39 \cdot 6$ | 190 | 1.4 | 41.0 |
| Manitobs. | 7 | 0.5 | 21.4 | 9 | 0.5 | $24 \cdot 8$ |
| Saskatchewan. . | - | - | - | - | 0.2 | - |
| Alberts........... | ${ }_{25}^{4}$ | 0.2 0.6 | 10.4 24.4 | ${ }^{6}$ | 0.2 0.5 | 14.4 25.9 |
| British Columbia..... | 25 | 0.6 | $24 \cdot 4$ | 25 | 0.5 | $25 \cdot 9$ |
| Territories | - | - | - | - | - | - |
| Canada. | 377 | $1 \cdot 0$ | $35 \cdot 7$ | 382 | $1 \cdot 0$ | 36.7 |



## Subsection 1.-The Manufactures of the Atlantic Provinces

In the Atlantic region the program of industrial development has been more selective than in some of the other provinces. Fish processing, new sawmills, increased pulp-making capacity and the manufacture of non-metallic building materials like cement and gypsum products have accounted for well over half of the industrial growth. There are, however, a few outstanding exceptions. Two
sizable defence plants have been established in Nova Scotia, one to repair and overhaul naval aircraft and the other to build and repair radar and related electronic equipment. Considerable development has taken place in Newfoundland. Besides plants for the manufacture of cement and gypsum wallboard and plaster, factories for producing boots and shoes, birch veneer, cotton textiles, leather and optical goods, and industrial machinery, and a leather tannery were established, thus broadening the industrial base of the Province. With these exceptions, most of the developments in the Atlantic Provinces have been either small and scattered or confined to the modernization and expansion of manufacturing facilities that were already established at the close of World War II.

Considering the Atlantic Provinces as an economic unit, pulp and paper, fish processing, sawmills, and primary iron and steel accounted for about 44 p.c. of the total production.

In Newfoundland, manufacturing production is dominated by the pulp and paper and fish processing industries which in 1952 accounted for 70 p.c. of the total production of the Province. In Prince Edward Island, agricultural and fishery resources make butter and cheese, fish processing, and prepared stock and poultry feeds the leading industries.

Nova Scotia is renowned for its coal mines and its fisherjes as well as extensive forests and agricultural lands and is favoured with easy access by sea to the highgrade iron-ore supply of Newfoundland. On these resources are based the leading manufactures of fish processing, primary iron and steel, railway rolling-stock, sawmills, pulp and paper, shipbuilding and repairs, and butter and cheese. In addition, important petroleum refineries, cotton yarn and cloth, and coke and gas plants add to the diversification of manufacturing in the Province. The forests of New Brunswick give a leading place to its pulp and paper and sawmilling industries. Other important manufacturing and processing is based on fishery and agricultural resources.
3.-Statistics of the Leading Industries of the Atlantic Provinces, 1951 and 1952

|  | Industry | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products | Gross <br> Value of Products ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1951 |  |  |  |  |  |
|  | Newfoundland | No. | No. | \$ | \$ | 1 | \$ |
| , | 1 Pulp and paper | 3 | 3,279 | 13,392,916 | 23,133,696 | 34,174,834 | 59,958,553 |
| 2 | Fish processing | 38 | 2,289 | 2,963,153 | 6,721,353 | 7,031, 299 | 14,377,533 |
| 3 | Sawmills. | 557 | 949 | 581,691 | 1,308,366 | 1,354,163 | 2,727,335 |
|  | Sash, door and planing mills. | 25 | 270 | 501, 156 | 1,442,764 | 1,030,362 | 2,510,685 |
| 5 | Bread and other bakery products. | 11 | 248 | 413,777 | 1,517,684 | , 650,639 | 2,231,470 |
|  | Breweries. | 3 | 126 | 308,581 | 502,514 | 1,447,323 | 2,016,821 |
|  | Carbonated beverages. | 10 | 125 | 229,716 | 585,609 | 882,424 | 1,500,947 |
| 8 | Printing and publishing | 8 | 195 | 601,278 | 215,186 | 904,851 | 1,145,120 |
| 9 | All other leading industries ${ }^{2}$. | 10 | 775 | 1,500,758 | 4,427,349 | 3,066,881 | 7,610,266 |
|  | Totals, Leading Industries. | 665 | 8,256 | 20,493,026 | 39,854,521 | 50,542,776 | 94,078,730 |
|  | Totals, All Industries | 822 | 9,622 | 22,681,246 | 43,117 299 | 53,690,187 | 100,642,613 |

For footnotes, see end of table, p. 699.
3.-Statistics of the Leading Industries of the Atlantic Provinces, 1951 and 1952 -continued


[^217]3.-Statistics of the Leading Industries of the Atlantic Provinces, 1952 and 1952 -continued


For footnotes, see end of table.
3.-Statistics of the Leading Industries of the Atlantic Provinces, 1951 and 1952 -concluded

|  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

[^218]
## Subsection 2.-The Manufactures of Quebec

Quebec enjoys a wide variety of rich natural resources including most of the world's known reserves of asbestos, vast iron deposits, great reserves of copper, lead and zinc, the largest known supply of titanium, gold in abundance and new finds of oil underlying the rocks of Gaspe Peninsula. The geographic situation of the Province is extremely favourable to industrial development, one of its greatest assets being the St. Lawrence waterway and an inland harbour a thousand miles from the Atlantic Ocean where the largest sea-going vessels may dock. There is also an extensive highway system linking the small rural communities to the large cities.

Quebec, with 30 p.c. of Canada's total value of manufactured goods, is the second largest industrial province, having developed a $\$ 5,000,000,000$ manufacturing output with such leading industries as pulp and paper, non-ferrous metal smelting and refining, petroleum products, slaughtering and meat packing, textiles and clothing, tobacco products, and railway rolling-stock. The leading industry is pulp and paper, which had an output of more than $\$ 500,000,000$ in 1952. Quebec is a principal world centre for the production of newsprint; 55 major pulp and paper plants are concentrated in the Three Rivers and Shawinigan Falls districts and along the Saguenay, Ottawa and St. Lawrence Rivers. The Province accounts for 44 p.c. of the Canadian total for this industry. Other large industries in which Quebec predominates are: tobacco, cigars and cigarettes, with 93.5 p.c. of the

Canadian total; women's factory clothing, 68.2 p.c.; synthetic textiles and silk, $62 \cdot 9$ p.c.; cotton yarn and cloth, 62.4 p.c.; leather footwear, 60 p.c.; men's factory clothing, 56.5 p.c.; miscellaneous electrical apparatus and supplies, $48 \cdot 3$ p.c.; railway rolling-stock, 47.8 p.c.

The Province of Quebec, in common with the rest of Canada, experienced great industrial expansion following World War II. Two of the most important developments are the Ungava iron ore projects and the titanium industry. Production of non-ferrous metals expanded considerably; aluminum particularly made impressive strides, reaching a record output of 500,000 tons in 1952. The great asbestos industry was modernized and expanded. Additions to refining and storage facilities greatly increased the output of petroleum products. Noteworthy also is the establishment of many new furniture factories.
4.-Statistics of the Leading Industries of the Province of Quebec, 1951 and 1952

vor footnotes, see end of table.
4.-Statistics of the Leading Industries of the Province of Quebec, 1951 and 1952concluded

| Industry | Estab-lishments | $\underset{\text { ployees }}{\text { Em- }}$ | $\begin{aligned} & \text { Salaries } \\ & \text { and } \\ & \text { Wages } \end{aligned}$ | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net <br> Value of Products | Value of $\underset{\text { Shipments }}{\text { Factory }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ${ }_{2}^{1}$ Pulp and paper... Non-ferrous metal smelting and refining. <br> 3 Petroleum products. | 1952 |  |  |  |  |  |
|  | No. <br> 55 |  |  |  |  | \$ |
|  |  | 228 | 92,618,338 | 224,571,652 | 244,706,973 | 508,123,821 |
|  |  |  | 33, | 184,862,372 | 104, 227, 141 | 317,811,473 |
|  |  |  | 10,585, 447 | 174,406,024 | 79, 663,408 | 264,754, 614 |
| 4 Slaughtering and meat packing. | 39 | 4,568 | 13, 609,341 | 157, 131,835 | 31,277, 516 | 189, 043,163 |
| ${ }^{\text {5 }}$ ( Railway rolling-stock | 39 | 17,127 <br> 19617 | 㐌 $37,611,84,860$ | ${ }^{85}$ 82,045, 156 | 74,205, 156 | 156,655,126 |
| 7 Clothing, women's fact | 525 | 18,598 | 38,210,452 | 77, 309, 252 | 70,695,363 | 148,313,470 |
| 8 Cotton yarn and cloth. | 2333 | 13,947 | 32,842,242 | 91,434,443 | 47,393,766 | 141, 304,092 |
| 9 Tobsceo, cigars and ci |  | $\stackrel{6,935}{ }$ | 20, 352,735 | 69,039,035 | 59,973,778 | ${ }^{129,361,513}$ |
| 10 Butter and cheese | 721 | 5,431 | 11,505,685 | 88,225, 213 | 21,289,304 | 111,546,525 |
| 11 Miscellaneous electrical apparatus |  | 12,020 | 37,796,910 | 40, 806,562 | 769,758 | 105,524,869 |
| 12 Aircraft and parts | 18 | 14,705 | 43,051,790 | 57,820,814 | 44,551,104 | 102,995,292 |
| 13 Synthetic textiles and |  | 11, 502 | 30,523,948 | 41,023, 776 | 55, 852, 193 | 99,118,924 |
| 14 Sawmills. | 1,844 | 10, 136 | 16,309,832 | 56,569,658 | 31,744,320 | 89,264,991 |
| 15 Miscellaneous food preparations, |  |  |  |  |  | 81,154,192 |
| 16 Machinery, ind | -65 | 7,442 | 25,334, 888 | 28,345, 455 | 49,868,672 | 79,091,702 |
| 17 Footwear, leather |  | 12,948 | 24, 305, 325 | 39,058,248 | 37,583,255 | 76,978,404 |
| 18 Bread and other bakery | 946 | 9,668 | 20,038,773 | 35,862,928 | 35,464,620 | 73,704,512 |
| 19 Brass and copper products | 3712 | 3,154 | 9,805, 190 | 51,607,478 | 19,578,585 | 72,010,316 |
| 20 Shipbuilding |  | 8,458 | 24, 106, 231 | 24,387, 848 | 40,511,035 | 65, 81616898 |
| 21 Furniture. | 12 | 9,212 | 20,787,133 | 30,530,467 | 34,564,197 | 65,791,630 |
| 22. Primary iron and stee | 48 | 4,503 | 15,358,658 | 21,977,037 | 35, 193,598 | 60,535,519 |
| 23 Feeds, stock and poultry, prepared | 14 | 1,524 | 3, 195, 809 | 50,085,310 | 7,659,152 | 58,287,177 |
| 24 Sheet metal products | 208 70 | 4,999 | 15,271,186 | 28,627,079 | 25,976,517 | 55, 163,035 |
| 25 Rubber goods, including footwear |  | 6,139 | 16, 284, 215 | 22,280, 838 | 29,677,642 | 52,695,709 |
| 26 Printing and publishing | 85 | 6,772 | 20,084,335 | 15,426,412 | 36,791,809 | 52,587,121 |
| 27 Boxes and bags, paper | 53 | 4,441 | 10,046,654 | 30,877,675 | 20,016,977 | 51,250,624 |
| ${ }^{28}$ Breweries. |  | 2,448 | 9,298,789 | 16, 164,626 | 33,709,591 | 50,658,974 |
| 29 Bridge building and structural | 11 | , | 12,431,761 | 22,982,681 | 23,971,517 | 47,373,780 |
| ${ }_{30}$ Miscellaneous chemical products, |  |  | 12,4 | 22, 382,681 |  | 780 |
|  | $\begin{array}{r} 68 \\ 763 \end{array}$ | 6,3 | 17,142,845 | 20,699 | 23,135,193 | 45,284,471 |
| 31. Sash, door and pla |  | 5,654 | 10,900,810 | 26,874,015 | 17,384,642 | 44,985,205 |
| 32 Distilled liquors | 8 | 2.140 | 6,504,777 | 16,231,634 | 27,664,051 | 44,887,778 |
| ${ }_{3} 3$ Acids, alkalies a |  | 3,314 | 11,791,790 | 16,123,753 | 24,008,068 | 43,805,550 |
| ${ }^{3} 4$ Medicina |  | 3,624 |  |  |  |  |
| ${ }^{3}$ prarations. | 91549 |  | 10,383,613 |  |  |  |
| 35 Printing and bookbin |  | 6,684 | 17,546,412 | 14,001,751 | 26,987,025 | 41,363,254 |
| ${ }^{36}$ Miscellane |  |  |  |  |  |  |
| 37 Knitted goods, other than |  | 4.859 |  |  |  |  |
| Carbonated bev | 174 | 2,709 | 6,537, | 12,874, 106 | 25,162,231 | 38,655,451 |
| A Miscellaneous |  | 762 | 6,414,162 | 21,535,582 | 15,973,847 |  |
| 40 Aluminum products | 21 | 2,287 | 7,519,231 | 24,165,370 | 12,607,037 | 37,097,498 |
| tals, Leading Indust | 7,876 | 302,944 | 818,073,434 | 2,113,344,28 | 1,690,440,39 | 3,919,402,097 |
| Totals, All Industries | 12,024 | 429,698 | 1,125,944,703 | 2,745,618,113 | 2,288,643,279 | 5,176,234,825 |
| Percentages of leading industries to all industries. | 65.5 | $70 \cdot 5$ | 72.7 | 77.0 | 73.9 | $75 \cdot 7$ |

${ }^{1}$ In 1952, gross value of shipments was replaced by value of factory shipments; see text, p. 633.
${ }^{2}$ Excludes sugar refining, a leading industry but figures for which are confidential and cannot be published.

## Subsection 3.-The Manufactures of Ontario

The Province of Ontario is recognized as one of the world's major industrial areas. In the past ten years, its industrial production more than doubled in value and has advanced in diversity as well as in volume. Three factors have been decisive in the development of Ontario to its present industrial position: the proximity of raw materials; cheap hydro-electric power; and a strategic location in relation
to export markets not only on the North American Continent but overseas. Despite the great industrial progress made by other provinces, Ontario in 1952 produced over 49 p.c. of the nation's manufactured goods. Many new industrial areas are being created as new industries and branches of established industries are increasingly being located in the smaller centres.

A great increase in steel ingot capacity is being made possible by developments at Steep Rock Iron Mines. At Sarnia, huge investments have gone into the construction of plant for a whole group of new products based on Alberta oil flowing through the Edmonton-Sarnia pipeline. Significant developments are also taking place in synthetic rubber and industrial and consumer chemicals. Ontario has continued to gain in such traditional lines as motor-vehicles, industrial and farm machinery, household equipment, business and office machinery and electrical apparatus and supplies. Numerous plants making aircraft components and building materials have been established in the Toronto area, and plants for the manufacture of chemical products have been built in the Sarnia area and along the lower St. Lawrence River between Cornwall and Kingston.

Ontario has the greatest diversification of manufacturing production of any province. Certain industries, such as the manufacture of motor-vehicles and parts, heavy electrical machinery, agricultural implements, machine tools, starch and glucose, bicycles and the processing of raw tobacco are carried on practically in this province alone. Ontario predominated in the production of many of the forty leading industries in Canada, as shown by the following percentages for 1952: motor-vehicles, $97 \cdot 9$ p.c., motor-vehicle parts, $96 \cdot 2$ p.c.; heavy electrical machinery, 94.5 p.c.; agricultural implements, $93 \cdot 7$ p.c.; rubber goods, 81.5 p.c.; primary iron and steel, 76.8 p.c.; iron castings, 71.3 p.c.; fruit and vegetable preparations, $65 \cdot 9$ p.c.; miscellaneous paper products, $62 \cdot 3$ p.c.; sheet metal products, 59.7 p.c., printing and bookbinding, 58.8 p.c.; brass and copper products, 55.9 p.c.; paper boxes and bags, $54 \cdot 3$ p.c.; industrial machinery, $54 \cdot 0$ p.c.; aircraft and parts, $52 \cdot 3$ p.c.; furniture, $50 \cdot 1$ p.c. and miscellaneous electrical apparatus, $49 \cdot 8$ p.c. Ontario also dominated many of the smaller industries.
5.--Statistics of the Leading Industries of the Province of Ontario, 1951 and 1952

| Industry | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net Value of Products | Gross Value of Products ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 |  |  |  |  |  |
|  | No. | No. | 8 | \$ | \$ | \$ |
| Motor-vehicles. | 12 | 29,413 | 98,585,038 | 459,738,923 | 266,350,895 | 728,613,205 |
| ${ }_{2}$ Pulp and paper | 44 | 18,348 | $69,105,025$ | 152, 196,242 | 213,865, 701 | 387,041,628 |
| 3 Primary iron and steel | 24 | 22,670 | 77,427,879 | 178, 221,367 | 157,409,525 | 359,409,798 |
| 4 Slaughtering and meat packing... | 61 | 8,073 | 24, 185, 518 | 304,058,225 | 49,834,086 | 355,623,746 |
| 5 Non-ierrous metal smelting and refining | 7 | 9,539 | 31,492,681 | 176,377,172 | 161,481,600 | 353,410,730 |
| 6 Rubber goods, including footwear. | 37 | 15,825 | 46,832,708 | 121,981,566 | 132,244,763 | 256, 983,995 |
| 7 Motor-vehicle parts | 94 | 20,205 | $62,843,598$ | 139,051,729 | 112,999,468 | 255, 216,657 |
| 8 Machinery, heavy electrical | 34 | 23,956 | 71,997,614 | 92,011,401 | 117,976,614 | 211, 736, 424 |
| 9 Agricultural implements. | 35 | 16,022 | 49,236,463 | 91, 687, 665 | 67,311, 193 | 160,823, 631 |
| 10 Petroleum products. | 14 | 4,907 | 17,458,996 | 104,000,618 | 41,344,080 | 153,525,619 |
| 11 Fruit and vegetable preparations.. | 214 | 10,269 | 20,083,968 | 75, 844,483 | 58, 898,828 | 136,547,271 |
| 12 Butter and cheese.. | 594 | 7,831 | 18,685, 229 | 98,878,612 | 31,446, 115 | 132,907,333 |
| 13 Flour mills | 61 | 2,196 | 6,411,121 | 114, 093,464 | 15,822,050 | 130,615,044 |
| 14 Sheet metal products | 145 | 10,258 | 29,654,673 | 64,832,990 | 51,724, 192 | 117,957,515 |
| 15 Castings, iron. | 95 | 11,124 | 34,860,924 | 51,607,751 | 60,404,546 | 114,424,622 |
| 16 Miscellaneous electrical apparatus and supplies, n.e.s | 91 | 9,023 | 25,499,009 | 53,369,737 | 55,218,032 | 109,620,569 |
| 17. Machinery, industrial. ........... | 171 | 11,438 | 35,073,653 | 38,413,386 | 68,771,058 | 108, 256,267 |

For footnote, see end of table, p. 704.

## 5.-Statistics of the Leading Industries of the Province of Ontario, 1951 and 1952-

 continued

[^219]5.-Statistics of the Leading Industries of the Province of Ontario, 1951 and 1952 concluded

| Industry | Estab-lishments | $\left\|\begin{array}{c} \text { Em- } \\ \text { ployees } \end{array}\right\|$ | $\begin{gathered} \text { Salaries } \\ \text { and } \\ \text { Wages } \end{gathered}$ | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net <br> Value of Products | Value of Factory Shipments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1952-concluded |  |  |  |  |  |
|  | No. | No. | \$ |  | \% | 8 |
| 19 Bread and other bakery products | 861 | 14,548 | 34,152,670 | 49,308,357 | 55,430,184 | 108,431,789 |
| 20. Printing and publishing | 307 | 12,463 | 40,715,387 | 30,573,010 | 73,008,517 | 104,515,126 |
| 21 Brass and copper produc | ${ }^{86}$ | 5,642 | 18,595,441 | 65, 819,266 | 36,306,540 | 103,307,400 |
| ${ }_{23}^{22}$ Furniture............ | 638 | 13,536 | 34,297,066 | 47, 181,598 | 54,098,057 | 102,391,425 |
| n.e.s. | 125 | 4,450 | 11,305,077 | 68,522,928 | 31,862,875 | 102, 108, 130 |
| 24 Printing and bookbinding | 718 | 11,917 | 33,611,560 | 34,417,897 | 59, 208,388 | 94,299,543 |
| 25 Boxes and bags, paper | 101 | 6,924 | 19,778,903 | 55,009,595 | 37,770,004 | 93,422,151 |
| 26 Hardware, tools and cutlery | 245 | 10,286 | 32,010,629 | 29,391,317 | 59,202,400 | 89,959,027 |
| 27 Miscellaneous chemical products, | 126 | 4,448 | 14,779,877 | 38,045,261 | 44,262,255 | 86,642,675 |
| 28. Miscellaneous paper go | 112 | 6,199 | 17,636,831 | 44,983,610 | 40,307,017 | 86, 139,218 |
| 29 Railway rolling-stock. | 15 | 7,220 | 23,805,016 | 50,030, 057 | 34,881,092 | 86.050,467 |
| 30 Radios and radio parts | ${ }^{62}$ | 7, 11.154 | 20,850,455 | 44,341, 241 | 40,506,811 | 85, 325,135 |
| 31 Clothing, men's facto | 158 | 11,154 | 24,565,552 | 45,402,722 | 38,832,315 | 84,476,633 |
| 32 Sawmills. | 1,284 | 9,309 | 18,938,314 | 44,220,203 | 37,886,829 | 83,158,216 |
| ${ }^{33}$ Feeds, stock and poultry | 289 | 2,731 | 6,260,638 | 64, 259, 139 | 14,326, 108 | 79,720,005 |
| 34 Soaps, washing compounds and cleaning preparations. | 63 | 3,091 | 11, 192, 664 | 31,801,468 | 43,213,990 | 75,987,357 |
| 35 Tobacco processing and packing | 9 | 1,289 | 2,679,666 | 68,593,177 | 5,234, 246 | 74,007,885 |
| ${ }^{36}$ Refrigerators, vacuum cleaners |  |  |  |  |  |  |
| ${ }_{37}$ Cotton appliances and cloth | 62 30 | ${ }_{7}^{6,103}$ | 17,7468,586 |  |  | ${ }_{72} 72,216,984$ |
| 38 Breweries | 21 | 3,036 | 12, 191,647 | 19,808,659 | 51,001,654 | 71,737,435 |
| 39 Coke and gas product | 16 | 2,904 | 9,950,594 | 42,214,352 | 25,850,159 | 71,551,140 |
| 40 Boilers, tanks and platework | 42 | 6,087 | 21,348,758 | 27,888,979 | 39,716,711 | 68,275,113 |
| Totals, Leading Industrie | 7,097 | 408,960 | 1,296,328,178 | 3,361,843,286 | 2,677,695,640 | 6,163,884,399 |
| Totals, All Industries | 13,172 | 609,696 | 1,844,186,405 | 4,387,431,403 | 3,811,106,576 | 8,372,173,626 |
| Percentages of leading industries to all industries. | 53.9 | $67 \cdot 1$ | $70 \cdot 3$ | 76 | 70.3 | 73.6 |

${ }^{\text {1 }}$ In 1952, gross value of products was replaced by value of factory shipments; see text. p. 633.

## Subsection 4.-The Manufactures of the Prairie Provinces

The leading industries of the Prairie Provinces are those based on agricultural resources-the grain-growing, cattle-raising and dairying areas. Next in importance, generally, are industries providing the necessities of the resident population, such as bread baking, printing and publishing, etc. The extensive railway services require large shops for the maintenance of rolling-stock, especially in the Winnipeg area, and the widespread use of motor-vehicles and power machinery on farms has given rise to the establishment of petroleum refineries in each province.

Considering the Prairie Provinces as an economic unit, slaughtering and meat packing had the largest value of shipments in 1952 , amounting to $\$ 258,536,646$, followed by petroleum products with $\$ 156,595,759$, flour mills with $\$ 112,508,829$, butter and cheese, $\$ 87,136,621$ and railway rolling-stock $\$ 53,515,894$. These five industries accounted for about 50 p.c. of the total production of the Prairie Provinces. Other leading industries, in order of value of factory shipments, were: bread and bakery products, breweries, sawmills, miscellaneous food preparations, printing and publishing, sash, door and planing mills, men's factory clothing, furniture, prepared stock and poultry feeds, sugar refining, sheet metal products, etc.

The nature of developments vary from one province to another. Alberta has moved to the forefront, especially since 1950. There the emphasis has been more on the manufacture of machinery and equipment, including such products as drill bits and tanks, heat exchangers and other bulky equipment for the burgeoning oil and gas industries. Chemicals, especially petrochemicals, have made striking gains; second in terms of new growth, they now embrace various rayon intermediates and polythene plastics as well as fertilizers and the manufacture of other new inorganic products such as caustic soda and chlorine. Sizable gains have been made by the food processing and building materials industries.

Developments in Saskatchewan have continued along more or less traditional lines, the largest gains having been recorded in food processing. The manufacture of building materials, including non-metallic mineral products and lumber, has also increased. The largest gain in employment was recorded by the oil-refining industry.

In Manitoba a surprisingly large number of small and medium-sized firms have located in the Winnipeg area since 1945. The clothing industry has outstripped electrical apparatus in employment gains; food processing, building materials and machinery manufacture following in that order. In plant development, the largest single increase has been in the meat-packing industry, although three large electrical apparatus plants and a sizable new oil refinery have also been established.
6.-Statistics of the Leading Industries of the Prairie Provinces, 1951 and 1952


For footnotes, see end of table, p. 708.
6.-Statistics of the Leading Industries of the Prairie Provinces, 1951 and 1952continued


For footnotes, see end of table, p. 708.
6.-Statistics of the Leading Industries of the Prairie Provinces, 1951 and 1952continued

|  | Industry | Estab-lishments | $\underset{\text { ployees }}{\text { Em- }}$ | Salaries $\underset{\text { Wages }}{\text { and }}$ | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net Value of Products | Value of <br> Factory <br> Shipments ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1952 |  |  |  |  |  |  |  |
|  |  | No. | No. | \$ | \% | \$ | \% |
| Manitoba |  |  |  |  |  |  |  |
|  | Slaughtering and meat packing... | 14 | 2,972 | 9,456,024 | 89,998,817 | 21,849, 275 | 112, 313,765 |
|  | Rsilway rolling stock. . |  | 6,225 | 18,229, 133 | 19,779,467 | 18,916,523 | 39, 204,793 |
|  | Flour mills. | 8 | 542 | ${ }^{1,320,375}$ | 25,619,640 | 2,277,835 | 28,060,490 |
|  | Butter and chee | 72 | 1,509 | 3,703,236 | 19,806,297 | 7, 109,403 | 27,308,886 |
|  | Petroleum products | 4 | 367 | 1,390,899 | 19,411,027 | 4,886, 114 | 25,282,153 |
|  | Clothing, men's factory |  | 2,883 | 5,067,281 | 13,078,052 | 8,980,475 | ${ }^{22}, 125,836$ |
|  | Miscellaneous food prepa | 26 | 743 | 1,753,871 | 16,442,781 | 4,375,977 | 21,130,206 |
|  | Furniture | 107 | 1,584 | 3,942,468 | 7,856,909 | 6,378,700 | 14,350, 141 |
|  | Priating and publishing | 81 | 1,984 | 5,047,678 | $4,336,716$ | 9,567,974 | ${ }^{14,047,027}$ |
|  | Bread and other bakery products | 133 | 1,669 | 3,764,008 | 6,316,106 | 6,776,611 | 13,511,460 |
| 11 | Clothing, women's factor |  | 1,613 | 3,508,930 | 7,158,410 | 5,618,920 | 12,810, 598 |
| 12 | Puip and pape | 3 | 491 | 1,823,926 | 3,974,316 | 7,858,180 | 12,792,741 |
| 13 | Breweries. | 6 | 549 | 1,901,927 | 2, 109,038 | 7,748,467 | 10,009,017 |
| 14 | Primary iron and st | 4 | 1,058 | 3,385,366 | 3,208,475 | 6,073,436 | 9,834,937 |
| 15 | Boxes and bags, paper |  | 564 | 1,627,728 | 5,144,429 | 3,553,677 | 8,748,550 |
| 16 | Printing and bookbindin | 77 | 1,280 | 3,077, 274 | 2,978,097 | 5,396,520 | 8,433,323 |
|  | Sheet metal products | 20 | 897 | 2,452,735 | 3,795,342 | 3,961,610 | 7,836,021 |
|  | Feeds, stock and poultry, prepared | 33 | 231 | 513,647 | 5,698,253 | 1,204,628 | 6,987,215 |
|  | Castings, iron | 6 | 825 | 2,223,412 | 1.600,966 | 5,000,966 | 6,654,953 |
| 20 | Bags, cotton and jute | 4 | 204 | 471,939 | 5,934,582 | 546,384 | 6,500,065 |
| $21$ | Agricultural implement | 18 | 544 | 1,505,741 | 3,059,989 | 3.179,009 | 6,304,201 |
| $\left.\begin{array}{c} z_{22}^{21} \\ 20 \end{array}\right]$ | Fur goods. | 56 | 702 | 1,709,409 | 4,040,816 | 2,178,368 | 6,237,610 |
|  | Carbonated beverag | 21 | 354 | 882,716 | 2,069,245 | 3,663,425 |  |
| 24 | All other leading indust |  | 2,309 | 6,938,200 | 20,256,258 | 12,184,287 | 33,413,538 |
|  | Totals, Leading | 783 | 32,099 | 85,697,823 | 293,674,028 | 159,286,764 | 459,744,351 |
|  | Totals, All Industries | 1,531 | 43,365 | 112,147,572 | 347,664,650 | 216,814,306 | 574,037,212 |
|  | Saskatehewan |  |  |  |  |  |  |
|  | Petroleum p |  | 811 | 3,085,910 | 36,693,483 | 12,045,574 | 50,438,097 |
|  | Flour mills | 11 | 727 | 2,214,076 | 35,374, 838 | 7,809,630 | 43,553,284 |
|  | Slaughtering and meat packing |  | 1,256 | 4,023,364 | 27,516,726 | 8,570,362 | 36,371,664 |
|  | Butter and che |  | 1,334 | 3,037,322 | 20,555,015 | 6,838,985 | 27,765,295 |
|  | 5 Breweries. | 5 | 381 | 1,165,907 | 2,242,086 | 7,311,908 | 9,693,814 |
|  | Bread and other bakery | 88 | 961 | 2,119,255 | 4,256,549 | 4,620,671 | 9, 102,829 |
|  | Printing and publishing | 103 | 1,113 | 2,805,812 | 1,740,909 | 4,688,248 | 6,525,554 |
|  | Sawmills. | 404 | 906 | 1,109,632 | 1,738,305 | 3,030,303 | 4,857, 183 |
|  | Sash, door and planing |  | 402 | 977,240 | 1,758,073 | 1,746,448 | 3,553,414 |
| 10 | Carbonated beverages | 24 | 278 | 681.058 | 1,382,515 | 1,876,568 | 3,428,266 |
| 11 | Sheet metal products | ${ }^{6}$ | 182 | 450,372 | 1,705,081 | 1,074,574 | 2,795,510 |
|  | Feeds, stock and poultry, prepared | 12 | 91 | 204,576 | 2,006,964 | 442,745 | 2,476,914 |
|  |  | 7 | 161 | 355,214 | 1,455,033 | 963 | 2,412,243 |
|  | Totals, Leading Industri | 763 | 8,603 | 22,229,738 | 138,425,577 | 60,988,979 | 202,974,067 |
|  |  |  |  |  |  |  |  |
|  | Totais, Ail Industr | 1,022 | 11,307 | 29,489,862 | 172,388,119 | 80,934,157 | 258,931,776 |
|  | Alberta |  |  |  |  |  |  |
|  | 1 Slaughtering and meat packing. |  |  | 10, 106,365 | 90, 397,405 | 18,998,227 | 109,851,217 |
|  | ${ }_{3}$ Petroureum products. |  | 1,327 |  | ${ }_{35,412}^{55,696}$ | 23, ${ }^{2385} 5$ | 80,875,509 |
|  | 4 Butter and c | 102 | 1,734 | 4,199,179 | 24,736, 180 | 6,927,284 | 32, 062,440 |
|  | 5 Sawmills. | 909 | 3,738 | 5,487,938 | 11,678,498 | 11,666, 357 | 23,862,564 |
|  | 6 Sash, door and planing | ${ }^{115}$ | 1,887 | 4,427,814 | 13,563,999 | 7,352,857 | $21,111,835$ |
|  | ${ }_{8} 8$ Bread and other bakery prod | 128 | -1,593 | 3,717,829 | 6,959,012 | 7,750,247 | ${ }_{14,975}{ }^{14,903}$ |
|  | 8 Railway rolling-stock | ${ }_{5}^{3}$ | 2,214 | 6,408, 720 $1,790.465$ | $\xrightarrow{7,695,012} \mathbf{3}$ | 6,408,718 9.585 .609 | ${ }_{13}^{14,311,101}$ |
|  | - Miscellaneous food prepar | 15 | 310 | 1,793,163 | 8,145,005 |  | $13,261,612$ $10,160,736$ |
| 11 | 1 Printing and publishing | 78 | 1,108 | 3,042,604 | 2,384,562 | 7,446,223 | 9,901,017 |
|  | ${ }_{3}{ }^{2}$ Feeds, stock and poultry, prep | 51 <br> 29 | 323 597 | r 1,841,486 |  | $\xrightarrow{1,761,116}$ | $7,730,160$ $7,487,676$ |

For footnotes, see end of table, p. 708.

## 6.-Statistics of the Leading Industries of the Prairie Provinces, 1951 and 1952-

 concluded|  | Industry | Estab-lishments | $\underset{\text { Em- }}{\text { ployces }}$ | $\begin{gathered} \text { Salaries } \\ \text { and } \\ \text { Wages } \end{gathered}$ | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net Value of Products | Value of Factory Shipments ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1952-concluded |  |  |  |  |  |
|  | Alberta-concluded | No. | No. | \$ |  | 8 | 8 |
|  | Clothing, men's factory | 9 | 745 | 1,442,887 | 3,527,956 | 2,800,210 | 6,340,922 |
| 16 | Machine shops.......... | 63 | 800 | 2,480,937 | 2,287,154 | 3,824,165 | 6,203,527 |
|  | n.e.s. ....................... | 12 | 359 | 940,504 | 4,093,137 | 1,876,514 | 6,031,869 |
|  | steel... | 3 | 560 | 1,614,446 | 2,669,779 | 2,459,087 | 5,164,195 |
| 1 | Furniture | 68 | 549 | 1,365, 169 | 2,460,539 | 2,344,966 | 4,849,491 |
| 19 | Printing and bookbinding | 74 | 792 | 2,162,503 | 1,420,419 | 3,268,087 | 4,724,218 |
| 20 | Glass and glass products. | 3 | 418 | 1,123,515 | 1,883,411 | 2,764,628 | 4,683,085 |
| 21 | Sheet metal products | 10 | 315 | 927.627 | 2,205,846 | 2,159,315 | 4,381,079 |
| ${ }_{2 a}^{22}$ | Carbonated beverages | 21 | 308 | 723,028 | 1,757,042 | 2,510,124 | 4,375,733 |
|  | Fruit and vegetable preparations | 8 | 276 | 510,066 | 1,783,798 | 2,241,039 | 4,076,573 |
| $24$ | Motor-vehicle parts | 15 | 476 | 1,406,341 | 1,379,184 | 2,538,432 | 3,936,067 |
| 25 | Biscuits | 4 | 290 | 572,399 | 1,672,292 | 1,658,666 | 3,344,473 |
| 26 | Roofing paper | 4 | 140 | 379, 103 | 1.603,145 | 1,636,747 | 3,273,422 |
| 27 | Agricultural implements | 12 | 320 | 929,400 | 991,463 | 1,681,631 | 2,733,862 |
|  | Machinery, industrial. | 7 | 303 | 958,054 | 735,648 | 1,606,758 | 2,363,641 |
| 29 | Miscellaneous chemical products, | 10 | 141 | 425,288 | 1,114,222 | 1,135,458 | 2,285,777 |
|  | Miscellaneous iron and steel prod- |  |  |  |  |  |  |
| 30 | ucts............... | 11 | 126 | 366,581 | 1,427,373 | 758.810 | 2,198,525 |
|  | Bags, cotton and jute | 3 | 61 | 133,559 | 1,934,566 | 172,406 | 2,111,507 |
|  | Signs, electric, neon and ot | 18 | 196 | 659,280 | 627,775 | 1,361,229 | 2,024,426 |
| $\begin{gathered} 33 \\ 30 \\ \hline 60 \end{gathered}$ | Clay products from domestic clay | 13 | 410 | 975,452 | 34,530 | 1,850,826 | 1,964,618 |
| $34$ | Castings, iron. | 7 | 262 | 746,001 | 657,503 | 1,207,907 | 1,887,216 |
| $\begin{aligned} & 35 \\ & \hline 50 \end{aligned}$ | Boxes and baskets, woo | 6 | 216 | 522,321 | 821,505 | 745,867 | 1,590,134 |
| $36$ | Brass and copper produ | 3 | 46 | 155,042 | 773,933 | 458,618 | 1,239,850 |
| 37 | Gases, compre | 4 | 100 | 42 | 355 | 551 | 1,199,144 |
|  | All other leading industries ${ }^{\text {s }}$. | 13 | 2,060 | 6,297,316 | 18,108,867 | 14,804,254 | 34,703,822 |
|  |  |  |  |  |  |  |  |
|  | Totals, All Indust | 2,150 | 31,765 | 82,527,194 | 331,817,141 | 178,221,013 | 518,410,811 |

${ }^{1}$ Not comparable with previous years. In 1952, gross value of products was replaced by value of factory shipments; see text, p 633.
${ }_{2}$ Publication of these figures authorized by firms concerned. ${ }^{3}$ Includes: biscuits; bridge building and structural steel; non-ferrous metal smelting and refining; sugar refining. ${ }^{4}$ Excludes non-ferrous metal smelting and refining, a leading industry but figures for which are confidential and cannot be published.
${ }^{5}$ Includes: aircraft and parts; boxes and bags; concentrated milk; cement; distilled liquors; fertilizers; sugar refining; and vegetable oils. ${ }^{6} \mathrm{In}$ cludes: aircraft and parts; biscuits; bridge building and structural steel; and non-ferrous metal smelting and refining.
' Excludes non-ferrous metal smelting and refining, a leading industry but figures for which are confidential and cannot be published. ${ }^{8}$ Includes: sugar refining; fertilizers; cement; aircraft and parts; boxes and bags, paper; concentrated milk products; distilled liquors; vegetable oils; and macaroni and kindred products.

## Subsection 5.-The Manufactures of British Columbia

British Columbia, with factory shipments totalling $\$ 1,332,481,862$ in 1951, ranked third among the provinces in manufacturing production. Forest resources, fisheries, minerals and electric power have given a broad base and wide diversification to the industrial development of the Province. The sawmilling industry was the leading industry with a gross value of shipments of $\$ 316,723,587$, and pulp and paper was second with $\$ 125,290,032$. Third in importance was fish processing, based principally on the estuarial salmon fisheries. British Columbia accounted for approximately 43 p.c. of the output of the Canadian fish-processing industry in 1952 and plays an important part in making Canada the largest fish exporting nation in the world. The other leading industries of the Province are shown in Table 7.

A feature of recent progress in the Province is that new developments are taking place in areas far removed from established industrial centres. Growing lines of communication and transportation are fanning out from and leading into formerly locked interior areas to tap a vast new potential and offer new sources of provincial economic unity and strength. The growth of the Province industrially is indicated by the increase in employment which, in 1952, was more than double the 1939 figure. Gross value of manufacturing in 1952 was more than double that of the immediate post-war year and increased more than five-fold since 1939. The most spectacular post-war development is the multi-million-dollar hydro-electric and aluminum smelter project at Kitimat, production from which started in August 1954. In addition, large capital investments have been made in sawmills and new plants for the manufacture of plywood and furniture. British Columbia dominates the wood products industry, accounting for 38 p.c. of the Canadian production of this group of industries. Four new pulp and paper mills have been built and others expanded to increase British Columbia's output of newsprint, kraft and dissolving pulps. New plants making chemicals, principally fertilizers and plywood adhesives, have been established as well as factories making machinery and equipment. Foodprocessing plants and oil refineries have also made considerable headway.
7.-Statistics of the Leading Industries of the Province of British Columbia, 1951 and 1952

| Industry | Estab-- lishments | Employses | Salaries and <br> Wages | Cost of Materials | Net Value of Products | Gross Value of Products ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 |  |  |  |  |  |
|  | No. | No. | \% | \$ | \$ | 5 |
| 1 Sawmills. | 1,564 | 29,462 | 81,751,249 | 176,682,690 | 167,001,838 | 347,147,390 |
| 2 Pulp and paper | 11 | 5,778 | 21,899,728 | 44,933,463 | 90,824,327 | 141,503,427 |
| 3 Fish processing | 63 | 4,168 | 11,348,419 | 51,646,344 | 31,543,333 | 84, 121,542 |
| 4 Slaughtering and meat packing | 11 | 1,370 | 4,263,002 | 52,814,823 | 5,982, 251 | 59,081,092 |
| 5 Veneers and plywoods. | 12 | 3,416 | 9,832,376 | 18, 130,385 | 24,806, 293 | 43,202,315 |
| 6 Petroleum products | 6 | 579 | 2,100,645 | 28,503,586 | 12,321,512 | 41,903, 272 |
| 7 Sesh, door and planing mills | 166 | 2,770 | 7,217,625 | 27, 136,332 | 13,811,839 | 41,331,453 |
| 8 Miscellaneous food preparations. n.e.s | 47 | 782 | 1,584,218 | 30,168,144 | 6,323,452 | 36,613,721 |
| 9 Fertilizers | 6 | 1,280 | 4,583,245 | 9.850,262 | 20,832,682 | 30,809,678 |
| 10 Fruit and vegetable preparations. | 71 | 2,355 | 4,146,456 | 15.975,947 | 8,659,717 | 24,897, 710 |
| 11 Butter and cheese............... | 29 | 1,773 | 4.636.619 | 13,960,783 | 7,011,938 | 21,566, 132 |
| 12 Bread and other bakery products. | 262 | 2,621 | 6,154,025 | 10,360,405 | 10,201,433 | 21, 168,241 |
|  | 27 | 3,484 | 11, 127,087 | 5,952,140 | 14,793,689 | 21,042,863 |
| 14 Printing and publishing | 86 | 2,752 | 7,658.511 | 4,665,053 | 14,076,956 | 18,906,674 |
| 15 Machinery, industrial | 40 | 2,138 | 6,569.451 | 6,419,233 | 11,471,074 | 18,110,416 |
| 17 Sheet metal products. | 28 | 890 | 2,672,665 | 9,426,314 | 5,247,076 | 14,800,217 |
| 17 Feeds, stock and poultry, prepared | 42 | 652 | 1.521.571 | 11,649,778 | 2,825,752 | 14,703,208 |
| 18 Furniture. | 189 | 1,953 | 4.625 .016 | 6,723,015 | 7,415,149 | 14,310,215 |
| $20 .$Breweries...................... <br> Miscellaneous wood products, <br> 相 | 11 | 688 | 1,997.318 | 2,901,872 | 9,590,778 | 12,727,902 |
| $21 \begin{aligned} & \text { n.e.s......... } \\ & \text { Bores and bags, }\end{aligned}$ | 43 | 645 | 1,848.950 | 7.253,483 | 4,523,713 | 11,938,080 |
| 1 Bores and bags, paper. | 12 | 691 | 1,772,933 | 7,245,735 | 4,343,437 | 11,653,032 |
| 22 Miscellaneous paper goods | 13 | 608 | 1,518.491 | 7,100,585 | 3,465,150 | 10,608,685 |
| otals, Leading Industries. ${ }^{2}$. | 2,739 | 70,855 | 200,829,600 | 549,500,377 | 477,073,394 | 1,042,147,265 |
| Totals, All Industries | 3,897 | 93,457 | 262,626,283 | 789,846,417 | 592,448,565 | 1,404,880,341 |

For footnotes, see end of table, p. 710.

## 7.-Statistics of the Leading Industries of the Province of British Columbia, 1951 and 1952-concluded

| Industry | Estab-lishments | $\underset{\text { ployees }}{\text { Em- }}$ | $\begin{gathered} \begin{array}{c} \text { Salaries } \\ \text { and } \\ \text { Wages } \end{array} \end{gathered}$ | Cost of Materials | Net <br> Value of <br> Products | Value of Factory Shipments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1952 |  |  |  |  |  |
|  | No. No. $\$$ 8 $\$$ 8 8 |  |  |  |  |  |
| 1 Sawmills | 1,813 | 28,598 <br> 6.048 <br> 1 | - ${ }_{25,847,292}$ | $\underset{48,964,229}{158,84,546}$ | $154,069,375$ <br> $69,635,586$ | $316,723,587$$125,290,032$ |
| ${ }^{2}$ Pulp and p | 1278 |  |  |  |  |  |
| ${ }_{4}^{3}$ Fish processing. |  | 6.048 3,433 | 25, $20.066,671$ | ${ }_{45,163,222}^{48,84,}$ | 21,592,029 | - $57,590,974$ |
| ${ }_{5}^{4}$ Sash, door and planing | 18211 | 2,858 | - ${ }_{8,388,522}$ | $45,147,520$ $30,169,688$ | $8,736,848$ $15,590,699$ | $54,182,549$ 46,289 |
| 6 Veneers and plywoods. |  | 3.825 | 11,142,892 | 19,724,945 | 22,108,341 | 42,176,834 |
| 7 Petroleum products | 5 | 725 | 2,991,967 | 25,933,578 | 10,669,793 | 37,818,297 |
| 8 Miscellaneous food prepar | 475 | 813 | 1,827,890 | 29,326,292 | 6,143,491 | 35,600,308 |
| 9 Fertilizers. |  | 1,233 | 4,870,938 | 10,944,677 | 21,401,300 | 32,475,077 |
| 10 Shipbuilding | 26 | 3,838 | 13,711, 307 | 10,299,889 | 20,015,332 | 30,643,942 |
| 11 Fruit and vegetable preparation | ${ }_{72}$ | 2,173 | 4,527,851 | 16,597,378 | 11,601,419 | 28,479,787 |
| 12 Bread and other bakery products | 26326 | 2,670 | 6,775,668 | 10,299,663 | 12,169,736 | ${ }^{23,117,051}$ |
| 13 Butter and cheese |  | 1,692 | 4,801,941 | 14,918,000 | 7,528,645 | 23,058,348 |
| 14 Printing and publishing. | ${ }_{89}^{26}$ | 2,684 | 8,937,544 | 5,103,615 | 15,303,086 | 20,593,508 |
| 15 Bridge building and structural | 39 | 1,316 | 5,154,935 | 11,339,035 | 7,504, 648 | 19,009,632 |
| 16. Machinery, industria |  | 1,842 | 6,301,708 | 5,026, 265 |  | 17,158,361 |
| 17 Feeds, stock and poultry, prepared |  | 7121.880 | $1,817,004$$4,761,800$2, | $11,410,256$ <br> $7,131,589$ | 1,$7,526,547$$\mathbf{7}, 5223$ | $14,963,005$$14,782,027$ |
| 18 Furniture. | 194 |  |  |  |  |  |
| 19 Breweries |  | 712 | 2,408,816 | 3,358,085 | 10,289,079 | 13,882, ¢24 |
| 20 Miscellaneous wood p | $\begin{aligned} & 45 \\ & 29 \\ & 12 \\ & 14 \end{aligned}$ | 739 <br> 858 <br> 669 <br> 595 | $\begin{aligned} & 2,353,009 \\ & 2,85,912 \\ & 1,91,929 \\ & 1,646,724 \end{aligned}$ | $\begin{aligned} & 8,527,263 \\ & 8,461,35 \\ & 7,535,501 \\ & 7,434,246 \end{aligned}$ | $\begin{aligned} & 5,072,931 \\ & 4,84,258 \\ & 4,54,7,598 \\ & 4,136,295 \end{aligned}$ | $13,787,818$$13,477,639$ 12,153,840 11,623, |
| 21 Sheet metal products |  |  |  |  |  |  |
| 22 Boxes and bags, pa |  |  |  |  |  |  |
| 23 Miscellaneous pap |  |  |  |  |  |  |
| Totals, Leading Industries ${ }^{3}$. <br> Totals, All Industries. | 3,031 | 71,303 | 219,867,186 | 531,640,815 | 455,674,423 | 1,004,878,680 |
|  | 4,225 | 92,667 | 283,530,976 | 751,011,248 | 556,172,312 | 1,332,481,862 |

[^220]
## Section 2.-Manufacturing Industries in Urban Centres

The prosperity of most of the cities and towns of Canada, especially in the east, is intimately connected with their manufacturing industries, which provide employment for a large proportion of the labour forces. In the west the cities are more largely distributing centres, though manufactures are increasing rapidly there also.

Table 8 indicates the extent to which the manufacturing industries of Canada are concentrated in urban centres and shows, by provinces, the proportion of the gross manufacturing production contributed by cities and towns having a gross production of over $\$ 1,000,000$ each. In the more highly industrialized Provinces of Ontario and Quebec such cities and towns accounted for 91 p.c. and 94 p.c. in 1951, and 90 p.c. and 94 p.c. in 1952, respectively, of the total manufactures for those Provinces, while in the Atlantic Provinces and British Columbia, where sawmilling, fish packing, and dairying are leading industries, the proportions were 72 p.c. and 57 p.c. in 1951 , and 72 p.c. and 59 p.c. in 1952, respectively. In the Prairie Provinces manufacturing is confined Jargely to a few urban centres.
8.-Urban Centres, each with a Gross Manufacturing Production ${ }^{1}$ of over $\mathbf{\$ 1 , 0 0 0 , 0 0 0 ,}$ Number of Establishments and Production in these Centres as a Percentage of the Provincial Total, by Province, 1951 and 1952.
Nore.-Statistics published in this table are in some cases higher than the figures published in Table 11, pp. 713-717, since the table below includes statistics of towns with fewer than three establishments and production of over $\$ 1,000,000$ each. It is not possible to publish this information in Table 11 without disclosing the operations of individual establishments.

${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text, p. 633.

## 9.-Principal Statistics of the Manufacturing Industries of the Six Leading Manufacturing Cities, 1939, 1944, 1946 and 1949-52

| City and Year | Estab-lishments | Em. ployees | Salaries and Wages | Cost of <br> Fuel and <br> Electricity | Cost of Materials | Gross Value of Products ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | 8 | \$ | \% | \$ |
| Montreal, Que....... 1939 | 2,501 | 105,315 | 114,602,118 | 7,667,848 | 254,188,246 | 483,246,583 |
| 1944 | 3,109 | 185,708 | 308,396.358 | 15,855,932 | 650,618,563 | 1,215,988,014 |
| 1946 | 3,785 | 173.507 | 291,381,617 | 14,740,538 | 602,667,823 | 1,147,945,303 |
| 1949 | 4,136 | 184.779 | 399,943,526 | 16,487,474 | 847,444,669 | 1,596,713,694 |
| 1950 | 4,127 | 184,982 | 419,217.987 | 17,034,094 | 914,907,200 | 1,696,677,033 |
| 1951 | 4,137 | 183,436 | 449, 279,943 | 17,840,862 | 1,026,220,450 | 1,849, 153,995 |
| 1952 | 4,283 | 187,396 | 496,270,442 | 18,291,520 | 1,041,585,029 | 1,960,826,915 |

For footnote, see end of table, p. 712.
9.-Principal Statisties of the Manufacturing Industries of the Six Leading Manufacturing Cities, 1939, 1944, 1946 and 1949-52--concluded

| City and Year | Estab-lishments | Employees | Salaries and Wages | Cost of Fuel and Electricity | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Gross <br> Value of Products ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \% | \$ | 8 | 8 |
| Toronto, Ont........ 1939 | 2,885 | 98,702 | 122,553,435 | 7,306,351 | 240,532, 281 | 482,532,331 |
| Toronto 1944 | 3,344 | 154,538 | 260,776,613 | 11,743,947 | 513,429,109 | $1,020,345,353$ |
| 1946 | 3,632 | 145,556 | 247,298,288 | 12,238,707 | 549, 256,912 | 1,036,939,790 |
| 1949 | 4,005 | 158,562 | 368,510,524 | 17,003,151 | 837, 148,440 | 1,579, 186,450 |
| 1950 | 4,011 | 160,063 | 392,754, 292 | 18, 176,609 | 918,699,592 | 1,686,922,991 |
| 1951 | 3,796 | 151,333 | 415, 206,705 | 17,599,992 | 991, 268, 163 | 1,763,192,114 |
| 1952 | 3,825 | 149,020 | 439,286,411 | 17,159,813 | 943,718,148 | 1,787,644,247 |
| Hamilton, Ont. . . . . 1939 | 461 | 31,512 | 39,563,423 | 5,267,577 | 70,829,034 | 152,746,340 |
| 1944 | 480 | 53,500 | 94,982,915 | 12,095,294 | 171,117,467 | 363,033,672 |
| 1946 | 501 | 45,951 | 80,959,432 | 10,434,888 | 150,977,835 | 308,033,098 |
| 1949 | 546 | 54,665 | 137,641,333 | 17,728,214 | 285, 180,403 | 563,982,920 |
| 1950 | 549 | 54,823 | 145,093,180 | 18,862,120 | 310,380,224 | 625,480,893 |
| 1951 | 560 | 58,841 | 174,296,725 | 20,370,777 | 391,412,980 | 755,546,928 |
| 1952 | 575 | 59,257 | 190,167,980 | 21,287,922 | 385,701,709 | 781,596,810 |
| Windsor, Ont....... 1939 | 222 | 17,729 | 25, 938,890 | 1,673,417 | 63,907,106 | 122,474,320 |
| 1944 | 231 | 35,912 | 80,667,573 | 4,890,272 | 232,102,240 | 387,603,874 |
| 1946 | 256 | 30,889 | 60,315,436 | 3,748,979 | 138,788,813 | 244,925, 148 |
| 1949 | 283 | 34,591 | 94.304,627 | 5,373,123 | 271,392,923 | 494,162, 203 |
| 1950 | 280 | 34,901 | 105,778,494 | 4,967,956 | 311,563,422 | 564,870,512 |
| 1951 | 297 | 34,865 | 112,076, 215 | 5,436,889 | 351,697,300 | 626.292,546 |
| 1952 | 330 | 36,628 | 130,027,457 | 6,027,143 | 377,637,512 | 646,949,316 |
| Winnipeg, Man....... 1939 | 648 | 17,571 | 20,717,273 | 1,491,823 | 44,873,043 | 81,024,272 |
| 1944 | 686 | 25,870 | 38,824,299 | 2,445,806 | 119,917,745 | 198,169,626 |
| 1946 | 756 | 26,730 | 42,354, 650 | $2,625,075$ | 121,531,306 | 206,381,007 |
| 1949 | 860 | 28,687 | 58,604,162 | 3,166,077 | 143,827,270 | 255, 006,806 |
| 1950 | 855 | 27,804 | 58,991,267 | 3,086,710 | 142,486,939 | 261,781,262 |
| 1951 | 849 | 27,704 | 65, 741,785 | 3,759,880 | 167,583,852 | 292,496,767 |
| 1952 | 843 | 28,162 | 70,744,396 | 3,157,945 | 160,844,930 | 296,263,701 |
| Vancouver, B.C..... 1939 | 829 | 17,957 | 22,382,192 | 1,397,159 | 56, 565,511 | 101, 267, 243 |
| 1944 | 933 | 43,473 | 79,141,407 | $3,568,106$ | 142,416,371 | 289,390,718 |
| 1946 | 1,071 | 31,408 | 55, 960,984 | 3,075,458 | 138,045, 068 | $270,165,166$ |
| 1949 | 1,225 | 33,536 | 78, 793,345 | 4,392,716 | 204,642,985 | 358,620,526 |
| 1950 | 1,219 | 34,411 | 85, 542,771 | 4,894,707 | 234, 053,078 | 409,347,342 |
| 1951 | 1,255 | 34,376 | 96,222,111 | 5,180,626 | 270, 748,863 | 461,594,390 |
| 1952 | 1,275 | 33,296 | 102,163,999 | 5,292,224 | 248,964,894 | 437,663,057 |

[^221]
## 10.-Principal Statistics of the Manufacturing Industries in the Six Leading Metropolitan Areas, 1951 and 1952

| Metropolitan Area | Estab-lishments | Employees | Salaries and Wages | Cost of <br> Fuel and Electricity | Cost of Materials | Gross Value of Products ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | § |
|  | 1951 |  |  |  |  |  |
| Greater Montreal ${ }^{2}$ | 4,686 | 230,603 | 582,436, 046 | 41,001,307 | 1,469,058,595 | 2,616,414,158 |
| Greater Toronto. | 4,466 | 195,143 | 543,597,110 | 24,339, 207 | 1,275,564,909 | 2,330, 355,717 |
| Greater Hamilton | 650 | 62,084 | 181,760,616 | 20,922,630 | 405,198,540 | 782,021,632 |
| Greater Vancouver | 1,585 | 50,809 | 143,706, 862 | 8,450,470 | 422,313,553 | 727,493.246 |
| Greater Windsor | 324 | 35,611 | 113,817, 235 | 5,601,283 | 356,932,055 | 635,639,664 |
| Greater Winnipeg...... | 992 | 36,578 | 89,237.598 | 6.604.181 | 297,718,672 | 471.828 .715 |
|  | 1952 |  |  |  |  |  |
| Greater Montreal ${ }^{2}$ | 4,883 | 244,556 | 668,391, 832 | 42,927,741 | 1,584,960,418 | 2,918,119,449 |
| Greater Toronto. | 4,584 | 196,751 | 590, 274,862 | 25, 521, 719 | 1,248,197,084 | 2,414, 796, 814 |
| Greater Hamilton | 671 | 62,657 | 199,160,901 | 21, 944,130 | 399,562,543 | 811,245,985 |
| Greater Vancouver | 1,614 | 48,986 | 150, 892,594 | 8,467,160 | 376,690,476 | 672, 232,692 |
| Greater Windsor. | 357 | 37,414 | 132,071,266 | 6,195,414 | 383, 459, 223 | 656,773,394 |
| Greater Winnipeg. | 996 | 37,759 | 97,612, 884 | 5,744,042 | 288,166,100 | 478,573,305 |

${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text, p. 633. ${ }^{2}$ Exclusive of the non-ferrous smelting and refining industry.


| Province and Municipality | 1951 |  |  |  |  |  | 1952 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estab-lishments | Employees | Salaries and Wages | Cost of Fuel and Electricity | Cost of Materials | Gross Value of Products ${ }^{1}$ | $\begin{gathered} \text { Estab- } \\ \text { lish- } \\ \text { ments } \\ \hline \end{gathered}$ | $\underset{\text { ployees }}{\text { Em- }}$ | Salaries and Wages | Cost of Fuel and Electricity | Cost of Materials | Value of Factory Shipments ${ }^{1}$ |
| Quebec-concluded | No. | No. | \$ | \$ | \$ | \$ | No. | No. | \$ | \$ | \$ | \$ |
| Grand'Mère. . . . . | 24 | 2,362 | 5,814,799 | 1,487, 431 | 13, 137, 872 | 29,661,355 | 29 | 2,591 | 6,468,355 | 1,543,694 | 14,307,768 | 31,975,032 |
| Hull. | 62 | 3,983 | 9,978,019 | 1,951, 139 | 31, 436,649 | $53,055,315$ | 61 | 4,158 | 11,060,022 | 1,920,081 | 29,066,748 | 51,435,470 |
| Huntingdo | 15 | 689 | 1,937,328 | 134,731 | 10,881, 834 | 14,351,851 | 15 | 647 | 1,886,433 | 164,199 | 8,197,508 | 13, 031, 435 |
| Joliette. | 58 | 2,128 | 4,431,163 | 522,361 | 9,072, 074 | $19,245,480$ | 55 | 2,163 | 4,782,159 | 541,457 | 8,111,780 | 18,426,931 |
| Lachine | 61 | 7,987 | 24,684,397 | 1,145,333 | 35,982,904 | 84,498,209 | 69 | 8,869 | 29,772,346 | $1,193,816$ | 39,699,379 | 103,944, 138 |
| Lasalle. | 40 | 4,250 | 11,213,440 | 3,036,469 | $49,126,053$ | $93,028,413$ | 39 | 4,274 | 12,847, 279 | 2,928, 499 | 49,182, 217 | 95, 853, 956 |
| Longueuil. | 35 | 2,326 | 5,340,328 | 301,792 | 11,067,904 | 23,160,077 | 34 | 2,998 | 7,862,699 | 232,368 | 12,349.058 | $25,172,284$ |
| Marieville. | 21 | 549 | 981,965 | 51,955 | 3,111, 265 | 5,122,939 | 20 | , 557 | 1,001,848 | 67,108 | 3,180,088 | 5,076.768 |
| Montmagny | 44 | 1,507 | 2,807,830 | 174,249 | $6,255,563$ | 11,009,096 | 44 | 1,373 | 2,831,135 | 178,140 | 5, 159, 133 | 10,704,265 |
| Montreal . . . . . . . . . . . . . . . . . . | 4,137 | 183,436 | 449, 279,943 | 17,840,862 | $1,026,220,450$ | 1,849,153,995 | 4,283 | 187,396 | 496,270, 442 | 18,291,520 | $1,041,585,029$ | 1,960,826,915 |
| Montreal East. . . . . . . . . . . . . . | 31 | 5,410 | 17,041,529 | 14,754,164 | 315,319,678 | 414,261,809 | 33 | 5,864 | 20,204, 908 | 15, 036,436 | 284,745, 924 | 408,256.995 |
| Mount Royal. | 20 | 2,204 | 6,621,367 | 219,636 | 14, 459,423 | 26,938,732 | 22 | 2,896 | $9,346,881$ | 284, 231 | 17, 176, 141 | 34,652,934 |
| Notre Dame de Portneuf | 12 | 443 | 959,331 | 307,688 | 3,740,020 | 6,006,127 | 13 | 464 | 1,165, 288 | 356,778 | 3,524,917 | 5,414,276 |
| Outremont. | 48 | 2,135 | 5,019,855 | 127, 877 | $9,309,399$ | 19,053,867 | 53 | 2,339 | 5,682,572 | 139,428 | 9,579,032 | 20,516,740 |
| Plessisville. | 19 | 1,002 | 2,131,721 | 83,745 | 3,277, 823 | 6,387,857 | 24 | - 940 | 2,236,190 | 80,835 | 3,432,060 | 7,371.082 |
| Princeville | 15 | 439 | 799,934 | 78.845 | 3,113,577 | 6,022,394 | 16 | 466 | 866,192 | 90,543 | 5,713,320 | 11, 280,304 |
| Quebec | 428 | 15,535 | 32,530,866 | 4,296,864 | 82,334, 229 | 153,311,944 | 431 | 15,856 | 36,583,967 | 4, 585, 821 | 84, 849,662 | 161,966,412 |
| Rock Island. | 15 | 5.670 | 1,628,885 | -64,652 | 1,479,520 | 5, 454,607 | 16 | , 706 | 1,823,825 | 69,459 | 1,524,273 | 5, 662,394 |
| St. Hyacinthe .... | 80 | 5,096 | 10,248,437 | 582,023 | 28,880,750 | 47,223,035 | 74 | 4,568 | 9,626,533 | 582,557 | 26,726,901 | 45, 405,465 |
| St. Jear (St. Johns).......... | 67 | 5,680 | 13,015,537 | 1,037,583 | 19,884, 088 | 43,688,478 | 68 | 5,435 | 15, 095, 361 | 1,006,216 | 20,624, 062 | 48, 168, 624 |
| St. Jérôme (Terrebonne Co.).. | 58 | 3,755 | 7,923,106 | -548,939 | 16,319.517 | 30,334, 694 | 54 | 3,414 | 7,398,619 | 513.834 | 13,302,588 | 27,463,772 |
| St. Lambert.................. | 20 | . 808 | 1,734, 140 | 107,193 | 4,216,547 | 7,724,355 | 18 | (1719 | 1,985, 210 | 111,573 | 4,804, 169 | 8,438.836 |
| St. Laurent | 48 | 11,315 | 33, 547, 522 | 1,243,383 | 37,951,440 | 85,530, 142 | 56 | 17,110 | 49.931,594 | 1,392,644 | 74,934, 851 | 139,795, 692 |
| Ste. Marie....... | 20 | 738 | 1,244,994 | 103,619 | $3,185,104$ | $6,106,190$ | 20 | 845 | 1,552,549 | 131,116 | 3,893,523 | 7,144,852 |
| Ste. Thérèse de B | 32 | . 759 | $1,388,675$ | 64,900 | 2,119,267 | 4,419,346 | 34 | 935 | 1,684,302 | 82,174 | 3.012.443 | 6,303,530 |
| Shawinigan Falls. | 47 | 5,712 | 17,338,314 | 9,115, 659 | 47,009,334 | 110,246,673 | 50 | 6,070 | 19,393,036 | 9,399,339 | 49,292,730 | 112,759.118 |
| Sherbrooke | 102 | 8,813 | 19,552, 824 | 1,312,678 | $48,419,154$ | 86,594,071 | 104 | 8,080 | 20,809, 134 | 1,327,528 | 44,473.261 | 89,584, 107 |
| Sorel. | 35 | 1,970 | 4,473,185 | 690,187 | 2,813,206 | 7,896, 000 | 34 | 2,185 | 5,045, 440 | 1,041,965 | 4,457,848 | 11,390,962 |
| Three River | 90 | 7,705 | 21,697, 369 | $6,719,564$ | 50,030,400 | 106,059, 161 | 94 | 7,434 | 21,819,563 | 7,054,096 | 49.295.764 | 107,614,075 |
| Valleyfield. | 39 | 4,656 | 9,714,919 | 779,524 | 20,392, 032 | 43.653,626 | 41 | 3,496 | 8,095,104 | 711,985 | $13,861,043$ | 30,371,004 |
| Verdun. | 68 | 1,398 | 2,803,125 | 83,599 | 6,282,562 | 11, 527,395 | 75 | 1,730 | 3,534,269 | 96,832 | 7,078, 037 | 13,686, 803 |
| Victoriavill | 54 | 2,582 | 4,953,989 | 176,601 | $9,639,566$ | 18, 383, 113 | 55 | 2,830 | $5,593,266$ | 206,324 | 10, 995.655 | 20,076,247 |
| Waterloo | 18 | 825 | 1,772,801 | 85, 394 | 2,478,337 | 5,375, 753 | 19 | 707 | 1,512,810 | 85, 414 | 2,351,903 | 5, 192,577 |
| Westmount | 271 | 2,044 | 5,572,374 | 287,605 | 6,535,471 | 16,720,644 | 331 | 2,119 | 6,300,271 | 369,860 | 6,823,805 | 18,788,938 |


| \% | Ontario- <br> Acton. | 21 | 1,012 | 2,269,003 | 233,815 | 6,531,703 | 9,422,669 | 19 | 902 | 2,082,617 | 251,730 | 692 | 717,743 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amherstbur | 13 | 1,026 | $2,930,221$ | 1,807,006 | 4,716,056 | 16,787, 162 | 13 | 1,012 | 3,300,784 | 1, 826,726 | 4,813,824 | 17,519,600 |
| ¢ | Arnprio | 21 | 709 | 1,682,908 | 112,769 | $3,742,620$ | 7,348,349 | 20 | 697 | 1,797,611 | 115,228 | $3,081,155$ | 6,673,780 |
|  | Aurora | 15 | 617 | 1,354, 095 | 76,321 | $4,792,208$ | $7,139,153$ | 15 | 603 | 1,403,682 | 75,296 | 3,881,536 | 7,217,188 |
| + | Bar | 26 | 894 | 2,027,374 | 173,139 | 9,533,849 | 14,958,826 | 28 | 863 | 2,167,262 | 164, 831 | 7,882,210 | 13,582,686 |
| \% | Belleville. | , 63 | 3,104 | 8,263,479 | 1,599,386 | 13,523,032 | $34,375,056$ | 61 | 3,166 | 9,130,756 | 1,657,210 | 14,817,462 | 39,023, 416 |
| 0 | Bowmanvi | 2 |  | 2 | 2 | 2 | 2 | 18 | , 977 | 2,836,759 | 197.904 | $5,290,175$ | 12,757, 114 |
|  | Brampton. | 31 | 1,114 | 2,625,832 | 161,950 | 5.276.267 | 10,660,999 | 31 | 1,100 | 2,971,059 | 178,724 | 4.040, 275 | 10,533,746 |
|  | Brantford. | 157 | 13,629 | 37,794,382 | 1,816,485 | 71, 064, 370 | 141, 506, 003 | 162 | 13,617 | $43,233,137$ | 1,904,584 | 78,534, 374 | 153, 862, 614 |
|  | Brockville | 42 | 1,922 | 4,658,331 | 329,333 | 11, 887,974 | 20,179, 491 | 41 | 1,288 | 3,113,371 | 271, 224 | 7,057, 855 | 13,077, 522 |
|  | Burlington | 16 | 754 | 1,807,098 | 116,094 | 6,034,631 | 9,831,786 | 24 | 870 | 2,389,527 | 120,917 | 6,374,762 | 10,986, 447 |
|  | Caledonia. | 11 | 314 | 836,111 | 293,034 | 2,679,035 | 5,152,571 | 12 | 342 | 1,006,842 | 251, 825 | 3,330, 886 | 5,130,677 |
|  | Chatham | 76 | 4,215 | 11,800,759 | 1,134, 461 | 68,329,308 | 94, 167, 137 | 76 | 3,868 | 12,031,375 | 1,077,167 | 69,003,032 | 97,970,263 |
|  | Cobourg | 29 | 1,042 | 2,425,757 | 218,302 | $4,718,256$ | 10,042,731 | 29 | 953 | 2,424,002 | 222,174 | 4,519,776 | 9,683,282 |
|  | Collingwo | 20 | 1,138 | 2,814,897 | 120,060 | 5,164,508 | 9,051,206 | 20 | 1,288 | 3,638,339 | 139,169 | 5, 438,229 | 10,463, 308 |
|  | Cornwall | 50 | 6,961 | 18,698,577 | 3,519,064 | 31,807,861 | 78,072,116 | 49 | 6,437 | 18,087, 814 | 3,432,747 | 32,630, 228 | 71,948,578 |
|  | Dundas | 34 | 1,762 | 4,142,191 | 243,066 | 4,002,164 | 10,011,583 | 35 | 1,801 | 4,934, 575 | 248,625 | 3,528, 037 | 11,112,853 |
|  | Dunnvil | 20 | 1,089 | 2,173, 163 | 106,007 | 6,023,009 | 8,846,634 | 21 | 1,060 | 2,377,156 | 122,906 | 6,242,734 | 9,276,874 |
|  | Eastview | 22 | 458 | 1,086,431 | 93,379 | 7,017,753 | 9,385, 048 | 22 | 380 | 994,345 | 84,702 | 6,384, 696 | 9,145, 070 |
|  | Elmira. | 21 | 794 | 2,076,344 | 185,386 | 4,759,350 | $9,145,547$ | 21 | 765 | 2,146,780 | 205,656 | 4,730,185 | 8,572,833 |
|  | Fort Erie | 28 | 952 | 2, 486,928 | 66,710 | 4,794,808 | 11,217,558 | 28 | 1,533 | 4,868,883 | 85,093 | 7,101,079 | 19,914, 357 |
|  | Fort Will | 71 | 3,486 | 10,738,162 | 2,409,247 | 24,319,679 | 57,158,259 | 69 | 4,171 | 13,429, 027 | 2, 433,851 | 27, 250, 322 | 58, 251, 364 |
|  | Galt. | 92 | 6,467 | 16,531, 157 | 777,798 | 27,369,130 | 55,671,274 | 99 | 6,637 | 18,600, 450 | 789,884 | $30,997,134$ | 63,848,579 |
|  | Gananoque | 20 | 889 | 2,181,894 | 186,252 | 4,275,931 | 8,318,993 | 18 | 816 | 2,172,523 | 215,649 | 4,007,080 | 7,905, 860 |
|  | Georgetow | 18 | 1,128 | 3,376,602 | 195,805 | 6,923,388 | 12,004,148 | 16 | 933 | 2,522,729 | 170,608 | 5,033,699 | 8,691,236 |
|  | Goderich. | 16 | 419 | 917,129 | 215,486 | 3,357, 229 | 5,710,183 | 18 | 627 | 1,723,463 | 200,319 | 4,059,658 | 7,845,081 |
|  | Guelph. | 110 | 6,160 | 15,709,981 | 966,520 | 31,224, 403 | $59,815,567$ | 111 | 5,910 | 15,964,795 | 1,011,891 | 28,914,899 | 58, 285,359 |
|  | Hamiltor | 560 | 58,841 | 174, 296, 725 | 20,370,777 | 391,412,980 | 755, 546, 928 | 575 | 59,257 | 190, 167, 980 | 21, 287,922 | 385,701,709 | 781,596,810 |
|  | Hanover | 24 | 1,047 | 2,226,276 | 101,154 | $3,746,040$ | 6,989,235 | 24 | 985 | 2,376,708 | 103,739 | 3,632,595 | 7,134,319 |
|  | Hespeler | 19 | 1,965 | 4,422,703 | 425,604 | 6,279,044 | 12,471,761 | 18 | 1,810 | 4,529,589 | 456,548 | 6,599,756 | 14,300,142 |
|  | Ingersoll. | 27 | 1,342 | 3,425, 098 | 241,735 | 12,376, 258 | 19,993,156 | 26 | 1,264 | 3,494,311 | 230, 876 | 10,086,758 | 16,871,612 |
|  | Kingston | 70 | 3,515 | 8,358,549 | 669,582 | 20,052,949 | 41, 350, 932 | 72 | 3,819 | 10,266,072 | 676,646 | 25,789, 344 | 51,332,907 |
|  | Kitchener | 189 | 15,299 | 38,815,715 | 1,855,670 | 106,882, 409 | 182,548, 102 | 205 | 14,768 | 40,621,100 | 1,833,228 | 95, 068,796 | 189, 465, 624 |
|  | Ieamingto | 16 | 1,151 | 2.953,713 | 319,702 | 12,648,612 | $26,635,680$ | 18 | 1,311 | 3,482, 240 | 317,961 | 15, 056,454 | 30,480,899 |
|  | Leaside. | 62 | 10,711 | 32, 424,568 | 1,321,810 | 66.080,619 | 132,147, 814 | 61 | 10,572 | 33, 652, 212 | 1,430,188 | 68,325,132 | 137,842,621 |
|  | Lindsay. | 38 | 1,497 | 3,201,129 | 286, 836 | 5, 259,501 | 11,222, 564 | 36 | 1,711 | 3,965, 186 | 321,816 | 5,411,098 | 13,232,834 |
|  | London. | 273 | 15,417 | 40,515,061 | 2,193,653 | 79,059,030 | 167,350,784 | 278 | 15,615 | 48,354, 177 | 2,315, 110 | 80, 293, 169 | 177, 204, 397 |
|  | Long Branc | 34 | 1,655 | 4,721,256 | 191,547 | 7,639, 173 | 18, 089, 442 | 29 | 1,675 | 5, 149,663 | 233,226 | 9,774, 252 | 22,146, 326 |
|  | Merritton. | 17 | 2,058 | 7,074,806 | 1,011,228 | 15,379, 199 | 29,552,654 | 16 | 2,145 | 7,735, 871 | 1,072,685 | 15, 881,727 | .30,951,709 |
|  | Midland. | 21 | 1,140 | 2,437,997 | - 98,284 | 9,588,281 | 13,759, 448 | 23 | 1,308 | $3,495,845$ | 105,920 | 10,528, 263 | 16,030,415 |
|  | Milton | 14 | -654 | 1,793,207 | 363,725 | 2,851,453 | 6,927,799 | 15 | -687 | $1,765,479$ | 344,579 | 1,908,569 | 6,403,769 |
|  | Mimico | 34 | 728 | 1,880,639 | 139,128 | 2,432,248 | 6,164,642 | 34 | 629 | 1,778,627 | 144,378 | 2,937, 735 | 6,868,422 |
|  | New Liskeard | 15 | 619 | 1,193,667 | 48,402. | 2,530, 479 | 4,862,933 | 16 | 549 | 1,171,524 | 50,748 | 2,642,542 | 5,107,535 |
|  | Newmarket | 18 | 958 | 2,448,439 | 133,771 | $5,416,327$ | 9,571, 176 | 24 | 921 | 2,567,514 | -139,979 | 4,309,792 | 10,377, 778 |
|  | New Toront | 46 | 7,214 | $23,122,818$ | 1,857,295 | 91,080, 195 | 158,329,039 | 50 | 7,221 | 25,215,564 | 1,850,671 | 88,011.979 | 158,289,059 |
|  | Niagara Falls | 78 | 6,830 | 20,616,294 | 5, 836, 398 | 39,714,585 | 93,698,367 | 84 | 6.950 | 22,771,033 | 6,139, 926 | 40,593, 491 | 100,851,047 |
|  | North Bay. | 331 | 671 | 1,611,680 | 129,095 | 2,449.728 | $5.320,001$ | 31 | 606 | 1,626,045 | 133,582 | 2,560,715 | 5,521,355 |

${ }^{1}$ See footnote 1, end of table, p. 717.

[^222]
# 11.--Statistics of Manufactures of Urban Centres, each with Factory Shipments ${ }^{1}$ of $\$ 5,000,000$ or over and with 

 Three or More Establishments, 1952, with Comparable Figures for 1951-concluded| Province and Municipality | 1951 |  |  |  |  |  | 1952 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estab-lishments | Employees | Salaries <br> and <br> Wages | Cost of Fuel and Electricity | Cost of Materials | Gross Value of Products ${ }^{1}$ | $\begin{gathered} \text { Estab- } \\ \text { lish- } \\ \text { ments } \end{gathered}$ | Employees | Salaries <br> and <br> Wages |  | Cost of Materials | Value of Factory Shipments ${ }^{1}$ |
| Ontario-concluded | No. | No. | \$ | \$ | \$ | 8 | No. | No. | 8 | 8 | \$ | \$ |
| Oakville.......... | 48 | 1,455 | 3,751,301 | 260.050 | 6, 668, 853 | 14,747,707 | 54 | 1,379 | 3,859,130 | 244, 10-4 | 6,349,319 | 14,991.388 |
| Orillia. | 51 | 2,200 | $5,088,750$ | 331,667 | 7,390,790 | 15,035, 614 | 55 | 2,149 | 5,761, 268 | 377,060 | $6,255,880$ | 14,867, 022 |
| Ottawa | 292 | 10.342 | 25,581,886 | 1,954,726 | 42,787,066 | $95,358.914$ | 294 | 10,561 | 28,070,513 | 1,904,469 | 44,223,524 | 97, 725,356 |
| Owen Sound | 52 | 2,737 | 6,437, 240 | - 309,993 | 8,010,216 | 18,405, 577 | 50 | 2,656 | 6,895,253 | - 305.169 | 6,835,905 | 19,329.116 |
| Paris. | 26 | 1,508 | 3,505, 063 | 137,553 | 6,862,153 | $13,339,812$ | 25 | 1,376 | 3,469,667 | 148,570 | 6,981,856 | 12,245, 885 |
| Pembroke | 35 | 1,256 | 2,640,670 | 134,595 | $4,346,820$ | 9,729,314 | 36 | 1,445 | 3, 185, 073 | 181,595 | 6.332,316 | 12,186, 453 |
| Perth | 27 | 922 | 1,732,153 | 98,041 | 4.445,751 | 8,528,770 | 24 | 873 | 1,793,063 | 103,732 | 5,050,091 | 9,343,904 |
| Peterbornugh | 103 | 10,010 | 28,853,445 | 1,252,959 | 77,955, 438 | 124, 655, 905 | 101 | 9,758 | 30,350,387 | 1,254,144 | 67,769,544 | 122,971,772 |
| Port Arthur. | 55 | 2,559 | 7,965,591 | 1,697,581 | 16,970, 186 | 39,305, 452 | 62 | 3,111 | 9,894,793. | 1,741,701 | 20,567, ¢96 | 44, 738,614 |
| Port Hope. | 27 | 1,394 | 3,293,166 | 338,143 | 4,705,614 | 10,658,514 | 27 | 1,041 | 3,182,736 | 286,518 | 3,979,073 | 11,065,515 |
| Preston. | 37 | 2,855 | 6,877,853 | 268,353 | 10,556,246 | $21.710,851$ | 36 | 2,556 | 6,779,838 | 246, 195 | 9,521,337 | 21,248,418 |
| Renfrew. | 28 | 887 | 1.795,893 | 154,714 | 4,196,647 | 7,324,359 | 30 | 1,078 | 2,484,623 | 204,581 | 4,083, 979 | 7.695,980 |
| St. Catharines | 116 | 11,697 | $35,717,017$ | 1,679,247 | 64,119,327 | 131, 178.237 | 104 | 11,975 | 38,327,182 | 1,954,059 | 62,302,387 | 134, 361, 249 |
| St. Mary's. | 12 | , 558 | 1,501,755 | 1,020.733 | 5,001, 499 | 10,137, 497 | 12 | , 555 | 1,781,000 | 1, 005,857 | 4,587,103 | $10,511,170$ |
| St. Thomas | 45 | 2,494 | 5,803,065 | - 314,299 | 10,870,798 | 22,121,001 | 47 | 2,170 | 5,789,091 | 11 348,231 | 9,507,632 | 21,821, 121 |
| Sarnia | 52 | 8,001 | 25,981,735 | 12.381, 523 | 107,491,357 | 194,290,568 | 49 | 8,172 | 29,221,061 | 11,564,392 | 110,032,405 | 198, 878, 634 |
| Sault Ste. Mari | 531 | 8,088 | $25,545,411$ | 10, 136, 230 | 68,484,406 | 133,911,798 | 57 | 8,196 | 29,470,481 | 7,303,378 | 68, 685, 620 | $136,356,712$ |
| Simcoe... | 31 | 1,402 | 3,340,583 | 224, 101 | 20,209,000 | 28,873,235 | 30 | 1,344 | $3,564,411$ | 236,833 | 21,580,993 | 28,780,582 |
| Smith's Falls. | 22 | 1.829 | 2,020,911 | 140, 326 | 3,491,079 | 6,883,992 | 23 | 1.922 | 2,503,480 | 155, 154 | 4,870,045 | 8,867,852 |
| Stratiord. | 66 | 3,690 | 8,868,857 | 435,277 | 15,423,515 | 29,382,849 | 65 | 3,459 | 9,193,044 | 393, 866 | 15,161,722 | 28,638,669 |
| Streetavill | 14 | 348 | 823,535 | 146,725 | 3,934, 256 | 5,739,710 | 13 | 366 | 918,140 | 150,872 | 4,648,992 | 7,263,170 |
| Sudbury | 52 | 1,064 | 2,559,768 | 233,816 | 6,280,757 | 11,684,423 | 56 | 1,114 | 3,019,606 | 274,936 | 7,143,703 | 13,770,607 |
| Swansea. | 13 | . 827 | 2,486,430 | 257,652 | 5,264,770 | 11,462,908 | 13 | 841 | 2,821,074 | 296,113 | 5,826,635 | 12,317,644 |
| Thorold. | 24 | 2,330 | 9,042,620 | 3,132,261 | 20,419,354 | 43,212,078 | 23 | 2,633 | 10,097, 534 | 3,037,372 | 20,909,486 | 42,303,543 |
| Tillsonburg. | 27 | 890 | 1,903,427 | 221,817 | 8,789,487 | 11,964,719 | 28 | 891 | 2,042,954 | 243,078 | 11,935,937 | 15,263,283 |
| Timmins. | 23 | 510 | $1,135,197$ | 71,731 | 2,234, 247 | 4,250, 412 | 27 | 698 | 1,767, 103 | 107,953 | 3,156,858 | 6.649,390 |
| Toronto. | 3,796 | 151,333 | 415,206,705 | 17,599,992 | 991,268,163 | $1,763,192,114$ | 3,825 | 149,020 | 439, 286, 411 | 17,313,945 | 945,304,350 | 1,790,369,192 |
| Trenton. | 30 | 1,432 | 3,292,884 | 433,159 | 8,125,088 | 15,067,513 | 30 | 1,315 | 3,504,947 | 422,257 | 8,205, 015 | 16,287, 493 |
| Wallaceburg | 25 | 2,770 | 7,636,578 | 1,209,292 | 13,874,789 | 30, 221,046 | 28 | 2,370 | 7,077,067 | 1,134,903 | 10,000, 894 | 22,989,541 |
| Waterloo. | 55 | 2,702 | 6,853,941. | 394,832 | 12,736, 181 | 34, 368,408 | 59 | 2,506 | 7,260,173 | 400,476 | 12,465,675 | 37,903,657 |
| Welland | 57 | 8,878 | 29,600,073 | 5,708,473 | 66,963,015 | 142, 357, 821 | 61 | 9,337 | 32,945,066 | 6,394,883 | 77,470,746 | 157,543,465 |
| Weston. | 51 | 2,789 | 7,454,493 | 486,450 | 15,353,247 | 29,129,119 | 62 | 2,830 | 8,254,295 | 515,314 | 17,218, 009 | 33,141, 239 |
| Windsor | 297 | 34,865 | 112,076,215 | 5, 436,889 | 351,697,300 | 626, 292,546 | 330 | 36,628 | 130, 027,457 | 6,027,143 | 377, 637,512 | 646,949,316 |
| Woodstock | 64 | 3,842 | 9,381,940 | 468,744 | 27,936,571 | 48,347,755 | 60 | 3,796 | 10,283,114 | 473,235 | 27,867,896 | 49,635, 138 |


| Manitobs- <br> Brandon. | 38 | 746 | 1,757,112 | 192,372 | 10,275,712 | 15,463, 055 | 40 | 789 | 2,122,087 | 221,582 | 10,172,980 | 14,190,241 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| St. Boniface | 90 | 4,168 | 11,555, 289 | 1,010,336 | 108,630,649 | 135,391,546 | 93 | 4,269 | 12,610,430 | 1,002,948 | 101, 397,298 | 129,841, 407 |
| Selkirk. | 10 | 985 | 2, 625,188 | 463,242 | 3,016,278 | 8,801,414 | 10 | 1,046 | 3,179,404 | 510,884 | 3,506, 100 | 10,228, 696 |
| Transcona | 5 | 2,539 | 6,988, 652 | 365,388 | 13,018,994 | 22,363,958 | 6 | 2,669 | 7,653,405 | 325,617 | 14,588,917 | 24,372,547 |
| Winnipeg. | 849 | 27,704 | 65, 741, 785 | 3,759,880 | 167, 583, 852 | 292,496,767 | 843 | 28,162 | 70,744,396 | 3,157,945 | 160,844,930 | 298,263,701 |
| Saskatchewan- |  |  |  |  |  |  |  |  |  |  |  |  |
| Moose Jaw. | 45 | 1,312 | 3,510,432 | 675,784 | 32,959,182 | 41,737,517 | 49 | 1,400 | 3,922,396 | 820,644 | 29,916.533 | 39,567,108 |
| Prince Albe | 29 | 980 | 2,366,049 | 184,670 | 12,459,220 | 17,950,088 | 32 | 1,057 | 2,736,958 | 203,435 | 12,518.809 | 19,955,777 |
| Regina | 137 | 2,968 | 7, 878,630 | 1,332,864 | 42,105,739 | $61,895,799$ | 138 | 2,974 | 8,590,115 | 1.368.700 | 35,996, 622 | 60, 215,968 |
| Saskatoo | 112 | 2,710 | 6,626,626 | 763,370 | 46, 224,336 | $63.296,870$ | 113 | 2,856 | 7,874,973 | 818,070 | 45, 504,270 | $65,404,158$ |
| Alberta- |  |  |  |  |  |  |  |  |  |  |  |  |
| Calgary | 309 | 8,658 | 22,905, 049 | 1,929,664 | 108, 014,389 | 152,276,862 | 315 | 9,436 | 27, 229,084 | 2,116,071 | 107, 347,213 | 162, 523, 554 |
| Edmonton | 319 | 9,422 | 24, 252, 814 | 1,256,372 | 98.578, 420 | 142,609,969 | 330 | 10,206 | 27,671,393 | 1,088,351 | 99, 724, 643 | 153,099, 237 |
| Lethbridge | 46 | 969 | 2, 239,796 | 161,897 | 6,474,143 | 12,567, 187 | 49 | 1,051 | 2,618,977 | 171,240 | 6,810,915 | 14,237,907 |
| Lloydminster Point | 2 |  | 2 |  | ${ }^{2}$ | 12. 2 | 8 | 219 | 693,930 | 208,728 | 4,885,005 | 8,290,260 |
| Medicine Hat...... | 36 | 1,086 | 2,320,993 | 142,840 | 16,801,931 | 21,689, 296 | 42 | 1,080 | 2,490,035 | 148,131 | 17,659,629 | 22,709,914 |
| British Columbla- |  |  |  |  |  |  |  |  |  |  |  |  |
| Kamloop | 34 | 532 | 1,218,773 | 93,570 | 1,829,497 | 4,070,243 | 46 | 593 | 1,485,934 | 112,983 | 2, 145,826 | 5,023,439 |
| Kelowna. | 35 | 803 | 1,763,721 | 88,908 | 3,154,611 | 6,804,221 | 41 | 716 | 1,800,998 | 83,705 | 3,295,323 | 7,248,034 |
| Merritt. | 8 | 169 | 454,262 | 19,363 | 805,625 | 1,632,009 | 10 | 199 | 576, 085 | 37,290 | 1.097,340 | 2,193,449 |
| Nanaimo | 31 | 567 | 1,523,558 | 105,534 | 3,347, 376 | 6,018, 398 | 25 | 434 | 1,313,309 | 94,787 | 2,473,821 | 5,328,504 |
| Nelson | 36 | 546 | 1,220,927 | 95,155 | 2,525,961 | 5, 239,596 | 32 | 521 | 1,348,356 | 106,811 | 2,982,389 | 5,699, 059 |
| New Westminster | 112 | 6,893 | 19,342,236 | 1,099,430 | 62,834, 204 | 111,953,965 | 118 | 6,429 | 19,182,949 | 1,208,088 | 59,926, 452 | 106,730, 574 |
| North Vancouver. | 55 | 2,326 | 7,350.810 | 322, 627 | 11,371,750 | 22,907.846 | 56 | 2.430 | 8,227,887 | 317,988 | 10,725,580 | 25,924,333 |
| Port Alberni | 24 | 1,992 | 6,551,550 | 272,467 | 16,393,831 | 39,388,649 | 21 | 2,314 | 7,117,302 | 220,899 | 15, 847, 376 | 34,713,846 |
| Port Moody | 7 | 662 | 1,891,245 | 14.526 | 5, 435, 638 | 9,048, 183 | 5 | 454 | 1,626,307 | 13,110 | 3,424,734 | 5,885, 881 |
| Prince George | 150 | 1,746 | 4,057,829 | 357.241 | 11,484,528 | 20, 411, 392 | 141 | 1,776 | $5,088,859$ | 434,599 | $13.331,966$ | 24, 442,993 |
| Prince Rupert. . | 25 | 630 | 1,850,690 | 109,814 | 4,760,547 | 8, 104, 135 | 27 | 589 | 1,696,964 | 136,994 | 3,842,656 | 5,835, 526 |
| Quesnel. | 68 | 685 | 1,504,263 | 126,068 | 2,596,925 | $5,660,301$ | 71 | 728 | 1,996,897 | 177,605 | 3,560,394 | 6,894,547 |
| $V$ ancouve | 1,255 | 34,376 | 96,222,111 | 5,180,626 | 270, 748, 863 | 481.594,390 | 1,275 | 33,296 | 102,163.999 | 5,292,224 | 248.964, 894 | 437, 663,057 |
| Victoria. | 216 | 4,555 | 12,179,944 | 755,082 | 22,956,939 | 46,438,513 | 211 | 4,478 | 13,452,543 | 811,878 | 22,228,556 | 47,028,395 |

${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text, p. 633.

[^223]
## CHAPTER XVI.-GAPITAL EXPENDITURES AND CONSTRUCTION

## CONSPEGTUS

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Note.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p$. 1 of this volume.

This Chapter provides data on the capital expenditures made by all sectors of the Canadian economy on construction and on machinery and equipment together with summaries of other available statistics for the construction industry. Section 1 describes the purpose of capital expenditures and shows the amounts spent by each of the various industrial or economic sectors.* Section 2 brings together a number of summaries of related series on construction activity: value of work performed by type of structure, value of materials used, salaries and wages paid and numbers employed; contracts awarded and building permits issued; construction of dwelling units, and Government aid to house building.

## Section 1.-Capital Expenditures on Construction and on Machinery and Equipment

One of the most important determinants of the level of economic activity within the nation at any time is the volume of investment spending being undertaken by business and by governments. Past experience shows that, for the nation as a whole, extensive changes can take place from year to year in the level of investment and it is because of this variability that capital expenditures form one of the most dynamic factors affecting the level of employment and income in a country.

Capital expenditures are those outlays made to replace, modernize or expand the nation's stock of physical capital, represented by such things as factory buildings, mines, stores, theatres, hospitals, railways, telephone lines and power installations, together with the machinery and equipment used to enable workers to produce with greater efficiency an increasing volume of goods and services. Also included in the stock of capital are government-owned assets of a physical nature, such as roads, canals and office buildings, and all housing, whether rented or owner-occupied.

[^224]Defence construction is included but all other defence expenditures are excluded. Excluded also from capital expenditures are outlays for the accumulation of inventories and the acquisition cost of land.

Designed to last, capital assets assist in providing goods and services over a period of years; some types of assets, such as motors, may have a useful life of a very few years while others, such as buildings or power installations, may continue in profitable use for fifty years or more. The creation of these capital assets requires the diversion of resources from production for current consumption to the production of capital goods which will be used in production for future consumption. Thus, the rate of investment spending reflects the extent to which a growing nation is providing for the future, or is becoming industrialized; it also reflects the opinion of businessmen as to future prospects and of governments as to future demands for their services. It will be noted from Table 1 that since 1927 there have been two periods when capital spending accounted for a substantial portion of the gross national product.

## 1.-Capital Expenditures in Canada, 1927-54

Nore.-Actual expenditures 1927-52, preliminary actual 1953, intentions as of May 1, 1954.

| Year | Capital Expenditures | P.C. of Gross National Product | Year | Capital <br> Expenditures | P.C. of Gross National Product |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000,000 |  |  | 8'000,000 |  |
| 1927. | 1,087 | 19.2 | 1941. | 1,463 | $17 \cdot 2$ |
| 1928. | 1,296 | 21.2 | 1942. | 1,542 | $14 \cdot 6$ |
| 1929. | 1,518 | $24 \cdot 6$ | 1943. | 1,485 | $13 \cdot 3$ |
| 1930. | 1,287 | 23.2 | 1944. | 1,309 | $11 \cdot 0$ |
| 1931. | 881 | $19 \cdot 3$ |  | 1,284 | $10 \cdot 8$ |
| 1932. | 491 | 13.0 | 1946. | 1,703 | 14.2 |
| 1933. | 327 | 9.2 | 1947. | 2,489 | 18.1 |
| 1934. | 416 | $10 \cdot 3$ | 1948. | 3,175 | $20 \cdot 3$ |
| 1935. | 505 | 11.6 |  | 3,502 | $21 \cdot 3$ |
| 1936. | 590 | $12 \cdot 6$ | 1950. | 3,815 | 21.2 |
| 1937. | 828 | $15 \cdot 5$ | 1951. | 4,577 | 21.3 |
| 1938. | 773 | 14.8 | 1952. | 5,285 | 22.9 |
| 1939. | 765 | 13.4 | 1953. | 5,679 | 23.4 |
| 1940. | 1,048 | $15 \cdot 3$ | 1954. | 5,826 | .. |

As indicated in Table 1 above, for the seventh successive year, total capital expenditures in 1954 will likely absorb more than one-fifth of the gross national product. This high rate of growth was paralleled in only one other period over the span for which data have been recorded. However, the capital expansion that took place during 1927-1931 was not sustained over such a long period as it has been during the post-war period, 1948-1954, and capital outlays exceed 30 p.c. of gross national product for only three years. Investment spending at this level is indicative of the long-run development of the country, as well as being important in the year in which it is made in giving employment and income to those engaged in the provision of capital facilities. One of the most important recipients of benefit from the investment program, the construction industry, is dealt with in Section 2 of this Chapter.

The following tables give statistics of capital, repair and maintenance expenditures for the years 1952-1954. Of immediate interest are the estimates for 1954, indicating increased outlays for house building, retail outlets, office buildings, mining development, utilities and institutional facilities-mainly a continuation of the 1953 spending pattern.

## 2.-Summary of Capital Expenditures and Repair and Maintenance Expenditures by Economic Sector, 1952-54

Nors.-Actual expenditures 1952, preliminary actual 1953, intentions as of May 1, 1954.
(Millions of Dollars)


[^225]
## 3.-Capital Expenditures and Repair and Maintenance Expenditures by Manufacturing Industries, 1952-54

Nors.-Actusl expenditures 1952, preliminary actual 1953, intentions as of May 1, 1954.
(Millions of Dollars)

| Type of Enterprise and Year | Capital |  |  | Repair <br> and Maintenance |  |  | Capital, Repair and Maintenance |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Con-struction | Machinery and Equipment | Total | Con-struction | Machinery and Equipment | Total | Con-struction | $\mathrm{Ma}-$ chinery and Equipment | Total |
| Food and beverages- |  |  |  |  |  |  |  |  |  |
| 1952................ | $26 \cdot 6$ | 50.7 | $77 \cdot 3$ | $12 \cdot 5$ | 36.0 | 48.5 | $39 \cdot 1$ | $86 \cdot 7$ | $125 \cdot 8$ |
| 1953. | $26 \cdot 1$ | 57.3 | $83 \cdot 4$ | $12 \cdot 7$ | $35 \cdot 9$ | $48 \cdot 6$ | 38.8 | $93 \cdot 2$ | $132 \cdot 0$ |
| 1954. | $44 \cdot 0$ | 58.2 | 102-2 | 13.2 | $34 \cdot 0$ | $47 \cdot 2$ | 57.2 | $92 \cdot 2$ | 149.4 |
| Tobacco and tobacco products- |  |  |  |  |  |  |  |  |  |
| 1953.......... | 0.9 | $2 \cdot 0$ | 2.9 | 0.5 | 1.5 | $2 \cdot 0$ | 1.4 | $3 \cdot 5$ | $4 \cdot 9$ |
| 1954. | 1.0 | $3 \cdot 1$ | $4 \cdot 1$ | $0 \cdot 6$ | 1.5 | $2 \cdot 1$ | $1 \cdot 6$ | $4 \cdot 6$ | $6 \cdot 2$ |
| Rubber products- |  |  |  |  |  |  |  |  |  |
| 1952............. | $2 \cdot 7$ | $7 \cdot 3$ | $10 \cdot 0$ | 0.9 | $6 \cdot 0$ | 6.9 | $3 \cdot 6$ | 13-3 | 16.9 |
| 1953..................... | $3 \cdot 2$ | $9 \cdot 2$ | $12 \cdot 4$ | $1 \cdot 2$ | $6 \cdot 0$ | $7 \cdot 2$ | $4 \cdot 4$ | 15.2 | $19 \cdot 6$ |
| 1954. | $4 \cdot 0$ | $13 \cdot 2$ | 17.2 | 1.0 | $5 \cdot 9$ | 6.9 | $5 \cdot 6$ | $19 \cdot 1$ | $24 \cdot 1$ |
| Leather products- |  |  |  |  |  |  |  |  |  |
|  | $0 \cdot 6$ | 1.7 | $2 \cdot 3$ | 0.6 | $2 \cdot 0$ | $2 \cdot 6$ | $1 \cdot 2$ | $3 \cdot 7$ | 4.9 |
| 1953...................... | 0.7 | 1.7 | $2 \cdot 4$ | 0.6 | $2 \cdot 1$ | 2.7 | 1.3 | $3 \cdot 8$ | $5 \cdot 1$ |
| 1954..................... | 0.4 | $1 \cdot 4$ | 1.8 | 0.7 | 2-7 | $3 \cdot 4$ | $1 \cdot 1$ | $4 \cdot 1$ | $5 \cdot 2$ |
| Textile products- |  |  |  |  |  |  |  |  |  |
| 1952.................... | $7 \cdot 0$ | 24.5 | 31.5 | $3 \cdot 8$ | $15 \cdot 6$ | $19 \cdot 4$ | $10 \cdot 8$ | $40 \cdot 1$ | $50 \cdot 6$ |
| 1953. | $6 \cdot 0$ | $19 \cdot 8$ | 25.8 | $3 \cdot 1$ | 18.2 | 21.3 | $9 \cdot 1$ | 38.0 | $47 \cdot 1$ |
| 1954. | $5 \cdot 1$ | 16.5 | $21 \cdot 6$ | 2.8 | $17 \cdot 8$ | $20 \cdot 6$ | $7 \cdot 9$ | $34 \cdot 3$ | $42 \cdot 2$ |
| Clothing- |  |  |  |  |  |  |  |  |  |
| 1952.. | $1 \cdot 6$ | $11 \cdot 1$ | $12 \cdot 7$ | $1 \cdot 3$ | 4-4 | $5 \cdot 7$ | 2.9 | $15 \cdot 5$ | $18 \cdot 4$ |
| 1953...................... | 3.9 | $10 \cdot 2$ | $14 \cdot 1$ | $1 \cdot 6$ | $4 \cdot 4$ | 6.0 | $5 \cdot 5$ | $14 \cdot 6$ | $20 \cdot 1$ |
| 1954.................... | 0.9 | $7 \cdot 9$ | $8 \cdot 8$ | $1 \cdot 7$ | $4 \cdot 0$ | $5 \cdot 7$ | $2 \cdot 6$ | 11.9 | 14.5 |
| Wood products- |  |  |  |  |  |  |  |  |  |
| 1952................... | 9-3 | 22.5 | 31.8 | $6 \cdot 1$ | 23.5 | $29 \cdot 6$ | 15.4 | 46.0 | $61 \cdot 4$ |
| 1953................... | $8 \cdot 5$ | $22 \cdot 1$ | $30 \cdot 6$ | $6 \cdot 6$ | 24.2 | 30.8 | $15 \cdot 1$ | $46 \cdot 3$ | $61 \cdot 4$ |
| 1954..................... | $5 \cdot 3$ | $14 \cdot 6$ | 19.9 | $5 \cdot 7$ | 21.4 | $27 \cdot 1$ | 11.0 | 36.0 | 47.0 |
| Paper products- |  |  |  |  |  |  |  |  |  |
| 1952.................... | $33 \cdot 6$ | 95.9 | 129.5 | $8 \cdot 3$ | 72.9 | 81.2 | 41.9 | 168.8 | $210 \cdot 7$ |
| 1953. | $24 \cdot 4$ | $74 \cdot 4$ | 98.8 | $6 \cdot 5$ | 71.7 | $78 \cdot 2$ | $30 \cdot 9$ | $146 \cdot 1$ | $177 \cdot 0$ |
| 1954. | 23.5 | $72 \cdot 6$ | 96.1 | $7 \cdot 2$ | $75 \cdot 3$ | 82.5 | $30 \cdot 7$ | $147 \cdot 9$ | $178 \cdot 6$ |
| Printing, publishing and allied industries- |  |  |  |  |  |  |  |  |  |
| 1952................... | $3 \cdot 3$ | 11.0 | $14 \cdot 3$ | 1.5 | 4-1 | $5 \cdot 6$ | 4.8 | $15 \cdot 1$ | 19.9 |
| 1953. | $3 \cdot 9$ | 11.6 | $15 \cdot 5$ | $1 \cdot 9$ | $4 \cdot 0$ | $5 \cdot 9$ | $5 \cdot 8$ | $15 \cdot 6$ | 21.4 |
| 1954..................... | $9 \cdot 5$ | 16-2 | 25.7 | 2.4 | $3 \cdot 6$ | $6 \cdot 0$ | 11.9 | 19.8 | 31.7 |
| Iron and steel producto- |  |  |  |  |  |  |  |  |  |
| 1952.................... | 46.2 | 89.7 | 135.9 | $16 \cdot 1$ | 64-8 | 80.9 | $62 \cdot 3$ | 154.5 | 216.8 |
| 1953..................... | $36 \cdot 7$ | 75.7 | 112.4 | 17.0 | 67.1 | $84 \cdot 1$ | $53 \cdot 7$ | 142.8 | 196.5 |
| 1954....................... | $17 \cdot 9$ | $64 \cdot 4$ | $82 \cdot 3$ | 14.9 | $63 \cdot 6$ | 78.5 | $32 \cdot 8$ | 128.0 | $160 \cdot 8$ |

## 3.-Capital Expenditures and Repair and Maintenance Expenditures by Manufacturing Industries, 1952-54-concluded

Norz.-Actual expenditures 1952, preliminary actual 1953, intentions as of May 1, 1954.
(Millions of Dollars)

| Type of Enterprise and Year | Capital |  |  | $\begin{aligned} & \text { Repair } \\ & \text { and Maintenance } \end{aligned}$ |  |  | Capital, Repair and Maintenance |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Con-struction | Machinery and Equipment | Total | Con-struction | Machinery and Equipment | Total | Con-struction | Machinery and Equipment | Total |
| Transportation equipment- |  |  |  |  |  |  |  |  |  |
| 1952........... | $37 \cdot 1$ | $25 \cdot 0$ | $62 \cdot 1$ | 11.6 | $31 \cdot 1$ | $42 \cdot 7$ | 48.7 | $56 \cdot 1$ | 104.8 |
| 1953. | $44 \cdot 1$ | $49 \cdot 2$ | $93 \cdot 3$ | 11.0 | $31 \cdot 9$ | 42.9 | $55 \cdot 1$ | $81 \cdot 1$ | 136.2 |
| 1954........... | $35 \cdot 1$ | $50 \cdot 6$ | $85 \cdot 7$ | 8.9 | 31.0 | $39 \cdot 9$ | $44 \cdot 0$ | $81 \cdot 6$ | $125 \cdot 6$ |
| Non-ferrous metal products- |  |  |  |  |  |  |  |  |  |
|  | $35 \cdot 1$ | $35 \cdot 6$ | $70 \cdot 7$ | 8.5 | $34 \cdot 2$ | 42.7 | $43 \cdot 6$ | 69.8 | 113.4 |
| 1953.................... | $29 \cdot 6$ | $48 \cdot 7$ | $78 \cdot 3$ | $7 \cdot 0$ | $37 \cdot 7$ | $44 \cdot 7$ | $36 \cdot 6$ | $86 \cdot 4$ | 123.0 |
| 1954..................... | $17 \cdot 4$ | $45 \cdot 6$ | 63.0 | $9 \cdot 1$ | $35 \cdot 3$ | $44 \cdot 4$ | 26.5 | $80 \cdot 9$ | 107-4 |
| Electrical apparatus and supplies- |  |  |  |  |  |  |  |  |  |
| 1952.................. | 21.8 | $18 \cdot 6$ | $40 \cdot 4$ | 2.8 | 11.7 | 14.5 | 24.6 | $30 \cdot 3$ | 54.9 |
| 1953. | $15 \cdot 9$ | $16 \cdot 9$ | $32 \cdot 8$ | $2 \cdot 4$ | 13.2 | $15 \cdot 6$ | 18.3 | $30 \cdot 1$ | $48 \cdot 4$ |
| 1954................... | $13 \cdot 4$ | $20 \cdot 2$ | $33 \cdot 6$ | $2 \cdot 6$ | $13 \cdot 0$ | $15 \cdot 6$ | 16.0 | $33 \cdot 2$ | $49 \cdot 2$ |
| Non-metallic mineral products- |  |  |  |  |  |  |  |  |  |
|  | 11.2 | $23 \cdot 1$ | 34-3 | $3 \cdot 9$ | $16 \cdot 6$ | 20.5 | $15 \cdot 1$ | $39 \cdot 7$ | 54.8 |
| 1953. | $9 \cdot 9$ | 21.7 | $31 \cdot 6$ | $2 \cdot 0$ | $21 \cdot 6$ | $23 \cdot 6$ | $11 \cdot 9$ | 43.3 | $55 \cdot 2$ |
| 1954................... | $22 \cdot 4$ | $30 \cdot 0$ | $52 \cdot 4$ | $2 \cdot 1$ | $22 \cdot 0$ | $24 \cdot 1$ | $24 \cdot 5$ | $52 \cdot 0$ | $76 \cdot 5$ |
| Products of petroleum and coal-1 |  |  |  |  |  |  |  |  |  |
|  | $41 \cdot 1$ | $36 \cdot 4$ | 77.5 | $11 \cdot 2$ | 9.5 | 20.7 | $52 \cdot 3$ | $45 \cdot 9$ | 98.2 |
| 1953. | $57 \cdot 2$ | $22 \cdot 3$ | 79.5 | 11.5 | $10 \cdot 1$ | $21 \cdot 6$ | $68 \cdot 7$ | $32 \cdot 4$ | 101.1 |
| 1954..................... | $78 \cdot 1$ | $17 \cdot 7$ | $95 \cdot 8$ | 11.7 | $11 \cdot 4$ | $23 \cdot 1$ | $89 \cdot 8$ | $29 \cdot 1$ | 118.9 |
|  |  |  |  |  |  |  |  |  |  |
| 1952..................... | $61 \cdot 2$ | 79.8 | 141.0 | 4.5 | $26 \cdot 6$ | $31 \cdot 1$ | $65 \cdot 7$ | $106 \cdot 4$ | $172 \cdot 1$ |
| 1953...................... | $33 \cdot 7$ | 93.8 | 127.5 | $4 \cdot 4$ | $24 \cdot 1$ | 28.5 | $38 \cdot 1$ | $117 \cdot 9$ | 156.0 |
| 1954..................... | 18.9 | $34 \cdot 6$ | 53.5 | $4 \cdot 4$ | $25 \cdot 4$ | 29.8 | $23 \cdot 3$ | $60 \cdot 0$ | $83 \cdot 3$ |
| Miscellaneous- <br> 1952 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 1953..................... | $2 \cdot 4$ | $4 \cdot 1$ | $6 \cdot 5$ | 1.0 | 2.9 | $3 \cdot 9$ | $3 \cdot 4$ | $7 \cdot 0$ | $10 \cdot 4$ |
| 1954..................... | $2 \cdot 3$ | $5 \cdot 0$ | $7 \cdot 3$ | 0.9 | $2 \cdot 7$ | $3 \cdot 6$ | $3 \cdot 2$ | 7-7 | 10.9 |
| Capital item charged to operating expenses- |  |  |  |  |  |  |  |  |  |
| 1952................... | - | $90 \cdot 2$ | $90 \cdot 2$ | - | - | - | - | $90 \cdot 2$ | $90 \cdot 2$ |
| 1953..................... | - | 91.7 | $91 \cdot 7$ | - | - | - |  | $91 \cdot 7$ | 91.7 |
| 1954. | - | $84 \cdot 2$ | $84 \cdot 2$ | - | - | - | - | 84-2 | $84 \cdot 2$ |
| Totals-2 |  |  |  |  |  |  |  |  |  |
| 1952. | $343 \cdot 6$ | 629.0 | $972 \cdot 6$ | 95.2 | $363-5$ | $458 \cdot 7$ | 438.8 | 992.5 | 1,431-3 |
| 1953. | $307 \cdot 1$ | 632.4 | 939.5 | 91.0 | 376.6 | $467 \cdot 6$ | $398 \cdot 1$ | 1,009.0 | 1,407-1 |
| 1954. | $299 \cdot 2$ | 556.0 | $855 \cdot 2$ | 89.9 | $370 \cdot 6$ | $460 \cdot 5$ | 389.1 | 926.6 | 1,315.7 |

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## 4.-Capital Expenditures and Repair and Maintenance Expenditures by Utility Industries, 1952-54

Nors.-Actual expenditures 1952, preliminary actual 1953, intentions as of May 1, 1954.
(Millions of Dollars)

| Type of Enterprise and Year | Capital |  |  | Repair <br> and Maintenance |  |  | Capital, Repair and Maintenance |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Con-struction | Machinery and Equipment | Total | Con-struction | Machinery and Equipment | Total | Con- <br> struction | Machinery and Equipment | Total |
| Central electric stations and gas works- |  |  |  |  |  |  |  |  |  |
| 1952.. | 398.0 | 134.7 | $532 \cdot 7$ | 26.9 | 18.7 | $45 \cdot 6$ | 424.9 | 153.4 | $578 \cdot 3$ |
| 1953. | $420 \cdot 2$ | 94.8 | 515.0 | $32 \cdot 5$ | $24 \cdot 8$ | $57 \cdot 3$ | $452 \cdot 7$ | $119 \cdot 6$ | $572 \cdot 3$ |
| 1954. | $385 \cdot 6$ | 91.6 | 477-2 | $34 \cdot 6$ | $19 \cdot 3$ | $53 \cdot 9$ | $420 \cdot 2$ | $110 \cdot 9$ | $531 \cdot 1$ |
| Steam railways and telegraphs- |  |  |  |  |  |  |  |  |  |
| 1952. | 92.2 | 146.1 | $238 \cdot 3$ | $192 \cdot 6$ | $186 \cdot 6$ | 379.2 | $284 \cdot 8$ | $332 \cdot 7$ | $617 \cdot 5$ |
| 1953. | $99 \cdot 6$ | $167 \cdot 9$ | $267 \cdot 5$ | $203 \cdot 2$ | $194 \cdot 1$ | $397 \cdot 3$ | $302 \cdot 8$ | 362.0 | 664.8 |
| 1954. | $82 \cdot 0$ | $231 \cdot 1$ | $313 \cdot 1$ | $189 \cdot 2$ | $175 \cdot 9$ | $365 \cdot 1$ | $271 \cdot 2$ | $407 \cdot 0$ | $678 \cdot 2$ |
| Electric railways- |  |  |  |  |  |  |  |  |  |
| 1952........... | $17 \cdot 9$ | $5 \cdot 5$ | 23.4 | $5 \cdot 6$ | $15 \cdot 4$ | 21.0 | 23.5 | 20.9 | 44-4 |
| 1953. | $12 \cdot 5$ | $13 \cdot 2$ | $25 \cdot 7$ | $5 \cdot 4$ | $14 \cdot 5$ | 19-9 | $17 \cdot 9$ | 27.7 | $45 \cdot 6$ |
| 1954. | $12 \cdot 6$ | $10 \cdot 9$ | 23.5 | $5 \cdot 5$ | 14.8 | $20 \cdot 3$ | 18.1 | $25 \cdot 7$ | $43 \cdot 8$ |
| Water transport- |  |  |  |  |  |  |  |  |  |
| 1952.. | 0.5 | $37 \cdot 4$ | 37.9 | $0 \cdot 3$ | $20 \cdot 3$ | $20 \cdot 6$ | 0.8 | 57.7 | 58.5 |
| 1953. | 0.2 | $32 \cdot 4$ | $32 \cdot 6$ | $0 \cdot 2$ | 18.8 | $19 \cdot 0$ | 0.4 | 51.2 | $51 \cdot 6$ |
| 1954,..................... | $0 \cdot 1$ | $29 \cdot 6$ | 29.7 | 0.2 | $17 \cdot 2$ | $17 \cdot 4$ | $0 \cdot 3$ | 46.8 | $47 \cdot 1$ |
| Motor carriers- |  |  |  |  |  |  |  |  |  |
| 1952.. | $4 \cdot 1$ | 22.0 | 26-1 | 1.5 | 36.5 | 38.0 | $5 \cdot 6$ | 58.5 | $64 \cdot 1$ |
| 1953. | $3 \cdot 1$ | 16.8 | $19 \cdot 9$ | $1 \cdot 3$ | $30 \cdot 0$ | $31 \cdot 3$ | $4 \cdot 4$ | 46.8 | $51 \cdot 2$ |
| 1954. | $4 \cdot 9$ | $17 \cdot 2$ | $22 \cdot 1$ | 1.5 | $30 \cdot 4$ | 31.9 | 6.4 | $47 \cdot 6$ | $54 \cdot 0$ |
| Grain elevators- |  |  |  |  |  |  |  |  |  |
| 1952. | $9 \cdot 6$ | 2.9 | 12.5 | $5 \cdot 0$ | $2 \cdot 3$ | $7 \cdot 3$ | $14 \cdot 6$ | $5 \cdot 2$ | $19 \cdot 8$ |
| 1953. | $9 \cdot 7$ | $3 \cdot 2$ | $12 \cdot 9$ | $4 \cdot 3$ | $3 \cdot 0$ | $7 \cdot 3$ | $14 \cdot 0$ | $6 \cdot 2$ | $20 \cdot 2$ |
| 1954. | $7 \cdot 9$ | $2 \cdot 1$ | $10 \cdot 0$ | $4 \cdot 4$ | $2 \cdot 2$ | 6.6 | $12 \cdot 3$ | $4 \cdot 3$ | $16 \cdot 6$ |
| Telephones- |  |  |  |  |  |  |  |  |  |
| 1952. | $58 \cdot 3$ | 83.0 | $141 \cdot 3$ | 14.8 | $39 \cdot 2$ | $54 \cdot 0$ | $73 \cdot 1$ | 122 -2 | 195-3 |
| 1953. | $64 \cdot 5$ | $83 \cdot 3$ | $147 \cdot 8$ | 14.6 | $43 \cdot 5$ | $58 \cdot 1$ | 79.1 | 126.8 | $205 \cdot 9$ |
| 1954. | $75 \cdot 8$ | $97 \cdot 0$ | 172.8 | 16.9 | $47 \cdot 8$ | $64 \cdot 7$ | $92 \cdot 7$ | 144.8 | $237 \cdot 5$ |
| Broadcasting- |  |  |  |  |  |  |  |  |  |
| 1952.. | $2 \cdot 1$ | 1.7 | 3.8 | 0.2 | $0 \cdot 5$ | 0.7 | $2 \cdot 3$ | 2.2 | $4 \cdot 5$ |
| 1953. | 1.7 | $2 \cdot 6$ | $4 \cdot 3$ | $0 \cdot 3$ | 0.7 | $1 \cdot 0$ | $2 \cdot 0$ | $3 \cdot 3$ | $5 \cdot 3$ |
| 1954. | 4.8 | $10 \cdot 6$ | $15 \cdot 4$ | $0 \cdot 5$ | 0.8 | $1 \cdot 3$ | $5 \cdot 3$ | 11.4 | 16-7 |
| Municipal waterworks- |  |  |  |  |  |  |  |  |  |
| 1952. | 41.2 | $4 \cdot 0$ | 45-2 | $8 \cdot 5$ | $2 \cdot 2$ | $10 \cdot 7$ | 49.7 | 6.2 | 55.9 |
| 1953. | $34 \cdot 7$ | $3 \cdot 4$ | 38.1 | 9.8 | $3 \cdot 7$ | 13.5 | 44.5 | $7 \cdot 1$ | $51 \cdot 6$ |
| 1954. | 50-9 | $3 \cdot 3$ | $54 \cdot 2$ | $14 \cdot 0$ | $3 \cdot 1$ | $17 \cdot 1$ | 64.9 | 6.4 | $71 \cdot 3$ |
| Other utilities-1 |  |  |  |  |  |  |  |  |  |
| 1952. | $76 \cdot 7$ | 11.4 | $88 \cdot 1$ | $2 \cdot 6$ | $18 \cdot 1$ | $20 \cdot 7$ | 79.3 | 29.5 | 108.8 |
| 1953. | $75 \cdot 7$ | $19 \cdot 2$ | 94.9 | $3 \cdot 3$ | $19 \cdot 2$ | 22.5 | 79.0 | 38.4 | 117.4 |
| 1954. | 74.0 | 28.2 | $102 \cdot 2$ | 5.4 | $21 \cdot 1$ | 26.5 | $79 \cdot 4$ | $49 \cdot 3$ | 128.7 |
| Capital items charged to operating expenses- |  |  |  |  |  |  |  |  |  |
|  | - | $9 \cdot 2$ | $9 \cdot 2$ | - | - | - | - | $9 \cdot 2$ | $9 \cdot 2$ |
|  | - | $9 \cdot 2$ | $9 \cdot 2$ | - | - | - | - | $9 \cdot 2$ | $9 \cdot 2$ |
| 1954. | - | $9 \cdot 9$ | 9.9 | - | - | - | - | 9.9 | $9 \cdot 9$ |
| Totals- |  |  |  |  |  |  |  |  |  |
| 1952. | $700 \cdot 6$ | 457.9 | 1,158•5 | 258.0 | 339.8 | 597.8 | 958.6 | 797.7 | 1,756.3 |
| 1953 | 721.9 | 446.0 | 1,167.9 | 274.9 | 352.3 | 627.2 | 996.8 | 798.3 | 1,795-1 |
| 1954 | 698.6 | 531.5 | 1,230-1 | 272.2 | 332.6 | 604.8 | 970.8 | 864.1 | 1,834.9 |

${ }^{1}$ Includes air transport, warehousing and oil and gas pipelines.

## 5.-Capital Expenditures and Repair and Maintenance Expenditures by Trade and Finance Industries, 1952-54

Nots.-Actual expenditures 1952, preliminary actual 1953, intentions as of May 1, 1954.
(Millions of Dollars)


[^227]
## 6.- Capital Expenditures and Repair and Maintenance Expenditures by Service Industries, 1952-54

Nots.-Actual expenditures 1952, preliminary actual 1953, intentions as of May 1, 1954.
(Millions of Dollars)

| Type of Enterprise and Year | Capital |  |  | Repair <br> and Maintenance |  |  | Capital, Repair and Maintenance |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Con-struction | Machinery and Equipment | Total | Con-struction | Ma- <br> chinery and <br> Equipment | Total | Con-struction | Machinery and Equipment | Total |
| Commercial ServicesLaundries and dry cleaners- |  |  |  |  |  |  |  |  |  |
| 1952. | 0.8 | $3 \cdot 1$ | $3 \cdot 9$ | 1.0 | $2 \cdot 3$ | $3 \cdot 3$ | 1.8 | $5 \cdot 4$ | $7 \cdot 2$ |
| 1953. | 1.7 | $4 \cdot 4$ | $6 \cdot 1$ | 0.9 | $1 \cdot 9$ | $2 \cdot 8$ | 2.6 | $6 \cdot 3$ | $8 \cdot 9$ |
| 1954. | 0.8 | $3 \cdot 5$ | $4 \cdot 3$ | 0.8 | $1 \cdot 6$ | 2.4 | $1 \cdot 6$ | $5 \cdot 1$ | $6 \cdot 7$ |
| Theatres- |  |  |  |  |  |  |  |  |  |
| 1953. | $5 \cdot 5$ | $2 \cdot 9$ | 8.4 | 0.7 | $0 \cdot 5$ | $1 \cdot 2$ | $6 \cdot 2$ | $3 \cdot 4$ | $9 \cdot 6$ |
| 1954. | 3.8 | $3 \cdot 0$ | $6 \cdot 3$ | 0.7 | $0 \cdot 6$ | $1 \cdot 3$ | $4 \cdot 5$ | $3 \cdot 6$ | $8 \cdot 1$ |
| Hotels-          <br> 1952.............. 11.8 5.5 17.3 8.2 6.1 14.3 20.0 11.6 31.6 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 1953. | 12.5 | $6 \cdot 2$ | 18.7 | $8 \cdot 8$ | $6 \cdot 5$ | $15 \cdot 3$ | $21 \cdot 3$ | $12 \cdot 7$ | $34 \cdot 0$ |
| 1954. | 4.8 | $4 \cdot 2$ | $9 \cdot 0$ | 8.2 | $6 \cdot 1$ | 14-3 | 13.0 | $10 \cdot 3$ | $23 \cdot 3$ |
| Other commercial services-1 |  |  |  |  |  |  |  |  |  |
| 1952. | 13.8 | 57.1 66.4 | 70.9 84.6 | 1.4 1.3 | 31.5 $32 \cdot 1$ | 32.9 33.4 | 15.2 19.5 | $88 \cdot 6$ 98.5 | 103.8 118.0 |
| 1954 | 18.2 8.4 | $62 \cdot 7$ | $81 \cdot 6$ 71.1 | 1.4 | $32 \cdot 7$ | $34 \cdot 1$ | 9.8 | $95 \cdot 4$ | $105 \cdot 2$ |
| Totals, Commerclal Services- |  |  |  |  |  |  |  |  |  |
| 1952. | 28.7 | 67.5 | 96.2 | 11.2 | 40.4 | 51.6 | 39.9 | 107.9 | 147.8 |
| 1953. | 37.9 | 79.9 | 117.8 | 11.7 | 41.0 | 52.7 | 49.6 | 120.9 | $170 \cdot 5$ |
| 1954 | 17.8 | $73 \cdot 4$ | 91.2 | $11 \cdot 1$ | 41.0 | $52 \cdot 1$ | 28.9 | 114.4 | $143 \cdot 3$ |
| Institutional Services- |  |  |  |  |  |  |  |  |  |
| Churches- |  |  |  |  |  |  |  |  |  |
| 1952. | 25.2 | 1.8 | 27.0 | $5 \cdot 2$ | 0.8 | 6.0 | $30 \cdot 4$ | $2 \cdot 6$ | 33.0 |
| 1953. | $25 \cdot 0$ | 2.9 | 27.9 | 6.0 | 0.9 | $6 \cdot 9$ | 31.0 | 3.8 | $34 \cdot 8$ |
| 1954. | 27.8 | $3 \cdot 3$ | 31.1 | $6 \cdot 2$ | 1.0 | $7 \cdot 2$ | $34 \cdot 0$ | $4 \cdot 3$ | $38 \cdot 3$ |
| Universities- |  |  |  |  |  |  |  |  |  |
| 1952...... | $9 \cdot 4$ | $3 \cdot 7$ | 13-1 | $2 \cdot 4$ | $0 \cdot 3$ | $2 \cdot 7$ | 11.8 | $4 \cdot 0$ | 15.8 |
| 1953.................... | $15 \cdot 7$ | $3 \cdot 6$ | $19 \cdot 3$ | $2 \cdot 2$ | $0 \cdot 3$ | $2 \cdot 5$ | $17 \cdot 9$ | $3 \cdot 9$ | 21.8 |
| 1954. | $15 \cdot 1$ | $3 \cdot 3$ | 18.4 | $2 \cdot 1$ | $0 \cdot 3$ | 2.4 | $17 \cdot 2$ | $3 \cdot 6$ | $20 \cdot 8$ |
| Schools- |  |  |  |  |  |  |  |  |  |
| 1952.... | $129 \cdot 3$ | $15 \cdot 6$ | $144 \cdot 9$ | 14.1 | $2 \cdot 0$ | 16.1 | 143.4 | $17 \cdot 6$ | $161 \cdot 0$ |
| 1953. | 122.6 | 13.7 | $136 \cdot 3$ | $15 \cdot 2$ | $2 \cdot 4$ | $17 \cdot 6$ | 137.8 | $16 \cdot 1$ | 153.9 |
| 1954 | $142 \cdot 0$ | $14 \cdot 1$ | $156 \cdot 1$ | 17-1 | $2 \cdot 1$ | $19 \cdot 2$ | $159 \cdot 1$ | 16-2 | $175 \cdot 3$ |
| Hospitals- |  |  |  |  |  |  |  |  |  |
| 1952. | 81.4 | 11.9 | 93.3 | $10 \cdot 5$ | $3 \cdot 7$ | 14.2 | 91.9 | $15 \cdot 6$ | 107.5 |
| 1953. | 104-4 | 13.5 | $117 \cdot 9$ | $11 \cdot 3$ | $4 \cdot 4$ | 15.7 | $115 \cdot 7$ | 17.9 | 133.6 |
| 1954. | 152-3 | 20.9 | 173-2 | 10.9 | $3 \cdot 8$ | 14.7 | 163.2 | 24.7 | 187.9 |
| Totals, Institutional Services- |  |  |  |  |  |  |  |  |  |
|  | 245-3 | 33.0 | $278 \cdot 3$ | 32.2 | 6.8 | 39.0 | $277 \cdot 5$ | 39.8 | 317.3 |
| 1953 | 267-7 | 33.7 | 301 -4 | $34 \cdot 7$ | 8.0 | 42.7 | 302 -4 | 41.7 | $344 \cdot 1$ |
| 1954. | 337.2 | 41.6 | 378.8 | 36.3 | $7 \cdot 2$ | 43.5 | $373 \cdot 5$ | 48.8 | 422.3 |
| Government |  |  |  |  |  |  |  |  |  |
| 1952............. | 738.9 | 88.2 | $827 \cdot 1$ | 175.5 | $34 \cdot 8$ | $210 \cdot 3$ | 914.4 | 123.0 | 1,037-4 |
| 1953. | 694.0 | $94 \cdot 6$ | 788.6 | 185.0 | 36.3 | $221 \cdot 3$ | 879.0 | $130 \cdot 9$ | 1,009-9 |
| 1954. | 732-6 | 76.5 | $809 \cdot 1$ | $219 \cdot 2$ | $30 \cdot 5$ | 249-7 | 951.8 | $107 \cdot 0$ | 1,058-8 |
| Grand Totals- |  |  |  |  |  |  |  |  |  |
|  | 1,999.6 | 208.2 | 1,207.8 | $231 \cdot 4$ | 85.3 | 316.7 | 1,231-0 | 298.5 | 1,5e2-5 |
| 1854. | 1,087-6 | 191.5 | 1,279-1 | 266.6 | 78.7 | $345 \cdot 3$ | 1,354-2 | $270 \cdot 2$ | 1,624-4 |

[^228] other than theatres, professional services and independent restauranta.

## 7.-Summary of Capital Expenditures and Repair and Maintenance Expenditures by Province, 1952-54

Note.-Actual expenditures 1952, preliminary actual 1953, intentions as of May 1, 1954.
(Millions of Dollars)

| Province and Year | Capital |  |  | Repair <br> and Maintenance |  |  | Capital, Repair and Maintenance |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Con-struction | Machinery and Equipment | Total | Con-struction | Machinery and Equipment | Total | Con-struction | Machinery and Equipment | Total |
| Newioundland- |  |  |  |  |  |  |  |  |  |
| 1952.. | 56 | 30 | 86 | 18 | 22 | 40 | 74 | 52 | 126 |
| 1953. | 49 | 29 | 78 | 20 | 17 | 37 | 69 | 46 | 115 |
| 1954.................... | 52 | 31 | 83 | 19 | 16 | 35 | 71 | 47 | 118 |
| Prince Edward Island- |  |  |  |  |  |  |  |  |  |
| 1952............... . | 8 | 9 | 17 | 5 | 4 | 9 | 13 | 13 | 26 |
| 1953. | 9 | 8 | 17 | 4 | 4 | 8 | 13 | 12 | 25 |
| 1954. | 10 | 8 | 18 | 5 | 3 | 8 | 15 | 11 | 26 |
| Nova Scotia- |  |  |  |  |  |  |  |  |  |
| 1952... | 81 | 52 | 133 | 38 | 32 | 70 | 119 | 84 | 203 |
| 1953. | 96 | 57 | 153 | 42 | 32 | 74 | 138 | 89 | 227 |
| 1954 | 115 | 61 | 176 | 40 | 33 | 73 | 155 | 94 | 249 |
| New Brunswick- |  |  |  |  |  |  |  |  |  |
| 1952......... ......... | 55 | 49 | 104 | 33 34 | 33 |  | 88 96 | 82 68 | ${ }_{184}^{170}$ |
| $\begin{aligned} & 1953 \\ & 1954 \end{aligned}$ | 62 74 | 47 | 121 | 34 34 | 28 | 62 | +9688 | 68 75 | 183 |
| Quebec - |  |  |  |  |  |  |  |  |  |
| 1952......... .. .... | 843 | 440 | 1,283 | 209 | 273 | 482 | 1,052 | 713 | 1,765 |
| 1953....... . . ..... | 865 | 419 | 1,284 | 212 | 278 | 490 | 1,077 | 697 | 1,774 |
| 1954........ .. .... | 966 | 437 | 1,403 | 220 | 276 | 496 | 1,186 | 713 | 1,889 |
| Ontario- |  |  |  |  |  |  |  |  |  |
| 1952... | 1,137 | 762 | 1,899 | 321 | 399 | 720 | 1,458 | 1,161 | 2,619 |
| 1953................. . . | 1,306 | 763 | 2,069 | 334 | 413 | 747 | 1,640 | 1,176 | 2,816 |
| 1954.............. . . . . | 1,368 | 740 | 2,108 | 342 | 409 | 751 | 1,710 | 1,149 | 2,859 |
| Manitoba- |  |  |  |  |  |  |  |  |  |
| 1952. | 139 | 103 | 242 | 60 | 57 | 117 | 199 | 160 | 359 |
| 1953. | 154 | 104 | 258 | 64 | 56 | 120 | 218 | 160 | 378 |
| 1954..................... | 159 | 113 | 272 | 62 | 53 | 115 | 221 | 166 | 387 |
| Saskatchewan - |  |  |  |  |  |  |  |  |  |
| 1952...... ........... | 138 | 175 | 313 | ${ }_{60}^{63}$ | 57 58 | 120 | 201 | ${ }_{227}^{232}$ | 433 448 |
| 1953. | 161 | 169 | 330 | 60 | 58 | 118 | 221 | 227 | 448 |
| 1954.................... | 184 | 170 | 354 | 61 | 59 | 120 | 245 | 229 | 474 |
| Alberta- |  |  |  |  |  |  |  |  |  |
| 1952................. | 384 | 218 | 602 | 71 | 89 | 160 | 455 | 307 |  |
| 1953. | 476 | 249 | 725 | 83 | 86 | 169 | 559 | 335 | 898 |
| 1954..................... | 534 | 196 | 730 | 84 | 89 | 173 | 618 | 285 | 903 |
| British Columbia-1 |  |  |  |  |  |  |  |  |  |
| 1952... | 419 | 185 | 604 | 95 | 112 | 207 | 514 | 297 | 811 |
| 1953. | 467 | 195 | 662 | 97 | 110 | 207 | 564 | 305 | 869 |
| 1954..................... | 405 | 169 | 574 | 97 | 106 | 203 | 502 | 275 | 777 |
| Canada- |  |  |  |  |  |  |  |  |  |
| 1952. | 3,260 | 2,023 | 5,283 | 913 | 1,078 | 1,991 | 4,173 | 3,101 | 7,270 |
| 1953. | 3,645 | 2,033 | 5,678 | 950 | 1,082 | 2,032 | 4,595 | 3,115 | 7,710 |
| 1954. | 3,867 | 1,972 | 5,839 | 964 | 1,072 | 2,036 | 4,831 | 3,044 | 7,875 |

[^229]The expenditures shown for each province represent the estimated value of construction work put in place in the province and the value of machinery and equipment acquired for use within the province. Such expenditures represent gross additions to the capital stock of the province, and are a reflection of economic activity in that area. However, part of the initial impact of these expenditures on employment and income may be felt in other regions. For example, heavy investment in western oil refineries and pipelines may mean increased activity in the steel industry of Ontario as well as construction activity in the Prairies.

The totals for 1954 shown in Table 7 are not the same as those shown in Tables 1 to 6 inclusive. In Tables 1 to 6 the estimates are based on the result of a midyear survey taken in June 1954, whereas in Table 7, the estimates are based on a survey taken at the end of 1953.

## Section 2.-The Construction Industry

## Subsection 1.-Value of Construction Work Performed

The statistics given in this Subsection are comparable with those shown in the 1954 Year Book but not with the data of earlier Year Books. Previously, statistics of construction activity were obtained from questionnaires received from organizations putting the work in place, mainly construction contractors. The statistics are now based largely on information received from organizations and individuals paying for the work done by contractors and by the organizations' own labour forces; they are collected at the same time and from the same sources as the capital expenditures data given in the previous Section. This fundamental change in the source of basic data introduced a new construction series.

The change in sources enables more realistic estimates to be made of the total cost of construction and ensures that construction data are based on the same definitions and coverage as the capital expenditures series. The present source provides data on the total cost of a structure including all indirect costs such as legal, architectural and engineering fees in addition to payments made to contractors. When information was collected from construction contractors it was necessary to provide respondents with an arbitrary definition of what was to be considered as new construction. Then, all work exceeding $\$ 2,000$ in value was classified as new. The present definition classifies as new only those projects which are charged to the capital or fixed assets account of a firm. Also, in the new series, oil-well drilling and certain below-surface mine workings are treated as part of construction. Further, in previous construction surveys only the larger projects undertaken by the labour forces of organizations whose primary activity was other than construction, were covered. The present method of obtaining construction expenditures from all industries results in more complete coverage in terms of the total value of work performed.*

The data shown in the tables of this Subsection represent the estimated total value of all new and repair construction. The slight differences between these figures and corresponding statistics of the previous Section are owing to rounding and minor revisions.

[^230]Total value of the intended construction program in Canada for 1954, both new and repair, is estimated at $\$ 4,830,000,000$ as compared with $\$ 4,595,000,000$ in 1953 and $\$ 4,199,000,000$ in 1952. This estimate covers all sectors of the Canadian economy-business, institutions, governments and housing. The estimate for 1954 is larger than the estimated amount spent in 1953-making the eighth successive year since 1946 to show an increase over the previous year. Expressed as a percentage, it is the smallest increase amounting to only 5 p.c. over the previous year. The program for 1954 is not expected to have the same impact on the expanded construction industry as the programs of some of the earlier post-war years when the supply situation, for both labour and materials, was much more restricted.

The trend of construction volume is indicated in Table 8 which shows construction, both new and repair, in constant as well as in current dollars. Total construction is also shown in this table as a percentage of gross national product in terms of both current and constant dollars. Though the total value of construction rose by 128 p.c. between 1947 and 1953 the volume of construction as indicated by the constant dollar data, recorded an increase of only 50 p.c. (This shows that price changes must be taken into account in any comparison of value.) It is also apparent from the constant dollar figures in Table 8 that practically all of the increased activity since the end of World War II has been in new construction, and that repair has remained at about the same level. Repair work is a much smaller proportion of the total construction now than in the earlier years. In 1947, repair and maintenance construction accounted for 29 p.c. of total volume as compared with 20 p.c. in 1954.
8.-Value of Construction Work Performed, Current and Constant (1949) Dollars,

NcTr.-Actual 1947-52, preliminary actual 1953, intentions as of January 1954.
(Millions of Dollars)

| Year | New Construction |  | Repair and Maintenance Construction |  | Total Construction |  | Total Construction as P.C. of Gross National Product |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current | Constant | Current | Constant | Current | Constant | Current | Constant |
| 19471. | 1,424 | 897 | 592 | 696 | 2,016 | 2,377 | 14.6 | 15.4 |
| $1948{ }^{1}$ | 1,877 | 1,049 | 694 | 720 | 2,571 | 2,667 | 16.5 | 17.0 |
| 1949. | 2,124 | 1,129 | 732 | 732 | 2,856 | 2,856 | 17.3 | 17.5 |
| 1950. | 2,366 | 1,196 | 766 | 727 | 3,132 | 2,974 | 17.2 | 17.2 |
| 1951. | 2,734 | 1,248 | 927 | 783 | 3,661 | 3,091 | $17 \cdot 0$ | 16.9 |
| 1952. | 3,263 | 2,609 | 916 | 732 | 4,199 | 3,357 | 18.1 | $17 \cdot 2$ |
| 1953. | 3,646 | 2,831 | 949 | 735 | 4,595 | 3,566 | 18.9 | $17 \cdot 6$ |
| 1954. | 3,866 |  | 964 |  | 4,830 | .. |  |  |

${ }^{1}$ Exclusive of Newfoundland.
Estimates of the value of work performed by construction contractors and by others in various branches of industry, business and government who use their own labour force to perform construction work are given in Table 9. There is little indication of any change from year to year in the proportionate division of total construction work between these two categories. The construction industry proper accounted for about 72 p.c. of the total value of all work performed in each of the three years and the remaining 28 p.c. was undertaken by other business and government bodies. A further elaboration of these data and their relationship to numbers employed, salaries and wages paid, and value of materials used is given in Table 13, p. 734 .
9.-Value of Construction Work Performed by Contractors and by Others, ${ }^{1}$ 1952-54

Note.-Actual expenditures 1952, preliminary actual 1953, intentions as of January 1954.
(Millions of Dollars)


[^231] construction industry.

Of the total new and repair construction program of $\$ 4,830,000,000$ estimated for 1954 , building construction accounts for $\$ 2,914,000,000$ or 60 p.c., and engineering work for $\$ 1,916,000,000$ or 40 p.c. The estimate for each of these categories is above 1953 and 1952, but the proportion that each constitutes of the total program varies somewhat from year to year. Of the total, building construction accounted for 57.4 p.c. in $1952,59 \cdot 5$ p.c. in 1953 and an estimated $60 \cdot 3$ p.c. in 1954 , and engineering construction accounted for $42 \cdot 6$ p.c, $40 \cdot 5$ p.c., and $39 \cdot 7$ p.c. in 1952 , 1953 and 1954, respectively.
10.-Value of Construction Work Performed, by Principal Type, 1952-54

Nors.-Actual expenditures 1952, preliminary actual 1953, intentions as of January 1954.
(Millions of Dollars)

| Type of Construction | 1952 |  | 1953 |  | 1954 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ | Value | P.C. of Total | Value | P.C. of Total |
| Building Construction- |  |  |  |  |  |  |
| Residential. | 1,029 | 24.5 | 1,299 | $28 \cdot 3$ | 1,347 | 27.9 |
| Industrial. | 509 | $12 \cdot 1$ | 497 | $10 \cdot 8$ | 472 | $9 \cdot 8$ |
| Commercial | 454 | $10 \cdot 8$ | 513 | 11.2 | 575 | 11.9 |
| Institutional | 314 | $7 \cdot 5$ | 336 | $7 \cdot 3$ | 422 | $8 \cdot 7$ |
| Others. | 105 | $2 \cdot 5$ | 87 | 1.9 | 98 | $2 \cdot 0$ |
| Totals, Bullding Construction. | 2,411 | 57.4 | 2,732 | 59.5 | 2,314 | 60.3 |
| Engineering Construction- |  |  |  |  |  |  |
| Road, highway and bridge. | 574 | 13.7 | 572 | $12 \cdot 4$ | 564 | 11.7 |
| Waterworks and sewage systems | 136 | $3 \cdot 2$ | 119 | $2 \cdot 6$ | 139 | 2.9 |
| Dams and irrigation............. .... | 66 | $1 \cdot 6$ | 61 | 1.3 | 35 | 0.7 |
| Electric power................ | 386 | $9 \cdot 2$ | 414 | $9 \cdot 0$ | 415 | $8 \cdot 6$ |
| Railway, telephone and telegraph..... | 296 | $7 \cdot 0$ | 314 | 6.8 | 308 | 6.4 |
| Gas and oil facilities. | 215 | $5 \cdot 1$ | 281 | $6 \cdot 1$ | 349 | $7 \cdot 2$ |
| Marine. | 70 | 1.7 | 59 | $1 \cdot 3$ | 68 | 1.4 |
| Other engineering | 45 | $1 \cdot 1$ | 43 | 0.9 | 39 | 0.8 |
| Totals, Engineering Construction. | 1,788 | 42.6 | 1,863 | $40 \cdot 5$ | 1,916 | 39.7 |
| Totals, Construction | 4,199 | $100 \cdot 0$ | 4,595 | $100 \cdot 0$ | 4,830 | 100.0 |

Changes in the pattern of the construction program illustrating where shifts within the program are occurring from year to year are given in Table 11. For example, of the $\$ 182,000,000$ increase in building construction indicated for 1954, $\$ 48,000,000$ is accounted for by housing, $\$ 29,000,000$ by stores and $\$ 59,000,000$ by hospitals. These increases are offset by a $\$ 30,000,000$ decline in construction for factories, plants and workshops.

## 11.-Dollar Change in Value of Construction Work Performed, by Type of Structure, 1952 to 1953 and 1953 to 1954

| Type of Construction | Change 1952 to 1953 | Change 1953 to 1954 | Type of Construction | $\begin{gathered} \text { Change } \\ 1952 \\ \text { to } \\ 1953 \end{gathered}$ | Change 1953 to 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ 000,000 | \$'000,000 |  | \$'000,000 | \$'000,000 |
| Building ConstructionResidential. | 270 | 48 | Engtneering Construction -continued <br> Road, etc.-concluded |  |  |
|  |  |  |  |  |  |
| Industrial...................... | -12-49 | -25-30 | Gravel or stone surfaced streets, highways, roads, parking lots, |  |  |
|  |  |  |  | $-10$ | 5 |
| Warehouses, storehouses, refrig- |  |  | Dirt, clay or other streets, roads, |  |  |
| erated storage, | 38 -3 | -8 |  | -3 | 2 |
| Grain elevators.... | 3 | 14 |  |  |  |
| Railway stations, works offices, |  |  | filling. ${ }_{\text {S }}$ Sidewalks and paths............. | 10-2 | -14 |
| roadway buildings...... | 2 | -1 |  |  |  |
| Railway shops, engine houses, water and fuel stations. | 2 | -1 | Bridges, trestles, culverts, overpasses, etc. | -4-7 | -5 |
|  |  |  |  |  |  |
| Commercial.................... | 59 | 62 | Tunnels, subways. <br> Highway, roadside maintenance | 0 | 0 |
| Hotels, clubs, restaurants, cafeterias, tourist cabins. |  | $-12$ | Aerodromes, landing fields, runways, tarmac. | - 5 | 0 |
| Office buildings. . . . . . . . . . | - 10 | 35 |  |  |  |
| Stores (wholesale and retail canteens, commissaries | - ${ }^{52}$ | 297 |  | -17 | 20 |
| Garages, service stations. |  |  | Tile drains, drainage, ditches, storm sewers. <br> Waterworks systems and con- | -2 | 2 |
| Theatres, arenas, amusement and recreational buildings. | 5 | -4 |  |  |  |
| Farm buildings (excluding | - 6 |  | nections. <br> Sewage systems and connections. <br> Water storage tanks. <br> Pumping stations, water | -8 | 19 |
| lings) ................. |  | 0 |  | -4 |  |
| Radio, television broadcasting, relay and booster stations, telephone exchanges. | e. ${ }^{2}$ | 6 |  | - | 0 |
| Aircraft hangars. |  | -8 | Dams and irrigation. <br> Dams and reservoirs. <br> Irrigation, land reclamation pro jects. | -5 | -26-26 |
| Passenger terminals, bus, boat | t |  |  |  |  |
| Laundries, dry cleaning estab- | - 1 | 2 |  | -8 | 0 |
| lishments...... |  |  |  |  |  |
| Institutional. | 22 | 86 | Electric power construction. <br> Electric stations, power plants, distribution lines. Street lighting. | 28 | 1 |
| Schools, other educational buildings. | -2 | 22 |  | 28 |  |
|  |  | 22 |  |  |  |
| ings. ......................... | 1 | 4 | Railway, telephone and telegraph. Railway, tracklaying, surfacing Roadway maintenance, track. . Signals and interlockers |  |  |
| Hospitals, sanatoria, clinics, first- | - 1 <br> 25  <br> -8  | 598 |  | 18 | -6-17 |
| aid stations, etc.......... |  |  |  | 11 |  |
| Other institutional building |  |  |  | 2 | 0 |
|  |  |  |  | $t$ | $-1$ |
| Other building. | -18 | 11 | Telephone and telegraph lines, | 14-10 |  |
| Armouries, barracks, drillhalls, | , -19 | 2 | Fences, snowsheds, signs. <br> Road and highway surfacing and |  | 15 |
|  |  |  |  | -1 | 0 |
| Bunk | -6 | 8 | maintenance, railway............ |  |  |
| All other building construction.. | 2 | -2 |  |  |  |
| Totals, Building Construction.. | 321 | 182 | Gas and oil facilities............ Oil refineries............... | 19 | 173 |
|  | -2 <br> 19 | -8 | Pumping stations (oil and gas)...Pipelines (oil) | . $\begin{aligned} & -2 \\ & -5\end{aligned}$ |  |
|  |  |  |  |  | -14-5 |
| Engineering Construction- <br> Road, highway and bridge and aerodromes Hard surfaced or paved streets, highways, parking lots, etc.... |  |  | Storage tanks (oil and gas)...... | , |  |
|  |  |  | Pipelines (gas) | 19 | ${ }_{87}$ |
|  |  |  | Wells (oil and | 14 |  |
|  |  |  | Natural gas Gas mains a |  | 7 -8 |

[^232]
## 11.-Dollar Change in Value of Construction Work Performed, by Type of Structure, 1952 to 1953 and 1953 to 1954 -concluded

| Type of Construction | Change 1952 to 1953 | $\left\lvert\, \begin{array}{c\|} \text { Change } \\ 1953 \\ \text { to } \\ 1954 \end{array}\right.$ | Type of Construction | Change 1952 $\stackrel{t}{t}$ 1953 | Change 1953 to 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Engineering Construction -continued | \% ${ }^{\prime} 000,000$ | \$'000,000 | Engineering Construction -concluded | \$ 000,000 | \$ 000,000 |
| Marine... | -11 | 9 | Other engineering construction. | -2 | -4 |
| Docks, wharves, piers, breakwaters. | -3 | 1 | Park systems, landscaping, sodding, ete. | 0 | 0 |
| Retaining walls, embankments, riprapping. | -1 |  | Mine shafts and underground workings. | 4 | -2 |
| Canals and waterways. | -4 | 1 | All other engineering construction | 5 | -2 |
| Dredging and pile driving....... | -5 | 8 |  |  |  |
| Dykes.......... | 0 | 0 | Totals, Engineering Construction. | 75 | 53 |
| Logging booms.................. | 0 | -1 |  |  |  |
| Other marine construction....... | 1 | -1 | Tetals, Value of Construction. . | 396 | 235 |

${ }^{1}$ No change is shown here since data were not collected separately for this type of structure. Inasmuch as the over-all change for gas and oil facilities was calculated without regard to this fact, the sum of the value changes shown for the items in this group does not agree with the total change shown for the group.

Table 12 provides estimates of total expenditure in Canada on each type-of-structure classification for which the data are available. It contains detailed data from which Tables 10 and 11 were derived.

## 12.-Detailed Estimates of Value of Construction Work Performed, by Type of Structure, 1952-54

Nots.-Actual expenditures 1952, preliminary actual 1953, intentions as of January 1954.

| Type of Structure | 1952 |  |  | 1953 |  |  | 1954 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | New | Repair | Total | New | Repair | Total | New | Repair | Total |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$ 000 | \$'000 | \$'000 | \$'000 |
| Building Construction- <br> Dwellings, single, double, duplexes and apartments Factories, plants and workshops. | 826,000 | 203,000 | 1,029,000 | 1,086,000 | 212,700 | 1,298,700 | 1,122,100 | 225,300 | 1,347,400 |
|  |  |  |  |  |  |  |  |  |  |
|  | 826,000 | 76,885 |  |  |  |  |  |  |  |
|  | 284,809 |  | 361,694 | 238, 853 | 73,961 | 312,814 | 214,146 | 69,224 | 283,370 |
| Warehouses, storehouses, refrigerated storage, etc. | 59,673 | 12,251 |  |  |  |  |  | 9,644 |  |
| Grain elevators. | 10,006 | 4,799 | 14,805 | 8,205 | 4,155 | 12,360 | 6,145 | 3,809 | 9,954 |
| Mine, mill buildings. | 20,850 | 3,798 | 24,648 | 23,790 | 3,798 | 27,588 | 37,872 | 4,160 | 42,032 |
| Railway stations, works offices and roadway buildings. | 6,067 | 11,741 |  |  |  |  |  |  |  |
| Railway shops, engine houses, water and fuel stations. |  |  | 17,808 | 6,768 | 12,824 | 19,592 | 7,333 | 12,157 | 19,490 |
| Hotels, clubs, restaurants, cafeterias, tourist cabins. | 7,423 | 10,280 | 17,703 | 8,505 | 11,328 | 19,833 | 8,863 | 10,633 | 19,496 |
| Office buildings. | 63,594 | 19,066 | 88,660 | 73,416 | 19,447 | 92,863 | 109,616 | r 18,0478 | 128,365 |
| Stores, wholesale and retail, canteens, commissaries. |  |  |  |  |  |  |  |  |  |
| Garages, service stations. | 26,267 | $\begin{array}{r} 14,685 \\ 9,574 \end{array}$ | $\begin{aligned} & 66,083 \\ & 35,841 \end{aligned}$ | $\begin{aligned} & 83,520 \\ & 32,387 \end{aligned}$ | 14,0089,160 | $\begin{aligned} & 97,528 \\ & 41,547 \end{aligned}$ | $\begin{array}{r} 112,104 \\ 39,254 \end{array}$ | $\begin{array}{r} 15,325 \\ 9,552 \end{array}$ | $\begin{array}{r} 127,429 \\ 48,806 \end{array}$ |
| Theatres, arenas, amuse ment and recreation buildings. |  |  |  |  |  |  |  |  |  |
| Farm buildings (exclud- | $\begin{aligned} & 17,623 \\ & 72,204 \end{aligned}$ | $\begin{array}{r} 1,441 \\ 57,832 \end{array}$ | $\begin{array}{r} 19,064 \\ 130,036 \end{array}$ | 22,24975,127 | $\begin{array}{r} 1,492 \\ 60,675 \end{array}$ | $\begin{array}{r} 23,741 \\ 135,802 \end{array}$ | $\begin{aligned} & 18,518 \\ & 73,179 \end{aligned}$ | $\begin{array}{r} 1,379 \\ 63,257 \end{array}$ | $\begin{array}{r} 19,897 \\ 136,436 \end{array}$ |
| ing dwellings)....... |  |  |  |  |  |  |  |  |  |
| casting, relay and boost er stations, telephone ex changes |  | 57,832 |  | 75, 127 |  |  |  |  |  |
| Aircraft hangars...... | 22,013 | 1,353 |  | 20. | 1,752 |  | 65,776 | 1,840 | 67,616 |

## 12.-Detailed Estimates of Value of Construction Work Performed, by Type of Structure, 1952-54-continued

| Type of Structure | 1952 |  |  | 1953 |  |  | 1954 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | New | Repair | Total | New | Repair | Total | New | Repair | Total |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$ 000 | \$'000 |
| Building Constructionconcluded |  |  |  |  |  |  |  |  |  |
| Laundries, dry cleaning establishments. | 736 | 912 | 1,648 | 1,677 | 1,099 | 2,776 | 3,852 | 889 | 4,741 |
| Passenger terminals, bus, boat or air. |  | 230 |  | 800 | 585 | 1,385 | 1,035 | 477 | 1,512 |
| Schools, other educational buildings. | 135,268 | 16,933 | 152,201 | 132,503 | 17,961 | 150,464 | 153,015 | 19,129 | 172,144 |
| Churches, other religious buildings | 25,835 | 5,390 | 31,225 | 25,729 | 6,233 | 31,962 | 29,289. | 6,413 | 35,702 |
| Hospitals, sanatoria, clinies, first aid stations, etc | 81,013 | 12,526 | 93,539 | 106,276 | 12,738 | 119,014 | 163,993 | 13,818 | 177,811 |
| Other institutional buildings. | 31,315 | 6,092 | 37,407 | 28,156 | 6,114 | 34,270 | 29,524 | 6,424 | 35,948 |
| Armouries, barracks, drillhalls, etc. | 79,465 | 5,536 | 85,001 | 65,808 | 6,115 | 71,923 | 68.450 | 5,574 | 74,024 |
| Bunkhouses, dormitories, cookeries, ete | 13,074 | 6,363 | 19,437 | 8,800 | 4,005 | 12,805 | 19,510 | 2,861 | 22,371 |
| All other building construction. | 792 | 136 | 928 | 2,344 | 291 | 2,635 | 1,111 | 382 | 1,493 |
| struction. | 1,919,034 | 491, 868 | 2,410,902 | 2,229,662 | 502,303 | 2,731,965 | 2,403,030 | 511, 006 | 2,914,036 |
| Engineering Construc-tion- |  |  |  |  |  |  |  |  |  |
| Hard surfaced or paved streets, highways, parking lots, etc | 144,100 | 53,171 | 197,271 | 160,843 | 54,792 | 215,635 | 157,084 | 56,835 | 213,919 |
| Gravel or stone surfaced streets, highways, roads, |  |  |  |  |  |  |  |  |  |
| Dirt, clay or other streets, roads, parking lots, etc. | 24,419 | 10,404 | 34,823 | 22,548 | 9,136 | 31,684 | 24,205 | 9,624 | 33,829 |
| Grading, scraping, oiling, filling. |  | . 712 | 97,723 | 81,465 | 26,845 | 108,310 | 64,436 | 29,716 | 94,152 |
| Sidewalks, pa | 16,047 | 3,009 | 19,056 | 14,388 | 2,821 | 17,209 | 16,894 | 2,855 | 19,749 |
| Bridges, trestles, culverts, overpasses, etc. | 42,243 | 19,089 | ${ }^{61,332}$ | 36,310 | 21,133 | 57,443 | 38,866 | 21,165 | 60,031 |
| Tunnels, subways........ | 20,106 | 498 | 20,604 | 13,541 | 429 | 13,970 | 8,871 | + 409 | 9,280 |
| Highway, roadside maintenance guard rails | 1,276 | 2,761 | 4,037 | 1,153 | 2,760 | 3,913 | 1,337 | 2,919 | 4,256 |
| Aerodromes, landing fields, runways, tarmac. | 23,405 | 651 | 24,056 | 18,030 | 483 | 18,513 | 18,279 | 451 | 18,730 |
| Tile drains, drainage |  | 2,985 | 19,291 | 13,929 | 3,013 | 16,942 | 16,026 | 3,076 | 19,102 |
| Waterworks systems. connections. | 48,483 | 6,838 | 55,321 | 13,529 37,210 | 9,751 | 46,961 | 45,101 | 15,041 | 60,142 |
| Sewage systems, connections. | 43,848 | 6,142 | 49,990 | 40,907 | 5,151 | 46,058 | 47.091 | 5,290 | 52,381 |
| Pumping stations, water. | 5,207 | 1,620 | 6,827 | 5,967 | 1,542 | 7,509 | 4,111 | 1,336 | 5,447 |
| Water storage tanks.. | 2,122 | 2,162 | 4,284 | 1,029 | 804 | 1,833 | 1,634 | 580 | 2,214 |
| Dams and reservoirs. | 46,140 | 2,626 | 48,766 | 46,827 | 4,697 | 51,524 | 21,021 | 4,504 | 25,525 |
| Irrigation and land reclamation | 15,248 | 2,206 | 17,454 | 8,469 | 889 | 9,358 | 8,350 | 853 | 9,203 |
| Electric stations, power plants, distribution lines | 356,198 | 27,486 | 383,684 | 378,051 | 34,202 | 412,253 | 375,599 | 36,938 | 412,537 |
| Street lighting ....... | 1,182 | 813 | 1,995 | 1,412 | 632 | 2,044 | 1,706 | 638 | 2,344 |
| Railway tracklaying and surfacing. | 28,776 | 60,438 | 89,214 | 28,981 | 71,346 | 100,327 | 15,177 | 67,856 | 83,033 |
| Roadway maintenance, track. | 13,815 | 81,182 | 94,997 | 12,713 | 84,420 | 97,133 | 17,699 | 79,018 | 96,717 |
| Signals and interlockers. | 5,519 | 4,206 | 9,725 | 6,189 | 4,596 | 10,785 | 6,185 | 4,256 | 10,441 |
| Telephone and telegraph lines, underground and marine cables | 60,043 | 25,207 | 85,250 | 68,909 | 30,362 | 99,271 | 80,289 | 31,443 | 111,732 |
| Fences, snowsheds, signs. | 5,589 | 9,952 | 15,541 | 1,623 | 4,330 | 5,953 | 1,564 | 4,162 | 5,726 |
| Road or highway surfacing and maintenance, railway |  | 674 9.311 | 1,356 | 233 44.327 | 929 | 54, 325 | 76 60,708 | $\begin{array}{r}80 \\ 10,015\end{array}$ | ${ }_{70}^{156}$ |

12.-Detailed Estimates of Value of Construction Work Performed, by Type of Structure, 1952-54-concluded

| Type of Structure | 1952 |  |  | 1953 |  |  | 1954 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | New | Repair | Total | New | Repair | Total | New | Repair | Total |
|  | 8'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | 8 '000 |
| Engineering Construc-tlion-concluded Pumping stations (oil and |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Pipelines (oil)............ 66,040 581 66,621 60,514 1,458 61,972 44,377 3,731 48,108 <br> Storage tanks (oil and          |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Pipelines (gas)........... | 6,948 | 1,537 | 8,485 | 25,833 | 753 | 26,586 | 51,709 | 688 | 52,397 |
| Oil and gas wells.......... 72,458 1,520 73,978 86,697 1,633 88,330 122,229 3,133 125,362 <br> Docks, wharves, piers,          |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | 2,473 | 836 | 3,309 | 1,836 | 632 | 2,468 | 1,589 | 672 | 2,261 |
| Canals and waterways... | 6,070 | 3,100 | 9,170 | 3,085 | 1,789 | 4,854 | 4,879 | 1,576 | 6,455 |
| Dredging and pile drivi | 8,429 | 4,321 | 12,750 | 4,781 | 3,605 | 8,386 | 12,220 | 3,675 | 15,895 |
| Dykes... | 2,234 | 284 | 2,518 | 2,287 | 374 | 2,661 | 2,606 | 358 | 2,964 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Incinerator construction. | 2,095 | 468 | 2,563 | 2,167 | 502 | 2,669 | 2,371 | 498 | 2,869 |
| Park systems, landscaping, sodding, etc. | 5,754 | 3,157 | 8,911 | 5,678 | 3,246 | 8,924 | 6,252 | 3,222 | 9,474 |
| Structural steel erection. 1,904 - 1,904 $\cdots$ $\cdots$ 1 $\cdots$ $\cdots$ 1 <br> Swimming pools, tennis          |  |  |  |  |  |  |  |  |  |
| Swimming pools, tennis courts, outdoor recreation facilities. | 883 | 906 | 1,789 | 832 | 844 | 1,676 | 837 | 836 | 1,673 |
| Mineshafts and other below surface workings. | 14,17 | 1,3 | 15.5 | 17,981 | 2,48 | 20,4 | 15,619 | 2,074 | 17,693 |
| Other engineering construction. | 7,716 | 7,522 | 15,238 | 19,713 | 2,287 | 22,000 | 23,256 | 1,782 | 25,038 |
| Totals, Engineering Construction. | 1,363,306 | 424, 413 | 1,787,719 | 1,416,513 | 446,75 | 1,863,228 | 1,462,874 | 453,170 | 1,916,044 |
| Totals, Construction | 3,282,340 | 916,281 | 4,198,621 | 3,646,175 | 949, 018 | 4,595,193 | 3,865,904 | 964,176 | 4,830,080 |

${ }^{1}$ Not collected separately.
Principal statistics of the construction industry are shown by province and for contractors, utilities, governments and others in Table 13. Though the statistics given for Canada as a whole may be considered as relatively accurate, those given for individual provinces and by class of builder are approximations. All of the estimates given for average numbers employed, salaries and wages paid, and cost of materials used are based on ratios of these items to total value of work performed derived from survey work done in 1952 and applied to the total value of work figures. Although these ratios were calculated in some detail by type of industry, still further refinements are required. There are also some difficulties in obtaining the precise geographical location of projects undertaken or to be undertaken by large companies operating in a number of provinces. However, if used with these qualifications in mind the table provides useful estimates.

In using the employment data it is also of value to have a knowledge of the methods used in collecting the basic data on which the employment estimates are based. Respondents are requested to report the average number of employees engaged in construction each month. They are advised on the questionnaire that one method of computing the average number of employees is to divide the number of working days in the month into the total number of man-days worked by all employees in the month. The monthly averages are added and divided by twelve to compute the annual average. Thus, the resulting figures are representative
of the total number of employees working full time throughout the year. The total number on the payroll at any given time may, of course, be above or below this average.

## 13.-Value of Construction Work Performed, Average Numbers Employed, Value of Materials Used and Salaries and Wages Paid, by Province and Contractor, 195\%-54

Note.-Actual expenditures 1952, actual 1953, intentions as of January 1954.


## Subsection 2.-Contracts Awarded and Building Permits Issued

In this Subsection statistics are given of work actually in sight either as contracts awarded or as building permits. These figures are related to those of work performed during the year only so far as the work thus provided for is completed and duly reported in the capital expenditure surveys. Further, values of contracts awarded, and especially of building permits, are estimates (more often underestimates) of work to be done.

Contracts Awarded.-According to figures published by MacLean Building Reports Limited, the value of contracts awarded in 1953 increased by $\$ 204,883,000$ or $11 \cdot 3$ p.c. over 1952. Substantial increases in residential and business construction more than compensated for the decreases in industrial and engineering construction. Increases in the value of construction contracts awarded in 1953 over the previous year, in the Provinces of New Brunswick, Quebec, Ontario and Saskatchewan more than offset decreases reported in the other provinces.

## 14.-Value of Construction Contracts Awarded, 1918-53

(Source: MacLean Building Reports Limited)
Note.-Includes Newfoundland from Apr. 1, 1949.

| Year | Value of Construction Contracts | Year | Value of Construction Contracts | Year | Value of Construction Contracts |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ |  | \$ |  | \$ |
| 1918. | 99,842,000 | 1930. | 456,999,600 | 1942. | 281,594,100 |
| 1919 | 190,028,000 | 1931 | 315,482,000 | 1943. | 206,103,900 |
| 1920. | 255,605,000 | 1932. | 132,872,400 | 1944. | 291,961,800 |
| 1921. | 240,133,300 | 1933 | 97, 289,800 | 1945. | 409, 032, 700 |
| 1922. | 331,843,800 | 1934. | 125,811,500 | 1946. | $663,355,100$ |
| 1923. | 314,254,300 | 1935. | 160,305,000 | 1947 | 718,137,100 |
| 1924. | 276,261, 100 | 1936. | 162,588,000 | 1948 | 954,082,400 |
| 1925. | 297,973,000 | 1937. | 224,056,700 | 1949 | 1,143,547,300 |
| 1926 | 372,947,900 | 1938. | 187, 277,900 | 1950. | 1,525,764,700 |
| 1927 | 418,951, 600 | 1939 | 187,178,500 | 1951 | 2,295, 499,200 |
| 1928. | 472,032,600 | 1940 | 346,009,800 | 1952 | 1,812,177,600 |
| 1929. | 576,651,800 |  | 393,991,300 | 1953. | 2,017,060,700 |

15.-Value of Construction Contracts Awarded, by Province and Type of Construction, 1948-53
(Source: MacLean Building Reports Limited)

| Province | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | $\$$ |
| Newfoundland |  | 3,431,100 | 10,065,000 | 10,509,400 | 21,985,300 | 8,549,700 |
| Prince Edward Isla | 2,410,300 | 4,498,500 | 2,663,500 | 3,251,000 | 3,489,000 | 1,254,300 |
| Nova Scotia. | 36.624,200 | 33,941,600 | 35,643,300 | 67,837,000 | 78,502,000 | 54,355,800 |
| New Brunswick | 28,980,100 | 19,536,100 | 34,592,100 | 20,983,900 | 25, 177,000 | 28,602,000 |
| Quebec | 327,111,900 | 355,408,300 | 533,971,700 | 480, 106,000 | 397, 931,400 | 539,818,600 |
| Ontario. | 350,612,300 | 421,098,900 | 597,161,900 | 1,017,426,900 | 732,768,100 | 849, 812,400 |
| Manitoba. | 45,414,700 | 78,517,300 | 67,985,300 | 91, 157,700 | 95,690,300 | 80,455,700 |
| Saskatchewan | 18,273, 600 | 43,306, 200 | 27,563,900 | 39,604,700 | 59,170,000 | 75,724, 400 |
| Alberta. | 74,071,700 | 104,380,600 | 134,878,500 | 183,075, 100 | 231,191,300 | 215.010,900 |
| British Columbia | 70,583,600 | 79, 428,700 | 81,239,500 | 381,547,500 | 166,273,200 | 163,476,900 |
| Totals. | 954,082,400 | 1,143,547,300 | 1,525,764,700 | 2,295,499,200 | 1,812,177,600 | 2,017,060,700 |

[^233]15.-Value of Construction Contracts Awarded, by Province and Type of Construction, 1948-53- concluded

| Type of Construction | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | \$ | 8 | \$ | \$ | \$ |
| Apartments. | 30,069,100 | 69,254,000 | 59, 297, 800 | 55,819,900 | 101,665,300 | 130,462,400 |
|  | 342,986,800 | 396,821,500 | 482,386,500 | 381,289,800 | 409,637, 400 | 602, 296,900 |
| Totals, Residentlal | 373,055,900 | 466,075,500 | 541,684,300 | 437,109,700 | 511,302,700 | 732,759,300 |
| Business- |  |  |  |  |  |  |
| Churches. | 16,425,500 | 21,677,400 | 24, 100,400 | 25,274,900 | 26, 455,700 | 32,009, 200 |
| Public garag | 13,096,900 | 12,316,800 | 13,781,600 | 10,838,000 | 15,958, 100 | 17,298,400 |
| Hospitals | 49,318,800 | $42,405,900$ | 59,967,700 | 85, 746,400 | 56, 175, 300 | 69, 047,600 |
| Hotels and clu | 27,628,800 | 16,957,500 | 41,611,000 | 32,095, 700 | 23,055,600 | 32,399, 800 |
| Office buildings. | 34, 137,900 | 40, 031, 400 | $53,240,200$ | 29,108,200 | 39,640,300 | 78,035,900 |
| Public buildings | 19,919,400 | 46, 078,800 | 61, 834,500 | 150, 483,700 | 149,351,000 | 111,235,600 |
| Schools | 79,156,000 | 80,982,500 | 99, 296,400 | 139,938, 800 | 130,398,800 | 119,009, 200 |
| Stores. | 42,348,000 | $36,218,400$ | 43,677, 100 | 33, 497, 100 | 41,999,300 | 81, 197,300 |
| Theatres | $4,814,500$ | 6,132,300 | 6,173,600 | 2,713,900 | 3,116,900 | 3,075,300 |
| Warehouses | 28,413, 100 | 21,464,700 | 36,722,400 | 37,985,400 | 40,243,900 | 70,501,400 |
| Totals, Busine | 315,258,900 | 321,265,700 | 440, 404, 900 | 547,682,100 | 526,394,900 | 613,809,700 |
| Industrial | 74,878,100 | 104,040,300 | 141,043,200 | 451,753,200 | 245, 851,100 | 230, 925,800 |
| Engineering- |  |  |  |  |  |  |
| Bridges. | 7,562,000 | 9.182,900 | 16,624,300 | 19,340,400 | 37,569,700 | 14,858,700 |
| Dams and wharves | 18,215,000 | 20,716,900 | 38,561,900 | 32, 155,000 | 59, 257, 500 | 63,592, 100 |
| Sewers and water mains... | 20,038,600 | $27.856,400$ | 31,005,800 | 63,333,300 | 44,919,300 | 46,385,500 |
| Roads and strests. | 45,856,900 | 49,396,300 | 92,386,300 | 94,621,900 | 113,015, 000 | 97,984, 200 |
| General engineering | 99,217,000 | 142,013, 300 | 224,054,000 | 649,503, 600 | 273, 867,400 | 216,765, 400 |
| Totals, Engineering | 190,889,500 | $249,165,800$ | 402,632,300 | 858,954, 200 | 528,628,900 | 439,565,900 |

Building Permits.-Statistics of building permits were first collected in 1910, when the series covered 35 urban centres; in 1920 they were extended to cover 58 municipalities, including unincorporated suburban areas, which were becoming increasingly important as residential areas for persons working within the municipal boundaries of urban centres. In 1940, the series was again extended to cover 204 municipalities and in 1948 the coverage was expanded further to include 507 municipalities. However, until plans are advanced, it is felt desirable to maintain comparability with earlier issues of the Year Book by retaining the ' 204 ' list.

The estimated value of proposed construction as indicated by building permits in 204 municipalities issued in 1953 amounted to $\$ 1,088,879,902$, an increase of 36 p.c. over the 1952 value of $\$ 802,737,975$.

## 16.--Estimated Value of Proposed Construction as Indicated by Building Permits Issued in 204 Municipalities, 1952 and 1953

Note.-Statistics for these series covering years previous to 1952 will be found in the corresponding tables of earlier editions of the Year Book. For the 35 cities marked ( ) the record goes back to 1910; the 23 places marked (O) were added in 1920.

| Province and Municipality | 1952 | 1953 | Province and Municipality | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Prince Edward Island- | \$ | \$ | Nova Seotla-concluded | \$ | \$ |
| OCharlottetown | 401,690 | 332,525 | O Liverpool ... | 53,350 288,534 | $\begin{array}{r} 91,200 \\ 2,433,520 \end{array}$ |
| Nova Scotia- |  |  | New Waterford | 35, 100 | 19,700 |
| Amherst............... | 1.135,330 | 453,148 | North Sydney | 622,700 | 164,700 |
| Bridgewater. | 209,950 | 286.150 | Sydney. | 977,577 | 1,772,273 |
| Dartmouth | 1,153,875 | 4, 404,000 | Sydney Mines | 174, 300 | 13,700 |
| Glace Bay | 329,231 | 381,482 | Truro.. | 484,215 | 627,985 |
| - Halifax. | 7,777,130 | 11,090,934 | Yarmouth | 150,075 | 106,550 |

16.-Estimated Value of Proposed Construction as Indicated by Building Permits Issued in 204 Municipalities, 1952 and 1953-continued

| Province and Municipality | 1952 | 1953 | $\begin{gathered} \text { Province } \\ \text { and } \\ \text { Municipality } \end{gathered}$ | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | § | \$ |
| New Brunswick |  |  | Ontario-continued |  |  |
| Campbell | 264,068 | 954,484 | Burlingt | 1,158,450 | 3,520,412 |
| Chatham | 17,300 | 31,900 | Campbel | 65, 052 | 145,650 |
| Dalhous | 477,400 | 274,300 | OChatham. | 2,260,804 | 2,149,813 |
| OFredericto | 2,208,683 | 3,058,437 | Cobourg | 6,960,960 | 2,939,585 |
| - Moncton. | 3,896,950 | 5,613,036 | Cochrane | 255, 299 | 353,768 |
| Newcast | 132,900 | 162,600 | Collingwoo | 223,508 | 288,452 |
| - Ssint Joh | 2,737,073 | 3,287,405 | Cornwall. | 1,130,280 | 766,766 |
| St. Stephen. | 44,865 | 59,897 | Dundas. | 1,506,625 | 1,831,305 |
|  |  |  | Eastvie | 1,796,943 | 2,067,625 |
|  |  |  | Etobicoke | 35,641,689 | 50,861, 303 |
| Quebec- |  |  | Forest Hil | 3,324,091 | 4,593,032 |
|  |  |  | Fort Eri | 771, 133 | 1,122,914 |
| Cap de la Madeleine. | 1,668,800 | 1,917,999 | Fort Franc | 1,171,277 | 482,116 |
| Chicoutimi | 3,053,420 | 2,757,225 | Fort Willia | 3,030,180 | 2,882,187 |
| Costicook | +474,370 | 252,885 | OGalt. | 3,479,249 | 3,080,454 |
| Drummondv | 1,259,374 | 976.210 | Gananoqu | 132,162 | 220,940 |
| Granby | 1,133,505 | 3,255, 208 | Gloucester | 2,391,310 | 5,188,700 |
| Grand'M | 630,375 | 1,089,750 | Goderich | 161,365 | 836,130 |
| Hampstea | 2,295,410 | 1, 053,223 | - Guelph | 3,076,573 | 10,554,711 |
| Hull. | 2,702,930 | 11,717,625 | Haileybur | 82,875 | 173,175 |
| Ibervill | 564,550 | 547,205 | - Hamilton. | 24,227,470 | 31,055,980 |
| Joliette | 1,247, 280 | 2,885, 270 | Hanover | 153,000 | 164,750 |
| Jonquièr | 376,325 | 1,355,700 | Hawkesbu | 992, 175 | 190,910 |
| Lachine | 8,280,467 | 5,372,424 | Huntsville | 132,650 | 75,000 |
| Laprair | 213,200 | 403,775 | Ingersoll | 195,485 | 120,700 |
| La Tuq | 275,650 | -327,910 | Kapuskasing | 1,037,600 | 732,370 |
| Levis.. | 348,400 984,677 | $\begin{aligned} & 2,532,125 \\ & 2,695,350 \end{aligned}$ | Kenora. | 599,979 | 814,490 |
| Mégantic. | 96,300 | 180,460 | -Kingst | 4,221,737 | 5,090,641 |
| - Montreal (Maison- | 103, 828,736 | 125,339,648 | Twp.). | 204,696 | 250,050 |
| Montreal Eas | 1,564,415 | 3,181,658 | Leaming | $10,524,256$ $1,143,637$ | $11,476,223$ 654,350 |
| Montreal Nor | 3,928,700 | 2,973,350 | Leaside | 1,803,838 | 2,470,339 |
| Montreal W | 315,700 | 433,000 | Lindsay | 1,501,555 | 1,085, 245 |
| Mount Roya | 4,058,212 | 5,043,834 | Listowel | 211,875 | 176,040 |
| Norsands | 951,640 | 204, 100 | - London | 10,586,555 | 5,830,230 |
| Outremo | 1,831,550 | 1,338,025 | Long Branc | 464,490 | 1,050,505 |
| Point-aux | 490,350 | 1,164,475 | Napanee. | 39,000 | 187,500 |
| Point Cl | 2,011,395 | 3,985,993 | Nepean T | 3,270,996 | 3,336,240 |
| -Quebec | 6,262,531 | 11, 491,664 | New Liske | 620,815 | 534,711 |
| Rimouski | 891,050 | 2,171,200 | Newmarke | 290,500 | 374,800 |
| Rivière-du | 379,610 | 531,950 | New Toro | 2,155,100 | 634,765 |
| Rouyn. | 516,785 | 411,920 | O Niagara Fal | 1,972,734 | 1,658,367 |
| Ste. Agathe-des-Mon | 233,300 | 120,500 | North Bay | 2,107,054 | 2,076,987 |
| Ste. Anne-de-Bellev | 122,110 | 319,720 | North Yor | 47,701,208 | 68,952,428 |
| St. Hyacin | 2,797,950 | 1,402,950 | Oakville. | 2,993,670 | 3,190,472 |
| St. Jean. | 3,225,520 | 2,631, 875 | Orillia | 658,610 | 1,168,143 |
| St. Jérôme | 1,279,705 | 1,236,055 | OOshav | 9,885, 076 | 17,363,718 |
| St. Joseph | $\begin{array}{r} 76,139 \\ 3,179,940 \end{array}$ | 154,095 $2,563,095$ | - Ottaw | 23,595,220 | 36,321,556 |
| St. Laurent | 14,303,950 | 13,986,300 | OOwen Sou | 884,047 | 684,093 |
| OSbawinigan F | 2,278, 220 | $1,616,135$ | Paris. | 420,300 | 253,595 |
| - Sherbro | 8,853,475 | 4,509,540 | Parry Soun | 1818.225 | 356,000 |
| Sorel | 1,053,980 | 801,205 | Pembrol | 2,418,200 | 1,937,075 |
| - Three R | 2,923,525 | 6,558,200 | Perth | 168,170 | 237,450 |
| Val d'Or | 790,020 | 423,375 | - Peterboroug | 5,186,523 | 4,853,892 |
| Valleyfiel | 1,493,530 | 2,336,440 | Petrolia | 87,845 | 143,775 |
| Verdun. | 1,919,700 | 2,874,400 | Port Art | 2,487,525 | 6,868,785 |
| - Westmount | 1,940,500 | 2,594,870 | Port Colb | 1,193,481 | 2,319,365 |
|  |  |  | Preston. | 938,054 | 1,162,218 |
|  |  |  | Renfrew | 559,040 | 873,950 |
| Ontario- |  |  | ORiversid | 1,463,952 | 3,234,057 |
|  |  |  | - St. Catharin | 3,392,256 | 3,418,661 |
| Amherstburg | 229,199 | 733,900 | St. Marys | 975,150 | 395, 310 |
| Barrie. | 1,656,025 | 3,019,116 | -St. Thoma | 1,646,356 | 1,135,469 |
| OBellevil | 1, 420,931 | 2,513,822 | OSarnia. | 8,278,563 | 6,858,230 |
| Bowmanvil | 231,480 133,400 | 335,825 110,600 | OSault Ste. Mar | 6,893,168 | 6,836,100 |
| Bracebridge | 133,400 $2,333,446$ | 2,004,916 | Scarboro T | 36,301,565 | 48,527,135 |
| Brantiord | 1,845,438 | 2,370,449 | Smith's F | $1,047,350$ 287,400 | 712,225 862,700 |
| Brockvil | 1,261,572 | 2,579,835 | Str | 797,111 | 1,403,447 |

## 16.-Estimated Value of Proposed Construction as Indicated by Building Permits Issued in 204 Municipalities, 1952 and 1953-concluded

| Province and Municipality | 1952 | 1953 | Province and Municipality | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | 8 | \$ |
| Ontario-concluded |  |  | Saskatchewan-concluded |  |  |
| Sudbury | 3,710,135 | 5,217,695 | Swift Cur | 1,053,605 | 2,490,730 |
| Swansea | 738,469 | 663,821 | Weyburn. | 388,100 | 1,600,600 |
| Tillsonburg | 308,695 | 723,420 | Yorkton. | 872,600 | 2,408,737 |
| Timmins............. | 539,440 | -538,739 |  |  |  |
| -Toronto................. | 43,724,096 | 80,274,698 |  |  |  |
| Wallacebur | 817,197 336,524 | $1,124,021$ 629,812 | Alberta- |  |  |
| Waterloo.. | 2,283,108 | 5,163,470 |  |  |  |
| OWelland. | 2,437,511 | 1,406,963 | - Calgary Drumbeller ............. | 38,784, 242 | 42,145,384 |
| Weston. | 1,407,989 | 1,563,912 | Drumheller,............. | 37,066,526 | 124,200 $55,020,816$ |
| Whitby. | 743,270 | 1,886,410 | OLethbridge | $37,066,526$ $4,741,855$ | $55,020,816$ $\mathbf{7 , 3 8 1 , 6 9 0}$ |
| -Windsor | 6,557,179 | 15,712,482 | OMedicine Hat | 2,373,080 | $7,381,690$ $3,961,220$ |
| OWoodstock | 1,718,383 | 2,567,792 | OMedinine Hat | 2,873,00 | 3,961,220 |
| - Y York Twp | 11,251,270 | 13,990,855 |  |  |  |
| York Last Twp.. | 8,393,277 | 8,797,710 | British Columbia- |  |  |
| Manitoba- |  |  | Chilliwack | 475,230 | 737,370 |
|  |  |  | Cranbrook | 472,254 | 237,492 |
| - Brandon. | 1,790,795 | 2,953,846 | Fernie. | 73,075 | 375,945 |
| Brooklands | 105,650 | 239,100 | OKamloops . . . . . . . . . . . . | 684, 805 | 1,528,069 |
| Dauphin. | 605,070 | 1,062,140 | Kelowna............... | 502,030 | 611,074 |
| North Kildonan | 283,900 | 383,000 | O Nanaimo. . . . . . . . . . . . | 976,797 | 1,696,017 |
| Portage la Prairie | 1,146,925 | ${ }^{911,085}$ | Nelson. ........ | 613,755 | 413,699 |
| OSt. Boniface. | 4,432,8901 | 2,293,215 | - New Westminster... ... | 2,096,485 | 4,764,407 |
| Selkirk | 595,000 | 497,815 | O North Vancouver | 1,988,135 | 3,245, 435 |
| The Pas | 257,450 | 308,950 | Prince George. | 2,238,160 | 2,140,500 |
| Transcona | 324,687 | 700,725 | OPrince Rupert............ | 1,037,257 | 354,061 |
| - Winnipeg. | 19,293,200 | 21,868,300 | Revelstoke............ | 177,350 | 110,716 |
|  |  |  | Rossland | 316,261 | 149,962 |
|  |  |  | Trail. | 2,880,729 | 1.544,284 |
| Saskatchewan- |  |  | - Vancouv | 28,387,737 | 50,748,757 |
|  |  |  | Vernon. | 300,518 | 878,146 |
| Biggar... . .... | 143,684 | 378,200 | - Victoria | 3,988,003 | 6,094,247 |
| Estevan........ | 234,484 | 625,299 |  |  |  |
| Melville........ | 390,750 $2,628,312$ | $\begin{array}{r} 542,600 \\ 2,168,305 \end{array}$ | Totals- | 802,737,975 | 1,088,879,902 |
| North Battleford | 2,811,500 | 1,515,660 |  | 802,837,375 | 1,083,8is,002 |
| Prince Albert. | 2,034,995 | 3,624.800 | 58 Municipalities O... | 520,491,849 | 718,916,460 |
| - Seskatoo | 12, $7,872,727$ | 15,478,755 | 35 Municipalities | 438,740,938 | 619,874,156 |

${ }^{1}$ No reports received for September, October and November 1952.
The indexes given in Table 17 show, as far as possible, the fluctuations in building costs and their effect upon construction work and employment. The relative proportions of material and wage costs in general building are difficult to determine since such proportions vary with the type of building and the centres studied. Pre-war experience, as indicated by a special study made for 15 cities, shows that the proportions of cost of materials to cost of labour in all construction average two-thirds for the former to one-third for the latter. The increase in the cost of recent building operations has probably been much more than is indicated by the increase in the indexes of wholesale prices and wages shown and the proportions of these items to total costs have, no doubt, undergone some variation owing to changes in types and methods of construction and to the greater use of machinery.

Four of the largest cities-Montreal, Toronto, Winnipeg and Vancouveraccounted for $\$ 278,231,403$ or 26 p.c. of the value of building permits issued in 204 municipalities in 1953. In 1952, the same cities showed a value of $\$ 195,233,769$, or 24 p.c. of the total for that year.
17.-Value of Building Permits Issued in 204 Municipalities and Index Numbers of the Building Construction Industries, 1943-53

Nore.-These 204 municipalities are named in Table 16.

| Year | Value of Building Permits, 204 Municipalities | Average Index Numbers of- |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Prices of <br> Building Materials <br> ( $1949=100$ ) |  | Wages in Construction Industries ${ }^{2}$ $(1939=100)$ | $\begin{aligned} & \text { Employment } \\ & \text { in Building } \\ & \text { Construction } \\ & (1949=100) \end{aligned}$ |
|  |  | Residential ${ }^{1}$ | Nonresidential |  |  |
|  | \$ |  |  |  |  |
| 1943. | 80,190,123 | 61.0 | 70.2 | $127 \cdot 7$ | 68.8 |
| 1944......... . . . . . . . . | 128,728,465 | $64 \cdot 3$ | $70 \cdot 9$ | $129 \cdot 6$ | $40 \cdot 9$ |
| 1945................ ..... . | 197, 187, 160 | $65 \cdot 0$ | 71.4 | $131-1$ | $43 \cdot 7$ |
| 1946...... . . . . ... . | 383, 596,698 | 67.8 | $75 \cdot 0$ | $143 \cdot 9$ | $62 \cdot 6$ |
| 1947..... . . . . . . . | 373,231, 249 | $79 \cdot 1$ | 84-5 | $155 \cdot 0$ | 81.9 |
| 1948.... | 536,057,597 | $95 \cdot 4$ | $95 \cdot 9$ | $176 \cdot 3$ | 91.4 |
| 1949... | 616,160,593 | $100 \cdot 0$ | $100 \cdot 0$ | $184 \cdot 2$ | $100 \cdot 0$ |
| 1950... | 801,765,092 | 106.4 | $105 \cdot 0$ | 194.0 | 104.7 |
| 1951... .. .... . . .. | 681,161,938 | $125 \cdot 5$ | 118.6 | 217.2 | 116.0 |
|  | 802,737,975 | 124-9 | 123.2 | $235-2$ | $127 \cdot 1$ |
| 1953... ....... .. . . . . . | 1,088,879,902 | 123.9 | 124.4 | $249 \cdot 1$ | 128.2 |
| $=100 . \quad{ }^{2}$ Compiled by the Department of Labour. |  |  |  |  |  |

## Subsection 3.-Government Aid to House Building*

Federal Government Assistance.-Type of Federal Government assistance to house building in Canada is primarily assistance to private builders including prospective home owners, merchant builders and investors in rental housing. In the nine-year period 1945-53, 10 p.c. of the new permanent dwellings completed were built directly on Government account and 27 p.c. represented private-enterprise dwellings for which some public assistance was provided.

The Federal Government carries on house-building operations under programs for the provision of Armed Services married quarters and, until 1953, veterans rental units. The Federal Government also undertakes joint rental housing projects in co-operation with the provincial governments. (See p. 746.)

Public assistance to private builders is provided under the terms of the National Housing Act, 1954, together with the Canadian Farm Loan Act, 1927, the Veterans' Land Act, 1942, and the Farm Improvement Loans Act, 1944. The National Housing Act, 1954, represents the Government's main legislation in the housing field. The chief form of public assistance to private builders under the previous National Housing Act, 1944, was the provision of funds for mortgage loans made jointly with private lenders, but under the new legislation, public assistance to private house building is mainly through a system of mortgage-loan insurance.

The Central Mortgage and Housing Corporation, the Federal Government agency responsible for the provision of most of the public assistance to housing, was incorporated by Act of Parliament passed in December 1945. It administers the present National Housing Act and earlier housing Acts and co-ordinates government activities in the housing field. The Corporation supervises the program for the construction of the Armed Services married quarters for the Department of National Defence.

[^234]The National Housing Act, 1954.-The National Housing Act, 1954, came into force on Mar. 22, replacing the National Housing Act, 1944. It replaces the former joint loan provisions by a system of insured mortgages, provides for the participation of the chartered banks and Quebec savings banks in mortgage lending under the Act, and establishes the basis for a secondary market in insured mortgages by provisions which permit lenders approved under the Act to sell insured mortgages to individuals and other investors who are not approved lenders. Provision was also made for mortgage loans for home conversion. These loans are insured in the same way as are mortgage loans for the building of new structures.

A number of changes in the terms of loans made under the National Housing Act are introduced in the new legislation but many of the provisions of the National Housing Act are re-enacted either without change or with only minor modifications. Among these are provisions for federal-provincial co-operation in land assembly and development and in the construction and ownership of low-rental housing, and for federal assistance in housing redevelopment and the clearance of blighted areas.

Loans to limited dividend housing corporations and to primary producers, together with guarantees under the rental guarantee plan and guarantees of home improvement and extension loans are re-enacted. Loans for home improvement and extension, however, require an insurance charge of 1 p.c. of the amount of the loan. The powers of the Central Mortgage and Housing Corporation to make direct loans remain unchanged.

The insurance of a mortgage loan made under the Act requires that a single fee for the insurance be paid by the borrower at the time the loan is made. This fee is added to the amount of the approved loan and varies between $1 \frac{3}{4}$ and $2 \frac{1}{2}$ p.c. of the loan amount, according to the type of loan and whether progress advances are made or not. Insurance fees are deposited in, and claims are paid from, a Mortgage Insurance Reserve Fund administered by the Central Mortgage and Housing Corporation.

In an insurance claim the approved lender is required to complete such legal proceedings as are necessary to transfer the property, with clear title, to the Central Mortgage and Housing Corporation. The regulations under the Act require that the insurance claim be made within 30 days of the time the claimant acquires clear title. The settlement includes an allowance for principal, an allowance for interest, and an allowance for settlement costs. The claimant receives 98 p.c. of the amount owing on the principal of the loan at the time foreclosure proceedings were instituted or, where no such proceedings were involved, at the time the property was acquired. The payment also includes the full amount of such approved charges as were advanced to the borrower in order to maintain the security of the mortgage, e.g., fire insurance premiums. The allowance for interest payments in default at the time the property is conveyed to the Corporation is 98 p.c. of the amount of such payments due or accrued for the default period up to a maximum of six months. An additional amount is paid when the default period is more than six months. For settlement costs the claimant receives $\$ 125$ as compensation for the acquisition fee and other approved legal disbursements.

The entry of the chartered banks and the Quebec savings banks to the field of mortgage lending, under the National Housing Act, means that the potential supply 'of mortgage funds is substantially broader. Previously, the chartered banks were not permitted to engage in mortgage lending. In addition to providing another channel by which savings can be used for investment in National Housing Act mortgages, the chartered banks, through their 4,000 branches, can provide an improved coverage of potential borrowers under the National Housing Act, particularly in the smaller centres of population.

To facilitate the development of a secondary market in insured mortgage loans, the 1954 Act provides that the insurance policy new legislation may be assigned to the purchaser should the loan be sold, provided that the loan continues to be serviced by an approved lender. It will be possible, therefore, for individuals and other investors who are not approved lenders to invest in insured mortgages by arranging with an approved lender to service the loan. The new Act also authorizes the Central Mortgage and Housing Corporation to buy and sell insured mortgage loans as well as to make loans to approved lenders upon the security of insured mortgage loans. These provisions endow the insured mortgage loan with a degree of liquidity and transferability that greatly broadens the potential supply of mortgage funds.

The terms of loans insurable under the new Act differ from the terms on which joint loans were made previously, especially as regards the loan period and the level of loans. For dwellings for home-ownership, other than for certified defence workers, the loan-to-value ratio is now set at 90 p.c. of the first $\$ 8,000$ of the lending value and 70 p.c. of the remainder, subject to a maximum loan of $\$ 12,800$ set by regulation. Under the joint loan arrangements, loans were made at 80 p.c. of the lending value up to a maximum of $\$ 10,000$. For a duplex, the loan is now calculated on the same 90 p.c. and 70 p.c. basis for the first half of the lending value with 80 p.c. allowed on the second half of the lending value subject to a maximum set by regulation at $\$ 15,300$; previously, loans were made at 80 p.c. of the lending value of the property subject to a maximum loan of $\$ 11,600$. For dwellings for certified defence workers the ratio of loan amount to lending value is 90 p.c., as under the earlier legislation. For farm dwellings loans may be made for $\$ 10,000$ or two-thirds of the appraised value of the farm whichever is the lesser amount.

For rental housing projects, insured loans may be made up to 80 p.c. of the lending value of the project and up to a maximum amount of $\$ 7,000$ per dwelling for multiple family dwellings; under the joint loan arrangement the maximum was \$6,200.

The new Act provides for insured mortgage loans for home conversion: such loans must not exceed the lesser of 70 p.c. of the lending value of the structure, including land, when the alteration is completed, or the cost of the alterations together with the amount necessary to discharge all encumbrances on the title to the land.

The usual term of an insured loan for a dwelling for home ownership is now 25 years, compared to 20 years under the old Act. Loans for shorter periods may be approved at the borrower's request. For rental housing projects the term of the loan may not exceed 25 years, and for home conversion the maximum is 15 years.

The maximum rates of interest on loans made under the new Act continue to be set by the Governor General in Council: at the time rates are promulgated they are not to exceed the yields on long-term Government of Canada bonds by more than certain margins. On insured loans, the maximum margin by which the mortgage rate may exceed the bond rate is $2 \frac{1}{2}$ p.c. On Mar. 19, 1954, the rate on insured loans for home ownership, home conversion, rental housing projects, and farm housing was set at $5 \frac{1}{2}$ p.c.; previously the rate paid by borrowers on these loans, other than those for home conversion, was $5 \frac{1}{4}$ p.c.

For all insured loans, Central Mortgage and Housing Corporation passes the plans and specifications, makes appraisals and undertakes the construction inspections to ensure compliance with approved standards.

Under the new Act, as under the earlier legislation, the Central Mortgage and Housing Corporation may make direct loans for house building in areas where mortgage loans, under the Act, are not available from private lenders. These loans are made on the same basis as are those made by approved lenders under the Act.

The provisions of the earlier legislation for direct loans to limited dividend housing corporations and to companies engaged in the primary industries of logging, lumbering, fishing and mining are retained in the new Act. Loans to limited dividend housing corporations are made at low rates of interest for the construction of low and medium rental housing units. By March 1954, 33 companies had been formed under the sponsorship of business companies or local groups; the financing of some of these was supplemented by municipal grants or contributions from service clubs. Many of the dwelling units constructed by these companies are occupied by widows and old-age pensioners.

Section 36 of the National Housing Act, 1954, provides that, following agreements between a provincial government and the Government of Canada, the Central Mortgage and Housing Corporation may undertake, jointly with the province, the development of a housing or land-assembly project. Capital costs. profits and losses of such projects are shared 75 p.c. by the Federal Government and 25 p.c. by the province. The provincial government, in turn, may require the municipality concerned to participate in the provincial share. By March 1954, all provinces, except Prince Edward Island, had passed complementary legislation and projects were under way, or completed, in seven of the nine provinces with enabling legislation.

Under the legislation, three main types of housing agreement have been evolved:-
(1) the construction of houses for rental on an economic or sub-economic basis;
(2) the assembly and servicing of residential lots for sale to builders and prospective home-owners;
(3) combined rental-housing and land-assembly projects where a portion of the land developed is used for housing and the remainder sold.

Completed rental-housing projects are administered by local housing authorities whose members are appointed by provincial Order in Council. Local authorities have been established in 20 municipalities.

By March 1954, 62 projects had been approved, 25 for land assembly only, 10 for combined land assembly and rental housing, and 27 for the erection of rental housing over the whole site. The 37 rental projects relate to 3,036 rental units of which 2,324 had been completed. The land assembly projects involve the servicing of 11,600 lots, of which 1,600 had been completed and sold to builders and prospective home owners.

The Rental Guarantee Plan, instituted in 1948 and re-enacted in the new National Housing Act, is designed to encourage the construction of rental housing accommodation by private builders. Owners of projects built under the Plan are guaranteed a return of rent sufficient to pay taxes, operating expenses, debt service and a minimum return of 2 p.c. on the equity of the owner. From 1948 to March 1954, projects were approved involving 21,550 units having an estimated cost of $\$ 167,344,000$.

Under the land assembly provisions of the Act, unchanged from the earlier legislation, lending institutions are guaranteed the recovery of their investment and a return of 2 p.c. on land development projects. These projects involve the development of raw land into serviced lots for residential purposes and their sale at prices considerably below the market price for comparable lots. Little activity has taken place under these provisions in recent years. At March 1954, however, seven projects had been started involving 1,950 lots.

The Canadian Farm Loan Act, 1927 (R.S.C. 1952, c. 36, amended by c. 309).This legislation provides for federal long-term loan assistance for housing, as well as for other farm purposes. (See pp. 374-375.)

The Veterans' Land Act, 1942 (R.S.C. 1952, c. 280).-This Act is administered by the Department of Veterans Affairs and provides a form of loan and grant assistance to veterans for housing and other purposes. (See pp. 289-291.)

The Farm Improvement Loans Act, 1944 (R.S.C. 1952, c. 110).-This Act provides for guarantees for intermediate and short-term loans made by approved lending agencies to farmers for housing and other purposes. (See pp. 375-376.)

Statistics of Federal Assistance in the Housing Program.-The extent of Federal Government assistance to house building in Canada is shown in Table 18. The year 1935 marked the passage of the Dominion Housing Act and the entry of the Federal Government into the housing field on a continuing basis. This Act was succeeded by the National Housing Acts of 1938, 1944 and 1954.

A total of 100,663 dwellings were completed in Canada in 1953. Of these, 4,882 were built directly by the Federal Government; 37,517 were built with the aid of federal loans, including joint loans under the National Housing Act; and 806 were built with guarantee assistance by the Federal Government.
18.-Dwellings Completed with and without Federal Government Assistance, 1935-53
(Exclusive of the Yukon and Northwest Territories)

| Year | With Federal Government Assistance |  |  |  | Without Federal Government Assistance | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Direct Government | Loans | Guarantees | Total ${ }^{1}$ |  |  |
|  | '000 | '000 | '000 | '000 | '000 | '000 |
| 1935. | - | $0 \cdot 5$ | - | $0 \cdot 5$ | $32 \cdot 4$ | $32 \cdot 9$ |
| 1936........................ | - | $1 \cdot 1$ | $0 \cdot 1$ | 1.2 | $38 \cdot 1$ | $39 \cdot 3$ |
| 1937......................... | - | $1 \cdot 5$ | 0.9 | 2.4 | $46 \cdot 2$ | 48.6 |
| 1938. | - | $2 \cdot 4$ | 0.9 | $3 \cdot 3$ | $40 \cdot 7$ | 44.0 |
| 1939. | - | $5 \cdot 2$ | 1.1 | $6 \cdot 3$ | $45 \cdot 4$ | 51.7 |
| 1940. | - | 6-2 | 0.8 | $7 \cdot 0$ | $45 \cdot 5$ | 52.5 |
| 1941. | 1.7 | $4 \cdot 9$ | - | $6 \cdot 6$ | $50 \cdot 2$ | 56.8 |
| 1942. | $7 \cdot 6$ | $2 \cdot 7$ | $\square$ | $10 \cdot 3$ | 36.9 | $47 \cdot 2$ |
| 1943. | $6 \cdot 4$ | $1 \cdot 3$ | $0 \cdot 1$ | $7 \cdot 8$ | 29.0 | 36.8 |
| 1944. | $2 \cdot 8$ | $0 \cdot 1$ | - | 2.9 | $39 \cdot 9$ | 42.8 |
| 1945. | $3 \cdot 4$ | 2.0 | 0.2 | $5 \cdot 6$ | $42 \cdot 9$ | 48.5 |
| 1946. | 14.0 | $5 \cdot 6$ | $0 \cdot 4$ | 20.0 | 47.2 | 67.2 |
| 1947. | $10 \cdot 0$ | $10 \cdot 6$ | 0.4 | 21.0 | 58.2 | $79 \cdot 2$ |
| 1948. | 8.7 | 13.9 | $0 \cdot 5$ | 23.1 | 58.1 | 81.2 |
| 19492. | $9 \cdot 5$ | 23.4 | $2 \cdot 7$ | $35 \cdot 6$ | 55.4 | 91.0 |
| 1950.......................... | 6.8 | $32 \cdot 5$ | 2.5 | 41.8 | 50.0 | 91.8 |
| 1951. | $3 \cdot 5$ | $29 \cdot 3$ | 1.5 | $34 \cdot 3$ | 50.5 | 84.8 |
| 1952. | 3.9 | $22 \cdot 6$ | 0.9 | 27.4 | 48.9 | $76 \cdot 3$ |
| 1953. | $4 \cdot 9$ | $37 \cdot 5$ | 0.8 | $43 \cdot 2$ | 57.5 | $100 \cdot 7$ |
| Totals, 1985-53. | 83.2 | 203-3 | 13.8 | $300 \cdot 3$ | 873.0 | 1,173.3 |

${ }^{1}$ Exclusive of a small number of dwellings built by Federal Government Departments as part of their normal operations. $\quad 2$ Newfoundland figures included from 1949.

Details of loans by provinces approved under the National Housing Act for the years 1945-53 are shown in Table 19.
19.-Net Loans Approved under the National Housing Act, by Province, 1945-53

| Year and Item | N'f'ld | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1945- |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans, . . . . . . . No | $\cdots$ | $\cdots$ | 60 | 23 |  | 2,341 | 693 | 96 | 469 | 675 | - | 4,838 |
| Dwellings. . . " | $\ldots$ | - | 60 | 23 | 701 | 2,480 | 703 | 96 | 485 | 839 | - | 5,387 |
| Amount..... . \$'000 | $\ldots$ | - | 270 | 101 | 3,045 | 10,278 | 3,034 | 410 | 2,099 | 3,274 | - | 22,511 |
| 1946- |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans . . . . . . No | $\cdots$ | 4 | 100 | 84 | 832 | 3,254 | 1,004 | 215 | 626 | 1,222 | - | 7,341 |
| Dwellings . " | $\ldots$ | 4 | 113 | 206 | 1,931 | 5,345 | 1,020 | 363 | 880 | 1,965 | - | 11,827 |
| Amount. . . . \$ $\mathbf{\$}^{\prime} 000$ | ... | 21 | 532 | 1,001 | 8,965 | 26,168 | 5,017 | 1,771 | 4,028 | 8,449 | - | 55,951 |
| 1947- |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans. . . . . . No. | $\ldots$ | 10 | 248 | 102 | 1,793 | 3,442 | 1,188 | 146 | 916 | 1,041 | - | 8,886 |
| Dwellings. . . '" | ... | 37 | 269 | 104 | 3,186 | 3,676 | 1,289 | 149 | 991 | 1,232 | - | 10,933 |
| Amount...... \$'000 | $\ldots$ | 170 | 1,364 | 562 | 14,423 | 19,115 | 6,577 | 735 | 4,960 | 5,325 | - | 53,230 |
| 1948- |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans, . . . . . . No | $\ldots$ | 35 | 285 | 286 | 2,895 | 6,539 | 1,106 | 94 | 1.972 | 2,125 | 2 | 15,339 |
| Dwellings. . . " | $\ldots$ | 38 | 316 | 308 | 5, 183 | 6,999 | 1,372 | 102 | 2,156 | 2,352 | 2 | 18,828 |
| Amount... . . $\$^{\prime} 000$ | ... | 223 | 1,629 | 1,871 | 27,163 | 42,075 | 7,576 | 797 | 11,504 | 11,673 | 13 | 104,524 |
| 1949- |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans. . . . . . . . No | 21 | 23 | 268 | 194 | 3,293 | 8,598 | 1,469 | 200 | 2,595 | 1,495 |  | 18,159 |
| Dwellings. . . " | 21 | 23 | 296 | 225 | 8,552 | 9,353 | 1,569 | 193 | 2,837 | 1,832 | 3 | 24,904 |
| Amount..... \$ $\mathbf{\prime}^{\prime} 000$ | 125 | 150 | 1,614 | 1,297 | 45.715 | 56,059 | 9,402 | 1,081 | 15,207 | 8,835 | 14 | 139,499 |
| $1950-$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans. . . . . . . No. | 48 | 20 | 504 | 340 | 7,994 | 16,454 | 1,729 | 356 | 3,935 | 3,059 | 1. | 34,440 |
| Dwellings | 51 | 20 | 558 | 348 | 13,980 | 17.830 | 1.826 | 360 | 4,279 | 3.503 | , | 42,756 |
| Amount..... \$'000 | 369 | 140 | 3.5261 | 2,450 | 85,686 | 133,050 | 13,163 | 2,255 | 26,444 | 22,137 | 3 | 289,223 |

19.-Net Loans Approved under the National Housing Act, by Province, 1945-53concluded

| Year and Item | N't'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. |  | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1951- |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans........ No. | 33 | 7 | 173 | 123 | 2,630 | 7,700 | 1,010 | 135 | 1,983 | 1,124 | - | 14,918 |
| $\begin{aligned} & \text { Dwellings..... ", } \\ & \text { Amount...... } \\ & \end{aligned}$ | 33 239 | 41 | 1,210 | 126 869 | 4,233 | 9,416 63,523 | 1,100 6,810 | 137 | 16,659 | 1,405 8,011 | - | 19,303 123,697 |
| 1952- |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans. . . . . . . No. | 26 | 9 | 227 | 167 | 4,092 | 12,336 | 1,380 | 307 | 3,486 | 1,688 | - | 23,718 |
| Dwellings.... "' | 27 |  | 260 | 182 | 9,117 | 16,038 | 1,916 | 629 | 4,056 | 2,089 |  | 34,323 |
| Amount...... $\mathbf{\%}^{\prime} 000$ | 198 | 64 | 2,036 | 1,438 | 60,538 | 123,794 | 13,159 | 4,533 | 28,789 | 14,535 | - | 249,084 |
| 1953- |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans........ No. | 158 | 15 | 1,130 | 308 333 | 4,684 | 13,097 | 1,558 | 833 | 3,738 5,464 | 1,913 | - | 26,514 38,648 |
| Amount...... \$ 000 | 1,279 | 124 | 7,813 | 2,629 | 55,459 | 145,129 | 14,969 | 6,231 | -39,593 | 17,593 |  | 290,823 |

20.-Dwellings Completed with and without Federal Government Assistance, by Province, 1953
(Exclusive of the Yukon and Northwest Territories)

| Type of Assistance | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| With Federal Government Assistance-1 Direct Federal Government House-Building- |  |  |  |  |  |  |  |  |  |  |  |
| Department of National Defence. | - | - | 469 | - | 497 | 535 | 332 | 276 | 506 | 232 | 2,847 |
| Veterans rental projects by Central Mortgage and Housing Corporation. | 36 | - | - | - |  | 34 | - | - | - | 433 | 503 |
| Federal-provincial-municipal projects. | 252 |  | 161 | 100 | - | 894 | - | 75 | - | 50 | 1,532 |
| Totals, Direct Federal Government House-Building. | 288 | - | 630 | 100 | 497 | 1,463 | 332 | 351 | 506 | 715 | 4,882 |
| Federal Government LoansNational Housing Act. | 36 | 15 | 346 | 301 | 7,369 | 17,857 | 2,223 | 468 | 4,821 | 2,425 | 35,861 |
| Veterans' Land Act. | 38 | 12 | 34 | 44 |  | 831 | 49 | 84 | 138 | 268 | 1,594 |
| Canadian Farm Loan A | - | 2 | , | 4 | 3 | 8 | 10 | 15 | 11 | 7 | 62 |
| Totals, Federal Government Loans. | 74 | 29 | 382 | 349 | 7,468 | 18,696 | 2,282 | 567 | 4,970 | 2,700 | 37,517 |
| Federal Government Guar-antees- |  |  |  |  |  |  |  |  |  |  |  |
| Rental guarantees under the National Housing Act.... | - | - | - | - | 42 | 9 | - | - | 33 | - | 84 |
| Farm Improvement Loans | - | 4 |  | 2 | 26 | 98 | 130 | 194 | 228 | 36 | 722 |
| Totals, Federal Government Guarantees. | - | 4 | 4 | 2 | 68 | 107 | 130 | 194 | 261 | 36 | 806 |
| Totals, with Federal Government Assistance. | 362 | 33 | 1,016 | 451 | 8,033 | 20,266 | 2,744 | 1,112 | 5,737 | 3,451 | 43,205 |
| Totals, without Federal Government Assistance. . | 1,118 | 149 | 1,467 | 1,087 | 23,049 | 16,238 | 2,050 | 2,943 | 4,325 | 5,032 | 57,458 |
| Grand Totals. | 1,480 | 182 | 2,483 | 1,538 | 31,082 | 36,504 | 4,794 | 4,055 | 10,062 | 8,483 | 100,663 |

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Provincial Government Assistance.-As stated previously (see p. 742), all provinces except Prince Edward Island had, by March 1954, passed complementary legislation respecting Sect. 36 of the National Housing Act, 1954, which provides for joint federal-provincial housing and land-assembly projects. In addition, separate legislation with respect to housing has been enacted in the Provinces of Quebec and Ontario.

Quebec.-An amendment (S.Q. 1952-53, c. 7) to the "Act to improve housing conditions" (S.Q. 1948, c. 6), assented to Dec. 10, 1952, empowers the Government to pay a subsidy on interest charges in excess of 3 p.c. on new dwellings built between Jan. 15, 1948, and June 1, 1955. Formerly, the Act applied to dwellings completed before Jan. 15, 1953. The amendment also authorizes the expenditure of $\$ 40,000,000$ for purposes of the Act.

Ontario.-The Housing Development Amendment Act, 1952, empowers the Province and a municipality to enter into joint housing projects and empowers a municipality to contribute to the cost of a housing project or to issue debentures for the purpose of a housing project without reference to its municipal board or the assent of its electors. For industries locating in rural areas and in small communities, the Province and municipality may participate with the Central Mortgage and Housing Corporation in the development of joint housing projects, part of the cost of which will be borne by the Corporation. Under certain conditions, the Province may expropriate land in municipalities for the purpose of housing projects. The Act came into force Apr. 10, 1952, and amended the Housing Development Act (R.S.O. 1950, c. 174).

Under the Planning Amendment Act, 1952, municipalities with an approved official plan may designate an area within the municipality as a redevelopment area and, upon the passage of a by-law, may acquire land within that area and clear and prepare it for residential, commercial, industrial or other designated purpose. The Act came into force May 1, 1952, and amended the Planning Act (R.S.O. 1950, c. 227).

The Rural Housing Assistance Act, 1952, authorizes the establishment of a Crown company-the Rural Housing Finance Corporation-which is empowered to lend and invest mortgage money in order to provide financial assistance in the building of new houses in villages and rural areas. Moreover, the Corporation may lend money independently or in co-operation with the Central Mortgage and Housing Corporation or with any approved lending institution. The Act came into force on Apr. 10, 1952.

The Junior Farmer Establishment Act, 1952, provides for the establishment of a corporation for the purpose of making loans to assist young qualified farmers in the purchase, development and operation of their farms. The corporation may make loans for the erection and improvement of farm houses. A loan may be secured as first-mortgage on farm property and shall not exceed $\$ 15,000$, repayable in 25 years. The Act came into force on Apr. 10, 1952.

The Elderly Persons Housing Aid Act, 1952, authorizes the Province to make grants to any limited dividend housing corporation approved by a municipality and to which a loan has been made under the National Housing Act. These grants are to assist in the construction and equipment of low-rental housing units for elderly persons. The amount of any grant will be based on the lower of $\$ 500$ for each dwelling or 50 p.c. of the capital cost of the project to the corporation other than the amount covered by the mortgage loan.

## Subsection 4.-Construction of Dwelling Units

The volume of new house building was greater in 1953 than in any previous year. Total housing starts, excluding conversions, numbered 102,409 , an increase of 25 p.c. over the 1952 total and 11 p.c. higher than in the earlier peak year of 1950. All regions of the country shared in the increase: in the Atlantic Provinces, housing starts rose 26 p.c. to 5,921 units; in Quebec, 15 p.c. to 30,249 units; in Ontario, 30 p.c. to 38,873 units; in the Prairies, 25 p.c. to 18,776 units; and in British Columbia, 21 p.c. to 8,590 units. The higher number of starts in 1953 was accompanied by an increase in completions, excluding conversions, from 73,087 in 1952 to 96,839 in 1953. At 59,923 , the number of dwellings under construction at the end of 1953 was $7 \cdot 6$ p.c. higher than the year before.

Of the dwellings completed in 1953, 82 p.c. were built in urban areas-almost unchanged from the 81 p.c. of 1952 . Though there was little change between 1952 and 1953 in the distribution of dwellings by area, there were changes in the distribution by type of dwelling: 20 p.c. of the dwellings completed in 1953 were apartments, compared to 15 p.c. in 1952; single-family dwellings represented 68 p.c. of the total in 1953 compared to 73 p.c. in 1952.

Tables 21, 22 and 23 summarize the results of surveys conducted by the Dominion Bureau of Statistics and the Central Mortgage and Housing Corporation.

## 21.-New Dwelling Units Completed, by Type, 1950-53

(Exclusive of the Yukon and Northwest Territories)

| Type |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: |

22.-New Dwelling Units Completed, by Province, 1952 and 1953
(Exclusive of Conversions)

| Province | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Urban | Rural | Total | Urban | Rural | Total |
|  | No. | No. | No. | No. | No. | No. |
| Newfoundland.... | 615 | 516 | 1,131 | 801 | 679 | 1,480 |
| Prince Edward Island | 42 | - | . 42 | 62 | 120 | 182 |
| Nova Scotia... | 877 | 934 | 1,811 | 1,638 | 522 | 2,160 |
| New Brunswick | 690 | 541 | 1,231 | 669 | 733 | 1,402 |
| Quebec.. | 17,035 | 5.372 | 22,407 | 25,361 | 4,442 | 29,803 |
| Ontario.. | 22,601 | 4,860 | 27,461 | 28,324 | 6,849 | 35,173 |
| Manitoba. | 2,592 | 550 | 3,142 | 3,990 | 804 | 4,794 |
| Saskatchewan | 2,172 | 458 | 2,630 | 3,337 | 710 | 4,047 |
| Alberta | 5,538 | 666 | 6.204 | 8,343 | 1,511 | 9,854 |
| British Columbis. | 6.756 | 272 | 7,028 | 7,701 | 243 | 7,944 |
| Totals | 58,918 | 14,169 | 73,087 | 80,226 | 16,613 | 96,839 |

## 23.-New Dwelling Units Completed, by Metropolitan Area, 1950-53

(Exclusive of Conversions)

| Metropolitan Area | Number |  |  |  | P.C. of Total |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 | 1951 | 1952 | 1953 | 1950 | 1951 | 1952 | 1953 |
| St. John's, N'f'ld. | 299 | 326 | 402 | 585 | $0 \cdot 3$ | $0 \cdot 4$ | 0.6 | 0.6 |
| Halifax, N.S.. | 708 | 620 | 636 | 1,241 | 0.8 | 0.8 | 0.9 | $1 \cdot 3$ |
| Saint John, N.B | 332 | 98 | 211 | 273 | $0 \cdot 4$ | $0 \cdot 1$ | $0 \cdot 3$ | $0 \cdot 3$ |
| Quebec, Que. | 1,473 | 1,045 | 1,056 | 1,580 | 1.7 | $1 \cdot 3$ | 1.4 | $1 \cdot 6$ |
| Montreal, Que. | 15,826 | 16,316 | 11,500 | 17,833 | 17.8 | $20 \cdot 1$ | $15 \cdot 7$ | 18.4 |
| Ottawa, Ont. | 1,938 | 2,343 | 1,752 | 2,149 | $2 \cdot 2$ | $2 \cdot 9$ | $2 \cdot 4$ | $2 \cdot 2$ |
| Toronto, Ont | 9,373 | 13,026 | 9,576 | 9,460 | 10.5 | 16.0 | 13.1 | $9 \cdot 8$ |
| Hamilton, Ont | 1,511 | 1,757 | 1,877 | 2,961 | 1.7 | $2 \cdot 2$ | $2 \cdot 6$ | $3 \cdot 0$ |
| London, Ont. | 1,325 | 1,261 | 1,358 | 1,355 | 1.5 | $1 \cdot 5$ | 1.9 | $1 \cdot 4$ |
| Windsor, Ont. | 1,196 | 940 | 818 | 940 | $1 \cdot 3$ | $1 \cdot 2$ | $1 \cdot 1$ | 1.0 |
| Winnipeg, Man | 3,070 | 2,127 | 2,088 | 3,089 | $3 \cdot 4$ | $2 \cdot 6$ | 2.9 | $3 \cdot 2$ |
| Vancouver, B. | 5,028 | 4,340 | 4,249 | 5,913 | $5 \cdot 7$ | $5 \cdot 3$ | $5 \cdot 8$ | $6 \cdot 1$ |
| Victoria, B.C | 1,166 | 844 | 715 | 944 | $1 \cdot 3$ | 1.0 | 1.0 | $1 \cdot 0$ |
| Totals, Metropolitan Areas. | 43,245 | 45,043 | 36,238 | 48,323 | 48.6 | $55 \cdot 4$ | 49.7 | 49.9 |
| Totals, Canada ${ }^{1}$ | 89,015 | 81,310 | 73,087 | 96,839 | 100.0 | 100.0 | $100 \cdot 0$ | 100.0 |

[^236]
## CHAPTER XVII.-SÚRVEY OF PRODUCTION*

## CONSPECTUS



Nort.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

The scope of the Survey of Production is limited to the actual production of commodities. The activities of such industries as transportation, communication, trade, finance and service are excluded except as they are indirectly reflected in the value of output of the commodity-producing industries. This is in contrast to the scope of the widely used Gross National Product series (see Chapter XXV), which encompasses all industries. Net production, or "value added" is generally considered more significant as a measure of output than gross value of production, and is, consequently, stressed in the following analyses and tables. It is obtained by deducting from the total or "gross" value of output, the cost of materials, fuel, purchased electricity and supplies consumed in the production process.

The measurement of value added is similar, although not strictly comparable, to the concept involved in the contribution of each industry to gross national product at factor cost (net income originating plus depreciation). Apart from variations in the statistical structure, the main difference is that value added, as computed for each commodity-producing industry, includes the cost of such services as insurance, advertising, transportation, communications, etc. In national income accounting, the contribution of these services to gross national product at factor cost is classified to the non-commodity industries from which they originate.

The value series shown in the tables on p. 752 reflect a major revision in the net value of the construction industry and are thus not comparable with the figures shown in earlier Year Books. A description of this revision together with revised data for previous years is given in the DBS Bulletin Survey of Production 1948-1952.

## Section 1.- Current Trends of Commodity Production

The net value of Canadian commodity production in 1952 was $\$ 13,708,000,000$. This represented an increase of nearly 5 p.c. over the revised 1951 figure of $\$ 13,075,000,000$ and was the highest on record. During 1952 , there was an improved

[^237]relationship between supply and demand and an abatement of inflationary pressures, permitting the lifting of consumer credit regulations and the relaxation of controls over the supply of essential materials, though the outbreak of foot-and-mouth disease and the temporary loss of the United States market set back production values in the farm sector of the economy. Most major price indexes showed declines throughout the year, although the average level of the consumer price index was about 2 p.c. above the average for 1951. Labour income, moreover, rose steadily throughout the year and, on average, was 11 p.c. above 1951. Hence, a notable advance in 'real' wages and salaries was indicated for the year.

A further increase in net value of commodity production is estimated for 1953. The most important expansionary influence in the economy in 1953 was the continued growth of consumer expenditures, reflecting the large continued rise in 'real' incomes. Important gains over 1952 were shown in the construction sector where the housing component recorded the greatest advance. Value of manufacturing output also showed a considerable gain. By contrast, the agricultural sector recorded a decline in its value of production, largely as a result of reduced grain production and lower prices for a number of agricultural products. Although the 1953 grain crop was one of the largest on record, it was considerably below the record 1952 level. Prices, in general, were also a little lower in 1953 than in the preceding year.

## Section 2.-Industrial Distribution of Production

The net value of agricultural production in 1952 was $\$ 2,467,000,000$, representing a decline of 7 p.c. from the record level of $\$ 2,654,000,000$ established in 1951. The outbreak of foot-and-mouth disease in Saskatchewan and the decline in livestock prices prior to and following the United States embargo resulted in greatly reduced value of live-stock production. This decline was only partially offset by the higher value of grain from the record wheat crop of $688,000,000$ bushels.

An advance of nearly 10 p.c. in the net value of forestry production was indicated for 1952. The output values of pulpwood, mining timber, firewood and poles showed increases over the preceding year while those for logs and bolts were some_ what less. Although the quantity of pulpwood cut declined slightly, price increases more than offset this. In addition, the value of materials and supplies used by forest operators showed a substantial decline.

The quantity and value of production in the fishing and trapping industries dropped considerably in 1952 as compared with 1951, mainly owing to labour disputes in the fisheries sector.

An approximate 1 p.c. advance over 1951 was shown in the net value of the mining industry, largely the result of value increases in the output of petroleum and other non-metallic and structural materials which offset declines in the production of most major metals.

The value of net output in the electric power industry continued to expand and in 1952 was more than 10 p.c. greater than in the preceding year.

The net result of the varying trends outlined above was a decline of more than 2 p.c. in the net value of the primary industries in 1952 as compared with 1951.

The net value of manufacturing activity rose from $\$ 6,941,000,000$ in 1951 to $\$ 7,444,000,000$ in 1952 , a gain of about 7 p.c. The net value of durable manufactures rose by 10 p.c. and that of non-durable manufactures by 4 p.c. In the durables sector, all major industry groups showed increases, with iron and steel products, transportation equipment and electrical apparatus and supplies accounting for the major increases. In non-durable manufactures, all industry groups except textiles (clothing excluded) and paper products recorded gains. The highest relative increases occurred in petroleum and coal products, tobacco products and leather products.

The net value of work performed in the construction industry rose to $\$ 1,977,000,000$ in 1952 , an advance of nearly 14 p.c. over the preceding year. All types of engineering construction showed gains and accounted for most of the over-all increase. The rise in the value of building construction was considerably less, reflecting a moderate decline in residential building.


## 1.-Net Value of Production, by Industry, 1948-52

Nore.-Net production represents total value under a particular heading, less the cost of materials, fuel, purchased electricity and supplies consumed in the production process.

| Industry | $1948{ }^{1}$ | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | 8 | \$ | 8 | 8 |
| Agriculture | 2,045,693,000 | 2,019, 279,000 | 1,883,036,000 | 2,653,678,000 | 2,467,166,000 |
| Forestry... | 360,908,6⿺2 | 346,455,391 | 389,500,000 | -486, 293, 276 | , 533,937,415 |
| Fisheries. | 75, 374,457 | 67,457,941 | 82,191,043 | 102,026,979 | 92,892,725 |
| Trapping. | 20,178,077 | 15,296,615 | 15, 204,419 | 19,791,933 | 14,137,820 |
| Mining | 538,762,152 | 570,215,430 | $657,328,669$ | 770,143,233 | 777,443,771 |
| Electric power | 248,963,255 | 270,126,982 | 313,347, 197 | 363,642,975 | 402,073,511 |
| Totals, Primary... | 3,289,879,583 | 3,288,831,359 | 3,340,607,328 | 4,395,576,396 | 4,287,651,242 |
| Manufactures | 4,938,786,981 | 5,330,566,434 | 5,942,058,229 | 6,940,946,783 | $7,443,533,199$ |
| Construction ${ }^{2}$. | 1,280,000,000 | 1,371,000,000 | 1,475,000,000 | 1,738,274,000 | 1,976,703,000 |
| Totals, Secondary. | 6,218,786,981 | 6,701,566,434 | 7,417,058,229 | 8,679,220,783 | 9,420, 236,199 |
| Grand Totals ${ }^{3}$.... | 9,508,666,564 | 9,990,397,793 | 10,757,665,557 | 13,074,797,179 | 13,707,887,441 |

${ }^{1}$ Exclusive of Newfoundland. ${ }^{2}$ Revised. See DBS Survey of Production, 1948-1959. ${ }^{3}$ Data for Newfoundland exclude agriculture, fisheries, trapping and fish processing in 1949 and 1950 but include fisheries and fish processing in 1951 and 1952 and trapping in 1952.

## 2.-Percentage Analyses of the Net Value of Production, by Industry, 1948-52

| Industry | Net Value in$(1949=100)$ |  |  |  |  | Percentage of Total Net Production |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1948 | 1949 | 1950 | 1951 | 1952 | 1948 | 1949 | 1950 | 1951 | 1952 |
| Agriculture. | 101-3 | $100 \cdot 0$ | $93 \cdot 3$ | 131.4 | $122 \cdot 2$ | 21.5 | 20.2 | 17.5 | 20.3 | 18.0 |
| Forestry. | 104-2 | $100 \cdot 0$ | $112 \cdot 4$ | $140 \cdot 4$ | 154.1 | 3.8 | $3 \cdot 5$ | $3 \cdot 6$ | $3 \cdot 7$ | 3.9 |
| Fisheries. | 111.7 | $100 \cdot 0$ | $121 \cdot 8$ | $151 \cdot 2$ | 137.7 | $0 \cdot 8$ | 0.7 | 0.8 | 0.8 | 0.7 |
| Trapping. | 131.9 | $100 \cdot 0$ | 99-4 | $129 \cdot 4$ | $92 \cdot 4$ | 0.2 | $0 \cdot 1$ | $0 \cdot 2$ | $0 \cdot 1$ | $0 \cdot 1$ |
| Mining... | 94.5 | $100 \cdot 0$ | 115.3 | $135 \cdot 1$ | 136.3 | $5 \cdot 7$ | $5 \cdot 7$ | $6 \cdot 1$ | $5 \cdot 9$ | $5 \cdot 7$ |
| Electric power | 92.2 | 100.0 | 116.0 | $134 \cdot 6$ | $148 \cdot 8$ | $2 \cdot 6$ | 2.7 | 2.9 | 2.8 | $2 \cdot 9$ |
| Totals, Primary. | $100 \cdot 0$ | $100 \cdot 0$ | $101 \cdot 6$ | 133.7 | $130 \cdot 4$ | 34-6 | 32.9 | 31.1 | 33.6 | 31.3 |
| Manufactures. | $92 \cdot 6$ | $100 \cdot 0$ | 111.5 | 130.2 | $139 \cdot 6$ | 51.9 | 53.4 | 55.2 | $53 \cdot 1$ | $54 \cdot 3$ |
| Construction. | $93 \cdot 4$ | $100 \cdot 0$ | $107 \cdot 6$ | 126.8 | $144 \cdot 2$ | $13 \cdot 5$ | 13.7 | 13.7 | 13.3 | 14-4 |
| Totals, Secondary....... | 92.8 | $100 \cdot 0$ | 110.7 | 129.5 | $140 \cdot 6$ | 65.4 | $67 \cdot 1$ | 68.9 | 66.4 | 68.7 |
| Grand Totals. | $\mathbf{9 5}$-2 | $100 \cdot 0$ | 107.7 | 130.9 | 137.2 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |

## Section 3.-Per Capita Net Value of Production

The rapid advance since the end of the War in the total net value of commodity production was accompanied- 1946 to 1952 inclusive-by a 17-p.c. increase in population and a 10 p.c. increase in the labour force.

The national per capita net value of commodity production rose from $\$ 535$ in 1946 to $\$ 965$ in 1952 (exclusive of Newfoundland), an increase of 80 p.c. As wholesale prices rose by around 63 p.c. during the same period, a 'real' advance in per capita output is indicated. Compared with 1951, the value of per capita output in 1952 increased by about 2 p.c.

Per capita production in the Maritime Provinces has always been far below the Canadian average, and stood at around one-half the national figure in 1952. Quebec's per capita output has averaged between 10 and 13 p.c. below the Canadian average during the last five years, after having almost reached the national figure during some of the war years. Per capita production in Ontario has consistently been the highest among the provinces, but in 1952 it was very slightly lower than the Saskatchewan figure as the result of the bumper Prairie grain crops in that year. Ontario's per capita figure, at $\$ 1,146$, was still nearly 19 p.c. above the national average.

Manitoba's per capita production in the post-war period has been well below the Canada average and in 1952 stood at $\$ 728$ or 25 p.c. under the average. The figure for Saskatchewan has fluctuated widely according to crop conditions, sometimes dropping far below the national average, sometimes exceeding it, as in 1952 when, at $\$ 1,148$ it was the highest of any province. During the 1948-52 period, per capita output in Alberta has been consistently above the allCanada figure and stood at its highest relative level in 1952, 13 p.c. above the national average. The well-diversified economy of British Columbia usually ranks high in per capita production, being surpassed only by Ontario. During 1951 and 1952, however, owing mainly to the increased value of Prairie farm output, it dropped to fourth place behind Saskatchewan and Alberta.

## 3.-Per Capita Net Value of Production with Percentage Variation from the National Average, by Province, 1948-52

| Province | 1948 |  | 1949 |  | 1950 |  | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Per Capita Net Value | P.C. <br> Variation | Per Capita Net Value | P.C. <br> Variation | Per Capita Net Value | P.C. Variation | Per Capita Net Value | P.C. <br> Variation | Capita Net Value | P.C. Variation |
|  | \$ |  | \$ |  | \$ |  | \$ |  | \$ |  |
| Prince Edward Island. | 307 | -58.6 | 327 | -56.7 | 321 | -59.8 | 372 | -60.8 | 405 | $-58.0$ |
| Nova Scotia. | 399 | -46.2 | 419 | -44.6 | 407 | $-49.0$ | 462 | $-51 \cdot 3$ | 483 | -49.9 |
| New Brunswic | 431 | -41.9 | 423 | -44.0 | 473 | -40.7 | 520 | $-45 \cdot 1$ | 506 | $-47 \cdot 6$ |
| Quebec. | 648 | $-12.7$ | 661 | -12.6 | 710 | $-11.0$ | 823 | -13-2 | 863 | $-10.6$ |
| Ontario. | 884 | +19.1 | 932 | $+23.3$ | 1.014 | $+27 \cdot 1$ | 1,148 | +21.1 | 1,146 | +18.8 |
| Manitoba... | 670 | $-9.7$ | 637 | $-15.7$ | 630 | $-21.1$ | , 734 | $-22.6$ | 1,728 | $-24.6$ |
| Saskatchewan | 759 | +2.3 | 770 | $+1.9$ | 657 | $-17.7$ | 1,071 | +13.0 | 1,148 | $+19.0$ |
| Alberta. | 838 | +12.9 | 826 | +9.3 | 804 | +0.8 | 1,068 | +12.6 | 1,094 | +13.4 |
| British Columbia ${ }^{1}$. | 842 | +13.5 | 789 | + 4.4 | 872 | +9.3 | 1,057 | +11.5 | 1,029 | +6.6 |
| Totals? | 742 | ... | 756 | $\cdots$ | 798 | $\cdots$ | 948 | ... | 965 | ... |

${ }^{1}$ Includes the Yukon and the Northwest Territories,
2 Excludes Newfoundland.

## Section 4.-Provincial Analysis of Production

Newfoundland.-In 1952, the net value of commodity production in Newfoundland accounted for a little more than 1 p.c. of the Canadian total. The principal industry in the Province is manufacturing, consisting, in the main, of pulp and paper production and fish processing. Construction ranks next in importance, followed by mining and forestry. The principal mineral products are iron ore, lead and zinc. Primary fisheries represented about 8 p.c. of the value of commodity output in 1952. Exclusive of agriculture, the total value of output rose by about 10 p.c. over 1951.

Prince Edward Island.-Table 6 shows that Prince Edward Island's economy is mainly agricultural. In 1952, the industry represented about 60 p.c. of the Province's value of production. Principal farm products are potatoes, livestock and dairy products. Construction and manufactures account for the bulk of non-agricultural output.

Nova Scotia.-The net value of commodity output in Nova Scotia rose by more than 6 p.c. from 1951 to 1952 , and represented a little more than 2 p.c. of total Canadian production. In the latter year, manufacturing accounted for more than 41 p.c. of the Province's value of production. Primary iron and steel, fish processing, pulp and paper, sawmills, railway rolling-stock and shipbuilding are the leading manufacturing industries. Construction in 1952 accounted for 17 p.c. of the provincial output. Mining and agriculture are Nova Scotia's main primary industries with the fishing industry ranking next in importance. In recent years, coal mining has contributed about 80 p.c. of the value of mineral output. Live stock, poultry and dairy products are the principal farm commodities.

New Brunswick.-The net value of production in New Brunswick declined slightly in 1952 as compared with the preceding year, and accounted for about 2 p.c. of the value of output of all provinces. As in Nova Scotia, manufacturing is the principal activity, representing more than 44 p.c. of the Province's value of production in 1952. The main manufacturing industry is pulp and paper, followed by sawmilling and fish processing. Among the primary industries, agriculture and forestry are the most important. The main farm products are potatoes, live stock, poultry and dairy products. The net value of construction work performed accounted for 15 p.c. of provincial output in 1952.

Quebec.-Quebec's value of production at $\$ 3,604,000,000$ accounted for about 26 p.c. of Canadian commodity output in 1952 and showed an advance of 8 p.c. over the preceding year. Manufacturing is by far the most important industry, representing more than 60 p.c. of provincial output. Pulp and paper is the leading manufacturing industry, followed by metal smelting and refining, textiles and clothing. Agriculture accounted for nearly 9 p.c. of the industrial composite, livestock, poultry and dairy products providing the greatest income. The value of construction represented more than 14 p.c. of provincial output, and showed a marked increase over 1951. All industries except agriculture and trapping recorded value gains in 1952.

Ontario.-The value of net commodity production in Ontario in 1952 amounted to $\$ 5,462,000,000$, representing an increase of more than 3 p.c. over the preceding year, and accounting for 40 p.c. of total Canadian commodity output. The economy of the Province, like that of Quebec, is dominated largely by manufacturing which accounted for 70 p.c. of provincial output in 1952. Those manufacturing industries which contributed more than $\$ 100,000,000$ to net output in 1952 are, in order of importance: motor-vehicles, primary iron and steel, pulp and paper, metal smelting and refining, heavy electrical machinery, rubber goods and motor-vehicle
parts. Agriculture represented nearly 10 p.c. of the provincial value composite and consisted mostly of vegetables, live stock, poultry and dairy products. The value of construction work performed accounted for more than 12 p.c. of the Province's production, about the same proportion as in 1951. As in Quebec, only agriculture and trapping showed value declines in 1952 compared with the preceding year.

Manitoba.-In 1952, Manitoba's production rose only about 2 p.c. over the preceding year, largely reflecting a decline of about 9 p.c. in the value of agricultural output. In the year under review, the net value of the Province's production accounted for a little more than 4 p.c. of the Canadian total. Agriculture and manufacturing provided nearly equal shares of around 38 p.c. of the provincial value composite. In the manufacturing sector, slaughtering and meat packing and railway rolling-stock are the leading industries. As in the other Prairie Provinces, grain and live stock are the principal agricultural products. The value of construction in Manitoba in 1952 rose appreciably compared with 1951 and accounted for nearly 17 p.c. of the Province's total output. Principally owing to reduced output of copper and gold, the value of mineral production dropped sharply in 1952 to its lowest level in five years.

Saskatchewan.-The economy of the Province is overwhelmingly dependent on agricultural production which, in 1952, represented 77 p.c. of total net value of commodity output. Total provincial production accounted for 7 p.c. of the national composite in the same year. By contrast to most other provinces, the value of agricultural output showed an advance of more than 6 p.c. over 1951; the increase in value of grains more than offset declines in live-stock production. Manufacturing output, consisting mostly of petroleum products, flour mills, meat packing, breweries and butter and cheese, recorded a sharp gain compared with the preceding year. A similar increase was shown in the value of construction.

Alberta.-In 1952, Alberta's commodity output represented nearly 8 p.c. of the national total and was 6 p.c. greater than in 1951. Owing mainly to the rapid advance in the value of mineral production, agriculture has progressively diminished in importance, and in 1952 accounted for about 46 p.c. of provincial output. The net value of the mining industry increased sharply since 1948 , reflecting the rapid development of Alberta's mineral resources and in 1952 represented 16 p.c. of provincial production as compared with 11 p.c. in 1948. Manufacturing is another important industry, accounting for nearly 17 p.c. of Alberta's value of output. Meat packing, petroleum products, sawmills and breweries are the leading manufacturing industries. The value of construction represented over 18 p.c. of provincial net output in 1952. Only agriculture and trapping failed to show an increase in value in 1952 as compared with the preceding year.

British Columbia.-The value of output in British Columbia in 1952 showed a fractional decrease from 1951 but accounted for 9 p.c. of the total value of Canadian production. It was the third-ranking province in net value of
output after Ontario and Quebec. In 1952, the value of agriculture, fisheries, trapping, mining and manufacturing showed declines from 1951. These were offset by increases in the value of electric power and construction. The forestry industry recorded little change. Manufacturing is the leading industry in the Province, representing 45 p.c. of provincial output. The principal manufacturing industries from the point of view of net value are sawmills, pulp and paper, fish processing, veneers and plywoods, and fertilizers. The construction industry accounted for 22 p.c. of British Columbia's value of output in 1952 after showing a gain of 27 p.c. over 1951. Forestry represented 13 p.c. of the provincial total and mining more than 9 p.c.

## 4.-Net Value of Production, by Province, 1948-52

| Province or Territory | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | 8 | \$ | \$ | \$ |
| Newioundland ${ }^{1}$. |  | 79,682,122 | 97, 238,222 | 136,110,998 | 150, 017,395 |
| Prince Edward Island. | 28,544,059 | 30,740,835 | 30,819,330 | 36,505,157 | 41,696,971 |
| Nova Scotia. | - 249,547,233 | 263,590,743 | 259,731,738 | 296,791,447 | 315,598,397 |
| New Brunswic | 214,794,853 | 214,942,563 | 242,111,904 | 268,285,055 | 266,208,879 |
| Quebec. | 2,455, 408,144 | 2,567,996,801 | 2, 816,309,229 | 3,337,598,876 | 3,603, 837,567 |
| Ontario. | 3,777,362,166 | 4,082,002,159 | 4,534, 265,812 | 5,277,350,439 | 5,462, 414,735 |
| Manitoba. | 499,940,080 | 481,862, 653 | 483,805,980 | 569,952,272 | 580,632,738 |
| Saskatche | 636,134,284 | 641,086,461 | 546,960,335 | 891,151,432 | 967,630,499 |
| Alberta. | $715,842,516$ | 731,033,750 | 734, 148,363 | 1,002,712,967 | 1,060,842,944 |
| British Columbia ${ }^{2}$. | 921,500,886 | 884,820,749 | 995,233,672 | 1,240,224,661 | 1,239,598,201 |
| Yukon and Northwest Territories ${ }^{2}$. | 9,592,313 | 12,638,957 | 17,040,972 | 18,113,875 | 19,409,115 |
| Canada. | 9,508,666,564 | 9,990,397,793 | 10,757,665,557 | 13,074,797,179 | 13,707,887,441 |

[^238]5.-Percentages of Total Net Production, by Province, 1948-52

| Province | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | p.c. | p.c. | p.c. | p.c. | p.c. |
| Newfoundland ${ }^{1}$. |  | 0.8 | 0.9 | 1.0 | $1 \cdot 1$ |
| Prince Edward Island. | $0 \cdot 3$ | $0 \cdot 3$ | $0 \cdot 3$ | $0 \cdot 3$ | $0 \cdot 3$ |
| Nova Scotia............... . . . | $2 \cdot 6$ | $2 \cdot 6$ | $2 \cdot 4$ | $2 \cdot 3$ | $2 \cdot 3$ |
| New Brunswick. | $2 \cdot 3$ | $2 \cdot 2$ | $2 \cdot 2$ | $2 \cdot 0$ | 1.9 |
| Quebec.... | 25.8 | $25 \cdot 7$ | $26 \cdot 2$ | 25.5 | $26 \cdot 3$ |
| Ontario........... .... ........ .. .. | 39.7 | $40 \cdot 9$ | $42 \cdot 1$ | $40 \cdot 4$ | $39 \cdot 9$ |
| Manitoba....... | $5 \cdot 3$ | $4 \cdot 8$ | $4 \cdot 5$ | $4 \cdot 4$ | $4 \cdot 2$ |
| Saskatchewan.. | $6 \cdot 7$ | 6.4 | $5 \cdot 1$ | $6 \cdot 8$ | $7 \cdot 1$ |
| Alberta. | $7 \cdot 5$ | $7 \cdot 3$ | 6.8 | $7 \cdot 7$ | 7-7 |
| British Columbia ${ }^{2}$ | 9.7 | 8.9 | $9 \cdot 3$ | $9 \cdot 5$ | $9 \cdot 1$ |
| Yukon and Northwest Territories?.. | $0 \cdot 1$ | $0 \cdot 1$ | $0 \cdot 2$ | $0 \cdot 1$ | $0 \cdot 1$ |
| Totals. | 100.0 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | 100.0 |

[^239]6.-Net Value of Production and Percentage Analysis, by Province, 1952

| Industry | Newfoundland |  | Prince <br> Edward <br> Island |  | Nova Scotis |  | New Brunswick |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | p.c. | \$ 000 | p.c. | \$'000 | p.c. | \$'000 | p.c. |
| Agriculture. |  | $\cdots$ | 24,877 | 59.7 | 31,599 | 10.0 | 45,902 | 17.2 |
| Forestry... | 20,424 | . | 750 | 1.8 | 12,707 | 4.0 | 37,491 | 14.1 |
| Fisheries. | 13,000 | $\ldots$ | 2,660 | 6.4 | 22,753 | $7 \cdot 2$ | 7,825 | $2 \cdot 9$ |
| Trapping | ${ }^{141}$ | $\ldots$ | - 3 | - | +420 | -0.2 | ${ }_{7} 131$ | $0 \cdot 1$ |
| Mining. | 20,515 | $\ldots$ | - | - | 49,599 | 15.7 | 7,630 | $2 \cdot 9$ |
| Electric power | 3,390 | $\ldots$ | 1,055 | $2 \cdot 5$ | 12,863 | $4 \cdot 1$ | 8,832 | $3 \cdot 3$ |
| Manufactures. | 56,109 | $\ldots$ | 5,957 | 14.3 | 130,715 | 41.4 | 117,837 | 44-3 |
| Construction. | 36,438 | ... | 6,395 | 15-3 | 54,942 | $17 \cdot 4$ | 40,561 | $15 \cdot 2$ |
| Totals | 150,012 |  | 41,697 | $100 \cdot 0$ | 315,598 | $100 \cdot 0$ | 266,209 | $100 \cdot 0$ |
|  | Quebec |  | Ontario |  | Manitoba |  | Saskatchewan |  |
|  | \$'000 | p.c. | \$ 000 | p.c. | \$ 000 | p.c. | \$'000 | p.c. |
| Agriculture | 317,806 | 8.8 | 529,160 | $9 \cdot 7$ | 220,975 | 38.0 | 748,977 | 77.4 |
| Forestry. | 167,459 | $4 \cdot 7$ | 108,744 | $2 \cdot 0$ | 8,514 | 1.5 | 4,698 | $0 \cdot 5$ |
| Fisheries. | 3,572 | $0 \cdot 1$ | 7,417 | $0 \cdot 1$ | 3,439 | $0 \cdot 6$ | 679 | $0 \cdot 1$ |
| Trapping. | 1,341 | - | 3,657 | $0 \cdot 1$ | 2,526 | $0 \cdot 4$ | 1,720 | $0 \cdot 2$ |
| Mining. | 174,105 | 4.8 | 182,085 | $3 \cdot 3$ | 12,082 | $2 \cdot 1$ | 29,732 | $3 \cdot 0$ |
| Electrie power | 140,816 | $3 \cdot 9$ | 140,762 | $2 \cdot 6$ | 19,787 | $3 \cdot 4$ | 12,812 | $1 \cdot 3$ |
| Manufactures | 2,288,643 | 63.5 | 3,811,107 | 69.8 | 216,814 | $37 \cdot 4$ | 80,934 | $8 \cdot 4$ |
| Construction | 510,095 | 14.2 | 679,483 | $12 \cdot 4$ | 96,496 | $16 \cdot 6$ | 88,078 | $9 \cdot 1$ |
| Totals | 3,603,837 | $100 \cdot 0$ | 5,462,415 | $100 \cdot 0$ | 580,633 | $100 \cdot 0$ | 967,630 | $100 \cdot 0$ |
|  | Alberta |  | British Columbia ${ }^{2}$ |  | Yukon and Northwest Territories ${ }^{1}$ |  | Canada |  |
|  | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. |
| Agriculture. | 483, 108 | 45.5 | 64,762 | $5 \cdot 2$ | - | - | 2,467,166 | 18.0 |
| Forestry. | 10,831 | 1.0 | 162,318 | $13 \cdot 1$ | - | - | 533,937 | 3.9 |
| Fisheries. | . 654 | $0 \cdot 1$ | 30,158 | 2.4 | 735 |  | 92,893 | 0.7 |
| Trapping. | 17,766 | $0 \cdot 2$ | ${ }^{115} 813$ | $0 \cdot 1$ | 1,621 | $\ldots$ | 14,138 | $0 \cdot 1$ |
| Mining. | 171,119 | 16.1 | 115,524 | $9 \cdot 3$ | 15,053 | ... | 777,444 | $5 \cdot 7$ |
| Electric power | 19,522 | 1.9 | 41,258 | $3 \cdot 4$ | 977 | ... | 402,073 | 2.9 |
| Manufsctures. | 178,221 | 16.8 | 556, 172 | 44.8 | 1,023 | ... | 7,443,533 | 54-3 |
| Construction. | 195,622 | 18.4 | 268,593 | 21.7 | - | - | 1,976,703 | 14.4 |
| Totals. | 1,060,843 | $100 \cdot 0$ | 1,239,598 | $100 \cdot 0$ | 19,409 | ... | 13,707,887 | $100 \cdot 0$ |

${ }^{1}$ Forestry and construction figures for the Yukon and Northwest Territories are included with British Columbia.

## CHAPTER XVIII.-LABOUR*

## CONSPEGTUS



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& \text { tion. . . . . . . . . . . . . . . . . . . }
\end{aligned}
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Nots.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

## Section 1.-The Government in Relation to Labour <br> Subsection 1.-Federal Labour Legislation

The Federal Department of Labour was established in 1900 under the Conciliation Act which provided machinery to aid in preventing and settling labour disputes and required the Department to collect, compile and publish statistical and other relevant information. The Department assumed, too, the administration of the Fair Wages Policy adopted in the same year for the protection of workmen employed in the execution of Federal Government contracts and on works aided by grants from public funds.

At present, in addition to the statutory duty of disseminating information concerning labour and industrial matters, the Minister of Labour is responsible for the administration of the following statutes: Conciliation and Labour Act, 1906; Government Annuities Act, 1908; Fair Wages and Hours of Labour Act, 1935; Unemployment Insurance Act, 1940; Vocational Training Co-ordination Act, 1942; Reinstatement in Civil Employment Act, 1946; Merchant Seamen Compensation Act, 1946; Government Employees Compensation Act, 1947; Industrial Relations and Disputes Investigation Act, 1948; and Canada Fair Employment Practices Act, 1953. Except for the Conciliation and Labour Act, and the Canada Fair Employment Practices Act, the above Acts are incorporated in the Revised Statutes of Canada 1952. (Sec also pp. 105-109.)

[^240]Fair Wages Policy.-The Fair Wages Policy applying to all Federal Government contracts was first set forth in a Resolution of the House of Commons (1900) and later incorporated in an Order in Council and amended from time to time. Wages and hours on contracts for construction are now regulated by the Fair Wages and Hours of Labour Act and Order in Council P.C. 5547 of Nov. 3, 1949, as amended. Hours of work on construction contracts are limited to eight per day and 44 per week, except in an emergency or in exceptional circumstances where exemption is granted by Order in Council; wages to be paid are those current for the type of work in the district, or if there are no current rates, fair and reasonable rates as determined by the Minister of Labour.

Wages and hours of work on contracts for equipment and supplies are regulated by Order in Council P.C. 5547. The hours of such work must be those fixed by the custom of the trade in the district where the work is performed, or fair and reasonable hours. The wages must be current or fair and reasonable, but in no event shall they be less than those established by statute or regulation of the Province in which the work is being performed.

On Sept. 24, 1952, the Order in Council referred to above was amended to provide that all types of contract to which the Order applies, entered into on and after Jan. 1, 1953, shall contain a clause prohibiting discrimination against any person in matters of employment because of that person's race, national origin, colour, or religion, or because he has made a complaint or given information with respect to such alleged discrimination.

The Industrial Relations and Disputes Investigation Act.-This legislation came into effect by proclamation on Sept. 1, 1948, revoking the Wartime Labour Relations Regulations, P.C. 1003, in effect since March 1944, and repealing the Industrial Disputes Investigation Act which had been in force from 1907 until suspended by the Wartime Regulations in 1944. The Act protects proceedings commenced, and decisions, orders and certifications made under the wartime legislation in so far as these involve services authorized by the Act.

The Act applies only to industries within federal jurisdiction, viz., navigation, shipping, interprovincial railways, canals, telegraphs, steamship lines and ferries both international and interprovincial, aerodromes and air transportation, radio broadcasting stations, and works declared by Parliament to be for the general advantage of Canada or of two or more provinces. However, the Act provides that provincial authorities, if they so desire, may enact similar legislation for application to employees within provincial jurisdiction and make mutually satisfactory arrangements with the Federal Government for the administration of such legislation by the federal authorities.

In general, the Act in its important features provides that employees and employers shall have the right to organize and bargain collectively, that trade unions may be certified as bargaining agents for groups of employees. Trade unions and employers are required, upon notice, to bargain collectively in good faith. The Act provides for invoking collective bargaining negotiations and for the mediation of conciliation officers and conciliation boards in reaching collective agreements. Employees may change bargaining agents at times under conditions specified in the Act which also prescribes conditions affecting the duration and renewal of collective agreements. Collective agreements are required to contain provision for the arbitration of disputes concerning the meaning or violation of such agreements and where such provision is lacking application may be made for
its establishment. The Act prohibits unfair labour practices, i.e., the interference with or domination of trade unions by employers or interference, discrimination and coercion in trade-union activity. The conditions which must be observed prior to strike and lockout action are provided for in the Act. Industrial inquiry commissions may be appointed to investigate industrial matters or disputes.

The Minister of Labour is charged with the administration of the Act and is directly responsible for the provisions affecting the appointment of conciliation officers, conciliation boards, industrial inquiry commissions, consent to prosecute, and complaints that the Act has been violated or that a party has failed to bargain in good faith.

The Canada Labour Relations Board administers provisions concerning the certification of bargaining agents, the writing of a procedure into a collective agreement for the final settlement of disputes concerning the meaning or violation of such agreement, and the investigation of complaints made to the Minister that a party has failed to bargain collectively.

Detailed statistics concerning activities under the Act may be found in the Annual Report of the Department of Labour. In brief, the Canada Labour Relations Board has received 469 applications for certification since Sept. 1, 1948, 283 of which have been granted, 105 rejected, 69 withdrawn and 12 were pending at Mar. 31, 1954.

Of the 249 industrial disputes dealt with under the conciliation provisions of the Act, 202 were settled by conciliation officers and conciliation boards, 22 were not settled, 9 lapsed and 16 were pending at Mar. 31, 1954.

Canada Fair Employment Practices Act.-This Act, which came into effect on July 1, 1953, prohibits discrimination in employment based on race, colour, religion or national origin, whether practiced by employers or trade unions. It applies only to industries within federal jurisdiction-those covered by the Industrial Relations and Disputes Investigation Act (see p. 759).

This law prohibits acts of discrimination by employers; discrimination by trade unions in regard to membership or employment; the use by employers of employment agencies which practise discrimination, and of advertisements or inquiries in connection with employment which express, directly or indirectly, any limitation, specification or preference as to race, colour, religion or national origin.

## Subsection 2.-Provincial Labour Legislation

Labour legislation in Canada is mainly a matter for the provincial legislatures and usually deals with the contract of service between employer and employee, the contract between members of a trade union which forms the basis of the union, or regulates conditions in local work-places. The right to contract is a civil right and the British North America Act, which distributes legislative powers between the Parliament of Canada and the provincial legislatures, grants to the provinces power to enact laws in relation to "civil rights" and, with certain exceptions, "local works and undertakings."

In each province, except Prince Edward Island, a Department of Labour (in Alberta, the Department of Industries and Labour) is charged with the administration of labour laws. Legislation for the protection of miners is administered by departments dealing with mines.

Factory legislation and shops legislation in several of the provinces prohibit child labour, regulate the hours of women and young persons, and provide for safety and health. Most provinces have minimum-wage legislation and maximumhours laws, and legislation to ensure freedom of association, to promote collective bargaining and to provide for the settlement of industrial disputes, and to provide for apprenticeship and the licensing of certain classes of workmen. The Industrial Standards Act in Nova Scotia, New Brunswick, Ontario and Saskatchewan, the Alberta Labour Act and the Fair Wage Act in Manitoba enable the wages and hours of work agreed upon at a conference of representatives of employers and employees in designated trades to be made the minimum standards throughout the trade concerned. The Quebec Collective Agreement Act permits collective agreements between employers and trade unions to be made binding on all in the industry. Workmen's compensation laws, in all provinces, are administered by independent boards.

Provincial labour legislation enacted in 1953 and 1954 is outlined in the following paragraphs.

Newfoundland.-In 1953, the St. John's Shops Act was amended to require shops to be closed one full day each week besides Sunday, and to limit hours of shop employees to 44 a week.

The Apprenticeship Act was amended in 1954 to ensure that no person between the ages of 16 and 21, eligible for apprenticeship, is employed in a designated trade for more than three months except under a contract of apprenticeship. Exceptions may be allowed by Provincial Apprenticeship Board permit.

Prince Edward Island.-The Trade Union Act was amended in 1953 to include a procedure for certifying a bargaining agent and for a government-supervised strike vote. If the employees of a public utility vote in favour of a strike, the dispute is to be referred to a special commission, composed of the members of the Public Utilities Commission and two other persons appointed for each dispute. The Commission's decision is binding.

Nova Scotia.-In 1953, a provision was added to the Nova Scotia Teachers' Union Act to authorize collective bargaining between the Teachers' Union and school boards. A conciliation board may be established if the parties are unable to reach agreement on salaries or other conditions of employment.

The Workmen's Compensation Act was amended in 1953 to reduce the waiting period from seven to five days. If a workman is disabled for five days or longer, compensation is payable from the date of the accident. In the event of death, the benefits to dependants are increased. The monthly payment for a child under 16 years is raised from $\$ 15$ to $\$ 20$, and of an orphan child from $\$ 25$ to $\$ 30$. The minimum compensation to a workman who suffers total disability is increased from $\$ 12.50$ to $\$ 15$ a week, subject to the provision that if his total weekly earnings are less than $\$ 15$, he will receive the amount of his earnings.

Under a 1954 consolidation of the Act, coverage is extended to the following industries, effective Jan. 1, 1955: hotels, restaurants, catering, dairies, wholesale and retail stores, broadcasting stations, artificial ice production, peat processing, landscaping and operation of bridges.

An amendment to the Coal Mines Regulation Act, in 1954, raises the minimum age for employment underground in coal mines from 17 to 18 years.

New Brunswick.-The Fair Wages and Hours of Labour Act passed in 1953 requires a contractor engaged in construction work for the provincial government to pay his employees "fair wages", that is the current rate paid to other workmen performing the same class of work in the district, and to limit hours of work to eight in a day and 44 in a week unless longer hours are authorized.

A new Vacation Pay Act passed in 1954 applying to mining and the construction industry requires an annual vacation of at least one week with pay after a year's employment. A system of vacation-with-pay credit stamps is provided for employees who do not work a full year for the same employer. The vacation pay to be granted is 2 p.c. of the employee's earnings. The Act will come into force on proclamation.

The Weekly Rest Act, effective from Aug. 1, 1954, requires a weekly rest period of at least 24 hours, and covers practically all employees in the Province except farm workers.

The application of the Stationary Engineers' Act is extended to hot-water boilers and provision made for a fourth-class engineer's certificate.

Quebec.-Further measures were passed by the Quebec Legislature in 1953 to exempt the decisions of the Labour Relations Board and of councils of arbitration under labour Acts from supervision by the courts.

In 1954, the Labour Relations Act was amended, retroactive to the date the Act went into effect in 1944, to require the Labour Relations Board to decertify or refuse to certify a union if any of its organizers or officers belong to the communist party or movement.

A 1954 amendment to the Public Service Employees Disputes Act, also retroactive to 1944, provides that if a union of employees of a school corporation, a hospital or charitable institution or a public utility service goes on strike it will automatically lose its certification as bargaining agent.

Ontario.-In 1953, amendments to the Workmen's Compensation Act provide increased monthly allowances to dependants of a deceased workman; for a widow the allowance is raised from $\$ 50$ to $\$ 75$ and for a child under 16 years of age from $\$ 12$ to $\$ 25$. The monthly allowance for an orphan child is increased from $\$ 20$ to $\$ 35$.

The Elevators and Lifts Act, 195s, proclaimed June 17, 1954, and regulations under it, establish a system of provincial supervision over the licensing and inspection of most elevators in the Province except passenger elevators in the city of Toronto. Plans and specifications for new elevators must be approved, annual inspections are required, and operators must be licensed.

In 1954, amendments to the Labour Relations Act aimed at reducing delays, shorten the periods allowed under the Act for the various steps in collective bargaining and conciliation and give the Minister authority to refuse to appoint a conciliation board where, in his view, it would serve no useful purpose. To facilitate bargaining between employers and groups of trade unions, one amendment provides for the recognition of councils of trade unions as bargaining agents under the Act.

The Trench Excavators Protection Act, 1954, is a new Act designed to protect workers from dangers in trench excavation. An inspector of trench excavation work is to be appointed by each municipal council. The Act requires that before work
is begun on a trench which is more than four feet deep, the owner or contractor must notify the inspector who is required to ensure that the provisions of the Act are complied with.

Manitoba.-The Fair Employment Practices Act, 1953, prohibits discrimination by an employer in regard to employment, or by a trade union in regard to membership, on grounds of race, national origin, colour or religion. The Act applies generally in the Province to employers of five or more persons, but non-profit educational, social, religious or charitable organizations and domestic servants employed in private homes are excluded. An advertisement in connection with employment may not contain any specification as to race, national origin, colour or religion. A complaint of discrimination may be filed by the aggrieved person with a designated officer in the Department of Labour, and the complaint will be investigated; the Minister has authority to appoint an industrial inquiry commission to recommend any action necessary and to make the action effective. A 10-day period is provided for, wherein the Minister's order may be appealed to the Court of Queen's Bench.

Amendments to the Workmen's Compensation Act provide that compensation for disability is to be computed on the basis of 70 p.c. of average earnings instead of $66 \frac{2}{3}$ p.c. The burial allowance is increased from $\$ 150$ to $\$ 200$; the monthly allowance for a dependant child from $\$ 12$ to $\$ 20$ and for an orphan child from $\$ 20$ to $\$ 30$. Widows receiving compensation according to earlier scales of benefit will be brought up to the current level of $\$ 50$ a month. The minimum compensation payable to a dependent widow and one child is raised from $\$ 12.50$ a week to $\$ 70$ a month, and to a widow and two or more children, from $\$ 15$ a week to $\$ 90$ a month.

The Hours and Conditions of Work Act was made to apply to the northern mining communities of Snow Lake and Lynn Lake; hours of work are limited to eight a day and 48 a week for men ( 44 a week for women) unless paid at time and one-half the regular rate.

The Fire Departments Arbitration Act passed in 1954 provides for arbitration of disputes between a municipality and its firefighters. It applies only where the union representing the firefighters does not have the right under its constitution to call a strike. The award of an arbitration board is binding on both parties, and strikes and lockouts are prohibited.

Saskatchewan.-In 1953, amendments to the Workmen's Compensation (Accident Fund) Act increased the funeral allowance from $\$ 175$ to $\$ 250$.

An amendment to the City Act relating to disputes involving members of the police force provides for submission of a dispute to a board of arbitration authorized to make an award binding on both parties-but only where the constitution of the policemen's union contains an undertaking not to go on strike. The Fire Departments Platoon Act was amended to make similar provisions for the settlement by arbitration of disputes involving full-time firefighters.

The Gas Inspection and Licensing Act, effective Jan. 1, 1954, requires a person who installs gas equipment or works as a gasfitter to hold a licence under the Act.

In 1954, locomotive engineers and maintenance-of-way employees of the railroads, formerly covered by an individual liability statute, elected to come under the Workmen's Compensation (Accident Fund) Act.

The Trade Union Act was amended to protect the pension rights of an employee whose service is broken by a lockout or by a legal strike.

An amendment to the Hours of Work Act provides that, for overtime worked in any week in which a paid holiday occurs, time and one-half becomes payable after 36 hours instead of after 44 hours as in an ordinary week.

Under the Factories Act, the limits set for special overtime work by women and young persons under 18 years of age were reduced from $12 \frac{1}{2}$ to 10 hours a day and from $72 \frac{1}{2}$ to 60 hours a week. Normal working hours of women and young persons are limited to 48 in a week.


#### Abstract

Alberta.-New provisions added to the Fire Departments Platoon Act concerning collective bargaining and arbitration of disputes became effective July 1, 1953. When requested in writing by a majority of the full-time firefighters, a municipal council is required to bargain in good faith with a committee representing the firemen to determine wages, pensions and other working conditions. If an agreement cannot be reached, the points at issue are to be referred to an arbitration board whose decision is binding. Provisions of an agreement or award involving expenditures may only become effective at the beginning of the fiscal period in which provision for such expenditures is made in the municipal estimates.

A consolidation of the Police Act effective July 1, 1953, made provision for bargaining and for arbitration of disputes for full-time members of a municipal police force similar to those described above for firemen. Policemen may not belong to a trade union, but may have their own association for bargaining purposes.


In 1954, Part V of the Alberta Labour Act, which deals with collective bargaining and the settlement of disputes in industry generally, was amended in a number of details.

British Columbia.-Effective Dec. 31, 1953, the Equal Pay Act forbids an employer to pay a female employee at a lower rate than a male employee for the same work done in the same establishment. A woman who considers that she is not being paid at the rate required by the Act may file a complaint with the Board of Industrial Relations.

The Labour Relations Act, proclaimed in force on June 16, 1954, replaced the Industrial Conciliation and Arbitration Act.

One of the chief differences between the present and the previous legislation is that the Minister of Labour now has the authority, formerly vested in the Labour Relations Board, to appoint conciliation officers, conciliation boards and mediation committees.

A further new provision permits the conciliation officer's recommendations to be accepted in place of a report of a conciliation board in certain cases. The parties are required, within 18 days, to advise the Minister of their acceptance or rejection of the conciliation officer's recommendation or the conciliation board's report.

The Section giving authority to the Labour Relations Board to decertify a union representing employees who had gone on strike contrary to the Act was replaced by a provision permitting the reference of the strike to a Judge of the Supreme Court. He has the power to revoke the union's certification, check-off arrangement and the collective agreement to which it is a party if he finds the strike
was illegal. Before making his adjudication, the Judge may hold a hearing at which the employer and the employees may be represented and procure the attendance of witnesses.

Amendments to the Workmen's Compensation Act provide that compensation for disability is to be computed on the basis of 75 p.c. of average earnings instead of 70 p.c. The maximum annual earnings on which compensation is based are increased from $\$ 3,600$ to $\$ 4,000$ a year. A number of new groups are brought under the Act including members of municipal fire brigades, domestic servants (on an optional basis), and independent operators and their dependants (on an elective basis).

Amendments made to the Public Works Fair Wages and Conditions of Employment Act, passed in 1951, require that all persons employed in the execution of a contract with the provincial government must be paid "fair wages" and must not work longer than eight hours a day and 44 hours a week. If a contractor fails to pay the proper wages, an employee may make a claim to the Minister of Labour rather than, as formerly, to the Minister of the contracting department.

Regulation of Wages and Hours of Labour under Industrial Standards Legislation and the Quebec Agreement Act.-The Industrial Standards Acts of Nova Scotia, New Brunswick, Ontario, and Saskatchewan, and the Alberta Labour Act provide that wages and hours agreed upon at a conference of representatives of employers and employees, called by the Minister of Labour or his representative, may, by Order in Council, be made legally binding on the industry in the area concerned. The Nova Scotia Act applies only to construction work at Halifax, Dartmouth, and Sydney.

In Nova Scotia, 12 schedules of hours and wages for individual building trades were in force in 1953: 11 renewals of previous schedules and one new schedule governing plumbers rates at Sydney. In New Brunswick, five schedules for individual building trades were in force in 1953. One schedule governing painters at Saint John expired in December 1952.

In Quebec, under the Collective Agreement Act, hours and wages and also apprenticeship, vacations with pay and family allowances provisions established by a collective agreement voluntarily entered into by employers and unions or groups of employees may be made legally binding by Order in Council on all employers and employees in the industry in the district covered by the Agreement, if the parties are sufficiently representative of the industry. At Mar. 31, 1953, 102 agreements, covering 220,549 workers and 21,392 employers, had been generalized to apply either throughout the Province or to a certain district. The agreements in force throughout the Province apply to the following industries: building materials, the manufacture of women's cloaks and suits, dresses, millinery, the manufacture of men's and boys' clothing, men's and boys' hats and caps, men's and boys' shirts, ladies handbags, fine gloves and work gloves, shoes, furniture, paint, corrugated and uncorrugated paper boxes, the tanning industry, elevator construction, and the structural-iron erection industry. Other agreements concern industries in particular cities or parts of the Province including all building trades and printing trades in large urban centres and many rural districts.

In Ontario, there were 145 wages and hours schedules in force at Mar. 31, 1953, affecting brewery workers, cloakmakers, the men's and boys' clothing industry, men's and boys' hats and caps, the hard furniture industry, and millinery workers.

In the construction industry, one schedule covered several building trades in one city and 65 schedules, each for a single trade in a single locality, covered one or more trades in 28 localities. In other industries also, schedules of wages and hours were in effect only for certain zones. Bakers, soft furniture manufacturing, coal hoisting, and the coal industry each had schedules in one zone, retail gasoline service in four, taxi drivers in one and barbers had schedules in 64 zones. During 1953, 22 new schedules applying to the construction industry were made binding, three of which were applied for the first time.

In Manitoba, Part II of the Manitoba Fair Wage Act provides similar machinery for fixing wages and hours in any business, trade or undertaking, except agriculture. Orders in Council under this legislation have been passed fixing wages and hours in the barbering and hairdressing trades.

In Saskatchewan, 17 schedules were in effect at Mar. 31, 1953. These included one for barbers covering the whole Province; others applied to bakers and bakery salesmen, carpenters, electrical workers, painters, shoe repairers, and beauty-culture operators in one or more areas.

In Alberta, 29 schedules were in effect during 1953. These included, in one or more areas, schedules governing bakers and bakery salesmen, certain individual building trades, dairy employees, garage and service-station employees, radio service, laundry and dry-cleaning employees and barbers. Two new schedules were made binding during the year.

Regulation of Hours and Annual Holidays.--Five provinces-Ontario, Manitoba, Saskatchewan, Alberta, and British Columbia-have statutes that either place absolute limits on working hours or require time and one-half the regular rate to be paid if work is continued after specified limits. There is, in addition, an Act of limited application in Quebec. In the provinces that have no special hours-ofwork legislation, the only statutory regulation of hours, apart from that described on pp. 759-760, under industrial standards Acts and the Quebec Collective Agreement Act, is that imposed by factories Acts, mines Acts and, in Newfoundland, an Act governing shops. In New Brunswick and Quebec, the limits imposed by the factories Acts apply only to women and boys under 18 years of age. Several minimum wage Acts give authority for the regulation of hours as well as wages.

In Ontario, there is a maximum eight-hour day and 48 -hour week for certain workers. In Alberta, the maximum daily and weekly hours in the cities of Calgary, Edmonton, Lethbridge, and Medicine Hat are eight and 44; in the remainder of the Province they are eight and 48. In British Columbia, hours are limited to eight in a day and 44 in a week. In these three Provinces, the Acts apply to most workers except farm labourers and domestic servants. In Saskatchewan, an Act of 1947 requires time and one-half to be paid for work after eight hours daily and 44 hours weekly. The Act applies to workers in all industries except agriculture and domestic service. A Manitoba Act of 1949, covering most industrial workers in the Province, requires time and one-half to be paid for work done after eight hours in a day and after 48 hours in a week for men and 44 hours for women. In all provinces that have Acts regulating hours, longer hours may be worked in an emergency or by permission of the administrative authority.

Six provinces have legislation in effect providing for annual holidays with pay for workers in most industries. In five of these provinces-Quebec, Ontario, Manitoba, Alberta, and British Columbia-workers are entitled to a week's holiday
with pay after a year of employment. Two weeks' holiday is given in Saskatchewan after a year of employment, in Alberta after two years, and in Manitoba after three. A worker employed for less than a year is entitled, in Quebec, to a half-day for each month of employment and, in Saskatchewan, to one day for each month. Coal miners in Alberta are entitled to one day's holiday with pay for every 20 days worked in a month but not more than two weeks' holiday in a year.

Farm workers are excluded from the holiday provisions in all provinces and domestic servants in all but Manitoba and Saskatchewan. The Manitoba Act excludes independent contractors and railway and express companies under federal jurisdiction. In addition, Quebec exempts forest operations workers, public corporation employees, salesmen, janitors and watchmen, and certain part-time workers. Ontario exempts professional workers, salesmen, and funeral directors and embalmers. Manitoba and Saskatchewan exempt ranch and market-garden employees, and British Columbia, professional workers and horticultural workers.

A New Brunswick Act, requiring an annual vacation of one week with pay in the mining and construction industries, will come into force on proclamation.

Minimum Wage Regulations.-In Nova Scotia, the minimum wage law applies only to women; in Ontario, though the Act applies to both sexes, Orders in Council apply only to women. In New Brunswick, Manitoba, Alberta and British Columbia, there are separate Orders for men and women but in British Columbia many Orders cover both sexes. In Quebec and Saskatchewan all Orders apply to both sexes. Under the Newfoundland Minimum Wage Act, 1950, a general Order for male workers is in effect.

Table 1 shows the minimum rates in effect in July 1954 for several classes of establishments in the principal cities. In Newfoundland, New Brunswick, British Columbia and, with respect to men in Manitoba, the rates set are for the entire Province. Elsewhere rates vary according to zone. The rates given apply to the hours specified or to the normal work-week of the establishment, if less, except at Montreal, Que., and Winnipeg, Man. No work-week is specified in the Newfoundland Order in Council.
1.-Minimum Weekly Wage Rates for Experienced Workers in Certain Cities, July 1954

| Item and Type of Establishment | $\begin{gathered} \text { St. } \\ \text { John's } \end{gathered}$ | Halifax ${ }^{2}$ | Saint <br> John ${ }^{3}$ | Montreal | Toronto ${ }^{2}$ | Winnipeg ${ }^{4}$ | Regina | Edmonton ${ }^{5}$ | Vancouver |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hours per week. | $\cdots$ | 48 | 48 | 48-608 | 48 | 44 | 44 | 44 | 44 |
|  | cts. per hour | \$ | cts. per hour | cts. per hour | \$ | cts. per hour | \$ | \$ | \$ |
| Factories Laundries, etc Shops. | 50 | 16.80 | 40 | 51 | 16.80 | 55 | 26 | 24 | 0.40 ${ }^{7}$ |
|  | 50 | 16.80 | 40 | 51 | 16.80 | 55 | 26 | 24 | 0.407 |
|  | 50 | 16.80 | 40 | 51 | 16.80 | 55 | 26 | 24 | 18 |
| Hotels, restaurants, etc. | 50 | 16.80 | 38 | $44^{8}$ | 16.80 | 55 | 26 | 24 | 22 |
| Beauty parlours Theatres and amusement | 50 | 16.80 | 40 | 51 | 16.80 | 55 | 26 | 24 | 25 |
|  | 50 | 16.80 | 40 | 51 | 16.80 | 55 | 26 | 24 |  |
| Offices........... | 50 | 16.80 | 40 | 51 | 16.80 | 55 | 26 | 24 | $18{ }^{2}$ |

[^241]
## Section 2.-The Labour Force

## Subsection 1.-Labour Force Statistics of the Census of 1951

Details of the labour force, as defined in the 1951 Census, relative to age, sex and occupation groups are given at pp. 692-704 of the 1954 Year Book.

## Subsection 2.-Current Labour Force Statistics

During World War II up-to-date information on the size and characteristics of the labour supply was a necessity and to meet the possibility of disturbed economic conditions in the post-war period a current and periodic analysis of the state of employment in Canada was organized. A labour force survey, on a sample basis, was conducted in the autumn of 1945, and quarterly surveys were carried on until November 1952, when the survey was placed on a monthly basis. A multi-stage area sample was used involving the selection of progressively smaller sample areas and ultimately of households. Random methods of choice were used at every stage of selection so that all members of the population had an equal chance of inclusion. The present sample includes about 30,000 households in over 110 different areas of Canada, which include 34 cities having a population of 30,000 or over in 1951 in addition to some smaller urban, and various rural, areas.

The estimates of the labour force are restricted to the civilian labour force; net strength of the Armed Forces is obtainable directly from official sources. Inmates of institutions and Indians living on reserves are also excluded. Because of inaccessibility and high cost of enumeration, certain remote areas of the country have been excluded from the sample, but estimates for remote areas of Ontario were included in 1954 although they are given no chance of selection for enumeration. This resulted in an increase of about 0.6 p.c. in the estimates for Canada as a whole. This percentage can be applied to figures for previous years to make them comparable.

The labour force surveys provide a classification of persons 14 years of age and over on the basis of their activity, during the week that precedes the beginning of the survey, and who had jobs or were seeking work during the survey week. These divisions of the labour force are defined as follows:-
(1) Persons with jobs-This category comprises:-
(a) persons at work-those who did any work for pay or profit or who did unpaid work which contributed to the running of a farm or business operated by a relative; and
(b) persons with jobs not at work-those who had jobs but did not work because of illness, bad weather, vacation, industrial dispute, or temporary layoff with definite instructions to return to work within 30 days of the time of being laid off.
Persons who worked part of the survey week and also looked for work are classed as "persons with jobs"
(2) Persons without jobs and seeking work.-This classification includes those persons who were looking for work during the survey week and did not work. Persons who were temporarily away from their jobs during the whole of the survey week seeking other work are considered as without jobs and are included in this category. In addition to those who actively looked for work, this classification includes persons who would have looked for work, except that they were temporarily ill, were on indefinite or prolonged layoff, or believed that no work was available.

Information relating to the population 14 years of age or over not in the labour force is also collected. Persons not in the labour force include such groups as those going to school or keeping house in their own homes, persons who are permanently unable to work because of old age or other reason, and persons who are retired or voluntarily idle. Persons, such as housewives, students and others, who worked part-time are classed as "persons with jobs" or, if looking for work, they are classed as "persons without jobs and seeking work"

The estimates derived from the labour force surveys are subject to sampling error. In general, the percentage error tends to decrease as the size of the estimate increases. The chances are about 19 out of 20 that the difference between the estimate and the figure which would have been obtained from a complete count is less than that shown below.

|  | Size of Estimate | Sampling Variability |
| :---: | :---: | :---: |
| 50,000. |  | 8,000 |
| 100,000. |  | 11,000 |
| 500,000. |  | 25,000 |
| 1,000,000. |  | 33,000 |
| 5,000,000. |  | 54,000 |

Data in Table 2 for June 1, 1946 to 1954 are compiled from labour force surveys conducted in late May or early June of those years. The information for years before 1946 is taken from estimates based upon 1931 and 1941 Census material rearranged according to the definitional system used in the labour force surveys, the revised census data being linked with the June 1946 survey on the basis of monthly and annual employment and unemployment figures.
2.-Estimates of the Civilian Labour Force and its Main Components, June 1, 1931-54 ${ }^{1}$

| Year | Civilian <br> Population (14 years of age or over) | Civilian Labour Force (14 years of age or over) |  |  |  |  |  |  | Persons not in the Labour Force (14 years of age or over) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Persons With Jobs |  |  |  |  | Persons Without Jobs and Seeking Work | Total Labour Force |  |
|  |  | Non-Agriculture |  |  | Agriculture | Total (with jobs) |  |  |  |
|  |  | Paid Workers | Other ${ }^{2}$ | Total (non-agriculture) |  |  |  |  |  |
|  | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 |
| 1931. | 7,039 | 2,006 | 421 | 2,427 | 1,203 | 3,630 | 475 | 4,105 | 2,934 |
| 1932... | 7,163 | 1,828 | 381 | 2,209 | 1,223 | 3,432 | 733 | 4,165 | 2,998 |
| 1933... | 7,287 | 1,698 | 470 | 2,168 | 1,243 | 3,411 | 817 | 4,228 | 3,059 |
| 1934. | 7,411 | 1,910 | 493 | 2,403 | 1,263 | 3,666 | 624 | 4,290 | 3,121 |
| 1935. | 7,539 | 1,920 | 532 | 2,452 | 1,284 | 3,736 | 618 | 4,354 | 3,185 |
| 1936.. | 7,665 | 1,972 | 576 | 2,548 | 1,304 | 3,852 | 565 | 4,417 | 3,248 |
| 1937... | 7,785 | 2,085 | 661 | 2,746 | 1,324 | 4,070 | 406 | 4,476 | 3,309 |
| 1938.... | 7,912 | 2,053 | 625 | 2,678 | 1,344 | 4,022 | 516 | 4,538 | 3,374 |
| 1939.... | 8.035 | 2,056 | 655 | 2,711 | 1,364 | 4,075 | 523 | 4,598 | 3,437 |
| 1940. | 8,053 | 2,173 | 636 | 2,809 | 1,329 | 4,138 | 418 | 4.556 | 3,497 |
| 1941.... | 7,969 | 2,538 | 476 | 3,014 | 1,210 | 4,224 | 193 | 4,417 | 3,552 |
| 1942.... | 7,900 | 2,770 | 488 | 3,258 | 1,127 | 4,385 | 134 | 4,519 | 3,381 |
| 1943.. | 7,797 | 2,906 | 434 | 3,340 | 1,107 | 4,447 | 75 | 4,522 | 3,275 |
| 1944. | 7,856 | 2,950 | 369 | 3,319 | 1,126 | 4,445 | 62 | 4,507 | 3,349 |
| 1945. | 7,992 | 2,914 | 363 | 3,277 | 1,134 | 4,411 | 72 | 4,483 | 3,509 |
| 19463 . . |  |  |  | 3,428 |  |  | 123 |  | 3,864 |
| $1947{ }^{2} \ldots$ | 8,896 | 3,104 | 545 | 3,649 | 1,159 | 4,808 | 91 | 4,899 | 3,997 |
| 19483 ${ }^{2}$ | 9,023 | 3,189 | 537 | 3,726 | 1,173 | 4,899 | 80 | 4,979 | 4,044 |
| 19493 ${ }^{\text {a }}$ | 9,154 | 3,289 | 545 | 3,834 | 1,102 | 4,936 | 100 | 5,036 | 4,118 |
| 1950,... | 9,509 | 3,393 | 554 | 3,947 | 1,053 | 5,000 | 141 | 5,141 | 4,368 |
| 195134.. |  | 3,585 |  |  |  | 5,099 | 80 | 5.179 | 4,413 |
| 19523.4.. | 9,812 | 3,744 | 510 | 4,254 | 917 | 5,171 | 105 | 5,276 | 4,536 |
| $1953{ }^{3,4.4}$ | 10.006 | 3,795 | 5525 | 4,320 | 887 | 5.207 5.175 | 114 | 5,321 | 4,685 |
| 19545... | 10,234 | 3,761 | 528 | 4,289 | 886 | 5,175 | 217 | 5,392 | 4,842 |

[^242]
## THE CANADIAN LABOUR FORCE

in RELATION TO
THE CIVILIAN POPULATION 14 YEARS AND OVER
PERSONS WITH JOBS


Main Characteristics of the Canadian Labour Force, 1931-54.*-The civilian population 14 years of age or over (exclusive of persons in institutions) increased in the period June 1931 to June 1954 by about 2,954,000 or at a rate of about 128,000 persons a year. The strength of the Armed Services rose very considerably from 5,000 in 1931 and 9,000 in mid-1939 to 779,000 at June 1944 but declined to 114,000 by June 1954. Consequently, the civilian population (exclusive of persons in institutions) which increased very little from June 1939 to June 1940, declined in size until, in mid-1943, there were 238,000 fewer persons than in 1939. From June 1943 to June 1944, there was a small increase in the civilian population $(59,000)$ as the rate of increase of the Armed Forces levelled off. From 1945 to 1947 the civilian population increased markedly as a consequence of the rapid demobilization of the Forces.

In contrast, the civilian labour force maintained its strength notwithstanding large withdrawals to the Forces during the war years. The labour force of June 1942 was 102,000 greater than at June 1941 and that of June 1945 was 66,000 greater owing mainly to replacements from among those who would normally be outside the labour force. The group classed as "not in the labour force" usually represents a fairly constant percentage of the population but during the war years this category reached a low point in 1943 ( 162,000 persons fewer than the total of

[^243]$3,437,000$ in 1939), increased by 74,000 between mid-1943 and mid-1944 and then moved sharply upward with the decline in wartime employment. (The increase was: June 1944 to June 1945, 160,000; and June 1945 to June 1946, $35 \overline{5}, 000$.)

The number of civilian jobs increased considerably during the War as compared with pre-war experience (despite a decline in agricultural employment) and reached a peak of 4,447,000 in June 1943 (372,000 greater than June 1939). After registering a decline to $4,411,000$ during the readjustment period represented by June 1945, the number of jobs continued to increase in post-war years to $5,086,000$ in June 1954, which was a little lower than the all-time high for that month reached in June 1953.

## Section 3.-Employment, Payrolls and Hours*

## Subsection 1.-Employment and Payrolls by Industrial Divisions

For over 30 years, the Dominion Bureau of Statistics has made monthly surveys of employment in the leading non-agricultural industries, excluding education, health, domestic and personal services and government administration, etc. Statistics are published each month $\dagger$ showing geographic and industrial breakdowns for the following broad divisions: forestry (chiefly logging), mining, manufacturing, construction, transportation, storage and communication, public utilities, trade, finance, insurance and real estate, and certain services (chiefly hotels, restaurants, laundries, dry-cleaning plants and recreational and business services). In recent years, the grouping of data has conformed to the Canadian Standard Industrial Classification.

Over the yeare, monthly surveys have been extended from time to time as need for additional related data in the labour field has become apparent. In 1941, the collection of currently distributed payrolls was undertaken to complement the monthly employment series; subsequently, a record of weekly payrolls and average wages and salaries was built up, on an annual basis, for 1939, 1940 and 1941. Late in 1944, a current series on man-hours and hourly earnings was inaugurated. From January 1946, monthly inquiries into the sex distribution of the reported staffs replaced the annual and semi-annual surveys of immediately preceding years. Following the entry of Newfoundland into Confederation in 1949, the surveys were extended to that Province, for which separate data were published from 1950 until 1953. Since then, Dominion-wide statistics have been prepared on the base $1949=100$. In 1953, a special bulletin $\ddagger$ was issued giving historical series recalculated on that base from 1921, inclusive of Newfoundland from 1950.

Considerations of economy in time and money are largely responsible for limitation of the current inquiries to establishments usually employing 15 or more persons. This restriction results in the inclusion of industrial samples of varying size in the monthly survey, the variation depending upon the organization of industries in large or in small units; from the equally important geographic aspect, however, greater uniformity exists in the provincial coverage of total employees in the industries surveyed. In all industries and areas, the coverage is large.

[^244]EMPLOYMENT, PAYROLLS AND AVERAGE WEEKLY WAGES AND SALARIES,1941-54
(COMPOSITES OF NINE NON-AGRICULTURAL INDUSTRIES)
$1949=100$


In the post-war period, employment and payrolls have shown general and marked expansion, resulting in the establishment of successive new high levels, while hours of work generally have tended to diminish, owing in part to reductions in the amount of overtime work necessitated by wartime conditions, and in part to industrial agreements calling for lower standard hours of work. Improvement in employment in 1953 over 1952 was recorded mainly from Jan. 1 to Oct. 1, and the general gain in the year was slight. Moderate though fairly widely distributed increases were reported, although contractions in activity were indicated in a greater number of industries and areas than in recently preceding years. A favourable factor in 1953 was a decided decline, on the whole, in the time lost as a result of labour-management disputes as compared with 1952.

Employment.-For the seventh year in succession, industrial employment generally in 1953 showed expansion. The upward movement, which was on a smaller scale than in either 1952 or 1951, was limited to the first 10 months of the year. Although the index in October reached a new high of $116 \cdot 9(1949=100)$, the annual average at $113 \cdot 4$, was only $1 \cdot 6$ p.c. above that for 1952 . On the whole, the month-to-month movements during the year followed the seasonal pattern. After October, however, the index numbers were slightly lower than in the corresponding period 12 months earlier. The general figure for 1953 was $53 \cdot 3$ points higher than in 1939, also substantially exceeding the wartime peak figure of 93.0 in 1943. At the post-war low in 1946, the index was $88 \cdot 2$.

The number of women employed as reported by the co-operating establishments in the main industrial groups throughout Canada rose by approximately 4 p.c. in 1953, and the number of men increased by 1 p.c. The disparity in the rates of increase reflected changes in the levels of activity in industries employing larger or smaller numbers of women. Manufacturing generally showed advances of 5.4 p.c. in number of women workers and of $3 \cdot 2$ p.c. in number of men as compared with 1952 .
3.-Annual Average Index Numbers of Employment, by Industrial Group, 1941-53, and Monthly Indexes, 1952 and 1953
(Exclusive of Newfoundland prior to 1949)
Norg.-These indexes are calculated as at the first day of each month, on the base $1949=100$.

| Year | Forestry (chiefly Logging) | Mining | Manu-facturing | Con-struction | Trans-portation, Storage Com-munication | Public Utility Operation | Trade | Finance, Insurance, Real Estate | Service ${ }^{\text {t }}$ | Industrial Composite |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Averages- |  |  |  |  |  |  |  |  |  |  |
| 1941. | 91.0 | 99.0 | 82.6 | $68 \cdot 6$ | $70 \cdot 1$ | $59 \cdot 2$ | 68.2 | $69 \cdot 5$ | 66.1 | $77 \cdot 4$ |
| 1942. | $95 \cdot 1$ | 95.9 | $101 \cdot 6$ | $70 \cdot 2$ | $74 \cdot 6$ | 58.0 | 68.0 | $72 \cdot 9$ | $70 \cdot 5$ | $87 \cdot 9$ |
| 1943. | 87.3 | 88.7 | 111.5 | 69.4 | 79.5 | 56.8 | $67 \cdot 6$ | 73.4 | 74.8 | 93.0 |
| 1944. | 104.4 | 86.5 | $110 \cdot 6$ | 51.9 | $82 \cdot 6$ | 57.0 | 71.6 | $75 \cdot 0$ | 79.6 | 92.5 |
| 1945. | 119.7 | $82 \cdot 3$ | $100 \cdot 0$ | 53.8 | 86.0 | $61 \cdot 1$ | 76.2 | 77.4 | $81 \cdot 1$ | 88.8 |
| 1946. | 129.9 | 86.9 | 91.0 | 69.5 | 89.3 | 71.1 | 83.4 | $85 \cdot 3$ | $88 \cdot 3$ | 88.2 |
| 1947. | 149.6 | 88.6 | 97.2 | $85 \cdot 6$ | 95.4 | 76.7 | $90 \cdot 2$ | 91.5 | 94.6 | 95.7 |
| 1948 | 138.4 | 97.2 | $100 \cdot 1$ | 95.4 | 99.0 | 89.0 | 96.3 | 96.0 | 99.1 | $99 \cdot 7$ |
| 1949 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | 100-0 | $100 \cdot 0$ |
| 1950. | $100 \cdot 8$ | $105 \cdot 5$ | $100 \cdot 9$ | 102 -4 | 99.9 | 101-3 | 103-2 | $105 \cdot 4$ | 101.0 | 101.5 |
| 1951. | 138.6 | $110 \cdot 6$ | $108 \cdot 0$ | $110 \cdot 2$ | $106 \cdot 1$ | 103.4 | $107 \cdot 4$ | $115 \cdot 2$ | 103-1 | 108.8 |
| 1952 | 123.9 | 116.8 | 109-3 | $122 \cdot 5$ | 110.9 | $107 \cdot 5$ | 109.9 | $121 \cdot 9$ | $106 \cdot 6$ | 111.6 |
| 1953. | $100 \cdot 0$ | 111.7 | $113 \cdot 3$ | 118.6 | $111 \cdot 3$ | $112 \cdot 1$ | 113.2 | $122 \cdot 4$ | $108 \cdot 7$ | 113.4 |

For footnote, see end of table.
3.-Annual Average Index Numbers of Employment, by Industrial Group, 1941-53, and Monthly Indexes, 1952 and 1953-concluded


${ }^{1}$ Consists mainly of hotels, restaurants, laundries, dry-cleaning establishments and business and recreation service.
${ }^{2}$ The proportion of employees reported in the industries to the total reported by all employers making returns in Canada. (Average of 12 months, 1953.)

## 4.-Annual Average Index Numbers of Employment, by Province, 1941-53, and Monthly Indexes, 1952 and 1953

Note.-These indexes are calculated as at the first day of the month, on the base $1949=100$.

| Year | N'f'ld. | P.E.I. | N.S. | NB. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aver-ages- |  |  |  |  |  |  |  |  |  |  |  |
| 1941.... | .. | $75 \cdot 7$ | $90 \cdot 0$ | $82 \cdot 1$ | $80 \cdot 3$ | 77.9 | $74 \cdot 1$ | $76 \cdot 1$ | $65 \cdot 5$ | 67.9 | 77.4 |
| 1942. | $\cdots$ | $70 \cdot 8$ | $103 \cdot 3$ | $89 \cdot 8$ | $94 \cdot 1$ | $87 \cdot 0$ | $80 \cdot 0$ | $78 \cdot 1$ | $70 \cdot 9$ | $82 \cdot 2$ | 87.9 |
| 1943. | $\cdots$ | $74 \cdot 7$ | $106 \cdot 8$ | $95 \cdot 0$ | 100.9 | $90 \cdot 0$ | $83 \cdot 1$ | 81.5 | $74 \cdot 3$ | 94.5 | 93.0 |
| 1944 | $\cdots$ | $85 \cdot 9$ | $105 \cdot 0$ | 98.4 | $99 \cdot 1$ | 89.5 | 85.8 | 85.5 | $77 \cdot 6$ | 92.5 | 92.5 |
| 1945. | .. | 81.9 | 101.5 | $98 \cdot 6$ | 92.8 | 86.7 | $85 \cdot 3$ | 86.4 | $76 \cdot 3$ | 87.5 | 88.8 |
| $1946 \ldots$ | $\cdots$ | 87.2 | 95.4 | $98 \cdot 1$ | 90.4 | 86.8 | 89.6 | 92.2 | $82 \cdot 6$ | $83 \cdot 6$ | 88.2 |
| 1947.... | .. | $93 \cdot 3$ | $92 \cdot 1$ | 104-3 | 97.8 | 94.7 | $93 \cdot 6$ | 97.2 | 88.1 | $97 \cdot 1$ | 95.7 |
| 1948.... |  | $102 \cdot 6$ | $99 \cdot 6$ | $105 \cdot 2$ | 101.2 | 98.9 | $97 \cdot 2$ | 99.5 | $93 \cdot 7$ | 101.3 | 99.7 |
| 1949.... |  | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |
| 1950.... |  | $110 \cdot 3$ | $95 \cdot 6$ | $102 \cdot 6$ | $100 \cdot 5$ | 102.7 | $100 \cdot 8$ | $100 \cdot 8$ | $104 \cdot 5$ | $100 \cdot 8$ | 101.5 |
| 1951.... | 111.7 | $112 \cdot 6$ | $100 \cdot 3$ | 109.0 | 109.2 | $110 \cdot 4$ | 103.9 | 106.0 | $112 \cdot 4$ | $106 \cdot 1$ | 108.8 |
| 1952.... | $130 \cdot 2$ | 123.2 | $104 \cdot 0$ | 109.5 | 113.4 112.8 | 112.0 | 106.0 | 111.4 | $120 \cdot 8$ | 106.7 | 111.6 113.4 |
| 1953. | $140 \cdot 9$ | 116.4 | 101-2 | 101.4 | 112 -8 | 114.7 | $107 \cdot 2$ | 116.0 | 128.5 | $108 \cdot 4$ | $113 \cdot 4$ |

For footnote, see end of table.
4.-Annual Average Inder Numbers of Employment, by Province, 1941-53, and Monthly Inderes, 1952 and 1953-concluded

|  | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canads ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1952- |  |  |  |  |  |  |  |  |  |  |  |
| Jan. 1 | 112-3 | $111 \cdot 6$ | 100-1 | 115-2 | 111-3 | 109.9 | 103.8 | 108.9 | 114.3 | 104.0 | 109.4 |
| Feb. 1 | $106 \cdot 8$ | 116.8 | $101 \cdot 3$ | 112.5 | $109 \cdot 5$ | 108.4 | 101.4 | 101.9 | 111.9 | $100 \cdot 3$ | $107 \cdot 4$ |
| Mar. 1 | 107.8 | 102-3 | 98.5 | 111.9 | 109.9 | 108.3 | $100 \cdot 7$ | 101-4 | 110.9 | $102 \cdot 6$ | $107 \cdot 6$ |
| Apr. 1 | 112.2 | $135 \cdot 9$ | 99.9 | 116.2 | $107 \cdot 8$ | 108.4 | 101-3 | $101 \cdot 6$ | 111.8 | 105.2 | $107 \cdot 5$ |
| May 1 | $115 \cdot 0$ | 111.8 | 98.1 | 101.1 | 106.4 | 108.8 | 102.5 | $105 \cdot 4$ | 114.8 | 107.5 | $107 \cdot 2$ |
| June 1 | 129.8 | $122 \cdot 1$ | 101.7 | $105 \cdot 4$ | $110 \cdot 8$ | 110.7 | 105.9 | 113.5 | 118.7 | 108.8 | 110-3 |
| July 1 | 133.1 | $127 \cdot 0$ | 107.8 | 107.9 | 114.9 | 113.5 | $107 \cdot 5$ | $116 \cdot 2$ | 123.3 | 95.5 | 112 -1 |
| Aug. 1 | 149.5 | 132.4 | 107.7 | 104.0 | 118.9 | 113.2 | $109 \cdot 6$ | 118.9 | 128.4 | $102 \cdot 6$ | 114-1 |
| Sept. 1 | 149.5 | 133.2 | 109.9 | $110 \cdot 8$ | 116.2 | $114 \cdot 6$ | $109 \cdot 6$ | 117.5 | $130 \cdot 5$ | 112.6 | $115 \cdot 2$ |
| Oct. 1 | $151 \cdot 2$ | $130 \cdot 8$ | 109.8 | $112 \cdot 3$ | 118.0 | 115.9 | 109.8 | 116.2 | 128.0 | 115 -1 | 116.4 |
| Nov. 1 | $150 \cdot 0$ | $127 \cdot 3$ | $107 \cdot 5$ | 106.9 | 118.5 | $115 \cdot 8$ | $109 \cdot 5$ | 117.5 | 128-3 | 114-4 | 116-2 |
| Dec. 1 | $144 \cdot 6$ | 126.8 | 106.0 | $109 \cdot 2$ | 118.7 | 115.9 | $110 \cdot 3$ | 117.9 | 128.5 | 112.0 | 116-1 |
| 1953- |  |  |  |  |  |  |  |  |  |  |  |
| Jan. 1 | 132.4 | 116.7 | $99 \cdot 3$ | 107.8 | 113.8 | $114 \cdot 5$ | 106.7 | 113.5 | 125.7 | 106.4 | 113.0 |
| Feb. 1 | 125-3 | $110 \cdot 8$ | 101.0 | $100 \cdot 6$ | $110 \cdot 6$ | $113 \cdot 1$ | 104.0 | 106.2 | 121.6 | $101 \cdot 0$ | $110 \cdot 3$ |
| Mar. 1 | $117 \cdot 8$ | $103 \cdot 7$ | $97 \cdot 9$ | 98.6 | 109-7 | 112.9 | 102-5 | 105.7 | 122.7 | $102 \cdot 1$ | $110 \cdot 0$ |
| Apr. 1 | 122.4 | $104 \cdot 0$ | 96.9 | 96.6 | 108-3 | 113 -2 | 102.9 | 105.7 | 121.6 | $104 \cdot 6$ | $110 \cdot 0$ |
| May 1 | $133 \cdot 6$ | $108 \cdot 3$ | $97 \cdot 4$ | 94.8 | $109 \cdot 1$ | 113.4 | 104-8 | 109-2 | $123 \cdot 6$ | 106.5 | $110 \cdot 9$ |
| June 1 | $144 \cdot 1$ | 118.8 | $100 \cdot 7$ | $99 \cdot 6$ | 111.8 | 113.7 | $106 \cdot 7$ | $115 \cdot 1$ | $127 \cdot 7$ | 108.1 | 112.4 |
| July 1 | $154 \cdot 7$ | $119 \cdot 6$ | 103.9 | $100 \cdot 4$ | 113.7 | $115 \cdot 7$ | 109-3 | 119.7 | 131.3 | 111.6 | 114.9 |
| Aug. 1 | 156.6 | $124 \cdot 6$ | $104 \cdot 2$ | $105 \cdot 4$ | 114.0 | 115-4 | $110 \cdot 5$ | 123-3 | 135-2 | 114.2 | $115 \cdot 6$ |
| Sept. 1 | 156.0 | $124 \cdot 7$ | 104.0 | $107 \cdot 1$ | $115 \cdot 6$ | 116.5 | 111.1 | 123.3 | 135.6 | 114.7 | 116.6 |
| Oct. 1 | $157 \cdot 4$ | 119.8 | 104-7 | $102 \cdot 2$ | 116.2 | $117 \cdot 1$ | $110 \cdot 5$ | 123.9 | $135 \cdot 0$ | 114.6 | 116.9 |
| Nov. 1 | 149.8 | $125 \cdot 2$ | 103.9 | 101-9 | 116-3 | 116.3 | 108.7 | $124 \cdot 1$ | $132 \cdot 4$ | $110 \cdot 2$ | $115 \cdot 9$ |
| Dec. 1 | 141.2 | $121 \cdot 1$ | $100 \cdot 2$ | 102-3 | 114.6 | 114.8 | 108.8 | 122.7 | $130 \cdot 1$ | 107-1 | 114 -1 |
| Percentage distribution | 1.7 | 0.2 | $3 \cdot 4$ | $2 \cdot 4$ | 28.5 | 42.5 | $5 \cdot 1$ | $2 \cdot 4$ | $5 \cdot 0$ | 8.8 | $100 \cdot 0$ |

${ }^{1}$ Exclusive of Newfoundland prior to 1949.
2 The proportion of employees reported in the provinces to the total reported by all employers making returns in Canada. (Average of 12 months 1953.)

Employment in the major industrial divisions covered by the monthly surveys showed greater variation in 1953 than in recently preceding years. Compared with 1952, there was an increase of 3.7 p.c. in manufacturing, resulting in an all-time high index, $1 \cdot 6$ p.c. above the previous peak figure in 1943. The improvement in the 12 -month comparison extended to plants producing durable and non-durable manufactured goods, the former showing a gain of 6 p.c., and the latter of $1 \cdot 6$ p.c. Expansion continued in a number of the components of the durable goods category, notably the transportation equipment, aircraft and parts, and shipbuilding and repair industries, in which the indexes mounted by 12 p.c., 37 p.c., and 15 p.c., respectively. Certain groups which had experienced a recession in 1952, advanced in 1953 to new all-time levels. Among these industries were heating and cooking appliances and glass and glass products, employment in both classes rising by 15 p.c. in the year. Agricultural implements, which had shown greater activity in 1952 than in any other year since 1948, reported a loss of 21 p.c. in 1953. Declines in employment, beginning in 1952, in iron castings and wire and wire products were followed by further moderate losses in 1953.

Slight advances were recorded by some industries in the non-durable goods division of manufacturing, notably printing and rubber products. Employment in textiles, (excluding clothing), rose fractionally, following a 12 p.c. fall in 1952. The composite food index declined in 1953, although several of the component groups continued the expansion characteristic of the post-war period. Employment in the canned and cured fish industry, however, dropped by 15 p.c. in 1953, largely a result of labour-management disputes and unfavourable marketing conditions.

While employment in a majority of industries in the non-manufacturing sector showed little change or a moderately upward movement in 1953, three groupsforestry, mining and construction-reported curtailment. The loss in the lastnamed was minor, resulting from cutbacks in the highways, bridges and streets group; building construction, on the other hand, showed a small advance. Logging continued the unfavourable movement of 1952 , employment decreasing by 19 p.c. in the year, bringing the index to $100 \cdot 0$, or to the 1949 level. The mining division was adversely affected in 1953 by prolonged labour disputes in the Ontario and Quebec gold fields, the Canada index falling by 4.4 p.c. from 1952. Employment in mining as a whole, however, was still slightly above the average for 1951, previously the maximum in the record. Transportation, storage and communication and trade reported advances of 0.4 p.c. and 3.0 p.c., respectively, in 1953 , bringing the index numbers to peak positions. New high records were also established in public utility operation, finance, insurance and real estate, and in the service industries for which monthly data are obtained.

## 5.-Index Numbers of Employment, Industrial Divisions and Groups, by Annual Averages, 1939 and 1949-53

Note.-These indexes are calculated as at the first day of the month, on the base $1949=100$.

| Industry | $\begin{gathered} \text { Average } \\ 1939 \end{gathered}$ | $\begin{gathered} \text { Average } \\ 1949 \end{gathered}$ | $\begin{gathered} \text { Average } \\ 1950 \end{gathered}$ | $\underset{1951}{\text { Average }}$ | $\begin{gathered} \text { Average } \\ 1952 \end{gathered}$ | $\begin{gathered} \text { Average } \\ 1953 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Forestry (chiefly logging). | $59 \cdot 3$ | $100 \cdot 0$ | $100 \cdot 8$ | $138 \cdot 6$ | 123.9 | $100 \cdot 0$ |
| Mining | 93.7 | $100 \cdot 0$ | 105.5 | $110 \cdot 6$ | 116.8 | 111.7 |
| Metal mining | $100 \cdot 8$ | $100 \cdot 0$ | $104 \cdot 9$ | 111.1 | 118.3 | 112.0 |
| Gold. | $132 \cdot 5$ | $100 \cdot 0$ | $101 \cdot 1$ | $96 \cdot 2$ | $94 \cdot 7$ | $83 \cdot 6$ |
| Other meta | 66.9 | $100 \cdot 0$ | $108 \cdot 9$ | 126.9 | $140 \cdot 7$ | $137 \cdot 6$ |
| Fuels....... | $90 \cdot 8$ | $100 \cdot 0$ | 101.5 | 106.1 | $109 \cdot 5$ | $105 \cdot 8$ |
| Coal. | 103.3 | $100 \cdot 0$ | 96.8 | 93.8 | 91.2 | 83.8 |
| Oil and natural ga | $42 \cdot 5$ | $100 \cdot 0$ | $119 \cdot 8$ 119.7 | 153.0 | 171.8 | 177.1 130.7 |
| Non-metal........... | $72 \cdot 6$ | $100 \cdot 0$ | 119.7 | 122.5 | 132.9 | $130 \cdot 7$ |
| Manufacturing | 56.3 | $100 \cdot 0$ | $100 \cdot 9$ | 108.0 | $109 \cdot 3$ | 113.3 |
| Food and beverages | $63 \cdot 3$ | $100 \cdot 0$ | $101 \cdot 1$ | $102 \cdot 9$ | $105 \cdot 1$ | $104 \cdot 6$ |
| Meat products... | $60 \cdot 8$ | $100 \cdot 0$ | $100 \cdot 8$ | 104-1 | 111.7 | 113.8 |
| Dairy products. | $61 \cdot 3$ | $100 \cdot 0$ | 98.9 | $101 \cdot 4$ | $102 \cdot 4$ | $103 \cdot 6$ |
| Canned and cured fish............ | $72 \cdot 3$ | $100 \cdot 0$ | 102.7 | 111.5 | $110 \cdot 1$ | $94 \cdot 1$ |
| Canned and preserved fruits and vegetables. | $65 \cdot 6$ | $100 \cdot 0$ | 96.3 | $106 \cdot 5$ | $107 \cdot 3$ | 103.9 |
| Grain mill products | $62 \cdot 0$ 68.8 | $100 \cdot 0$ | 99-3 | $104 \cdot 9$ | $109 \cdot 0$ | $102 \cdot 7$ |
| Bread and other bakary products. | 68.8 | $100 \cdot 0$ | 101.7 | $104 \cdot 6$ | $104 \cdot 7$ | 106.0 |
| Biscuits and crackers... |  |  |  |  | $89 \cdot 0$ | 97.9 |
| Distilled and malt liquors | 48.7 | $100 \cdot 0$ | 99.2 | $100 \cdot 7$ | $100 \cdot 7$ | $104 \cdot 2$ |
| Other beverages. | $56 \cdot 0$ | $100 \cdot 0$ | 108.0 | $103 \cdot 5$ | $107 \cdot 7$ | 109.4 |
| Coniectionery ..... | 87.4 | $100 \cdot 0$ | 95.9 | 88.5 | $89 \cdot 0$ 85.8 | $90 \cdot 1$ 86.6 |
| Rubber products............. | $69 \cdot 3$ | $100 \cdot 0$ | 103.0 | 109.0 | $102 \cdot 1$ | 109.2 |
| Leather products. | $81 \cdot 0$ | $100 \cdot 0$ | $95 \cdot 6$ | $92 \cdot 3$ | 92.8 | 96.6 |
| Boots and shoes (except rubber). | 81.4 | $100 \cdot 0$ | $93 \cdot 1$ | $91 \cdot 4$ | $94 \cdot 6$ | 97.5 |
| Other leather products............... | $80 \cdot 5$ | $100 \cdot 0$ | $100 \cdot 3$ | $94 \cdot 2$ | 898 | $95 \cdot 2$ |

## 5.-Index Numbers of Employment, Industrial Divisions and Groups, by Annual Averages, 1939 and 1919-53-continued



## 5.-Index Numbers of Employment, Industrial Divisions and Groups, by Annual Averages, 1939 and 1949-53-concluded

| Industry | $\begin{gathered} \text { Average } \\ 1939 \end{gathered}$ | $\begin{gathered} \text { Average } \\ 1949 \end{gathered}$ | $\begin{gathered} \text { Average } \\ 1950 \end{gathered}$ | $\begin{gathered} \text { Average } \\ 1951 \end{gathered}$ | $\begin{gathered} \text { Average } \\ 1952 \end{gathered}$ | $\begin{gathered} \text { Average } \\ 1953 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Public utility operation. | 54.9 | $100 \cdot 0$ | 101-3 | 103.4 | 107.5 | $112 \cdot 1$ |
| Electric light and power | $53 \cdot 1$ | $100 \cdot 0$ | 101.5 | 106-3 | 111.3 | $115 \cdot 4$ |
| Other public utilities.... | $70 \cdot 0$ | $100 \cdot 0$ | $90 \cdot 3$ | $81 \cdot 1$ | $80 \cdot 6$ | 87.0 |
| Trade. | 61.5 | $100 \cdot 0$ | $103 \cdot 2$ | $107 \cdot 4$ | 109.9 | 113.2 |
| Wholesal | $60 \cdot 2$ | $100 \cdot 0$ | $102 \cdot 5$ | $108 \cdot 4$ | 113.2 | $116 \cdot 1$ |
| Retail. | $62 \cdot 3$ | $100 \cdot 0$ | 103.4 | 106.9 | 107.9 | 111.8 |
| Finance, insurance and real estate. | 67.8 | $100 \cdot 0$ | $105 \cdot 4$ | 115.2 | 121.9 | $122 \cdot 4$ |
| Banking, in vestment and loan. | 62.9 | $100 \cdot 0$ | $104 \cdot 5$ | 117.0 | 125.4 | $125 \cdot 8$ |
| Insurance................... | 75.7 | $100 \cdot 0$ | 106.7 | 112.0 | 115.7 | 116.2 |
| Service. | 56.8 | $100 \cdot 0$ | $101 \cdot 0$ | $103 \cdot 1$ | $106 \cdot 6$ | 108.7 |
| Hotels and restaurants | $55 \cdot 4$ | $100 \cdot 0$ | 99.8 | $100 \cdot 9$ | $103 \cdot 6$ | $104 \cdot 4$ |
| Laundries and dry-cleaning plants | $63 \cdot 1$ | $100 \cdot 0$ | 98.9 | 99.5 | 101.0 | $101 \cdot 4$ |
| Other service... | .. | $100 \cdot 0$ | 103.9 | 111.7 | 118.0 | $133 \cdot 3$ |
| Industrial composite | 60.1 | 100.0 | $101 \cdot 5$ | 108.8 | $111 \cdot 6$ | 113.4 |

Provincially, the most marked gains in employment occurred in Newfoundland and Alberta, expansion in construction being important in both areas. In Alberta, where the movement was at a slower rate than in 1951 and 1952, continued exploitation of oil and natural gas resources, with related industrial development, was also a factor. The general advance in industrial employment in Ontario in 1953 amounted to $2 \cdot 4$ p.c., while staffs reported in manufacturing increased by $5 \cdot 2$ p.c., raising the provincial index to a position slightly above the general level in Canada. Among the non-manufacturing classes, the trend was unfavourable in forestry, mining and construction. Prolonged labour-management disputes in the gold fields contributed materially to the decline in the mining division.

Despite a fractional decline in the industrial composite index in Quebec, factory employment in that Province rose by 3 p.c., to a level exceeded only by the 1943 and 1944 figures. Moderately upward movements were indicated in Manitoba, Saskatchewan and British Columbia. The greatest reduction in the year occurred in New Brunswick,-caused largely by substantial curtailment in logging operations, in construction, transportation, storage and communication. The loss of 7 p.c. in 1953 brought the index for that Province to its lowest level since 1949.

Table 6 gives index numbers of employment in the eight largest metropolitan areas. Small gains in employment were shown in the 1953 annual averages for these centres but industrial activity in December 1953 was lower than in the same month of 1952 in all centres except Toronto, where employment reached a new all-time high for the time of year. Among the 24 remaining centres for which data are segregated in the monthly surveys, there were considerable variations in the movements of employment in 1953, with the changes recorded ranging from a loss of 11 p.c. in Brantford to a gain of 12 p.c. in Oshawa, Ont. and in Edmonton, Alta. Lower levels were reported in approximately a third of the group.
6.-Annual Average Index Numbers of Employment, by Metropolitan Area, 1941-53,
and Monthly Inderes, 1952 and 1953

Nore.-These indexes are calculated as at the first day of the month, on the base $1949=100$.

| Year | Montreal | Quebec | Toronto | OttawaHull | Hamilton | Windsor | Winnipeg | Vancouver |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Averages- |  |  |  |  |  |  |  |  |
| 1941...... | 76.5 | 87.3 | 74.4 | 77.5 | 79-3 | 79.0 | 74.4 | 64-2 |
| 1942. | $87 \cdot 6$ | 111.9 | 87.0 | $82 \cdot 7$ | $92 \cdot 5$ | 97.8 | $79 \cdot 7$ | 88.7 |
| 1943. | $97 \cdot 6$ | 135.7 | $93 \cdot 6$ | $85 \cdot 3$ | 92.5 | $105 \cdot 7$ | $83 \cdot 6$ | 105.9 |
| 1944. | $97 \cdot 7$ | $134 \cdot 1$ | 89.2 | 84.8 | 89.7 | $100 \cdot 8$ | 87.2 | $104 \cdot 6$ |
| 1945. | 90.4 | 109.3 | 86.7 | 82.8 | $87 \cdot 6$ | 84.1 | 85.9 | 96.1 |
| 1946. | 88.6 | $85 \cdot 4$ | 86.7 | 88.1 | $82 \cdot 2$ | 82.9 | $90 \cdot 3$ | $85 \cdot 9$ |
| 1947. | 94.3 | 93.2 | 93.2 | 91.4 | $91 \cdot 6$ | 92.2 | 93.9 | 96.9 |
| 1948. | $97 \cdot 1$ | $100 \cdot 5$ | $97 \cdot 3$ | 96.5 | 96.9 | 94.5 | $97 \cdot 1$ | 102.1 |
| 1949. | $100 \cdot 0$ | 100.0 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |
| 1950. | 101-3 | 98.7 | 104-1 | $103 \cdot 1$ | 100-8 | $102 \cdot 2$ | $100 \cdot 1$ | 99.0 |
| 1951. | $106 \cdot 6$ | 101.6 | 110.7 | 108.4 | 109 -5 | $107 \cdot 7$ | 102.7 | 101.4 |
| 1952. | 110.9 | $105 \cdot 2$ | 113.3 | 108.9 | 109.2 | 107.0 | 104.0 | 100-1 |
| 1953. | 113.8 | $110 \cdot 9$ | $119 \cdot 6$ | $109 \cdot 4$ | $111 \cdot 4$ | $111 \cdot 1$ | 104-1 | 102-2 |
| 1952- |  |  |  |  |  |  |  |  |
| Jan. 1.......... | 107.2 | 99.7 | 111.3 | $110 \cdot 0$ | 107.2 | 98.5 | 102.2 | 98.6 |
| Feb. 1 | $106 \cdot 1$ | 97-1 | $109 \cdot 1$ | $106 \cdot 6$ | 105.9 | $98 \cdot 1$ | $100 \cdot 8$ | 96.5 |
| Mar. 1 | $106 \cdot 7$ | 98.5 | $109 \cdot 6$ | 106-1 | 106-8 | 103.2 | 99.8 | $97 \cdot 6$ |
| Apr. 1 | $107 \cdot 8$ | $100 \cdot 2$ | $110 \cdot 3$ | $106 \cdot 1$ | 108.1 | $107 \cdot 8$ | $100 \cdot 6$ | 99.8 |
| May 1 | $108 \cdot 9$ | 102.9 | $111 \cdot 1$ | $107 \cdot 1$ | 108.8 | $110 \cdot 2$ | $102 \cdot 1$ | $100 \cdot 9$ |
| June 1 | $110 \cdot 5$ | $104 \cdot 7$ | $112 \cdot 1$ | $108 \cdot 1$ | $109 \cdot 7$ | $102 \cdot 7$ | $103 \cdot 6$ | $101 \cdot 5$ |
| July | $112 \cdot 3$ | 107.4 | 114.4 | 109.3 | 109.5 | $115 \cdot 2$ | $104 \cdot 6$ | 94.7 |
| Aug. 1 | 112.0 | $109 \cdot 1$ | $113 \cdot 5$ | $110 \cdot 0$ | 109-2 | $111 \cdot 3$ | 105.9 | $97 \cdot 2$ |
| Sept. 1 | 112.7 | $105 \cdot 4$ | 114.5 | $110 \cdot 3$ | $109 \cdot 1$ | $109 \cdot 6$ | 105.5 | 102.6 |
| Oct. 1 | 114.5 | $112 \cdot 6$ | 116.1 | 109.9 | $111 \cdot 3$ | $109 \cdot 3$ | $106 \cdot 0$ | $103 \cdot 1$ |
| Nov. 1 | 115.1 | 112.3 | 118.0 | 111.1 | $112 \cdot 4$ | $107 \cdot 5$ | 107.4 | $103 \cdot 6$ |
| Dec. 1 | 116.4 | $112 \cdot 6$ | $119 \cdot 7$ | $111 \cdot 6$ | $112 \cdot 8$ | $111 \cdot 1$ | 108.9 | $105 \cdot 5$ |
| $1953-$ |  |  |  |  |  |  |  |  |
| Jan. 1.......... | $113-2$ | 108.8 | 119.0 | $111 \cdot 4$ | $111 \cdot 4$ | 111.0 | 105-1 | $103 \cdot 5$ |
| Feb. 1,......... | $112 \cdot 1$ | $106 \cdot 4$ | 117.1 | $107 \cdot 8$ | $111 \cdot 1$ | $109 \cdot 0$ | $102 \cdot 5$ | 99.6 |
| Mar. 1. | 112.4 | $106 \cdot 6$ | $117 \cdot 5$ | $107 \cdot 0$ | $110 \cdot 0$ | 112.4 | 101 -3 | 99.9 |
| Apr. 1 | $113 \cdot 3$ | $108 \cdot 6$ | 118.3 | $108 \cdot 0$ | 111.7 | 114.8 | 101.8 | $100 \cdot 1$ |
| May. 1 | $113 \cdot 8$ | 109.5 | 118.5 | 108.2 | 111.5 | $115 \cdot 3$ | $102 \cdot 6$ | $100 \cdot 0$ |
| June 1. | $113 \cdot 9$ | 110.5 | 118.7 | $109 \cdot 0$ | 111.7 | $114 \cdot 3$ | 103.2 | 101-3 |
| July 1 | 114.2 | 112.0 | 119.8 | 109.9 | 111.7 | 116.2 | 105.0 | 102.4 |
| Aug. 1 | 113.3 | 113.7 | $118 \cdot 6$ | 109.7 | 111.7 | $113 \cdot 6$ | 105-3 | $103 \cdot 9$ |
| Sept. 1 | 114.8 | 114.4 | $120 \cdot 2$ | $110 \cdot 4$ | 111.4 | 108.5 | $106 \cdot 1$ | 104.6 |
| Oct. 1 | 114.8 | 114.7 | 121.5 | $110 \cdot 2$ | 112.2 | 109.4 | 105.9 | 104-3 |
| Nov. 1 | 115.0 | 113.9 | 122 -8 | $110 \cdot 1$ | 111.3 | 104-4 | $104 \cdot 8$ | $103 \cdot 5$ |
| Dec. 1.......... | $115 \cdot 0$ | 112 -3 | 123.4 | $110 \cdot 6$ | 110.8 | $104 \cdot 5$ | 106.2 | 103-1 |
| Percentage distribution ${ }^{1}$ | 14.8 | 1.6 | $14 \cdot 6$ | 1.7 | $3 \cdot 1$ | 1.9 | $3 \cdot 3$ | $3 \cdot 8$ |

[^245]Earnings.-Wage and salary disbursements* in the industries included in the monthly surveys continued the upward trend which has been interrupted only once since 1939, the index of payrolls, on the base $1949=100$, rising by 8 p.c. in 1953 as compared with 1952. The gain, though important, was not equal to that in either of the two preceding years, and was also rather below the average rise recorded annually since 1945 . Upward adjustments in wage rates continued an important factor in the generally higher earnings in 1953.

[^246]Payrolls were higher than in 1952 and earlier years in all main industrial divisions except forestry, in which the index fell by 15 p.c. in the 12 -month comparison. Lower wages and salaries were also reported by establishments in a few industries within the major divisions, including gold and coal mining, canned and cured fish, women's clothing and agricultural implements. In most cases, the losses reflected slackness in the industry. A further factor in the gold fields was the existence of long-drawn-out labour-management disputes.

Provincially, the greatest increases in payrolls in 1953 occurred in Newfoundland and Alberta, where the reported disbursements rose 17 p.c. and 13 p.c., respectively, as compared with a year earlier. A new maximum was reached in Quebec, in which payrolls advanced by 6 p.c., and in Ontario, where the gain amounted to 8 p.c. The 1953 level in New Brunswick was fractionally under that of 1952, while increases recorded in the remaining provinces ranged from over 4 p.c. in Nova Scotia to 12 p.c. in Saskatchewan.

Table 7 gives the 1952 and 1953 annual index numbers of employment, payrolls and average earnings for the main industrial divisions, the provinces and the larger industrial centres. Table 8 shows the month-to-month movements of average weekly wages and salaries in the two years, with annual averages from 1941. The per capita earnings reported in the leading non-agricultural industries as a group stood at $\$ 57.30$ in 1953, compared with $\$ 54.13$ in 1952 and $\$ 49.61$ in 1951. In the 15 years since the payroll record was initiated, average earnings generally have mounted by 145 p.c., accompanying an advance of 89 p.c. in industrial employment. Between 1939 and 1953, the consumer price index rose by 83 p.c.
7.-Annual Index Numbers of Employment, Payrolls and Average Earnings in Industrial Establishments, with Average Weekly Wages and Salaries, 1952 and 1953.

| Industry | Index Numbers ( $1949=100$ ) |  |  |  |  |  | A verage Weekly Wages and Salaries Reported |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employment |  | Aggregate Weekly Payrolls |  | Average Weekly Earnings |  |  |  |
|  | 1952 | 1953 | 1952 | 1953 | 1952 | 1953 | 1952 | 1953 |
| Industry |  |  |  |  |  |  | \$ | \$ |
| Forestry (chiefly logging). | 123.9 | $100 \cdot 0$ | 171.7 | $146 \cdot 0$ | 136.2 | $143 \cdot 1$ | 55.31 | $58 \cdot 11$ |
| Mining .................... | 116.8 | 111.7 | 147.9 | $149 \cdot 5$ | 126.9 | 133.4 | $65 \cdot 35$ | 68.70 |
| Manufacturing | 109.3 | $113 \cdot 3$ | $139 \cdot 7$ | 152.4 | $127 \cdot 6$ | $134 \cdot 2$ | 56.11 | 59.01 |
| Durable goods ${ }^{1}$ | 117.2 | 124.2 | 150.2 | 167.6 | 128.0 | 135.0 | $60 \cdot 35$ | 63.64 |
| Non-durable goods ${ }^{1}$.............. | 102.5 | 104.1 118.6 | $129 \cdot 2$ | 137.9 173.7 | $125 \cdot 9$ | 131.8 | 51.86 55.37 | 54.26 60.57 |
| Construction. | $122 \cdot 5$ | 118.6 | $160 \cdot 4$ | $173 \cdot 7$ | $134 \cdot 1$ | $146 \cdot 7$ | $55 \cdot 37$ | $60 \cdot 57$ |
| Transportation, storage and communication. | 110.9 | 111.3 | $130 \cdot 2$ | 141.5 | 116.7 | 126.2 | 56.48 | 61.09 |
| Public utility operation............ | 107.5 | $112 \cdot 1$ | 138.6 | 152.8 | 128.1 | 135.4 | $61 \cdot 66$ | $65 \cdot 16$ |
| Trade.............................. | 109.9 | 113.2 | 136.6 | 147.7 | $124 \cdot 1$ | $130 \cdot 5$ | 45.89 | 48.26 |
| Finance, insurance and real estate. | 121.9 | $122 \cdot 4$ 108.7 | $141 \cdot 7$ 123.8 | $149 \cdot 2$ | 116.4 | 122.3 | $49 \cdot 13$ | 51.64 |
|  | $106 \cdot 6$ | 108.7 | $123 \cdot 8$ | 138.4 | $121 \cdot 4$ | 131 -4 | 34.05 | 36.87 |

For footnotes, see end of table, p. 781.

## 7.-Annual Index Numbers of Employment, Payrolls and Average Earnings in Industrial Establishments, with Average Weekly Wages and Salaries, 1952 and 1353-concluded.

| Province and City | Index Numbers ( $1949=100$ ) |  |  |  |  |  | Average Weekly Wages and Salaries Reported |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employment |  | Aggregate Weekly Payrolls |  | Average Weekly Earnings |  |  |  |
|  | 1952 | 1953 | 1952 | 1953 | 1952 | 1953 | 1952 | 1953 |
|  |  |  |  |  |  |  | \$ | \$ |
| Province |  |  |  |  |  |  |  |  |
| Newfoundland | 130-2 | $140 \cdot 9$ | 178.3 | $209 \cdot 5$ | 135-9 | 147.9 | 51.00 | 55.54 |
| Prince Edward Island | 123.2 | $116 \cdot 4$ | $145 \cdot 2$ | $153 \cdot 6$ | 119.4 | 132.7 | 40.08 | 44.53 |
| Nova Scotis: | 104.0 | 101.2 | 126.9 | 131.5 | $121 \cdot 9$ | 128.7 | 45.88 | $48 \cdot 45$ |
| New Brunswick | $109 \cdot 5$ | 101.4 | $131 \cdot 6$ | 131.0 | $120 \cdot 9$ | 128.7 | 46.04 | 48.99 |
| Quebec. | 113.4 | 112.8 | 141.8 | 149.9 | $125 \cdot 4$ | 132.4 | $51 \cdot 66$ | 54.55 |
| Ontario. | 112.0 | 114.7 | 141.8 | $153 \cdot 6$ | $127 \cdot 1$ | 133.9 | 56.36 | 59.38 |
| Manitobs | 106.0 | 107.2 | 128.4 | 137.9 | 121-2 | 128.6 | 51.73 | 54.87 |
| Saskatchewan | 111.4 | 116.0 | 136.4 | $152 \cdot 6$ | $122 \cdot 7$ | 131.4 | 50.90 | 54-54 |
| Alberta. | $120 \cdot 8$ | 128.5 | $149 \cdot 3$ | 169.3 | 123.6 | 132.5 | 54-90 | 58.81 |
| British Columbis | 106.7 | 108.4 | 139.0 | 150.2 | 130-3 | 138.8 | 59.46 | $63 \cdot 34$ |
| Totals | 111.6 | 113.4 | 140.3 | 151.5 | 126.0 | 133.4 | 54-13 | 57.30 |
| City |  |  |  |  |  |  |  |  |
| St. John's. | 114.1 | $117 \cdot 3$ | $140 \cdot 2$ | 153.3 | $122 \cdot 1$ | $130 \cdot 6$ | 39.36 | 42.08 |
| Sydney. | $106 \cdot 2$ | $101 \cdot 7$ | 128.5 | $130 \cdot 0$ | 121.0 | 127.9 | 56.76 | 59.98 |
| Halifax. | 116.6 | 115.5 | $144 \cdot 8$ | 148.8 | 124.4 | 129.7 | $44 \cdot 10$ | 45.96 |
| Saint John | 107-7 | $102 \cdot 7$ | 129.4 | 128.5 | $120 \cdot 5$ | $125 \cdot 6$ | $43 \cdot 16$ | 45.01 |
| Quebec. | $105 \cdot 2$ | 110.9 | 129.3 | $146 \cdot 1$ | 123.2 | 131.4 | 43.95 | 46.86 |
| Sherbrooke | 106-2 | $105 \cdot 3$ | $133 \cdot 6$ | $136 \cdot 1$ | $125 \cdot 6$ | 129.8 | $45 \cdot 10$ | $46 \cdot 61$ |
| Three Rivers. | $105 \cdot 1$ | 101.5 | 129.5 | 131.4 | 121.6 | 127.8 | $50 \cdot 69$ | 53.30 |
| Drummondville | $90 \cdot 7$ | $85 \cdot 0$ | 114-1 | 112.8 | 126.0 | 132.7 | 48.95 | 51.55 |
| Montreal. | $110 \cdot 9$ | 113.8 | $138 \cdot 0$ | $150 \cdot 6$ | 124.9 | 132.4 | $52 \cdot 24$ | 55-39 |
| Ottawa-Hull | 108.9 | 109.4 | $135-3$ | $143 \cdot 1$ | 124-3 | $131 \cdot 1$ | 48.75 | 51.45 |
| Peterborough | 98.1 | $97 \cdot 6$ | 126.7 | $132 \cdot 3$ | 129.1 | $135 \cdot 4$ | 57.82 | $60 \cdot 68$ |
| Oshawa. | $140 \cdot 6$ | $157 \cdot 1$ | $176 \cdot 4$ | 201.7 | $125 \cdot 6$ | $127 \cdot 6$ | 63.98 | 64-95 |
| Niagars Falls. | 153.1 | $166 \cdot 5$ | 213-5 | $248 \cdot 2$ | 138.9 | 149.0 | 63.36 | 67.98 |
| St. Catharines. | 124.0 | 122-1 | $161-7$ | 162.9 | $130 \cdot 2$ | $133 \cdot 3$ | $64 \cdot 38$ | 65.84 |
| Toronto.. | 113 -3 | $119 \cdot 6$ | $144 \cdot 2$ | $161 \cdot 3$ | 128.6 | $136 \cdot 1$ | $56 \cdot 65$ | 59.92 |
| Hamilton. | 109.2 | $111 \cdot 4$ | 138.0 | $146 \cdot 6$ | 126.3 | 131.5 | 58.94 | 61-34 |
| Brantiord | 99.9 | 88.5 | $129 \cdot 2$ | $114 \cdot 3$ | 129.5 | 129.5 | 56.58 | 56.58 |
| Gait. | $102 \cdot 3$ | 108.6 | $133 \cdot 1$ | $148 \cdot 1$ | $129 \cdot 6$ | 136.4 | 50.93 | 53.60 |
| Kitchener | $102 \cdot 0$ | 108.7 | $130 \cdot 2$ | 146.9 | $127 \cdot 6$ | 135.2 | 51.87 | 54-94 |
| Sudbury | 130.7 | 134.5 | $165 \cdot 2$ | $180 \cdot 4$ | 126.3 | $134 \cdot 1$ | 67.57 | 71.76 |
| London. | 108.8 | 113.8 | 139.2 | 153.3 | $127 \cdot 6$ | $134 \cdot 0$ | 52.01 | 54.63 |
| Sarnis. | 122.8 | 122.7 | $165 \cdot 8$ | 178-4 | $135 \cdot 4$ | $145 \cdot 7$ | 65.83 | 70.83 |
| Windsor | 107.0 | 111.1 | 133.0 | 148.1 | 124.2 | $132 \cdot 4$ | 63.03 | 67-19 |
| Sault Ste. Marie | $130 \cdot 1$ | 137.9 | $162 \cdot 3$ | $180 \cdot 4$ | $125 \cdot 0$ | 131.0 | 63.76 | $66 \cdot 80$ |
| Fort William-Port Arth | $118 \cdot 3$ | $120 \cdot 1$ | $150 \cdot 1$ | 159.5 | $126 \cdot 3$ | 131.9 | 57.37 | 59.93 |
| Winnipeg. | 104.0 | $104 \cdot 1$ | 129.7 | $136 \cdot 3$ | 124.8 | $131-5$ | $49 \cdot 06$ | 51.69 |
| Regina. | 106.9 | $112 \cdot 3$ | 133.7 | 147.9 | 125.7 | 131.8 | 48.08 | 50.42 |
| Saskatoon | 113.0 | 117.4 | 141 -4 | 156.9 | 125.2 | 133.2 | 46.88 | 49.86 |
| Edmonton | 129.9 | 145.9 | 166-4 | 206.8 | 128.2 | $142 \cdot 2$ | 52.05 | 57.71 |
| Calgary. | 121.7 | 128.6 | 153.6 | $170 \cdot 6$ | 125.9 | 132.8 | 52.82 | 55.74 |
| Vancouve | $100 \cdot 1$ | 102.2 | $127 \cdot 4$ | $137 \cdot 4$ | 127.4 | 134.7 | 55.77 | 58.95 |
| Victoria. | $106 \cdot 6$ | $110 \cdot 2$ | 136-1 | 149.8 | 128.6 | 136.0 | 53.77 | 56.86 |

[^247]8 -Average Weekly Wages and Salaries, by Industrial Group, 1941-53, and Monthly Averages, 1952 and 1953

| Year and Month |  | Mining | Manu- <br> facturing | Con-struction | Trans-portation, Storage Com-munication | Public Utility Operation | Trade | Finance, Insurance, Real Estate | Service ${ }^{1}$ | Industrial Composite |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | $\xi$ | $\varepsilon$ | 8 | \$ | 8 | \$ | \$ | \$ | $\$$ |
| Averages - |  |  |  |  |  |  |  |  |  |  |
| 1941. | 19.18 | $32 \cdot 64$ | 26.73 | 23.78 | $30 \cdot 34$ | 31.88 | 22.81 | 30.00 | $17 \cdot 43$ | 26.65 |
| 1942 | $20 \cdot 70$ | 34.81 | 28.99 | 27.29 | 31.70 | $34 \cdot 16$ | 24.07 | 31.46 | 18.21 | 28.62 |
| 1943 | $24 \cdot 78$ | 36.09 | $31 \cdot 39$ | 30.83 | $33 \cdot 15$ | 35.70 | $25 \cdot 24$ | $32 \cdot 48$ | 19.42 | 30.79 |
| 1944 | 26.54 | 38.05 | $32 \cdot 49$ | $30 \cdot 63$ | $34 \cdot 62$ | 37.01 | 26.21 | $33 \cdot 61$ | $20 \cdot 25$ | 31.85 |
| 1945 | 26.90 | $38 \cdot 61$ | $32 \cdot 46$ | $30 \cdot 66$ | 36.05 | 36.91 | 26.85 | $34 \cdot 77$ | 20.71 | 32.04 |
| 1946 | 29.03 | $39 \cdot 21$ | $32 \cdot 27$ | 31.62 | 37-53 | $38 \cdot 17$ | 28.45 | $36 \cdot 11$ | 21.90 | $32 \cdot 48$ |
| 1947 | $35 \cdot 42$ | 43.03 | $36 \cdot 34$ | 34.85 | $41 \cdot 23$ | $41 \cdot 05$ | 31.29 | 38-34 | 23.48 | $36 \cdot 19$ |
| 1948 | $39 \cdot 11$ | 48.77 | $40 \cdot 67$ | 37.99 | $45 \cdot 51$ | $45 \cdot 16$ | $34 \cdot 38$ | $40 \cdot 08$ | 25.87 | 40.06 |
| 1949 | $40 \cdot 62$ | $51 \cdot 49$ | 43.97 | $41 \cdot 28$ | 48.39 | $48 \cdot 14$ | 36.97 | 42-22 | 28.05 | 42.96 |
| 1950 | $42 \cdot 01$ | 53.95 | $46 \cdot 21$ | $43 \cdot 27$ | 49.15 | 51.14 | 38.81 | $43 \cdot 90$ | 29.50 | 44.84 |
| 1951 | 48.40 | $59 \cdot 82$ | 51.25 | 48.36 | 53-76 | 55.93 | 42.71 | $46 \cdot 26$ | 31.61 | $49 \cdot 61$ |
| 1952 | $55 \cdot 31$ | $65 \cdot 35$ | 56-11 | $55 \cdot 37$ | 56.48 | $61 \cdot 66$ | 45.89 | $49 \cdot 13$ | 34-05 | $54 \cdot 13$ |
| 1953. | $58 \cdot 11$ | 68.70 | 59.01 | 60.57 | 61.09 | $65 \cdot 16$ | $48 \cdot 26$ | $51 \cdot 64$ | 36.87 | $57 \cdot 30$ |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Feb. 1 | $52 \cdot 84$ | $63 \cdot 42$ | 55.35 | $54 \cdot 33$ | $55 \cdot 32$ | $60 \cdot 75$ | $45 \cdot 41$ | 47-71 | $33 \cdot 35$ | $53 \cdot 19$ |
| Mar. | 56.84 | $64 \cdot 01$ | 55.72 | 55.73 | 56.33 | 61.30 | 45.75 | 48.38 | 33.91 | 53.95 |
| Apr. 1 | 59-37 | 65.68 | 56.55 | 55.97 | 55.00 | 61.73 | 45.62 | $49 \cdot 36$ | 33.75 | $54 \cdot 32$ |
| May 1. | 55.93 | 64.90 | 56.55 | 55.38 | $56 \cdot 62$ | 61.53 | 45.71 | $49 \cdot 61$ | $34 \cdot 16$ | 54.34 |
| June 1 | 52.73 | $64 \cdot 84$ | 56.09 | 55.01 | 56.32 | 61.62 | $46 \cdot 23$ | 49.58 | 34-01 | 54.08 |
| July 1 | 53.07 | 65.48 | 55.95 | 54.68 | 56.39 | 60.79 | $46 \cdot 35$ | $49 \cdot 53$ | $33 \cdot 69$ | 53.96 |
| Aug. 1 | 53.64 | $65 \cdot 14$ | 55.70 | $54 \cdot 32$ | 56.94 | 61.20 | $46 \cdot 45$ | 49.46 | 33.97 | 53.89 |
| Sept. 1 | 55.98 | 66.07 | 56.35 | 56.55 | 57.07 | 61.51 | $46 \cdot 39$ | $49 \cdot 47$ | 33.87 | 54.55 |
| Oct. 1 | $56 \cdot 27$ | $67 \cdot 20$ | 57.09 | 57.98 | 57.09 | $61 \cdot 90$ | $46 \cdot 32$ | $49 \cdot 49$ | 34.62 | $55 \cdot 12$ |
| Nov. 1 | 56.42 | 68.05 | $57 \cdot 65$ | 59.00 | 57.55 | 63.63 | $46 \cdot 37$ | 49.81 | $35 \cdot 16$ | 55.65 |
| Dec. 1. | 59.35 | $69 \cdot 22$ | $58 \cdot 46$ | 59.42 | 57.56 | 64.59 | 46.06 | 49.73 | $35 \cdot 41$ | 56.12 |
| 1953- |  |  |  |  |  |  |  |  |  |  |
| Jan. | 57-59 | 65-46 | 54.92 | 51.51 | 59-58 | 63.45 | $46 \cdot 29$ | $50 \cdot 06$ | 34.83 | 53.81 |
| Feb. 1 | $56 \cdot 30$ | 68.59 | 58.82 | 59.97 | 59.79 | $64 \cdot 95$ | 47.22 | $50 \cdot 26$ | 36.16 | 56.72 |
| Mar. 1 | $61 \cdot 12$ | 67.70 | 59.25 | 61.50 | 60.77 | $65 \cdot 31$ | 47.81 | $50 \cdot 32$ | $36 \cdot 55$ | 57.40 |
| Apr. 1. | $59 \cdot 22$ | 67.06 | 59.43 | $61 \cdot 11$ | $60 \cdot 11$ | 64.83 | 47.90 | 51.79 | 36.75 | 57.33 |
| May 1. | 58.23 | 68.08 | $59 \cdot 43$ | 59.99 |  |  | 48.37 |  | $37 \cdot 31$ | 57.52 |
| June 1 | 56.75 | 68.87 | $59 \cdot 43$ | 61.08 | 61.87 | 65.70 | 48.45 | 52.01 | 37.23 | 57.72 |
| July 1.. | 57.94 | $68 \cdot 23$ | $59 \cdot 16$ | 60.94 | 61.80 | 64.71 | 48.80 | 51.94 | $36 \cdot 80$ | 57.57 |
| Aug. 1. | 59-21 | 68.54 | 58.93 | 61.34 | $61 \cdot 35$ | $65 \cdot 01$ | 49.05 | $52 \cdot 07$ | 36.76 | $57 \cdot 52$ |
| Sept. 1 | 59.45 | 69.28 | 58.83 | 61.93 | 61.45 | 64.80 | 49.03 | $52 \cdot 16$ | 36.66 | $57 \cdot 61$ |
| Oct. | 55.08 | $70 \cdot 23$ | $59 \cdot 69$ | 63.32 | 61.93 | 65.98 | 49.03 | 52.09 | 37.38 | 58.11 |
| Nov | 56.86 | $70 \cdot 30$ | 59.98 | 62.29 | 61.92 | 65.73 | 48.90 | 52.44 | 37.86 | 58.14 |
| Dec. | 59.58 | 72.01 | $60 \cdot 29$ | 61.81 | $61 \cdot 31$ | 66.76 | $48 \cdot 27$ | $52 \cdot 50$ | $38 \cdot 11$ | $58 \cdot 13$ |

[^248]Man-Hours and Hourly Earnings.-To complement the monthly surveys of employment and payrolls, the Dominion Bureau of Statistics, late in 1944, undertook the collection of current material on man-hours and hourly earnings, and weekly wages. The inquiries relate only to wage-earners for whom"employers keep a record of hours worked, mainly hourly-rated or production workers. As a result, statistics are available for smaller numbers of industries and of wage-earners than in the employment and payroll series, since most establishments in many of the nonmanufacturing industries included in the latter record do not maintain accurate records of hours worked. The coverage of total wage-earners in manufacturing and other industries for which data are given in Table 9, however, is high.
9.-Average Hours and Earnings In Specified Industries and Areas 1951-53

| Industry, <br> Province and City | Average <br> Hours Worked |  |  | Average Hourly Earnings |  |  | Average Weekly Wages |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 | 1953 | 1951 | 1952 | 1953 | 1951 | 1952 | 1953 |
|  | No. | No. | No. | cts. | cts. | cts. | \$ | \$ | \$ |
| Industry |  |  |  |  |  |  |  |  |  |
| Mining. | $43 \cdot 1$ | 42-7 | 42.7 | 133.4 | 147-1 | 153.8 | 57-50 | 62.81 | 65-67 |
| Metal mining | 44-1 | 44.4 | 44.4 | 134.8 | $148 \cdot 2$ | $156 \cdot 5$ | 59.45 | 65.80 | 69.49 |
| Coal mining | $39 \cdot 5$ | $38 \cdot 2$ | 37.9 | 136.7 | $148 \cdot 6$ | $150-4$ | 54.00 | 56.77 | 57.00 |
| Manufacturing | 41.8 | 41.5 | 41.3 | $116 \cdot 8$ | 129-2 | 135-8 | 48.82 | 53.62 | 56.09 |
| Durable goods ${ }^{\text {i }}$ | 42.0 | 41.6 | 41.6 | 125-8 | $139 \cdot 8$ | 147.1 | $52 \cdot 84$ | 58.16 | 61.19 |
| Non-durable goods ${ }^{1}$ | 41.7 | 41.3 | 40.9 | 107.2 | 117.4 | 122.9 | 44.70 | 48.49 | 50.27 |
| Construction. | $40 \cdot 3$ | 41.6 | $41 \cdot 6$ | $117 \cdot 6$ | 131.4 | 143-7 | 47-39 | 54.66 | 59-78 |
| Buildings and structures | 39-5 | 40.9 | 40.7 | 127-1 | 142.8 | 156-8 | 50.20 | 58.41 | 63.82 |
| Highways, bridges and streets. | $41 \cdot 9$ | 41.9 | 41.4 | $95 \cdot 1$ | 105.0 | 112.8 | 39-85 | 44.00 | 46.70 |
| Service........................... | 42-5 | 42-6 | $42 \cdot 0$ | 69.3 | 73.6 | 78-2 | 29.45 | 31.35 | 32.84 |
| Hotels and restaurants. | 43-5 | 43.7 | 42.7 | 68.8 | 72.8 | 77.8 | 29.93 | 31.81 | $33 \cdot 22$ |
| Laundries and dry-cleaning plants | 40.9 | $40 \cdot 9$ | 41.3 | $67 \cdot 3$ | 71.7 | 75.1 | 27.53 | 29.33 | 31.02 |
| Province |  |  |  |  |  |  |  |  |  |
| Newfoundland. | $44 \cdot 0$ | 43.2 | 41-6 | $112 \cdot 8$ | 124-7 | 132-8 | $49 \cdot 63$ | 53.87 | 55.24 |
| Nova Scotis. | 42-2 | 41.5 | 41.2 | $100 \cdot 9$ | 114.5 | 120.5 | 42.58 | 47.52 | $49 \cdot 65$ |
| New Brunswick | $43 \cdot 8$ | 43.0 | $42 \cdot 1$ | $103 \cdot 8$ | 112.7 | 119.0 | 45-46 | $48 \cdot 46$ | $50 \cdot 10$ |
| Quebec. | 43-5 | 43.0 | $42 \cdot 7$ | $104 \cdot 5$ | 115.5 | 121.9 | 45-46 | $49 \cdot 67$ | 52.05 |
| Ontario. | 41-3 | 40.9 | 40.9 | 123-7 | 137.0 | 143.4 | 51.09 | 56.03 | 58.65 |
| Manitoba | 41.4 | $40 \cdot 8$ | $40 \cdot 3$ | $112 \cdot 5$ | $122 \cdot 9$ | 131.4 | $46 \cdot 58$ | 50-14 | 52.95 |
| Saskatchewan | 41.0 | 41-2 | $40 \cdot 7$ | 117.4 | 129-6 | 136.5 | 48.13 | 53.40 | 55.56 |
| Alberta. | 41.0 | 40.5 | 40.2 | $116 \cdot 6$ | $130 \cdot 0$ | 139.7 | 47.81 | 52.65 | $56 \cdot 16$ |
| British Columbia. | 37.8 | 38.0 | 38.0 | 140.7 | 157.7 | 164-0 | $53 \cdot 18$ | 59.93 | $62 \cdot 32$ |
| Clity |  |  |  |  |  |  |  |  |  |
| Montreal. | $42 \cdot 0$ | 41.9 | 41.7 | 109.2 | 120.9 | 128.3 | 45-86 | 50.66 | 53.50 |
| Toronto. | $40 \cdot 6$ | $40 \cdot 5$ | $40 \cdot 7$ | 122-3 | 135-7 | $143 \cdot 4$ | 49-65 | 54.96 | $58 \cdot 36$ |
| Hamilton | $40 \cdot 2$ | 39.7 | 39.7 | 136-2 | $150 \cdot 0$ | $155 \cdot 9$ | 54.75 | 59.55 | 61.89 |
| Windsor. | $39 \cdot 7$ | $39 \cdot 3$ | $40 \cdot 5$ | 143.7 | 159-1 | 165-2 | 57.05 | $62 \cdot 53$ | 66-91 |
| Winnipeg | 41.0 | 40.5 | $40 \cdot 1$ | $111-4$ | 121-3 | $130 \cdot 1$ | 45-67 | 49-13 | $52 \cdot 17$ |
| Vancouver. | $37 \cdot 3$ | 37.5 | $37 \cdot 7$ | $138 \cdot 4$ | $154 \cdot 8$ | $161 \cdot 6$ | 51-62 | 58.05 | 60.92 |

${ }^{1}$ The dursble goods group includes wood products, iron and steel products, transportation equipment, non-ferrous metal products, electrical apparatus and supplies, and non-metallic mineral products; the nondurable goods group includes the remaining manufacturing industries.

In the last few years, average hours in manufacturing have shown relatively little change, but there have been general and marked declines as compared with the earlier part of the record. In the division as a whole, the reduction in 1953 from 1945 amounted to three hours per week, or 6.8 p.c. Curtailment of overtime work, prevalent during the war years, and a widespread shortening of the standard hours of work in the post-war period, were the main factors in the falling-off. The average hourly earnings, on the other hand, have shown successive and substantial increases, the general figure in manufacturing having risen by nearly 96 p.c. since the last year of the War. The advance in the weekly wages, though smaller than that in the hourly sverage as a result of shorter hours, was nevertheless impressive, at almost 83 p.c. The trends of hourly earnings and weekly wages in recent years have been upward in all industries and areas.

## Subsection 2.-Earnings and Hours of Work of Male and Female Employees in Manufacturing Establishments*

The Dominion Bureau of Statistics makes an annual survey of earnings and hours of men and women wage-earners and salaried employees in a specified week each autumn to supplement the data collected in the monthly series on employment, payrolls and man-hours. The monthly surveys, like the annual inquiry, cover the manufacturing establishments usually employing a minimum of 15 persons, representing almost 90 p.c. of all employees in the industry as reported in the annual Census of Manufactures. In addition to the general averages of earnings and hours of wage-earners and salaried employees of the two sexes, the annual survey obtains more detailed data in a three-year cycle. In 1953, a segregation of employees by amounts earned in the last week of October was made; in 1952, a distribution of wage-earners in a given range of hours was obtained, and, in 1951, information for office, clerical and related workers was segregated from that for managerial, professional and other salaried employees.

Establishments co-operating in the annual surveys are asked to report for all full-time, casual and part-time employees on staff in the week ending Oct. 31, except home-workers and persons absent without pay throughout the week. No data are given for proprietors, firm members, pensioners, nor for staffs in separatelyorganized sales offices. The gross remuneration of the reported employees is reported before deductions are made for taxes, unemployment insurance, etc., and include such items as regularly-paid bonuses, overtime and vacation pay for the week. Part-time, full-time and overtime hours worked and hours of paid absence are given.

The period from 1946 to 1953, to which the annual series relates, has been characterized by a consistently upward movement in average earnings, weekly wages rising by 75.3 p.c. and weekly salaries by 68.5 p.c. in the seven years. The post-war trend toward reduced working time has resulted in a substantially greater advance ( 83.4 p.c.) in the average of hourly than of weekly earnings of the wageearners. The amounts and proportions of the increases are given in Table $\mathbf{1 0}$.

[^249]10.-Average Earnings, with Increases over the Preceding Year, Weeks Ended Oct. 31, 1946-53
(As reported by manufacturers usually employing 15 or more persons)

| Year | Men |  |  | Women |  |  | Both Sexes |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Earnings | Increase over Preceding Year |  | Average Earnings | Increase over Preceding Year |  | Average Earnings | Increase over Preceding Year |  |
|  | Average Hourly Earnings of Wage-Earners |  |  |  |  |  |  |  |  |
|  | \$ | 8 | pe . | \$ | \$ | p.c | \$ | \$ | p.c. |
| ${ }^{19461}{ }^{1} \cdots$ | 0.807 |  |  | 0.502 0.582 |  |  | 0.741 0.851 |  |  |
| 19471 | 0.021 1.023 | $0 \cdot 111$ $0 \cdot 102$ | 14.1 11.1 | 0.582 0.651 | 0.050 0.069 | 15.9 11.9 | 0.851 0.946 | 0.110 0.095 | 14.8 11.2 |
| 1949. | 1.066 | 0.043 | 4.2 | 0.683 | 0.032 | 4.9 | 0.984 | 0.038 | 4.0 |
| 1950.. | $1 \cdot 142$ | 0.076 | $7 \cdot 1$ | 0.725 | 0.042 | $6 \cdot 1$ | 1.056 | 0.072 | 7.3 |
| 1951.. | $1 \cdot 313$ | 0.171 | $15 \cdot 0$ | 0.825 | $0 \cdot 100$ | 13.8 | $1 \cdot 222$ | 0.166 | $15 \cdot 7$ |
| 1952 | 1.402 |  | $6 \cdot 8$ | 0.863 | 0.038 | $4 \cdot 6$ | 1.295 | 0.073 | $6 \cdot 0$ |
| 1953. | 1.471 | 0.069 | 4.9 | 0.910 | 0.047 | $5 \cdot 4$ | 1-359 | 0.064 | $4 \cdot 9$ |

[^250]10.-Average Earnings, with Increases over the Preceding Year, Weeks Ended Oct. 31, 1946-53-concluded

| Year | Men |  |  | Women |  |  | Both Sexes |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|c\|} \hline \text { Average } & \text { Increase over } \\ \text { Earnings } & \text { Preceding Year } \end{array}$ |  |  | Average Increase over <br> Earnings <br> Preceding Year  |  |  | Average Earnings | Increase over Preceding Year |  |
| A | Average Webely Wages |  |  |  |  |  |  |  |  |
|  | \$ | \$ | p.c. | \$ | \$ | p.c. | \$ | \$ | p.c. |
| 1946 ${ }^{1}$ | 36.23 |  |  | 20.08 |  |  | 32-38 |  |  |
| 19471. | $41 \cdot 35$ | $5 \cdot 12$ | 14.1 | 23.11 | 3.03 | $15 \cdot 1$ | 37.19 | 4.51 | 14.9 |
| 1948. | 45-73 | $4 \cdot 38$ | $10 \cdot 6$ | 25.91 | $2 \cdot 80$ | $12 \cdot 1$ | 41-25 | $4 \cdot 06$ | $10 \cdot 9$ |
| 1949. | $47 \cdot 33$ 50.93 | 1.60 3.60 | 3.5 | $27 \cdot 18$ 29.00 | 1.27 1.82 | 4.9 6.7 | $42 \cdot 61$ 45.94 | 1.36 3.33 | 3.3 7.8 |
| 1950 | 50.93 56.46 | 3.60 5.53 | 7.6 10.9 | 29.00 31.27 | $1 \cdot 82$ | $6 \cdot 7$ 7.8 | $45 \cdot 94$ 51.32 | $3 \cdot 33$ $5 \cdot 38$ | 7.8 |
| 1951 | 56.46 60.85 | $5 \cdot 53$ 4.39 | 10.9 7.8 | $31 \cdot 27$ 34 | $2 \cdot 27$ 2.90 | 7.8 9.3 | $51 \cdot 32$ 55 | 5-38 $3 \cdot 85$ | 1.7 7.5 |
| 1953. | 62.71 | 1.86 | $3 \cdot 1$ | 35-07 | 0.90 | $2 \cdot 6$ | 56.75 | 1.58 | $2 \cdot 9$ |
|  | Average Wkekly Salaries |  |  |  |  |  |  |  |  |
| B | \$ | \$ | p.c. | \$ | \$ | p.c. | \$ | \$ | p.c. |
| 19461... | 53.21 |  |  | 25.91 |  |  | $43 \cdot 85$ |  |  |
| 19471.. | $60 \cdot 21$ | 7.00 | 13.2 | 28.68 | 2.77 | 10.7 | 49.78 | 5.93 | 13.5 |
| 1948. | 63.47 | 3.26 1.90 | 5-4 | 31.26 32.62 | $2 \cdot 58$ 1.36 | 9.0 4.4 | 52-91 | 3.13 | 6.3 3.7 |
| 1949. | $65 \cdot 37$ | 1.90 | 3.0 | $32 \cdot 62$ | $1 \cdot 36$ | 4.4 | 54.85 | 1.94 | 3.7 |
| 1950. | 69-35 | 3.98 | $6 \cdot 1$ | 34.38 | 1.76 | $5 \cdot 4$ | 58.74 | $3 \cdot 89$ | $7 \cdot 1$ |
| 1951. | 77.55 | 8.20 | 11.8 | 38.42 | 4.04 | 11.8 | 65-98 | $7 \cdot 24$ | $12 \cdot 3$ |
| 1952. | $82 \cdot 60$ $86 \cdot 43$ | $5 \cdot 05$ 3.83 | 6.5 4.6 | 41.26 43.13 | 2.84 1.87 | 7.4 4.5 | $70 \cdot 75$ 73.87 | $4 \cdot 77$ $3 \cdot 12$ | 7.2 4.4 |
| 1953. | 86-43 | 3.83 | $4 \cdot 6$ | $43 \cdot 13$ | 1.87 | $4 \cdot 5$ | 73.87 | $3 \cdot 12$ | $4 \cdot 4$ |

${ }^{2}$ As at Nov. 30.
Tables 11 and 12 continue the record published in previous editions of the Year Book, showing geographical and industrial averages for wage-earners and salaried employees in the last week of October. Table 13 gives, for each province, the distribution of male and female wage-earners by amounts earned in the last week in October 1953, with a comparison for 1950, when such information was last obtained.

Industrial and geographical variations in working time, as well as year-toyear changes, as shown in these tables, result from a variety of causes. These include: the length of the standard work week; the numbers of casual and part-time workers and their hours in the reported week; amounts of overtime worked, and of time lost through absenteeism, labour turnover, industrial disputes, lay-offs, etc.; differing occupational requirements, and varying proportions of men and women. Women generally average substantially shorter time than men. Their standard work week tends to be lower, relatively small proportions of women are employed in industries where the work week is above average, and they show a higher incidence of part-time work and of absenteeism.

Variations in average earnings are related to the distribution of employees in industries or areas where pay levels are above or below average, because of differences in basic pay rates, in occupational skills, in amounts of bonus or commission payments, in levels of activity in particular establishments, etc. Salary levels are further affected by the prevalence of head offices, the type and size of establishment, and varying requirements for highly-paid professional and executive personnel, most of whom are men. Women's earnings are generally well below
those of men in the same industries, chiefly as a result of pay differentials, occupational differences, the greater incidence of part-time work and absenteeism among women, and their proportions of younger and less experienced workers. The proportions of women reported in the 1952 and 1953 surveys and the relationship of their wages and salaries to men's earnings are given in Table 14.

## 11.-Average Hours and Earnings of Male and Female Wage-Earners for the Last Week of October, 1952 and 1953

(As reported by manufacturers usually employing 15 or more persons)

| Province City and Industry |  | Average Hours Worked |  |  | Average <br> Hourly Earnings |  |  | Average Weekly Earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Men | Women | Both Sexes | Men | Women | Both Sexes | Men | Women | Both Sexes |
|  |  | No. | No. | No. | cts. | cts. | cts. | \$ | \$ | \$ |
| Province |  |  |  |  |  |  |  |  |  |  |
| Newfoundland. | 1952 | $44 \cdot 6$ | $40 \cdot 2$ | 44.1 | $131 \cdot 8$ | $48 \cdot 8$ | 123.4 | 58.78 | 19-62 | 54.42 |
| Newroundan | 1953 | 43.8 | 37.4 | 43.2 | $138 \cdot 2$ | 53.8 | $132 \cdot 1$ | 60.50 | $20 \cdot 13$ | $57 \cdot 11$ |
| Nova Scotia | 1952 | $42 \cdot 4$ | $42 \cdot 5$ | 42.4 | 118.9 | 56.2 | $110 \cdot 6$ | $50 \cdot 41$ | 23.89 | 46.89 |
|  | 1953 | 41.7 | 41.2 | 41.6 | $127 \cdot 4$ | 56.9 | $118 \cdot 3$ | 53.15 | $23 \cdot 45$ | $49 \cdot 27$ |
| New Brunswi | 1952 | 44.8 | 40.8 | $44 \cdot 1$ | $116 \cdot 5$ | $72 \cdot 1$ | $109 \cdot 6$ | $52 \cdot 19$ | 29.42 | 48.33 |
| New Brans | 1953 | 43.8 | 37.0 | $42 \cdot 7$ | $124 \cdot 4$ | 71.6 | 117.0 | 54.48 | $26 \cdot 51$ | 49.93 |
| Quebec | 1952 | 45.5 | $40 \cdot 1$ | 44.0 | 126.9 | 79.8 | $115 \cdot 1$ | 57.74 | 32.00 | 50.64 |
|  | 1953 | 44.4 | 38.5 | 42.8 | 134.5 | 84.8 | $122 \cdot 5$ | 59.72 | $32 \cdot 67$ | 52.48 |
| Ontario. | 1952 | 42.8 | $39 \cdot 3$ | $42 \cdot 1$ | 148.6 | $93 \cdot 6$ | 138.4 | 63.60 | 36.78 | 58.27 |
|  | 1953 | $42 \cdot 0$ | 38.7 | 41.4 | $154 \cdot 6$ | 97.5 | 143.5 | 65.00 | 37.74 | 59.34 |
| Manitobs | 1952 | $42 \cdot 2$ | $39 \cdot 7$ | $41 \cdot 6$ | 133.5 | $82 \cdot 2$ | 123.0 | $56 \cdot 34$ | $32 \cdot 63$ | $51 \cdot 17$ |
|  | 1953 | 41.7 | $37 \cdot 9$ | 40.9 | 142.0 | 84.4 | $130 \cdot 8$ | 59.21 | 31.98 | 53.48 |
| Saskatchewan | 1952 | 41.8 | 38.9 | 41.4 | $132 \cdot 3$ | 91.3 | 127.7 | $55 \cdot 30$ | 35.52 | 52.87 |
| Saskatchewan | 1953 | 41.6 | 37.8 | 41.2 | 141.2 | 99.5 | 136.9 | 58.73 | $37 \cdot 62$ | 56.33 |
| Alber | 1952 | 42.0 | 38.2 | 41.4 | 138.8 | 95.5 | 133.1 | 58.30 | $36 \cdot 48$ | $55 \cdot 10$ |
| Alberta................ | 1953 | 41.7 | 38.1 | 41.2 | $147 \cdot 7$ | $100 \cdot 9$ | 141.7 | 61.66 | 38.45 | 58.43 |
| British Columbia | 1952 | $39 \cdot 7$ | 36.2 | $39 \cdot 3$ | $164 \cdot 6$ | $102 \cdot 5$ | $158 \cdot 3$ | $65 \cdot 35$ | $37 \cdot 11$ | 62.21 |
|  | 1953 | $39 \cdot 8$ | 36.4 | 39.5 | $170 \cdot 9$ | $105 \cdot 1$ | 164-1 | 68.10 | 38.28 | 64.76 |
| Totals | 1952 | 43.4 | 39.6 | 42.6 | 140-2 | 86.3 | 129.5 | 60.85 | 34-17 | 55.17 |
|  | 1953 | $42 \cdot 6$ | 38.5 | 41.7 | $147 \cdot 1$ | 91.0 | 135.9 | 62.71 | 35.07 | 56.75 |
| City |  |  |  |  |  |  |  |  |  |  |
| Montreal. | 1952 | $44 \cdot 3$ | 39.0 | 42.7 | 134.5 |  | 120.8 | 59.58 | $33 \cdot 31$ | 51.58 |
|  | 1953 | $43 \cdot 6$ | $37 \cdot 9$ | 41.9 | 141.6 | $91 \cdot 1$ | 128.0 | 61.78 | 34.50 | 53.61 |
| Toron | 1952 | $42 \cdot 7$ | $39 \cdot 0$ | 41.7 | $150 \cdot 9$ | 95.4 | 137.2 | 64.43 | 37.21 | 57.21 |
| Toron | 1953 | $42 \cdot 2$ | 38.5 | 41.2 | 158.9 | 99.8 | 144.0 | 67.03 | 38.46 | 59.31 |
| Hamilton | 1952 | 41.5 | 39.2 | 41.0 | $164 \cdot 9$ | 101.0 | 152.9 | 68.43 | 39-59 | $62 \cdot 69$ |
|  | 1953 | 41.0 | $38 \cdot 0$ | $40 \cdot 4$ | $167 \cdot 4$ | 103.5 | $154 \cdot 3$ | 68.69 | 39.30 | 62.31 |
| Wind | 1952 | 41.4 | $39 \cdot 5$ | 41.2 | $166 \cdot 5$ | $113 \cdot 1$ | $161 \cdot 9$ | 68.93 | 44.67 | 66.70 |
|  | 1953 | $40 \cdot 6$ | 38.1 | 40.4 | $170 \cdot 9$ | 118.3 | $166 \cdot 3$ | $69 \cdot 37$ | 45.05 | 67.09 |
| Winnipeg | 1952 | 41.8 | $39 \cdot 7$ | 41.4 | $132 \cdot 0$ | 82.8 | 121.2 | 55.18 | $32 \cdot 87$ | $50 \cdot 18$ |
| Whnipeg. | 1953 | 41.3 | 37.8 | 40.5 | 141.0 | 85.0 | 129.3 | 58.28 | $32 \cdot 12$ | 52.41 |
| Vancouver | 1952 | $39 \cdot 1$ | $37 \cdot 6$ | 38.9 | $164 \cdot 2$ | 101.9 | 155.0 | $64 \cdot 20$ | 38.31 | $60 \cdot 30$ |
|  | 1953 | 39.4 | $37 \cdot 3$ | $39 \cdot 1$ | $172 \cdot 6$ | 106.3 | 162 -8 | 67.94 | $39 \cdot 66$ | 63.59 |
| Industry |  |  |  |  |  |  |  |  |  |  |
| Food and bevers | 1952 | 44-7 | $39 \cdot 1$ | $43 \cdot 1$ | $121 \cdot 6$ |  | $110 \cdot 8$ |  | 31.12 |  |
|  | 1953 | $44 \cdot 1$ | 38.8 | 42.6 | 128.1 | 83.3 | 116.2 | 56.52 | $32 \cdot 31$ | 49.47 |
| Meat products | . 1952 | $42 \cdot 0$ | 38.0 | 41.3 | $148 \cdot 2$ | 114.0 | $142 \cdot 3$ | 62.24 | $43 \cdot 32$ | 58.77 |
|  | 1953 | 41.5 | 37.9 | 40.8 | 154.2 | 115.9 | $147 \cdot 6$ | 64.06 | 43.91 | $60 \cdot 28$ |
| Canned and preserved fruits and vegetables. | 1952 | 44.0 | 34.5 | 39.4 | 102-1 | $71 \cdot 1$ | 88.8 | 44.92 | 24.53 | 34.99 |
|  | 1953 | 44.7 | 37.2 | $40 \cdot 6$ | 106.2 | 73.9 | 90.1 | 47.45 | 27.53 | 36.59 |
| Bread and other bakeryproducts. | 1952 | $46 \cdot 7$ | $42 \cdot 0$ | 45.8 | 114.1 | 69.9 | $106 \cdot 6$ | 53.28 | 29-36 | $48 \cdot 82$ 50.80 |
|  | 1953 <br> 1952 | $46 \cdot 2$ $42 \cdot 6$ | $40 \cdot 2$ $39 \cdot 7$ | 45.1 40.8 | $120 \cdot 6$ 141.4 | 74.5 113.8 | 112.7 124.9 | $55 \cdot 76$ $60 \cdot 24$ | 29.94 $45 \cdot 18$ | 50.80 50.96 |
| Tobacco and tobacco products | 1953 | 41.8 | 39.7 | 40.5 | $147 \cdot 5$ | 118.4 | 129.5 | 61.69 | 46.99 | 52.43 |
| Rubber products. | 1952 | $42 \cdot 8$ | $40 \cdot 6$ | $42 \cdot 3$ | $148 \cdot 6$ | $102 \cdot 5$ | 137.2 | $63 \cdot 60$ | $41 \cdot 62$ | 58.04 |
|  | 1953 | $42 \cdot 3$ | $38 \cdot 6$ | 41.4 | $153 \cdot 1$ | 108.0 | 142.8 | $64 \cdot 74$ | 41.73 | 59.08 |
| Leather products. | . 1952 | $42 \cdot 2$ | 39.4 | 41.0 | 109-1 | 72.2 | 93.6 98.4 | 46.04 | 28.45 | 38.38 37.90 |
|  | 1953 | $39 \cdot 9$ | 36.7 | 38.5 | $113 \cdot 6$ | $76 \cdot 7$ | 98.4 | $45 \cdot 27$ | $28 \cdot 18$ | 37-90 |

11.-Average Hours and Earnings of Male and Female Wage-Earners for the
Last Week of October, 1952 and 1953 -concluded

| Industry |  | Average <br> Hours Worked |  |  | Average <br> Hourly Earnings |  |  | Average <br> Weekly Earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Men | Women | Both Sexes | Men | Women | Both Sexes | Men | Women | Both Sexes |
|  |  | No, | No. | No. | cts. | cts. | cts. | \$ | \$ | \$ |
| Industry-concluded |  |  |  |  |  |  |  |  |  |  |
| Textile products (except clothing). <br> Cotton yarn and broad woven goods. | 1952 | 44.7 | 41.2 | 43.5 | 113.5 | 88.9 | 105.0 | 50.73 | 36.63 | 45.68 |
|  | 1953 | $42 \cdot 3$ | 38.9 | 41.1 | 116.5 | $90 \cdot 8$ | $107 \cdot 6$ | 49-28 | $35 \cdot 34$ | 44.20 |
|  | 1952 | $42 \cdot 1$ | $40 \cdot 6$ | 41.6 | $115 \cdot 3$ | 96.5 | 108.8 | 48.54 | 39-18 | 45-26 |
|  | 1953 | 38.3 | 36.9 | 37.8 | 116.3 | 98.1 | $110 \cdot 1$ | 44.53 | 36.22 | ${ }^{41} \cdot 60$ |
| Clothing (textile and fur)... | . 1952 | 42.5 | 38.8 | 39.9 | 127.2 | 79.5 | 93.7 | 54.06 | $30 \cdot 85$ | 37.39 |
|  | 1953 | 40.6 | 37.3 | 38.2 | 131.4 | $83 \cdot 0$ | 97.3 | 53-33 | 30.94 | 37.15 |
| Men's clothing. | 1952 | 41.5 | $39 \cdot 3$ | 39.9 | 126.2 | 78.7 | 92.4 | 52.37 | 30.93 | $36 \cdot 87$ |
|  | 1953 | $39 \cdot 3$ | $37 \cdot 1$ | 37.7 | $129 \cdot 5$ | 82.1 | 96.0 | 50.83 | 30.49 | 36.23 |
| Women's clothin | 1952 | 38.2 | 36.1 | 36.5 | 155.0 | 85.2 | 99.7 | 59.21 | 30.76 | $36 \cdot 39$ |
|  | 1953 | 36.6 | $35 \cdot 0$ | $35 \cdot 3$ | 157.5 | 88.7 | 101.8 | 57.69 | 31.08 | 35.96 |
| Knit goods. | 1952 | $45 \cdot 4$ | 41.1 | $42 \cdot 6$ | 119.0 | 78.0 | 92.9 | 54.03 | 32.06 | 39.58 |
|  | 1953 | 44.0 | $39 \cdot 9$ | 41.3 | 124.5 | 81.1 | 96.8 | 54.83 | $32 \cdot 34$ | 39.95 |
| Wood products | 1952 | 44.0 | 41.1 | $43 \cdot 8$ | $120 \cdot 0$ | 90.9 | 118.4 | 52.80 | 37.36 | 51.86 |
|  | 1953 | 44.0 | $40 \cdot 4$ | 43.8 | $123 \cdot 6$ | 95.0 | 122.0 | 54.36 | 38.35 | 53.40 |
| Saw and planing mill | 1952 | $43 \cdot 3$ | 41.0 | 43.2 | $127 \cdot 5$ | 109.8 | 126.9 | $55 \cdot 21$ | 45.02 | 54.82 |
|  | 1953 | 43.3 | $39 \cdot 4$ | 43.2 | $130 \cdot 2$ | 116.4 | 129.8 | 56-43 | 45.91 | 56.08 |
| Furniture | 1952 | 45.3 | 41.0 | 44.9 | 108.4 | 86.7 | 106-6 | 49-11 | 35.55 | 47.86 |
|  | 1953 | $45 \cdot 1$ | 40.5 | 44.7 | 113.8 | 91.5 | $112 \cdot 0$ | 51.31 | 37.09 | 50.09 |
| Paper products. | 1952 | 45.5 | 41.6 | $45 \cdot 1$ | $149 \cdot 2$ | 82.7 | 142.5 | 67-89 | 34.40 | $64 \cdot 27$ |
|  | 1953 | 44.0 | $40 \cdot 0$ | $43 \cdot 6$ | 160.8 | 89.4 | 153.4 | 70.77 | 35.77 | 66.85 |
| Pulp and paper mills | 1952 | $45 \cdot 8$ | 41.9 | 45.7 | 153.1 | 89.2 | 152.1 | 70-12 | $37 \cdot 37$ | 69.51 |
|  | 1953 | $43 \cdot 9$ | 37.6 | $43 \cdot 8$ | 166.2 | 103.0 | $165 \cdot 1$ | 72-97 | 38.76 | 72.31 |
| Other paper produ | 1952 | 44.5 | 41.5 | 43.4 | $131 \cdot 1$ | 81.8 | $113 \cdot 8$ | 58.34 | 33.95 | 49-39 |
|  | 1953 | 44.5 | $40 \cdot 4$ | $43 \cdot 0$ | $138 \cdot 3$ | 87.5 | 121.0 | 61.53 | $35 \cdot 35$ | 52.00 |
| Printing, publishing and allied industries. | 1952 | 40.6 | 38.0 | $40 \cdot 0$ | 167-1 | 84.2 | 149-1 | 67.84 | 32.00 | 59.64 |
|  | 1953 | 40.7 | 37.9 | 40.0 | 176.2 | 89.8 | 157.6 | 71.65 | 34.06 | $63 \cdot 10$ |
| Iron and steel products. | 1952 | $42 \cdot 9$ | $40 \cdot 1$ | 42.8 | $149 \cdot 3$ | $105 \cdot 6$ | 147.4 | 64.05 | $42 \cdot 35$ | 63.09 |
|  | 1953 | $42 \cdot 2$ | $39 \cdot 6$ | $42 \cdot 1$ | $156 \cdot 5$ | 111.5 | 154-4 | 66-10 | $44 \cdot 20$ | 65.02 |
| Iron castings | 1952 | $43 \cdot 4$ | 41-3 | $43 \cdot 4$ | $146 \cdot 3$ | 108.8 | $145 \cdot 6$ | 63.49 | 44.93 | $63 \cdot 19$ |
|  | 1953 | $43 \cdot 2$ | $40 \cdot 1$ | $43 \cdot 1$ | $154 \cdot 0$ | 118.2 | 153.5 | $66 \cdot 51$ | $47 \cdot 37$ | 66.21 |
| Machinery manufacturing | 1952 | 4.3 | 41.0 | 44.1 | 141.5 | 107.8 | $139 \cdot 8$ | $62 \cdot 68$ | 44.20 | 61.65 |
|  | 1953 | 43.7 | $40 \cdot 5$ | $43 \cdot 5$ | $151 \cdot 1$ | 117.9 | 149-4 | 66.04 | 47.73 | 65-04 |
| Primary iron and steel | 1952 | 41.5 | 37.9 | 41.4 | 163.4 | 124.9 | 163.0 | 67.81 | 47.34 | 67.48 |
|  | 1953 | 40.7 | $35 \cdot 1$ | $40 \cdot 6$ | 171.4 | $135 \cdot 1$ | 171.2 | 69.69 | $47 \cdot 46$ | 69.51 |
| Transportation equipmen | 1952 | $42 \cdot 4$ | $38 \cdot 5$ | $42 \cdot 3$ | $152 \cdot 5$ | 118.2 | $151 \cdot 6$ | $64 \cdot 66$ | 45.51 | 64.13 |
|  | 1953 | 41.8 | $38 \cdot 1$ | 41.6 | 158.2 | 123-3 | 157.2 | $66 \cdot 11$ | 47.00 | 65-45 |
| Aircraft and parts | 1952 | $46 \cdot 6$ | $42 \cdot 3$ | 46.4 | 155.9 | $123 \cdot 5$ | ${ }_{156}^{156}$ | 73.58 | $52 \cdot 24$ | 72.80 |
|  | 1953 | 43.5 | 39.5 | 43.3 | $160 \cdot 3$ | $132 \cdot 4$ | ${ }^{159.1}$ | 69.67 | 52.31 | 68.89 |
| otor-vehicles | 1952 | 41.4 | 27.2 | 41.2 | $166 \cdot 5$ | $134 \cdot 2$ | 166.2 | 68.93 | $36 \cdot 50$ | 68.47 |
|  | 1953 | $40 \cdot 6$ | 31.5 | 40.5 | $169 \cdot 0$ | 131.0 | 168.5 | 68.63 | 41.22 | 68.19 |
| Motor-vehicle parts and accessories. | 1952 | 42.9 | 38.6 | 42.4 | $159 \cdot 4$ | $120 \cdot 7$ | 155.1 | 68.38 | 46.59 | 65.76 |
|  | 1953 | 40.0 | 38.0 | 39.7 | 161 -4 | 125.0 | 156.9 | 64.51 | 47.57 | 62.33 |
| Railroad and rolli | $\begin{aligned} & 1952 \\ & 1953 \end{aligned}$ | 39.8 39.9 |  | 39.8 39.9 | $142 \cdot 1$ $156 \cdot 9$ |  | 142.1 156.8 | 56.56 62.66 | $\cdots$ | $56-56$ 62.63 |
| Shipbuilding and repairing. | 1952 | 41.6 | 38.8 | 41.6 | $142 \cdot 1$ | 77.5 | 141.5 | 59.11 | 30.07 | 58.86 |
|  | 1953 | 44.1 | $39 \cdot 5$ | $44 \cdot 1$ | 147 -7 | 80.4 | 147-1 | $65 \cdot 21$ | 31.75 | 64-89 |
| Non-ferrous metal products. . | 1952 | 42.2 | 41.0 | $42 \cdot 1$ | 152.9 | 85.8 | $148 \cdot 1$ | 64.52 | $35 \cdot 18$ | 62-35 |
|  | 1953 | 41.6 | 39.8 | 41.5 | $159 \cdot 9$ | 91.2 | $155 \cdot 2$ | 66.59 | $36 \cdot 30$ | 64-43 |
| Smelting and refining | 1952 | 41.1 |  | 41.1 | 163.7 |  | $163 \cdot 6$ | 67.28 |  | 67.24 |
|  | 1953 | 41.0 | 37.5 | $40 \cdot 9$ | $170 \cdot 0$ | $104 \cdot 3$ | 169.7 | 69.62 | 39.14 | $69 \cdot 46$ |
| Electrical apparatus andsupplies.Non-metallic mineral products | 1952 | 42.8 | $40 \cdot 1$ | $42 \cdot 1$ | $150 \cdot 9$ | 111.4 | $140 \cdot 8$ | 64.59 | 44.67 | $59 \cdot 28$ |
|  | 1953 | 42.6 | $40 \cdot 1$ | 41.8 | 158.0 | 114.8 | $145 \cdot 1$ | 67.24 | 46.05 | $60 \cdot 65$ |
|  | 1952 | 45.5 | $40 \cdot 2$ | 45.1 | $132 \cdot 3$ | 89.4 | 129.2 | 60.20 | 35.94 | 58.27 |
|  | 1953 | 44.7 | 40.9 | 44.4 | 139-2 | 92.9 | $135 \cdot 8$ | 62.26 | 38.03 | $60 \cdot 28$ |
| Products of petroleum and coal | 1952 | 41.5 |  | 41.5 | 174.7 |  | $174 \cdot 3$ | 72.50 |  | 72.33 |
|  | 1953 | 41.7 |  | 41.6 | 185.2 |  | 184.8 | 717 |  | 76.96 |
| Chemical prod | 1952 | 42.8 | 39.6 | $42 \cdot 3$ | $143 \cdot 0$ | 86.4 | $133 \cdot 7$ | 61.20 | 34.21 | 56.56 |
|  | 1953 | 42.9 | 39.5 | 42.3 | 148 -3 | 90.2 | 138.9 | 63.57 | $35 \cdot 63$ | 58.72 |
| Miscellaneous manufacturing industries. | 1952 | 44.3 | 39.8 | 42.4 | $119 \cdot 6$ | 50.4 | 103.9 | 52.98 | 32.00 | 44.05 |
|  | 1953 | 43.7 | $40 \cdot 0$ | $42 \cdot 2$ | 128.8 | $85 \cdot 4$ | 112.4 | 56.37 | $34 \cdot 17$ | 17.47 |
| Averages, Durable Goods | 1952 | 43.0 | 40.1 | 42.8 | 144.7 | 104. 5 | 141.9 | 62.22 | 41.90 | 60.73 |
|  | 1958 | 12.5 | 39.8 | 42.3 | 151.0 | 109.8 | 147.8 | 64.15 | 43.77 | 62-48 |
| Averages, Non-durable Goods. | 1952 | 43.9 | 39.5 | 42.3 | 133.8 | 82.5 | 116.8 | 58.74 | $32 \cdot 59$ | 49.41 |
|  | 1553 | 42.8 | 38.2 | 41.2 | $141 \cdot 6$ | 86.3 | 123.7 | 60.66 | 33.01 | 50.97 |
| Averages, Manufseturing Industries. | 1952 | 43.4 | 39.6 | 42.6 | 140.2 | 85.3 | 129.5 |  |  |  |
|  | 1953 | 42.6 | 38.5 | 41.7 | 147.1 | 91.0 | 135.9 | 62.71 | 35.07 | ${ }_{56 \cdot 75}^{35 \cdot 17}$ |

## 12.-Average Hours and Earnings of Salaried Employees for the Last Week of October 1952 and 1953

(As reported by manufacturers usually employing 15 or more persons)

| Province <br> City and Industry | Salaried Employees |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Hours Worked |  |  | Average Weekly Earnings |  |  |
|  | Men | Women | Both Sexes | Men | Women | Both Sexes |
|  | No. | No. | No. | 8 | \$ | \% |
| Province |  |  |  |  |  |  |
| Newfoundland.................... 1952 | $43 \cdot 0$ | 41.3 | 42.7 | 71.47 | 31.55 | $62 \cdot 62$ |
| Ner 1953 | $42 \cdot 0$ | 41.0 | 41.8 | 78.07 | $34 \cdot 44$ | 68.54 |
| Nova Scotia....................... 1952 | $43 \cdot 2$ | 39.8 | $42 \cdot 3$ | 68.54 | 34.74 | 60.30 |
| 1953 | 40.9 | 39.2 | 40.5 | 72.01 | $35 \cdot 48$ | 62.82 |
| New Brunswick. . . . . . . . . . . . . . . 1952 | $42 \cdot 2$ | $39 \cdot 5$ | 41.5 | 71.50 | 35.44 | 61.83 |
| Qew 1953 | 41.1 | 40.6 | $40 \cdot 9$ | 73.48 | 35.25 40.59 | ${ }^{62 \cdot 96}$ |
| Quebec............................ . 1952 | $40 \cdot 0$ | 38.2 | 39.5 | $79.92 *$ | $40 \cdot 52$ | 68.88 |
| 1953 | $39 \cdot 7$ | 37.9 | $39 \cdot 2$ | 84.12 | $42 \cdot 33$ | 72.23 |
| Ontario............................ 1952 | $39 \cdot 6$ | 37.8 | $39 \cdot 1$ | 85.77 | $42 \cdot 24$ | 72.73 |
| Onta 1953 | $39 \cdot 2$ | 37.6 | 38.7 | 89.28 | $44 \cdot 23$ 37.27 | 75-69 |
| Manitoba......................... 1953 | $40 \cdot 4$ $40 \cdot 2$ | 38.5 38.8 | 39.9 39.9 | $73 \cdot 66$ 76.47 | 37.27 37.98 | $64 \cdot 14$ 66.35 |
| Saskatchewan.................... . 1952 | $42 \cdot 0$ | $40 \cdot 3$ | 41.5 | 67.22 | 38.11 | 58.08 |
| Saska 1953 | 41.3 | $39 \cdot 4$ | $40 \cdot 7$ | $71 \cdot 66$ | $40 \cdot 16$ | 61.30 |
| Alberta. . . . . . . . . . . . . . . . . . . . . . 1952 | 40.9 | 39.4 | 40.5 | 76.73 | $40 \cdot 55$ | 67.20 |
| 1953 | $40 \cdot 4$ | 38.8 | 40.0 | 79.64 | 42.05 | 69.93 |
| British Columbia.................. ${ }_{1952}^{1952}$ | $40 \cdot 0$ | 38.3 | $39 \cdot 6$ | 84.76 | 42.00 43.84 | 74.54 78.41 |
| 1953 | $40 \cdot 0$ | 38.4 | $39 \cdot 6$ | 89.70 | $43 \cdot 84$ | 78.41 |
| Totals............................. 1952 | $39.9$ | $38 \cdot 1$ | 39.4 39.0 | 82.60 86.43 | $41 \cdot 26$ $43 \cdot 13$ | 70-75 $\mathbf{7 3 . 8 7}$ |
|  | $39 \cdot 5$ | $37 \cdot 9$ | 39.0 | 86-43 | $43 \cdot 13$ | 73.87 |
| City |  |  |  |  |  |  |
| Montreal........................... 1952 | 39.4 | 37.8 | $39 \cdot 0$ | 81.53 | 42.48 | 70.18 |
| 1953 | $39 \cdot 1$ | 37.5 | $38 \cdot 6$ | 86.07 | $44 \cdot 37$ | 73.74 |
| Toronto. . . . . . . . . . . . . . . . . . . . . 1952 | $39 \cdot 2$ | 37.2 | 38.5 | 85.47 | $43 \cdot 57$ | 72.16 |
| , 1953 | $38 \cdot 6$ | 37.4 | 38.2 | $89 \cdot 11$ | $45 \cdot 68$ | $75 \cdot 30$ |
| Hamilton......................... 1952 | 38.9 | 37.6 | 38.5 | 89.14 | $41 \cdot 92$ | 74.44 77.31 |
| Windsor. . . . . . . . . . . . . . . . . . . . . . 1959 | $38 \cdot 9$ 41.1 | $37 \cdot 7$ $39 \cdot 1$ | $38 \cdot 6$ 40.6 | $92 \cdot 29$ 99.54 | $43 \cdot 33$ $49 \cdot 19$ | 77.31 85.78 |
| Windsor............................ ${ }_{1953}$ | $39 \cdot 6$ | $39 \cdot 0$ | 39.4 | $102 \cdot 75$ | 51.09 | 88.33 |
| Winnipeg. . . . . . . . . . . . . . . . . . . . . 1952 | $40 \cdot 3$ | $38 \cdot 5$ | 39.8 | 73.41 | 37.43 | 63.83 |
| , 1953 | $40 \cdot 1$ | 38.6 | $39 \cdot 7$ | $76 \cdot 45$ | $38 \cdot 18$ | $66 \cdot 26$ |
| Vancouver......................... 1952 | 39.4 | 37.9 | $39 \cdot 0$ | 83.84 | $41 \cdot 26$ | 71.75 |
| Vancouve................. 1953 | $39 \cdot 1$ | $37 \cdot 9$ | 38.7 | 85.96 | $43 \cdot 46$ | 73.43 |
| Industry |  |  |  |  |  |  |
| Food and beverages............... 1952 | $41 \cdot 1$ | $38 \cdot 7$ | 40.5 | 73.74 | $39 \cdot 65$ | $64 \cdot 68$ |
| Food and beverages ............... 1953 | $40 \cdot 6$ | $38 \cdot 4$ | $40 \cdot 0$ | 78.32 | 41.55 | 68.37 |
| Meat products................. 1952 | 41.0 | 39.8 | 40.7 | 77.74 | 46.09 | 71.51 |
| Meat products................. 1953 | $40 \cdot 7$ | $38 \cdot 6$ | $40 \cdot 3$ | 81.52 | 47.24 | 74.57 |
| Canned and preserved fruits and 1952 | $40 \cdot 7$ | 38.4 | $40 \cdot 0$ | 71.72 75 | 36.09 39.41 | 60.28 64.25 |
| vegetables. | $40 \cdot 6$ $44 \cdot 9$ | $38 \cdot 7$ 39.6 | $39 \cdot 9$ $43 \cdot 2$ | $75 \cdot 96$ 62.67 | 39.41 $34 \cdot 82$ | $64 \cdot 25$ 53.61 |
| Bread and other bakery products. 1953 | $44 \cdot 0$ | $40 \cdot 2$ | 42.8 | 65-46 | 36.74 | 56.52 |
| Tobacco and tobacco products.... 1952 | 37.7 | 37.2 | 37.5 | 78.96 | 47.34 | 68-33 |
| Tobacco and tobacco products..... 1953 | 37.4 | 37.2 | 37.3 | 86.27 | 49.05 | 73.72 |
| Rubber products................. . 1952 | $39 \cdot 1$ | 37.9 | 38.7 | 78.53 | $40 \cdot 87$ 41.84 | 67.63 |
| , 1953 | $39 \cdot 1$ | 38.2 | 38.9 40.4 | 82.25 69.22 | $41 \cdot 84$ 35.35 | 71.04 58.74 |
| Leather products................. ${ }_{1953}^{1952}$ | 41.2 40.6 | 38.4 37.9 | $40 \cdot 4$ 39.8 | $69 \cdot 22$ $73 \cdot 25$ | $35 \cdot 35$ $37 \cdot 24$ | 58.74 61.71 |
| Textile products (except clothing)... 1952 | 40.0 | 38.3 | $39 \cdot 4$ | 82.79 | 39.50 | $68 \cdot 65$ |
| Textle produts (except elothing)... 1953 | 40.5 | $38 \cdot 1$ | $39 \cdot 7$ | 84.77 | $40 \cdot 87$ | 70.73 |
| Cotton yarn and broad woven 1952 | $39 \cdot 2$ | $38 \cdot 1$ | 38.8 | 82.13 | $37 \cdot 11$ | 66.21 |
| goods. 1953 | $39 \cdot 7$ | 38.0 | $39 \cdot 1$ | 85.22 | $39 \cdot 56$ | 69-29 |

## 12.-Average Hours and Earnings of Salaried Employees for the Last Week of October 1952 and 1953 -concluded

| Indostry |  | Salaried Employees |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Average Hours Worked |  |  | Average Weekly Earnings |  |  |
|  |  | Men | Women | Both Sexes | Men | Women | Both Sexes |
|  |  | No. | No. | No. | \$ | \$ | \$ |
| Industry-concluded |  |  |  |  |  |  |  |
| Clothing (textile and fur).......... 1952 |  | $40 \cdot 3$ | 38.4 | 39.5 | 76-11 | 38.74 | 60.73 |
| Men's clothing. | 1953 | $40 \cdot 6$ | $38 \cdot 2$ | $39 \cdot 6$ | 78.81 | $40 \cdot 18$ | 62.41 |
|  | . 1952 | $39 \cdot 9$ | $38 \cdot 3$ | $39 \cdot 4$ | $72 \cdot 67$ | 36.58 | 59.49 |
|  | 1953 | 39.9 | 38.4 | $39 \cdot 4$ | 76.03 | 38.48 | $62 \cdot 22$ |
| Women's clothing. | . 1952 | $40 \cdot 1$ | 38.5 | $39 \cdot 4$ | 74.53 | 42.83 | 60.90 |
| Knit goods | 1953 | 39.9 | 37.9 | 39.0 | 77.63 | 44.99 | ${ }^{62 \cdot 92}$ |
|  | . 1953 | 40.1 41.6 | 37.2 38.8 | 38.8 40.4 | 80.86 83.46 | 36.82 38.23 | $61 \cdot 60$ 63.63 |
| Wood products. | $\begin{array}{r}1953 \\ .1952 \\ \hline\end{array}$ | 41.6 42.6 | $38 \cdot 8$ 38.4 | 40.4 41.5 | 83.46 77.06 | 38.23 38.83 | 63.63 67.77 |
|  | 1953 | 42.1 | 38.5 | 41.2 | 81.52 | 40.28 | 71-35 |
| Saw and planing mills. | . 1952 | $43 \cdot 2$ | $39 \cdot 1$ | $42 \cdot 4$ | 77.21 | $40 \cdot 37$ | 69.79 |
|  | 1953 | 43.0 | $39 \cdot 6$ | $42 \cdot 3$ | 82.54 | 41.63 | 74-12 |
| Furniture. | . 1952 | 41.0 | 37.7 | $39 \cdot 9$ | 76.94 | 37.26 | $64 \cdot 10$ |
|  | 1953 | $40 \cdot 7$ | 37.5 | 39.7 | 81.03 | 38.78 | 67.64 |
| Paper products. | .1952 | 38.7 38.3 | 37.4 37.1 | 38.4 | 97.11 102.39 | 43.80 45.92 | 83.19 87.68 |
| Pulp and paper mills. | 1953 .1952 | $38 \cdot 3$ 39.2 | $37 \cdot 1$ 37.9 | $38 \cdot 0$ 38.9 | $102 \cdot 39$ 103.59 | 45.92 46.03 | 87.68 90.82 |
|  | 1953 | $38 \cdot 6$ | $37 \cdot 3$ | 38.3 | 109.82 | 48.50 | 96.35 |
| Other paper products | . 1952 | 37.8 | 36.9 | 37.5 | 83.56 | $41 \cdot 12$ | 69.49 |
|  | 1953 | $37 \cdot 6$ | 36.9 | 37.4 | 87.22 | 42.93 | 72.53 |
| Printing, publishing and allied industries. | 1952 | 38.0 | 37.6 | 37.9 | 74.67 | 38.48 | $61 \cdot 13$ |
|  | 1953 | 37.4 | 37.0 | $37 \cdot 3$ | 78.01 | $40 \cdot 95$ | 63.88 |
| Iron and steel products.......... | . 1952 | 39.5 | 38.0 | $39 \cdot 1$ | 82.53 | $40 \cdot 62$ | 71.71 |
|  | 1953 | $39 \cdot 3$ | 37.6 | 38.9 | 86.02 | $42 \cdot 71$ | 74.88 |
| Iron castings. | . 1952 | $40 \cdot 1$ | 37.4 | 39.4 | 81.39 | $40 \cdot 25$ | 70.89 |
|  | 1953 | $40 \cdot 1$ | 37.2 | $39 \cdot 4$ | 85.22 | 41.77 | 74.57 |
| Machinery manufacturing | . 1952 | $39 \cdot 6$ | 38.0 | $39 \cdot 1$ | 78.22 | 39.44 | 67.36 |
|  | 1953 | $39 \cdot 3$ | 37.9 | 38.9 | 82.73 | 42-27 | 71.48 |
| Primary iron and steel. | . 1952 | $39 \cdot 1$ | 37.7 | 38.8 | 95.01 | 43.48 | 83.57 |
|  | 1953 | 39-3 | 37.0 | 38.8 | 97.43 | 44.79 | 85.51 |
| Transportation equipment | . 1952 | 42.5 40.2 | 39.2 38.8 | 41.7 39 | 87.79 90.20 | 44.92 45.93 | 77.61 79.43 |
| Aircraft and parts. | . 1955 | $40 \cdot 2$ 44.2 | $38 \cdot 8$ 39.0 | 39.9 42.8 | $90 \cdot 20$ $89 \cdot 14$ | $45 \cdot 93$ $44 \cdot 18$ | 79.43 77.42 |
|  | 1953 | $40 \cdot 3$ | 39.1 | 40.0 | 89.05 | $44 \cdot 46$ | $77 \cdot 12$ |
| Motor-vehicles. | . 1952 | 41.5 | $40 \cdot 0$ | 41.1 | 97-44 | $51 \cdot 31$ | 86.77 |
|  | 1953 | 40.4 | 39.7 | $40 \cdot 3$ | 100.74 | $52 \cdot 68$ | 89.53 |
| Motor-vehicle parts and accessories. | 1952 | $40 \cdot 1$ | 39.0 | $39 \cdot 8$ | 88.00 | $43 \cdot 68$ | 75-32 |
|  | 1953 | 39.8 | 38.5 | $39 \cdot 5$ | $90 \cdot 32$ | 45.53 | 77.79 |
| Railroad and rolling-stock 1952 |  | 41.6 | 39.4 | 41.3 | 77-65 | 42.74 | 73.02 |
| Requipment. ${ }_{\text {end }} \begin{array}{r}1953 \\ \text { Shipbuilding and repairing. ..... } 1952\end{array}$ |  | 41.0 42.2 | 38.8 38.8 | 40.7 41.5 | $84 \cdot 10$ 75.95 | 45-81 | 79-31 |
| Non-ferrous metal products. | 1953 | 40.2 | 38.3 | 39.8 | 79.55 | 38.16 | $68 \cdot 13$ 70.77 |
|  | . 1952 | $39 \cdot 4$ | 37.8 | $39 \cdot 0$ | $90 \cdot 39$ | $42 \cdot 39$ | 78.70 |
|  | 1953 | $39 \cdot 9$ | 37.8 | $39 \cdot 4$ | $93 \cdot 16$ | 44-44 | $80 \cdot 30$ |
| Smelting and refining. | . 1952 | $40 \cdot 2$ | 39.5 | $40 \cdot 1$ | 94.31 | $46 \cdot 69$ | 88-48 |
|  | 1953 | 41.6 | $39 \cdot 2$ | 40.7 | 94.91 | 48.49 | 88.38 |
| Electrical apparatus and supplies | . 1952 | 38.8 | 38.0 37.9 | $38 \cdot 6$ 38.6 | $81 \cdot 92$ 87.17 | 42.95 | 70.83 |
| Non-metallic mineral products. | . 1952 | 38.8 39.0 | 36.8 | 38.6 38.4 | 87.17 83.48 | $45 \cdot 04$ 41.15 | 75.07 71.45 |
|  | 1953 | 39.9 | 37.1 | $39 \cdot 2$ | 85.84 | $43 \cdot 36$ | 74-31 |
| Products of petroleum and coal. | . 1952 | 37.0 | $35 \cdot 9$ | 36.7 | 108.63 | 51.57 | 95-23 |
|  | 1953 | 37.5 | 36.2 | 37.2 | 111.87 | 52.95 | 98.27 |
| Chemical products. | 1952 | 38.7 | 37.9 | 38.4 | 84.46 | $42 \cdot 95$ | 71.48 |
|  | 1953 | 38.5 | 37.7 3.9 | 38.3 | 88.12 | $44 \cdot 90$ | 74.59 |
| Miscellaneous manufacturing industries. | 1952 | 39.5 | 35.9 | 38.3 | 80.66 | 40.57 | 66.57 |
|  | 1953 | 39.4 | 37.8 | 38.9 | 84-11 | 42.08 | 69.21 |
| Averages, Durable Geods........ 1952 |  | 40.4 | 38.2 | 39.8 | 84.60 | $42 \cdot 11$ | 23.29 |
|  | 1953 | 39.8 | 38.1 | 39.3 | 87.56 | 43.99 | 76.23 |
| Averages, Non-durable Goods. | . 1953 | 39.5 | 37.9 | 39.0 | $81 \cdot 22$ | 40.63 | 68.42 |
|  | 1953 | 39.3 | 37.7 | 38.8 | 85-28 | 42.48 | 71.65 |
| Averages, Manufacturing Industries. | $\begin{aligned} & 1952 \\ & 1953 \end{aligned}$ | $\begin{aligned} & 39.9 \\ & 39.5 \end{aligned}$ | $\begin{aligned} & 38.1 \\ & 37.9 \end{aligned}$ | 39.4 39.0 | 82.60 86.43 | $\begin{aligned} & 41 \cdot 26 \\ & 43 \cdot 13 \end{aligned}$ | $\begin{gathered} 70.75 \\ 73.87 \end{gathered}$ |

13.-Provincial Distribution of Wage-Earners and Salaried Employees, classified by Sex and Earnings in the Last Week of October, 1950 and 1953

| Sex and Earnings Group | Newfoundland |  | Nova Scotia |  | New Brunswick |  | Quebec |  | Ontario |  | Manitoba |  | Saskatchewan |  | Alberta |  | British Columbia |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 | 1953 | 1950 | 1953 | 1950 | 1953 | 1950 | 1953 | 1950 | 1953 | 1950 | 1953 | 1950 | 1953 | 1950 | 1953 | 1950 | 1953 | 1950 | 1953 |
|  | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Male Wage-Earners- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 2 | 1 | 1 | 2 |  | 1 | -- | 1 | - | 1 | 1 | 2 | 1 | $1$ | 1 | $1$ | $\cdots$ | 1 | 1 |
| \$10-\$19. | $\ldots$ | 6 | 3 | 2 | 5 | 2 | 3 |  | 2 | - | 2 | . | 2 | 2 | 2 | -- | 2 | 2 | 2 | 2 |
| \$20-\$29. | .. | 7 | 14 |  | 12 | 7 | 8 | 4 | 3 | 2 | 5 |  | 5 | 2 | 4 |  | 2 | 2 | 5 |  |
| $\mathbf{8 3 0}-\mathbf{8 3 9}$ $\mathbf{8 4 0}$ - 849 | .. | 9 | 22 | 12 | 25 | 14 | 18 | 9 | 11 | 4 | 18 | 6 | 21 | 5 | 16 | 3 |  |  | 14 | 5 |
| \$50-\$59. |  | 14 | 20 | 24 | 20 | 20 | ${ }_{23}^{27}$ | ${ }_{22}^{16}$ | 28 | ${ }_{20}^{10}$ | 32 | 15 27 | ${ }_{21}^{38}$ | 16 <br> 30 | ${ }_{29}$ | $\stackrel{14}{25}$ | 41 | ${ }_{13}$ | ${ }_{28}^{26}$ | ${ }_{21}^{12}$ |
| \$60-\$69. |  | 14 | 8 | 25 | 9 | 18 | 11 | 23 | 17 | 29 | 9 | 31 | 9 9 | ${ }_{23}$ | 8 | 29 | - 15 | 35 | 14 | 27 |
| 870-879. |  | 12 | 3 | 6 | 5 | 9 | 5 | 12 | 8 | 18 | 3 | 10 | 2 | 11 | 3 | 15 | 6 | 22 |  |  |
| \$80-\$89. |  |  | 1 | 3 | 2 |  | 2 |  | 3 | 9 | 1 | 4 | $\ldots$ | 7 |  |  | 2 |  | 2 | 7 |
| \$90-\$99. |  |  | 1 | 1 | 1 |  | 1 |  | 1 | 4 |  | 2 | .- | 2 | -- | 2 | 1 |  |  |  |
| 8100 or ove |  | 8 |  |  |  |  | 1 |  | 1 | 4 | - | 2 | -- | 1 | . |  | 1 |  |  |  |
| Employees Reported....No. | .. | 7,112 | 17,300 | 20,008 | 12,249 | 12,887 | 198,571 | 218,972 | 334,065 | 351,646 | 22,217 | 23,231 | 4,939 | 5,186 | 13,342 | 15,968 | 54,808 | 53,656 | 663,836 | 709,180 |
| Female Wage-Earners- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Under \$10. |  |  |  |  | 11 |  |  |  |  | 2 |  |  |  |  | 2 |  | 3 |  |  |  |
| \$10- $\$ 19$. |  | 51 | 43 | 30 | 28 | 19 | 21 | 13 | 11 | 6 | 17 | 10 | 9 | 6 | 9 | 6 | 11 |  | 16 | 9 |
| \$20-\$29. | $\cdots$ | 31 | 38 | 45 | 32 | 25 | 37 | 30 | 33 | 20 | ${ }_{43}^{46}$ | 34 | 35 | ${ }_{27}^{15}$ | 35 34 | 22 25 | 32 37 | 18 25 | 35 <br> 30 | 26 28 |
| \$40- 849. |  | 11 1 | 9 3 | 14 6 | 20 8 | 128 | 27 9 | 27 16 | 34 15 | 29 29 | 23 8 | 30 15 | 32 18 | 27 28 | 194 | $\stackrel{25}{22}$ | 37 14 | $\stackrel{25}{25}$ | 12 | 20 |
| \$50- 859. | $\cdots$ | - | ) | -- |  | 3 | 3 | 7 | 3 | 13 | 2 | 6 | - | 16 | 1 | 19 | 3 | 16 | 3 | 10 |
| \$60-\$89. | . | - | - | - | -. | 1 | - | 3 | 1 | 4 | 1 | 1 | $\cdots$ | 4 | - | 3 | -- | 5 | -- | 3 |
| \$70- 879. |  | - | - | - | .- | -- | -- | 1 | -- |  | -- | 1 | - | -- | -- | 1 | -- | 1 | - |  |
| \$80- $\$ 99$. |  |  | 二 | - | 二 | -- | - | -- | $\cdots$ |  |  | $\cdots$ | - | - | - | $\cdots$ | - |  | - |  |
| \$100 or over | .. |  | - |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Employees Reported..No. | . | 653 | 2,973 | 3,011 | 2,758 | 2,502 | 80,221 | 80,078 | 99,380 | 92,211 | 6,294 | 6,182 | 644 | 665 | 2,122 | 2,580 | 7,221 | 6,769 | 193,639 | 194,829 |
| Male Salaried Employees- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Under $\$ 10 \ldots \ldots \ldots .$. |  | -- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| \$20-\$29. | $\cdots$ | 7 | 5 | ${ }^{-}{ }_{2}$ |  | 4 | 6 | 3 | 3 | ${ }^{-7}$ | 5 | ${ }^{-}$ | 6 | ${ }^{-}$ | 5 | 2 | 2 | 1 | 5 | 2 |
| \$30-839.. | .. | 8 | 12 | 7 | 15 | 9 | 10 | 5 | 7 | 3 | 12 | 5 | 13 | 6 | 91 | 4 | 6 | 2 | 8 | 3 |


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## 14.-Proportions of Women Employees and Proportions of their Average Earnings to Men's Earnings for the Last Week of October, 1952 and 1953

(As reported by manufacturers usually employing 15 or more persons)

| Province and Group | Wage-Earners |  |  |  | Salaried Employees |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Proportion of Women |  | Proportion of Women's Wages to Men's |  | Proportion of Women |  | Proportion of Women's Salaries to Men's |  |
|  | 1952 | 1953 | 1952 | 1953 | 1952 | 1953 | 1952 | 1953 |
|  | p.c. | p.c. | p c. | p.c. | pe. | p.c. | p.c. | p.c. |
| Newfoundland. | 11.1 | $8 \cdot 4$ | 33.4 | 33.3 | 22.2 | 21.8 | $44 \cdot 1$ | 44-1 |
| Nova Scotia. | 13.2 | $13 \cdot 1$ | $47 \cdot 4$ | 44-1 | 24.4 | $25 \cdot 2$ | $50 \cdot 7$ | 49-3 |
| New Brunswick. | 16.9 | 16.3 | 56.4 | 48.7 | 26.8 | 27.5 | $49 \cdot 6$ | 48.0 |
| Quebec. | $27 \cdot 4$ | 26.8 | 55.4 | $54 \cdot 7$ | 28.0 | 28.5 | $50 \cdot 7$ | $50 \cdot 3$ |
| Ontario. | 19.9 | 20.8 | 57.8 | $58 \cdot 1$ | 30.0 | $30 \cdot 2$ | $49 \cdot 2$ | 49.5 |
| Manitoba. | 21.5 | 21.0 | 57.9 | 54.0 | 26.2 | 26.3 | $50 \cdot 6$ | 49.7 |
| Saskatchewan. | $12 \cdot 0$ | 11.4 | $64 \cdot 2$ | $64 \cdot 1$ | 31.4 | $32 \cdot 9$ | 56.7 | 56.0 |
| Alberta. | 14.4 | 13.9 | $62 \cdot 6$ | 62.4 | $26 \cdot 3$ | 25.8 | 52.8 | 52.8 |
| British Columbia.. | 11.0 | 11.2 | 56.8 | 56.2 | 23.9 | $24 \cdot 6$ | $49 \cdot 6$ | 48.9 |
| Canada ${ }^{1}$. | $21 \cdot 4$ | 21.6 | 56.2 | 55.9 | 28.7 | 29.0 | 50.0 | 49.9 |
| Durable goods manufacturing..... | $7 \cdot 3$ | 8.2 | $67 \cdot 3$ | 68.2 | $25 \cdot 6$ | 26.0 | $50 \cdot 1$ | 50.2 |
| Non-durable goods manufacturing. | $35 \cdot 5$ | 35.0 | 55.5 | 54-4 | 31.5 | 31.8 | 50.0 | 49.8 |

${ }^{1}$ Includes Prince Edward Island and the Territories.

## Section 4.-Wage Rates, Hours and Working Conditions for Various Classes of Labour

Statistics of rates of wages and hours of labour have been collected for many years by the Federal Department of Labour and are published monthly in the Labour Gazette and in annual reports.* The first report was issued in 1921 but the records begin in the year 1901. The index numbers show the general movement of wage rates for the main industrial groups as well as for individual industries, but these cannot be used to compare wage rates in one industry with those in another. The statistics are average straight-time wage rates or average straight-time piecework earnings and do not include overtime or other premium payments. The figures do include, however, incentive or production bonus payments as well as cost-of-living bonuses where reported.

Tables 15 and 16 show the index numbers of wage rates by main industrial groups and by industries. From 1930 to 1933, the trend in wage rates was downward but increases have been general each year since that time. During the period 1940-53, the general average index rose from $103 \cdot 9$ to $272 \cdot 7$.

[^251]
## 15.-Index Numbers of Wage Rates for certain Main Industrial Groups, 1945-53 $(1939=100)$

Nors.-Figures back to 1911 may be obtained from the Department of Labour publication, Wage Rates, Salaries and Hours of Labour in Canada, 1952. Figures for 1921-44 are given in the 1947 Year Book, p. 650.

| Year | Logging | Coal Mining | Metal Mining | Manu-facturing | Con-struction | Water Trans-portation | Steam Railways | Electric Railways | Telephones | Lamdries | General Average |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1945. | 153-3 | 146.2 | 128.2 | 146.5 | $131 \cdot 1$ | 144-6 | $125 \cdot 5$ | 126.6 | $125 \cdot 6$ | $135 \cdot 4$ | $141 \cdot 8$ |
| 1946. | 167-4 | 146.7 | $135 \cdot 7$ | $161 \cdot 5$ | 143.9 | $162 \cdot 3$ | 142-3 | 139.5 | $125 \cdot 2$ | 147.5 | $155 \cdot 2$ |
| 1947. | 195-1 | 166.7 | 157-7 | $183 \cdot 3$ | 155.0 | 183.8 | $142 \cdot 3$ | $162 \cdot 3$ | $132 \cdot 2$ | $170 \cdot 5$ | $173 \cdot 7$ |
| 1948. | 218.8 | 192.9 | $173 \cdot 1$ | $205 \cdot 9$ | 176-3 | $213 \cdot 5$ | $170 \cdot 2$ | $175 \cdot 0$ | $140 \cdot 4$ | 183.0 | $195 \cdot 8$ |
| 1949. | 216.2 | 196.1 | 180.8 | $217 \cdot 9$ | 184.2 | 213.8 | 170.2 | 179.0 | 151.5 | $195 \cdot 0$ | 204-6 |
| 1950. | $213-9$ | $200 \cdot 7$ | $192 \cdot 0$ | $230 \cdot 7$ | 194.0 | $236 \cdot 3$ | 179.2 | 192.1 | 158.9 | 209.0 | $215 \cdot 9$ |
| 1951. | 246.2 | 217.9 | 222.5 | $261 \cdot 6$ | $217 \cdot 2$ | 256.0 | $207 \cdot 4$ | $215 \cdot 2$ | $175 \cdot 8$ | 222.0 | $243 \cdot 6$ |
| 1952... | 293.8 | $240 \cdot 6$ | 237-1 | $277 \cdot 6$ | 235-2 | $281 \cdot 6$ | $\cdots$ | ... | ... | $239 \cdot 6$ | $263 \cdot 3$ |
| 1953. | 298.8 | $240 \cdot 6$ | $240 \cdot 9$ | $289 \cdot 3$ | $249 \cdot 1$ | $292 \cdot 0$ | ** | ... | $\cdots$ | 251 -6 | $272 \cdot 7$ |

16.-Inder Numbers of Wage Rates, by Industry, 1949-53
$(1939=100)$

\begin{tabular}{|c|c|c|c|c|c|}
\hline Industry \& 1949 \& 1950 \& 1951 \& 1952 \& 1953p <br>
\hline Lotsing. \& 216.2 \& 213.9 \& 246.2 \& 293.8 \& 298.8 <br>
\hline Eastern Canads. \& $210 \cdot 1$ \& $200 \cdot 5$ \& $229 \cdot 7$ \& 287.4 \& 291.1 <br>
\hline British Columbia, cosstal \& $239 \cdot 2$ \& $264 \cdot 2$ \& 308.5 \& $317 \cdot 7$ \& 327.8 <br>
\hline Mining. \& 187.6 \& 195.9 \& 220.4 \& $238 \cdot 7$ \& 240.8 <br>
\hline Coal. \& 196.1 \& $200 \cdot 7$ \& $217 \cdot 9$ \& $240 \cdot 6$ \& $240 \cdot 6$ <br>
\hline Metal \& 180.8 \& 192.0 \& 222.5 \& $237 \cdot 1$ \& 240.9 <br>
\hline Manufacturing. \& 217.9 \& $230 \cdot 7$ \& $261 \cdot 6$ \& $277 \cdot 6$ \& $289 \cdot 3$ <br>
\hline Primary textile products. \& $243 \cdot 3$ \& 256.0 \& 286.4 \& 304.4 \& 316.4 <br>
\hline Cotton yarn and broad woven goods. \& 248.6 \& 262.0 \& 288.1 \& 312 -4 \& 315.3 <br>
\hline Woollen and worsted yarn and woven goods.. \& 258.6 \& 273.0 \& 305.5 \& $323 \cdot 4$ \& 337.2 <br>
\hline Hosiery and knitted goods................... \& $230 \cdot 3$ \& 243.6 \& 274.2 \& 288.9 \& 308.9 <br>
\hline Rayon, nylon and silk textiles \& 248.4 \& 256.2 \& 294.2 \& 305.7 \& 316.4 <br>
\hline Clothing. \& 212.0 \& $217 \cdot 3$ \& 236.2 \& 252 -3 \& 261 -1 <br>
\hline Men's and 'boys' suits and overcosts \& 207.0 \& $216 \cdot 0$ \& 241.5 \& $257 \cdot 3$ \& 267.8 <br>
\hline Work clothing . . . . . . . . . . . . . . . . \& 205.8 \& 228.7 \& 244.6 \& 260.8 \& $260 \cdot 4$ <br>
\hline Women's and misses' costs and sui \& 210.8 \& 203.8 \& 204.2 \& 226.9 \& 227.7 <br>
\hline Dresses. \& 213.4 \& 213.3 \& 223.9 \& 241.9 \& 247.5 <br>
\hline Shirts.......... \& 228.0 \& $230 \cdot 8$ \& 271.1 \& $277 \cdot 6$ \& $304 \cdot 5$ <br>
\hline Rubber products \& 217.6 \& 228.8 \& $269 \cdot 3$ \& 277.0 \& 293.3 <br>
\hline Pulp and paper. \& 194.4

216.5 \& 206.1 \& 248.1 \& 252.9 \& ... <br>
\hline Newsprint.. \& 216.5
175.6 \& 227.2
183.5 \& $275 \cdot 3$
220.4 \& $283 \cdot 0$
224 \& $\cdots$ <br>
\hline Paper, other than newsprint \& 190.5 \& 1805
205 \& 2244.0 \& $224 \cdot 7$
244 \& $\cdots$ <br>
\hline Paper boxes and containers.. \& $223 \cdot 4$ \& 234.8 \& 259.7 \& $275 \cdot 7$ \& $2 \dddot{86}$-2 <br>
\hline Printing and publishing.... \& 173.9 \& 188.1 \& $204 \cdot 9$ \& $227 \cdot 6$ \& 241.7 <br>
\hline Daily newspapers.... \& 164.3 \& 178.6 \& 195.0 \& 216.8 \& 232.8 <br>
\hline Job printing. \& 188.3 \& $202 \cdot 3$ \& 219.8 \& 243.8 \& 255.0 <br>
\hline Wood products. \& 238.8 \& $257 \cdot 6$ \& 293.2 \& 307.8 \& 314.2 <br>
\hline Sawmills Sash and door, and planing mills \& 253.0 \& 274.0 \& 318.1 \& $333 \cdot 3$ \& 336.1 <br>
\hline Bash and door, and planing mills \& $197 \cdot 5$
228.3 \& 216.9
239.0 \& $237 \cdot 7$
$259 \cdot 3$ \& $253 \cdot 0$
271.1 \& 262.4
287.4 <br>
\hline
\end{tabular}

16.-Index Numbers of Wage Rates, by Industry, 1949-53-concluded

| Industry | 1949 | 1950 | 1951 | 1952 | 1953p |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Manufacturing-concluded |  |  |  |  |  |
| Edible plant products.. | 205.4 | $217 \cdot 6$ | 238.9 | 256.5 | 272.2 |
| Flour mills. | 201.9 | 214.7 | $242 \cdot 5$ | 257.8 | $279 \cdot 4$ |
| Bread and other bakery products | $202 \cdot 5$ | 213.9 | 232.7 | $250 \cdot 9$ | $264 \cdot 1$ |
| Biscuits and crackers. | $233 \cdot 8$ | $245 \cdot 0$ | $272 \cdot 1$ | 291.0 | 306.8 |
| Confectionery | 192.5 | 208.3 | $229 \cdot 1$ | $245 \cdot 1$ | 266.3 |
| Fur products... | 206.6 | $215 \cdot 2$ | $220 \cdot 5$ | 228.7 | $242 \cdot 5$ |
| Leather products. | 228.1 | 235.4 | $260 \cdot 8$ | $279 \cdot 0$ | 295.3 |
| Leather tanneries | 246.9 | $260 \cdot 6$ | $292 \cdot 4$ | 301.4 | 322.8 |
| Boots and shoes. | 223.4 | $229 \cdot 0$ | $252 \cdot 8$ | $273 \cdot 3$ | 288.3 |
| Slaughtering and meat packing | 231.3 | $245 \cdot 2$ | 289.4 | 299.0 | 314.5 |
| Iron and steel products......... | 212 -3 | 226.0 | $260 \cdot 6$ | 277.2 |  |
| Primary iron and steel. | $239 \cdot 6$ | 255.1 | 298.3 | $317 \cdot 6$ | $330 \cdot 6$ |
| Iron castings and machine-shop products | 224.2 | 241.0 | 268.7 | $294 \cdot 5$ |  |
| Machinery.............................. | 209.4 | $244 \cdot 9$ | 255.0 | $269 \cdot 0$ | 284.9 |
| Aircrait and parts. | 181.8 | 192.9 | $212 \cdot 1$ | 227.7 | 241.0 |
| Steel shipbuilding | 181.5 | 185.6 | $220 \cdot 8$ | $229 \cdot 6$ | $239 \cdot 3$ |
| Motor-vehicles. | 165.9 | $174 \cdot 3$ | 191.9 | $207 \cdot 6$ | 214.4 |
| Motor-vehicle parts and accessori | $225 \cdot 1$ | $239 \cdot 1$ | 283.8 | $300 \cdot 5$ | $310 \cdot 2$ |
| Heating and cooking apparatus .. | $234 \cdot 2$ | $251 \cdot 1$ | $276 \cdot 1$ | $296 \cdot 1$ | 312.5 |
| Agricultural implements...... | $242 \cdot 5$ | 268.2 | 321.0 | $332 \cdot 6$ | 336.7 |
| Sheet-metal products. | 220.0 | $232 \cdot 1$ | 276.9 | 299.5 | 310.5 |
| Tobacco products. | 253.9 | 281.8 | $340 \cdot 8$ | 351.0 | 378.4 |
| Beverages (malt liquors) | 199.7 | $210 \cdot 4$ | 236.5 | 267.4 | $300 \cdot 2$ |
| Electric light and power | 186.4 | 199.7 | 222.8 | $248 \cdot 6$ | $271 \cdot 1$ |
| Electrical apparatus and supplies | 236.5 | $253 \cdot 0$ | $281 \cdot 6$ | 298.5 |  |
| Construction. | 184.2 | 194.0 | $217 \cdot 2$ | $235 \cdot 2$ | $249 \cdot 1$ |
| Transportation and Communications......... | 175.9 | 187-3 | 212.4 | $237 \cdot 2$ | $240 \cdot 5$ |
| Transportation. | $179 \cdot 1$ | $191 \cdot 0$ | $217 \cdot 2$ | $242 \cdot 6$ |  |
| Water transportation (inland and coastal) | $213 \cdot 8$ | 236.3 | $256 \cdot 0$ | 281.6 | $292 \cdot 0$ |
| Steam railways. . . . . . . . . . . . . . . . . | $170 \cdot 2$ | 179.2 | 207.4 | 233.4 | ... |
| Urban and suburban transportation systems... | 179.0 | 192.1 | $215 \cdot 2$ | 233.5 | $\ldots$ |
| Communication-telephone..................... | 151.5 | 158.9 | 175.8 | 196.0 | ... |
| Service-Laundries. | 195.0 | 209.0 | 222.0 | 239.6 | $251 \cdot 6$ |
| General Averages. | 204.6 | 215.9 | 243 -6 | 263.3 | 272-7 |

17.-Average Hourly Wage Rates for Selected Occupations in Manufacturing, by Province, 1953

| Occupation | Atlantic Provinces | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | 8 | \$ | \% | 8 | $\$$ | \$ |
| NewsprintMachine tender. | $2 \cdot 95$ | 2.84 | 2.85 | 3.04 | - | - | $2 \cdot 97$ |
| Roll-finisher... | 1.50 | 1.48 | $1 \cdot 47$ | $1 \cdot 47$ | - | - | 1.57 |
| Sawmills- |  |  |  |  |  |  |  |
| Lumber grader. | 0.89 | 0.94 | 1.16 | 1.27 | - | 1.02 | $1 \cdot 67$ |
| Edgerman.................. | 0.89 | 0.97 | $1 \cdot 15$ | 1.31 | - | $1 \cdot 38$ | 1.72 |
| Meat Products- |  |  |  |  |  |  |  |
| Butcher...... | - | 1.45 1.59 | 1.46 1.49 | 1.69 1.58 | 1.52 1.51 | 1.67 1.59 | 1.62 1.61 |
| Machinery - |  |  |  |  |  |  |  |
| Machinist. | - | 1.40 | 1.54 | 1.48 | 1.50 | 1.54 | 1.91 |
| Moulder. | - | $1 \cdot 50$ | $1 \cdot 63$ | 1-32 | - | - | 1.89 |
| Woollen Yarn and ClothSpinner, male |  |  |  |  |  |  |  |
| Spinner, male ${ }^{\text {Weaver, female. . . . . . . . . . . . }}$, | ${ }_{0}^{0.61}$ | 1.03 1.03 | 1.19 0.99 | 1.08 0.68 | 二 | - | 0.79 |

18.-Average Hourly Wage Rates for Selected Occupations in Certain Cities, 1953

| Industry and Occupation | Halifax | Montreal | Toronto | Winnipeg | Vancouver |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | $\delta$ | \$ | \$ | 8 |
| Construetion- |  |  | 2.35 | $2 \cdot 10$ |  |
| Bricklayer and mason. | 1.81 1.56 | 2.00 1.80 | $2 \cdot 35$ $2 \cdot 20$ | 2.10 1.90 | $2 \cdot 32$ $2 \cdot 17$ |
| Electrician | 1-66 | 1.85 | $2 \cdot 33$ | 1.90 | $2 \cdot 30$ |
| Painter. | 1-37 | 1.70 | 1.85 | $1 \cdot 65$ | $2 \cdot 07$ |
| Plasterer. | $1 \cdot 70$ | $2 \cdot 00$ | $2 \cdot 25$ | $2 \cdot 10$ | $2 \cdot 25$ |
| Plumber. | $1 \cdot 65$ | $2 \cdot 00$ | $2 \cdot 30$ | $2 \cdot 00$ | $2 \cdot 25$ |
| Sheet-metal worker | $1 \cdot 47$ | 1.80 | $2 \cdot 25$ | 1.75 | $2 \cdot 25$ |
| Labourer. | $1 \cdot 10$ | 1.25 | $1 \cdot 20$ | $1 \cdot 05$ | $1 \cdot 55$ |
| Manufacturing- <br> Unskilled factory labour, male. | 1.04 | $1 \cdot 21$ | 1.28 | $1 \cdot 22$ | 1.44 |
| Transportation (Urban and subu One-man car and bus operator ${ }^{1}$. | $1 \cdot 38$ | $1 \cdot 40$ | 1.51 | $1 \cdot 50$ | 1-59 |
| Body repairman, bus... |  | 1.44 | 1.61 | 1.58 | $1 \cdot 70$ |
| Repairman, street car | 1.42 | $1 \cdot 34$ | 1.57 | $1 \cdot 57$ | $1 \cdot 62$ |
| Electrician. | 1.55 | 1.41 | 1.58 | $1 \cdot 60$ | 1.70 |
| Labour. | $1 \cdot 23$ | $1 \cdot 10$ | $1 \cdot 38$ | 1-17 | 1.39 |
| Printing and Publishing-Compositor- |  |  |  |  |  |
| News.................... | 1.92 | $2 \cdot 38$ | $2 \cdot 67$ | 1.81 | 2-35 |
| Job. | 1.30 | 1.95 | $2 \cdot 02$ | 1.82 | 2-10 |
| Pressman- |  |  |  |  |  |
| News.. Job , cylinder | 1.84 1.14 | 2.30 1.92 | $2 \cdot 67$ $2 \cdot 04$ | 1.75 1.77 | $2 \cdot 35$ 2.09 |
| Bindery girl... | $0 \cdot 56$ | 0.95 | 1.05 | 0.91 | 1.24 |

${ }^{1}$ Maximum rates based on length of service. Two-man car operators receive 7 cents less at Montreal and Vancouver, 5 cents less at Toronto and 6 cents less at Winnipeg.
19.-Average Standard or Normal Hours of Labour per Week for Male Employees In Selected Industries, by Province, 1949-53

| Industry and Year | Atlantic Provinces ${ }^{1}$ | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | hrs. | hrs. | hrs. | hrs. | hrs. | hrs. | hrs. |
| Work clothing. . . . . . . . 1949 | 43.5 | $45 \cdot 2$ | 41.4 | 41.2 | - | 40.0 | 41.7 |
| 1950 | $43 \cdot 5$ | 44.4 | 41.1 | 41.0 | - | 40.0 | $40 \cdot 0$ |
| 1951 | 43.5 | 44.6 | 41.0 | 41.1 |  | $40 \cdot 0$ | $40 \cdot 4$ |
| 1952 | $43 \cdot 6$ | 45.0 | 41.0 | $40 \cdot 0$ | - | 40.0 | $42 \cdot 7$ |
| 1953 | 43.8 | $43 \cdot 6$ | $41-1$ | $40 \cdot 4$ | - | 40.0 | 40.0 |
| Newsprint. . . . . . . . . . 1949 | 48.0 | 48.0 | 48.0 | - | - | - | $44 \cdot 0$ |
| 19502 | 48.1 | 48.4 | 47.9 | 48.0 | - | - | 43.4 |
| 19512 1952 | 48.2 | 48.5 | 44.9 | 40.0 | - |  | $41 \cdot 7$ |
| $1952{ }^{1953}$ | 47.0 44.2 | 48.2 46.4 | $42 \cdot 8$ 41.3 | 40.0 | - | - | 40.0 40.0 |
| Wood products.......... 1949 | $51 \cdot 6$ | 53.4 | 46.5 | 46.5 | $45 \cdot 7$ | 46.5 | $40 \cdot 6$ |
| 1950 | 51.9 | 53.0 | 46.9 | 46.0 | $44 \cdot 6$ | $46 \cdot 3$ | $40 \cdot 7$ |
| 1951 | 50.7 | $52 \cdot 4$ | 46.4 | $45 \cdot 6$ | 44.2 | $46 \cdot 6$ | $40 \cdot 6$ |
| 1952 | 50.4 | 51.7 | 46.2 | 44.2 | 44.0 | $45 \cdot 7$ | $40 \cdot 6$ |
| 1953 | 49.9 | 50.7 | 45.7 | $45 \cdot 3$ | $45 \cdot 4$ | 46.1 | $40 \cdot 4$ |
| Meat producta.......... 1949 | 44.0 | 45.8 | 44.4 | 44-4 | 44.0 | 44-4 | 44.0 |
| ( 1950 | 40.5 | 44.7 | $42 \cdot 6$ | 41.6 | 41.8 | 41.5 | 41.4 |
| 1951 | $40 \cdot 6$ | 44.2 | $42 \cdot 3$ | 41.5 | 41.8 | 41.4 | 40.9 |
| 1952 | 40.8 | 42.5 | 41.6 | 40.1 | $40 \cdot 6$ | $40 \cdot 1$ | 40.0 |
| 1953 | 41.4 | $41 \cdot 7$ | 41.8 | $40 \cdot 1$ | $40 \cdot 4$ | $40 \cdot 0$ | $40 \cdot 0$ |
| Iron and its products... 1949 | 44.8 | 44.9 | $43 \cdot 3$ | $45 \cdot 3$ | $44 \cdot 1$ | 41.8 | $40 \cdot 1$ |
| 1950 | 44.5 | 45.2 | $42 \cdot 4$ | 44.9 | $43 \cdot 9$ | 42.4 | $40 \cdot 1$ |
| 1951 | 41.3 | $45 \cdot 0$ | 41.9 | 44.2 | 44.0 | $42 \cdot 6$ | $40 \cdot 1$ |
| 1952 | 41.7 | 44.8 | 41.4 | 43.8 | 44.0 | $43 \cdot 1$ | $40 \cdot 1$ |
| 1953 | 41.0 | $44 \cdot 3$ | 41.4 | $44 \cdot 3$ | $44 \cdot 0$ | 41.7 | $40 \cdot 8$ |
| Woollen yarn and cloth. 1949 | 47.5 | 47.9 | 45.7 | 45.0 | 45.0 | 45.0 | 45.0 |
| 1950 | 48.5 | $46 \cdot 5$ | 46.1 | $45 \cdot 2$ | $45 \cdot 2$ | $45 \cdot 2$ | $45 \cdot 2$ |
| 1951 1952 | 46.0 | $48 \cdot 1$ | 45.4 | 45.6 | $45 \cdot 6$ | $45 \cdot 6$ | $45 \cdot 6$ |
| 1952 1953 | $46 \cdot 1$ 46.3 | 47.5 46.6 | $45 \cdot 1$ | $45 \cdot 3$ | $45 \cdot 3$ | $45 \cdot 3$ | $45 \cdot 3$ |
| 1953 | $46 \cdot 3$ | $46 \cdot 6$ | $45 \cdot 7$ | 42.2 | - | - | $42 \cdot 2$ |

${ }^{1}$ Exclusive of Newioundland.
${ }^{2}$ Data shown apply to pulp and paper as a whole.

## 20.-Summary of Working Conditions of Plant Employees in Manufacturing Industries, as at Oct. 1, 1949-51, and Apr. 1, 1953

Source: Annual Survey of Working Conditions, Economics and Research Branch, Department of Labour.

| Item | Percentage of Plant Employees |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\underset{1953}{\text { Apr. }}$ | $\begin{aligned} & \text { Oct. } 1 \text {, } \\ & 1951 \end{aligned}$ | $\begin{gathered} \text { Oct. } 1, \\ 1950 \end{gathered}$ | $\begin{aligned} & \text { Oct. }{ }^{19} \\ & 1949 \end{aligned}$ |
|  | 802,000 | 787,000 |  |  |
| Standard Weekly Hours- | $43 \cdot 3$ | $35 \cdot 8$ | 29.4 | 25.1 |
| Over 40 and under 44 | $15 \cdot 3$ | 13.4 | 9.5 | 6.6 |
| 44. | $10 \cdot 1$ | 11.5 | 13.5 | 16.7 |
| 45. | $15 \cdot 4$ | $16 \cdot 7$ | 18.8 | 20.9 |
| Over 45 and under 48 | $2 \cdot 0$ | $2 \cdot 3$ | $3 \cdot 1$ | 3.8 |
| 48.................... | $9 \cdot 6$ | 14.4 | 19.5 | 20.0 |
| Over 48 | $4 \cdot 3$ | $5 \cdot 9$ | $6 \cdot 2$ | 6.9 |
| Employees on a 5-day week. | 78.5 | 69.7 | $64 \cdot 6$ | 61.0 |
|  |  |  |  |  |
| Employees in establishments where higher than straighttime rates are paid after daily or weekly hours............. | $93 \cdot 4$ | $92 \cdot 1$ | 90.8 | $90 \cdot 6$ |
| Employees in establishments where time and one-half is paid after daily or weekly hours. | $92 \cdot 2$ | $90 \cdot 2$ | 89.2 | 88.0 |
| Shift Differentials- |  |  |  |  |
| Employees in establishments where shift work is performed Employees in establishments where shift differentials are paid. | 71.0 | $65 \cdot 2$ | $64 \cdot 4$ | - |
|  | $66 \cdot 2$ | - | - | - |
| Cost-of-Living Bonus or Cost-of-Living Wage AdjustmentsEmployees in establishments reporting a cost-of-living bonus or cost-of-living wage adjustment ...................... | $32 \cdot 0^{1}$ | $34 \cdot 0$ | $18 \cdot 1$ | - |
| Production or Incentive Bonus- <br> Employees in establishments reporting a production or incentive bonus. . | $28.0{ }^{1}$ | 26.0 | 27.9 | - |
| Paid Statutory Holidays- <br> Employees receiving paid statutory holidays................. Employees being paid for the following number of statutory holidays- | $94 \cdot 7$ | $89 \cdot 3$ | $87 \cdot 1$ | 84.9 |
|  | $17 \cdot 0$ | $19 \cdot 4$ | $21 \cdot 1$ | 24.4 |
|  | 14.5 | 15.5 | 18.9 | 20.8 |
| 7. | $12 \cdot 6$ | 9.9 | $10 \cdot 7$ | 7.4 |
|  | $41 \cdot 4$ | $37 \cdot 8$ | $30 \cdot 6$ | $27 \cdot 4$ |
| More than 8 | $9 \cdot 2$ | 6.7 | 5.8 | $4 \cdot 9$ |
| Vacations with Pay- |  |  |  |  |
| Eligible for at least one week with pay...................... | $99 \cdot 3$ $91 \cdot 1$ | $99 \cdot 1$ 91.8 | $99 \cdot 2$ | 99.0 91.7 |
| One week with pay..................................................... | $91 \cdot 1$ $87 \cdot 3$ | $91 \cdot 8$ $89 \cdot 3$ | $91 \cdot 1$ $89 \cdot 2$ | 91.7 89.5 |
| After 1 year or less. Service not specified. | 87.3 3.8 | $89 \cdot 3$ $2 \cdot 5$ | 89.2 1.9 | 8.2 |
| Eligible for two weeks with pay Two weeks with pay after - | $92 \cdot 6$ | $89 \cdot 2$ | 84.9 | 81.0 |
|  |  |  |  |  |
| ( 1 year or less................ | 14.9 9.6 | 14.2 9.3 | 12.3 8.3 | 10.2 6.6 |
| 3 years... | $22 \cdot 5$ | 16.2 | 11.5 | 6.4 |
| 5 years. | 40.4 | $46 \cdot 2$ | $48 \cdot 6$ | 54.8 |
| Other.. | $5 \cdot 2$ | $3 \cdot 3$ | $4 \cdot 2$ | 3.0 |
| Eligible for three weeks with pay Three weeks with pay after- | $50 \cdot 8$ | $45 \cdot 5$ | $39 \cdot 3$ | $30 \cdot 4$ |
|  |  |  |  |  |
| 15 years.. ........... | 28.8 | 19.5 | 14.3 8.1 | $\stackrel{4.2}{10.4}$ |
| 20 years.... | $10 \cdot 9$ 11.1 | 12.1 13.9 | 8.1 16.9 | 10.4 15.8 |
| Other periods.. | $11 \cdot 1$ | 13.9 | 16.9 | 15.8 |
| Eligible for four weeks with pay Four weeks with pay after- | $4 \cdot 0$ | $2 \cdot 3$ | $2 \cdot 3$ | 0.5 |
|  | $3 \cdot 3$ | $2 \cdot 0$ | $2 \cdot 2$ | 0.5 |
| 25 years..................... | 0.7 | $0 \cdot 3$ | $0 \cdot 1$ |  |
| Other vacation periods................................ | 0.9 | $1 \cdot 1$ | 0.7 | 0.3 |

${ }^{1}$ Oct. 1, $1952 . \quad{ }^{2}$ Less than 0.1 p.c.
20.-Summary of Working Conditions of Plant Employees in Manufacturing Industries, as at Oct. 1, 1949-51, and Apr. 1, 1953 -concluded

| Item |  |  |  |
| :--- | :--- | :--- | :--- | :--- |

21.-Summary of Working Conditions of Office Employees in Manufacturing Industries, as at Oct. 1, 1949-51, and Apr. 1, 1953
Source: Annual Survey of Working Conditions, Economics and Research Branch, Department of Labour.

| Item | Percentage of Office Employees |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Apr. 1, } \\ 1953 \end{gathered}$ | $\underset{1951}{\text { Oct. } 1,}$ | $\begin{gathered} \text { Oct. } 1, \\ 1950 \end{gathered}$ | Oct. 1, 1949 |
| Plant_Coverage....................................... No. | 183,000 | 160,000 | 138,000 | 133,000 |
| Standard Weekly Hours- |  |  |  |  |
| Under 37¢............. | 19.4 | 20.9 | $20 \cdot 3$ | 16.8 |
| $371 . .$. | $30 \cdot 1$ | $28 \cdot 5$ | 26.5 | $29 \cdot 0$ |
| Over $37 \frac{1}{2}$ and under 40 $40 \ldots \ldots . . . . . . . . . . . . . . . . . ~$ | 19.1 | $17 \cdot 3$ 20.5 | $15 \cdot 0$ | $17 \cdot 0$ |
| Over 40... | 21.2 10.2 | 20.5 12.8 | 21.7 16.5 | $19 \cdot 1$ 18.1 |
| Employees on a 5-day week. | $84 \cdot 1$ | $75 \cdot 9$ | $69 \cdot 7$ | $67 \cdot 5$ |
| Compensation for Overtime Work- |  |  |  |  |
| Employees in establishments reportingCompensating time off. | 11.8 | - | - |  |
| Remuneration at straight-time rates. | 21.4 | $14 \cdot 6$ | 12.0 | - |
| Remuneration at higher than straight-time rates........... | 21.1 | 14.7 | 11.2 | - |
|  | 41.4 $2 \cdot 1$ | 二 | $47 \cdot 9$ | - |

For footnote, see end of table.

## 21.-Summary of Working Conditions of Office Employees in Manufacturing Industries, as at Oct. 1, 1919-51 and Apr. 1, 1953-concluded

|  |  |  |
| :---: | :---: | :---: | :---: | :---: |

[^252]Wages of Farm Labour.-Farm wage rates have been increasing steadily during the past few years. In 1952 they were, almost without exception, up from the level of 1951 and the trend continued in 1953. In the Western Provinces and Ontario the increase was quite evident in the latest year but in the Maritimes and Quebec the rates showed a general levelling-off or a slight decline.

The information on farm wages is provided by volunteer farm correspondents located in all provinces except Newfoundland.

## 22.-Average Daily and Monthly Wages of Male Farm Help, as at Jan. 15, May 15 and Aug. 15, 1950-53

Note.-Figures for 1940-42 are given in the 1943-44 Year Book, pp. 732-733; for 1943-46 in the 1947 edition, pp. 653-654; for 1947 and 1948 in the 1951 edition, pp. 703-704; and for 1949 in the 1952-53 edition, pp. 711-712.

| Province and Year | January 15 |  |  |  | May 15 |  |  |  | August 15 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Daily |  | Monthly |  | Daily |  | Monthly |  | Daily |  | Monthly |  |
|  | With Board | $\left\|\begin{array}{c} \text { With- } \\ \text { out } \\ \text { Board } \end{array}\right\|$ | With Board | $\left\|\begin{array}{c} \text { With- } \\ \text { out } \\ \text { Board } \end{array}\right\|$ | With Board | $\left\lvert\, \begin{gathered} \text { With- } \\ \text { out } \\ \text { Board } \end{gathered}\right.$ | With Board | $\left\|\begin{array}{c} \text { With- } \\ \text { out } \\ \text { Board } \end{array}\right\|$ | With Board | Without Board | With Board | $\left\lvert\, \begin{aligned} & \text { With- } \\ & \text { out } \\ & \text { Board } \end{aligned}\right.$ |
| Maritimes- | \$ | \$ | $\delta$ | \$ | $\delta$ | \$ | \$ | \$ | $\delta$ | \$ | \$ | § |
| 1950. | 3.50 | $4 \cdot 20$ | 65.00 | 98.00 | $3 \cdot 30$ | $4 \cdot 20$ | 73.00 | 104.00 | 3.70 | 4.60 | 78.00 | $101 \cdot 00$ |
| 1951 | 3.80 | $4 \cdot 60$ | 74.00 | 108.00 | 4.00 | $4 \cdot 90$ | 90.00 | 116.00 | $4 \cdot 40$ | $5 \cdot 30$ | 89.00 | 118.00 |
| 1952 | 4.30 | 5.40 | 89.00 | 118.00 | $4 \cdot 30$ | $5 \cdot 30$ | 92.00 | 121.00 | 4.50 | $5 \cdot 60$ | 91.00 | $122 \cdot 00$ |
| 1953. | $4 \cdot 30$ | $5 \cdot 20$ | 86.00 | 114 -00 | $4 \cdot 30$ | $5 \cdot 30$ | 87.00 | $115 \cdot 00$ | $4 \cdot 60$ | $5 \cdot 50$ | $85 \cdot 00$ | 118.00 |
| Quebec- |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $3 \cdot 30$ | 4.20 | 71.00 | 97.00 | $3 \cdot 50$ | 4.40 | 76.00 | 102.00 | 3.80 | $4 \cdot 80$ | $80 \cdot 00$ | 109.00 |
| 1951 | 4.00 | $5 \cdot 00$ | 79.00 96.00 | ${ }^{114.00}$ | $4 \cdot 20$ | $5 \cdot 20$ 5.70 | 89.00 95 | 116.00 | 4.70 | $5 \cdot 80$ | $100 \cdot 00$ | 134.00 |
| 19 | 4.70 | $5 \cdot 70$ | 96.00 90.00 | 129.00 12500 | $4 \cdot 60$ | $5 \cdot 70$ 6.00 | 95.00 | 132.00 | $5 \cdot 10$ | 6. | 101.00 | 136.00 |
| Ontario- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950. | 4.00 | 4.80 | 66.00 | 100.00 | $4 \cdot 10$ | $5 \cdot 10$ | 77.00 | 108.00 | $4 \cdot 60$ | $5 \cdot 70$ | 81.00 | 111.00 |
| 1951. | $4 \cdot 30$ | $5 \cdot 40$ | 77.00 | 113.00 | $4 \cdot 70$ | $5 \cdot 70$ | 85.00 | $120 \cdot 00$ | $5 \cdot 20$ | $6 \cdot 40$ | 89.00 | 124.00 |
| 1952 | $4 \cdot 70$ | $5 \cdot 90$ | 87.00 | 121.00 | $4 \cdot 80$ | $5 \cdot 90$ | 88.00 | 121.00 | $5 \cdot 40$ | $6 \cdot 60$ | 91.00 | $124 \cdot 00$ |
| 1953 | 4.90 | 6.20 | 83.00 | 119.00 | 5-10 | $6 \cdot 30$ | $90 \cdot 00$ | 123.00 | 5.60 | $7 \cdot 10$ | 93.00 | 128.00 |
| Manitoba- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950. | 4.00 | $5 \cdot 20$ | 64.00 | 90.00 | 3.90 | $5 \cdot 20$ | 86.00 | $110 \cdot 00$ | 4.90 | $6 \cdot 20$ | 93.00 | $123 \cdot 00$ |
| 1951 | 3.90 | $5 \cdot 20$ | 69.00 | 102.00 | $4 \cdot 80$ | 6.00 | 96.00 | 129.00 | $5 \cdot 90$ | $7 \cdot 20$ | 104.00 | 141.00 |
| 1952. | 4.40 | 5.40 | 80.00 | 107.00 | $5 \cdot 10$ | 6.40 | 102.00 | 134.00 | 6.20 | $7 \cdot 90$ | 107.00 | 141.00 |
| 1953. | $4 \cdot 50$ | $5 \cdot 50$ | 76.00 | 108.00 | $5 \cdot 30$ | 6.90 | $105 \cdot 00$ | $140 \cdot 00$ | 6.00 | $8 \cdot 10$ | 110.00 | 141.00 |
| Saskatchewan- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1951 | 3.90 | 4.80 | 70.00 | 103.00 | 4.80 | $5 \cdot 80$ | 101.00 | 133.00 | 6.30 | 7.40 | 109.00 | 1281.00 |
| 1952 | $4 \cdot 10$ | $5 \cdot 30$ | 75.00 | 114.00 | $5 \cdot 40$ | 6.60 | 113.00 | 146.00 | 7.30 | $8 \cdot 30$ | 119.00 | 151.00 |
| 1953. | $4 \cdot 70$ | $6 \cdot 10$ | 81.00 | 117.00 | 6.00 | $7 \cdot 50$ | $122 \cdot 00$ | 148.00 | 6.60 | $8 \cdot 10$ | $124 \cdot 00$ | 152.00 |
| Alberta- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950 | $3 \cdot 60$ | $4 \cdot 60$ | 78.00 | $102 \cdot 00$ | $4 \cdot 30$ | $5 \cdot 30$ | 92.00 | 123.00 | $5 \cdot 20$ | $6 \cdot 10$ | 97.00 | 132.00 |
| 1951. | 3.70 | 4.80 | 76.00 | 104.00 | 4.70 | $6 \cdot 00$ | 100.00 | 133.00 | $5 \cdot 70$ | 6.90 | 110.00 | 147.00 |
| 1952. | $4 \cdot 50$ | $5 \cdot 50$ | 91.00 | 125.00 | 5.70 | 6.90 | 112.00 | $145 \cdot 00$ | 7.00 | $8 \cdot 10$ | 118.00 | 155.00 |
| 1953 | $5 \cdot 20$ | $6 \cdot 20$ | 96.00 | 131.00 | 6.20 | $7 \cdot 60$ | $115 \cdot 00$ | $154 \cdot 00$ | 6.50 | $8 \cdot 10$ | 122.00 | 156.00 |
| British Columbia- |  |  |  |  |  |  |  |  |  |  |  |  |
| $\begin{aligned} & 1950 \ldots . \\ & 1951 \ldots \end{aligned}$ | $5 \cdot 00$ | 5-40 | 77.00 | 115.00 | 4.70 | 6.00 | 90.00 | $120 \cdot 00$ | 5.30 | 6.20 | 98.00 | 135.00 |
| 1952 | 6.60 | 7.90 | 9.00 | 146.00 | 5.90 | 7.0 | 107.00 | 142.00 | 6.40 | 7.20 | 112.00 | $140 \cdot 00$ |
| 1953. | 6.80 | $8 \cdot 60$ | $110 \cdot 00$ | 146.00 | 6.12 | $7 \cdot 90$ | 108.00 | 160.00 | 6.75 5.75 | 7.00 | (110.00 | $145 \cdot 00$ $146 \cdot 00$ |
| Totals- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1950 | 3-60 | 4.40 | 69.00 | 99.00 | $3 \cdot 80$ | $4 \cdot 80$ | 85.00 | 114.00 | $4 \cdot 40$ | $5 \cdot 40$ | 88.00 | 120.00 |
| 1951 | $4 \cdot 10$ $4 \cdot 60$ | 5.10 | 75.00 | 110.00 | $4 \cdot 40$ | 5.40 | 95.00 | 127.00 | $5 \cdot 20$ | 6-30 | 101.00 | $135 \cdot 00$ |
| 1952 | 4.60 | $5 \cdot 70$ | 86.00 | 121.00 | $4 \cdot 90$ | 6.00 | 101.0 | $135 \cdot 00$ | $5 \cdot 60$ | 6.70 | 105.00 | 139.00 |
| 1953 | $4-70$ | $5 \cdot 80$ | $87 \cdot 60$ | 122.00 | $5 \cdot 00$ | $6 \cdot 20$ | 105.00 | 138.60 | $5 \cdot 50$ | 6.80 | $107 \cdot 00$ | $140 \cdot 60$ |

## Section 5.-Unemployment Insurance

The Unemployment Insurance Act, which came into operation on July 1, 1941, applies to all employed persons except the following: workers in specified industries or occupations such as agriculture, fishing, Armed Forces, permanent public service of the Federal Government, provincial governments and municipal authorities, private domestic service, private-duty nursing; certain director-officers of corporations; workers on other than hourly, daily or piece rates if earning more than $\$ 4,800$ per year and (except by consent of the Unemployment Insurance Commission) employees in a hospital or charitable institution not carried on for gain. All employees paid by the hour, day or on piece rate (including a milage rate) are insured regardless of amount of earnings, together with all employees who receive $\$ 4,800$ or less per annum under weekly, monthly or yearly rates.

Unemployment Insurance Fund.-Employers and employees contribute to the Fund, the total paid by each group being equal. The Federal Government contributes an amount equal normally to one-fifth of the combined employeremployee contributions, reimburses the fund for certain types of supplementary benefit payments and assumes the cost of administration. From July 1, 1941, to Mar. 31, 1954, employers and employees contributed $\$ 1,241,276,310$ to the Fund and the Federal Government added $\$ 248,262,044$. Interest and profit on sale of securities amounted to $\$ 145,712,389$, and fines of $\$ 182,460$ made a total revenue of \$1,635,433,203.

Benefits first became payable on Jan. 27. 1942, and from that date to Mar. 31, 1954 , total benefit payments amounted to $\$ 754,159,070$, leaving a balance of $\$ 881,274,133$ in the Fund. Reserves of the Fund are invested in Government of Canada bonds and, as at Mar. 31, 1954, the par value of bonds held amounted to $\$ 880,424,000$.

## WEEKLY RATES OF CONTRIBUTION AND BENEFIT UNDER THE UNEMPLOYMENT INSURANCE ACT

| Earnings | Weekly Contributions ${ }^{1}$ |  | Value of Weekly Stamp ${ }^{2}$ | Weekly Benefits ${ }^{3}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underset{\text { Employee }}{\mathrm{By}}$ | By <br> Employer |  | Single <br> Person | Person With One Dependant or More |
|  | cts. | ets. | cts. | \$ | \$ |
| Less than $\$ 9.00$. | 18 | 18 | 36 | $4 \cdot 20$ | 4.80 |
| \$ 9.00 to \$14.99. | 24 | 24 | 48 | 6.00 | 7.50 |
| \$15.00 to \$20.99. | 30 | 30 | 60 | 8.70 | 12.00 |
| \$21.00 to \$26.99. | 36 | 36 | 72 | 10.80 | 15.00 |
| \$27.00 to \$33.99. | 42 | 42 | 84 | 12.90 | 18.00 |
| \$34.00 to \$47.99. | 48 | 48 | 96 | 15.00 | 21.00 |
| \$48.00 or more. | 54 | 54 | 108 | 17.10 | 24.00 |

[^253]No benefit is payable during the first five days of unemployment in a benefit year. After that time, the duration of benefit is related to the employment and contribution history of the employee, the number of days' benefit being equal to one-fifth the number of contribution days during the previous five years, less one-third the number of benefit days in the previous three years. Insurance benefit is paid as a right on fulfilment of the following statutory conditions:-

The payment of not less than 30 weekly (or 180 daily) contributions within two years while in insured employment; and the payment of at least 60 daily contributions within the immediately preceding 12 months, or 45 daily contributions within the immediately preceding 6 months. (These periods of two years, 12 months and 6 months may be extended under certain circumstances.)
Disqualifications for benefit include: loss of work owing to a labour dispute in which the contributor is participating or directly interested; unwillingness to accept suitable employment; being an inmate of any prison or an institution supported out of public funds; refusal to attend a course of instruction or training if directed to do so; residence outside Canada unless otherwise prescribed. Disqualification of a claimant for a period not exceeding six weeks may be made if an employee is discharged by reason of his own misconduct or leaves the employment voluntarily without just cause or refuses suitable employment.

Supplementary benefits at a slightly lower rate are payable to certain classes whose benefits have been exhausted or who are not entitled to ordinary benefit during the period Jan. 1 to Apr. 15 in each year.

Statistics of Unemployment Insurance.*-Benefits under the Unemployment Insurance Act first became payable late in January 1942, but no applications for benefit were received until early in February. Except for unusual periods, such as the months following the cessation of hostilities in Europe in the spring of 1945, monthly totals of claims received have shown a definite seasonal variation, rising in the late autumn and winter and falling again in the spring. Monthly averages of initial and renewal claims filed have been as follows: $1949,77,821 ; 1950,88,165$; $1951,95,130 ; 1952,115,740$ and $1953,139,655$.

Since September 1943, a record has also been maintained of the number of claimants on the live unemployment register on the last working day in each month. This provides a measure of recorded unemployment among insured persons on one day of each month. Monthly averages of ordinary claimants on the live register at the end of the month have been: 1949, 88,909; 1950, 165,304; 1951, 138,807; $1952,180,775$ and $1953,208,410$.

Monthly statistics on the operation of the Unemployment Insurance Act also provide data on the number of days that claimants on the live unemployment register at the end of each month have been continuously on the register, the number of claimants considered entitled and not entitled to benefit, chief reasons for nonentitlement, number of days and amount of benefit paid.

In addition to the monthly material on the operation of the Act, annual tabulations are published of the persons employed in insurable employment and of benefit years established and benefit years terminated. The data on the insured population shown in Table 23 are obtained from returns from the renewal of insurance books and contribution cards at Apr. 1. Included are those contributing in insured employment at that time and those on claim.

[^254]The number of persons insured under the Unemployment Insurance Act, shown in Table 23, was assumed to be those working in insurable employment as at Apr. 1, as indicated at that time from returns on those receiving insurance books and contribution cards.

Table 24 presents information on the persons who established benefit years and those benefit years terminating during the calendar years 1952 and 1953. A benefit year is established under the Unemployment Insurance Act when an insured person, upon becoming unemployed, submits a claim and fulfils the above-mentioned statutory conditions. Because of other provisions of the Act or because he may regain employment before he actually receives benefit, the setting up of a benefit year does not necessarily result in the receipt of benefit payments. When a benefit year is established it means merely that the claimant's right to receive benefit at a certain rate at any time during the succeeding twelve months is determined. Thus, of the 770,684 benefit years that terminated during 1953, 91,180 were paid no benefit.

The benefit year remains in existence either until the authorized benefit rights are exhausted or until 12 months have passed since the date of its establishment, whichever occurs first.

The amount of benefit paid on benefit years terminated, as presented in Table 24, is secured by multiplying each daily rate of benefit by the number of days paid at that rate on the ledger cards representing benefit years upon which benefit was drawn. Benefit years terminated during 1952 and 1953 and benefit days paid on those benefit years are classified, in Table 25, by duration of benefit paid.

Table 26 classifies benefit years terminated by daily rate of benefit authorized. The daily rate of benefit is determined by the amount of the daily average contribution paid on behalf of the claimant during the most recent 180 contribution days and by whether or not he has a dependant within the meaning of the Act.

Table 27 shows benefit years terminated and benefit days paid on them by age of claimant; and benefit years terminated by cause of termination and age of claimant. Benefit years terminated during 1953 and benefit days paid on them are classified by industry and age in Table 28 and by occupation for 1952 and 1953 in Table 29.

## 23.-Persons Insured under the Unemployment Insurance Act, by Industrial Group and Sex, 1952 and 1953

Note.-These figures include only persons who exchanged an unemployment insurance book or were issued a book for the first time in April. They, therefore, represent an estimate of the number, based on a 10 -p.c. sample, in insurable employment as at Apr. 1.

| Industrial Group | 1952 |  | 1953 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Male | Female |
|  | No. | No. | No. | No. |
| Agriculture. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 1.550 | 550 | 1,590 | 610 |
| Forestry and logging......... | 94,680 | 2,400 | 71,470 | 1,700 |
| Fishing, hunting and trapping....................... | 330 | 40 | 320 | - |
| Mining, Quarrying and Oil Wells- |  |  |  |  |
| Metal mining................................... | 55,350 | 1,140 | 50,280 | 1,130 |
| Fuels. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 30,410 | 740 | 23,470 | 720 |
| Non-metal mining | 7,070 | 130 | 8.260 | 150 |
| Quarrying, clay and sand pit | 2,540 3,270 | 40 | 2,490 | 50 |
| Prospecting. . . . . . . . . . . . | 3,270 | 520 | 3,840 | 520 |
| Totals, Mining, Quarrying and Oil Wells........ | 98,640 | 2,570 | 88,340 | 2,570 |

23.-Persons Insured under the Unemployment Insurance Act, by Industrial Group and Sex, 1952 and 1953-concluded

| Industrial Group | 1952 |  | 1953 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Male | Female |
|  | No. | No. | No. | No. |
| Manufacturing- |  |  |  |  |
| Food and beverages........... | 97,490 3,400 | 33,910 4,240 | 98,110 3,310 | 33,780 4,570 |
| Tobacoo and tobacco products | 15,140 | 4,240 4,750 | 3,310 16,680 | 4,570 |
| Leather products.... | 16,880 | 12,380 | 18,490 | 13,670 |
| Textile products (except clothing) | 42,290 | 25,100 | 41,980 | 25,330 |
| Clothing (textile and fur) | 34,250 | 70, 100 | 37,460 | 78,120 |
| Wood products........... | 83,560 | 8,160 | 87.810 | 8,710 |
| Paper products. | 71,280 | 11,380 | 64,790 | 11,620 |
| Printing, publishing and allied industries | 34,870 | 14,750 | 35,200 | 15,440 |
| Iron and steel products.................. | 158,860 | 17,550 | 164,440 | 19,380 |
| Transportation equipment. | 127,970 | 10,420 | 148, 180 | 13,420 |
| Non-ferrous metal products...... | 43,930 46,920 | 6,630 16,170 | 42,950 52,040 | 6,950 $\mathbf{2 1 , 1 5 0}$ |
| Non-metalic mineral products. | 25,090 | 2,870 | 25,640 | 3,270 |
| Products of petroleum and coal. | 10,700 | 980 | 10,670 | 960 |
| Chemical produats..... | 35,760 | 11,600 | 32,490 | 11,780 |
| Miscellaneous manufacturing industries | 14,790 | 9,110 | 16,250 | 10,550 |
| Totals, Manufacturing. | 863,180 | 260,100 | 896,490 | 284,170 |
| Construction- |  |  |  |  |
| General contractors. . . . . . . . . . . . . . . . | 123,980 | 3,180 | 132,760 | 3,980 |
| Special trade contractors (subcontractors) | 55,640 | 2,320 | 60,310 | 2,820 |
| Totals, Construction | 179.620 | 5,500 | 193,070 | 6,800 |
| Transportation, Storage and Communication- |  |  |  |  |
| Storage.......... | 27, 10,760 | 15,180 1 | 11,120 | 1,610 |
| Communication. | 17,450 | 29,610 | 16,710 | 30,800 |
| Totals, Transportation, Storage and Communication. | 299,340 | 46,510 | 295,570 | 48,290 |
| Public utility operation. | 30,310 | 3,860 | 30,180 | 4,130 |
| Trade- |  |  |  |  |
| Wholesale | 110,480 | 34,770 | 108,670 | 35,260 |
| Retail | 186,820 | 153,870 | 194,610 | 156,100 |
| Totals, Tra | 297,300 | 188,640 | 303,280 | 191,360 |
| Finance, insurance and real estate | 42.940 | 64,070 | 43,670 | 67,360 |
| Service- |  |  |  |  |
| Community or public. | 13,030 | 14.950 | 13,150 | 16,580 |
| Government. | 91,780 | 31,230 | 89,110 | 33,090 |
| Recreation. | 9.390 | 5,890 | 9,640 | 5,990 |
| Business. | 23,360 | 17.300 | 23,030 | 17,550 |
| Personal | 59,330 | 74,750 | 61.630 | 78,470 |
| Totals, Service. | 196,890 | 144,120 | 196,560 | 151,680 |
| Unspecified. | 21,970 | 6,460 | 6,840 | 2,050 |
| Claimants | 190,710 | 47.960 | 215,230 | 47,350 |
| Totals, All Industries. | 2,317,460 | 772,780 | 2,312,610 | 808,070 |

## 24.-Persons Establishing Benefit Years, Benefit Years Terminated, Benefit Days Paid on Benefit Years Terminated and Amount of Benefit Paid on those Benefit Years, classified by Province, 1952 and 1953.

| Province | 1952 |  |  |  | 1953 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Persons <br> Estab- <br> lishing <br> Benefit <br> Years | Benefit Years Terminated | Benefit Days Paid on Benefit Years Termin- ated | Amount <br> of Benefit <br> Paid on <br> Benefit Years <br> Terminated ${ }^{1}$ | Persons Establishing Benefit Years | Benefit Years Terminated | Benefit Days <br> Paid on <br> Benefit <br> Years <br> Termin- <br> ated | Amount of Benefit Paid on Benefit Years Terminated ${ }^{1}$ |
|  | No. | No. | No. | \$ | No. | No. | No. | \$ |
| Newfoundland..... | 17,322 | 13,270 | 705,399 | 1,966,429 | 22,418 | 18,908 | 1,133,424 | 3,663,564 |
| P. E. Island. | 3,454 | 3,377 | 219,392 | 524,661 | 4,046 | 3,826 | 265,068 | 728,634 |
| Nova Scotia. | 35,277 | 29,682 | 1,681,982 | 4,381,072 | 44,472 | 38,418 | 2,280,650 | 6,829,767 |
| New Brunswick. | 32,834 | 26,465 | 1,475,896 | 3,881,433 | 36,424 | 35,988 | 2,262,366 | 6,839,860 |
| Quebec............ | 245,365 | 218,821 | 12,495,517 | $31,788,220$ | 294,454 | 263,880 | 16,150,436 | 47,412,324 |
| Ontario. | 228,447 | 211,042 | 10,816,962 | 28,383,808 | 259,792 | 233,528 | 12,066,924 | 35,816,470 |
| Manitoba | 30,095 | 29,402 | 1,869,359 | 4,797,560 | 34,852 | 31,612 | 2,098,940 | 6,032,049 |
| Saskatchewan. | 14,883 | 14,844 | 866,873 | 2,235, 157 | 17,432 | 15,472 | 940,270 | 2,777,865 |
| Alberta. | 28,708 | 26,282 | 1,277,514 | 3,462,342 | 39,752 | 30,534 | 1,620,386 | 4,982,045 |
| British Columbia.. | 94,663 | 87,234 | 4,902,308 | 13,813,019 | 98,968 | 98,518 | 5,841,724 | 18,507,090 |
| Totals. | 731, 048 | 660, 419 | 36,311,202 | 95, 233, 701 | 852, 610 | 770,684 | 44, 660, 188 | 133,589,568 |

[^255]
## 25.-Number of Benefit Years Terminated during 1952 and 1953, classified by Duration of Benefit Payment

| Duration of Benefit Paid (days) | 1952 | 1953 | Duration of Benefit Paid (days) | 1952 | 1953 | Duration of Benefit Paid (days) | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | No. | No. | No. | No. | No. | No. | No. |
| "0" | 92,038 | 91,180 | 105-1 | 8,497 | 10,688 | 215-219. | 1,139 | 1,294 |
| 1-4 | 26,039 | 28,086 | 110-114. | 7,301 | 9,336 | 220-224. | 1,055 | 1,164 |
| 5- 9 | 30,837 | 32,042 | 115-119. | 6,504 | 8,180 | 225-229. | 986 | 1,178 |
| 10-14. | 27,032 | 28,680 | 120-124. | 5,870 | 7,296 | 230-234.... | 1,024 | 1,144 |
| 15-19. | 24,673 | 27,952 | 125-129. | 5,164 | 6,422 | 235-239. | 957 | 984 |
| 20-24. | 23,575 | 26,598 | 130-134. | 4,588 | 5,528 | 240-244. | 907 | 1,020 |
| 25-29. | 22,837 | 25,544 | 135-139. | 4,084 | 5,006 | 245-249. | 915 | 1,038 |
| 30-34. | 22,027 | 25, 048 | 140-144. | 3,581 | 4,366 | 250-254. | 822 | 912 |
| 35-39. | 40,899 | 45,934 | 145-149. | 3,325 | 3,908 | 255-259. | 802 | 904 |
| 40-44. | 30,160 | 35,368 | 150-154. | 3,012 | 3,398 | 260-264. | 793 | 892 |
| 45-49. | 28,942 | 35,108 | 155-159. | 2,720 | 3,306 | 265-269. | 855 | 1,008 |
| 50-54. | 27,442 | 34,304 | 160-164 | 2,376 | 2,928 | 270-274. | 827 | 992 |
| 55-59. | 25,879 | 33,094 | 165-169 | 2,283 | 2,418 | 275-279. | 770 | 938 |
| 60-64. | 24,456 | 30.628 | 170-174. | 1,992 | 2,308 | 280-284.... | 788 | 978 |
| 65-69. | 22,172 | 28,356 | 175-179. | 1,931 | 2,162 | 285-289. | 827 | 1,074 |
| 70-74. | 19,561 | 25,830 | 180-184.. | 1,741 | 1,976 | 290-294. | 862 | 1,056 |
| 75-79. | 17,675 | 23,310 | 185-189. | 1,596 | 1,928 | 295-299... | 1,009 | 1,110 |
| 80-84. | 15,552 | 21,096 | 190-194. | 1,496 | 1,700 | 300 or over | 2,182 | 3,232 |
| $85-89$. | 14,048 | 19.014 | 195-199... | 1,367 | 1,660 |  |  |  |
| $90-94$ | 12,889 | 16,776 | 200-204... | 1,311 | 1,590 |  |  |  |
| 95-99 | 11,205 | 14,604 | 205-209 | 1,234 | 1,388 |  |  |  |
| 100-104. | 9,742 | 12,394 | 210-214. | 1,246 | 1,328 | Totals... | 660,419 | 770,684 |

## 25.--Benefit Years Terminated During 1952 and 1953, and Benefit Days Paid on those Benefit Years, classified by Daily Rate of Benefit Authorized and Dependency Status.

| Daily Rate of Benefit and Dependency Status | 1952 |  | 1953 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Benefit Years Terminated | Benefit Days Paid | Benefit Years Terminated | Benefit Days Paid |
|  | No. | No. | No. | No. |
| With Dependant- |  |  | 76 | 4.502 |
| \$0.80.. | 660 | 3,345 49,024 | 518 | 41,826 |
| \$1.70. | 3,039 | 211,888 | 1,022 | 73,118 |
| \$200. | 100 | 5,696 | 1,464 | 115,802 |
| \$2-15. | 9,297 | 628,868 | 2,818 | 184,420 |
| \$2.50. | 198 | 11,484 | 3,820 | 298,610 |
| \$2-60. | 30,683 | 1,873,775 | 9,576 | 584,544 |
| \$3.00. | 480 | 25,220 | 11, 636 | 857,088 |
| \$3.05. | 160,152 | 8,672,414 | 51,520 | 2,840,358 |
| \$3.50. | 98,613 | 5,343,042 | 156,666 | 8,972,238 |
| \$4.00. | 1,818 | 103,289 | 129,192 | 8,103,686 |
| Totals, With Dependant..... | 305,085 | 16,928,045 | 368,308 | 22,076,192 |
| Without Dependant- |  |  |  |  |
| \$0.70. | 376 | 20,912 | 314 | 20,430 |
| \$1-00. | 5,935 | 330,376 | 3,980 | 230,680 |
| \$1-35. | 29,625 | 1,635,195 | 10,630 | 504,346 |
| $\$ 1.45$. | 895 | 49,056 | 14,258 | 883,054 |
| \$1-70. | 52,411 | 2,929,569 | 19,414 | 937,558 |
| \$1.80. | 1,148 | 64,060 | 24,560 | 1,547,484 |
| $\$ 2.05$. | 71,026 | 3,958,071 | 29,454 | 1,473, 208 |
| \$8.15. | 1,272 | 68,684 | 36,754 | 2,345,140 |
| 52.40 | 138,410 | 7,311,891 | 61,628 | 2,928,998 |
| \$2.50. | 1,870 | 102,953 | 75,290 | 4,687,934 |
| \$2.70. | 51,048 | 2,838,708 | 49,548 | 2,372,304 |
| \$2.85 | 1,318 | 73,682 | 76,546 | 4,652,860 |
| Totals, Without Dependan | 355,334 | 19,383,157 | 402,376 | 22,583,996 |
| Grand Totals. | 660,419 | 36,311,202 | 770,684 | 44,660,188 |

27.-Benefit Years Terminated during 1952 and 1953, Benefit Days Paid on those Benefit Years, Benefit Years Terminated by Cause, classified by Age of Claimant

| Age Group | 1952 |  |  |  | 1953 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Benefit Years Terminated | Days <br> Paid on Benefit Years Terminated | Benefit Years Terminated |  | Benefit Years Terminated | Days <br> Paid on <br> Benefit Years Terminated | Benefit Years Terminated |  |
|  |  |  | Lapsed | $\underset{\text { hausted }}{\text { Ex- }}$ |  |  | Lapsed | $\begin{gathered} \text { Ex- } \\ \text { hausted } \end{gathered}$ |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| Under 20 year | 33,287 | 1,276,518 | 18,728 | 14,559 | 37,014 | 1,444, 648 | 18,584 | 18,430 |
| 20-24 | 119,491 | 5,430,203 | 90,405 | 29,086 | 137,368 | 6,535,834 | 97,698 | 39,670 |
| 25-29 | 98,826 | $4,790,252$ | 77.375 | 21,451 | 118,752 | 6,094,904 | 88,568 | 30,184 |
| 30-34 " | 78,795 | 3,811,188 | 61,343 | 17,452 | 94,956 | 4,917,320 | 70,828 | 24,128 |
| 35-39 " | 64,919 | 3,201,431 | 49,282 | 15,637 | 77,696 | 4,118,432 | 56.062 | 21,634 |
| 40-44 " | 59,820 | 3,075,540 | 44, 288 | 15,532 | 69.474 | 3,757,308 | 49,408 | 20.066 |
| 45-49 " | 51,557 | 2,767,679, | 37,306 | 14,251 | 59,952 | 3,429,448 | 41,996 | 17,956 |
| $50-54$ $55-59$ | 44,249 33,485 | 2,544.383 | 31,039 22 | 13,210 | 51.394 | 3,156,684 | 34,454 | 16,940 |
| 60-64 « $\quad$..... | 39,485 29,015 | 2,184,548 | 21,189 17 | 11,296 11 | 38,900 31,462 | 2,627,500 | 24,732 | 14,168 |
| 65-69 " | 26,245 | 2,878,095 | 13,882 | 12,363 | 28,886 | 3,394,474 | 18,449 14,942 | 13,022 13,944 |
| 70 or over. | 14,831 | 1,882,022 | 6,993 | 7,838 | 16,704 | 2,245,920 | +7,606 | 13,944 9,098 |
| Unspecified....... | 5,899 | 330,823 | 4,217 | 1,682 | 8,126 | 452,950 | 5,678 | 2,448 |
| Totals, All Ages... | C6e,419 | 36,311,202 | 474,714 | 185,705 | 770,484 | 44,660,188 | 578,996 | 241,688 |

## 28.-Benefit Years Terminated during 1953 and Benefit Days Paid on those Benefit Years, classified by Industrial Group and Age of Claimant

| Industrial Group | Benefit Years Terminated |  |  | Benefit Days Paid |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 25 Years of Age | 25-59 <br> Years <br> of Age | 60 Years of Age or Over | Under 25 Years of Age | 25-59 <br> Years <br> of Age | 60 Years of Age or Over |
|  | No. | No. | No. | No. | No. | No. |
| Agriculture | 934 | 2,318 | 328 | 45,234 | 143,252 | 23,406 |
| Forestry and logging | 22,400 | 61,030 | 6,038 | 1,077,990 | 3,262,120 | 414,206 |
| Fishing, hunting and trapping | 116 | 818 | 96 | 5,446 | 53,060 | 8,092 |
| Mining, Quarrying and Oil Wells- |  |  |  |  |  |  |
| Metal mining. .................. | 1,568 | 5,366 | + 5988 | 74,114 | 347,010 342,80 | 72,918 |
| Fuels.......... | 1,406 306 | 9,478 1,104 1,2 | $\begin{array}{r}1,658 \\ \hline 204\end{array}$ | 50,254 15,362 | 342,820 60,392 | 149,812 22,786 |
| Non-metal mining........... Quarrying, clay and sand pits | 306 306 | 1,104 1,218 | 204 218 | 15,362 16,390 | 60,392 <br> 79,068 | 22,786 22,780 |
| Prospecting................... | 88 | 216 | 22 | 2,884 | 11,036 | 2,310 |
| Totals, Mining, Quarrying and Oil Wells. | 3,674 | 17,382 | 2,700 | 159,004 | 840,326 | 270,606 |
| Manufacturing - |  |  |  |  |  |  |
| Food and beverages. | 9,780 | 22,072 | 3,602 | 439,142 | 1,276,926 | 404,776 |
| Tobacco and tobacco products......... | 714 1,552 | 1,494 <br> 3,416 | 140 228 | 39,636 52,538 | 89,506 115,476 | 16,834 25,122 |
| Rubber products....................... | 1,552 2,654 | 3,416 5,046 | 7228 | 52,538 109,314 | 115,476 226,300 | 25,122 |
| Leather products . Textile products (except clothing)...... | 7,680 | 13,888 | 1,294 | 360,850 | 658,644 | 149,380 |
| Clothing (textile and fur)............. | 9,010 | 24, 212 | 2,438 | 367,838 | 1,160,090 | 201,762 |
| Wood products.. | 7,294 | 22,760 | 4,550 | 327,378 | 1, 201,744 | 423,010 |
| Paper products................... | 4,372 | 11,862 | 1,406 | 201,028 | 575,760 | 186,934 |
| Printing, publishing and allied industries. | 1,788 | 3,458 | 638 | 65,808 | 207,670 | 89,264 |
| Iron and steel products. | 6,958 | 23,144 | 3,230 | 303, 128 | 1,048,990 | 402,986 |
| Transportation equipruent............. | 8,244 | 30,644 | 3,516 | 322,024 | 1, 1892,544 | 306,186 |
| Non-ferrous metal products........... | 1,258 | 3,404 | 356 | 56,536 | 183,724 | 51,728 |
| Electrical apparatus and supplies...... | 2,420 | 5,448 4,506 | ${ }_{6}^{428}$ | 102,800 84,368 | 251,952 | 62,996 80,322 |
| Non-metalic mineral products | 1,952 | 4,444 | 140 | 84,816 2,816 | 25,356 | 27,024 |
| Chemical products..................... | 1,326 | 3,746 | 400 | 61,532 | 234,410 | 59,588 |
| Miscellaneous manufacturing industries | 1,830 | 3,492 | 424 | 76,748 | -174,888 | 48,080 |
| Totals, Manufacturing | 68,936 | 183,036 | 24,194 | 2,973,484 | 8,749,862 | 2,601,432 |
| Construction- |  |  |  | 850,804 | 4,686, 188 | 995,848 |
| General contractors.. | 16,496 | 79,160 | 12,170 | 850,804 | 4,086,188 | 995,848 |
| Special trade contractors (subcontractors) | 6,226 | 18,982 | 2,174 | 272,198 | 965,742 | 180,704 |
| Totals, Construction................ | 22,722 | 98,142 | 14,344. | 1,123,002 | 5,651,930 | 1,176,552 |
| Transportation, Storage and Communi-cation- |  |  |  |  |  |  |
| Transportation. | 12,604 | 37,720 1,200 | 6,964 236 | 627,368 22,360 | $\begin{array}{r}2,274,982 \\ 65,754 \\ \hline\end{array}$ | $1,127,138$ 29,842 |
| Storage......... | 1,350 | 1,662 | 146 | 71,498 | 132,160 | 22,560 |
| Totals, Transportation, Storage and Communication | 14,426 | 40,582 | 7,346 | 721,226 | 2,472,896 | 1,179,540 |
| Public utility operation.................. | 1,088 | 3,138 | 686 | 50,800 | 211,970 | 102,438 |
| Trade- |  |  |  |  |  |  |
| Wholesale. | $\begin{array}{r} 4,946 \\ 16,980 \end{array}$ | $\begin{aligned} & 12,902 \\ & 32,970 \end{aligned}$ | $\begin{aligned} & 1,950 \\ & 4,920 \end{aligned}$ | $\begin{aligned} & 215,916 \\ & 777,432 \end{aligned}$ | $\begin{array}{r} 782,368 \\ 2,118,638 \end{array}$ | $\begin{aligned} & 248,712 \\ & 599,234 \end{aligned}$ |
| Totals, Trade | 21,926 | 45,872 | 6,870 | 993,348 | 2,901,006 | 847,946 |

28.-Benefit Years Terminated during 1953 and Benefit Days Paid on those Benefit Years, classified by Industrial Group and Age of Claimant-concluded

| Industrial Group | Benefit Years Terminated |  |  | Benefit Days Paid |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|} \hline \text { Under } \\ 25 \text { Years } \\ \text { of Age } \end{array}$ | $25-59$ Years of Age | 60 Years of Age or Over | $\begin{aligned} & \text { Under } \\ & 25 \text { Years } \\ & \text { of Age } \end{aligned}$ | 25-59 Years of Age | $\begin{array}{\|l} 60 \text { Years } \\ \text { of Age } \\ \text { or Over } \end{array}$ |
| Finance, insurance and real estate....... | No. 2,346 | No. 3,868 | No. 904 | No. 93,248 | No. $262,202$ | No. $140,338$ |
| Service- |  |  |  |  |  |  |
| Community or public | $\begin{array}{r}888 \\ 4.356 \\ \hline\end{array}$ | 18,910 | 1,794 | 35,028 233,018 | 1,261,424 | 155,206 536,302 |
| Recreation. | 920 | 2,706 | 906 | 42,198 | 176,590 | 83,208 |
| Business. | 826 | 2,610 | 742 | 32,468 | 155,124 | 69,874 |
| Personal. | 8,124 | 24,522 | 4,462 | 358,870 | 1,556,650 | 489,606 |
| Totals, Service. | 15,114 | 53,034 | 13,276 | 701,582 | 3,431,284 | 1,334,196 |
| Cospecified. | 700 | 1,904 | 270 | 36,118 | 121,688 | 26,408 |
| Totals, All Industries ${ }^{1}$. | 174,382 | 511,124 | 77,052 | 7,980,482 | 28,101,596 | 8,125,160 |

[^256]29.-Benefit Years Terminated during 1952 and 1953 and Benefit Days Paid on those Benefit Years, classified by Occupation Group

| Occupation Group | 1952 |  | 1953 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Benefit Years Terminated | Benefit Days Paid | Benefit Years Terminsted | Benefit Days Paid |
|  | No. | No. | No. | No. |
| Managerial. | 5,002 | 319,160 | 5,886 | 430,668 |
| Professional. | 3,626 | 205,785 | 5,030 | 298,036 |
| Clerical. | 43,430 | 2,581,870 | 50,906 | 3,217,318 |
| Transportation. | 49,063 | 2,756,183 | 68, 822 | 4,157, 250 |
| Communication | 3,823 | 253,325 | 4,802 | 343,196 |
| Commercial | 34,567 | 2, 106,898 | 37, 292 | 2,305,376 |
| Financial . . . . . . . . . . . . . . . . | 5374 | 12,517 | , 352 | 21,000 |
| Service (other than professional) | 53,678 | 3,582,413 | 62,414 | 4,415, 132 |
| Personal (other than domestic) | 25,018 | 1,624,848 | 26,854 | 1,865,282 |
| Domestic. | 20,470 | 1,298,635 | 24,888 | 1,658,876 |
| Protective | 7,102 | 599,676 | 9,330 | 808,778 |
| Agricultural. | 1, 2,658 | 65,856 160,929 | 1,348 3,486 | $\begin{array}{r}84,202 \\ 214 \\ \hline 806\end{array}$ |
| Fishing, trapping, and logging | 40,482 | 1,946,277 | 65,604 | 3,492,056 |
| Fishing and trapping...... | . 805 | 48,837 | -982 | 3, 66,558 |
| Logging (including forestry) | 39,677 | 1,897,440 | ${ }_{6+6}{ }^{\prime} .628$ | 3,425,504 |
| Mining.................... | 11,492 | 517,859 | 18,482 | 958,778 |
| Manufacturing and mechanical.... | 168,807 | 8,243,547 | 162,972 | 8,064,692 |
| tionary enginemen.. | 9,845 | 571,703 | 12,854 | 830,910 |
| Construction. | 73,690 | $4.183,165$ | 88,980 | 5,235, 060 |
| Labourers. | 150.915 | 8.428,073 | 173,704 | 10,125,730 |
| Unspecified | 9,068 | 441,498 | 9,098 | -550,180 |
| Totals, All Oceupations | c6e,419 | 36,311,202 | 778,684 | 44,660, 188 |

Employment Service.-The Unemployment Insurance Commission operates a free employment service under authority of the Unemployment Insurance Act, 1940. The public employment offices, which had functioned under a joint federalprovincial arrangement for more than two decades, were taken over by the

Commission on Aug. 1, 1941, and added offices were established in all provinces, except Quebec. The Commission established its own offices in Quebec and the provincial government thereupon reduced the number of its offices.

## 30.-Applications for Employment, Positions Offered and Placements Effected by Employment Offices, 1943-53, and by Province, 1950-53

Note.-Figures by provinces from 1920-49 are given in the corresponding table of previous Year Books, commencing with the 1926 edition. Totals for 1920-37 are given in the 1938 edition, p. 766; for 1938 in the 1939 edition, p. 802; and for 1939-42 in the 1951 edition, p. 686 .

| Year and Province | Applications Registered |  | Vacancies Notified |  | Placements Effected |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females | Males | Females |
|  | No. | No. | No. | No. | No. | No. |
| 1943. | 1,681,411 | 1,008,211 | 2,002,153 | 1,034,447 | 1,239,900 | 704,126 |
| 1944. | 1,583,010 | 902,273 | 1,779,224 | 1,949,547 | 1,101,854 | 638,063 |
| 1945 | 1,855,036 | 661,948 | 1,733,362 | 687,886 | 1,095,641 | 397,940 |
| 1946. | 1,464,533 | 494,164 | 1,335,200 | 567,331 | 624,052 | 235,360 |
| 1947. | 1,189,646 | 439,577 | 1,060,134 | 476,643 | 549,376 | 220,473 |
| 1948. | 1,197,295 | 459,332 | 794,207 | 391,385 | 497,916 | 214,424 |
| 1949. | 1,295,690 | 494,956 | 652,853 | 373,837 | 464,363 | 219,816 |
| 1950 | 1,500,763 | 575,813 | 800,611 | 363,711 | 559,882 | 230,920 |
| 1951 | 1,541,208 | 623,467 | 943,773 | 387,795 | 655,933 | 262,305 |
| 1952. | 1,781,689 | 664,485 | 865,152 | 444,926 | 678,511 | 302,786 |
| 1953. | 1,980,918 | 754,358 | 822,852 | 466,310 | 661,167 | 332,239 |
| Newioundland........ 1950 | 36,862 | 1,944 | 3,107 | 388 | 1,604 | 169 |
| 1951 | 27,359 | 1,735 | 3,472 | 563 | 2,175 | 295 |
| 1952 | 33,341 | 2,282 | 6,419 | 586 | 5,191 | 406 |
| 1953 | 39,421 | 2,669 | 2,551 | 628 | 2,980 | 433 |
| Prince Edward Island.. 1950 | 8,492 | 3,337 | 4,868 | 2,262 | 4,283 | 1,678 |
| 1951 | 7,800 | 3,726 | 4,351 | 2,990 | 3,576 | 2,370 |
| 1952 | 8,780 | 4,298 | 4,942 | 3,612 | 4,091 | 2,750 |
| 1953 | 9,989 | 5,003 | 4,561 | 4,296 | 4,101 | 3,331 |
| Nova Scotia. . . . . . . . 1950 | 62,665 | 19,483 | 19,408 | 10,942 | 16,548 | 7,535 |
| 1951 | 63,025 | 20,038 | 26,643 | 12,493 | 21,649 | 8.880 |
| 1952 | 75,374 | 20,738 | 29,472 | 13,548 | 27,344 | 9,870 |
| 1953 | 81,892 | 23,114 | 25,016 | 13,914 | 24,050 | 10,984 |
| New Brunswick. . . . . 1950 | 68,647 | 17,611 | 24,632 | 8,118 | 19,094 | 5,821 |
| 1951 | 59,036 | 16,897 | 33,157 | 9,435 | 23,059 | 6,891 |
| 1952 | 79,552 | 20,223 | 34.145 | 10,794 | 27,289 | 7,900 |
| 1953 | 87,215 | 22,333 | 29,450 | 10,356 | 23,269 | 7,765 |
| Quebec............... 1950 | 393,371 | 139,535 | 164,240 | 82,075 | 104,533 | 46,905 |
| 1951 | 409,910 | 156,213 | 255,863 | 92,036 | 165,120 | 58,859 |
| 1952 | 509,560 | 161,985 | 232,625 | 114,688 | 179,487 | 72,484 |
| 1953 | 574,921 | 195,365 | 223,266 | 121,627 | 174,902 | 84,972 |
| Ontario................ 1950 | 488,571 | 205,200 | 351,171 | 151,514 | 240,540 | 96,758 |
| 1951 | 523,880 | 231, 214 | 366.206 | 150,912 | 249,995 | 102,145 |
| 1952 | 560,228 | 240,034 | 296,160 | 154,032 | 233,702 | 105,694 |
| 1953 | 648,590 | 266,441 | 303,191 | 164,076 | 245,080 | 114,088 |
| Manitoba. . . . . . . . . 1950 | 90,234 | 47,853 | 49,671 | 29,335 | 35,806 | 20,473 |
| 1951 | 81,496 | 46,799 | 50,269 | 30,681 | 34,574 | 21,595 |
| 1952 | 91,090 | 47,685 | 47,856 | 33,158 | 34,794 | 22,309 |
| 1953 | 99,629 | 59,396 | 45,820 | 38,480 | 33,418 | 27,958 |
| Saskatchewan........ 1950 | 55,621 | 23,732 | 33,915 | 14,679 | 25,262 | 9,720 |
| 1951 | 51,860 | 22,664 | 37,184 | 16,073 | 27,179 | 10,327 |
| 1952 | 56,703 | 23,744 | 41,467 | 18,653 | 29,923 | 11,666 |
| 1953 | 62,808 | 24,610 | 39,689 | 18,079 | 30,279 | 11,540 |
| Alberta................ 1950 | 97,443 | 40,061 | 66,436 | 28,374 | 52,224 | 18,593 |
| 1951 | 98,375 | 43,108 | 77,954 | 31,906 | 59,435 | 21,986 |
| 1952 | 111,219 | 45,934 | 82,990 | 39,054 | 63,241 | 25,882 |
| 1953 | 124,261 | 49,750 | 69,813 | 35,546 | 55,662 | 24,499 |
| British Columbia...... 1950 | 198,857 | 77,057 | 83,163 | 36,024 | 59,988 | 23,268 |
| 1951 | 218,467 | 81,073 | 88,674 | 40,706 | 69,171 | 28,957 |
| 1952 | 255,842 | 97,552 | 89,076 | 56,801 | 73,449 | 43,825 |
| 1953 | 252,192 | 105,677 | 79,495 | 59,308 | 67,426 | 46,669 |

## Section 6.-Vocational Training*

The Federal Department of Labour, in co-operation with the provincial governments, carries on the following types of training: (1) youth training; (2) assistance to students by way of bursaries; (3) apprenticeship; (4) training of unemployed persons; (5) assistance to the provinces for vocational schools; (6) training of military personnel; and (7) training of workers for defence industries.

The Vocational Training Advisory Council, appointed under authority of the Vocational Training Co-ordination Act, 1942, advises the Minister of Labour on the general aspects of training plans. The Council is representative of employers, organized labour, vocational education and of veterans' and women's organizations. In November 1952, an Advisory Committee on Apprenticeship Training was appointed to advise the Minister on special problems of apprenticeship and industrial training.

Youth Training.-The youth training program consists, for the most part, of various general and specialized courses for rural young people in agriculture, home crafts and handicrafts and other related subjects.

Federal Government allotments to the different provinces for this type of training for the year ended Mar. 31, 1953, together with claims paid, including commitments from previous years, to Apr. 30, 1953, were as follows:-

| Province | Allotment | Payment | Province | Allotment | Payment |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Newioundland. | 11,375 | 13,670 | Manitoba. | 20,000 | 12,074 |
| Prince Edward Island. | 7,300 | 8,710 | Saskatchewan. | 45,000 | 43,769 |
| Nova Scotia. | 30,447 | 24,110 | Alberta. | 40,000 | 29,573 |
| New Brunswick...... | 40,225 | 39,925 | British Columbia..... | 52,500 | 50,677 |
| Quebec................ | 177,753 | 182,921 |  |  |  |
| Ontario............... | 100,000 | 100,000 | Totars........... | 524,600 | 505,430 |

Assistance to Students.-Under the Youth Training Division of the Vocational Training Agreement with each province, assistance may be provided for nurses-in-training at hospitals and for university students in courses leading to a degree who have good academic standing but who, without financial assistance, cannot continue training. At the discretion of the provincial authorities, assistance may be given in the form of a grant or loan, or a combination of the two.

The value of Federal Government assistance for such purposes may he assessed from the following approximate amounts paid to the provinces during the year ended Mar. 31, 1953:-

| Province | Amount | Province | Amount |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
|  | \$ |  | \$ |
| Newfoundland. | 11,375 | Manitoba. | 6,170 |
| Prince Edward Island | 7,346 | Saskatchewan. | 29,375 |
| Nova Scotia. | 8,468 | Alberta. | 13,205 |
| New Brunswick. | 14,650 | British Columbia. | 32,530 |
| Quebec.. | 121,493 |  |  |
| Ontario. | 100,000 | Total. | 344,612 |

[^257]Financial help was given to 698 nurses-in-training and to 3,965 students at universities. Included in the total number of university students were 1,056 taking courses in medicine and veterinary medicine, 89 in dentistry, 916 in applied science and engineering, 147 in agriculture and 707 in arts and science. Total federal payments in the past 14 years, amounting to $\$ 2,663,069$, have assisted 31,337 students.

Apprenticeship Training.-Apprenticeship agreements are in effect with all provinces except Newfoundland, Prince Edward Island and Quebec. Of the trades designated under the provincial Acts, emphasis is being given to the building and construction trades. In some provinces, certain categories of apprentices are given full-time training of a practical as well as a technical nature for a period of one to three months each year. For other categories, part-time training is given either in afternoon or evening classes for about seven months of the year. Provision is made with employers for adequate supervision of apprentices working on the job by the appointment of instructor-supervisors who instruct full-time classes for six to eight months and supervise for the remaining part of the year. Use is also made of trade advisory committees. Costs are shared equally by the province concerned and the Federal Government. At Mar. 31, 1953, the total number of apprentices registered was 11,746 in the seven provinces having agreements with the Federal Government.

Federal Government allotments made for the year ended Mar. 31, 1953, and claims paid (including commitments from previous years) to Apr. 30, 1953, to the different provinces, were as follows:-

| Province | Allotment | Payment | Province | Allotment | Payment |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | 8 | \$ |
| Nova Scotia.. | 39,500 | 24,133 | Saskatchewan. | 64,000 | 58,496 |
| New Brunswick. | 40,000 | 44,064 | Alberta. | 317,600 | 316,077 |
| Ontario. | 290,000 | 248,079 | British Columbia. | 33,500 | 37,515 |
| Manitoba. | 62,500 | 46,338 | Totals... | 847,100 | 774,702 |

Assistance for Vocational Schools.-A ten-year agreement for vocational school assistance was signed in 1945 by nine provinces and, in 1950, an agreement was made with Newfoundland. The following payments are made by the Federal Government:-
(1) An annual grant of $\$ 10,000$ to each province;
(2) an annual allotment of $\$ 1,965,800$ distributed among the ten provinces in accordance with the number of young persons in each province in the age-group 15-19 years;
(3) a special allotment of $\$ 10,292,250$ to be used for capital expenditure for building and equipment and to be distributed among the provinces on the same basis as the annual allotment.

All federal allotments, except the annual grant under item (1), must be matched by an expenditure of equal amount by the provincial government concerned.

The assistance given by this agreement has resulted in marked expansion of vocational training across the country. Federal approval has been given to 120 vocational building projects consisting of new schools or vocational additions to existing schools. Of these, 104 were completed by Mar. 31, 1953. Provision has been made for young people in rural areas of facilities for training in homemaking and related subjects, vocational agriculture, and farm mechanics. Since the beginning of the agreement, total federal payments under the annual allotment have amounted to approximately $\$ 14,910,994$ and capital payments for buildings and equipment to about $\$ 9,224,027$. Federal annual and capital allotments to each province, together with the amount of claims paid during the year ended Mar. 31, 1953, were as follows:-

| Province | Annual Allotment |  | SpecialCapital Allotment(Building and Equipment) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Allotment | Payment | Allotment | Payment |
|  | \$ | \$ | $\$$ | \$ |
| Newfoundland. | 66,600 | 56,737 | 292,250 | - |
| Prince Edward Island. | 25,500 | 25,500 | 82,000 | - |
| Nova Scotia. | 106,000 | 63,901 | 504,300 | 2,294 |
| New Brunswick. | 89,800 | 89,800 | 433,000 | - |
| Quebec. | 638,100 | 728,890 | 3,139,400 | - |
| Ontario. | 597,500 | 597,500 | 3,031,500 | 1,076,538 |
| Manitobs. | 116,500 | 116,680 | 656,000 | 44,053 |
| Saskatchewan. | 137,500 | 152,898 | 858,200 | 11,115 |
| Alberta. | 147,600 | 147,600 | 700,200 | - |
| British Columbia. | 140,700 | 140,700 | 595,400 | - |
| Totals. | 2,065,800 | 2,120, 205 | 10,292, 250 | 1,134,000 |

[^258]Training of Unemployed Persons.-The Canadian Vocational Training and Co-ordination Act provides for the training of unemployed persons in receipt of unemployment insurance benefits. An amendment passed in 1948 extends the provisions to include those not in receipt of unemployment insurance benefits. The schedule covering the training of unemployed persons was accepted by all provinces, but training has not been carried out in Newfoundland or Prince Edward Island, the need for it not having arisen. Approved costs are shared equally by the province concerned and the Federal Government, the province recommending to the Federal Minister of Labour the scale of training allowances that should be paid.

In the year ended Mar. 31, 1953, approximately 130,497 days' training was given to 1,805 individuals. At the end of that year, 689 were under training The largest enrolment was in classes for nurses' aides. No training under this heading was given for the designated apprentice trades.

Federal Government allotments to the different provinces for this type of training for the year ended Mar. 31, 1953, together with claims paid (including commitments from previous years) to Apr. 30, 1953, were as follows:-

| Province | Allotment | Payment | Province | Allotment | Payment |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Newfoundland. | 3,625 | - | Manitoba. | 25,000 | 16.228 |
| Nova Scotia. | 85,000 | 60,473 | Saskatchewan. | 31,000 | 25,923 |
| New Brunswick | 36,700 | 34,941 | Alberta. | 60,000 | 50,879 |
| Quebec. . | 15,000 | 13,940 | British Columbia | 15,000 | 7,528 |
| Ontario.. | 34,000 | 17,841 | Totals. | 303,325 | 227,754 |

Training of Military Personnel.-Provision is made for the training of service tradesmen in such categories as might be requested by the Department of National Defence and for whom the provincial governments have the necessary training facilities. Training during 1952-53 was on a comparatively small scale, with an enrolment of 713 trainees in the Provinces of New Brunswick, Quebec, Ontario, Manitoba and Alberta. Training was given to driver-mechanics, motorvehicle mechanics and electrical mechanics for the Army and in telecommunications for the RCAF. The entire cost of this type of training is paid by the Federal Government. Allotments made for the year ended Mar. 31, 1953, and claims paid (including commitments from previous years) to Apr. 30, 1953, were as follows:-

| Province | Service | Allotment | Payment |
| :---: | :---: | :---: | :---: |
|  |  |  | 8 |
| New Brunswick. | Army | 16,000 | 12,586 |
| Quebec... | Army | 7,542 | 6,800 |
| Ontario.. | Air Force | 30,000 | 12,149 |
| Manitoba. | Army | 30,000 | 11,541 |
| Alberta. | Army | 55,000 | 41,094 |
| Totals. |  | 138,542 | 84,170 |

Training of Workers for Defence Industries.-Agreements have been entered into with the Provinces of British Columbia, Alberta, Manitoba, Ontario, Quebec, New Brunswick and Nova Scotia and special classes for the training of workers in defence industries have been established. Such classes have been organized in aircraft sheet-metal work, machine-shop practice and machine-tool operations, welding and drafting. Industrial establishments are being encouraged to organize and operate plant-training programs and special pre-employment classes may be set up to meet any general need that may develop. Federal Government allotments and payments made for the year ended Mar. 31, 1953, were as follows:-

| Province | Allotment | Payment |
| :---: | :---: | :---: |
|  | $\$$ | \$ |
| Nova Scotia. | 65,250 | 46,303 |
| New Brunswick | 20,231 | 19,521 |
| Quebec... | 35,000 | 14,087 |
| Ontario.. | 75,000 | 6,856 |
| Manitoba. | 3,750 | 1 |
| Alberta... | 10,000 | 3,823 |
| British Columbia | 15,000 | 11,461 |
| Totals. | 224,231 | 102,050 |

[^259]
## Section 7.-Industrial Accidents and Workmen's Compensation

Subsection 1.-Fatal Industrial Accidents

Statistics of fatal industrial accidents have been compiled by the Federal Department of Labour since 1903. The data are now obtained from provincial Workmen's Compensation Boards, the Board of Transport Commissioners and other government authorities, departmental correspondents and from press reports.
31.-Fatal Industrial Accidents, by Industry, 1950-53
(Includes Newfoundland since Apr. 1, 1949)

| Industry | Numbers |  |  |  | Percentages of Total |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 | 1951 | 1952 | 19530 | 1950 | 1951 | 1952 | 1953 ${ }^{\text {p }}$ |
| Agriculture.. | 60 | 102 | 102 | 119 | 4.7 | 7.2 | 7.0 | 8.8 |
| Logging. | 160 | 181 | 177 | 167 | 12.5 | 12.8 | 12.2 | 12.4 |
| Fishing and trapping. . . . . . . . . . | 42 | 21 | 21 | 36 | $3 \cdot 3$ | 1.5 | 1.5 | 2.7 |
| Mining, non-ferrous smelting and quarrying | 173 | 191 | 212 | 188 | 13.6 | 13.5 | 14.6 | 14.0 |
| Manufacturing. | 247 | 232 | 236 | 243 | 19.3 | 16.4 | 16.3 | 18.1 |
| Construction. | 160 | 215 | 247 | 228 | 12.5 | 15.2 | 17.0 | 16.9 |
| Electric light and power. | 62 | 31 | 43 | 34 | 4.9 | $2 \cdot 2$ | 3.0 | $2 \cdot 5$ |
| Transportation and public utilities. | 199 | 243 | 254 | 180 | 15.6 | 17.2 | 17.5 | 13.4 |
| Trade... | 54 | 53 | 48 | 60 | $4 \cdot 2$ | 3.7 | $3 \cdot 3$ | 4.5 |
| Finance. | - | 5 | 1 | 4 | - | 0.3 | $0 \cdot 1$ | 0.3 |
| Service. | 120 | 141 | 108 | 86 | 9.4 | 10.0 | 7.5 | 6.4 |
| Totals. | 1,277 | 1,415 | 1,49 | 1,345 | 100.0 | 100.0 | $100 \cdot 0$ | 100.0 |

Causes of Industrial Fatalities.-Preliminary figures indicate that, during 1953, 386 fatal accidents to gainfully employed persons were the result of being "struck by tools, machinery, moving vehicles and other objects". Within this group 63 deaths were caused by falling trees and branches, 50 by automobiles and trucks, 29 by landslides and cave-ins, and 28 by objects falling or flying in mines and quarries. Collisions, derailments, wrecks, etc., were responsible for 311 industrial fatalities. Automobiles and trucks were involved in 140 of these accidents, tractors in 54 , watercraft in 49 , aircraft in 40 , steam railways in 21 , animal-drawn vehicles in four and other agencies in three. Falls and slips were responsible for 230 deaths in industry and of these 212 were falls to different levels, including 80 resulting from falls into rivers, lakes, sea or harbours. Deaths of 27 workers were caused by falls from scaffolds and stagings, 22 by falls from buildings, roofs and towers, and 18 by falls from ladders and stairs. There were 91 deaths caused by workers being caught in, on or between parts of machinery or other agencies. Contact with electric current caused 74 deaths in industry including 65 workers who came in contact with electric wires, etc., and nine who were killed by lightning.

## Subsection 2.-Workmen's Compensation*

In all provinces, legislation is in force providing for compensation for injury to a workman by accident arising out of and in the course of employment, or by a specified industrial disease, except where the workman is disabled for fewer than a stated number of days. The Acts of all provinces provide for a compulsory system of collective liability on the part of employers. To ensure payment of compensation, each Act provides for an accident fund, administered by the province, to which employers are required to contribute at a rate determined by the Workmen's Compensation Board in accordance with the hazards of the industry. A workman to whom these provisions apply has no right of action against his employer for injury from an accident during employment. In Ontario and Quebec, public authorities, railway and shipping companies, and telephone and telegraph companies are individually liable for compensation as determined by the Board, and pay a proportion of the expenses of administration. A federal Act provides for compensation for accidents to Federal Government employees according to the conditions laid down by the Act of the province in which the accident occurs. Seamen who are not under a provincial Workmen's Compensation Act are entitled to compensation under the Merchant Seamen Compensation Act, 1946.

In all provinces, free medical aid is given to workmen during disability. Compensation is payable in all provinces for anthrax and for poisoning from arsenic, lead, mercury and phosphorus, and silicosis is compensated under certain conditions. Other diseases compensated vary according to the industries of the provinces.

Scope of the Workmen's Compensation Acts.-The Acts vary in scope but, in general, they cover construction, mining, manufacturing, lumbering, fishing, transportation and communications and the operation of public utilities. Undertakings in which not more than a stated number of workmen are usually employed may be excluded, except in Alberta and British Columbia.

Benefits.-Under each Act, except those of Saskatchewan and Alberta, if a workman is disabled from earning full wages for fewer than a stated number of days, usually called the "waiting period", he cannot recover compensation for the period of his disability or, in Manitoba and British Columbia, for the first three days of his disability. Where the disability continues beyond the required number of days, compensation is payable from the date of the accident. Medical aid is always paid from the date of the accident. In Saskatchewan and Alberta, the waiting period is one day, that is, compensation is not payable when the workman is off work only for the day on which the accident occurs. When he is disabled for any longer time, compensation begins from the day following the accident. Compensation in fatal accidents is paid as follows:-

Burial expenses: $\$ 250$ in Saskatchewan and British Columbia, $\$ 200$ in Newfoundland, Nova Scotia, New Brunswick, Ontario, Manitoba, and Alberta, \$175 in Quebec, and $\$ 150$ in Prince Edward Island. In seven provinces a further sum is allowed for transporting the workman's body.

[^260]To a widow or invalid widower (or to a foster mother as long as the children are under the age limit-a monthly payment of $\$ 75$ in Ontario and British Columbia, $\$ 60$ in Saskatchewan, $\$ 50$ in Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, and Alberta and of $\$ 45$ in Quebec. In addition, a lump sum of $\$ 200$ is paid in Ontario and of $\$ 100$ in all other provinces.

For each child in the care of a parent or foster mother receiving compensationa monthly payment of $\$ 25$ in Ontario, Saskatchewan and Alberta, $\$ 20$ in Nova Scotia, Manitoba and British Columbia, $\$ 12.50$ in Prince Edward Island, $\$ 12$ in Newfoundland and New Brunswick, and $\$ 10$ in Quebec.

For each orphan child-a monthly payment of $\$ 35$ in Ontario, $\$ 30$ in Nova Scotia, Manitoba, Saskatchewan and British Columbia, \$25 in Prince Edward Island, New Brunswick and Alberta (in Alberta, a further amount, not exceeding $\$ 10$ a month, may be given at the discretion of the Board), $\$ 20$ in Newfoundland, and $\$ 15$ in Quebec, with a maximum of $\$ 100$ a month to any one family in Prince Edward Island and of $\$ 120$ in Nova Scotia.

Invalids excepted, payments to children are not continued beyond the age of 16 years in seven of the provinces but the Board has discretion to pay compensation to the age of 18 years if it is considered desirable to continue a child's education. In Quebec, the age limit is 18 years and in New Brunswick and British Columbia, compensation is paid to the age of 18 years if a child is regularly attending school. In Nova Scotia, New Brunswick, Ontario, Manitoba, Saskatchewan and British Columbia, payments to invalid children are continued until recovery, and the other provinces make payments only for the length of time the Board considers that the workman would have contributed to their support.

Where the only dependants are persons other than consort or children, all the Acts provide that compensation is to be a reasonable sum proportionate to the pecuniary loss but the total monthly amount to be paid to all such dependants is limited to $\$ 100$ in Ontario, $\$ 85$ in Alberta, $\$ 75$ in British Columbia, $\$ 60$ in Nova Scotia and Manitoba, and $\$ 45$ in Prince Edward Island. In British Columbia, if a workman leaves dependent parents as well as a widow or orphans, the maximum payable to a parent or parents is $\$ 75$ a month. Compensation to dependants, other than consort or children, is continued only for such time as the Board considers that the workman would have contributed to their support.

Except in Alberta and British Columbia, each Act places a maximum on the total amount of benefits payable to all dependants if the workman dies. In Newfoundland, Nova Scotia and New Brunswick, the maximum is two-thirds of the workman's earnings, in Quebec and Manitoba 70 p.c., and in Prince Edward Island 75 p.c. In Ontario and Saskatchewan, the average earnings are the maximum amount payable.

Irrespective of the workman's earnings, however, compensation may not fall below certain minimum monthly amounts. The minimum payable to a consort and one child in Quebec is $\$ 55$ a month or $\$ 65$ if there is more than one child; in Manitoba, the minimum is $\$ 70$ if there is a consort and one child and $\$ 90$ if there is more than one child; in Saskatchewan, the minimum is $\$ 85$ a month to a consort
and child and $\$ 100$ if there are more children. In Newfoundland, a widow must receive at least $\$ 50$ a month with a further payment of $\$ 12$ for each child under 16 years of age unless the total exceeds $\$ 100$. In Ontario, the minimum payable to a widow is $\$ 75$ a month with a further payment of $\$ 25$ for each child, up to but not exceeding $\$ 150$ a month.

Compensation for total disablement in Newfoundland, Nova Scotia and New Brunswick is a periodical payment for the duration of the disability equal to $66 \frac{2}{3}$ p.c. of average earnings; in Quebec and Manitoba the rate is 70 p.c. of earnings; and 75 p.c. in Prince Edward Island, Ontario, Saskatchewan, Alberta and British Columbia. Except in New Brunswick, the Acts fix minimum sums to be paid for a permanent total disability. The minimum is $\$ 15$ a week in Prince Edward Island, Nova Scotia, Quebec, Manitoba and British Columbia, $\$ 20$ in Saskatchewan, and $\$ 25$ in Alberta. In Newfoundland, the minimum is $\$ 65$ a month and in Ontario, $\$ 100$ a month. If, however, average earnings are less than these minimum amounts, the amount of the earnings is paid in all provinces except Saskatchewan. For partial disablement, compensation in most provinces is a percentage of the difference in earnings before and after the accident, the percentage rate being the same as in total disablement. In New Brunswick and Alberta, the amount is determined by the Board according to the diminution of earning capacity. In all provinces except British Columbia, if the impairment of earning capacity is 10 p.c. or less, a lump sum may be given.

The average earnings on which compensation is based are limited to $\$ 4,000$ a year in Ontario, Saskatchewan and British Columbia, $\$ 3,000$ in Newfoundland, Nova Scotia, New Brunswick, Quebec, Manitoba and Alberta, and \$2,500 in Prince Edward Island. If the workman's earnings at the time of an accident are not considered a proper basis for compensation, the Board may use as a basis the average earnings of another person in the same grade of work. Compensation paid workmen under 21 years of age may be raised later, if it appears that their earning power would have increased had the injury not occurred.

Table 32 gives the number of industrial accidents reported by each of the provinces and the amount of compensation paid by the Workmen's Compensation Boards.

## 32.-Industrial Accidents Reported and Compensation Paid by Workmen's Compensation Boards, ${ }^{1}$ 1950-53

| Year and Province | Industrial Accidents Reported |  |  |  |  | Compensation Paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Medical Aid Only ${ }^{2}$ | Temporary Disability | Permanent Disability | Fatal | Total |  |
| 1950 | No. | No. | No. | No. | No. | \$ |
| Prince Edward Island | 320 | 363 | 3 |  | 686 | 43,523 |
| Nova Scotia. | 8,542 | 7,591 | 506 | 58 | 16,697 | 1,316,737 |
| New Brunswick | 5,936 | 8,828 | 231 | 28 | 15,023 | 1,187,678 |
| Quebec... |  |  |  | 197 | 86,246 | 9,241,226 |
| Ontario.. | 118,001 | 43,820 | 1,677 | 225 | 163,723 | 20,487, 396 |
| Manitoba. | 10,516 | 5,652 | 316 | 29 | 16,513 | 1,682,574 |
| Saskatchewan. | 5,610 | 5,691 | 114 | 26 | 11,441 | 1,804,606 |
| Alberta. | 18,836 | 13,804 | 577 | 120 | 33,337 | 1,085, 159 |
| British Columbia. | 43,992 | 25,852 | 1,498 | 162 | 71,504 | 12,164,699 |
| Totals | 211,753 | 111,601 | 4,922 | 845 | 415,170 | 49,013,598 |

[^261]22.-Industrial Accidents Reported and Compensation Paid by Workmen's Compensation Boards, ${ }^{1}$ 1950-53-concluded

| Year and Province | Industrial Accidents Reported |  |  |  |  | Compensation Paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Medical } \\ & \text { Aid Only }^{2} \end{aligned}$ | Temporary Disability | Permanent Disability | Fatal | Total |  |
| 1951 | No. | No. | No. | No. | No. | \$ |
|  |  |  |  |  |  |  |
| Newfoundland ${ }^{\text {a }}$. | 3.425 | 2,725 | 67 | 11 | 6,228 | 188,603 |
| Prince Edward Island. | 411 | 439 | 10 |  | . 860 | 62,204 |
| Nova Scotis.. | 9.545 | 7,503 9.234 | 482 206 | 43 27 | 17,573 15,177 | $1,298,363$ $1,287,843$ |
| New Brunswick | 5,710 | 9,234 | 206 | -27 | 15,177 | $1,287,843$ $10,838,436$ |
| Ontario. | 129,486 | 45,010 | 1,775 | 292 | 176,563 | 24,999,520 |
| Manitoba | 11,249 | 5,577 | 349 | 37 | 17,212 | 1,641,093 |
| Saskatchewan | 6,711 | 6,812 | 135 | 18 | 13,676 | 1,700,302 |
| Alberta. | 20,312 | 14,754 | 636 | 102 | 35,894 | 1,158,684 |
| British Columbia. | 40,268 | 26,023 | 1,513 | 184 | 67,988 | 11,451,445 |
| To | 227,117 | 118,077 | 5,173 | 921 | 447,011 | 54,626,493 |
| 1952 |  |  |  |  |  |  |
| Newfoundland. | 5,466 | 4,065 | 125 | 19 | 9,675 | 355,689 |
| Prince Edward Island. | 424 | 446 | 11 | 1 | ${ }^{882}$ | 66,130 |
| Nova Scotia. | 10,236 | 6,886 | 539 | 63 | 17,724 | 1,357, 622 |
| New Brunswick | 5,571 | 8,463 | 205 | 28 | 14, 267 | 929,470 |
| Quebec. . |  |  |  | 312 | 97,177 | 12,337,958 |
| Ontario. | 137,938 | 54,802 | 2,157 | 309 | 195,206 | 29,027,277 |
| Manitobs. | 11,351 | 5,522 | 337 | 36 | 17, 246 | 2,115,498 |
| Saskatchewan | 7.491 | 6,939 | 112 | 37 | 14,579 | 2,374,747 |
| Alberta. | 23,803 | 14,895 | 730 | 92 | 39,520 | 1,497,452 |
| British Columbia. | 42,855 | 25,551 | 1,391 | 240 | 70,037 | 12,902,019 |
| To | 245,135 | 127,569 | 5,607 | 1,137 | 476,313 | 62,963,862 |
| 1953 |  |  |  |  |  |  |
| Newfoundland....... | 5,6724238,887 | 3,869+432 | 512 | 16 | $\begin{array}{r}9,608 \\ \hline 85\end{array}$ | 325,334 |
| Prince Edward Island. |  |  |  |  |  | 79,523 |
| Nova Seotia.... |  | 6,798 | ${ }^{121}$ | 38 | 15,844 | 1,338,288 |
| New Brunswick |  |  |  |  | 13,805 93,306 | + 898,816 |
| Ontario. | 143,467 | $55,992$ | 2,198 | 319 | 201,976 | 31,679,315 |
| Manitoba | 10,799 | 5,253 | 320 | 42 | 16,414 | 2,495,466 |
| Saskatchewan | 8,429 | 8,951 | 222 | 46 | 17,648 | 2,118,760 |
| Alberta. | 23,522 | 17,570 | $\begin{array}{r} 749 \\ 1,253 \end{array}$ | $\begin{aligned} & 124 \\ & 207 \end{aligned}$ | 41,965 | 1,793,931 |
| British Columbis | 43,569 | 23,909 |  |  | 68,938 | 13,788,224 |
|  | 244,768 | 122,774 | 4,916 | 983 | 480,361 | 64,853,669 |

${ }^{1}$ Owing to variations in legislation and administrative methods of the various provincial Workmen's Compensation Boards, the information contained in this table is not exactly comparable as between provinces; it is however comparable from year to year for any one province. ${ }^{2}$ Accidents requiring medical treatment but not causing disability for a sufficient period to qualify for compensation; the period varies in the severa! provinces. operations on Apr. 1, 1951.

## Section 8.-Workers Affected by Collective Agreements

Statistics on the number of workers affected by collective agreements in Canada are compiled by the Department of Labour. Table $\mathbf{3 3}$ gives figures for the principal industrial groups. The second column shows the number of workers affected by agreements extended under the Quebec Collective Agreement Act (see Sect. 1, ss. 2, p. 765). Any duplication of the numbers of workers covered by agreements under this Act and by other agreements is eliminated in the third column. A more detailed table and studies of agreements in certain industries are available from the Department of Labour, Ottawa.
33.-Workers Affected by Collective Agreements, by Industry, 1952

| Industrial Group | Agreements (other than those in Column 2) | Agreements <br> Extended under Collective Agreement Act, Quebec | Total ${ }^{1}$ |
| :---: | :---: | :---: | :---: |
|  | No. | No. | No. |
| Agriculture. | 34 | - | 34 |
| Forestry | 67,843 | - | 67,843 |
| Fishing. | 10,045 | - | 10,045 |
| Mining (including milling), Quarrying and Oil Wells..... | 65,181 | 40 | 65,221 |
| Metal mining. | 35,030 | - | 35,030 |
| Fuels.. | 21, 216 | - 4 | 21, 216 |
| Non-metal mining | 7,105 | 40 | 7,145 |
| Quarrying, clay and sand pits. | 1,830 | - | 1,830 |
| Manufacturing. | 656,679 | 87,861 | 702,939 |
| Food and beverages | 62,308 | 1,663 | 63,971 |
| Tobacco products. | 5,545 | - | 5,545 |
| Rubber products. | 15,364 | - | 15,364 |
| Leather products. | 12,149 | 14,463 | 20,575 |
| Textile products (except clothing) | 44,827 | 1,336 | 45,391 |
| Clothing (textile and fur). | 50,613 | 39,777 | 67.392 |
| Wood products. | 46,836 | 5,182 | 50.659 |
| Paper products. | 59,339 | 3,162 | 61,016 |
| Printing, publishing and allied industries | 20,841 | 6,991 | 22,850 |
| Iron and steel products. | 112,761 | 3,262 | 115,330 |
| Transportation equipment. | 99,365 | 10,196 | 107,766 |
| Non-ferrous metal products. | 33,989 | 150 | 34,139 |
| Electrical apparatus and supplies | 41,951 |  | 41,951 |
| Non-metallic mineral products. | 17.247 | 709 | 17,354 |
| Products of petroleum and coal........................ .... | 9.124 |  | 9,124 |
| Chemical products. | 18,579 | 970 | 18,671 |
| Miscellaneous manufacturing industries | 5,841 | - | 5,841 |
| Construction. | 82,684 | 97,130 | 176,016 |
| Transportation, Storage and Communication | 305,820 | 8,160 | 306,253 |
| Transportation.. | 262,444 | 8,160 | 262,877 |
| Storage. | 3,501 | - | 3,501 |
| Communication. | 39,875 | - | 39,875 |
| Public Utility Operations. | 27,443 | - | 27,43 |
| Trade | 40,815 | 12,054 | 49,746 |
| Finance, Insurance and Real Estate | 1,095 | - | 1,095 |
| Service. | 92,778 | 10,681 | 101,547 |
| Totals. | 1,350,417 | 215,926 | 1,508,182 |

${ }^{1}$ Duplications in columns 1 and 2 eliminated from these totals.

## Section 9.-Organized Labour in Canada*

At the beginning of 1954, there were 1,267,911 labour union members in Canada, an increase of 4 p.c. over the figure for the previous year. The majority of the unions in Canada are affiliated with a central labour congress and their membership is listed in Table 36. In addition, each of the three largest congresses is discussed below.

Trades and Labour Congress of Canada.--The Trades and Labour Congress of Canada is the oldest of the central labour organizations in Canada. After the disbanding of the Canadian Labour Union, which had drawn together local unions

[^262]in Ontario from 1873 to 1877, inclusive, there was no central organization until 1883, when the Trades and Labour Council of Toronto called a conference of local unions and plans were made to establish a national organization which was formally set up in 1886.

Affiliated with the Trades and Labour Congress of Canada at the present time are "international" trade unions, almost all of which are also affiliated with the American Federation of Labour, a number of Canadian or "national" unions and a number of directly chartered labour unions.

Canadian Congress of Labour.-This Congress was organized in September 1940, when the All-Canadian Congress of Labour, formed in 1927, amended its constitution to permit the affiliation with the Congress of the Canadian branches of those international unions which, in the United States, are affiliated with the Congress of Industrial Organizations. The Canadian Congress includes among its members a number of unions to which it has granted charters.

Canadian and Catholic Confederation of Labour.-National Catholic unions in Canada date from 1901. In 1921, these local Catholic syndicates, grouped as far as possible into federations according to industry, formed a central organization, the Canadian and Catholic Confederation of Labour.

## 34.-Membership of Labour Unions in Canada, 1919-54

| Year | Members | Year | Members | Year | Members |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | , | No. |  | No. |
| 1919 | 3:5. 047 | 1931. | 310,544 | 1943. | 664.533 |
| 1920 | 373942 | 1932 | $\underline{2} 33.096$ | 1944. | 724.188 |
| 1921 | 313.320 | 1933. | 285,720 | 1945. | 711.117 |
| 1922 | 276.621 | - 1934. | 251.274 | 1946. | 831.697 |
| 1923. | 278,092 | 1935.. | 280,648 | 1947. | 912.124 |
| 1924 | 260.643 | 1936. | 322,746 | 1948. | 977,594 |
| 1923 | 271.064 | 1937. | 383.492 | 1949 | 1,005,639 |
| 1926. | 274,604 |  |  |  |  |
| 1927. | 290,282 300,602 | 1939. | 358,967 362,223 | 19511. | 1,028,521 |
| 1928. | 300,602 319.476 | 1940.. | 362,223 461,681 | 1953. | $1,146.121$ $1,219,714$ |
| 1930. | 322,449 | 1942 | 578,380 | 1954. | 1,267,911 |

${ }^{1}$ Figures for 1949 and previous years are as at Dec. 31; figures from 1951 are as at Jan. 1.
25.-Union Membership and Local Branches in Canada, as at Jan. 1, 1953 and 1954

| Organization | Jan. 1, 1953 |  | Jan. 1, 1954 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Branches | Membership | Branches | $\begin{aligned} & \text { Member- } \\ & \text { ship } \end{aligned}$ |
|  | No. | No. | No. | No |
| Trades and Labour Congress of Canads | 3,318 | 558.722 | 3,471 | 596,004 |
| American Federation of Labor only..... | , 61 | 10,524 | 50 | 9,748 |
| Canadian Congress of Labour........... | 1,414 | 352,538 | 1,424 | 360.782 |
| Congress of Industrial Organizations only ${ }_{\text {a }}$ Canadian and Catholic Confederation of .... | 9 451 | 3,000 104,486 | $\begin{array}{r}10 \\ 454 \\ \hline\end{array}$ | 2,430 100.312 |
| Canadian and Catholic Confederation of Labour...... | 451 389 | 104,486 41,751 | 454 385 | 100.312 40,922 |
| Unaffiliated international, national, regional and local unions | 593 | 148,693 | 631 | 157.713 |
| Totals. | 6,235 | 1,219,714 | 6,425 | 1,267,911 |

## 36.-Labour Unions Reporting $\mathbf{1 , 0 0 0}$ or more Members in Canada, as at Jan. 1, 1953 and 1954

Organization $|$| Reported or |
| :--- |
| Estimated |
| Membership |

## International Unions

Automobile, Aircraft and Agricultural Implement Workers of America, International Union, United (CIO-CCL)
Bakery and Confectionery Workers' International Union of America (AFL-TLC)...
Barbers, Hairdressers, Cosmetologists and Proprietors' International Union of America, The Journeymen (AFL-TLC)

1,466
1,586
Boilermakers, Iron Ship Builders, Blacksmiths, Forgers and Helpers, International Brotherhood of (AFL-TLC)

10,541
10,260
Bookbinders International Brotherhood of (AFLT $\mathbf{T L C}$ )
Brewery, Flour, Cereal, Soft Drink and Distillery Workers of America, International Union of United (CIO-CCL)

2,686
2,596
4,000
4,200
Bricklayers, Masons and Plasterers' International Union of America (AFL-TLC).
Bridge, Structural and Ornamental Iron Workers, International Association of (AFL-TLC).

4,946
5,444
$5,173 \quad 6,400$
4,036 $\quad 4,539$

52,770 54,947
2,613 2,760
3,000 2,348
$10,500 \quad 11,500$
$12,500 \quad 13.000$

| 1,246 | 4,367 |
| :--- | :--- |
| 4,200 | 2,425 |


| 2,500 | 2,425 |
| ---: | ---: |
| 3,300 | 3,300 |

$4,500 \quad 10,000$
25,700 $\quad 24,600$

| 20,000 | 22,000 |
| ---: | ---: |
| 8,560 | 9,836 |

6,574 6,800
$3,000 \quad 3,000$
6,000
1,500
15, 132
7.500

1,550
2,170
14,534
1,500
$9.896 \quad 11,336$
$10,281 \quad 12,001$
1,252 1,400
1,799 1,864
8,462 8,025
9,798 9,298
$6,000 \quad 6,000$
1,607 1,846
44,760 50,887
$18,000 \quad 18,000$
1,000 1,100
3,482 4,464
$30,000 \quad 30,000$
27,258 24,884
5,806 7,000
10,765 10,838
2,417 2,618
3,789 4,093
18,000 19,225
5,224 $\quad 5,616$
7,358 7,921
$2,065 \quad 2,223$
$12,360 \quad 15,000$
6,638 6,320
30,419 31,155
9,658 9,588
21,507
21,815
Railroad Telegraphers, The Order of (AFL-TLC)...........................................
Railroad Trainmen, Brotherhood of (Ind.)
12,338
12,010

## 36.-Labour Unions Reporting 1,000 or more Members in Canada, as at Jan. 1, 1953 and 1951 -continued



## 36.-Labour Unions Reporting 1,000 or more Members in Canada, as at Jan. 1, 1953 and 1954-concluded

| Organization | Reported or Estimated Membership |  |
| :---: | :---: | :---: |
|  | 1953 | 1954 |
|  | No. | No. |
| National Unions--concluded |  |  |
| Postal Employees Association, Canadian (TLC) | 6,950 | 6,700 |
| Public Service Employees, National Union of (CCL). | 3,000 | 2,965 |
| Pulpe et du Papier, Inc., Fédération Nationale des Travailleurs de la (National Federation of Pulp and Paper Workers, Inc.) (CTCC). | 12,000 | 12,100 |
| Railway Employees and Other Transport Workers, Canadian Brotherhood of (CCL). | 35,083 | 32,778 |
| Services, Inc., Fédération Nationale Catholique des (National Catholic Federation of Services, Inc.) (CTCC). | 4.800 | 5,200 |
| Shipyard General Workers' Federation of British Columbia (CCL) ................. | 2,500 | 2,750 |
| Teachers' Federation, British Columbia (TLC)..... | 6,910 | 7,297 |
| Telephone Employees' Association, Canadian (Ind.). | 10,871 | 10,944 |
| Telephone Workers of British Columbia, Federation of (Ind.) ................... | 3,868 | 4,068 |
| Textile, Inc. Fédération Nationale Catholique du (National Catholic Textile Federation, Inc.) (CTCC). | 11,000 | 8,649 |
| Traffic Employees' Association (Ind.)................ | 9,923 | 9,811 |
| Unemployment Insurance Commission Associstion, National (TLC). | 4,500 | 5,300 |
| Vêtement, Inc., Fédération Nationale des Travailleurs de l'Industrie du (National Federation of Clothing Industry Workers, Inc.) (CTCC). | 4,300 | 4,036 |

## Section 10.-Strikes and Lockouts*

For the last eight years the demand for increased wages has been the central issue in the majority of work stoppages. In 1953, this issue, often linked with questions involving union security and changes in working conditions, was responsible for 56 p.c. of the stoppages, involving 61 p.c. of the workers and causing 95 p.c. of the total time loss as compared with an average for the seven-year period, 1946-52, of 58 p.c. of the stoppages, 71 p.c. of the workers, and 87 p.c. of the time loss. Of the other disputes, those relating to working conditions brought about 12 p.c. of the stoppages; union questions, other than for increased wages, 15 p.c.; and discharge of workers, suspensions and employment of particular persons, other than in connection with union questions, 15 p.c. of the total. Sympathy strikes have been few in number during the last five years and in 1953 there was only one small stoppage from this cause.

Settlement of 75 of the 174 stoppages in 1953 was brought about by direct negotiation; provincial conciliation effected settlement in 17 stoppages, civic mediation in three and federal conciliation in two. Ten disputes were settled by arbitration; three were referred to labour boards; 33 were settled by return of workers and replacement, replacement being a factor in 12 disputes; and 13 were indefinite in result.

[^263]37.-Summary Statistics of Strikes and Lockouts, 1944-53

| Year | Strikes Beginning during the Year | Strikes and Lockouts in Existence in all Industries during the Year |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Strikes and Lockouts | Employers | Workers Involved | Time Loss |  |  |  |
|  |  |  |  |  | In ManWorking Days | Average Days per Wageand SalaryEarner ${ }^{1}$ | Average <br> Days per Worker Involved | Estimate of Working Time $^{1}$ |
|  |  |  |  | No. | No. | No. | No. | p.c. |
| 1944. | 195 | 199 | 400 | 75,290 | 490, 139 | $0 \cdot 16$ | 6.51 | 0.06 |
| 1945.. | 196 | 197 | 418 | 96,068 | 1,457,420 | 0.49 | $15 \cdot 17$ | $0 \cdot 17$ |
| 1946. | 225 | 228 | 1,299 | 139,474 | 4,516,393 | 1.49 | 32.38 | 0.50 |
| 1947. | 232 | 236 | 1,173 | 104,120 | 2,397,340 | 0.77 | 23.02 | $0 \cdot 26$ |
| 1948. | 147 | 154 | 674 | 42,820 | 885,793 | 0.27 | $20 \cdot 68$ | 0.09 |
| 1949.. | 132 | 137 | 542 | 51,437 | 1,063,667 | $0 \cdot 32$ | $20 \cdot 68$ | $0 \cdot 11$ |
| 1950. | 158 | 161 | 345 | 192,153 | 1,389,039 | $0 \cdot 40$ | $7 \cdot 23$ | $0 \cdot 13$ |
| 1951. | 257 | 259 | 646 | 102,870 | -901,739 | 0.24 | 8.77 | 0.08 |
| 1952. | 216 | 222 | 518 | 120,818 | 2,879,955 | 0.76 | 23.84 | $0 \cdot 29$ |
| 1953......... | 167 | 174 | 384 | 55,988 | 1,324,715 | $0 \cdot 35$ | $23 \cdot 66$ | $0 \cdot 13$ |

${ }^{1}$ Based on the number of non-agricultural wage-and salary-earners in Canada.
38.-Strikes and Lockouts, by Industry, 1952 and 1953

| Industry | 1952 |  |  |  |  | 1953 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Workers Involved |  | $\begin{aligned} & \text { Time } \\ & \text { Loss } \end{aligned}$ |  |  | Workers Involved |  | $\begin{aligned} & \text { Time } \\ & \text { Loss } \end{aligned}$ |  |
|  |  | No. | Per-centage | $\begin{aligned} & \text { Man- } \\ & \text { Working } \\ & \text { Days } \end{aligned}$ | Per-centage |  | No. | Per-centage | ManWorking Days | Per-centage |
| Agriculture. | 1 | ... | $\ldots$ | $\cdots$ | $\cdots$ | 1 | ... | $\cdots$ | ... | $\ldots$ |
| Losging | 2 | 12,012 | 10.0 | 365,080 | 12.7 | 1 | $\ldots$ | $\cdots$ | ... | .* |
| Fishing and Trapping | 3 | 8,545 | $7 \cdot 1$ | 14,450 | $4 \cdot 6$ | 1 | 1,500 | 2.7 | 12,008 | 0.9 |
| Mining ${ }^{\text {2 }}$ | 26 | 9,539 | 7.9 | 91,825 | $3 \cdot 2$ | 27 | 15,274 | 27.2 | 681,918 | 51.5 |
| Coal. | 15 | 3,865 | 3-2 | 8,735 | $0 \cdot 3$ | 12 | 7.467 | 13.3 | 17,456 | 1.3 |
| Other | 11 | 5,674 | $4 \cdot 7$ | 83,090 | 2.9 | 15 | 7,807 | 13.9 | 664,462 | $50 \cdot 2$ |
| Manufacturing. | 112 | 65,315 | 54.1 | 1,814,584 | 63.0 | 82 | 22,034 | 39.4 | 477,786 | $36 \cdot 1$ |
| Vegetable foods, etc. | ${ }^{9}$ | 2,340 | 1.9 | 37, 102 | $1 \cdot 3$ | 2 | 730 | $1 \cdot 3$ | 19,260 | 1.5 |
| Tobacco and liquors. <br> Rubber and its products (including synthetic) | 1 | 208 4,423 | 0.2 3.7 | 4.0 114,561 | 0.0 4.0 | ${ }^{1}$ | 2,320 | $4 \cdot 1$ | 7.670 | 0.6 |
| Animal foods............ | 2 | 313 | 0.3 | 215 | $0 \cdot 0$ | 2 | 2, 66 | $0 \cdot 1$ | 2, 2,185 | 0.6 0.2 |
| Boots and shoes (leather). | 3 | 508 | $0 \cdot 4$ | 6,460 | $0 \cdot 2$ | 2 | 471 | 0.8 | 29,950 | $2 \cdot 3$ |
| Fur, leather and other animal products. | 4 | 335 | $0 \cdot 3$ | 2,747 | $0 \cdot 1$ | 1 |  |  |  |  |
| Textiles, clothing, etc.... | 18 | 10,027 | $8 \cdot 3$ | 552,694 | $19 \cdot 2$ | 15 | 3,079 | $5 \cdot 5$ | 68,638 | $5 \cdot 2$ |
| Pulp, paper and paper products. |  |  | 0.0 |  | 0.0 | 2 | 501 | 0.9 | 34,405 | $2 \cdot 5$ |
| Printing and publishing.. | 3 | 1,411 | 1.2 | 33,500 | $1 \cdot 2$ | 1 | ... | $\cdots$ |  |  |
| Miscellaneous wood products. | 13 | 23,790 |  | 711,500 |  | 12 | 3,795 | 6.9 | ${ }^{177}$. 645 | $\cdots$ |
| Metal products......... | 35 | 16,027 | 13.3 | 167,897 | 5.8 | 36 | 9,403 | ${ }_{16.8}$ | 122,391 | 13.4 9.2 |
| Ferrous. | 25 | 14, 805 | $12 \cdot 8$ | 149,403 | $5 \cdot 2$ | 24 | 6,203 | 10.7 | -92,681 | 7.0 |
| Non-ferrous | 10 | 1.281 | 1.0 | 18,494 | $0 \cdot 6$ | 12 | 3.400 | $6 \cdot 1$ | 29,710 | 2.8 |
| Shipbuilding............ | 7 | 4,831 | 4.0 | 138,525 | 4.8 |  | . | ... | - | - |
| Non-metallic minerals, chemicals, etc. | 5 | 638 | 0.5 | 18.178 |  | 6 |  | $3 \cdot 0$ | 15,64 | $1 \cdot 2$ |
| Miscellaneous products.. | 3 | 416 | 0.3 | 30,710 | 1.1 | 1 | $\begin{aligned} & 1,0 \\ & \ldots \end{aligned}$ |  | ... | $\cdots$ |
| Construction | 39 | 16,681 | 18.8 | 34,386 | 12.6 | 22 | 4,844 | 8.7 | 36,270 |  |
| Buildings and structures.. | 36 | 16,488 | 13.6 | 344,226 | 11.9 | 19 | 4,520 | $8 \cdot 1$ | 35,928 | $2 \cdot 7$ |
| Railway. Bridge: |  | ... | $\cdots$ | $\cdots$ | $\cdots$ | 1 | 4,520 | ... | 35,22 | 2.7 |
| Highway | 1 | .... | $\ldots$ | $\cdots$ | $\cdots$ | 1 | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ |
| Canal, harbour, waterway | 1 | .... | $\cdots$ | $\cdots$ | $\cdots$ | 1 | $\cdots$ | ... | ... | $\cdots$ |
| Miscellaneous. | 3. | 193 | $0 \cdot 2$ | 2,160 | 0.1 | 3 | 324 | $\cdots{ }_{0} 6$ | 342 | $0 \cdot 0$ |

[^264]38.-Strikes and Lockouts, by Industry, 1952 and 1953--concluded

| Industry | 1952 |  |  |  |  | 1953 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. of Strikes and Lockouts | Workers Involved |  | $\begin{gathered} \text { Time } \\ \text { Loss } \end{gathered}$ |  |  | Workers Involved |  | $\begin{aligned} & \text { Time } \\ & \text { Loss } \end{aligned}$ |  |
|  |  | No. | Per-centage | $\begin{gathered} \text { Man- } \\ \text { Working } \\ \text { Days } \end{gathered}$ | Per-centage |  | No. | Per-centage | $\begin{array}{c\|} \text { Man- } \\ \text { Working } \\ \text { Days } \end{array}$ | Per-centage |
| Transportation and Public Utilities. | 18 | 5,610 | $4 \cdot 6$ | 71,278 | $2 \cdot 5$ | 17 | 8,445 | 15.0 | 85,881 | 6-5 |
| Steam railways............. | 2 | 84 | 0.0 | 290 | 0.0 |  | ... | ... | ... | ... |
| Electric railways and local bus lines.. | 1 | 4,668 | 3.9 | 60,000 | $2 \cdot 1$ | 4 | 5,196 | $9 \cdot 3$ | 5,435 | 0.4 |
| Other local and highway transport. | 10 | 379 | 0.3 | 7,098 | $0 \cdot 3$ | 7 | 2,477 | $4 \cdot 4$ | 56,382 | 4.3 |
| Water transport........... | 3 | 351 | $0 \cdot 3$ | 800 | 0.0 | 3 | 474 | 0.8 | 8,584 | 0.6 |
| Air transport............ | 1 | ... | ... | ... | $\cdots$ |  | ... | $\cdots$ | ... | ... |
| Telegraph and telephone. | ${ }^{1} 2$ | -128 | $\cdots$ | 3,090 | $\cdots$ | ${ }^{1} 1$ | ${ }^{*}{ }_{23}$ | $\cdots$ |  | $0 \cdot 0$ |
| Miscellaneous............ | 2 | ... | ... |  | ... | 2 | 275 | 0.5 | 15,350 | 1.2 |
| Trade. | 12 | 1,589 | $1 \cdot 3$ | 66,387 | $2 \cdot 3$ | 15 | 3,338 | 6.0 | 20,470 | 1.5 |
| Finance. | 1 | ... | $\cdots$ | $\cdots$ | $\cdots$ | 1 | $\cdots$ | ... | ... | ... |
| Service. . . . . . . . . . . . . . . | 10 | 1,497 | 1.2 | 9,965 | $0 \cdot 3$ | 10 | 553 | $1 \cdot 0$ | 10,440 | 0.8 |
| Public administration ${ }^{4}$... | 2 | 365 | $0 \cdot 3$ | 1,375 | $0 \cdot 0$ | 2 | 186 | 0.3 | 2,886 | 0.2 |
| Recreation.............. | 1 | 43 | $0 \cdot 0$ | 7900 | 0.0 | 8 |  | 0.7 |  |  |
| Business and personal.... | 7 | 1,089 | 0.9 | 7,690 | $0 \cdot 3$ | 8 | 367 | 0.7 | 7,554 | 0.6 |
| Totals. | 222 | 120,818 | $100 \cdot 0$ | 2,879,955 | $100 \cdot 0$ | 174 | 55,988 | $100 \cdot 0$ | 1,324,715 | 100.0 |

${ }^{1}$ None reported. ${ }^{2}$ Includes non-ferrous metal smelting.
${ }^{3}$ Includes erection of all large bridges. ${ }^{4}$ Includes water service.

## Section 11.-Canada and the International Labour Organization

The Department of Labour is the officially designated liaison agency between the Government of Canada and the International Labour Organization. The ILO was established in 1919, in association with the League of Nations under the Treaties of Peace, with the object of improving labour and social conditions throughout the world by international agreement and legislative action. Under an agreement approved by the General Conference of the International Labour Organization at its 29th Session held at Montreal, Que., Oct. 2, 1946, and by the United Nations General Assembly on Dec. 14, 1946, the Organization became a specialized agency of the United Nations although retaining its autonomy.

The ILO is an association of 69 Member States, financed by their governments, and democratically controlled by representatives of those governments and of their organized employers and workers. It is comprised of three main organs: (1) the International Labour Conference; (2) the International Labour Office, and (3) the Governing Body. Since World War II the ILO has extended its field of activities by the establishment of eight tripartite industrial committees to deal with problems of important world industries, by the holding of regional and special technical conferences, and by the expanded program of technical assistance to aid the development of backward countries in such fields as co-operatives, vocational training, and employment services.

The International Labour Conference meets annually and is a world parliament for consideration of labour and social problems and it is attended by four delegates from each Member State (two representing the Government, one representing the
employers and one representing the workers) accompanied by technical advisers. The Conference formulates internationsl standards concerning working and living conditions in the form of Conventions and Recommendations. A Convention, after adoption, must be considered by the competent authorities in each Member State with a view to possible ratification; however, each Member State decides whether or not to ratify any Convention, and only by ratification does it assume the obligation to bring its legislation in that field up to the standard set by the Convention. A Recommendation is less formal: it contains general principles for the guidance of governments in drafting legislation or in issuing administrative orders, and is not subject to ratification by the Member States.

The International Labour Office acts as the permanent secretariat of the ILO, and as a world research and information centre and publishing house on all subjects concerned with industry and labour. In the operational field it assists Member States by furnishing experts on manpower training and technical assistance. The ILO maintains branch offices in all parts of the world, including the Canada Branch, 95 Rideau Street, Ottawa.

The Governing Body of the ILO, by a constitutional amendment adopted in June 1953, consists of 40 members: 20 government representatives, 10 employers' representatives and 10 workers' representatives. Of the government seats, each of the 10 Member States of chief industrial importance (of which Canada is one) holds a permanent place, and the other 10 government representatives are elected triennially by the Conference. The worker and employer members are elected every three years at the Conference, by their groups. The Governing Body meets three times a year, and has general supervision over the work of the International Labour Office and the various Conferences and Committees, in addition to framing the budget and approving the agendas of the various Conferences. Canada's representative on the Governing Body is Mr. Arthur Brown, Deputy Minister of Labour for Canada.

There have been 36 Sessions of the International Labour Conference, at which 103 Conventions and 97 Recommendations have been adopted, covering a wide range of subjects such as industrial relations, freedom of association, hours of work, weekly rest, holidays with pay, minimum wages, night work of women and young persons, industrial health and safety, workmen's compensation, conditions of work for seamen and dockers, unemployment and health insurance, protection of migrant workers, equal remuneration, and many other aspects of industrial and social problems. By March 1954, the ratifications of Conventions by Member States totalled about 1,450.

Canada has ratified 18 ILO Conventions, of which 12 concern maritime and dock labour. In Canada, the provincial legislatures are the competent legislative authorities with jurisdiction over the subject covered by most of the ILO Conventions and Recommendations. The Department of Labour, as the official liaison agency with the International Labour Organization, is responsible for forwarding to the ILO Office annual reports on ratified Conventions as well as periodical reports on many other industrial and social matters. Canada is represented at most of the ILO annual and special meetings, and accounts of the discussions and the decisions are regularly published in the Labour Gazette. The Department also keeps provincial governments and employer and worker organizations informed of ILO activities. Thus, Canada continues to fulfil its obligations as one of the leading industrial Member States of the International Labour Organization.

## CHAPTER XIX.-TRANSPORTATION

## CONSPECTUS

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Note.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

Canada, which is over 4,000 miles in length from east to west, has its main topographic barriers running in a north-south direction. It has a relatively small population of $15,195,000$ (June 1, 1954 estimate) unevenly distributed along a narrow southern strip of its vast area. These physiographic and population characteristics present unusual difficulties from the standpoint of transportation and communication. Different parts of the country are shut off from each other by water barriers such as Cabot Strait and the Strait of Belle Isle separating the Island of Newfoundland from the mainland; by areas of rough, rocky forest terrain such as the region lying between New Brunswick and Quebec and the areas north of Lakes Huron and Superior dividing the industrial region of Ontario and Quebec from the agricultural areas of the Prairie Provinces; and by the mountain barriers between the prairies and the Pacific Coast. To such a country, with a population so dispersed and producing for export as well as for consumption in distant areas of the country itself, efficient and economical transportation systems are necessities of existence.

The value of each of the principal agencies of transportation is appraised in Parts II, III, IV, V and VI of this Chapter. Government control over all such transportation is covered in Part I.

## PART I.-GOVERNMENT CONTROL OVER AGENCIES OF TRANSPORTATION

The Federal Government's control and regulation of transportation reflects to a considerable extent conditions that date back to the period when the railways possessed a virtual monopoly of transportation within the country. Although federal regulation was a direct outcome of such particular matters as the prevention of unjust discrimination in rates and charges resulting from monopoly conditions in the industry and the safety of transportation facilities and operating practices, yet the railways have been so involved in the public interest that their regulation has been extended to become the most comprehensive of any industry in Canada.

In the meantime, conditions in the transportation industry have been drastically altered by the increasing competition arising from the advance of highway transportation. Unlike the competition that existed between railways in early stages of their development, to-day's competition shows little indication of starting a trend toward consolidation and a return to semi-monopolistic conditions within the industry. Because so many shippers now may provide their own transportation, it is evident that a large part of the present competition between common carriers will become a permanent feature of the transportation industry.

It is not surprising that regulations, which under monopoly conditions were not onerous to the railways or were purely nominal in their effect, should be alleged to have become increasingly restrictive and hampering under highly competitive conditions. Regulatory authorities are, therefore, faced with the problem of piecemeal revision of their regulations-retaining those where railway monopoly or nearmonopoly conditions still make them necessary in the public interest, and relaxing those where competition can be relied on to protect the public in order to enable the railways to meet this competition more effectively. The emphasis has shifted from the regulation of monopoly to the co-ordination of several competing modes of transport.

In 1936, the Federal Department of Railways and Canals became the Department of Transport, unifying in one Department the control and supervision of railways, canals, harbours, marine and shipping, civil aviation, radio and meteorology.

Road and highway development is mainly under provincial or municipal control or supervision. The question of jurisdiction over interprovincial and international highway transport was answered by the Judgment of the Judicial Committee of the Privy Council dated Feb. 22, 1954, which held that this jurisdiction rested with the Federal Government.

A Conference between federal and provincial representatives was held in Ottawa in April 1954 to consider the means of implementing this decision. On June 26, 1954, the Motor Vehicle Transport Act was passed by Parliament giving to all provinces, at their option, the authority to apply to interprovincial and international highway transport the same regulations respecting certificates of public convenience and necessity and rates as they apply to undertakings operating entirely within the province. This Act has since been proclaimed for the provinces of Alberta, British Columbia, Manitoba, Nova Scotia, Ontario, Prince Edward Island and Saskatchewan.

Under the Transport Act, 1938, the Board of Railway Commissioners became the Board of Transport Commissioners and, in addition to its authority over railways, it was given power to regulate certain aspects of water transportation on the Great Lakes, the Mackenzie River and the Yukon River.

The Royal Commission on Transportation, in its Report to Parliament in 1951, recommended a further step in the co-ordination of transport agencies by the creating of a single Board to take over the functions now discharged by the Board of Transport Commissioners, the Air Transport Board and the Canadian Maritime Commission. No action has been taken by Parliament on this recommendation.

The Board of Transport Commissioners for Canada.-An explanation of the situation that led to the introduction of railway regulation by Commission in Canada, as well as other information relating to the organization, procedure, judgments, etc., of the Board of Transport Commissioners is given in the 1940 Year Book, pp. 633-635.

The powers of the Board with regard to rail transport cover almost all aspects of railway activities including corporate organization, location, construction and operation of lines, rates and charges. The railways under the Board's jurisdiction include those operating interprovincially, the Canadian portions of United States lines and those incorporated under federal charter. In addition, the Board assumes jurisdiction over any railway which, by Act of Parliament, has been declared to be for the general advantage of Canada. In practice, this means that apart from provincially owned railways in Ontario and British Columbia, all railways in Canada are under the Board's authority.

Once constituted, the Board became the logical body to be entrusted with the regulation of other transportation and communication agencies. The list has grown steadily and now includes express companies, telegraph companies, telephone companies other than those provincially or municipally controlled, international bridges and tunnels, inland shipping, and the recent addition of pipelines (1949). Regulation of traffic of inland-water carriers on the Great Lakes-St. Lawrence system is limited to package freight and thus excludes the important bulk traffic in grain, coal and ore.

The most recent review of transportation regulation was that undertaken by the Royal Commission on Transportation, under the chairmanship of the Honourable W. F. A. Turgeon, which held extensive hearings in 1949-50 and issued its Report in 1951. (See 1952-53 Year Book, p. 741.) Certain of its recommendations have been incorporated into amendments to the Railway Act and other legislation is either in effect or being put into effect. These include: the equalization of freight rates between all regions of Canada, affecting chiefly the class and commodity milage rates; the requirement that, when transcontinental competitive rates are published, the corresponding rates to intermediate points shall not be more than one-third greater than the former; the payment by the Government of Canada of the cost of maintaining the so-called 'bridge' lines of the transcontinental systems in Ontario between Sudbury, Capreol and Cochrane on the one hand and Port Arthur and Armstrong on the other, up to the amount of $\$ 7,000,000$ annually, the amounts so received by the railways to be offset by certain reductions in rates between Eastern and Western Canada; the requirement of a uniform classification of accounts to be prescribed by the Board of Transport Commissioners for the Canadian Pacific

Railway and the Canadian National Railways; and the simplification of the capital structure of the Canadian National Railways involving the replacement of Govern-ment-held debt by preferred stock.

Certain other recommendations of the Commission have been put into effect or are being studied with a view to putting them into effect at an early date without any legislative amendments. These include the establishment of a uniform carload mixing rule and a general revision of the freight classification.

The Air Transport Board.-A summary of the general functions of the Air Transport Board is given in the 1952-53 Year Book, pp. 740-741, and later developments in the 1954 edition, pp. 783-781. Since its establishment in 1944, the administrative organization of the Board has been changed to meet an increasing variety of problems in the domestic and international aviation fields, but the Board itself continues to consist of three members, including the chairman. The Executive Director's Branch of the staff is divided into Legal, International Relations, and Traffic Divisions and the Secretary's Branch into Administrative, Licensing, and Inspection and Enforcement Divisions.

The Board is currently devoting special attention to problems created by new circumstances and changed conditions. Until recently the same regulations governed operations by both rotating-wing aircraft and fixed-wing aircraft but substantial regulatory amendments have now been made to facilitate commercial use of helicopters in work in which the special characteristics of this type of aircraft may be best employed. Helicopter operations are kept under constant review by an economic and technical committee set up for the purpose.

The Board has also under consideration the publication of a uniform charter tariff and the formulation of basic principles for the guidance of operators in the establishment of their rates and fares. On both proposals, the Board has invited the comments of the air carriers concerned.

In the field of international aviation, the Board has continued to take an active part in the work of the International Civil Aviation Organization (see p. 897) and has participated in discussions and negotiations with several countries concerning proposed new bilateral air-transport agreements and amendments to existing agreements.

Canadian Maritime Commission.-By authority of an Act (R.S.C. 1952, c. 38) passed in the 1947 session of Parliament, the Canadian Maritime Commission was constituted for the purpose of examining into, keeping records of, and advising the Minister of Transport on matters pertaining to Canadian shipping and shipbuilding services.

In addition to these duties, the Act also empowers the Commission to:-
(1) exercise and perform on behalf of the Minister such powers, duties and functions of the Minister under the Canada Shipping Act, 1934, as the Minister may require:
(2) administer, in accordance with regulations of the Governor in Council, any steamship subventions voted by Parliament; and
(3) exercise or perform any other powers, duties or functions conferred on or required to be performed by the Commission by or pursuant to any other Act or order of the Governor in Council.

## PART II.-RAILWAYS*

The treatment of rail transportation is divided into three Sections dealing respectively, with steam railways, electric railways and express companies.

## Section 1.-Steam Railways

The steam railway is the most important transportation agency from the standpoint of investment and of traffic handled and the statistics are, therefore, more complete for this form of transportation than for any other.

## Subsection 1.-Milage and Equipment

Construction was begun in 1835 on the first steam railway in Canada-the short link of $14 \frac{1}{2}$ miles between Laprairie and St. Johns, Que.-but only 66 miles of railway were in operation by 1850 . The first great period of construction was in the 1850 's when the Grand Trunk and the Great Western Railways were built as well as numerous smaller lines. The building of the Intercolonial and the Canadian Pacific Railways contributed to another period of rapid expansion in the 1870's and 1880's. In the last period of extensive railway building from 1900 to 1917, the Grand Trunk Pacific, National Transcontinental and Canadian Northern Railways were constructed. The consolidation and organization of the Canadian National Railway System is covered at pp. 840-847.

[^265]
## 1.-Steam-Railway Milage, 1900-52

Note.-Figures of total milage of single track for 1835-1909 are given in the 1941 Year Book, p. 546, and for 1911-14 in the 1954 edition, p. 786.

| Total Milage (Single Track) |  |  |  |  |  | Milage, by Provinces |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Miles in Operation | Year | Miles in Operation | Year | Miles in Op eration | Type of Track and Province | 1941 | 1949 | 1951 | 1952 |
|  | No. |  | No. |  | No. |  | No. | No. | No. | No. |
|  |  |  |  |  |  | Single- |  |  |  |  |
| 1900... | 17,657 | 1925... | 40,350 | 1939... | 42,637 | N'fld......... |  | 705 | 705 | 705 |
| 1905 | 20,487 | 1926... | 40,350 | 1940... | 42,565 | P.E.I | -286 | 1286 | + 285 | 285 |
| 1910 | 24,731 | 1927... | 40,570 | 1941... | 42,441 | ${ }^{N}$ | 1,396 | 1,396 | 1,396 | 1,396 |
| 1916 | 34,882 36,985 | 1928.... | 41,022 41,380 | 1942... | 42,339 42,346 | Que. | 1,836 4,789 | 1,835 4,791 | 1,835 4,789 | 1,834 4,830 |
|  |  | 192... | 1 | 191... |  | Ont | 10,476 | 10,462 | 10,440 | 10,384 |
|  |  |  |  |  |  | Man | 4,854 | 4,836 | 4,834 | 4,834 |
| 1917. | 38,369 | 1930... | 42,047 | 1944... | 42,336 | Sask | 8,777 | 8,739 | 8,739 | 8,739 |
| 1918 | 38,252 | 1931... | 42,280 | 1945.. | 42,352 | Alta. | 5,747 | 5,643 | 5,647 | 5,660 |
| 19191. | 38,329 | 1932... | 42,409 | 1946... | 42,335 | B.C. | 3,883 | 3,888 | 3,889 | 3,889 |
| $1919{ }^{2}$ | 38,495 | 1933... | 42,336 | 1947... | 42,322 | Yukon. | 58 | 58 | 58 | 58 |
| 1920.... | 38,805 | 1934... | 42,270 | 1948... | 42,248 | In U.S.A | 339 | 339 | 339 | 339 |
|  |  |  |  |  |  | Totals, Single. . | 42,441 | 42,978 | 42,956 | 42,953 |
| 1921 | 39, 191 | 1935.. | 42,916 | 1949... | 42,978 | Second.......... | 2,499 | 2,494 | 2,487 | 2,488 |
| 1922 | 39,358 | 1936... | 42,552 | 1950... | 42,979 | Industrial. . . . . . | 1,551 | 1,925 | 2,068 | 2,130 |
| 1923. | 39,654 | 1937. | 42,727 | 1951 | 42,956 | Yard and sidings | 10,210 | 10,437 | 10,639 | 10,720 |
| 192 |  |  |  |  |  | Grand Totals.. | 56,701 | 57,834 | 58,150 | 58,291 |

[^266][^267]Total milage of single track line showed little increase during the war and postwar years because of the abandonment of certain unprofitable lines. However, three important lines have recently been completed-the 43 -mile Terrace-Kitimat line in British Columbia, the 144 -mile Sherridon-Lynn Lake line in Manitoba, and the 360 -mile Quebec, North Shore and Labrador Railway-two others, one in northern Quebec and the other in northern Ontario, are in the planning stage (see also pp. 846-847). Yard and siding track and extensions serving industrial plants have been added to considerably in recent years. Of the 42,953 miles of single track operated in 1952, over 50 p.c. were Canadian National Railway lines.

Rolling-Stock.-The figures in Table 2 may be supplemented by the statement that, between 1948 and 1952, the average capacity of box cars increased from 43,402 tons to 44.712 tons, of gondola cars from 60,581 tons to 63,324 tons, flat cars from 43,190 tons to 44,081 tons, hopper cars from 56,938 tons to 61,189 tons and of all freight cars from 44,980 tons to 46,822 tons. The average tractive power of the locomotive varied but slightly over the years 1948 to 1952 with $42,051 \mathrm{lb}$. in $1948,42,488 \mathrm{lb}$. in 1951 and $42,283 \mathrm{lb}$. in 1952 . The steady growth in diesel operation is illustrated by the advance from 148 units at the end of 1948 to 763 units at the end of 1952.
2.-Rolling-Stock of Steam Railways, as at Dec. 31, 1948-52


[^268]
## Subsection 2.-Finances

The tables in this Subsection deal with capital liability, capital investment, earnings, operating expenses, employees and their earnings and government aid to steam railways.* Financial statistics of government-owned railways are given in Subsection 4, pp. 847-951. Other statistics of revenue in relation to traffic are included in Table 8.

Capital Liability.-Table 3 shows capital liability of steam railways from 1933. The distinct changes shown in 1937 and 1952 were brought about by readjustments in the capital structure of the Canadian National Railways, described at pp. 844-846.

## 3.-Capital Liability ${ }^{1}$ of Steam Railways, 1933-52

Nore.-Figures for 1876 to 1925 are given in the 1927-28 Year Book, p. 649; those for 1926-32 in the 1947 edition, p. 662.

| Year | Stocks | Funded Debt | Total | Year | Stocks | Funded Debt | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |  | 5 | \$ | \$ |
| 1933. | 1,438,834,552 | 2,951,690,468 | 4,390,525,020 | 1943. | 1,614,936, 131 | 1,741,664,036 | 3,356,600,167 |
| 1934. | 1,437,334, 152 | 2,966,505,594 | 4,403,839,746 | 1944. | 1,636,064,822 | 1,707,801,676 | 3,343,866,498 |
| 1935 | 1,433,849,530 | 3,026,414,779 | 4,460, 264,308 | 1945. | 1,631,973,055 | 1,701,786,899 | 3,333,759,954 |
| 1936. | 1,425,193,791 | 3,062,411,720 | 4,487,605,511 | 1946. | 1,624,753,709 | 1,665,844, 138 | 3,290, 597,847 |
| $1937{ }^{2}$ | 1,839,619,361 | 1,534,450,789 | 3,374,070,150 | 1947. | 1,623,607,219 | 1,685,010,672 | 3,308,617,891 |
| 1938. | 1,836,882,650 | 1,568,269,672 | 3,405,152,322 | 1948. | 1,578,057,474 | 1,672,282,030 | 3,250,339,504 |
| 1939 | 1,834,329,209 | 1,533,373,521 | 3,367, 702,730 | 1949. | 1,576, 734,292 | 1,692,898,968 | $3,269,633,260^{3}$ |
| 1940 | 1,762,473,489 | 1,617,561,683 | 3,380,035, 172 | 1950. | 1,649,462,088 | 1,826,346,222 | $3,475,808,310^{3}$ |
| 1941. | 1,697,545,699 | 1,699,942,865 | 3,397,488,564 | 1951. | 1,646,205,772 | 1,925,488,160 | 3,571,693,9323 |
| 1942 | 1,578, 254,765 | 1,793,579,270 | 3,371,834,035 | 1952 ${ }^{2}$. | 2,406,309,060 | 1,308,899,612 | $3,715,208,672^{3}$ |

${ }^{1}$ Does not include Canadian railway capital owned by Canadian railways. ${ }^{2}$ See text above. ${ }^{3}$ Exclusive of approximately $\$ 40,000,000$ railway debt in Newfoundland assumed in 1949.

Capital Investment.-The increase of $\$ 143,514,740$ in capital liability during 1952, as shown in Table 3, compares with an increase in investment in road and equipment of $\$ 182,473,692$, as shown in Table 4, and reflects improvements made during the year. The investment account in recent years has been affected by write-offs for lines abandoned, transfers of property to other government departments, and other factors.

[^269]
## 4.-Capital Invested in Road and Equipment of Steam Railways, 1948-52

Note.-Expenditures for Newfoundland are included from Apr. 1, 1949.

| Investment | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\$$ | \$ | \$ | \$ | 8 |
| Nowd.... | 1,415,132 | 1,428,972 | 6,285,165 | 6,301,717 | 11,431,609 |
| Equipment | 66,694 |  | , 285 | 1,552,117 | 19,210 |
| General. | - | 33,409 | 50,634 | 53,901 | 52,510 |
| Totals. | 1,481,826 | 1,462,381 | 6,335,799 | 7,907,735 | 11,503,329 |

4.-Capital Invested in Road and Equipment of Steam Railways, 1948-52-concluded

| Investment | 1918 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | 8 | \$ | \$ |
| Additions and Betterments- |  |  |  |  |  |
| Road...... | 85,736,595 | 25,643,350 | 52,666,164 | 107,478,591 | $42,243,299$ $128,696,815$ |
| General. | Cr. 59,483 | Cr. 7,175 | 54,058 | Cr. 70,318 | 70,585 |
| Undistributed | Cr. 2,984 | Cr. 3,494 | 3,399 | Cr. 2,381 | Cr. 2,539 |
| Totsls | 107,399, 727 | 101,025,907 | 78,247,294 | 149,666,106 | 171,008,160 |
| Undistributed ${ }^{1}$ | 79,157,303 | 261,234 | Cr. 2,645,822 | Cr.1,318,920 | Cr. 37,797 |
| Totals, Investment as at Dee. 31 | 3,600,018,153 | 3,762,767,675 | 3,784,704,946 | 3,940,959,867 | 4,123,433,559 |

${ }^{1}$ Details of this item are given in DBS annual report, Statistics of Steam Railways of Canada.


Earnings and Expenses.-The operating ratio, or ratio of expenditure to revenue, of Canadian railways increased from about 70 p.c. to over 95 p.c. between 1917 and 1920 and remained high thereafter, owing largely to declining revenue without corresponding reductions in expenses during the depression period. The period from 1938 to 1943 showed a sharp decline in this ratio, caused primarily by increased freight traffic occasioned by World War II and a subsequent acceleration in gross earnings. A steadily rising trend since 1943 has been attributed to higher costs for materials and labour, although a decided reversal was shown for 1950 despite the nine-day strike in late August. Expenses for 1952, accounted for mainly by wage increases, show a considerable increase over the previous year.

## 5.-Earnings and Operating Expenses of Steam Railways, 1943-52

Nots.-Gross earnings and operating expenses for 1875 to 1914 are given in the 1916-17 Year Book. p. 434; those for 1915-25 in the 1941 Year Book, p. 550; for 1926-39 in the 1942 Year Book, p. 585; and for 1940-42 in the 1951 Year Book, p. 722. Figures for Newfoundland are included from Apr. 1, 1949.

| Year | Gross Earnings | Operating <br> Expenses | Ratio of Expenses to Receipts | Per Mile of Line |  |  | Freight Train Revenue per Freight Train Mile | Passenger Train Revenue per <br> Passenger Train Mile |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Gross Earnings | Operating <br> Expenses | Net Earnings |  |  |
|  | \$ | \$ | p.c. | 8 | \$ | \$ | \$ | \$ |
| 1943. | 778,914,565 | 560,597,204 | 71.98 | 18,398 | 13,241 | 5,157 | 6.98 | $3 \cdot 68$ |
| 1944. | 796,636,786 | 634,774,021 | 79.68 | 18,861 | 15,029 | 3,832 | 6.91 | 3.82 |
| 1945. | 774,971,360 | 631,497,562 | 81.49 | 18,331 | 14,937 | 3,394 | 6.92 | $3 \cdot 70$ |
| 1946. | 718,501,764 | 623,529,472 | 86.79 | 16,967 | 14,724 | 2,243 | 6.83 | $3 \cdot 21$ |
| 1947. | 785,177,920 | 690,821,047 | 87.98 | 18,556 | 16,326 | 2,230 | 7.38 | $3 \cdot 01$ |
| 1948. | 875,832,290 | 808,126,455 | $92 \cdot 27$ | 20,702 | 19,102 | 1,600 | 8.38 | $2 \cdot 92$ |
| 1949.. | 894,397,264 | 831,456,446 | 92.96 | 20,866 | 19,398 | 1,468 | 8.66 | 3-10 |
| 1950... | 958,985,751 | 833,726,562 | 86.94 | 22,311 | 19,397 | 2,914 | 9.45 | $3 \cdot 19$ |
| 1951.. | 1,088,583,789 | 977,577,062 | 89.80 | 25,348 | 22,763 | 2,585 | 10.05 | $3 \cdot 36$ |
| 1952. | 1,172,158,665 | 1,057,186,304 | $90 \cdot 19$ | 27,272 | 24,597 | 2,675 | 10.56 | $3 \cdot 50$ |

## 6.-Distribution of Operating Expenses of Steam Railways, 1949-52

| Item | 19491 |  | 1950 |  | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | p.c. | \$ | p.c. | \$ | p 0. | \$ | p.c. |
| Way and structures........ | 164,891,364 | 19.8 | 163,998,704 | 19.7 | 202,490,988 | 20.7 | 215,411,186 | 20.4 |
| Equipment................ | 186,067,026 | 22.4 | 189,507,197 | 22.7 | 224,184,671 | 22.9 | 243,341,926 | 23.0 |
| Traffic. | 17,612,056 | $2 \cdot 1$ | 18,591,724 | $2 \cdot 2$ | 19,958,080 | $2 \cdot 1$ | 21,297,453 | $2 \cdot 0$ |
| Transportation...... | 406,033,445 | 48.8 | 403,994, 207 | 48.5 | 468,653,237 | 47.9 | 504,034,668 | $47 \cdot 7$ |
| General and miscellaneous. | 56,852,555 | 6.9 | 57,634,730 | 6.9 | 62,290,086 | $6 \cdot 4$ | 73,101,071 | 6.9 |
| Totals | 831,456,446 | $100 \cdot 0$ | 833,726,562 | 100.0 | 977,577,062 | $100 \cdot 0$ | 1,057,186,304 | $100 \cdot 0$ |

[^270]Employment and Salaries and Wages.-The number of railway employees increased in 1952 by 66 p.c. over 1939, and salaries and wages increased by about 234 p.c. Maintenance-of-equipment employees, on hourly rates, worked about 3 p.c. fewer hours and were paid 119 p.c. more wages per hour; average hours worked by transportation employees were 4 p.c. fewer than the 1939 average and their pay was increased by about 105 p.c. These figures reflect salary and wage increases received in 1950 and 1952 and the conversion to the five-day week in 1951.

## 7.-Steam Railway Employees and Salaries and Wages, 1913-52

Note.-Figures for 1912-39 are given in the 1941 Year Book, p. 551; for 1940-42 in the 1951 edition, p. 723. Figures for Newfoundland included from Apr. 1, 1949.

| Year | Employees ${ }^{1}$ | Total Salaries and Wages ${ }^{1}$ | Average Salaries Wages Wab | Ratio of <br> Opersting Salaries and Wages <br> (Chargeable to <br> Operating Expenses) to |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Gross Earnings | Operating Expenses |
|  | No. | 5 | \$ | p.c. | p.e. |
| 1943. | 169,663 | 323,801,645 | 1,908 | 37.8 | 52.5 |
| 194. | 175,093 |  | ${ }_{2}^{2,125}$ | $42 \cdot 9$ 43.8 | 53.8 53.7 |
| 1956 | 180,383 | 396,856,901 | ${ }_{2,200}^{2,20}$ | $50 \cdot 2$ | 57.8 |
| 1947.... | 184,415 | 429,843,142 | 2,331 | 49.9 | 56.7 |
| 1948. | 189,963 | 512,054,795 | 2,696 | 53.0 | 57.5 |
| 1949. | ${ }_{19}^{192,366}$ | 523,453,375 | ${ }_{2}^{2,721}$ | 52.9 49.8 | 56.9 57.2 |
| 1950. | 190,385 204,025 | $523,008,515$ $624,682,754$ | ${ }_{3,062}^{2,747}$ | 49.8 52.0 | 57.2 58.0 |
| 1952.. | 214,143 | 669,457,962 | 3,126 | 52.1 | ${ }_{57.7}$ |

${ }^{1}$ Figures include employees or wages for "outside operations" amounting to from 3 p.c. to 6 p.c. of total employees and from 2 p.c. to 5 p.c. of total salaries and wages. ${ }^{2}$ Includes approximately $\$ 10,000,000$ in wages earned in 1943.

Government Aid to Railways.- In order that the private railways of Canada might be constructed in advance of settlement as colonization roads or through sparsely settled districts where little traffic was available, it was necessary for federal and provincial governments and even for municipalities to extend some form of assistance. The form of aid was, generally, a bonus of a fixed amount per mile of railway constructed and, in the early days, grants of land were also made other than for right-of-way.

As the country developed, the objections to the land-grant method became more apparent and aid was given more frequently in the form of a cash subsidy per mile of line, a loan or a subscription to the shares of the railway. Guarantees of debenture issues were given in a later period and, since the formation of the Canadian National Railways, all debenture issues of that System, except those for rolling-stock, have been guaranteed by the Federal Government. No new land grants or cash subsidies have been advanced by either the federal or provincial governments since 1939.

During the era of railway expansion before 1918, provincial governments guaranteed the bonds of some railway lines that afterwards were incorporated in the Canadian National Railway System. These bonds as they mature or are called are paid off by the Canadian National Railways, in large measure, through funds raised by the issue of new bonds with Federal Government guarantee. Bonds guaranteed by the Governments of Ontario, Manitoba, Saskatchewan, Alberta and British Columbia have been eliminated in this manner in recent years. The only provincially guaranteed railway bonds outstanding at Dec. 31, 1952, were those of the Government of New Brunswick to the amount of 8465,000 . Federal Government guarantees at the same date amounted to $\$ 511,411,723$ : this amount does not include $\$ 6,984,883$ perpetual debenture stock and guaranteed stock of the former Grand Trunk Railway, now part of the Canadian National Railway System, on which interest and dividends are guaranteed by the Federal Government.

## Subsection 3.-Traffic

Table 8 shows the passenger and freight statistics for all steam railways for the years 1943-52. A separate analysis of the operations and traffic of the Canadian National Railways is given at pp. 848-851.

## 8.-Statistics of Passenger and Freight Services and Revenue Receipts, 1943-52

Norg.-Figures for 1910-42 are given in the corresponding table of previous Year Books.

| Year | Passenger |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Revenue PassengerTrain Miles ${ }^{1}$ | PassengerTrain Car Miles ${ }^{1}$ | Passengers Carried ${ }^{2}$ | Passengers Carried One Mile | Passengers Carried One Mile per Mile of Line |
|  | No. | No. | No. | No. | No. |
| 1943. | 45,745,039 | 433,828,200 | 57,175,840 | 6,525,064,000 | 154.122 |
| 1944. | 46,575,706 | 450,042,986 | 60,335,950 | 6,873,188,000 | 162,729 |
| 1945. | 47,067,607 | 447,822,527 | 53,407,845 | 6,380,155,000 | 150,917 |
| 1946. | 45,700,856 | 415,890,589 | 43,405, 177 | 4,648,558,000 | 109,773 |
| 1947. | 45,367,725 | 398,646,636 | 40,941,387 | 3,732,777,000 | 88,218 |
| 1948. | 46,101,568 | 410,689,409 | 38,279,981 | 3,477,273,000 | 82,193 |
| 1949.. | 45,680,009 | 407,421,229 | 34, 883,803 | 3,193,174,337 | 74,497 |
| 19503. | 43,744,164 | 392,800,555 | 31,139,092 | 2,816,154, 232 | 65,519 |
| 1951. | 46,200,947 | 415,178,734 | 30, 995,604 | 3,110,240,504 | 72,424 |
| 1952. | 47,663,617 | 431,234,562 | 30,167,145 | 3,151,261,385 | 73,319 |
|  | Average <br> Receipts per <br> Passenger Mile | Average Receipts per Passenger | Average Passenger Journey | Average Passengers per Train | PassengerTrain Revenue per PassengerTrain Mile |
|  | cts. | 8 | miles | No. | 8 |
| 1943. | 1.90 | $2 \cdot 16$ | 114 | 143 | $3 \cdot 68$ |
| 1944. | 1.92 | $2 \cdot 18$ | 114 | 148 | 3.82 |
| 1945. | 1.96 | $2 \cdot 34$ | 120 | 136 | $3 \cdot 70$ |
| 1946. | $2 \cdot 15$ | $2 \cdot 30$ | 107 | 102 | $3 \cdot 21$ |
| 1947. | $2 \cdot 35$ | $2 \cdot 14$ | 91 | 82 | $3 \cdot 01$ |
| 1948. | $2 \cdot 40$ | $2 \cdot 18$ | 91 | 75 | 2.92 |
| 1949. | $2 \cdot 66^{3}$ | $2.44{ }^{3}$ | $92^{3}$ | 69 | 3.05 |
| 19503. | $2 \cdot 79$ | $2 \cdot 52$ | 90 | 64 | $3 \cdot 19$ |
| $\begin{aligned} & 1951 . \\ & 1952 . \end{aligned}$ | $2 \cdot 86$ | $2 \cdot 87$ | 100 | 67 | $3 \cdot 36$ |
|  | $2 \cdot 88$ | $3 \cdot 00$ | 104 | 66 | $3 \cdot 50$ |
|  | Freight |  |  |  |  |
|  | Revenue FreightTrain Miles | Revenue FreightTrain Car Miles ${ }^{4}$ | Freight Carried ${ }^{5}$ | Freight Carried One Mile | Freight Carried One Mile per Mile of Line |
|  | No. | No. | tons | tons | tons |
| 1943... | 81,443,279 | 3,132,419,669 | 153,314, 264 | 63,915,074,000 | 1,509,674 |
| 1944.. | 83,564,629 | 3,297,475,933 | 155,326,332 | 65,928,078,000 | 1,560,908 |
| 1945. | 80,712,589 | 3,189,311,345 | 147,348,566 | 63,349,095,000 | 1,498,465 |
| 1946. | 77,794,963 | 2,973,411,653 | 139,256,125 | 55,310,308,000 | 1,306,121 |
| 1947.. | 82,377,565 | 3,176,646,828 | 152,855,820 | 60,143,035,000 | 1,421,384 |
| 1948. | 83,398,617 | 3,120,704,440 | 154,932,804 | 59,080,323,000 | 1,396,500 |
| 1949 | 81,648,053 | 3,091, 633,447 | 142, 719,431 ${ }^{3}$ | 56,338,230,000 ${ }^{3}$ | 1,314,379 ${ }^{3}$ |
| $1950{ }^{\text {a }}$. | 81,397, 148 | 3,093, 946,961 | 144, 218,319 | 55,537,900,000 | 1,292,120 |
| 1951. | 87,181, 640 | 3,384, 341, 192 | 161,260,521 | 64,300,418,000 | 1,497,274 |
| 1952. | 89,217,123 | 3,551,802, 171 | 162,175,381 | 63,430,417,000 | 1,592,146 |

## 8.-Statistics of Passenger and Freight Services and Revenue Receipts, 1943-52-concluded

| Year | Fratght-concluded |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Freight Receipts per Ton per Mile | Receipts per Ton Hauled | Average Length of Freight Haul | Average Train Load, Revenue Tons | Average Load per Loaded Car Mile | $\begin{gathered} \text { Revenue per } \\ \text { Freighter } \\ \text { Train } \\ \text { Mile } \end{gathered}$ |
|  | cts. | \$ | miles | tons | tons | $\$$ |
| 1943...... | 0.890 0.876 | $3-71$ 3.72 | 417 424 | 785 789 | $32 \cdot 75$ $32 \cdot 70$ | 6.98 6.91 |
| 1944. | 0.876 0.882 | $3 \cdot 72$ $3 \cdot 79$ | 424 430 | 789 785 | $32 \cdot 70$ $32 \cdot 57$ | 6.91 6.92 |
| 1946. | 0.961 | $3 \cdot 82$ | 397 | 711 | 29.95 | 6.83 |
| 1947. | 1.009 | 3.98 | 393 | 730 | $30 \cdot 23$ | $7 \cdot 38$ |
| 1948. | 1.183 | 4.51 | 381 | 708 | $30 \cdot 16$ | $8 \cdot 38$ |
| 1949. | $1 \cdot 256^{3}$ | $4 \cdot 96{ }^{1}$ | $395{ }^{3}$ | 689 | $29 \cdot 65$ | $8 \cdot 62$ |
| $1950{ }^{3}$ | 1.385 | 5-33 | 385 | 682 | 28.91 | 9.45 |
| 1951... | 1.362 | $5 \cdot 43$ | 399 | 738 | $30 \cdot 61$ | 10.05 |
| 1952.. | 1-377 | $5 \cdot 81$ | 422 | 767 | $31 \cdot 68$ | 10.56 |

${ }^{1}$ Includes express, baggage, mail and other cars. $\quad{ }^{2}$ Duplications included. ${ }^{3}$ Newfoundland included for this and subsequent years. $\quad$ Includes caboose miles but excludes miles made in passenger and non-revenue trains. $\quad$ Duplications eliminated; see Table 9 for details of freight carried.

Revenue freight carried by the railways in 1952 showed little change over 1951. The decreases registered by the animal, mine, forest products, and manufactures and miscellaneous groups were counterbalanced by a substantial increase in the agricultural group. The principal commodities showing an increase over 1951 were wheat, oats, sand and gravel, stone, and gasoline and petroleum products.

## 9.-Commodities Hauled as Freight on Steam Railways, 1948-52

Norg.-In this table duplications are eliminated, i.e., the same freight handled by two or more railways is counted only once. The statistics do not include the United States lines of the Canadian National Railways, but the link of the Canadian Pacific Railway line across Maine, U.S.A., is included, as are the Canadian sections of United States railways.

| Commodity Group and Products | 1948 | 19491 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | tons | tons | tons | tons |
| Agricultural Products |  |  |  |  |  |
| Wheat. | 11,221,579 | 12,861,460 | 10,180,638 | 15,444,631 | 19,026,645 |
| Oats | 2,356,099 | 2,523,349 | 1,998,361 | 2,679,391 | 3,219,709 |
| Other grain | 4,514,027 | 4,195,518 | 3,430,079 | 4,703,796 | 6,465,472 |
| Flour. . | 2,302,510 | 2,012,513 | 1,996, 281 | 2,222,861 | 2, 233,819 |
| Other mill products. | 2,853,657 | 2,463,699 | 2,479,974 | 2,565,747 | $2,584,815$ |
| Other agricultural products. | 4,408,579 | 4,233,782 | 4,290,525 | 4,122,972 | 3,872,313 |
| Totals, Agricultural Products | 27,656,451 | 28,290,321 | 24,375,858 | 31,739,398 | 37,402,773 |
| Animal Products |  |  |  |  |  |
| Live stock............................ | 1,153,196 | 976,565 | 907,046 | 759,169 | 679,624 |
| Meats and other edible packing-house products..... | 942,278 | 894,266 | 764,040 | 815,267 | 496,038 |
| Other animsl products............................. s | 793,995 | 668,644 | 631,139 | 621,891 | 1518,028 |
| Totals, Anlmal Products. | 2,889,469 | 2,539,475 | 2,302,225 | 2,196,327 | 1,693,690 |

For footnotes, see end of table, p. 838.
9.-Commodities Hauled as Freight on Steam Railways, 1948-52-concluded

| Commodity Group and Products |
| :---: |
|  |
| Mine Products |
|  |

${ }^{1}$ Figures for Newfoundland are included from Apr. 1, $1949 . \quad{ }^{2}$ Less than carload lots.
Railway Accidents.-In Tables 10 and 11 all passengers injured are included in the figures but, for employees, only injuries are recorded that keep the employee from his work for at least three days during the ten days following the accident.

## 10.-Passengers, Employees and Others Killed or Injured on Steam Railways, 1943-52

Note.-Figures for 1919-42 are given in the corresponding tables of previous Year Books beginning with the 1922-23 edition.

| Year | Passengers |  | Employees |  | Others: |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Killed | Injured | Killed | Injured | Killed | Injured | Killed | Injured |
|  | No. | No. | No. | No. | No | No. | No. | No. |
| 1943. | 9 | 546 | 130 | 12,667 | 202 | 706 | 341 | 13,919 |
| 1944. | 8 | 562 | 103 | 13,187 | 242 | 630 | 353 | 14,379 |
| 1945. | 10 | 499 | 98 | 13,147 | 246 | 705 | 354 | 14,351 |
| 1946. | 3 | 526 | 105 | 11,406 | 219 | 706 | 327 | 12,638 |
| 1947. | 35 | 464 | 103 | 10,620 | 262 | 755 | 400 | 11,839 |
| 1948. | 15 | 351 | 99 | 9,980 | 271 | 825 | 385 | 11,156 |
| 19492. | 1 | 316 | 71 | 8,794 | 257 | 824 | 329 | 9,934 |
| 1950. | 18 | 297 | 67 | 8,108 | 232 | 744 | 317 | 9,149 |
| 1951. | 5 | 221 | 84 | 7,651 | 301 | 723 | 390 | 8,595 |
| 1952.......... | 2 | 183 | 74 | 7,019 | 317 | 707 | 393 | 7,909 |

[^271]Accidents tabulated include all those in which railway trains were involved and accidents on railway property. The classification of accidents used for DBS vital statistics treats collisions between motor-vehicles and trains as motor-vehicle accidents; provincial statistics also class them as motor-vehicle accidents and, consequently, adjustments should be made when compiling total accidental deaths of all kinds or comparing results of accidents of different kinds, such as train and motor-vehicle.
11.-Persons Killed or Injured on Steam. Railways, by Specified Cause, 1950-52


## Subsection 4.-The Canadian National Railway System

In view of the interest in Canada's publicly owned railway, the Canadian National Railway System is given separate treatment in this Subsection. Its history is presented in the following special article.

## THE HISTORY OF THE CANADIAN NATIONAL RAILWAYS

The Chapter on National Transportation Policy of the Report of the Royal Commission on Transportation (1951) includes the following statement:-

Canada, more by accident than by design, became the owner of what is today one of the largest railway systems in the world. This came about because the Federal and Provincial Governments had guaranteed the obligations of the railway companies which were later to become amalgamated into the Canadian National Railways System.

The Canadian National Railways System had its origin in Canada's first railway, the $14 \frac{1}{2}$-mile Champlain and St. Lawrence which began operations in 1836 between Laprairie and St. Johns, Que. The System now embraces this pioneer railway and many other short and long rail lines built in different parts of the country at different times and for different purposes. It is the corporate successor to the Grand Trunk, the Intercolonial, the Canadian Northern, the National Transcontinental and Grand Trunk Pacific Railways.

The Grand Trunk Railway was incorporated by Act of Parliament in 1852 to develop a railway system from Portland, on the United States Atlantic seaboard, through Montreal, Toronto, Stratford and Sarnia to Detroit, with an intended eventual extension to Chicago.

While the Grand Trunk toiled towards its objective, considerable railway activity prevailed in Nova Scotia and New Brunswick, although it embraced more ambition than actual construction. However, the British North America Act of 1867 stipulated that the newly constituted Dominion Government must build a railway connecting Halifax with the St. Lawrence at or near Quebec, and that the line should be started within six months of the date of Confederation. Surveyssome already started-were pressed to conclusion and construction of the Intercolonial Railway began immediately under the supervision of Sir Sandford Fleming.

Controversy developed over the route through New Brunswick. Three possible routes were available: northerly along the Baie de Chaleur; a central route; and a southerly route along the St. John River Valley. The northern route was chosen for military and economic reasons although it was longest and most expensive to build. The Government of Nova Scotia had already built a line from Halifax to Truro and the Grand Trunk had been built as far east as Rivière-du-Loup; the northerly route would therefore connect Truro and Rivière-du-Loup. The Intercolonial Railway was officially opened for traffic between Halifax and Lévis on July 1, 1876.

In 1879, the Intercolonial bought from the Grand Trunk the line from Rivière-du-Loup to Chaudière, the Grand Trunk reserving running rights from Chaudière to Point Lévis, opposite Quebec City. In 1897, Intercolonial secured running rights
over the Grand Trunk to Montreal and thus established a through route from Halifax and Saint John to Montreal. The Prince Edward Island Railway was built by the Provincial Government between 1871 and 1873 and became the property of the Dominion Government when the Island entered Confederation on July 1, 1875. It was thenceforward operated as part of the Intercolonial Railway.

The Intercolonial Railway was not built primarily as a commercial venture but rather to serve the political and economic needs of the country. It was built at high cost for the purpose of handling, speedily and efficiently, the traffic between the Maritimes and Quebec. Though it was never a financial success, its construction did much to strengthen the bonds of Confederation and also served a most useful purpose in developing the country.

The Grand Trunk Railway, meanwhile, had completed the Montreal-Portland section of its line in 1853, and by 1860 was complete from Montreal to Sarnia. In 1860, also, the Chicago, Detroit, and Canada Grand Trunk Junction Railway, extending from Sarnia to Detroit, was acquired by the Grand Trunk on perpetual lease. In 1880, through acquisition of certain lines and construction of connecting sections, the Grand Trunk had succeeded in acquiring its own line to Chicago, giving it, at last, a through route from Portland, Maine.

In the eight years immediately following the completion of the PortlandChicago route, the Grand Trunk, by pursuing a policy of purchasing practically all competing railroads, developed a network of lines covering Ontario. These lines were sufficient to form a compact railway empire and to promise lucrative earnings until early in the twentieth century, when the great stream of migration began to flow into the prairie regions west of the Great Lakes. Traffic, both passenger and freight, began in large volume and the Grand Trunk Railway, by reason of the restricted area in which it was operating, found itself virtually shut out from all this remunerative long-haul traffic. Inevitably, the directors reached the conclusion that a line should be built through Western Canada. The route proposed to the Government extended westward from North Bay, north of Lake Superior to a system of branch lines on the prairies, with an extension to the Pacific Coast. The Government, however, maintained that if such a line were constructed, the Grand Trunk would divert the through traffic to Portland, Maine, instead of to the Canadian ports of Halifax and Saint John.

An agreement was eventually negotiated by which the Grand Trunk undertook to organize the Grand Trunk Pacific Railway Company-capital stock of which would be completely owned by the Grand Trunk Railway Company-which would build and maintain a main line of railway extending from Winnipeg to the Pacific Coast with a system of branch lines throughout the Prairie Provinces. The Dominion Government agreed to build a railway to be called the National Transcontinental Railway to extend from Moncton, N.B., to Winnipeg, Man., which, upon completion, would be leased to the Grand Trunk Pacific Railway for a number of years at an agreed percentage of the cost of construction. It was also agreed that the Grand Trunk Pacific would construct a branch line from Lake Superior, at or near Fort

William, to a junction with the National Transcontinental; this line would be called the Lake Superior Branch. The agreement was ratified by an Act of Parliament -passed in 1903 (S.C. 1903, c. 71).

Construction of both the Grand Trunk Pacific and the National Transcontinental began in 1905. Work on the Grand Trunk Pacific proceeded both from Winnipeg, Man., and Prince Rupert, B.C., the railway's main line being divided into two Sections-the Prairie and the Mountain. The railway from Winnipeg to the Pacific Coast was completed in the autumn of 1914, and the branch line, for the handling of grain traffic via the Great Lakes, was built from Sioux Lookout on the National Transcontinental to Fort William, Ont. The Grand Trunk Pacific was formally opened to traffic on Jan. 1, 1916.

The National Transcontinental began constrúction of its line to Winnipeg from Moncton, in 1905. When the line was completed in 1915 the Government looked to the Grand Trunk Pacific to carry out its contract and take over the National Transcontinental for operation. The Grand Trunk Pacific then claimed that, owing to excessive cost of constructing the new lines and its own poor financial condition, it was not in a position to fulfil its obligations. After lengthy negotiations with the Grand Trunk Railway Company of Canada and the Grand Trunk Pacific, the Dominion Government decided to take over the operation of the National Transcontinental. Thus, the National Transcontinental Railway was operated from June 1, 1915, by the same management as the Canadian Government Railways. On Nov. 20, 1918, its operation was entrusted to the Board of Directors of the Canadian Northern Railway.

The Canadian Northern Railway owed its inception to the joint enterprise of two men, Sir William Mackenzie and Sir Donald Mann, who, in 1896, secured the charter of the Lake Manitoba Railway and Canal Company for a line extending from Gladstone to Winnipegosis, both in the Province of Manitoba. The following year, they started construction of a railway running from Winnipeg southeasterly towards the head of the Great Lakes, under charter of the Manitoba and Southeastern Railway. About the same time, they also began construction of the Ontario and Rainy River Railway, westerly from Port Arthur. After 1899, these various companies became known as the Canadian Northern Railway. The Minnesota and Manitoba Railway was chartered to build a connecting link through the 'North West Angle', the northern tip of the State of Minnesota, U.S.A.

The original intention of the Canadian Northern was to build a line from the head of the Lakes to Winnipeg and to the northern section of Manitoba, and through the then North-West Territories to Prince Albert and Edmonton. In 1901, a branch line was projected from Dauphin west to Gilbert Plains and in 1903 the management revised its original intention of building the line through Prince Albert and decided to continue its Dauphin line-via Grandview-through the more central section of the North-West Territories to Edmonton. Construction work on the main line proceeded vigorously, so that by June 30, 1910, the Canadian Northern system had 3,281 miles in active operation west of Lake Superior.

After completion of its primary objective, the Canadian Northern decided to push eastward from Port Arthur, Ont., and westward from Edmonton, Alta., and to become truly a transcontinental system. Subsidiary companies were formed under whose charters construction of these extensions was commenced and carried forward until early in 1914.

The financing of the Canadian Northern had been accomplished largely through government guarantees; in the early stages by the Provincial Governments and later by the Dominion Government. As the Company grew in importance, it reached the stage where it could use its own credit for financing and thereby raised large sums of money by the issue of perpetual debenture stock and convertible income charge debentures. However, because of the outbreak of World War I and owing to the financial stringency prevailing at that time, the Canadian Northern, Grand Trunk and Grand Trunk Pacific were unable to meet previous commitments. The Dominion Government thereupon appointed a Royal Commission to investigate the general railway situation in Canada.

The Royal Commission was appointed in 1916, under the Chairmanship of A. H. Smith, then President of the New York Central Railroad, and included Sir Henry Drayton, then Chairman of the Board of Railway Commissioners, and A. C. Acworth, an authority on English railways. The Commission was called upon to report on the status of Canada's three transcontinental railways, the reorganization considered necessary, and the best method of procedure should one or more lines be acquired by the Government.

In 1917, Sir Henry Drayton and A. C. Acworth presented to Parliament the Drayton-Acworth majority report, recommending that the Government take over the Grand Trunk, Grand Trunk Pacific, and Canadian Northern Railways and operate them, together with the Intercolonial and National Transcontinental, as one system. The Commission had come to this conclusion-though it pointed out the objections to such a government-operated system-because this appeared to be the only manner in which maintenance of adequate rail transportation could be assured, dislocation of Canadian credit avoided, and Government investment protected. A. H. Smith presented a minority report dissenting from the majority report.

The Commission's majority report was accepted by the Government and, in 1917, a Bill was introduced in Parliament implementing its recommendations and providing for the taking over of the Canadian Northern by the Canadian Government. In September 1918, the Government appointed a new Board of Directors charged with the operation of the Canadian Northern Railways. In November 1918, the management of the Canadian Government Railways was entrusted to the Board of Directors of the Canadian Northern Railway Company and in December of the same year, the use of the collective title "Canadian National Railways" was authorized.

It was recognized that, because of the interrelations of the Grand Trunk with the Grand Trunk Pacific, further study would have to be made before these railways could be absorbed into the newly-founded system, and negotiations were entered into with the Grand Trunk to determine the basis upon which the Government would acquire its properties.

In February 1919, the Grand Trunk notified the Government that it would not continue to operate the Grand Trunk Pacific after Mar. 10, and the Government, in consequence, appointed the Minister of Railways as receiver for it. In 1920, its management was entrusted to the Board of Directors appointed for the Canadian Northern Railway Company which operated it under receivership until the latter was terminated on May 27, 1927, and control was vested in the Canadian National Railways.

The final agreement covering the acquisition of the property of the Grand Trunk by the Government was reached in October 1919, and a Board of Arbitration was appointed to estimate the value of the preferred and common stock of the Company. A Board of Management, under the Chairmanship of Sir Joseph Flavelle, operated the property until Jan. 30, 1923, when formal amalgamation with the Canadian National Railway Company took place with Sir Henry Thornton as Chairman and President.

This then was the Canadian National Railways-a group of insolvent railways having a burden of interest debt that can be described only as fantastic: so much so, that the management of the day was faced with an apparently hopeless prospect financially. The component lines as a group could not even meet their operating expenses. The average annual operating loss for the five years preceding consolidation was over $\$ 9,000,000$ and other income charges brought the figure close to $\$ 12,000,000$. In addition, the new system was expected to carry a staggering burden of interest charges on the debt inherited from the predecessor companies.

Large expenditures were needed to co-ordinate the various lines and bring them to the standard required for efficient operation, yet there was no way of securing the necessary funds other than by borrowing from the public or the Government and this borrowing again increased the annual interest charges. Although the Dominion Government owned all the railways comprising the CNR, the money provided by the Government took the form of a loan on which fixed interest was payable. The Government took on the role of banker-or creditor-as well as that of proprietor; the Canadian National, in turn, was required to carry a crippling load of fixed interest charges on its borrowings, though it had only a low earning capacity to meet them initially. The Government, aware of the financial problems of the Railway, introduced legislation in 1932 whereby deficits would be met through a vote by Parliament instead of money being loaned at interest to the Railway.

In 1937, steps were taken to readjust the capital structure of the Railway. The CNR Capital Revision Act of that year wrote off all loans that had been made to cover deficits and also unpaid interest on those loans. The Act also cancelled the Grand Trunk and Canadian Northern stock that had been declared worthless by the Board of Arbitration in its 1921 report. The only portion of this Act that had any direct bearing on the Railway's fundamental program of abolishing fixed interest on day-to-day operations, was the clause whereby certain moneys, in the form of loans made for the purpose of additions and betterments, were converted to equity capital, relieving the CNR from paying fixed charges on this amount; this was the principal advantage of the legislation. However, contrary to popular belief, none
of the money invested by the Government in the Company itself was written off by the 1937 Act, nor was there any reduction of the interest-bearing debt in the hands of the public.

It was on the basis of this average debt that the Canadian National Railways sought relief from fixed interest charges in its submission to the Royal Commission on Transportation in 1950. The Commission had been appointed in 1948, by Order in Council P.C. 6033, to review the capital structure of the Canadian National Railways and report on the advisability of establishing and maintaining the fixed charges of that Company on a basis comparable to other major railways in North America.

The Canadian National Railways, in its initial brief to the Commission, proposed that the portion of its bonded indebtedness held by the Government should be converted to equity capital and to provide relief in respect to the lines operated in the public interest, the publicly held bonded indebtedness of the Canadian National Railways should be assumed in whole or in part by the Government or, alternatively, relief should be provided by such other action as could best be adapted to the needs of the'situation. Later, Mr. Donald Gordon, Chairman and President of the Company, submitted that the $\$ 760,000,000$ interest-bearing obligations held by the Government should be exchanged for equity capital and reflected in the balance sheet as such. He also asked that the Government acknowledge an indebtedness to the Canadian National Railways in the amount of $\$ 300,000,000$ to bear interest at 3 p.c. until discharged. This would be set up in the accounts of the CNR as a capital fund to be drawn on from time to time to retire interest-bearing obligations in the hands of the public or for capital additions to the property. As a consideration for the acknowledgment of the indebtedness, the CNR would issue a commensurate amount of equity stock to the Government. It was also submitted that development lines be financed by not more than 60 p.c. in the form of interest-bearing securities, the balance to be supplied by the Government against the issue by the CNR of a commensurate amount of equity stock to the Government. The Board of Directors of the Canadian National Railways considered that nothing short of these measures could be deemed adequate treatment of the capital structure of the Railway. The reasons for this stand were that the Railway, burdened with excessive fixed charges, was obliged to operate without due compensation as a matter of national policy and as an instrument of national development; further, that it possessed considerable milage of marginal and nonpaying lines, and that railway tariffs of rates and tolls had not kept pace with increased costs of labour and materials.

The Royal Commission concluded that the Canadian National Railways had established a case for reduction of fixed charges and for the desirability of the Company being able to accumulate a reserve out of earnings. The Commission recommended relief from the present heavy fixed charges so that deficits would not be experienced under efficient management when normal revenues are obtained; the accumulation out of earnings, when available, of some reserve, or what has come to be known as "something to come and go on" to provide additions and betterments; the payment to the Government of the balance, after interest charges on debts to the public and provision for a reasonable reserve had been made.

The Canadian National Railways Capital Revision Act was introduced in the House of Commons on June 4, 1952. The Act changed 50 p.c. of the Company's interest-bearing debt to preferred stock on which, after settling income taxes, a dividend of 4 p.c. would be paid on earnings; furthermore, for a term of 10 years ending Dec. 31, 1961, the Railway is not obliged to pay interest on $\$ 100,000,000$ of its long-term debt. The Act made provision for the Government to buy additional preferred stock annually in amounts related to the Company's gross revenues.

What the Act did not do is also important. It did not write off any of the money invested in the CNR. Nor did it guarantee freedom from deficits: at Dec. 31, 1953, $\$ 28,000,000$ of annual interest charges remained on the Railway's books. The Act has no direct effect on the taxpayer, but goes a long way towards correcting the impression that the CNR has been losing money on its current operations and is a burden to the taxpayer.

In Canada, the geographic location of newly discovered mineral wealth has been a main factor in the close relation between the Canadian National Railways and industry. Mineral discoveries have sparked a new phase of railway building; new, because machinery-bulldozers, steam shovels and power tools-has taken the place of the hand labour employed by the railway pioneers.

The Canadian National Railways first post-war venture into the field of railway building was the 40 -mile extension from Barraute to Beattyville. This was the first step in a move to eventually tap the extensive mineral deposits and forest reserves of the northern Quebec area. Surveying of this line began in 1916 and construction was completed in 1949.

In 1952, Parliament authorized the Canadian National Railways to build a 43 -mile line to Kitimat, B.C., to serve the Aluminum Company of Canada's new smelter. The terrain over which the line was built was rugged and the engineering problems were typical of those which had been encountered in the construction of the mountain section of the transcontinental line. The largest bridge on the line is the seven-span 1,018 -foot steel bridge over the turbulent Skeena River, near Terrace. Within a few years this new line will be carrying the necessities of life to a city of 50,000 to 60,000 people. At the same time it is opening up new fields for loggers and lumbermen in virgin timber stands and, it is expected, will play an important role in the development of the whole area.

An important mineral discovery in a remote area of northern Manitoba necessitated the construction of a 144 -mile rail line from Sherridon to Lynn Lake where Sherritt-Gordon Mines Limited is now working valuable nickel and copper ore deposits. When in the early 1940 's, Sherritt-Gordon found that the copper and zinc mines at Sherridon were running out, prospectors were dispatched to comb the northern hinterlands for new ore bodies. Deposits were discovered in 1941 at Lynn Lake, near the Saskatchewan border, 500 miles northwest of Winnipeg and 120 air-miles due north of Sherridon. However, the multi-million-dollar project of moving the entire town of Sherridon to the Lynn Lake site, constructing a 7,000-h.p. power plant and the new mine buildings, was not started until after World War II.

The CNR surveyed the new line in 1951 and awarded contracts for clearing and grading the right-of-way. Equipment, needed for construction of trestles and track-laying were transported over the frozen wastes during the winter of 1951-52 and actual track laying began on Aug. 7, 1952. The first train, powered by a diesel locomotive and carrying supplies for the town and the mine, reached Lynn Lake on Nov. 7, 1953. The 144 miles of track had been laid in exactly 15 months.

At peak production, more than 77,800 tons of nickel concentrates and 12,300 tons of copper concentrates will be shipped from Lynn Lake annually-the nickel concentrates to Fort Saskatchewan, on the outskirts of Edmonton, Alta., where plentiful resources of natural gas are available for the refining process, and the copper concentrates to Noranda, Que. The line will also handle the fish traffic from Reindeer Lake and other large northern lakes, and supplies of fuel and equipment required to serve the mine and the town of Lynn Lake and the many trading posts in the territory will constitute the inbound traffic.

Plans for two other rail extensions are being put into final form. The potential mineral and forest wealth at Chibougamau in northern Quebec is to be tapped and a new railway constructed from Beattyville, the present terminal of the Barraute line, to Cache Lake, a distance of 149 miles. From Cache Lake, the line will extend six miles due north to Chibougamau. The eastern arm of the line will link the region to St. Felicien in the Lake St. John district.

Another line will open up the Manitouwadge area of northwestern Ontario where rich deposits of copper, zinc and silver have recently been found. The line will run from Hillsport on the CNR main line, 42 miles west of Hornepayne, in a southerly direction to Lake Manitouwadge, a distance of approximately 27 miles. It is expected that the Manitouwadge area will produce ore at the rate of 10,000 tons a day and involve inbound traffic estimated at 60,000 tons annually.

Although aircraft is playing an important role in the discovery of new resources in the outlying areas of Canada and in their initial development, the provision of railway services is absolutely essential to the continuing life of such projects. Only the railway can provide a permanent, dependable and economical link with the markets in the better developed areas of Canada.

Financial Statistics of the Canadian National Railway System.*Capital Structure and Debt.-Major changes resulting from the Canadian Railways Capital Revision Act, 1952, were:-
(1) $\$ 736,385,405$ of interest-bearing debt to the Federal Government, which represented 50 p.c. of the borrowed capital outstanding on Dec. 1, 1951, was exchanged for Canadian National Railway Company 4 p.c. non-cumulative preferred stock. Dividends on the 4 p.c. preferred stock must be paid to the extent that earnings are available after income tax has been paid.
(2) Outstanding loans from the Federal Government to the amount of $\$ 100,000,000$ were converted into a $3 \frac{5}{8}$ p.c. 20 -year debenture which is to mature Jan. 1, 1972. No interest is payable on this debenture for the first 10 years.
(3) Capital stock of the Canadian National Securities Trust in the amount of $\$ 378,518,135$ was transferred to the Canadian National Railway Company in exchange for a like amount of the Company's capital stock.
(4) In each of the years 1952 to 1960, inclusive, the Federal Government will purchase 4 p.c. preferred stock in amounts equal to 3 p.c. of the annual gross revenues, these funds to be used by the Railway for financing capital improvements.
As a consequence of these adjustments, the proportion of total capitalization represented by equity capital in shareholder's account was raised from 34.5 p.c. at Dec. 31,1951 , to $67 \cdot 2$ p.c. at Jan. 1, 1952, and the proportion of borrowed capital was correspondingly reduced. It will be noted that these percentages are calculated exclusive of the $\$ 1,518,890$ of capital stock of subsidiary companies which was held by the public on the above dates.

[^272]The following statement shows the effect of the Act on the capitalization of the Company:

CAPITALIZATION OF THE CANADLAN NATIONAL RAILWAYS

| Item | $\begin{gathered} \text { Balance } \\ \text { at } \\ \text { Dec. } 81,1951 \end{gathered}$ | Year 1952 Adjustments Effective Jan. 1, 1952, under Capital Revision Act, 1952 | Year 1952 <br> Current <br> Transactions | $\begin{gathered} \text { Balance } \\ \text { at } \\ \text { Dec. } 31,1958 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| utry Capital- | \$ | \% | \$ | \$ |
| Capital stock of Canadian National Railway <br> Company | 18,000,000 | 378, $518,135^{1}$ |  | $396,518,135$ |
| Capital stock of the Canadian National Rail ways Securities Trust | 378,518, 135 | $-378,518,135^{1}$ | - | 396,518,135 |
| 4 p.c. preferred stock of Canadian National Railway Company. | , | $736,385,4052$ | 18,486,540 | 754,871,945 |
| Capital investment of Government of Canada in the Canadian Government Railways. | 379,877,514 | - | -105,270 | 379,682,244 |
| Goymrnment of Canada-Shareholders' Account. | $776,395,6493$ | 736,385,405 | 18,291,270 | 1,531,072,324 ${ }^{3}$ |
| Per cent of capitalization | $34 \cdot 5$ | - | - | 64.75 |
| Borrowed CapitalFunded debt. . | 615,197,035 | - | -9,702,206 | 605,494,829 |
| Government of Canada loans and debentures | 857,573, 774 | $-736,385,405^{2}$ | 106,866,796 | 228,055,165 |
| Totals, Borrowed Caprtal. | 1.472,770,809 | $-736,385,405$ | 97,164,590 | 833,549,994 |
| Per cent of capitalization. | $65 \cdot 5$ | - | - | $35 \cdot 25$ |
| Totals, Capitalization. | 2,249,166,458 ${ }^{3}$ | - | $115,455,860$ | 2,364,622,318 ${ }^{3}$ |

${ }^{1}$ The capital stock of the Securities Trust, previously owned by the Government of Canada, was transferred to the Canadian National Railway Company in consideration for a like amount of capital stock of the National Company. ${ }^{2}$ The 4 p.c. preferred stock is represented by shares having a par value of one dollar each, in respect of which non-cumulative dividends shall, from time to time, be paid to the extent that earnings are available for distribution in any year. The amount issued under the adjustment authorized by the Capital Revision Act, and for which a like amount of Government of Canada loans have been cancelled, is equal to 50 p.c. of the borrowed capital at Dec. 31, $1951 .{ }^{3}$ Excludes shares of subsidiary companies owned by public amounting to $\$ 4,518,890$ for 1951 and $\$ 4,516,490$ for 1952 .

## 12.-Capital Structure of the Canadian National Railway System, as at Dec. 31, 1944-53

Nore.-Information given in greater detail in DBS report, Canadian National Railways, 1989-53.

| At Dec. 31- | Shareholders' Capital |  | Funded Debt Held by Public |  | Government <br> Loans and <br> Appro- <br> priations- <br> Active <br> Assets <br> in Public <br> Accounts | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Government of Canada Shareholders' Account | Capital Stock Held by Public | Guaranteed by <br> Federal and Provincial Governments | Unguaranteed |  |  |
|  | \$ | 8 | \$ | $\$$ | 8 | \$ |
| 1944. | 754,695,486 | 4,669,840 | 579,287,482 | 50, 166,424 | 661,875,853 | 2,050,695,085 |
| 1945. | 777,326,528 | 4,643,040 | 528,275, 246 | 44,904,751 | 690,973,594 | 2,046,123,159 |
| 1946 | 776,018,575 | 4,635,440 | 488,772,318 | 41, 650,680 | 718,537, 286 | 2,029,614, 299 |
| 1947 | 774,195,901 | 4,570,940 | 538,759,177 | 44, 100, 584 | 689,470,349 | 2,051,096,951 |
| 1948. | 774,242,649 | 4,567,540 | 492,437,507 | 91, 795, 151 | 760,494,825 | 2,123,537,672 |
| 1949. | 774,448,716 | 4,560,290 | 539,706,744 | 85, 159,176 | 743,661, 162 | 2,147,536,088 |
| 1950. | 776,395,649 | 4,520,890 | 566,418,607 | 92,611, 634 | 739,847,514 | 2,179, 794, 294 |
| 1951. | $776,395,649$ | 4,518,890 | 518,396,607 | 96,800,428 | 857,573,774 | 2,253,685,348 |
| 1952. | 1,531,072,324 | 4.516,490 | 518,396,607 | 87,098,222 | 228,055, 165 | 2,369, 138,808 |
| 1953. | 1,552,050,067 | 4,514,490 | 513,977,391 | 75,834,299 | 342,140,048 | 2,488,516,295 |

Assets.-In Table 13, the assets of the Canadian National Railway System as at Dec. 31, 1953, are compared with those at the time of consolidation of the System.
12.-Assets of the Canadian National Railway System, as at Dec. 31, 1922 and 1953

| Account | Dec. 31, 1922 | Dec. 31, 1953 | Increase or <br> Decrease |
| :---: | :---: | :---: | :---: |
|  | $\leqslant$ | \$ | \$ |
| Investments- |  |  |  |
| Road and equipment. | 1,765,323,644 | 2,488,946,890 | +723,623,246 |
| Improvements on leased railway property | 1,492,123 | 1,216,308 | -275,815 |
| Sinking funds.. | 4, 629,855 |  | $-4,629,855$ |
| Deposits in lieu of mortgaged property sold | 6, 171,808 | 4,719,831 | -1,451,977 |
| Affiliated companies........... | 24,253,323 | 54,785,126 | $+36,810,153$ $+30,531,80$ |
| Other investments... | 5,789,464 | 692,454 | -5,097,010 |
| Totals, Investments. | 1,842,428,131 | 2,621,94, 676 | +779,516,545 |
| Current Assets- |  |  |  |
| Cash. | 14,651,422 | 18, 196, $743{ }^{1}$ | +3,545,321 |
| Special deposits. | 6,139,435 | 4,522,972 | -1,616,463 |
| Loans and bills receivable | 11,600 |  | -11,600 |
| Traffic and car service, balances receivable...... | 2,528,622 | - ${ }^{-}$ | -2,528,622 |
| Net balances receivable from agents and conductors. | 5,386,673 | 24,685,898 | +19,299,225 |
| Miscellaneous accounts receivable................... | 16,857,420 | 21,029,259 | +4,171,839 |
| Materials and supplies. | 41,408,999 | 108,898,665 | -67,489,666 |
| Interest and dividends receivable | 377,003 | 53,722 | $-323,281$ |
| Rents receivable.... | 106,775 | 7,793,940 | $-712,269$ $+7,687,165$ |
| Totals, Current Assets. | 87,580,218 | 185,181,199 | +97,600,981 ${ }^{2}$ |
| Deferred Assets- |  |  |  |
| Working fund advances. | 166,847 | 538,321 | +371,474 |
| Insurance and other funds | 352,488 | 14,058,145 | +13,705,657 |
| Pension contract fund. |  | 85,870,000 | +85,870,000 |
| Other deferred assets | 11,805,962 | 1,795,763 | -10,010,199 |
| Totals, Deferred Assets. | 12,325,297 | 102,262,229 | +89,936,932 |
| Unadjusted Debits- |  |  |  |
| Rents and insurance premiums paid in advance ...... | 322,059 | 903,096 | +581,037 |
| Discount on capital stock | 634,960 | - | $-634,960$ |
| Discount on funded debt. | 1,919,635 | 2,557,650 | +638,015 |
| Other unadjusted debits. | 12,820,903 | 5,131,415 | -7,689,488 |
| Totals, Unadjusted Debits | 15,697,657 | 8,592,161 | -7,105,396 |
| Grand Totals | 1,958,031,203 | 2,917,980,265 | +959,949,062 |

${ }^{1}$ Includes demand loans and deposits.
${ }^{\mathbf{2}}$ Increase in current liabilities $\mathbf{\$ 9 , 6 7 4 , 6 1 6}$.

Operating Finances.-Gross revenue, operating expenditure and net revenue include only those from steam railway and commercial telegraph operations, but the deficits are for the entire System, including the operating results of the Niagara, St. Catharines and Toronto Railway (electric) and other railways operated separately, hotels, commercial telegraphs, coastal steamships and all other outside operations.

## 14.-Gross Revenue, Operating Expenditure, Net Revenue, Fixed Charges and Deficits of the Canadian National Railway System, ${ }^{1}$ 1944-53

Note.-Figures for 1911-25 are given in the 1936 Year Book, p. 660 ; for 1926-39 in the 1942 Year Book,
p. 590 ; and for $1940-43$ in the 1951 edition, p. 731. Figures for Newfoundland are included from Apr. 1, 1949 .

| Year | Gross Operating Revenue | Operating <br> Expenditure | Income Available for Fixed Charges | Total Fixed Charges | Net Income Deficit ${ }^{2}$ | Cash <br> Deficit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | 8 | \$ | \$ |
| 1944 | 441, 147, 510 | 362,547,044 | 73,473,733 | 50,474,480 | Cr. 22,999, 253 | Cr. 23,026,924 |
| 1945. | 433,773,394 | $355,294,048$ | 73,521,185 | 49,009,507 | Cr. 24,511,678 | Cr. 24,756, 130 |
| 1946. | 400,586, 026 | 357,236,718 | 37,239,784 | 46,685,316 | 9,445,532 | 8,961,5703 |
| 1947. | 438,197,980 | 397,122,607 | 29,330,757 | 45, 925,891 | 16,595,134 | $15,885,194{ }^{3}$ |
| 1948. | 491, 269,950 | 464,739,970 | 12,502,931 | 46,341,727 | 33,838,796 | $33,532,741{ }^{3}$ |
| 1949. | 500,723,386 | 478,501,660 | 6,152,649 | 48,631,896 | 42,479,247 | 42,043,027 ${ }^{3}$ |
| 1950. | 553,831,581 | 493,997,079 | 44,084,904 | 47,421,983 | 3,337,079 | 3,261,235 |
| 1951. | 624,834,120 | 580,150,221 | 31,722,489 | 48,176,558 | 16,454,069 | 15,031,996 |
| 1952. | 675,219,415 | 634,852,915 | 25,702,660 | 25,415,189 | Cr. 287,471 | Cr. 142,327 |
| 1953 | 696,622,451 | 659,049,086 | 29,238,623 | 29,376,160 | 137,537 | Cr. 244,017 |

${ }^{1}$ Includes the Central Vermont Railway, Inc.
: Includes appropriations for insurance fund.

Milage and Traffic.-At Dec. 31, 1953, main-track milage (exclusive of electric lines) of the Canadian National Railways (including lines in the United States and Newfoundland but exclusive of the Northern Alberta Railways and Toronto Terminals Railway lines, controlled jointly by the Canadian National and the Canadian Pacific Railways) was 24,368 miles. Including the Thousand Islands Railways, 4.51 miles, controlled but operated separately, the total milage was $24,372 \cdot 5$. The grand total, including $72 \cdot 9$ miles of electric lines, was $24,445 \cdot 4$ miles.

## 15.-Train Traffic Statistics of the Canadian National Railways (Canadian and United States Lines), 1952 and 1953

(Exclusive of electric lines)

| Milage and Traffic | 1952 | 1953 |
| :---: | :---: | :---: |
| Train Milage- |  |  |
| Passenger trains.............................................miles | 25,533,678 | 24,949,141 |
| Freight trains.............................................. * | 49,541,512 | 46,883,109 |
| Totals, Train Miles............................. No. | $\mathbf{7 5 , 0 7 5 , 1 9 0}$ | 71,832,250 |
| Passenger-Train Car Milage- |  |  |
| Coaches and combination................................. miles | 71,032,668 ${ }^{\text {1 }}$ | 67,478,3301 |
| Motor unit cars............................................. " | 969,111 | 1,021,566 |
| Parlour, sleeping and dining cars......... ................ | 65,281,036 | 64,340,084 |
| Baggage, mail, express, etc................................. | 98,324,513 | 99,560,767 |
| Totals, Passenger-Train Car Miles............ No. | 235,607,328 | 232,400,747 |

[^273]
## 15.-Train Traffic Statistics of the Canadian National Railways (Canadian and United States Lines), 1952 and 1953-concluded

| Milage and Traffic | 1952 | 1953 |
| :---: | :---: | :---: |
| Freight-Train Car Milage- |  |  |
| Loaded freight-car.................................................. miles | $\begin{array}{r} 1,348,655,134 \\ 636,815,274 \\ 18 \end{array}$ | $\begin{array}{r} 1,308,501,856 \\ 632,418,375 \\ 16,200,772 \end{array}$ |
| Caboose . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 48,778,742 | 46,399,773 |
| Totals, Freight-Train Car Miles............. No. | 2,034,219,150 | 1,387,320,004 |
| Passenger Traffic - |  |  |
|  | $\begin{array}{r} 18,832,815 \\ 1,635,201,983 \end{array}$ | $\begin{array}{r} 18,080,958 \\ 1,538,832,219 \end{array}$ |
| Passenger-train miles per mile of road........................ " | 1,05, 1,056 | 1,53, 1.033 |
| Average passenger journey................................. miles | 86.83 | 85.11 |
| Average amount received per passenger. . . . . . . . . . . . . . . | $2 \cdot 57349$ | 2.53948 |
| Average amount received per passenger mile................. | 0.02964 | $0 \cdot 02984$ |
| Average passengers per train mile.......................... No. | 64.04 | $61 \cdot 68$ |
| Average passengers per car mile........................... | 12.75 3.86 | 12.40 3.98 |
| Total passenger-train revenue per mile of road.................. | 4,076.82 | 4,113.98 |
| Freight Traffic- |  |  |
| Revenue freight carried............................ ...... tons | 90.053, 919 | 86, 523,327 |
| Revenue freight carried one mile............ ............ | 38,430,494,637 | 36,677,980, 252 |
| Revenue (reight carried one mile per mile of road. . . . . . . . | 1,584,763 | 1,513,672 |
| Total (all classes) freight carried one mile per mile of road. . "* | 1,708,033 | 1,626, 843 |
| Average tons revenue freight per train mile............... No. | ${ }^{776}$ | 782 |
| Average tons (all classes) freight per loaded car mile....... "/ | $30 \cdot 64$ | $30 \cdot 03$ |
| Average hauls revenue freight. . . . . . . . . . . . . . . . . . . . . . .miles | 426.75 | 423.91 |
| Freight revenue per train mile........ ..................... $\%_{8}$ | 10.83 | 11-81 |
| Freight revenue per mile of road......................... .. 8 | 22,187-81 | 22,921-32 |
| Freight revenue per ton................................... \& $^{\text {d }}$ | $5 \cdot 96$ | ${ }^{6.40}$ |
| Freight revenue per ton mile......................... .. \% | 0.01397 | $0 \cdot 01501$ |

## Section 2.-Electric Railways*

Replacing the horse-car systems, used in Montreal and Toronto as early as 1861, electric street railways were first seen in operation in Canada in 1885, when a successful experimental railway was constructed and operated at the Toronto Exhibition Grounds. The first electric railway line in Canada, and probably the first in North America, ran between Windsor and Walkerville, Ont. and was established early in June 1886 (it is recorded that it was in active operation before June 11).

Cheap and reasonably rapid passenger conveyance is a necessity of modern urban life. In some cities of Eastern Canada, electric railways are still operated by private companies under city franchises, but in a number of cities in Ontario and Western Canada the electric railways are owned and operated by the municipalities. The number of electric railways in operation declines each year as motor- and trolley-buses replace electric trams. Of the 22 systems in service in 1952, six operated electric cars, motor-buses and trolley-buses; nine operated trolleybuses and motor-buses; three operated electric cars only; one, electric cars and motor-buses; and one, trolley-buses only. Equipment of electric railways is shown in Table 16.

[^274]16.-Equipment of Electric Railways, 1950-52

| Equipment | 1950 | 1951 | 1952 | Equipment | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Passenger Vehicles- | No. | No. | No. | Other Vehicles- | No. | No. | No. |
| Closed cars......... | 2,594 | 2,399 | 2,307 | Baggage, express and |  |  |  |
| Open cars. |  |  | 4 | mail cars............. | 16 | 12 | 11 |
| Combination passenger |  |  |  | Freight cars............ | 88 57 | 86 54 | 82 |
| Cars without electrical | 5 | 5 | 5 | Locomotives............ | 57 <br> 53 | 54 51 | 55 47 |
| equipment... | 130 | 123 | 108 | Sweepers. | 81 | 74 | 65 |
| Motor-buses. | 1,927 | 1,979 | 2,090 | Trucks................. | 137 | 139 | 153 |
| Trackless trolley-buses. | 909 | 1,035 | 1,067 | Miscellaneou | 176 | 158 | 177 |
| Totals, Passenger Vehícles. | 5,571 | 5,545 | 5,581 | Totals, Other Vehicles... | 608 | 574 | 590 |

Finances.-The financial statistics of electric railways given in Table 17 have been greatly affected by variations in traffic and by changes in mode of local transportation. When electric railways have ceased operation because of decline in traffic or have substituted other types of rolling-stock, their figures have been dropped from the tabulation. Despite changing conditions, however, the gross revenue of electric railways increased each year from a low point reached in 1933; very marked increases were shown from 1940 to 1945 . The ratio of expenses to receipts rose from a low of 68 p.c. in 1943 to 97 p.c. in 1952. Many systems have changed over from private to public ownership in the past few years which accounts for much of the recorded decline in the value of stocks and the increase in funded debt.

## 17.-Financial Statistics of Electric Railways, 1943-52

Norg.-Figures for 1901-42 are given in the corresponding table of previous Year Books beginning with the 1926 edition.

| Year | Capital Liability |  |  | $\left\|\begin{array}{c}\text { Investment } \\ \text { in } \\ \text { Road and } \\ \text { Equip- } \\ \text { ment }\end{array}\right\|$ | Gross Earnings | Operating Expenses | Ratio of Expenses to Receipts | Employees | Salaries and Wages |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Stocks | Funded | Total |  |  |  |  |  |  |
|  | \$ | \$ | \$ | 8 | 8 | \$ | p.c. | No. | \$ |
| 1943 | 37,492,392 | 147,433,845 | 184,926, 237 | 204, 586, 208 | 80,027,414 | 54,548,335 | 68.16 | 17,896 | 33,975,281 |
| 1944 | 37,540,432 | 142,364, 766 | $179,905,198$ | 202,666, 204 | 84,730, 173 | 58, 202,151 | 68.69 | 19,034 | 36,845, 152 |
| 1945 | 37,329,194 | 142,384,083 | $179,713,277$ | 205,026,475 | 88,939,451 | 64,533,940 | 72.56 | 20,091 | 39,364, 771 |
| 1946. | 35,656,763 | 132,042,089 | 167,698,852 | 203,537,797 | 87,515,721 | 75,550,821 | 86.33 | 21,700 | 45, 675,363 |
| 1947 | 33,915,932 | 138,246,540 | $\mid 172,162,472$ | 218,439,361 | 86,519,712 | 81,787,723 | $94 \cdot 53$ | 22,627 | 50, 117,441 |
| 1948 | 28,138,481 | 140,692,280 | 168,830,761 | 217,385, 299 | 89,310, 215 | 88,024,727 | 98.56 | 22,593 | 55,268.083 |
| 1949 | 27,425,491 | 143,944, 716 | 171,370, 207 | 242,095,483 | 95, 596,394 | 92,378,848 | 96.63 | 21,661 | 59, 155, 605 |
| 1950. | 27,252,391 | 159, 192,587 | 186,444,978 | 223,224, 556 | 91,034,058 | 89,414,380 | 98.22 | 21,869 | 57,645,574 |
| 1951. | 20,252,391 | 179,159,159 | 199,411,550 | 255,057,250 | 99, 114,548 | 97,880,959 | 98.76 | 21,052 | 64,188,551 |
| 1952. | 5,535,7951 | 147,980,382 | 53,516, 177 | 260,037,852 | 104,028,691 | 101,110,712 | 97-20 | 20,268 | 67,252,025 |

[^275]Traffic.-In 1952, electric cars travelled 73,165,934 miles in passenger service, trackless trolley-buses operated by electric-railway companies travelled 34,117,476 miles and motor-buses $59,148,827$ miles. Although most of the urban centres in which transit services operate have greatly extended their populated areas in the post-war years, electric cars and buses travelled fewer passenger miles each year since 1948 and the number of fare passengers carried declined each year since 1946.

## 18.-Traffic Statistics of Electric-Railways, 1943-52

Nors.-Figures for 1901-42 are given in the corresponding table of previous Year Books beginning with the 1933 edition.

| Year | Miles of Road |  | Electric Car and Bus Milage |  |  | Fare Passengers Carried ${ }^{1}$ | Freight Carried ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | With Double Track | Passenger | Other | Total |  |  |
|  | miles | miles | miles | miles | miles | No. | tons |
| 1943. | 1,019-29 | 487.91 | 164,050,357 | 2,773,462 | 166,823,819 | 1,177,003,883 | 3,751,785 |
| 1944. | 1,019•69 | $490 \cdot 17$ | 169,421,343 | 2,756,755 | 172,178,098 | 1,249,707,399 | 3,769,959 |
| 1945 | 1,015-54 | 488.30 | 175,498,520 | 2,777,976 | 178,276,496 | 1,316,571,540 | 3,639,989 |
| 1946. | 1,004.44 | $485 \cdot 06$ | 177, 256,084 | 2,822,300 | 180,078,384 | 1,344,916,773 | 3,506,805 |
| 1947. | $895 \cdot 25$ | 436.95 | 180,204,812 | 2,808,252 | 183,013,064 | 1,323,723,782 | 3,655,278 |
| 1948. | 778.92 | 391.78 | 182,943,709 | 3,038,989 | 185,982,698 | 1,309, 565,795 | 4,050,111 |
| 1949. | $719 \cdot 31$ | $356 \cdot 61$ | 173,849,096 | 3,048,146 | 176,897, 242 | 1,240, 558,812 | 3,702,016 |
| 1950 | 662.96 | 326.90 | 173,285,475 | 3,562,144 | 176,847,619 | 1,192,058,052 | 4,115, 974 |
| 1951. | $595 \cdot 38$ | 293.87 | 167,316,921 | 3,646,069 | 170,962,990 | 1,133,393,935 | 4,479,404 |
| 1952. | 567.79 | $272 \cdot 02$ | 166,432,237 | 3,759,193 | 170,191,430 | 1,109,299,866 | 4,079,474 |

[^276]
## 19.-Passengers, Employees and Others Killed or Injured on Electric Railways, 1943-52

Norg.-Figures for 1900-42 are given in the corresponding table of previous Year Books beginning with the 1926 edition.

| Year | Passengers |  | Employees |  | Others |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Killed | Injured | Killed | Injured | Killed | Injured | Killed | Injured |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| 1943. | - | 4,301 | 7 | 722 | 78 | 1,491 | 80 | 6,514 |
| 1945. | 3 2 | 3,980 4,092 | 7 <br> 3 | 835 944 | 88 104 | 1,556 1,592 | 98 109 | 6,371 |
| 1946. | 8 | 4.009 | 3 | 904 | 66 | 1,584 | +77 | 6,497 |
| 1947. | 2 | 4,181 | 4 | 910 | 71 | 1,469 | 77 | 6,560 |
| 1948. | 2 | 3,792 | 5 | 1,336 | 74 | 1,328 | 81 | 6,456 |
| 1949. | 1 | 3,688 | 1 | 1766 | 63 | 1,239 | 65 | 5,693 |
| 1950. | - | 3,718 | 1 | 730 | 44 | 1,204 | 45 | 5,652 |
| 1951. | - | 3,392 | 2 | 650 | 42 | 1,998 | 44 | 5,040 |
| 1952. | 2 | 3,551 | 1 | 655 | 40 | 1,046 | 43 | 5.252 |

The Toronto Underground Electric Railway.-Construction of Canada's first underground electric railway or subway commenced at Toronto in 1949 and the line was put into operation in March 1954. The route of the subway follows the general line of Yonge Street, a distance of about 4.5 miles from Front Street to Eglinton Avenue. Twelve stations are located along the line and a pedestrian tunnel links the Union Station and the Royal York Hotel with the subway. Sub-surface sections of the subway are from six to 20 feet underground. Rapidtransit cars, 104 in number, each of 62 -passenger capacity, are used. The 500 -foot platforms at all stations accommodate trains of up to eight cars in length which handle a peak load of 40,000 passengers an hour in each direction.

## Section 3.-Express Companies

Express service is an expedited freight service on passenger trains, but express companies do not own the means of performing these services; railway facilities are used by virtue of contracts with the railway companies. Express companies in Canada have always operated in close co-operation with the railways.

Goods are sent by express for quick transit, so that express rates do not generally compete with freight rates. The Dominion Express Company, in pursuance of its contract with the Canadian Pacific Railway, gave, in its first tariff, a rate of two and one-half times the maximum first-class railway freight rate for the same goods carried the same distance. The majority of the contracts between express and railway companies for carrying express freight are on the basis of a percentage of the gross express revenue and the rates paid by the shipper are subject to the approval of the Board of Transport Commissioners. All express companies are organized under powers conferred by Federal Government legislation and their business consists in the expeditious shipment of valuable live stock and such perishable commodities as fresh fish, fruit, etc., the forwarding of parcels, and the issue of money orders, travellers cheques, letters of credit and other forms of financial paper.

Express Company Operations.-Four express organizations operate in Canada - three Canadian and one American. The Canadian Pacific Express Company, formerly the Dominion Express Company, is a subsidiary of the Canadian Pacific Railway and handles the express business on the railways and the inland and ocean steamship lines of the parent company. The express business of the Canadian National and Northern Alberta Railways is handled by departments of the respective railways. The Railway Express Agency, Incorporated, operates over the Canadian sections of United States railways and over the route from Skagway, Alaska, to points in Yukon Territory. No statistics are available on the volume of traffic carried by express because much of the traffic consists of parcels and small lots that would make statistical classification and measurement very difficult.

## 20.-Milages operated by, and Revenue and Expenditure of, Express Companies, 1944-53

Norg.-Figures for 1911-43 are given in the corresponding table of previous Year Books beginning with the 1927-28 edition.

| Year or Company | Milages Operated ${ }^{1}$ | Gross Earnings | Operating <br> Expenditure | Express Privileges ${ }^{2}$ | Net Operating Revenue |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | \$ | \$ | \$ |
| 1944. | 50,668 | 34,357,760 | 18,856,659 | 15,301,512 | 199,589 |
| 1945. | 50,938 | 37, 171, 862 | 20,040,339 | 16,711,647 | 419,876 |
| 1946. | 51,365 | 39,260,553 | 22,670,616 | 16,841,229 | Dr. 251,293 |
| 1947. | 51,341 | 42,314,758 | 25, 770, 190 | 17,650,061 | Dr. 1,105,493 |
| 1948 | 51,840 | 46,809,112 | 30,398,053 | 18,785,988 | Dr. 2,374,929 |
| 1949 | 54,806 | 51,966,290 | 32,385,223 | 21,226,817 | Dr. 1,645,750 |
| 1950. | 55,581 | 52,017,492 | 32,881,689 | 21,355,956 | Dr. 2,220,153 |
| 1951. | 57,355 | 60,423,503 | 38,374, 128 | 21,037, 164 | 1,012,211 |
| 1952. | 57,335 | 70,185, 114 | 44,744,018 | 24,428,739 | 1,012,357 |
| 1953 |  |  |  |  |  |
| Canadian National Express...... |  |  |  |  |  |
| Canadian Pacific Express......... | 21,544 | 33,307,083 | 21,836,070 | 11,056,090 | 414,923 |
| Northern Alberta Railways...... | -928 | 680,844 | 315,617 | 307,638 | 57,589 |
| Railway Express Agency, Inc.... | 3,256 | 1,616,594 | 797,856 | 806,412 | 12,326 |
| Totals, 1953. | 55,805 | 74,296,948 | 49,569,842 | 23,584,806 | 1,142,300 |

[^277]21.-Business Transacted by Express Companies in Financial Paper, 1999-53

| Item | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ |
| Money orders, domestic and foreign...... | 131,358,491 | 121,476, 102 | 137,215,925 | 134,870,537 | 134,996,758 |
| Travellers cheques, domestic and foreign. | 8,250,196 | 9,242,789 | 7,753,328 | 7,332,881 | 7,589,928 |
| C.O.D. cheques......................... | 23,527,669 | 21,292,175 | 24,186,587 | 23,826,544 | 22,144,909 |
| Telegraphic transfers. | 187,522 | 153,140 | 191,188 | 255, 243 | 274,705 |
| Totals. | 163,323,878 | 152,161,206 | 169,347,078 | 166,285,205 | 165,006,300 |

22.-Kmployees, Salaries, Wages and Commissions of Express Companies, 1944-53

| Year | Full-Time Employees | Salaries and Wages ${ }^{1}$ | Commissions Paid | Year | Full-Time Employees | Salaries and Wages ${ }^{1}$ | $\begin{aligned} & \text { Com- } \\ & \text { missions } \\ & \text { Paid } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | \$ |  | No. | \$ | \$ |
| 1944. | 6,705 | 13,263,739 | 1.729,195 | 1949. | 8,809 | 23,621,322 | 2,283,425 |
| 1945. | 7,160 | 13,945,167 | 1.846,884 | 1950. | 8.974 | 24,195, 490 | 2,177,933 |
| 1946. | 7,430 | 16,060,439 | 1,975,856 | 1951. | 9,610 | 28,607,463 | 2,443,341 |
| 1947. | 8,017 | 15.308, 793 | 1.995,947 | 1952 | 10.849 | 32,503,058 | 2,689,830 |
| 1948. | 8,525 | 22,212,249 | 2,157,489 | 195 | 12,119 | 37,413,060 | 2,795,766 |

${ }^{1}$ Includes wages paid to part-time employees.

## PART III.--ROAD TRANSPORTATION*

In this Part of the Chapter, highways and motor-vehicles are treated as related features of transportation. Following an introductory section, which summarizes provincial regulations regarding motor-vehicles and motor traffic, the entire subject of road transportation is dealt with under the headings of roads and highways and motor-vehicles.

## Section 1.-Provincial Motor-Vehicle and Traffic Regulations $\dagger$

Nort.-It is obviously impossible to include here the great mass of detailed regulations in force in each province and territory; only the more important general information is given. The sources of information for detailed regulations for specific provinces and territories are given at pp. 857-858.

General.-The registration of motor-vehicles and of motor-vehicle traffic lies within the legislative jurisdiction of the provincial and territorial governments. Regulations that are common to all provinces and territories are summarized under the following headings:-

[^278]Operator's Licences.-The operator of a motor-vehicle must be over a specified age (usually 16 years) and must carry a licence, obtainable in most provinces only after prescribed qualification tests and is renewable annually. Special licences are required for chauffeurs and, in some jurisdictions, for those granted licences who have not reached the specified age.

Motor-Vehicle Regulations.-In general, all motor-vehicles and trailers must be registered annually, with the payment of specified fees, and must carry two (one only in Saskatchewan and Alberta) registration plates, one on the front and one on the back of the vehicle (one only for the back in the case of trailers). A change of ownership of the vehicle must be recorded with the registration authority. However, exception from registration is granted for a specified period (usually at least 90 days) in any year to visitors' private vehicles registered in another Province or a State that grants reciprocal treatment. Further regulations require a safe standard of efficiency in the mechanism of the vehicle and of its brakes, and stipulate that equipment include non-glare headlights, a proper rear light, a satisfactory locking device, a muffler, a windshield wiper, and a rear-vision mirror.

Traffic Regulations. - In all provinces and territories, vehicles keep to the right-hand side of the road. Everywhere motorists are required to observe traffic signs, lights, etc., placed at strategic points on highways and roads. Speed limits, usually of 50 miles per hour ( 60 in Alberta), are in effect; slower speeds are always required in cities, towns and villages, in passing schools and public playgrounds, at road intersections, railway crossings, or at other places or times where the view of the highway for a safe distance ahead is in any way obscured. Motor-vehicles must not pass a tram that has stopped to take on or discharge passengers, except where safety zones are provided. Accidents resulting in personal injury or property damage must be reported to a provincial or municipal police officer and a driver involved must not leave the scene of an accident until he has rendered all possible aid and disclosed his name to the injured party.

Penalties.-Penalties ascend in scale from small fines for minor infractions of any of the regulations to suspension of the operator's driving permit, impounding of the car, or imprisonment for serious infractions, recklessness, driving without an operator's licence, and especially for attempting to operate a motor-vehicle while intoxicated.

Safety Responsibility Legislation.-Each province of Canada has enacted legislation under this heading (sometimes referred to as Financial Responsibility Legislation). In general, the legislation provides for the automatic suspension of the driver's licence and motor-vehicle permit of a person convicted of an offence arising out of a motor-vehicle accident. The suspension remains effective until proof of financial responsibility is filed. The object of this law is to encourage safe driving by imposing more severe penalties for carelessness. The latest amendments to the safety legislation of the various provinces is given in the 1954 Year Book, pp. 805-808.

Although Safety Responsibility Legislation has not been enacted in either the Yukon Territory or the Northwest Territories, the Motor Vehicle Ordinances of the two Territories require the owner of a motor-vehicle to submit evidence of stipulated insurance coverage on such vehicle before he can obtain registration.

Unsatisfied Judgment Funds.-In recent years a new type of motor-vehicle legislation has been enacted in all provinces except Quebec and Saskatchewan. This has usually taken the form of an amendment to the motor-vehicle laws of the province and provides for the establishment of an Unsatisfied Judgment Fund, out of which are paid judgments awarded for damages arising out of motor-vehicle accidents in the province which cannot be collected in the ordinary process of law. The Fund is created by the collection annually of an Unsatisfied Judgment Fund fee from the registered owner of every motor-vehicle or from every person to whom a driver's licence is issued. This fee does not exceed $\$ 1$ per annum. A feature of this legislation which is contained in some provincial statutes provides for the payment of judgments in the so-called 'hit and run' accidents. When these occur, if neither the owner nor the driver can be identified, action may be taken against the Registrar of Motor Vehicles; any judgment secured against the Registrar is paid out of the Fund. All of these laws contain a provision limiting the amount that can be paid out of the Fund on one judgment. The limits are $\$ 5,000$ for one person, $\$ 10,000$ for two or more persons injured in one accident and $\$ 1,000$ for property damage. For 'hit and run' accidents payments are made for personal injuries or death only.

Sources of information for provincial motor-vehicle and traffic regulations:-

## Newfoundland

Administration.-Deputy Minister of Public Works, St. John's.
Legislation.-The Highway Traffic Act, 1941, as amended.

## Prince Edward Island

Administration.-The Provincial Secretary, Charlottetown.
Legislation.-The Highway Traffic Act (R.S.P.E.I. 1951, c. 73).

## Nova Scotia

Administration.-Motor Vehicle Branch, Department of Highways and Public Works, Halifax.
Legislation.-The Motor Vehicle Act (1932, c. 6) as amended, and the Motor Carrier Act (R.S.N.S. 1923, c. 78) as amended.

## New Brunswick

Administration.-Motor Vehicle Division, Provincial Tax Branch, Department of Provincial Secretary-Treasurer, Fredericton.
Legislation.-The Motor Vehicle Act (R.S.N.B. 1951, c. 73) as amended.

## Quebec

Administration.-Motor Vehicle Bureau, Provincial Revenue Offices, Finance Department, Quebec.
Legislation.-The Motor Vehicle Act (R.S.Q. 1941, c. 142) as amended.

## Ontario

Administration.-Motor Vehicles Branch, Department of Highways, Toronto.
Legislation.-The Highway Traffic Act (R.S.O. 1937, c. 288) as amended, the Public Vehicle Act, 1949, and the Public Commercial Vehicle Act, 1949.

## Manitoba

Administration.-Provincial Treasurer, Winnipeg.
Legislation.-The Highway Traffic Act (R.S.M. 1940, c. 93) as amended.

## Saskatchewan

Administration.-Treasury Department, Highway Traffic Board, Revenue Building, Regina.
Legislation.-The Vehicles Act (R.S.S. 1951, c. 85).

## Alberta

Administration.-Motor Vehicle Branch, Department of the Provincial Secretary, Edmonton, and the Highway Traffic Board, Department of Highways, Edmonton.
Legislation.-The Vehicles and Highway Traffic Act (R.S.A. 1942, c. 275) as amended, the Motor Vehicles Accident Indemnity Act (1947, c. 11) as amended, the Public Service Vehicles Act (R.S.A. 1942, c. 276), and Rules and Regulations. The Vehicles and Highway Traffic Act and Motor Vehicle Accident Indemnity Act are administered by the Motor Vehicle Branch, Department of the Provincial Secretary, and the Public Service Vehicles Act by the Highway Traffic Board, Department of Highways.

## British Columbia

Administration and Legislation.-Enforcement of the Motor Vehicle Act, the Highway Act and the Motor Carrier Act is vested in the Royal Canadian Mounted Police and the various municipal police forces, while the Highway Act is administered by the Minister of Public Works, the Motor Carrier Act by the Public Utilities Commission, and the Motor Vehicle Act by the Superintendent of Motor Vehicles, Vancouver, B.C.

## Yukon Territory

Administration.-Commissioner of the Yukon Territory, Whitehorse, Y.T. Information regarding regulations may also be obtained from the Northern Administration and Lands Branch, Department of Northern Affairs and National Resources, Ottawa, Ont.
Legislation.-The Motor Vehicle Ordinance (1952, First Session, c. 8) as amended.

## Northwest Territories

Administration.-Commissioner of the Northwest Territories. Address communications to the Director, Northern Administration and Lands Branch. Department of Northern Affairs and National Resources, Ottawa, Ont.
Legislation.-The Motor Vehicles Ordinance (1950, c. 16) as amended.

## Section 2.-Roads and Highways

The figures of Table 1 include the milages of all roads under provincial jurisdiction, those in the National Parks, local roads in the Atlantic Provinces, Ontario and British Columbia and estimates of local roads in the three Prairie Provinces.

There are great stretches of country in Newfoundland, the northern portions of Quebec, Ontario, the Prairie Provinces and British Columbia with very few people and very few roads, but the more densely populated portions are well supplied. The Northwest Highway System (the Alaska Highway), built for military purposes during 1942 and extending 1,600 miles from Fort St. John, B.C., to Fairbanks, Alaska, serves civilian as well as military traffic. It opens up a vast area of hitherto virgin territory and affords a means of all-weather land communication from Alaska through Canada to the United States. Completed in 1949, the Mackenzie Highway which runs 386 miles from Grimshaw, Alta., to Hay River, N.W.T., has been of great value in the development of the Great Slave Lake region and the entire Mackenzie River Valley.

Statistics of urban streets have been collected since 1935 from cities and principal towns; the small municipalities omitted would increase the totals very little. For 1952, the total number of miles of street reported was 15,189 , composed of 4,219 miles of bituminous pavements, 869 miles of portland cement concrete, 3,014 miles of bituminous surfaces, 3,996 miles of gravel and crushed stone and 70 miles of other surfaces; making a total of 12,168 miles of surfaced streets and 3,022 miles of earth roads. These figures for urban streets or roads are not included in Table 1.

## 1.-Milage of each Type of Road, by Province, as at Mar. 31, 1953

Norg.-The figures for Canada are the sums of the milages so reported. Urban streets are not included in the figures.

| Classification | N'fld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | $\begin{aligned} & \text { Yukon } \\ & \text { and } \\ & \text { N.W.T. } \end{aligned}$ | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | miles | miles | miles | miles | miles | miles | miles | miles | miles | miles | miles | miles |
| Suryaced Road |  |  |  |  |  |  |  |  |  |  |  |  |
| Portland cement concrete. $\qquad$ | - | 4 | 7 | - | 296 | 1,442 | 97 | - | - | 33 | - | 1,879 |
| Bituminous pavements. $\qquad$ | 30 | - | 25 | - | 6,441 | 4,786 | - | - | - | 1,704 | - | 12,986 |
| Bituminous surface. . |  | 335 | 1,363 | 1,900 | 844 |  | 978 | 987 | 1,700 | 924 | 2 | 13,784 |
| Gravel- |  |  |  |  |  |  |  |  |  |  |  |  |
| Crushed stone. . <br> Other surfaces. | 2,300 | 2,079 | 6,997 | 11,244 | 21,351 | 51,902 | 8,624 | 15,643 47 | 21,359 | 9,495 | 1,616 | 152,610 |
| Totais, Suryaced Road. | 2,427 | 2,418 | 8,392 | 13,144 | 28,932 | 62,784 | 9,699 | 16,677 | 23,059 | 12,156 | 1,618 | 181,306 |
| Non-burpaced Road |  |  |  |  |  |  |  |  |  |  |  |  |
| Improved earth. |  | 1,298 | 3,033 |  | - | 11,386 | 7,832 | 83,349 | 29,7581 | 9,758 | 383 | 146,797 |
| Other earth roads | 3,940 |  | 3,749 | - | 13,092 |  | 74,172 | 55,680 ${ }^{1}$ | $32,327^{2}$ | 1,641 | 91 | 184,692 |
| Totals, Nonsurpaced Road. | 3,940 | 1,298 | 6,782 | - | 13,092 | 11,386 | 82,004 | 139,029 | 62,085 | 11,399 | 47 | 331,489 |
| Grand Totals. | 6,367 | 3,716 | 15,174 | 13,144 | 42,024 | 74,170 | 91,703 | 155,706: | 85,144 | 23,555 | 2,092 | 512,795 |

${ }^{1}$ Excludes surveyed road allowances not in use.
${ }^{2}$ Includes all road allowances.
Expenditure on Roads and Highways.-The roads and highways of Canada, except those in the Yukon and Northwest Territories, the Indian reserves and the National Parks, are under the jurisdiction of the respective provincial or municipal authorities. Expenditure was sharply curtailed during the war years 1939-45 and a considerable backlog of essential repair, improvement and expansion work
accumulated. In 1946, approximately $\$ 144,469,000$ was expended on construction, general maintenance and repair of roads and bridges and in subsequent years outlays increased steadily, the amount expended in the year ended Mar. 31, 1953, being $\$ 404,291,421$. In considering this increase, it must be remembered that the unit cost per mile of construction has also advanced tremendously.

## 2.--Construction, Maintenance and General Expenditure on Rural Roads, Bridges and Ferries, by Province, Years Ended Mar. 31, 1950-53

| Item and Province or Territory | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| Construction- |  |  |  |  |
| Newfoundland | 1,862,129 | 4,485,354 | 4,555,303 | 2,954,526 |
| Prince Edward Island | 1,177,213 | 1,564,687 | 2,130,750 | 2,221,375 |
| Nova Scotia | 14,606,701 ${ }^{1}$ | 16,620,7962 | 9,267,598 | 5,744,539 |
| New Brunswi | 9,848, 2763 | 11,667,3094 | 6,039,885 | 6,376,795 |
| Quebec | 37,977,756 | 31,325,159 | 56,995, 225 | 73,769,845 |
| Ontario | 34, 200,336 | 41, 220, 136 | 55,768,891 | 69,779,100 |
| Manitob | 7,998,782 | 5,361,168 | 9,347,887 | 11,627,268 |
| Saskatchewa | 6,247,962 | 6,677,887 | 9,065,930 | 13,325,620 |
| Alberta. | 12,845,686 | 16,509,201 | 21,301,524 | 34,211,782 |
| British Columbia | 26,571,557 | 18,599,050 | 16,298,760 | 23,170,263 |
| Yukon and N.W.T | 2,391,972 | 2,521,066 | 595, 600 | 508,149 |
| Totals, Construction ${ }^{\text {5 }}$. | 156,223,856 | 157,202,628 | 192,810,362 | 244,614,842 |
| Maintenance- |  |  |  |  |
| Newfoundland. | 1,442,908 | 1,447,686 | 1,646,977 | 1,893,130 |
| Prince Edward Island | 888,485 | 1,063,116 | 1,001,335 | 1,077,210 |
| Nova Scotia | 7,288,2351 | 7,640,691 ${ }^{2}$ | 6,880,574 | 8,202,264 |
| New Brunswic | $5,278,069^{3}$ | 8,268,0634 | 7,083,580 | 8,618,951 |
| Quebec. | 19,337,970 | 20,761,173 | 25,735,365 | 30,628,015 |
| Ontario | 38,987,794 | 44,719,097 | 49,547,029 | 58,105,684 |
| Manitoba | 1,844,171 | 2,143,407 | 2,097,872 | 2,251,555 |
| Saskatchew | 2,630,792 | 3,268,886 | 3,857,513 | 4,503,343 |
| Alberta | 11,730,362 | 13,387,434 | 14,390,843 | 15, 184, 161 |
| British Columbia | 13,628,207 | 10,170,411 | 12,498,943 | 15,192,109 |
| Yukon and N.W.T | 1,023,368 | 1,273,154 | 3,050,323 | 2,062,618 |
| Totals, Maintenance. | 104,080,361 | 114,143,118 | 127,790,354 | 147,719,040 |
| Admninistration and General- |  |  |  |  |
| Newfoundland. | 179,700 | 218,409 | 233,871 | 230,943 |
| Prince Edward Is | 87,969 | 53,315 | 68,988 | 69,432 |
| Nova Scotia | $651,425{ }^{1}$ | 980,0222 | 692,893 | 968,344 |
| New Brunswi | 249,2023 | 390,0874 | 242,682 | 276,312 |
| Quebec | 2,010,406 | 2,076,995 | 2,436,853 | 2,602,009 |
| Ontario | 4,728,877 | 4,343,658 | 4,583,869 | 4,636,933 |
| Manitoba | 588,150 | 621,086 | 685,479 | 738.036 |
| Saskatche | 234,857 | 238,544 | 282,334 | 384,262 |
| Alberta ${ }^{6}$ | 61,193 | 114,693 | 89,287 | 86,649 |
| British Columbia | 921,693 | 3,695,307 | 4,353,599 | 1,654,696 |
| Yukon and N.W.T | 152,253 | 190,423 | 31,039 | 11,693 |
| Totals, Administration and General... | 9,865,725 | 13,097,9377 | 13,983,5467 | 11,957,5397 |
| Grand Totals. | 270,169,942 | 284,443,683 | 334,584,262 | 404,291,421 |
|  |  |  |  |  |
| Federal............................ | 10,312,894 | 17,169,721 | 21,667,085 | 25,034,650 |
| Provinclal | 240,747,574 | 249,554,236 | 287,934,225 | $350,248,566$ |
| Municipal | 18,594,702 | 17,191,662 | 23,288,598 | 27,721,288 |
| Other. | 514,772 | 528,064 | 1,694,354 | 1,286,917 |

[^279]The Trans-Canada Highway System.-An outline of the Agreement on, and specifications and construction of, the federal-provincial Trans-Canada Highway and a map showing the proposed route in the provinces participating is given in the 1951 Year Book, pp. 631-634. The road will be a hard-surfaced two-lane highway 22 to 24 ft . in width with ample shoulder widths, bridge clearances and sight distances, low gradients and curvature, and a load-bearing capacity of nine tons for one axle. Railway grade-crossings will be eliminated wherever possible.

The 1954 estimated milage for the eight provinces originally entering into this Agreement with the Federal Government in 1950, and for Nova Scotia which entered in 1952, gave the Highway a length of 4,580 miles, divided as follows: Newfoundland, 610 miles; Prince Edward Island, 74; Nova Scotia, 310; New Brunswick, 388; Ontario, 1,412; Manitoba, 305; Saskatchewan, 414; Alberta, 292; British Columbia, 692; and the National Parks, 83.

Contractual commitments for the nine participating provinces with respect to new construction on the Highway during the period Dec. 9, 1949, to Mar. 31, 1954, amounted to $\$ 142,530,857$ of which the Federal Government's share was 50 p.c., or $\$ 71,265,428$. Federal payments to the provinces during this period for prior, interim and new construction totalled $\$ 47,328,069$. On-site labour expended on the Highway up to Mar. 31, 1954, amounted to 2,721,580 eight-hour man-days of employment; off-site employment required for the provision of necessary materials and services is estimated at 4,627,000 man-days.

The Highway through the National Parks is being constructed with Federal Government funds and the amount of $\$ 2,000,000$ was allotted by Parliament for that purpose for the year ended Mar. 31, 1955.

By June 1954, contracts for 1,483 miles of grading had been approved and the equivalent of 1,250 miles built, contracts for base-course and paving had been approved for 978 miles and the equivalent of 806 miles has been completed, and 83 bridges, over-passes and other structures having over 20 -foot spans, had been completed.

## Section 3.-Motor-Vehicles

Registration.-Automobiles were registered in Canada for the first time in 1904. Ontario was the only province to issue licences in that year. New Brunswick began registering cars in 1905; Quebec, Saskatchewan and Alberta in 1906; British Columbia in 1907; Manitoba in 1908; Nova Scotia in 1909; Prince Edward Island in 1913; and Yukon Territory in 1914.

In 1905, only 565 motor-vehicles were registered in Canada but by 1915 the number had risen to 95,284 and by the end of the next decade to 724,048 . With the exception of 1931-33, an annual increase was in evidence until 1941 when $\mathbf{1 , 5 7 2 , 7 8 4}$ motor-vehicles were registered. The number of commercial vehicles continued to increase during the war years but a considerable decline was shown in passenger cars owing to restrictions on manufacture and the rationing of tires
and gasoline. However, post-war recovery was rapid, reaching a peak in 1953 when the total of $3,430,672$ registrations included $2,513,754$ passenger cars and taxis, 867,773 trucks and miscellaneous vehicles, 8,968 buses and 40,177 motorcycles.


## 3.-Motor-Vehicles Registered, by Province, 1944-53

Note.-Registrations given here include passenger cars, trucks, buses, motorcycles, service cars, etc. but not trailers or dealer licences. Figures for 1904-35 are given in the 1937 Year Book, p. 668, and those for 1936-43 in the 1948-49 edition, p. 707.

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1944 | $\ldots$ | 8,412 | 57,933 | 39,570 | 224,042 | 675,057 | 93,297 | 140,992 | 127,416 | 135,090 | 1,502,567 |
|  | ... | 8,835 | 56,699 | 41,577 | 228,681 | 662,719 | 92,758 | 140,257 | 130,153 | 134,788 | 1,497,081 |
| 194 | $\ldots$ | 9,192 | 62,660 | 44,654 | 255, 172 | 711,106 | 101,090 | 148,206 | 138,868 | 150,234 | 1,622,463 |
| 1947 | $\cdots$ | 9,948 | 70,300 | 51,589 | 296,547 | 800,058 | 112, 149 | 158,512 | 155,386 | 179,684 | 1,835,959 |
| 1948 | ... | 11,290 | 76,319 | 62,366 | 335,953 | 874,933 | 128,000 | 167,515 | 173,950 | 202,126 | 2,034,943 |
| 1949. | 13,981 | 13,211 | 83,443 | 67,280 | 384,733 | 970,137 | 139,836 | -5,027 | 200,428 | 230,008 | 2,290,628 |
| 1950 | 16,375 | 15,383 | 94,743 | 74,415 | 433,701 | 1,104,080 | 157,788 | 199,866 | 230,624 | 270.312 | 2,600,511 |
| 1951... | 20,058 | 16,896 | 105,262 | 83,023 | 500,729 | 1,205,098 | 171, 265 | 215,450 | 259,841 | 291,417 | 2,872,420 |
| 1952. | 23,630 | 18,717 | 114,982 | 89,839 | 574,974 | 1,291,753 | 187,881 | 237,014 | 291,469 | 321,482 | 3,155,997 |
| 1953.... | 29,576 | 20,286 | 129,564 | 93,914 | 617,855 | 1,406,119 | 203,652 | 257,504 | 318,812 | 348,830 | 3,430,672 |

[^280]4.-Types of Motor-Vehicles Registered, by Province, 1952 and 1953

| Year and Province or Territory | Passenger Cars ${ }^{1}$ | Commercial Cars, Trucks, etc. ${ }^{2}$ | Buses | Motorcycles | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. |
| 1552 |  |  |  |  |  |
| Newfoundland. | 15,936 | 7.021 | 333 | 340 | 23,630 |
| Prince Edward Island. | 11,667 | 6,930 | 20 | 100 | 18,717 |
| Novs Scotia.......... | 74,831 | 38,639 |  | 1,512 | 114,982 |
| New Brunswick | 58,991 | 29,099 | + 436 | 1,313 | 89,839 |
| Quebec. | 402, 864 | ${ }_{249,970}^{152}$ | 3,124 4,0704 | 16,016 13,407 | 574,974 $1,291,753$ |
| Manitobs. | 131,992 | 53,700 | 189 | 2,000 | 187,881 |
| Saskatchewan. | 147,824 | 87,996 | 123 | 1,071 | 237,014 |
| Alberta. | 189,287 | 99,326 | 487 | 2,369 | 291,469 |
| British Columbia | 236,711 | 80,842 | 2 | 3,929 | 321,482 |
| Yukon and N.W.T | 1,560 | 2,662 | 19 | 15 | 4,256 |
| Canada, 1952. | 2,296,479 | 808,645 | 8,801 | 42,072 | 3,155,997 |
| 1953 |  |  |  |  |  |
| Newfoundland. | 20,509 | 8,569 | 200 | 298 | 29,576 |
| Prince Edward Island | 12,218 | 7,932 | 15 | 121 | 20,286 |
| Nova Scotis. | 88,985 | 39,231 |  | 1,348 | 129,564 |
| New Brunswick | 63,041 | 29,249 | ${ }^{431}$ | 1,193 | 93,914 |
| Quebec. | 440,720 | 158,595 | 3,464 | 15,076 | 617,855 |
| Ontario. | 1,117,175 | 271,581 | 4,0494 | 13,314 | 1,406,119 |
| Manitoba. | 145,052 | 56,648 | 190 | 1,762 | 203, 652 |
| Saskatchewan. | 157,942 | 98,517 | 120 | 925 | 257,504 |
| Alberta. | 207,402 | 108,625 | 479 | 2,306 | 318,812 |
| British Columbia. | 258,940 | 86,065 |  | 3,825 | 348,830 |
| Yukon and N.W.T | 1,770 | 2,761 | 20 | 9 | 4,560 |
| Canada, 1953. | 2,513,754 | 867,773 | 8,968 | 40,172 | 3,430,672 |

${ }^{1}$ Includes taxis. ${ }^{2}$ Includes service cars, tractors, etc. ${ }^{3}$ Included with trucks. ${ }^{4}$ Includes trolley-buses.

Apparent Consumption of Automobiles.-The apparent consumption of automobiles in Canada in any year is computed by deducting the number exported from the sum of the production and imports. Statistics regarding retail sales and the financing of motor-vehicle sales in Canada are given under Domestic Trade, Chapter XXI.
5.-Apparent Supply of New Automobiles, 1944-53

| Year | Cars Made for Sale in Canada ${ }^{1}$ |  | $\underset{\text { Imports }}{\text { Car }}$ |  | Re-exports of Imported Cars |  | Apparent Supply |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Pas- } \\ & \text { senger } \end{aligned}$ | Commercial ${ }^{2}$ | $\begin{aligned} & \text { Pas- } \\ & \text { senger } \end{aligned}$ | Commercial | Passenger | Commercial | Pas- senger | Commercial |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| 1944. | - | 66,013 | 35 | 3.249 | 5 | 33 | 30 | 69.229 |
| 1945. | 1,866 | 47.459 | 236 | 1,855 | 3 | 19 | 2,099 | 49,295 |
| 1946. | 63.501 | 41.318 | 18.642 | 3,600 | 6 | 72 | 82,137 | 44,846 |
| 1947. | 128,243 | 63,152 | 35,570 | 7.293 | 26 | 4 | 163,787 | 70,441 |
| 1948. | 135,316 | 73,582 | 17,037 | 3,575 | 17 | 4 | 152,336 | 77,153 |
| 1949. | 177.060 | 85,715 | 35,293 | 3,404 | 32 | 8 | 212,321 | 89, 111 |
| 1950. | 259.481 | 96.826 105.547 | 81,722 | 6,806 | ${ }^{62}$ | 20 | 341,141 | 103,612 |
| 1951. | 243,155 | 105,547 | 42,631 | 5.703 4 | 2,866 | 11 | 282,920 | 111,239 |
| 1952. |  | 112,485 100,772 | 35,665 53,179 | 4,328 $\mathbf{4 , 2 9 6}$ | 999 44 | 11 | 280, 109 | 116,802 |
| 1953. | 319,937 | 100,772 | 53.179 | 5,296 | 44 | 3 | 373,072 | 106,065 |

[^281]Provincial Government Revenue from Motor-Vehicles.-The taxation of motor-vehicles, garages, drivers, chauffeurs, etc., is an important source of provincial government income. In every province, licences or permits duly issued by the provincial authorities are required for motor-vehicles of all kinds, trailers, operators or drivers, paid chauffeurs, dealers, garages and gasoline and service stations. In 1953 the average cost per motor-vehicle for operating taxes and licences was almost $\$ 90$. Lower gasoline tax rates in the five provinces from Ontario westward brought the averages for those provinces below the national average. Present gasoline tax rates range from one cent per gallon in the Northwest Territories to 15 cents in Newfoundland, Nova Scotia and New Brunswick.

The more important sources from which provincial revenue from motorvehicles is derived are shown in Table 6. Federal Government revenue from import duties, excise and sales taxes are given in Chapter XXIV.
6.-Provincial Revenue from the Registration and Operation of Motor-Vehicles, Years Ended Mar. 31, 1953

| Province or Territory | Registration Licences |  |  |  | Operator and Chauffeur Licences | Tax on Bus and Truck Operators | Gasoline Tax | Total, including Miscellaneous Revenue |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Passenger } \\ \text { Car } \end{gathered}$ | Truck and Bus | Motorcycle | Dealer |  |  |  |  |
|  | \$ | 8 | \$ | \$ | \$ | \$ | \$ | \$ |
| Newfoundlan | 346,890 | 447,947 | 2,676 | 2,339 | 117,169 | 1 | 2,137,582 | 3,155,870 |
| P. E. Island. | 207,840 | 197,928 | 466 | 2,910 | 27,998 | 4,344 | 1,202,210 | 1,662,690 |
| Nova Scotia | 1,607,634 | 1,577,9082 |  | 16,169 | 285, 066 | 90,954 | 9,555,028 | 13,469,199 |
| New Brunsw | 1,254,531 | 1,499,697 | 6,846 | 625 | 228,357 |  | 7,337,787 | 10,544,529 |
| Quebec | 10,207,505 | 9,198,076 | 40,844 | 78,140 | 1,874,525 | 805,225 | 56,589,501 | 79,685,772 |
| Ontar | 10,466,609 | 10,131,990 | 25,099 | 49,509 | 1,944, 934 | 1,708,047 | 86,238,934 | 113,086,374 |
| Manitob | 2,120,636 | 1,169,4694 | 6,783 | 19,076 | 542,991 | 443,112 | 8,279,262 | 12,859,319 |
| Saskatch | 2,127,775 | 1,149,765 | 4,840 | 49,926 | 343,541 | 663,049 | 14,087,699 | 19,555,506 |
| Alberta | 2,757,415 | 2,922,487 | 6,964 |  | 494,319 | 2,171,974 | 17,315,100 | 26,175,556 |
| British Columbia | 5,879,235 | 3,077,349 | 21,279 | 29,833 | 312,0596 | 396,610 | 16,936,040 | 27,182,734 |
| Yukon and N.W.T | 22,667 | 22,927 | 22 | 175 | 14,379 | 22,898 | 196,952 | 286,615 |
| Can | 36,998,737 | 31,395,543. | 115,819 | 248,702 | 6,185,338 | 6,306,213 | 219,876,095 | 307,664,164 |

${ }^{1}$ Included with passenger car and truck. ${ }^{2}$ Bus included with miscellaneous. ${ }_{5}^{3}$ Included with miscellaneous. $\quad{ }^{4}$ Bus included with passenger car. $\quad{ }^{5}$ Bus included with tax on bus and truck operators. 6 Includes only new five-year licences issued during 1952-53.

Sales of Gasoline.-'Gasoline', under the provincial Acts, includes all petroleum oils used as fuel in internal combustion engines, as well as propane gas which is being used to an increasing extent in motor-buses.
7.-Sales of Gasoline, by Province, 1949-53

| Province | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | gal. | gal. | gal. | gal. | gal. |
| Newfoundland | 1 | 1 | 1 | 13,820,200 | 16,504,200 |
| Prince Edward Island. | 8,240,105 | 9,085,340 | 10,245,817 | 10,832,264 | 12,388,599 |
| Nova Scotia | 57,443,469 | 61,348,662 | 65,776,919 | 69, 174,476 | 75,772,354 |
| New Brunsw | 56,685,862 | 58,814,989 | 63,615,057 | 67,361,022 | 77, 108,360 |
| Quebec | 304, 139,386 | 340,621,374 | 372,853,122 | 430,671,283 | 456,460,906 |
| Ontario | 623,684,828 | 687,729,936 | 766,491,887 | 844, 162,648 | 928,515.728 |
| Manitoba | 104,023,413 | 112,495,837 | 127,658, 248 | 148.274.072 | 159,554, 101 |
| Saskatchew | 168,266,743 | 176,118, 129 | 192,585,333 | 238,663,980 | 250,698,689 |
| Alberta. | 218,935,855 | 241,387, 708 | 272,991,830 | 329,255.018 | 361,665,017 |
| British Columbia | 142, 297,406 | 155,423,743 | 173,070,142 | 191,444,793 | 210,028,255 |
| Totals, Gross Sales | 1,683,717,067 | 1,843,025,718 | 2,045,288,355 | 2,343,659,756 | 2,548,696,209 |
| Refunds and exemptions. | 436,022,855 | 461,777,271 | 527,198,497 | 625,547,937 | 646,181,392 |
| Totals, Net Sales | 1,254,882,212 | 1,390,090,447 1 | 1,528,905,858 | 1,718,111,819 | 1,902,514,817 |

[^282]Motor-Carriers.*-The lack of statistical information regarding commercial traffic on the highways led to the institution, in 1941, of a census of motor-carriers. The carriers are divided into two classes: passenger and freight. Each of these is subdivided into (a) carriers with annual revenue of $\$ 20,000$ or over; (b) carriers with revenue of $\$ 8,000$ to $\$ 20,000$; and (c) carriers with revenue under $\$ 8,000$. Bus companies handling urban traffic exclusively are compiled as a class. Many street-railway systems operate motor-buses but the statistics of such systems are not included here; they are included in electric-railway statistics. Licensed carriers doing highway construction work, building air-fields, etc., are excluded from the compilations. Taxi operators and urban delivery trucks are also excluded, except where their operations include inter-urban business. Carriers operating as both passenger and freight carriers are classed as passenger or freight according to the preponderance of the revenue. The passenger revenue of trucking companies and the freight revenue of bus companies are small percentages of their respective total revenue.

- Statistics are given in more detail in DBS annual report, Motor Carriers, Freight-Passenger.
8.-Capital, Revenue, Employees and Equipment of Motor-Carriers, 1950 and 1951

| Item | Freight Carriers with- |  |  |  |  |  | Passenger Carriers | Total, All Carriers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual <br> Revenue of $\$ 20.000$ or over |  | $\begin{gathered} \text { Annual } \\ \text { Revenue of } \\ \$ 8,000- \\ \$ 20,000 \end{gathered}$ |  | Annual Revenue of under $\$ 8,000$ |  |  |  |
|  | 1950 | 1951 | 1950 | 1951 | 1950 | 1951 | 1951 | 1951 |
| Carriers. $\qquad$ .No. <br> InvestmentsLand, buildings, equipment, etc. \$ | r $\begin{array}{r}718 \\ 53,745,770\end{array}$ | 810 | 682 | 768 | 2,125 | 2,276 | 421 | 4,275 |
|  |  | 65,373,201 | 5,954,954 | 6,592,158 | 7,187,142 | 7,662,498 | 80,597,461 | 160,225,318 |
| $\begin{aligned} & \text { Revenue- } \\ & \text { Freight........ } \$ ~ \end{aligned}$ | 90, 150,972 | 106,987,481 | 8,375,810 | 9,389,787 | 7,944,623 | 8,670,691 | 249,281 | 125,297,248 |
| Passenger - <br> Intercity and rural. City. $\qquad$ <br> Miscellaneous.. | 325,453 $4,409,974$ | 238,546 $3,308,718$ | 20,436 257,736 | 12,938 332,817 | $\overline{\overline{306}, 242}$ | $\overline{\overline{217}}, 759$ | $\left\|\begin{array}{r} 50,118,544 \\ 18,234,122 \\ 2,855,920 \end{array}\right\|$ | $\begin{array}{r} 50,370,028 \\ 18,234,122 \\ 6,715,214 \end{array}$ |
| Totals, Revenue 8 | 94,886,399 | 110,534,745 | 8,653,982 | 9,735,542 | 8,250,865 | 8,888,450 | 71,457,867 | 200,616,604 |
| Working proprietors...No. | 490 | 672 | 746 | 888 | 2,158 | 2,246 | 235 | 4,041 |
| Employees - | $\begin{array}{r} 15,618 \\ 15,715 \\ 35,899,329 \end{array}$ |  |  |  |  |  |  |  |
| As at July 15. No. |  | $\begin{array}{\|r\|r} 16,875 \\ 16,622 \\ 41,529,661 \end{array}$ | $\begin{array}{r} 1,215 \\ 1,810 \\ 1,817,013 \end{array}$ | $\begin{array}{r} 1,162 \\ 1,129 \\ 1,975,686 \end{array}$ | $\begin{array}{r} 491 \\ 363 \\ 738,658 \end{array}$ | $\begin{array}{r} 380 \\ 351 \\ 809,598 \end{array}$ | $\begin{array}{r} 10,330 \\ 9,666 \\ 26,224,455 \end{array}$ | $\begin{array}{r} 28,747 \\ 27,768 \\ 70,539,370 \end{array}$ |
| Total wages... $\leqslant$ |  |  |  |  |  |  |  |  |
| Equipment- <br> Trucks........No. <br> Tractor, Bemitrailer units. <br> Trailers. " <br> Buses. $\qquad$ $\qquad$ | 6,767 | 6,816 | 1,617 | 1,716 | 2,560 | 2,651 | 185 | 11,368 |
|  | $\begin{aligned} & 3,501 \\ & 2,359 \end{aligned}$ |  |  |  |  | 40 | 13 |  |
|  |  | ( $\begin{array}{r}3,933 \\ 3,162 \\ 68\end{array}$ | 927520 | 6812 | 45 | 39 | 12 | 4,081 3,281 |
|  | 73 |  |  |  |  | 6 | 4,788 | 4,874 |

Table 9 shows the freight and passengers carried by motor-carriers in 1950 and 1951. Traffic data were not available for the majority of the small operators. Many truck operators failed to report tons of freight carried and others reported only estimates so that these data are not complete. A difficulty in compiling weights is that much traffic is carried on a load or package basis and not on a weight basis. Records of passengers appear to be fairly complete, possibly because tickets are sold and accounted for, and the unit is not so complex as for freight carried.

## 9.-Traffic Carried by Motor-Carriers, 1950 and 1951

| Year and Item | Freight Carriers with- |  |  | Passenger Carriers | Total, All Carriers |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual Revenue of $\$ 20,000$ or over | Annual Revenue of $\$ 8,000-$ $\$ 20,000$ | Annual Revenue of under $\$ 8,000$ |  |  |
| Passengers- 1950 |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Regular Routes- |  |  |  |  |  |
|  | 270,692 | $\underline{21,978}$ | 二 | $128,911,770$ $228,541,212$ | $\begin{aligned} & 129,204,440 \\ & 228,541,212 \end{aligned}$ |
| Special and Chartered ServiceIntercity and rural. ............... No. City | 9,228 | 186 | - | 5, 272,678 314,201 | $\begin{array}{r} 5,282,092 \\ 314,201 \end{array}$ |
| Totals, Passengers............... No. | 279,920 | 22,164 | - | 363,039,861 | 363,341,945 |
| Rural ${ }^{1}$ $\qquad$ ton | 15,849,326 | 1,599,265 | 1,501,585 | 59,312 | 19,009,488 |
| 1951 |  |  |  |  |  |
| Passengers- |  |  |  |  |  |
| Regular Routes- | 490,781 | 13,090 | - | 126,996,603 | 127,500,474 |
| City .......................... . | 490,781 | 13,000 | - | 232,387,675 | 232,387,675 |
| Special and Chartered Service- <br> Intercity and rural.................... <br> City | 3,928 | 642 | - | $\begin{array}{r} 5,705,737 \\ 348,282 \end{array}$ | $\begin{array}{r} 5,710,307 \\ 348,282 \end{array}$ |
| Totals, Passengers ............. No. | 494,709 | 13,732 | - | 365,438,297 | 365,946,738 |
| Rural ${ }^{\text {a }}$........................ ton | 15,371,413 | 1,395,833 | 1,448,539 | 32,971 | 18,248,756 |

${ }^{1}$ Tonnage data are not reported by all carriers and totals are, therefore, incomplete.

Motor-Vehicle Accidents.-Motorists are required by law to report accidents but complete statistics of these accidents are not available for all provinces. The Dominion Bureau of Statistics compiles statistics on all deaths from motor-vehicle accidents and these are shown in Table 10. A direct comparison of such statistics between the provinces is of little value owing to differences in size, population, motor-vehicle density, etc., but, to put them on somewhat the same basis, the average number of deaths per 10,000 registered motor-vehicles has also been tabulated. These data still give no weight to differences in use of motor-vehicles, variations in climate, road conditions, tourist cars, etc., all of which are factors in accidents but it is apparent that more safety education is required in all provinces.

Data presented in Table 11 relate to traffic accidents only and consequently may not be compared with Table 10 which includes details of fatalities occurring elsewhere than on public streets or roads.

## 10.-Deaths Resulting from Motor-Vehicle Traffic and Non-traffic Accidents, by Province, 1943-52

Nors.-This table was compiled in the Health and Welfare Division, Dominion Bureau of Statistics. Figures for 1926-35 will be found in the 1941 Year Book, p. 578, and those for 1936-42 in the 1948-49 edition, p. 712.

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Deaths by Plack of Occurrence |  |  |  |  |  |  |  |  |  |  |
|  | No. | No. | No. |  |  |  |  | No. | No. | No. | No. |
| 1943. | $\cdots$ | 5 | 90 | 70 | 392 | 563 | 44 | 34 | 84 | 155 | 1,437 |
| 1944..... | ... | 11 | 73 | 56 | 406 | 526 | 53 | 43 | 80 | 124 | 1,372 |
| 1945..... | ... | 8 | 76 | 90 | 424 | 637 | 67 | 58 | 71 | 125 | 1,556 |
| 1946 | ... | 4 | 84 | 69 | 482 476 | 729 | 94 | 70 | ${ }^{91}$ | 158 | 1,781 |
| 1947 | ... | 15 | 83 | 104 | 476 | 753 | 77 | 51 | 103 | 207 | 1,869 |
| 1948. | ... | 5 | 96 | 118 | 599 | 782 | 81 | 87 | 125 | 193 | 2,086 |
| 1949 |  | 11 | 102 | 96 | 645 | 873 | 105 | 85 | 172 | 176 | 2,265 |
| 1950. | 18 | 7 | 94 | 103 | 682 | 850 | 75 | 91 | 162 | 188 | 2,270 |
| 1951. | 26 | 20 | 103 | 122 | 818 | 991 | 102 | 93 | 184 | 227 | 2,686 |
| 1952..... | 25 | 26 | 115 | 139 | 931 | 1,067 | 112 | 131 | 188 | 223 | 2,957 |
|  | Deaths per 10,000 Registered Motor-Vehicles |  |  |  |  |  |  |  |  |  |  |
|  | No. |  |  |  |  |  |  |  |  |  | No. |
| 1943. | .. | 6.23 | 15.20 | 17.41 | $17 \cdot 60$ | 8-14 | 4.71 | $2 \cdot 54$ | 6.59 | 11.51 | 9.51 |
| 1944. | $\ldots$ | 13.08 | $12 \cdot 60$ | $14 \cdot 15$ | $18 \cdot 12$ | 7.79 | 5-68 | 3.05 | 6.28 | 9.18 | 9-14 |
| 1945. | ... | 9.05 | 13.40 | 21.65 | 18.41 | 9.61 | $7 \cdot 22$ | $4 \cdot 14$ | 5-46 | 9.27 | $10 \cdot 39$ |
| 1946 | ... | 4.35 | 13.40 | 15.45 | 18.89 | 10.25 | $9 \cdot 30$ | $4 \cdot 72$ | $6 \cdot 55$ | $10 \cdot 52$ | 10.98 |
| 1947. | ... | 15.08 | 11.81 | $20 \cdot 16$ | 16.05 | 9.41 | 6.87 | 3.22 | $6 \cdot 63$ | 11.52 | $10 \cdot 17$ |
| 1948. | ... | $4 \cdot 43$ | 12.58 | 18.92 | 17.83 | 8.94 | $6 \cdot 33$ | $5 \cdot 19$ | $7 \cdot 19$ | 9.55 | 10.25 |
| 1949. |  | 8.33 | 12.22 | 14.27 | 16.76 | 9.00 | 7.51 | $4 \cdot 59$ | $8 \cdot 58$ | $7 \cdot 65$ | 9.89 |
| 1950..... | 10.99 | 4.55 | 9.92 | 13.84 | 15.73 | $7 \cdot 70$ | 4.75 | $4 \cdot 55$ | 7.02 | 6.95 | 8.74 |
| 1951. | 12.96 | 11.84 | 9.78 | 14.69 | $16 \cdot 34$ | $8 \cdot 22$ | $5 \cdot 96$ | $4 \cdot 32$ | $7 \cdot 08$ | $7 \cdot 79$ | $9 \cdot 36$ |
| 1952. | 10.58 | 13.89 | 10.00 | 15.47 | 16.19 | 8.26 | $5 \cdot 96$ | $5 \cdot 53$ | 6.45 | 6.94 | $9 \cdot 37$ |

11.-Motor-Vehicle Traffic Accidents, by Province, 1952

| Item | N'f'ld. ${ }^{1}$ | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon- <br> N.W.T. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Aceidents Reported |  |  |  |  |  |  |  |  |  |  |  |  |
| Fatal- <br> Resulting in death of one or more persons | 2 | 26 |  |  |  |  |  | 83 |  |  | 4 |  |
| Nonefatal- mersons | ${ }^{2}$ | 26 | 107 | 103 | 789 | 893 | 85 | 83 | 131 | 177 | 4 | 2,400 |
| Resulting in injury to one or more persons. | 196 | 133 | 1,619 | 865 | 10,604 | 16,300 | 2,043 | 2,380 |  |  |  | 41,756 |
| Resulting in property damage only ${ }^{2}$ | 367 | 882 | 6,793 | 3,361 | 10,604 | 16,300 | 8,126 | 7,000 | 11,872 | 16,148 | 183 | 183,814 |
| Totals, Accidents... | 565 | 1,041 | 8,519 | 4,329 | 99,153 | 58,515 | 10,254 | 9,463 | 14,697 | 21,189 | 245 | 227,970 |
| Persons Killed |  |  |  |  |  |  |  |  |  |  |  |  |
| Drivers. | - | 7 | 28 | 33 | $\cdots$ | 286 | 25 | 46 | 56 | 61 | 3 |  |
| Passengers.. | - | 10 | 36 | 37 | . | 348 | 46 | 38 | 45 | 78 | - | $\cdots$ |
| Pedestrians........... | $-2$ | 10 | 52 | 45 | $\cdots$ | 316 | 32 | 19 | 28 | 53 |  | $\ldots$ |
| Bicyclists.......... | - | 1 |  |  | .. | 29 | 3 | - | 6 | 7 | - | ... |
| Motoreyclists and passengers. | - | - | - | - | . | 26 |  | 2 | 2 | 7 |  |  |
| Others................ | - | - | 1 | - | .. | 5 | - | 1 | 2 | 3 |  |  |
| Totals, Persons Killed. | 2 | 28 | 120 | 117 | 859 | 1,010 | 107 | 106 | 139 | 269 | 4 | 2,701 |

For footnotes, see end of table, p 868.
11.-Motor-Vehicle Traffic Accidents, by Province, 1952-concluded

| Item | N'f'ld. ${ }^{1}$ | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | YukonN.W.T | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Persons Injured | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Drivers. | 6 | 48 | 621 | 347 | $\cdots$ | 6,719 | 886 | 1,244 | 1,309 | 1,969 | 33 | ... |
| Passengers. | 37 | 91 | 905 | 536 | . | 10,486 | 1,277 | 1,762 | 1,910 | 3,595 | 55 | ... |
| Pedestrians.......... | 152 | 34 | 681 | 273 | . | 4,619 | 461 | 275 | 455 | 1,147 | 2 | ... |
| Bicyclists ......... | 18 | 13 | 88 | 72 | .. | 1,028 | 167 | 82 | 80 | 294 | - | ... |
| Motorcyclists and passengers......... | , | , | 2 | - | . | - 706 | 69 | 65 | 65 | 171 | - | ... |
| Others......... | 6 | 3 | 18 | - | . | 76 | 7 | 23 | 20 | 21 | - | ... |
| Totals, Persons Injured. | 222 | 189 | 2,315 | 1,228 | 12,706 | 23,634 | 2,867 | 3,451 | 3,839 | 7,197 | 90 | 57,738 |
| Amount of Property Damage Caused ${ }^{2}$...... $8^{\prime} 000$ | 93 | 261 | 1,766 | 1,381 | . | 19,458 |  | 3,561 | 4,976 | 6,449 | 134 | ... |

${ }^{1}$ City of St. John's only.
${ }^{2}$ Accidents causing damage estimated at $\$ 50$ or over are reported by all authorities except the following: Saskatchewan reports $\$ 100$ or over; Alberta reports 875 or over; Quebec and Yukon Territory report $\$ 25$ or over; Charlottetown, P.E.I., reports all accidents.

## PART IV.-WATERWAYS*

The Canada Shipping Act.-Legislation regarding all phases of shipping is consolidated under the Canada Shipping Act (R.S.C. 1952, c. 29). Under the Act and its amendments the Parliament of Canada accepts full responsibility for the regulation of Canadian shipping.

## Section 1.--Shipping Facilities and Traffic

The developments and equipment to facilitate water traffic are classified under the headings of shipping, harbours, canals and aids to navigation. Subsection 5 gives information regarding pilotage service, steamship inspection, and personnel shipped and discharged.

## Subsection 1.-Shipping

All waterways including canals and inland lakes and rivers are open on equal terms, except in the case of the coasting trade, to the shipping of all countries of the world so that the commerce of Canada is not dependent entirely upon Canadian shipping. However, a large part of the inland and coastal traffic is carried in ships of Canadian registry.

Canadian Registry.-Under Part I of the Canada Shipping Act all ships in excess of 10 tons register tonnage are required to be registered; ships of lower tonnage may be registered voluntarily, otherwise they are required to be operated under a Vessel Licence, if powered by a motor of $10 \mathrm{~h} . \mathrm{p}$. or more. Sect. 6 of the Act restricts ownership to British subjects or bodies corporate established under and subject to the laws of some part of Her Majesty's Dominions and having their principal place of business in those Dominions. Under the British Commonwealth Merchant Shipping Agreement all Commonwealth ships are given the general designation

[^283]'British Ship'; and a ship that should be but is not registered is not entitled to the privileges accorded to British ships. Ships in the planning stage or in course of construction may be recorded before registry by a Registrar of Shipping.

## 1.-Vessels on the Canadian Shipping Registry, by Province, as at Dec. 31, 1951-53

Nors.-Figures for 1935-50 are given in the corresponding table of previous Year Books beginning with the 1941 edition.

| Province or Territory | 1951 |  | 1952 |  | 1953 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Net Tons | No. | Net Tons | No. | Net Tons |
| Newfoundland. | 1,791 | 82,716 | 1,636 | 77,066 | 1,405 | 68,965 |
| Prince Edward Island. | 144 | 7,835 | 164 | 7,881 | 201 | 8,090 |
| Nova Scotia. | 4,214 | 120,365 | 4,389 | 139,098 | 4,570 | 138,295 |
| New Brunswick | ${ }^{963}$ | 35,554 | 1,012 | 38,939 | 1,067 | 41,664 |
| Quebec. | 1,696 | 579,417 | 1,815 | 554,044 | 1,931 | 528,456 |
| Ontario... | 1,774 | 432,810 | 1,858 | 503,447 | 1,944 | 505,609 |
| Manitoba... | 107 | 12,233 | 105 | 12,142 | 103 | 11,985 |
| Saskatchewan. | 1 | 147 | 1 | 147 | 1 | 147 |
| Alberta. | 2 | 385 | 2 | 385 | 3 | 418 |
| British Columbia | 4,583 | 384,122 | 4,816 | 394,148 | 4,933 | 387,056 |
| Yukon Territory. | 17 | 3,767 | 17 | 3,767 | 17 | 3,767 |
| Northwest Territories. | - | - | - | - | 6 | 263 |
| Totals | 15,292 | 1,659,351 | 15,815 | 1,731,064 | 16,181 | 1,694,715 |

Shipping Traffic.-A brief description of the early development of Canadian shipping is given in the 1941 Year Book, pp. 597-598. Complete statistics, comparable with those given for the railways, showing all the freight carried by water, are not available. However, there is a record of the number and tonnage of ships calling at all ports at which there are customs collectors and of cargoes of vessels trading between Canadian and foreign ports. Each vessel visiting a customs port or outport makes a statistical return which is forwarded to the Dominion Bureau of Statistics. Coastwise cargo has been reported from Jan. 1, 1952.

Reports are not made for vessels of less than 10 registered net tons and the tonnage of tugs is the gross ton and not the net ton used for cargo vessels. Fishing vessels are not required by customs regulations to report when operating from certain ports; consequently, the data are not on the same basis as data for cargo vessels.

## 2.-Vessels Entered at Canadian Ports, ${ }^{1}$ 1944-53

Norg.-Figures for the years ended Mar. 31, 1929-35, are given in the 1941 Year Book, p. 597, and for 1936-43 in the 1948-49 edition, p. 733.

| Year | In Foreign Service ${ }^{\text {² }}$ |  | In Cossting Service |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vessels | Net Tons <br> Registered | Vessels | Net Tons Registered | Vessels | Net Tons Registered |
|  | No. | No. | No. | No. | No. | No. |
| 1944. | 23,786 | 28,356,681 | 64,999 | 43,776,497 | 88,785 | 72,133,178 |
| 1945 | 24,431 | 29,655,984 | 65,410 | 48,098,201 | 89,841 | 77,754,185 |
| 1946. | 26.461 | 30,367,071 | 67,014 | 45,559,014 | 93,475 | 75,926,085 |
| 1947. | 27.868 | 35,926,095 | 73,439 | 51,823,502 | 101,307 | 87,749,597 |
| 1948. | 31,138 | 39,443,055 | 75,141 | 52,453,382 | 106,279 | 91,896,437 |
| 1949. | 30,565 | 40,088,377 | 82.012 | 56,037,003 | 112,577 | 96,125,380 |
| 1950. | 31,420 | 42,816,949 | 84.065 | 56,066,997 | 115,485 | 98,883,946 |
| 1951. | 32,304 | 47, 508,342 | 86,571 | 60,802,798 | 118,875 | 108,311,140 |
| 1952. | 33,782 | $52,156,098$ $56,589,078$ | 79,722 | 56,776,504 | 113,504 | 108,932,602 |
| 1953. | 34,400 | 56,589,078 | 88,675 | 67,417,391 | 123,075 | 124,006,469 |

[^284]
## 3.-Vessels Entered at each of the Principal Canadian Ports, 1953

Nore.-For details of shipping at all ports in Canada, see DBS publication, Shipping Report.


For footnotes, see end of table.
3.-Vessels Entered at each of the Principal Canadian Ports, 1953-concluded

| Province and Port | In Foreign Service ${ }^{1}$ |  | In Coasting Service |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vessels | Net Tons Registered | Vessels | Net Tons Registered | Vessels | Net Tons Registered |
| Manitoba (Churchill). | No. 30 | No. $\mathbf{1 1 8 , 6 3 1}$ | No. 1 | No. 4,239 | No. | No. <br> 122,870 |
| British Columbia- <br> Nanaimo. | 570 | 546,547 | 3,452 | 5,583,428 | 4,022 | 6,129,975 |
| New Westminster | 702 | 1,406,381 | 2,654 | 1,252,876 | 3,356 | 2,659,257 |
| Ocean Falls.... | 46 | 204,080 | 787 | 670.720 | 833 | 874,800 |
| Port Alberni. | 111 | 440,629 | ${ }_{6} 616$ | 297,438 | 727 | 738,067 |
| Powell River. | 209 | 289,960 | 3,280 | 958,280 | 3,489 | 1,248,240 |
| Prince Rupert | 1,336 | 489,479 | 1,840 | 816,710 | 3,176 | 1,306,189 |
| Union Bay. | 3,409 | $\begin{array}{r} 3,440 \\ 7,534,012 \end{array}$ | 1,501 24,125 | r $\begin{array}{r}95,656 \\ 14,061,881\end{array}$ | 27,534 | $\begin{array}{r} 99,096 \\ 21,595,893 \end{array}$ |
| Vancouver. Victoria. . | 3,409 3,799 | 7,534,012 $6,971,117$ | 24,125 4,454 | $14,061,881$ $3,423,752$ | 27,534 8,253 | $\begin{aligned} & 21,595,893 \\ & 10,394,869 \end{aligned}$ |
| Totals, British Columbia ${ }^{2}$. | 11,654 | 19,308,051 | 45,542 | 28,776,244 | 57,196 | 48,084,295 |
| Yukon and Northwest Territories. | 4 | 2,281 | 34 | 16,238 | 38 | 18,519 |
| Grand Totals. | 34,400 | 56,589,078 | 88,675 | 67,417,391 | 123,075 | 124,006,469 |

${ }^{1}$ Sea-going and inland international.
${ }^{2}$ Includes small ports not shown separately.
4.-Cargoes at Canadian Ports Loaded or Unloaded from Vessels in Foreign Service, by Province, 1951-53

| Province and Year | Loaded | Unloaded | Province, <br> Territory and Year | Loaded | Unloaded |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland- | tons | tons |  | tons | tons |
| 1951.... | 1,883,325 | 402,427 | 1951.. | 5,550,453 | 23,383,058 |
| 1952. | 2,069,750 | 698, 138 | 1952. | 6,113,558 | 23,881,456 |
| 1953. | 2,742,764 | 671,606 | 1953. | 6,320,032 | 23,808,278 |
| Prince Edward Island- |  |  | Manitobs- |  |  |
| 1951.. | 44,864 | 28,652 | 1951. | 203,621 | 6,993 |
| 1952. | 76,248 | 18,246 | 1952. | 283,157 | 14,997 |
| 1953. | 55,173 | 27,741 | 1953. | 322,551 | 2,784 |
| Nova Scotia- |  |  | British Columbia- |  |  |
| 1951. | 4,018,764 | 1,841,121 | 1951.. | 6,542,254 | 3,028,605 |
| 1952. | 3,987,639 | 2,373,939 | 1955. | 8,507,443 | 3, 236,052 |
| 1953. | 4,138,305 | 2,115,749 | 1953. | 8,871,878 | 3,140,263 |
| New Brunswick- |  |  | Yukon and N.W.T.- |  |  |
| 1951. | 1,745,548 | 656,935 | 1951... | 269 | 41 |
| 1952. | 2,274,696 | 619,443 | 1952. | 258 | 8 |
| 1953. | 1,643,060 | 636,729 | 1953. | - | 3 |
| Quebec- |  |  | otals- |  |  |
| 1951. | 7,290,701 | 8,921,562 | 1951. | 27,279,799 | 38,269,394 |
| 1952. | 9,241,694 | 7,913,927 | 1952. | 32,554,443 | 38,756,206 |
| 1953. | 8,108,442 | 8,288,724 | 1953. | 32,202,205 | 38,691,877 |

## Subsection 2.-Harbours

Water transportation cannot be studied with any degree of completeness without taking into consideration the co-ordination of land and water transportation at many of the ports. Facilities provided to enable interchange movements include the necessary docks and wharves, some for passenger traffic but most of them for freight, warehouses for the handling of general cargo, and special equipment for
such bulk freight as lumber, coal, oil, grain, etc. Facilities may include cold-storage warehouses, harbour railway and switching connections, grain elevators, coal bunkers, oil-storage tanks and, in the chief harbours, dry-dock accommodation.

Eight of the principal harbours of Canada are administered by the National Harbours Board. Seven other harbours come under the supervision of the Department of Transport and are administered by commissions that include municipal as well as Federal Government appointees. In addition, there are about 300 public harbours that are under the direct supervision of the Department of Transport. These harbours are administered under rules and regulations approved by the Governor General in Council. Harbour masters have been appointed by the Minister of Transport for 131 of these harbours, their remuneration being made from fees levied on vessels under the terms of the Canada Shipping Act.

At most ports, in addition to the harbour facilities operated by the National Harbours Board or other operating commission, there are dock and handling facilities owned by private companies such as railway, pulp and paper, oil, sugar industries, etc. At a number of ports there are also dry docks but these are dealt with separately at p. 875 .

## 5.-Facilities of the Six Principal Harbeurs, as at Dec. 31, 1953

Note.-The facilities at these ports include those under the control of other agencies as well as those of the National Harbours Board.

| Item | Halifax | $\begin{gathered} \text { Saint } \\ \text { John } \end{gathered}$ | Quebec | Three Rivers | Montreal | Vancouver |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Minimum depth of approach channel ft. | 50 | 30 | 35 | 35 | 35 | 40 |
| Harbour railway................ miles | 31 | 63 | 23 | 5 | 62 | 5 |
| Piers, wharves, jetties, etc........ No. | 46 | 20 | 36 | 3 | 112 | 28 |
| Length of berthing.............. it. | 33,416 | 12,915 | 33,650 | 8,690 | 53,060 | 31,440 |
| Transit-shed floor space........... sq. ft . | 1,429,507 | 835,700 | 766,000 | 265,250 | 2,225,000 | 1,450,600 |
| Cold-storage warehouse capacity..cu. ft. | 1,655,350 | 820,000 | 528,000 |  | 2,909,200 | 3,031,417 |
| Grain Elevators- $\quad$ Capacity........................ bu. | 4,116,000 | 3,000,000 | 4,000,000 | 2,000,000 | 15, 162,000 | 18,716,500 |
| Loading rate............. . bu. per hr. | 75,000 | 105,000 | 90,000 | 32,000 | 445,000 | 312,000 |
| Floating crane capacity .......... tons |  |  |  |  |  | 85 |
| Coal-dock storage capacity....... tons |  |  | 83 215,000 | 300,000 | 1,380,000 | 204,049,408 |
| Oil-tank storage capacity......... gal. | 119,245,000 | 22,526,610 | 83, 700,000 | 1,410,000 | 68,000,000 | 204,949,498 |

National Harbours Board.-The National Harbours Board, a Crown corporation established in 1936, is charged with the administration and operation of the following properties: port facilities such as wharves and piers, transit sheds, grain elevators, cold-storage warehouses, terminal railways, etc., at the harbours of Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver, and Churchill; grain elevators at Prescott and Port Colborne; and the Jacques Cartier Bridge at Montreal. These facilities represent a capital investment of approximately $\$ 236,000,000$. A description of the origin and functions of the Board is given in the 1940 Year Book, pp. 679-681, and current operating revenue and expenditure figures may be found in Table 29, pp. 893-894 of this volume.

Harbour Traffic.-The freight movement through a large port takes a number of different forms. The overseas movement, i.e., the freight loaded on and unloaded from sea-going vessels, frequently constitutes a surprisingly small part of the total. Usually the volume coming in and going out by coasting vessels is larger. There is, as well, the in-transit movement in vessels that pass through the harbour without loading or unloading and the movement from one point to another within the
harbour, which in many ports amounts to a large volume. It is not possible to obtain statistics of the total freight handled at all the ports and harbours of Canada because many of them are small and without the staff necessary to maintain detailed records. However, the National Harbours Board prepares an annual report of the water-borne cargo loaded and unloaded at the eight ports under its control. Six of these are the principal ports of Canada and the cargo handled at each is shown in Table 6. The figures include freight carried by coasting and inland international as well as by sea-going shipping; they include all cargo loaded and unloaded whether by facilities under the jurisdiction of the Board or at private docks and terminals. Cross-harbour movements, ballast (non-revenue), bunkers, ships' stores, mail and passengers' baggage are not included.

## 6.-Principal Commodities in Water-Borne Cargo Loaded and Unloaded at each of the Six Principal Ports, 1953 with Totals for 1952

Nors.-Commodities totalling less than 50,000 tons are not listed.

| Port and Commodity | 1953 |  |  | 1952 |
| :---: | :---: | :---: | :---: | :---: |
|  | Inward | Outward | Tota | Total |
|  | tons | tons | tons | tons |
| $\begin{gathered} \text { Montreal- } \\ \text { Grain..... } \end{gathered}$ | 3,052,211 | 3,981,793 | 7,034,004 | 6,697,225 |
| Petroleum oil, fuei | 706,115 | 1,308,097 | 2,014,212 | 1,170,076 |
| Petroleum oil, crud | 869,231 | 373,309 | 1,242,540 | 1,096,559 |
| Cosa, bituminous. | 1,140,915 |  | 1,140,915 | 951,414 |
| Gasoline. | 88,028 | 752,836 | 840,864 | 1,745,000 |
| Flour, whe |  | 436,477 | 436,477 | 554,575 |
| Cement, common or port | 222,469 | 115,259 | 337,728 | 317,433 |
| Sugar, raw. | 317,107 |  | 317.107 | 311,104 |
| Gypsum, crude | 235,604 | 31,635 | 267,239 | 259,467 |
| Coal, anthracite | 244,650 | 21,996 | ${ }^{266,646}$ | 257,364 |
| Iron or steel, scrap | 12,328 | 179,551 | 191,879 | 43,001 |
| Iron ore... | 86,471 | 86,471 | 172,942 | 408,780 |
| Petroleum oil, refined, n.o.p | 55,304 | 71,451 | 126,755 | 90,892 |
| Iron or steel band, bars, n.o.p., hoop, platea, rods, sheets, skelp, strip and tin plate. | 101,431 | 23,091 | 124,522 | 105,397 |
| Chrome ore. | 67,519 | 53,331 | 120,850 | 76,709 |
| Phosphate rock. | 108,627 |  | 108,627 | 75, 235 |
| Asbestos and asbestos manufac | 4,156 | 75,597 | 79,753 | 70,400 |
| Wood-palp............................. | 10,543 | 63,030 | 73,573 | 58,003 |
| Lamber (planks, boards and fiooring) and square timber | 19,557 | 53,365 | 72,922 |  |
| Motor-vehicles and parts.. | 32,428 | 31,631 | 64,059 | 65,944 |
| Machinery and parts (except agricultural | 37,855 | 19,777 | 57,632 | 60,518 |
| Suiphur. | 56, 634 |  | 56,634 | 21,156 |
| Glass and glase manuf | 51,392 | 3,815 | 55,207 | 32,186 |
| Iron or steel, stractural..... | 52,529 | 2,605 | 55.134 | 56,452 |
| Iron or steel manufactures, | 43,834 | 10,231 | 54,065 | 48,823 |
| Manganese ore | 26,078 | 26,039 | 52,117 | 11,216 |
| Molasses. | 41,404 | 9,919 | 51,323 | 34,180 |
| Totals, Commodities over 50,000 tons | 7,684,420 | 7,731,306 | 15,415,726 | 14,682,765 |
| Totals, All Commodities | 8,407,153 | 8,492,188 | 16,899,341 | 16,085,605 |
| Vancouver- |  |  |  |  |
|  | 1,400 | 2,997,558 | 2,998,958 | 3,457,423 |
| Logs, masts, piling, pitprops, poles, posts, spars and ties (railway) |  |  |  |  |
| Petroleum oil, fuel | 678, 271 | 330,276 | 1,008,547 | 1,059,244 |
| Petroleum oil, crude................................. | 898,582 | 19,366 | 917,948 | 1,165,433 |
| timber. | 453,072 | 460,144 | 913,216 | 832,557 |
| Gasoline | 348,516 | 206,341 | 554,857 | 473,251 |
| Sand and g | 514,658 | 16,786 | 531,434 | 419,344 |
| Foord-pulp |  | 303,831 12,497 | 304,045 220 2051 | ${ }_{238}^{287,368}$ |
| Cement, com | 176,097 | 13,482 | 189,579 | 238,056 |
| Rock and stone | 3,832 | 158,158 | 161,990 | 197, 133 |
| Kerosene. | 102,238 | 49,810 | 152,048 | 111,805 |
| Paper, newsprint. | 143,156 | 6,439 | 149,595 | 146,851 |

6.-Principal Commodities in Water-Borne Cargo Loaded and Unloaded at each of the Six Principal Ports, 1953 with Totals for 1952-concluded

| Port and Commodity | 1953 |  |  | 1952 |
| :---: | :---: | :---: | :---: | :---: |
|  | Inward | Outward | Total | Total |
|  |  |  |  |  |
| Hog fuel............. |  | 128,405 | 128,405 | 75,759 |
| Motor-vehicles and parts. | 99,423 | 8,327 | 107,750 | 77,004 |
| Ores and concentrates, n,o | 97,413 | 7,065 | 104,478 | 105,290 |
| Paper, n.o.p. | 61,004 | 21,056 | 82,060 | 74,184 |
| Sugar, raw. | 80,224 |  | 80,224 | 94,728 |
| Coal, bituminou | 45,058 | 32,269 | 77,327 | 92,977 |
| Iron or steel tubes, pipe and fittings. | . 69,861 | 3,220 | 73,081 | 61,534 |
| Fish (including shell-fish), canned or | - 22,294 | 29,291 | 51,585 | 41,537 |
| Totals, Commodities over 50,000 tons in 1953.... | 4,987,763 | 4,919,861 | 9,907,614 | 10,210,952 |
| Totals, All Commodities | 5,987,453 | 5,849,080 | 11,836,533 | 12,099,542 |
|  |  |  |  |  |
| Petroleum oil, crude | 1,246,583 | - | 1,246,583 | 1,331,903 |
| Petroleum oil, fuel. | 390,875 | 650,333 | 1,041,208 | 1,101,802 |
| Gasoline.. | 363,122 | 281,257 425,163 | 644,379 425,409 | 587,682 320 |
| Flour, whea |  | 130,397 | 130,403 | 104,379 |
| Coal, bituminous...................... | 117,561 | - | 117,561 | 162,100 |
| Fish (including shell-fish), dried, pickled, salted or smoked. | 38,475 | 52,806 | 91,281 | 89,118 |
| Lumber (planks, boards and flooring) and square timber. | 401 | 49,591 | 49,992 | 76,030 |
| Totals, Commodities over 50,0 | 2,157,269 | 1,589,547 | 3,746,816 | 3,773,549 |
| Totals, All Commodities | 2,491,395 | 1,911,321 | 4,402,716 | 4,516,002 |
| Quebec- |  |  |  |  |
| Grain. | 175,431 | 686,469 | 861,900 | 833,884 |
| Pulpwood | 632,091 | 1,065 | 633,156 | 504,873 |
| Petroleum oil, fuel | 571,673 | 4,005 | 575, 678 | 450,994 |
| Coal, bituminous. | 320,318 | 3,823 | 324,141 | 367,477 |
| Gasoline. | 264, 255 | 107,658 | 266,366 107 | 104, 686 |
| Paper, newsprint...... |  | 93,223 | 93, 223 | 54,684 |
| Cement, common or portla | 83,874 | 2,002 | 85,876 | 68,473 |
| Ores and concentrates, n.o.p. | 720 | 59,194 | 59,914 | 60,188 |
| Totals, Commodities over 50,000 tons in 1953... | 2,048,496 | 959,550 | 3,008,046 | 2,682,357 |
| Totals, All Commodities | 2,199,104 | 1,057,444 | 3,256,548 | 3,020,172 |
| Three Rivers- |  |  |  |  |
| Pulpwood | 1,311,899 | 420.771 | 1,311,899 | ${ }_{1}^{1,392,800}$ |
| Grain. | 3951390 | 420,771 | 816,161 371505 | $1,083,373$ 370,925 |
| Coal, bituminous. | 166,870 | $\overline{19,488}$ | 186,358 | 163,111 |
| Paper, newsprint |  | 163,907 | 163,907 | 141,910 |
| Gasoline... | 60,598 | 4,284 | 64,882 | 55,709 |
| Totals, Commodities over $\mathbf{5 0 , 0 0 0}$ tons in 1953... | 2,306,262 | 608,450 | 2,914,712 | 3,207,828 |
| Totals, All Commodities | 2,390,105 | 653,951 | 3,044,056 | 3,338,406 |
|  |  |  |  |  |
| Grain. |  | 638.616 | 638,616 | 452,043 |
| Petroleum oil | 258,215 | 7,072 | 265, 287 | 273,521 |
| Sugar, raw... | 185,055 |  | 185,055 147,144 | 176,811 208,271 |
|  |  | 147,144 10,261 | 147,144 143,156 | 208,271 140,351 |
| Gasoline (planks, boards and flooring) and square | 132,895 | 10,261 | 143,156 | 140,351 |
| Lumber (planks, boards and flooring) and square timber. | 9,078 | 84,262 | 93.340 | 88,755 |
| Fertilizers and fertilizer materials | 76,389 | 859 | 77,248 | 75,941 |
| Paper, newsprint. | - | 69,307 | 69,307 | 84,688 |
| Potatoes....... | $\overline{33}, 620$ | 55,972 17,812 | 55,972 51,432 | 30,285 44,202 |
| Totals, Commodities over 50,000 tons in 1953. | 695,252 | 1,031,305 | 1,726,557 | 1,574,868 |
| Totals, All Commoditles........................ | 999,934 | 1,474,924 | 2,474,858 | 2,696,391 |

Dry Docks.-The Department of Public Works of the Federal Government has constructed five dry docks, one at Kingston, Ont., two at Lauzon, Que., and two at Esquimalt, B.C. The dock at Kingston is under lease to the Kingston Shipbuilding Company. The old Esquimalt dry dock was temporarily transferred to the Department of National Defence on Nov. 1, 1934, and, when commercially required, it will be returned to the control of the Department of Public Works. Each of the large dry docks at Lauzon, Que., and Esquimalt, B.C., can be divided for use of small vessels; the larger Lauzon dock cost approximately $\$ 1,500,000$ and the larger Esquimalt dock approximately $\$ 7,000,000$.
7.-Dimensions of Graving Docks Owned by the Federal Government

| Location | Length | Width at- |  |  | Depth of Water on Sill | Rise of Tide |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Coping | Bottom | Entrance |  | Spring | Neap |
|  | ft. | ft. | ft. | ft. | ft. | ft. | ft. |
| Lauson, Que., Champlain. | 1,150.0 | 120.0 | 105.0 | $120 \cdot 0$ | 40.0 H.W. | 18 | 13.3 |
| Lauson, Que., Lorne......... | $600 \cdot 3$ | $100 \cdot 0$ | 59.5 | 62.0 | 25.7 H.W. | 18 | $13 \cdot 3$ |
| Esquimalt, B.C. (old dock) | $450 \cdot 8^{1}$ | $90 \cdot 0$ | $41 \cdot 0$ | 65.0 | 28.8 H.W. ${ }^{2}$ | 7 to 10 | 3 to 8 |
| Esquimalt, B.C. | 1,173.8 | 149.0 | 126.0 | 135.0 | 40.0H.W. | 7 to 10 | 3 to 8 |
| Kingston, Ont. | $353 \cdot 5$ | $55 \cdot 0$ | $47 \cdot 0$ | $55 \cdot 0$ | 16-8交L.W. |  | - |

[^285]8.-Dimensions and Cost of Graving Docks Subsidized under the Dry Docks Subsidies Act, 1910

| Location | Length | Width | Depth Over Sill | Total Cost | Subsidy |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | ft. | ft. | ft. | \$ |  |
| Collingwood No. 1, Ont. | 518-3 | 59.8 | 15.5 | 500.000 | 3 p.c. for 20 years ${ }^{1}$ |
| Collingwood No. 2, Ont. | 412.0 | $95 \cdot 0$ | 16.0 | 306,965 | 3 p.c. for 20 years ${ }^{1}$ |
| Port Arthur, Ont....... | 701.0 | $77 \cdot 5$ | 16.2 | 1,258,050 | 3 p.c. for 20 years ${ }^{1}$ |
| Montreal, Que. (floating dock), Duke of Connaught. | $601 \cdot 0$ | 98.0 | 38.0 | 3,000,000 | 3x p.e. for 35 years $^{1}$ |
| Prince Rupert, B.C. (floating dock). | $604 \cdot 0$ | $100 \cdot 0$ | 28.02 | 2,199,168 | $3 \frac{1}{2}$ p.c. for 35 years ${ }^{1}$ |
| Saint John, N.B.................... | 1,157.8 | 131.5 | $40 \cdot 3$ | 5,500,000 | $4 \frac{1}{2}$ p.c. for 35 years |
| North Vancouver, B.C. (floating dock). | 556.5 | 98.0 | 34.5 ${ }^{2}$ | 2,500,000 | 4交 p.c. for 35 years |
| ${ }^{1}$ Subsidy payments have been comp |  | ${ }^{2} 28 \mathrm{ft}$. over blocks. |  | ${ }^{2}$ Over sill (H.W.). |  |

## Subsection 3.-Canals

The canals and canalized waters of Canada, under the jurisdiction of the Department of Transport, comprise a series of waterways providing navigation for 1,875 miles inland from salt water. The canals may be divided into two classes: (1) the main or primary canals on the St. Lawrence River and the Great Lakes, including the Lachine, Soulanges, Cornwall and Williamsburg Canals on the St. Lawrence River, the Welland Ship Canal between Lakes Ontario and Erie, and the Sault Ste. Marie Canal between Lakes Huron and Superior; and (2) subsidiary or secondary canals including the St. Peters Canal between Bras d'Or Lake, Cape Breton and the Atlantic Ocean, the St. Ours and Chambly Canals on the Richelieu 92428-56 $\frac{1}{2}$

River, the St. Anne, Carillon and Grenville Canals on the Ottawa River, the Rideau Canal between the Ottawa River and Lake Ontario, and the Trent and Murray Canals between Lake Ontario and Georgian Bay.

Tonnage passing through this transportation system shows its importance as a highway of commerce: during 1953, $33,373,064$ tons of freight passed through, surpassing the peak reached in 1952 when freight traffic amounted to $31,354,139$ tons, and comparing with $24,636,462$ tons in 1938 . In 1953, 27,563 vessels passed through the canals compared with 26,322 in 1952.

In addition to freight and passenger vessels, there are thousands of pleasure craft locked through the canals. The number of passengers on vessels locking at Sault Ste. Marie was 105,366 in 1953 as compared with 97,452 in 1952.

Revenue from canals during the year ended Mar. 31, 1954, amounted to $\$ 1,594,891$, of which $\$ 1,237,648$ was derived from rentals for hydraulic and land privileges and wharfage. In the previous fiscal year, the total revenue was $\$ 1,532,210$, with rentals and wharfage amounting to $\$ 1,196,106$.

The names of the various canals along these routes, their locations and lengths, together with the numbers and dimensions of the locks thereon and other information may be found in the Department of Transport Bulletin, Canals of Canada. A special article on the "Canals of the St. Lawrence Waterway" appears in the 1954 Year Book, pp. 830-833.

Under the jurisdiction of the Federal Department of Public Works are the St. Andrews Lock (length, width and draught, respectively, 215,45 and 17 ft .) at Selkirk, Man., on the Red River, and the lock at Poupore, Que. There are also a few small isolated locks, each controlled under the authority of the province in which it is situated.

## 9.-Lengths of Channels and Dimensions of Locks under the Control of the Department of Transport, as at Dec. 31, 1953

| Name | Location | LengthofChannel | Locks |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No. | Minimum Dimensions |  |  |
|  |  |  |  | Length | Width | Depth |
|  |  | miles |  | ft. | ft . | ft. |
| St. Lawrence- |  |  |  |  |  |  |
| Soulanges..... | Cascades Point to Coteau Landing | $14 \cdot 67$ | 5 | 280 | 46 | $15^{1}$ |
| Cornwall..... | Cornwall to Dickinson Landing . . . | 11.00 | 6 | 270 | $43 \cdot 67$ | $14^{1}$ |
| Farran Point... | Farran Point Rapids............. | 1.28 | 1 | 800 | 50 | $16^{1}$ |
| Rapide Plat.... | Morrisburg............................... | 3.89 7.36 | 2 | 270 | 45 | 141 |
| Galop.......... | Iroquois to Cardinal | $7 \cdot 36$ | 3 | 270 | 45 | $14^{1}$ |
| Welland Ship..... | Port Weller, Lake Ontario, to Port Colborne, Lake Erie. | $27 \cdot 60$ | 8 | 859 | 80 | $30^{2}$ |
| Sault Ste. Marie.. | Sault Ste. Marie, Ont | 1.38 | 1 | 900 | 60 | 18.25 |
| Richelieu River- <br> St. Ours. | St. Ours, Que................... ...... | $0 \cdot 12$ 11.78 | 1 | 339 120.5 | ${ }_{23.25}^{45}$ | ${ }_{6.5}^{12}$ |
| Chambly........ | Chambly to St. Johns, Que............... | 11.78 | 9 | $120 \cdot 5$ | $23 \cdot 25$ | $6 \cdot 5$ |
| Ottawa RiverSt. Anne $\qquad$ | Junction of St. Lawrence and Ottawa |  |  |  |  |  |
|  | Rivers | $0 \cdot 12$ | 1 | 200 | 45 | 9 |
| Carillon.... | Carillon Rapids, Ottawa River ........ | $0 \cdot 94$ | 2 | 200 | 45 | 9 |
| Grenville........ | Long Sault Rapids, Ottawa River........ | $5 \cdot 94$ | 5 | 200 | 45 | 9 |

For footnotes, see end of table, p 877.

## 9.-Lengths of Channels and Dimensions of Locks under the Control of the Department of Transport, as at Dec. 31, 1953-concluded

| Name | Location | $\begin{gathered} \text { Length } \\ \text { of } \\ \text { of } \end{gathered}$ | Locks |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No. | Minimum Dimensions |  |  |
|  |  |  |  | Length | Width | Depth |
| $\begin{gathered} \text { Miscellaneous- } \\ \text { Rideau........... } \end{gathered}$ | Ottawa to Kingston. <br> Rideau Lake to Perth (Tay Branch)..... | miles | 472 | ft. | ft. | ft. |
|  |  | $\begin{array}{r} 123.53 \\ 6.82 \end{array}$ |  | 134 | 33 | $5 \cdot 5$ |
|  |  |  |  | 134 | 33 | $5 \cdot 5$ |
| Trent............ | Trenton to Peterborough Lock, Peterborough. | 88-74 | 18 | 175 | 33 | $8{ }^{3}$ |
|  | Peterborough Lock to Swift Rapids...... | 135.71 | 24 | 134 | 33 | 号 |
|  | Swift Rapids to Big Chute ${ }^{\text {a }}$............... | 8.00 | -1 |  |  |  |
|  | Big Chute to Port Severn................ | $8 \cdot 11$ | 1 | 100 | 25 | 6 |
|  | Branch). | 10.00 | 1 | 142 | 33 | 6 |
|  | Lindsay to Port Perry (Scugog Branch).. | $25 \cdot 00$ | - | ... | ... | $4 \cdot 5$ |
| Murray......... | Isthmus of Murray-Bay of Quinte....... | $7 \cdot 535$ | - | ... | ** | $\cdots$ |
| St. Peters...... | St. Peters Bay to Bras d'Or Lake, Cape Breton, N.S. | 0.50 | 1 | 300 | 47-4 | $18^{6}$ |

[^286]Canal Traffic.-The canals of Canada are open to the vessels and traffic of all nations upon equal terms and thus Cnited States traffic constitutes an important part of the total carried through certain canals, especially the Welland Ship Canal. This is shown in Tables $\mathbf{1 0}$ and 12. More complete details of the traffic through canals may be found in DBS annual report, Canal Statistics.

## 10.-Traffic through Canadian Canals, by Nationality of Vessel and Origin of Freight, Navigation Seasons, 1944-53

Nors.-Figures include duplications where cargoes use two or more canals. Figures from 1886 are available in the corresponding table of previous Year Books beginning with the 1902 edition.

| Navigation Sea-son son | Nationality of Vessel |  |  |  | Origin of Freight Carried |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Canadian |  | United States ${ }^{1}$ |  | Canada |  | United States ${ }^{1}$ |  | Total |
|  | Vessels | Registered Tonnage | Veasels | Registered Tonnage | Tons | $\begin{aligned} & \text { P.C. of } \\ & \text { Total } \end{aligned}$ | Tons | P.C. of <br> Total | Tons |
|  | No. | No. | No. | No. |  |  |  |  |  |
| 1944. | 20.780 | 18,191,826 | 1,911 | 4,541,575 | 8,002,746 | 38.8 | 12,612,761 | 61.2 | 20,615,507 |
| 1945.. | 21.064 | 19,068,308 | 1,553 | 3,426,069 | 10,491,263 | 47.0 | 11,829, 136 | 53.0 | 22,320, 399 |
| 1946.. | 17,199 | 16, 206,415 | 1,794 | 3,221,008 | 8,904,733 | 47.7 | 9,750,186 | $52 \cdot 3$ | 18,654, 919 |
| 1947. | 18,542 | 18,613,576 | 2,332 | 3,796,293 | 10,288,481 | 47.8 | 11,225,458 | $52 \cdot 2$ | 21,513,939 |
| 1948.. | 19,859 | 19,723,768 | 2,784 | 4,219,539 | 11,169,714 | 47-4 | 12,389,599 | $52 \cdot 6$ | 23,559,313 |
| 1949.. | 21,724 | 20,773,831 | 2,495 | 3,260,038 | 14,800,509 | 60.7 | 9,573,243 | $39 \cdot 3$ | 24,373,752 |
| 1950.. | 21,179 | 21,989, 263 | 3,241 | 3,514,202 | 15, 138,009 | 55.2 | 12,301,067 | 44.8 | 27,439,076 |
| 1951.. | 22, 141 | 22,951,468 | 3,407 | 4,297,672 | 16,004, 284 | $54 \cdot 6$ | 13,320,750 | 45.4 | 29,325,034 |
| 1952. | 22,565 | 25, 608,373 | 3,757 | 4,201,005 | 17,245, $051{ }^{\text {r }}$ |  | 14, 109,088 . | 45-0 ${ }^{\text {r }}$ | 31,354,139 |
| 1953.. | 23,378 | 29,335,644 | 4,185 | 4,037,420 | 18,464,479 | $55 \cdot 3$ | 14, 908,585 | $44 \cdot 7$ | 33,373,064 |

${ }^{1}$ Figures include a few vessels and a small tonnage of freight of other foreign nationalities.

## 11.-Tonnage of Products carried by Canal, by Class of Commodity, Navigation Season, 1953

Note.-Figures include duplications where cargoes use two or more canals.

| Canal | Agricultural Products | Animal <br> Products | Manufactures and Miscellaneous | Forest Products | Mineral Products | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | tons | tons | tons | tons | tons |
| Sault Ste. Marie. | 1,805,560 | 178 | 1,001,749 | 183,795 | 398,127 | 3,389,409 |
| Welland Ship. | 5,607, 198 | 1,760 | 4,136,059 | 500,288 | 9, 296, 845 | 19,542,150 |
| St. Lawrence Rive | 4,365,733 | 2,516 | 3,151,644 | 529,806 | 2,032,293 | 10,081,992 |
| Richelieu River | 420 |  | 93,959 |  | - | 94,379 |
| St. Peters. | 1,622 | 425 | 819 | 20 | 955 | 3,841 |
| Murray | - | - | ${ }^{6} 676$ | - |  | 676 |
| Ottawa River | 二 |  | 1,047 188 | 339 | 241,985 | 243,032 |
| Trent. | 11 | 二 | 228 | - | 1,004 | 1,539 |
| St. Andrews. | 97 | 1,909 | 2,899 | 10,907 | 3 | 15,815 |
| Totals. | 11,780,641 | 6,788 | 8,389,268 | 1,225,155 | 11,971,212 | 33,373,064 |

12.-Canal Traffic, by Direction and Origin, Navigation Season, 1953

Notr.-Figures include duplications where cargoes use two or more canals.

| Canal | From Canadian to Canadian Ports |  | From CanadiantoUnited States Ports ${ }^{1}$ |  | From United StatestoUnited States Ports ${ }^{3}$ |  |  | From United States ${ }^{1}$ Canadian Ports |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Up | Down | Up | Down | U |  | Down | Up | Down |
|  | tons | tons | tons | tons | ton |  | tons | tons | tons |
| Sault Ste. Marie.. | 558, 921 | 1,704,585 | 5,360 | 567,468 |  | 5,057 | 31,306 | 270,326 | 76,386 |
| Welland Ship...... | 1,039,269 | 5,761,360 | 677,151 | 106,680 |  | 4,382 | 735,185 | 21,660 | 10,356,463 |
| St. Lawrence River | 1,959,961 | 4,994,786 | 637,094 | 112,261 |  | 4,043 | 192,944 | 95,999 | 1,784,904 |
| Richelieu River... | 45,047 | 4,902 | 24,500 | 15 |  |  | - | - | 19,930 |
| St. Peters... | 2,052 | 1,636 | - | 153 |  |  | - | - | - |
| Ottawa River. | 735 | 241,250 | - | 1,047 |  |  | - | - |  |
| Rideau..... | 849 | 682 | - |  |  |  | - | - | - |
| Trent. | 131 | 108 | - | - |  |  | - | - |  |
| St. Andrews. | 13,127 | 2,688 |  | - |  |  | - |  |  |
| Totals | 3,620,664 | 12,712,101 | 1,344,105 | 787,609 |  | ,482 | 959,435 | 387,985 | 12,237,683 |
| Canal |  | Traffic by Direction |  | Origins of Cargo |  |  |  | Total Cargo 1953 | Total <br> Cargo 1052 |
|  |  | Up | Down | Canada |  | United States ${ }^{1}$ |  |  |  |
|  |  | tons | tons | tons |  | tons |  | tons | tons |
| Sault Ste. Marie. |  | 1,009,664 | 2,379,745 | 2,836,334 |  | 553,075 3, |  | 3,389,409 | $\begin{array}{r} 3,295,423 \\ 17 \end{array}$ |
| Welland Ship.. |  | 2,582,462 | 16,959,688 | 7,584,460 |  | 11,957,690 19 |  | 9,542,150 |  |
| St. Lawrence River |  | 2,997,097 | 7,084,895 | $7,704,102$74,449 |  | 2,377,890 |  | 0,081,992 | $\begin{array}{r} 17,910,756 \\ 9.836,395 \end{array}$ |
| Richelieu River. |  | 69,547 | 24,832 | 74,449 |  | 19,930 |  | 94,379 | 9,856,88,973 |
| St. Peters. |  | 2,052 | 1,789 | 3,841 |  | , |  | 3,841676 | $\begin{array}{r} 0 \\ 3,802 \\ 3 \end{array}$ |
| Murray. |  | 572 | 104 |  | 676 |  |  | 3201,151 |  |
| Ottawa River |  | 735 | 242,297 | 243,0321,531 |  | - |  |  | 243,032 |
| Rideau. |  | 849 | 682 |  |  | - |  | 1,531 | 201,151 |
| Trent. |  | 131 | 108 | 1,23915,815 |  |  |  | 239 | [ $\begin{array}{r}135 \\ \hline 203\end{array}$ |
| St. Andrews |  | 13,127 | 2,688 |  |  |  |  | 15,815 |  |
| Totals. |  | 6,676,236 | 26,696,828 | 18,461,479 |  | 14,908,585 33 |  | 3,373,064 | 31,354,139 |

[^287]The figures in Tables 11 and 12 include duplications where the same freight passes through two or more canals, but in Table 13 duplications in the traffic passing through the St. Lawrence and Welland Ship Canals and the Canadian lock at Sault Ste. Marie have been eliminated wherever possible.

Grain trans-shipped at Georgian Bay, Lake Erie, or other ports above Montreal is treated as new cargo and as most of this grain has passed through either the Canadian or United States locks at Sault Ste. Marie there are still duplications in the data because of this treatment. These duplications cannot be avoided when net totals for the Canadian canals are computed because it is impossible to ascertain which lock at Sault Ste. Marie was used by the grain reloaded at Port Colborne, Ont., or other trans-shipping port.

## 13.-St. Lawrence-Great Lakes Traffic using St. Lawrence, Welland Ship and Sault Ste. Maric Canals, 1953

| Canals Used | Up- <br> Bound <br> Freight | Down- <br> Bound <br> Freight | Total |
| :---: | :---: | :---: | :---: |
| Traffic using Canadian Canals- | tons | tons | tons |
| St. Lawrence only........... | 1,624,659 | 2,868,449 | 4,493,108 |
| St. Lawrence and Welland Ship | 1,204,894 | 3,379,847 | 4,584,741 |
| St. Lawrence, Welland Ship and Sault Ste. Marie | 151,808 | 594,502 | 746,310 |
| Welland Ship only. | 1,038,282 | 7,401,060 | $8,439,342$ |
| Welland Ship and Sault Ste. Mario | 187,478 | 5,584,279 | 5,771,757 |
| Sault Ste. Marie only. | 761,729 | 1,553,277 | 2,315,006 |
| Totals, Traffic using Canadian Canals. | 4,968,850 | 21,381,414 | 26,350,264 |
| Totals, Traffic using United States Locks at Sault Ste. Marie only. | 10,586,057 | 109,070,040 | 119,656,097 |
| Totals, Canal Traffic. | 15,554,907 | 130,451,454 | 146,006,361 |

Traffic through the Sault Ste. Marie canals, Canadian and United States, has been approximately twice as heavy as the traffic through the Panama Canal during the latest ten years for which records are available and in 1940 it was almost three times as heavy. Canal traffic has varied from $20,484,000$ tons in 1932, which was less than the Panama traffic, to $128,481,596$ tons in 1953. The dominant traffic, from a tonnage aspect, is iron ore and during the past 50 years this has fluctuated from $4,901,000$ tons in 1892, an average of $50,000,000$ tons in the 1920 's, a low of $3,607,000$ tons in 1932, to a high of $98,657,591$ tons in 1953.

Soft coal has usually been second in volume to iron ore, increasing from $8,676,297$ tons during the 1949 season to $13,301,048$ tons in 1950 ; there was a decline, however, to $10,684,734$ tons in 1951, $9,901,211$ tons in 1952, and $8,609,598$ tons in 1953.

Although wheat ranks third in tonnage, its value over the past quarter-century has been greater, generally, than that of either iron ore or coal. Other grains have been about one-quarter to one-fifth of the wheat tonnage and a smaller ratio of the value.

The Panama Canal.-The Panama Canal, which was opened to commercial traffic on Aug. 15, 1914, has been a waterway of great importance to the ports of British Columbia, from which vessels leave direct for United Kingdom and other European ports throughout the year. As an alternative route to that of the transcontinental railway lines, this water passage is of vital importance in the solution of
the larger transportation problems of the Continent. During World War I, the great expectations based upon the opening of the Canal were not realized, owing to the scarcity of shipping. However, with the post-war decline in ocean freight rates, an increase in traffic between Canada's Pacific ports and Europe took place and, while the proportion carried in vessels of Canadian registry was comparatively small, the cargo tonnage, nevertheless, assumed considerable proportions. During World War II, the volume of Canadian traffic through the Canal was again reduced but has since increased considerably.

## 14.-Traffic to and from the East and West Coasts of Canada via the Panama Canal, Years Ended June 30, 1944-53

Note.-Figures for the years 1921-28 are given in the 1938 Year Book, p. 707, and those for 1929-43 in the 1948-49 edition, p. 738.

| Year | Originating on- |  | Destined for- |  | Year | Originating on- |  | Destined for- |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | West Coast | East Coast | West Coast | East Coast |  | West Coast | East Coast | West Coast | East <br> Coast |
|  | long tons | long tons | long tons | long tons |  | long tons | long tons | long tons | long tons |
| 19441 | 363,220 | 17,283 | 30,044 | - | 1949. | 2,298,492 | 188,506 | 154,524 | 145,477 |
| $1945{ }^{1}$ | 679,079 | 65,395 | 366,118 | 30,540 | 1950. | 2,707,047 | 185,076 | 226,673 | 143,395 |
| 1946. | 1,756,989 | 184,850 | 111, 161 | 62,516 | 1951. | 2,910,246 | 240,904 | 372,534 | 142,741 |
| 1947 | 2,981,348 | 316,898 | 132,521 | 99,745 | 1952. | 3,644,888 | 287,872 | 281,960 | 114,319 |
| 1948 | 2,824,394 | 244,121 | 162,561 | 67,215 | 195 | 3,560,925 | 532,810 | 341,548 | 219,567 |

${ }^{1}$ Approximate-exact figures not available.

## 15.-Commercial Traffic through the Panama Canal, Years Ended June 30, 1944-53

Note.-Figures from 1915 are given in the corresponding table of previous Year Books beginning with the 1938 edition.

| Year | Atlantic to Pacific |  | Pacific to Atlantic |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vessels | Cargo <br> Tonnage | Vessels | Cargo <br> Tonnage | Vessels | Cargo Tonnage |
|  | No. | long tons | No. | long tons | No. | long tons |
| 1944. | 671 | 3,354,349 | 891 | 3,649,138 | 1,562 | 7,003,487 |
| 1945. | 924 | 4,234,935 | 1,015 | 4,368,672 | 1,939 | 8,603,607 |
| 1946. | 1,516 | $6,118,085$ | 2,231 | 8,859,855 | 3,747 | 14,977,940 |
| 1947. | 2,021 | $8,294,820$ | 2,239 | 13,375,698 | 4,260 | 21,670,518 |
| 1948. | 2,286 | 8,679,140 | 2,392 | 15,438,648 | 4,678 | 24,117,788 |
| 1949. | 2,387 | 9,899,088 | 2,406 | 15,406, 070 | 4,793 | 25,305,158 |
| 1950. | 2,689 | 9,483,863 | 2,759 | 19,388,430 | 5,448 | 28,872,293 |
| 1951 | 2,784 | 11,132,472 | 2,809 | 18,940,550 | 5,593 | 30,073,022 |
| 1952. | 3,184 | 15, 128,995 | 3,340 | 18,481,514 | 6,524 | 33,610,509 |
| 1953. | 3,674 | 17,329,066 | 3,736 | 18,766, 283 | 7,410 | 36,095,349 |

## Subsection 4.-Aids to Navigation

Included under aids to navigation are the lighthouses and the whole system of marine danger signals on the east and west coasts of Canada, on Hudson Bay and Strait, the St. Lawrence River and Gulf, the inland rivers and lakes, and at the entrances to harbours-a very extensive system designed to provide safe navigation in all Canadian waters. In addition, a pilotage service is maintained in waters where navigation is difficult; this service is described under Marine Services at p. 882. As a further aid to safe navigation, there are chains of radio signal and
direction-finding stations which are described under radiotelegraphy at pp. 927-928. Lists of aids to navigation, with the exception of very minor ones, are published by the Department of Transport.

## 16.-Marine Danger Signals maintained in Canada, Years Ended Mar. 31, 1948-54

Nors.-In addition to the aids to navigation listed, approximately 9,000 unlighted buoys, balises, dolphins and beacons are maintained. A table showing marine danger signals maintained during the years ended Mar. 31, 1929-40, is given in the 1941 Year Book, p. 581. Figures for 1942 will be found in the 1948-49 edition, p. 716, and for 1943-47 in the 1950 edition, p. 766.

| Type of Signal | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. |
| Lights. | 2,469 | 2,491 | 2,778 | 2,841 | 2,861 | 2,901 | 2,876 |
| Lightships... | 1,120 | 1,094 | 8 1,416 | 1,888 | 1,131 | 1,154 ${ }^{7}$ | 1,083 |
| Fog whistles. | 1,120 | 1, 11 | 1, 18 | 1,32 | 1,131 | 1,154 | 1,083 |
| Sirens. | 2 | 2 | 3 | 3 | 3 | 3 | 4 |
| Diaphones | 169 | 176 | 207 | 212 | 213 | 216 | 211 |
| Fog bells. | 37 | 38 | 43 | 44 | 46 | 46 | 49 |
| Hand fog horns. | 137 | 137 | 134 | 133 | 127 | 124 | 122 |
| Hand fog bells. | 10 | 10 | 10 | 10 | 12 | 12 | 12 |
| Lighted and combination lighted whistling and bell buoys. | 552 | 585 | 618 | 655 | 681 | 719 | 778 |
| Whistling buoys..... | 39 | 39 | 38 | 38 | 37 | 37 | 36 |
| Bell buoys... | 112 | 113 | 109 | 110 | 113 | 112 | 115 |
| Fog guns and bombs | 12 | 11 | 11 | 10 | 9 | 8 | 9 |
| Fog alarm stations only. | 10 | 11 | 15 | 15 | 15 | 15 | 15 |

Navigable waters have been improved greatly by dredging in channels and harbours, by the removal of obstructions, and by the building of remedial works to maintain or control water levels. Incidental to these developments of navigable waters are works to guard shorelines and prevent erosion, and for the control of roads and bridges that cross navigable channels. Ice-breaking operations are carried on at the beginning and at the end of winter to prolong the season of navigation in important waters that freeze over-particularly in connection with sea-going shipping from Montreal, Que.-and to prevent flood conditions during the spring ice break-up.

St. Lawrence River Ship Channel.-This channel extends from about 40 miles below Quebec City to the foot of Lachine Canal at Montreal, a distance of 200 miles of which about 113 miles is dredged channel.

The first minor development began in 1844, on Lake St. Peter, where the limiting depth was $10 \frac{1}{2}$ feet at low water. Since 1851, progress in deepening and widening the original natural channel has been more or less continuous through a series of improvement projects in keeping with the increasing demands of trade and the safety of larger and faster vessels.

The present channel above Quebec City has a limiting depth of 35 feet (opened in 1952) at extreme low water and a minimum width of 550 feet, with additional width up to 1,500 feet at all curves and difficult points. This section comprises about 100 miles of dredged channel. Below Quebec the limiting depth of dredged channel, about 13 miles in length, is 30 feet at low tide, with a width of 1,000 feet. An average tidal range of 15 feet in this area provides ample depth for any vessel using the St. Lawrence route. The latest improvement project (1952) comprised the further widening of critical sections and the provision of additional anchorage and turning areas. Annual maintenance requirements owing to silting in this dredged channel are relatively minor above Quebec but below the city silting is more pronounced because of tidal action.

The ship channel is well defined by buoys, and the centre by range lights permitting uninterrupted day and night navigation throughout the open season from about mid-April to early December. The movements of all shipping, weather and ice conditions and obstructions to traffic throughout the St. Lawrence waterway from Fame Point, Que., to Kingston, Ont., are recorded and made available to all concerned through a series of reporting stations known as the Government Signal Service.

A fleet of ice-breaking vessels is maintained to facilitate the movement of shipping between Montreal and the sea during the opening and closing of navigation, as well as to alleviate flood conditions in low-lying areas.
17.-Seasons of Open Navigation on the St. Lawrence Ship Channel, 1935-54

Note.-Figures from 1882 are given in the corresponding table of previous Year Books, beginning with the 1934-35 edition.

| Year | Channel Open, Quebec to Montreal ${ }^{1}$ | First Arrival from Sea, Montreal Harbour | Last Departure for Sea, Montreal Harbour | Year | Channel Open, Quebec to Montreal ${ }^{1}$ | First Arrival from Sea, Montreal Harbour | Last <br> Departure for Sea, Montreal Harbour |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1935. | Mar. 30 | Apr. 15 | Dec. 9 | 1945. | Apr. 1 | Apr. 9 | Dec. 3 |
| 1936. | " 28 | " 13 | " 11 | 1946 | 1 | * 12 | " 18 |
| 1937. | Apr. ${ }^{9}$ | $\begin{array}{ll}\text { " } & 19\end{array}$ | " 8 | 1947. | $\begin{array}{ll}\text { " } & 16\end{array}$ | " 19 | 5 |
| 1938. | * 12 | " 18 | " 4 | 1948. | " 10 | " 19 | 10 |
| 1939 | " c | " 29 | " 12 | 1949 | " 7 | " 78 | 15 |
| 1940. |  | " ${ }^{1} 24$ | " 18 |  | " 18 | $\begin{array}{ll}\text { " } & 18\end{array}$ | " 7 |
| 1941. | " 14 | " 19 | " 17 | 1951. | " 11 | $\begin{array}{ll}\text { " } & 13\end{array}$ | 13 |
| 1942. | " 17 | May 2 | " 16 | 1952 | " 12 | " 13 | " 10 |
| 1943 | " 29 | " 24 | " 13 | 1953 | Mar. 30 | " 2 | " 21 |
| 1944 | " 20 | Apr. 21 |  | 195 | Apr. 15 | Mar. 30 | 15 |

${ }^{1}$ "Channel Open" means the route can be navigated although there may be floating ice in the river.

## Subsection 5.-Marine Services of the Federal Government

The services covered in this Subsection are those dealing with steamship inspection, pilotage service, sea-faring personnel, and the operations of the Canadian Government Merchant Marine Limited and the Canadian National (West Indies) Steamships Limited.

Steamship Inspection.-The Steamship Inspection Service, provided for under Part VII of the Canada Shipping Act, 1934, is responsible for the administration and carrying out of the provisions of the Act respecting the periodic inspection of power-driven ships and the issue of inspection certificates; the assignment of load lines; the conditions under which dangerous goods may be carried in ships; the protection against accident of workers employed in loading and unloading ships; and also for the administration and carrying out of the provisions relating to the certification and employment of marine engineers. The Service has a headquarters staff at Ottawa and staffs of inspectors at the principal ocean and inland ports.

The Board of Steamship Inspection decides on questions arising out of the administration of the Act and takes care of the interests of the Federal Government in schools for marine engineers. A matter of recent concern has been the pollution of the sea by oil, and an international conference of the world's leading maritime nations, at which Canada was represented by the Chairman of the Board of Steamship Inspection, was held at London, England, in April 1954 for the purpose of
deciding on measures to deal with this nuisance. A Convention was drawn up at the Conference and signed by the Canadian delegate, subject to ratification by the Canadian Government.
18.-Summary Statistics of Steamship Inspection, Year Ended Mar. 31, 1953

| Port | Vessels Subject to Inspection when in Commission |  | Vessels Inspected |  |  |  | Vessels Not Inspected |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Registered or Owned in Canada |  | Registered or Owned Elsewhere |  |  |  |
|  | No. | $\begin{aligned} & \text { gross } \\ & \text { tonnage } \end{aligned}$ | No. | gross tonnage | No. | $\begin{gathered} \text { gross } \\ \text { tonnage } \end{gathered}$ | No. | $\begin{aligned} & \text { gross } \\ & \text { tonnage } \end{aligned}$ |
| St. John's, N'f'ld.. | 157 | 38,972 | 157 | 38,972 | - | - | - | - 15.107 |
| Halifax, N.S. ${ }^{1}$. ${ }^{\text {a }}$. | 159 | 156,309 | 152 | 137,713 | 1 | 3,489 | 6 | 15,107 |
| Saint John, N.B... | 38 | 58,033 | 36 | 44,436 | 2 | 13,597 |  |  |
| Quebec, Que. . . . | 114 | 82,195 | 110 | 81,949 |  | - | 4 | 246 |
| Sorel, Que......... | 79 | 28,928 | 54 | 25,499 391 | - |  | 25 | 3,429 |
| Montreal, Que..... | 205 | 489,959 | 138 | 391,393 | 2 | 36,154 | 65 | 62,412 |
| Kingston, Ont..... | 88 | 81,304 | 87 | 81,289 | -1 |  | 1 | 15 |
| Toronto, Ont...... | 185 74 | 456,848 213,425 | 177 74 | 454,305 | 1 | 1,620 | 7 | 923 |
| Collingwood, Ont. | 82 | 204,336 | 79 | 204,169 | - | -* | 3 | 167 |
| Midland, Ont..... | 86 | 140,905 | 72 | 140,353 | - | - | 14 | 552 |
| Port Arthur, Ont. . | 137 | 78,056 | 45 | 71,145 | - | - | 92 | 6,911 |
| Vancouver, B.C.. | 400 | 194,546 | 356 | 178,632 | 1 | 7,459 | 43 | 8,455 |
| Victoria, B.C.... | 76 | 70,689 | 60 | 55,581 | - | , | 16 | 15,108 |
| Totals | 1,880 | 2,294,505 | 1,597 | 2,118,861 | 7 | 62,319 | 276 | 113,325 |

${ }^{1}$ Includes North Sydney, N.S.
Pilotage.-Pilotage service functions under the provisions of Part VI of the Canada Shipping Act. Wherever a pilotage district has been created by the Governor in Council, qualified pilots are licensed by the pilotage authority of the district.

There are in Canada 42 pilotage districts in nine of which the Minister of Transport is the pilotage authority (see Table 19), while in each of the other districts the pilotage authority is a local body appointed by the Governor in Council.
19.-Pilotage Service, by Districts, Years Ended Mar. 31, 1952 and 1953

| District | 1952 |  | 1953 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Ships | Net Registered Tonnage | Ships | Net Registered Tonnage |
|  | No. |  | No. |  |
| Bras d'Or Lake, N.S. | 57 | 248,006 | 52 | 236,916 |
| Sydney, N.S. | 1,828 | 3,567,800 | 2,146 | 3,814,195 |
| Halifax, N.S. | 2,967 | 10,868,837 | 3,126 | 11,391,993 |
| Saint John, N.B | 1,276 | 3,609,643 | 1,456 | 4,170,954 |
| Quebec, Que.. | 4.552 | 15,269,456 | 4.956 | 16,731,634 |
| Montreal, Que . . . . . . . . . . . . | 8,235 | 14,755,504 | 7,053 | 16,648,762 |
| St. Lawrence-Kingston-Ottawa, |  |  |  |  |
| Churchill, Man_. | 42 3,365 | $\begin{array}{r} 177,224 \\ 8,838,804 \end{array}$ | 54 3,993 | $\begin{array}{r} 19 \ddot{4}, 464 \\ 11,893,990 \end{array}$ |
| Totals. | 22,3z2 | 57,335,274 | 22,836 | 65,082,908 |

In addition, there are 21 districts in the Province of Newfoundland under local pilotage authority. These districts are administered under Newfoundland statutes which, since the date of union with Canada, come under federal jurisdiction. Part VI of the Canada Shipping Act with respect to pilotage has not been proclaimed in force in Newfoundland.

Seamen Shipped and Discharged.-Seamen shipped and discharged at Canadian ports under the provisions of the Canada Shipping Act during the years ended Mar. 31, 1944-53, are shown in Table 20.

## 20.-Seamen Shipped and Discharged at Canadian Ports, Years Ended Mar. 31, 1944-53

Nore.-Figures from 1918 are given in the corresponding table of previous Year Books beginning with the 1941 edition.

| Year | Seamen Shipped | Seamen Discharged | Year | Seamen Shipped | Seamen Discharged |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. |  | No. | No. |
| 1944.. | 26,068 | 20,491 | $1949{ }^{1}$. | 50,379 | 49,544 |
| 1945. | 29,230 | 25,056 | 1950. | 43,677 | 43,194 |
| 1946... | - 30,361 | 27,042 | 1951. | 40,241 | 40,535 |
| 1947... | 43,973 | 42,205 | 1952. | 43,724 | 40,664 |
| 1948. | 59,768 | 60,793 | 1953. | 42,723 | 36,610 |

${ }^{1}$ Figures for Newfoundland are included from Apr. 1, 1949.
Canadian Government Merchant Marine Limited.-The circumstances under which the Canadian Government became possessed of, and responsible for, the operations of a merchant marine are explained in the 1934-35 Year Book, p. 776. A table showing the operating results from 1919 to 1936 is given in the 1937 Year Book, p. 689.

The original fleet of the Canadian Government Merchant Marine Limited consisted of 66 vessels with a total deadweight tonnage of 391,212 . The original cost of the fleet was $\$ 79,661,921$ and the capital loss thereon was $\$ 74,239,356$. The total capital recovery of $\$ 5,422,565$ was as follows: (1) the sale of 56 vessels for $\$ 2,378,018$; (2) the proceeds of insurance on four vessels lost amounting to $\$ 2,111,475$; and (3) the sale of six vessels for $\$ 933,072$ to the Canadian National (West Indies) Steamships Limited.

The Charter of the Canadian Government Merchant Marine Limited and its subsidiary companies, although inactive since 1936, was not surrendered and in 1940 the Company was reconstituted and, on behalf of the Government of Canada, operated certain ships seized in prize and either requisitioned for use by the Canadian Government or condemned by the Court. When settlement with the owners of requisitioned ships for charter hire had been completed, the organization once more became inactive.

Canadian National (West Indies) Steamships Limited.-In conformity with the Canada-West Indies Trade Agreement of 1926 (16-17 Geo. V, c. 16) the Federal Government has provided direct steamship services to the West Indies through the medium of Canadian National (West Indies) Steamships Limited.

At the end of 1953, the Canadian National Steamships owned and operated eight vessels in service between Canada and the British West Indies.

## 21.-Financial Statistics of Canadian National (West Indies) Steamships Limited, 1944-53

Note.-Figures for the years 1929-38 are given in the 1942 Year Book, p. 620, and for 1939-43 in the 1950 edition, p. 777.

| Year | Operating <br> Revenue | Operating Expenditure | Operating Net | Depreciation | Interest | Book Loss or Surplus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | \$ |
| 1944. | 5,378, 059 | 3,160,568 | +2,217,491 | 243,158 | 651,246 | +1,271,387 |
| 1945 | 4,412,252 | 2,569,626 | +1,842,626 | 279,466 | 612,999 | +1,116,086 |
| 1946. | 6,669,129 | 4.671,148 | $+1,997,981$ | 288,092 | 596,499 | +1,302,052 |
| 1947. | 7,857,471 | 6,534,600 | +1,322,871 | 493,594 | 573,298 | +522,677 |
| 1948. | 7,964,720 | 6,828,392 | $+1,136,328$ | 492,222 | 563,794 | $+166,044$ |
|  |  |  |  |  | 577,410 | -460,498 |
| $1950 .$ | 5,124,200 | 5,220,806 | -96,606 | 371,699 | 560,462 | -1,028,767 |
| 1951. | 6,808,478 | 6,337,987 | +470,491 | 371,699 | 565,784 | -466,992 |
| 1952. | 7,449,247 | 6,605,514 | +843,733 | 372,392 | 475, 250 | -3,909 |
| 1953. | 4,509,342 | 4,892,150 | -382,808 | 268,772 | 475,250 | -1,126,830 |

## Subsection 6.-The St. Lawrence Seaway

The development of the St. Lawrence waterway with its ship channel and system of canals is reviewed in the 1954 Year Book at pp. 830-833. A special article on "The St. Lawrence Power Project" dealing with joint international development of power on the International Rapids section of the St. Lawrence River will be found at pp. 549-553 of this edition.

## THE ST. LAWRENCE SEAWAY*

The St. Lawrence Seaway project envisages the provision of 27 -foot navigation from Montreal, Que., to the head of the Great Lakes, a distance of over 2,000 miles. Associated with the necessary navigation works is the development of power at two, and possibly three sites on the St. Lawrence River. At the first site, in the International Rapids section, where the River marks the boundary between Canada and the United States, a total of $2,200,000 \mathrm{~h} . \mathrm{p}$. is to be developed and divided equally between the two countries. At the second site in the Soulanges section, the Beauharnois power development already harnesses over $1,300,000 \mathrm{~h} . \mathrm{p}$. and can be expanded eventually to $2,000,000 \mathrm{~h} . \mathrm{p}$. The third possible site is in the Lachine section, where a capacity of $1,200,000 \mathrm{~h} . \mathrm{p}$. could be developed. At the two latter sites the River is entirely within Canadian territory and the power developments there are at the discretion of the Province of Quebec.

Existing Navigation Facilities. - It is convenient to distinguish between the St. Lawrence Seaway project and the St. Lawrence Ship Channel. The Seaway is to 'extend above Montreal. The St. Lawrence Ship Channel (see p. 881) is a Canadian improvement to the natural channel in the section below Montreal to deep water in the Gulf of St. Lawrence. The Ship Channel provides the approach to the Seaway and when the latter is in operation will comprise an integrated waterway with it.

The present St. Lawrence canals replace an earlier 9 -foot canal system completed about 1850, after the union of Upper and Lower Canada. They were completed by 1904 and provide a 14 -foot channel from Montreal to Lake Ontario. Most of the locks are 270 ft . long and have a usable length of 256 ft ., but are limited by their depth and by the $43 \frac{2}{3}$-foot width of the Cornwall Canal.

[^288]In 1952, a new Welland Ship Canal, which follows in part the route of the earlier Welland Canal, was opened to traffic. Built by Canada as a link in the projected Seaway, the general dimensions of its locks have been taken as standard for the new canals now to be built. Seven of its eight locks are 859 ft . long, and of a usable length of 765 ft .; the eighth lock is $1,380 \mathrm{ft}$. long. They are 80 ft . wide and 30 ft . deep over the sills. The limiting depth in the channels between the locks is 25 ft ., though the channels could be deepened by dredging to provide a minimum depth throughout of up to 30 ft .

The United States, in successive programs, has deepened the navigation channels in the St. Mary's River between Lake Superior and Lake Huron, and in the St. Clair and Detroit Rivers between Lakes Huron and Erie. Available depths there are now approximately 25 ft . in downbound channels and 21 ft . in upbound channels. At Sault Ste. Marie, Canada has built one lock, and the United States has built six and retired two, so that, all-told, five are now in operation. The largest of these is the McArthur Lock completed in 1943 by the United States: it is 80 ft . wide, 800 ft . long, and has 31 ft . of water over the sills.

Projected Works.-It will be apparent that existing navigation facilities provide 25 -foot navigation throughout the Great Lakes-from the Lakehead to Prescott, Ont. The great fleet that sails these inland waters is understood to provide the cheapest transportation in the world, and the largest existing vessels are capable of carrying 20,000 - to 25,000 -ton loads. Below Montreal, the St. Lawrence Ship Channel accommodates all but the largest ocean vessels and has made that city a major world port. But between Montreal and Lake Ontario the 14-foot canals with their small locks constitute a bottleneck which will let only small vessels pass which carry little more than 2,500 tons. The breaking of this bottleneck is the essential part of the Seaway plan.

The St. Lawrence River above Montreal divides naturally into five sections and major works are required in three of them. First, in the International Rapids section, the main power works include an upper control dam near Iroquois, Ont., a main dam and power-houses near Cornwall, and channel enlargement to reduce current velocities in some stretches. Two short side canals, one at each of the dams, will carry 27 -foot navigation past these obstacles.

The second section is the Soulanges. The present canal for the Beauharnois, Que., power development incorporates a 27 -foot navigation channel along one side. The necessary locks and short access channels remain to be added.

The third section is Lachine. Here, the minimum development will be a 10 -mile canal and considerable channel enlargement. A combined development for power and navigation is possible here too but, for the present, the St. Lawrence Seaway Authority has announced a plan-for navigation only-for this section.

In the remaining two sections, Lake St. Francis and the Thousand Islands, comparatively minor channel dredging is required. Within the Great Lakes area, the Welland Ship Canal will be deepened to 27 ft ., and the achievement of the Seaway standards will require considerable dredging in the St. Clair-Detroit passage into Lake Huron and in the St. Mary's River to Lake Superior.

International Arrangements.-The St. Lawrence waterway and international power development have been the subject of lengthy discussions and negotiations between Canada and the United States from before the turn of the century. A treaty on the matter was signed in 1932 but was rejected by the United States Senate. Renewed negotiations produced the Great Lakes-St. Lawrence Basin

Agreement of 1941, but this agreement was neither approved nor rejected by Congress. After more than 11 years of uncertainty in this respect, Canada, having advanced an alternative plan for development, finally ended the agreement on Nov. 4, 1952.

Both the 1932 treaty and the 1941 agreement had provided that the governments of the two countries would construct jointly all the works-power as well as navigation-the power facilities to be turned over on completion to an appropriate agency within each country. In 1951, Canada proposed that separate agencies be authorized to construct the power works, on the understanding that Canada would thereupon complete a 27 -foot waterway from Montreal to Lake Erie. This would involve building the two canals in the International Rapids section of the River, previously planned for the United States side, as well as the other canals in the Canadian sections. It would also involve deepening the Welland Canal but not the channels linking the upper lakes, which historically have been a United States responsibility.

In December 1951, the Government of Canada concluded an agreement with the Government of Ontario concerning the international power development and, in the same month, legislation was passed providing for the creation of a Crown company, the St. Lawrence Seaway Authority, to build and operate the Canadian canals.

The power development in the International Rapids section required the approval of the International Joint Commission, under the Boundary Waters Treaty of 1909. The preparation of joint submissions from the two Federal Governments to the Commission was initiated by an exchange of notes on Jan. 11, 1952. On June 30, 1952, the two countries formally agreed to the new plan in an exchange of notes, which set out in detail the Canadian undertaking, and on the same date each made submissions to the International Joint Commission, which issued an Order of Approval on Oct. 29, 1952.

On July 15, 1953, the United States Federal Power Commission issued a licence to the Power Authority of the State of New York to develop the United States share of the power, but the licence was challenged in the United States courts. It was upheld by a unanimous decision of the Court of Appeals for the District of Columbia on Jan. 29, 1954. The decision was appealed to the United States Supreme Court which, on June 7, 1954, announced it would not entertain the appeal.

United States Participation.-The same United States Supreme Court decision opened the way for construction of the navigation works, which depend upon the existence of the power works and would be inoperative without them. Meanwhile, legislation passed in Congress, and approved by the President, in May 1954 created a St. Lawrence Seaway Development Corporation, and ordered it to construct the two United States canals in the International Rapids section of the St. Lawrence River as part of the Seaway system.

The United States proposal was discussed at meetings held in Ottawa, Ont., during July and August 1954. The arrangements of June 30, 1952, were modified, Canada agreeing to be relieved of its undertaking to build one of the canals in the International section near Cornwall and at the same time declaring its intention to proceed with the construction of a canal at Iroquois. Whether the United States will build a canal at that point on the American side is not yet determined.
6.June 7, 1954, the date of the United States Supreme Court decision in favour of the St. Lawrence Seaway and power development, promises to be a historic date for both Canada and_the United States-another link in the chain of co-operative
friendship between two great continental neighbours. As a result of this decision, both the Hydro-Electric Power Commission of Ontario and the Power Authority of the State of New York called, in August 1954, for their first tenders for the construction of power works-and construction started almost immediately. In September, first tenders were called by the St. Lawrence Seaway Authority (followed by the United States Corporation) for construction of the navigation works and work began on that aspect of the undertaking before the close of the 1954 construction season.

## Section 2.-Financial Statistics of Waterways

The principal statistics available of the cost of water-borne traffic consist of the record of public expenditure on waterways. Such expenditure may be classified as capital expenditure, or investment and expenditure for maintenance and operation. Revenue from operation is also recorded. In so far as capital expenditure for the permanent improvement of waterways is concerned, that of the Federal Government covers the major part. There has been some expenditure by municipalities on local harbour facilities, and private capital expenditure is also confined almost entirely to terminal or dockage facilities. The investment in shipping, however, with the exception of the Canadian Government Merchant Marine Limited and the Canadian National (West Indies) Steamships Limited, has come almost entirely from private sources. No figures are available regarding private investment in shipping except those appearing in the reports of the operating companies that cover only a portion of the field. There are no statistics showing the revenue of ship operators from passenger and freight traffic.

Capital Expenditure.-The only figures available of federal capital expenditure on Canadian waterways are those compiled from the Public Accounts and the annual reports of the Departments of Transport, Public Works and Finance. However, such expenditure cannot be regarded as any indication of the present worth of the undertakings represented. The cost of building canals and other waterways and permanent works to facilitate water transportation in Canada is represented in such reports at their original book values, no deductions having been made from the cumulative totals for depreciation from year to year or for abandonment of earlier works which have been superseded, as for instance, in the first Welland Canals. To this extent such figures are an overstatement of the present value of the works in use. There is a further limitation that should be noted in regard to such figures: they do not include the cost of maintenance and improvements or the operation of these works, such charges having been made to the consolidated deficit account as annual expenditure and not to capital account. Table 22, which shows capital expenditure on canals, marine services and miscellaneous watertransport facilities to have reached the grand total of $\$ 434,809,000$, must be interpreted with the above qualifications in mind. In Table 23, the capital values of the fixed assets administered by the National Harbours Board are shown as at Dec. 31, 1952 and 1953, and are in addition to the capital expenditure of Table 22. Figures in Table 23 reflect the capital situation in regard to the national harbours of Canada far better than do those of Table 22 in the case of waterways and facilities, inasmuch as they include all buildings, machinery and durable plant improvements; they also have been subject to deductions for depreciation and the scrapping or abandonment of plant and hence more nearly approach the present value of the properties under the administration of the National Harbours Board.

Table 24 on p. 890 shows the amounts advanced by the Federal Government to the National Harbours Board for capital expenditure in 1951, 1952 and 1953.
22.-Capital Expenditure of the Federal Government on Canals, Marine Services and Miscellaneous Water-Transport Facilities, as at Mar. 31, 1952 and 1953
Nors.-Compiled from annual reports of the Department of Transport and the Public Accounts.


[^289]
## 23.-Capital Values of Fixed Assets administered by the National Harbours Board, as at Dec. 31, 1952 and 1953

Nore.-Compiled from the annual reports of the National Harbours Board.

| Item | 1952 | 1953 | Item | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Harbour dredging | 12,199,604 | 12,199,604 | Central heating plants..... | 128,073 | 128,073 |
| Real estate. | 12,382,257 | 12,387,040 | Harbour shops.......... | 336,375 | 270,336 |
| Vehicular bridges | 202,186 | 201,976 | Electric power systems.... | 1,260,242 | 1,271,590 |
| Roads, fences and boundaries | 2,001,902 | 2,020,710 | Water supply systems..... | 984,235 $2,212,700$ | 978,867 $2,210,961$ |
| Sewers and drains. | 825,919 | 830,430 | Shore equipment... | 980,848 | 986,557 |
| Miscellaneous structures. | 737,850 | 734,222 | Miscellaneous small plant. | 598,044 | 614,341 |
| Wharves and piers. | 92, 294,626 | 91, 941, 026 | Engineering - general sur- |  |  |
| Permanent sheds......... | 24,356,545 | 24,061,431 | Engineering - general sur- | 109,441 | 109,441 |
| Shed hoists and electrical cranes. | 249,283 | 315,314 | Works under construction. | 827,753 | 6,449,188 |
| Railway systems.......... | 7,748,661 | 6,423,469 | Sundry expenditure- |  |  |
| Grain elevator systems. | 41,862,130 | 41,778,429 | undistributed... | 3,769,450 | 3,769,450 |
| Cold-storage systems..... | 5,881,970 | 5,936,207 | Bridge construction, |  |  |
| Office furniture and appliances. | 197,888 | 210,223 | right-of-way, ete. | 18,565,765 | 18,568,155 |
| Harbour buildings. | 1,753,361 | 1,766,280 | T0 | 232,467,108 | 236,163,320 |

24.-Amounts Advanced by the Federal Government to the National Harbours Board for Capital Expenditure, 1951-53

Nore.-Compiled from the annual reports of the National Harbours Board.

| Harbours and Properties | 1951 | 1952 | 1953 | Harbours and Properties | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | 8 |  | 8 | \$ | \$ |
| Halifax. | 1,042,951 | 322,169 | 882,145 | Port Colborne elevator | 49,648 | - | 2,186 |
| Saint John: |  | 721,455 | 2,536,408 | Churchill. ............ | 174,882 | 2,234 | 182,055 |
| Chicoutimi | $\widetilde{-7,254}$ | 139,667 | 776,682 | Vancouver | 90,698 | 307,399 | 589,559 |
| Three Rivers | 2,542 | 654 | 106,395 |  |  |  |  |
| Montreal. | 898,823 | 654,158 | 689,389 | Totals | 2,286,798 | 2,147,082 | 5,764,819 |

Waterway Expenditure and Revenue on Consolidated Fund Account.Expenditure under this heading (Tables 25 to 27) is mainly for the operation and maintenance of various facilities for water transport but, unfortunately, the line between operation and maintenance expenditure is not as finely drawn as is desirable.

In addition to the recurrent expenditure shown here, to facilitate water transportation, the Federal Government expends annually a considerable amount to cover deficits of the Canadian National (West Indies) Steamships Limited and of the National Harbours Board, for mail subsidies and steamship subventions as shown in Table 30. Operating expenditure and revenue of facilities administered by the National Harbours Board are shown separately in Table 29. Revenue in connection with waterways of the Department of Transport and the Department of Public Works is shown in Table 28.

## 25.-Expenditure on Canals Charged to Consolidated Deficit Account, Years Ended Mar. 31, 1952 and 1953

Nore.-Compiled from the annual reports of the Department of Transport.


## 26.-Marine Service Expenditure Charged to Consolidated Deficit Account, Years Ended Mar. 31, 1952 and 1953

Norz.-Compiled from annual reports of the Department of Transport.

| Marine Services | 1952 | 1953 | Marine Services | 1953 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Administration, including agencies. |  | $549,578$ | Administration. <br> Administration, operation and | 142,688 | 142,578 |
| Aids to navigation (construc- |  |  | maintenance, including grants Construction.............. | 334,807 21,309 | 287,542 |
| tion, maintenance and super vision) $\qquad$ | 4,740,680 | 5,840,716 | Marine Services-war appropriations. | - 70 | - |

## 26.-Marine Service Expenditure Charged to Consolidated Deficit Account, Years Ended Mar. 31, 1952 and 1953-concluded

| Marine Services | 1952 | 1953 | Marine Services | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nautical Services-concl. Replacement of machinery and equipment destroyed by fire at l'Ecole d'Arts et Métiers de Rimouski, Que.. | ${ }^{5}$ | \$ | Marine Service Steamers-Administration.............Operation and maintenance...Marine Signal Service....... | 8 | \$ |
|  |  |  |  | 57,784 | 61,109 |
|  |  |  |  | 4,251,733 | 4,663,095 |
|  |  |  |  | 161,997 | 185,705 |
|  | 90,950 | - | River St. Lawrence Ship |  |  |
| Reimbursement to Ecole |  |  |  |  |  |
| Technique de Rimouski, in- |  |  | Administration, operation and maintenance | 1,368,825 |  |
| machinery and equipment... | - | 56,774 | Surveys and investigations. Transferred to Marine Ser-vices-investment. $\qquad$ | 1,368,826 | 28,839 |
| Pilotage Service- |  |  |  |  |  |
| Administration | $\begin{array}{r} 398,675 \\ 64,628 \end{array}$ | 468,731 78,434 |  | Cr.5,746,075 | - |
| Construction........... |  | $\begin{array}{r} 78,434 \\ 2,100 \end{array}$ | vices-investment. <br> Totals. | 6,845,045 | 13,749,083 |
| Steamship Inspection. ......... | $\begin{array}{r} 2,243 \\ 453,953 \end{array}$ | $\begin{array}{r} 2,100 \\ 509,550 \end{array}$ |  |  |  |

## 27.-Expenditure on Waterways Charged to Consolidated Fund Account by Department of Public Works, Years Ended Mar. 31, 1952 and 1953

Note.-Compiled from the annual reports of the Departments concerned by the Comptroller of the Treasury, Department of Finance.

| Year and Item | Dredging | Construction | Improvements and Repairs | $\begin{gathered} \text { Staff } \\ \text { and } \\ \text { Sundries } \end{gathered}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1952 | \$ | \$ | \$ | \$ | \$ |
| Harbours and Rivers- |  |  |  |  |  |
| Newfoundland | 676,494 | 821,829 | 837,327 | 137,245 | 2,472,895 |
| Prince Edward Island | 307,622 | 275,966 | 564,724 | 67,002 | 1,215,314 |
| Nova Scotia. | 474,364 | 922,533 | 784,181 | 140,117 | 2,321,195 |
| New Brunswick | 806,420 | 309,531 | 425,037 | 346,802 | 1,887,790 |
| Quebec. | 708,039 | 3.511, 693 | 1,488, 198 | 519,441 | 6,227,371 |
| Ontario | 1,340,505 | 526,242 | 2,357,660 | 373,181 | 4,597,588 |
| Manitob | 154,697 | 133,248 | 74,918 | 85,582 | 448,445 |
| Saskatchewan |  | 73,054 | 3,147 | 1,495 | 77,696 |
| Alberta. | 25,223 | - 709 | 47,165 | 63,524 | 136,621 |
| British Columbia | 1,084, 160 | 2,389,829 | 466,080 | 660,225 | 4,600,294 |
| Yukon Territory | 7,718 |  | 426 | 7,580 | 15,724 |
| Northwest Territorie | 39,304 | 54,550 | 27,223 |  | 121,077 |
| General. |  | 38,607 | - | 152,204 | 190,811 |
| Totals, Harbours ${ }^{1}$ and Rive | 5,624,546 | 9,057,791 | 7,076,086 | 2,554,398 | 24,312,821 |
| Dredging plant | - | 663,372 | 72,252 |  | 735,624 |
| Roads and bridges | - | 23,425 | 75,570 | 35,847 |  |
| Totals, 1952 | 5,624,546 | 9,744,588 | 7,223,908 | 2,590,245 | 25,183,287 |
| 1953 |  |  |  |  |  |
| Harbours and Rivers- |  |  |  |  |  |
| Newfoundland. | 723,645 | 512,063 | 1,422,746 | 159,890 | 2,818,344 |
| Prince Edward Is | 392,562 | 377,305 | 995,641 | 74,615 | 1,840,123 |
| Nova Scotia | 935,620 894,717 | $1,022,506$ 608,345 | $1,413,871$ 425,141 | 155,115 343,356 | 3,527,112 $2,271,559$ |
| Quebec........ | 833,945 | 2,786,031 | 1,359,330 | 520,078 | 5,599,384 |
| Ontario | 627,290 | 3,247,890 | 648,114 | 471,272 | 4,994,566 |
| Manitoba | 140,232 | 72,811 | 95,248 | 126,779 | 435,070 |
| Saskatchewan |  | 12,045 | 248 | 5,591 | 17,884 |
| Alberta | 27,311 | 2,661 | 29,103 | 84,734 | 143,809 |
| British Columbia | 664,777 | 2,134,644 | 1,323,122 | 733,599 | 4,856,142 |
| Yukon Territory..... | 19,569 |  | 159,983 46,570 | 5,348 | 184,900 169,927 |
| Northwest Territorie General. | 75,673 | 47,684 | 46,570 | 138 | $\begin{array}{r}169,927 \\ \hline 138\end{array}$ |
| Totals, Harbours ${ }^{1}$ and Rivers. | 5,435,341 | 10,823,985 | 7,919,117 | 2,680,515 | 26,858,958 |
| Dredging plant... | - | $\begin{aligned} & 410,265 \\ & 110,680 \end{aligned}$ | $\begin{array}{r} 62,082 \\ 145,353 \end{array}$ | $\overline{43,234}$ | $\begin{aligned} & 472,347 \\ & 299,267 \end{aligned}$ |
| Totals, 1953. | 5,435,341 | 11,344,930 | 8,126,553 | 2,723,749 | 27,630,573 |

[^290]
# 28.-Revenue of the Federal Government in Connection with Waterways, Years Ended Mar. 31, 1952 and 1953 

Note.-Compiled from Annual Reports of the Department of Transport and the Public Accounts.

| Item | 1952 | 1953 | Item | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Department of Transport |  |  | Marine Service-concluded |  |  |
| Canals Servicr |  |  | Miscellaneous | 13,552 | 7,070 |
| Lachine. | 317,093 | 351,754 | Refund of previous year's expenditure. | 24,171 | 21,006 |
| Soulanges. | 3,017 | 2,944 |  |  |  |
| Chambly; | 3,726 | 3,336 | Totals, Marine Service.... | 620,950 | 642,458 |
| Ste. Anne's Lock St. Ours. | 836 270 | 250 329 |  |  |  |
| Carillon and Grenville | 1,652 | 1,121 | Board of Transport |  |  |
| Beauharnois | 49,395 | 49,435 | Commissioners |  |  |
| Quebec dredging fleet | 73 |  |  |  |  |
| Cornwall. | 66,739 | 54,890 | Lioences to ships.. | 1,885 | 1,577 |
| Williamsburg | 13,737 | 11,859 | Sale of publications. | 213 | 237 |
| St. Peters, N.S | 237 | 310 | Sundries...................... | 100 | - |
| Welland Canals. | 899,714 | 925,783 |  |  |  |
| Sault Ste. Marie | 3,099 | 4,041 | Totals, Board of Transport |  |  |
| Trent, ....... | 88,837 | 95,464 |  |  |  |
| Murray | 551 | 556 | Totals, Dept. of Transport. | 2,125,468 | 2,176,519 |
| Sale of publications. | 39 | 38 |  |  |  |
| Premium, discount and exchange. | 3 | - | Department |  |  |
| Miscellaneous........... | 142 | 168 | of Public Works |  |  |
| expenditure. | 36,063 | 14,411 | Earnings or Dry Docks |  |  |
| Totals, Canals Service... | 1,502,320 | 1,532,277 | Champlain Dock, Lauzon, |  |  |
|  |  |  | Lorne Dock, Lauzon, Que..... | $\begin{array}{r} 86,366 \\ 29,000 \\ 95,797 \\ 1,925 \\ 3,566 \end{array}$ | $\begin{array}{r} 87,888 \\ 33,052 \\ 194,258 \\ -3,781 \end{array}$ |
| M |  |  | Totals, Earnings. | 216,654 | 318,979 |
| Fines and forfeitures. | 19,660 | 20,447 |  |  |  |
| Whari revenue.. | 1767,909 237 | 180,689 245,357 | Works and Plants Leased |  |  |
| Harbour dues. | 57,327 | 64,381 |  |  |  |
| Measuring surveyors' fees..... | 381 | 488 | Kingston dry dock........... | 9,025 |  |
| Examinations - masters' and mates' fees. | 7,389 | 7,423 | Ferry privileges............. | $\begin{array}{r} 484 \\ 35.512 \end{array}$ | $\begin{array}{r} 355 \\ 46,439 \end{array}$ |
| Pilots' licence fees (pilotage). | +248 | , 317 |  |  |  |
| Pilotage dues. | 1,469 | 7,933 | Totals, Leased.............. | 45,021 | 55,819 |
| Shipping fees. | 3,996 | 3,566 |  |  |  |
| Marine steamers' earnings | 35,223 | 56,958 |  |  |  |
| Signal station dues.......... | 1,462 | 1,409 | Rents from water lots, etc.... | 18,456 | 28,808 |
| Rentals - water lots and lighthouse sites | 20,390 | 15,857 | Refunds against expenditure reported in previous years | 74,605 | 47,539 |
| Rentals - miscellaneous..... | 12,262 | 850 | Sundry receipts. | 11,357 | 14,693 |
| Sale of land, buildings, etc.... | 6,073 | 6,009 |  |  |  |
| certificates. | 3,182 | 2,698 | Totais, Works.................... | 366,093 | 465,838 |

## 29.-Operating Revenue and Expenditure of Harbours, Elevators and Bridges under the National Harbours Board, 1949-53

| Harbour and Year | Operating Revenue | Operating Expenditure | Operating Income | Harbour and Year | Operating Revenue | Operating Expenditure | Operating Income |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | 8 |  | \$ | 5 | \$ |
| Hallfax- |  |  |  | Saint John- |  |  |  |
| 1949. | 1,300,605 | 893.699 | 406,906 | 1949 | 715,423 | 501,163 | 214,260 |
| 1950 | 1,158,425 | 895,757 1 | 262,668 | 1950 | 627,860 | 511,328 | 116.532 |
| 1952 | 1,606,576 | $1,044,779$ | 293,569 355 | 1951 | 728,648 | 576,255 | 152,393 |
| 1953 | 1,671,954 | 1,224,866 | 447,088 | 1953. | 864,760 | 6697,702 | 245,333 167,058 |

## 29.-Operating Revenue and Expenditure of Harbours, Elevators and Bridges under the National Harbours Board, 1949-53-concluded

| Harbour and Year | Operating Revenue | Operating Expenditure | Operating Income | Harbour and Year | Operating Revenue | Operating Expenditure | Operating Income |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| M | \$ | 8 | \$ |  | \$ | \$ | \% |
| Montreal- | 6,272,697 | 3,663,798 | 2,608,899 | Port Colborne Elevator- |  |  |  |
| 1950 | 6,324,037 | 3,500,606 | 2,823,431 | 1949... | 485,718 | 293,881 | 191,837 |
| 1951 | 7,478,227 | 4,053,329 | 3,424,898 | 1950 | 588,357 | 325,954 | 262,403 |
| 1952. | 8,692,656 | 4,567,823 | 412,433 | 1951 | 630,423 | 394,843 | 235,580 |
| 1953. | 9,064,500 | 4,945,382 | 4,119,118 | 1952 | 860,348 | 485, 315 | 375,033 |
| Chicoutimi- |  |  |  | 195 | 1,048,208 | 565,268 | 482,940 |
| 1949. | 58,386 | 19,440 | 38,946 | Prescott Elevator- |  |  |  |
| 1950. | 69,816 | 22,172 | 47,644 | 1949 | 264,004 | 150,155 | 113,849 |
| 1951 | 82,416 | 29,185 | 53,231 | 1950 | 283,680 | 143,904 | 139,776 |
| 1952 | 86,450 | 26,037 | 60,413 | 1951 | 276,544 | 159,139 | 117,405 |
| 1953 | 94, 202 | 49,680 | 44,522 | 1952 | 479, 079 | 208,977 | 270,102 |
| Queb |  |  |  |  | 635,565 | 249,378 | 386,187 |
| 1949 | 871,022 | 813,289 | 57,733 | Churchill- |  |  |  |
| 1950 | 978,667 | 818,594 | 160,073 | 1949 | 256,487 | 339,944 | -83,457 |
| 1951 | 1,415,577 | 1,217,085 | 198,492 | 1950 | 368,472 | 556,659 | -188,187 |
| 1952 | 1,722,137 | 2,130,402 | -408,265 | 1951 | 409,141 | 463,887 | -54,746 |
| 1953 | 1,829,632 | 1,447,599 | 382,033 | 1952 | 480,345 | 532,432 | -52,087 |
|  |  |  |  | 195 | 621,027 | 544,747 | 76,280 |
| Bridge (Montreal) |  |  |  | Vancouver- |  |  |  |
| 1949. | 1,104,921 | 141,727 | 963,194 | 1949 | 2,260,677 | 1,209,250 | 1,051,427 |
| 1950 | 1,231,537 | 148,385 | 1,083,152 | 1950 | 2,985,966 | 1,594,580 | 1,391,386 |
| 1951 | 1,413,381 | 168,165 | 1,245,216 | 1951 | 3,305,429 | 1,853, 730 | 1,451,699 |
| 1952. | 1,599,684 | 197, 162 | 1,402,522 | 1952 | 3,528,272 | 2,063,370 | 1,464,902 |
| 1953. | 1,734,087 | 206,563 | 1,527,524 | 1953 | 3,147, 259 | 1,689,025 | 1,458,234 |
| Three Rivers- |  |  |  | Second Narrows |  |  |  |
| 1949. | 213,745 | 45,194 | 168,551 | Bridge (Vancou- |  |  |  |
| 1950 | 265.209 | 64,159 | 201,050 | ver)- |  |  |  |
| 1951 | 296,923 | 37,168 | 259,755 | 1949. | 269,012 | 89,082 | 179,930 |
| 1952. | 336,628 320,823 | 63,584 83,040 | 273,044 237,783 |  | 283, 319 | 92,908 | 190,411 |

${ }^{1}$ Reverted to former owners in 1951.
Shipping Subsidies.-Table $\mathbf{3 0}$ shows the amounts of steamship subventions paid in connection with contracts made under statutory authority for ocean, coastal and inland water-shipping services. The payment of these subventions is administered by the Canadian Maritime Commission.

## 30.-Steamship Subventions, Years Ended Mar. 31, 1952-54

| Services | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
| Pacific Coast Services- |  |  |  |
| Vancouver and northern ports of British Columbia and Queen Charlotte Islands. | 345,000 | 345,000 | 345,000 |
| Victoria and west coast of Vancouver Island......................... | 146,555 | 87,500 | 17,499 |
| Eastern Services- |  |  |  |
| Baddeck and Iona, N.S. | 12,000 | 12,000 | 14,500 |
| Campobello, N.B., and Lubec, Maine | 6,000 | 6,000 | 6,600 |
| Cross Point, Que., Campbellton, N.B |  |  | 70,000 |
| Dalhousie, N.B., and Miguasha, Que. | 19,000 | 19,000 | 19,000 |
| Deer Island, Campobello Island and St. Stephen, N.B. | 2,000 |  |  |
| Grand Manan and the mainland, N.B.......................... | 95,000 | 95,000 20,000 | 95,000 20,000 |
| Halifax, Canso and Guysborough, N.S........................... | 20,000 2 | 20,000 | 20,000 |
| Halifax, Sherbrooke, Spry Bay and Torbay, N.S............... | 2,333 | - | - |
| Halifax, Torbay, Ite Madame and ports on west coast of Cape Breton Island, N.S. | 15,000 | 15,000 | 15,000 |
| Ile-aux-Coudres and Les Eboulements, Que......................... | 15,000 | 15,000 | 15,000 |
| Ile-aux-Grues and Montmagny, Que. | 2,500 | 2,500 31,000 | 2,500 31,000 |
| Mulgrave and Arichat, N.S... | 31,000 | 31,000 | 31,000 |

30.-Steamship Subventions, Years Ended Mar. 31, 1952-54-concluded

| Services | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: |
|  | \% | \$ | \$ |
| Mulgrave and Canso, N.S | 82,000 | 82,000 | 82,000 |
| Mulgrave, Guysborough and Queensport, N.S | 16,500 | 14,422 | 21,255 |
| Murray Bay and north shore St. Lawrence, Que. (Winter Service). | 50,000 | 50,000 | 50,000 |
| Owen Sound and ports on Manitoulin Island and Georgian Bay, Ont. | 83,231 | 72,816 | 69,553 |
| Pelee Island and the mainland, Ont............................... | 43,537 | 30,000 | 35,000 |
| Pictou, Mulgrave and Cheticamp, N.S | 13,500 | 13,500 | 13,500 |
| Pictou, N.S., Charlottetown, P.E.I., and Magdalen Islands, Que.. | 120,000 | 120,000 | 120,000 |
|  |  |  | 8,782 |
| Prince Edward Island and Nova Scotia........................ | 130,000 | 158,000 | 158,000 |
| Quebec, Natashquan and Harrington, Que., and other ports on the north shore, Gulf of St. Lawrence. | 520,000 | 520,000 | 520,000 |
| Quebec or Montreal, Gaspe, Que., and Magdalen Islands, calling at way ports. | 156,500 | 156,500 | 156,500 |
| Rimouski, Matane and ports on the north shore of the St. Lswrence, Que. | 125,500 | 125,500 | 125,500 |
| Rivic̀re-du-Loup and St. Simeon, Que........................ | 21,000 | 21,000 | 21,000 |
| Saint John, N.B., Westport and Yarmouth, N.S., calling at way ports. | 29,625 | 29,625 | 29,625 |
| Sydney and Bay St. Lawrence, Cape Breton Island, calling at way ports. | 40,000 | 40,000 | 40,000 |
| Sydney, Bras d'Or Lake ports, ports on the west coast of Cape Breton Island and Prince Edward Island. | 30,000 | - | - |
| Sydney and Whycocomagh, Cape Breton Island, calling at way ports. | 28,000 | 28,000 | 28,000 |
| Yarmouth, N.S., and Boston, Mass............................... | 25,541 | 33,334 | 36,000 |
| Newfoundland Coastal Steamship Services....................... | 1,590,000 | 1,536,000 | 1,903,116 |
| Ocean Services- |  |  |  |
| Canada, New Zealand and Australia. | 166,667 | 166,667 | - |
| Assistance for Canadian Flag Ocean Shipping Industr | 337,500 |  | - |
| Totals. | 4,320,489 | 3,845,364 | 4,068,930 |

${ }^{1}$ The annual subsidy for this Service is $\$ 15,000$ refundable in whole or in part. Full refund was made in respect of years ended Mar. 31, 1952 and 1953; the amount shown for 1954 is a balance subject to recapture in 1955.

## PART V.-GIVIL AIR TRANSPORTATION*

## Section 1.-Administration and Development

Historical Developments.-Canada's aviation history dates back to 1909 when the Silver Dart piloted by Jack McCurdy (Hon. J. A. D. McCurdy, former Lieutenant-Governor of Nova Scotia) flew at Baddeck, N.S. This was the first aeroplane flight by a British subject in the British Empire.

There was little aviation development in this country until World War I. Following the War, many of Canada's wartime aviators assisted in developing air transportation services into inaccessible areas, air forestry patrols and inter-city air services. During this period, the flying clubs movement received government assistance in the training of pilots and engineers required by Canada's civil aviation industry.

World War II was a period of intensive construction of airports and aerodromes to meet the requirements for training of airmen under the British Commonwealth Air Training Plan. At the end of the War, many Service-trained Canadian airmen

[^291]turned to commercial flying and were absorbed in existing operating companies or helped to develop other flying services. Transatlantic air services were inaugurated by the Department of Transport during the War and were turned over to Trans-Canada Air Lines which had come into being by Act of Parliament in 1937 to provide for the development of a government-controlled transcontinental air service for regular scheduled operations. Canadian Pacific Air Lines was created by the amalgamation of small commercial operators for the servicing of Canada's northland. In 1949, the Canadian Pacific Air Lines was designated to provide transpacific services on behalf of Canada and began its scheduled operations from Vancouver, B.C., to Australia and New Zealand in July of that year and to Japan, China and Hong Kong in September. Service to Mexico and South America was inaugurated in 1953. Current operations of TCA and CPA are covered on pp. 897-899.

The Control of Civil Aviation.-The control of civil aviation in Canada is under the jurisdiction of the Federal Government and is administered under the authority of the Aeronautics Act, 1919, and amendments thereto. The Aeronautics Act is in three parts. Broadly speaking, Part I deals with the technical side of civil aviation, comprising matters of registration of aircraft, licensing of airmen, the establishment and maintenance of airports and facilities for air navigation, air traffic control, accident investigation and the safe operation of aircraft. This Part of the Act is administered by the Controller of Civil Aviation under the supervision of the Director of Air Services, Department of Transport. Part II of the Act deals with the social and economic aspects of commercial air services and assigns to the Air Transport Board certain statutory functions with respect to the regulation of commercial air services. Part III of the Act deals with matters of government internal administration in connection with the Act.

Weather Services.-Weather services of the Meteorological Division of the Department of Transport have been broadened to meet the demands of aviation for weather information and forecasts at higher levels, over new areas and for extended routes. A Central Analysis Office has been established at Montreal, Que., and an Arctic Forecast Team at Edmonton, Alta. New machine methods are being used in processing weather data, and the network of surface and upper air observing stations has been expanded. Fifty forecast offices were in operation in 1953, linked by teletype, radio teletype and a nationwide facsimile system. Arctic weather stations and a Pacific weather station 1,000 miles to the west of Vancouver, B.C., were maintained under international agreement.

Air Industries and Transport Association.-Commercial flying schools, which are members of the Air Industries and Transport Association, numbered 38 at the end of 1953. During 1953 the number of students instructed and graduated as private pilots was 586 , the number graduated as commercial pilots was 179 , and the number of instructional hours flown was 44,735 .

Royal Canadian Flying Clubs.-At the end of 1953 there were 36 member clubs of the Royal Canadian Flying Clubs Association with a total membership of 7,730 . Instructional hours of flying totalled 77,751 in 1953 and 168 aircraft were utilized for instructional purposes. The number of students instructed and graduated as private pilots was 976 and as commercial pilots 159.

International Air Agreements.-The position of Canada in the field of aviation as well as its geographical location makes co-operation with other nations of the world engaged in international civil aviation imperative. Canada took a major part in the original discussions that led to the establishment of the International Civil Aviation Organization, generally known as ICAO, which has its headquarters at Montreal, Que. A special article on "The International Civil Aviation Organization and Canada's Participation Therein" appeared in the 1952-53 Year Book, pp. 820-827.

In recent years, Canada has been a signatory to agreements concerning civil aviation with: Australia and New Zealand; Belgium, Denmark, France, Germany, Ireland, Iceland, The Netherlands, Norway, Portugal, Sweden, South Africa, and the United Kingdom and with the United States.

## Section 2.-Air Services

Air Transport Services.-These services are grouped into two broad classesScheduled Services and Non-scheduled Services.

Scheduled services provide regular point-to-point service on scheduled advertised routes and Non-scheduled Services include:-
(1) Specific Point Services from a designated base to specific points on the basis of unit rates that may be undertaken as the traffic warrants and that are not on a time schedule;
(2) Chartered Services operated on the basis of the private chartering of an entire aircraft for a specific trip;
(3) Contract Air Services which operate on one or more specific contracts. These do not operate on a time schedule nor need the contractor take the entire space of the aircraft;
(4) Specialty Air Services concerned with large-scale forestry and utility surveys according to some specific agreement.

Trans-Canada Air Lines.-TCA, which began operations in 1938 on a 122 -mile route between Vancouver, B.C., and Seattle, Wash., had, by December 1953, grown to a route pattern of 9,916 miles in North America and 9,078 miles overseas.

Though there were no major changes in the route structure in 1953, there were increases in the frequency of flights between many of the cities served by the airline and 11 p.c. more aircraft miles were flown than in 1952. Passenger transportation rose in volume by 16 p.c. over the previous year, air express and air freight by 12 p.c. and airmail by 11 p.c. A sixth daily service was added to the transcontinental rouke, which involved the extension of North Star operations to Regina, Sask., and Lethbridge, Alta., a line previously served by DC-3's. Later, the Lethbridge service was suspended indefinitely because of runway deterioration at that point. On June 14, 1953, a summer service was inaugurated between Toronto and Muskoka as part of TCA's northern Ontario route. It was designed to serve the tourist needs of that resort area and proved highly popular on a seasonal basis. Late in the year, North Star service was extended to Cleveland, Ohio.

During the summer months, transatlantic services were increased to eight flights weekly from Montreal: Prestwiek, Scotland, was served by four flights; Paris, France, by two; and Shannon, Ireland, and Dusseldorf, Germany, by one
each. Additional flights were also operated to accommodate heavy pre-Coronation traffic. A weekly transatlantic flight originating and terminating at Toronto was inaugurated on Nov. 3, 1953, which eliminated time-consuming flight connections at Montreal for air travellers from Western Canada and Ontario. Montreal, however, remains the principal North American gateway for TCA transatlantic flying.

## 1.-Passenger, Freight and Mail Traffic of Trans-Canada Air Lines, 1944-53

Source: Trans-Canada Air Lines Annual Report.

| Year | Revenue <br> Passenger Traffic ${ }^{1}$ |  | Revenue <br> Commodity Traffic ${ }^{2}$ |  | $\begin{aligned} & \text { Mail } \\ & \text { Traffic } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | passenger miles | 1 b . | ton-miles | ton-miles |
| 1944. | 156,884 | 84,425,354 | 1,117,747 | 510,760 | 1,760,486 |
| 1945. | 183,121 | 106,088,111 | 1,261,935 | 500,687 | 1,571,180 |
| 1946. | 305,442 | 155,777,319 | 1,453,743 | 513,493 | 1,210,716 |
| 1947. | 427,967 | 179,808,562 | 2,041,315 | 764,105 | 1,275,909 |
| 1948. | 532,555 | 249,575,544 | 4,313,297 | 1,608,102 | 2,294,088 |
| 1949...... | 648,574 | 310,699,767 | 5,471,013 | 2,160,644 | 3,403,810 |
| 1950. | 790,808 | 379,605,810 | 9,518,009 | 3,585,775 | 3,644,752 |
| 1951. | 930,691 | 450,840,623 | 10,826,333 | 3,861,583 | 3,969,371 |
| 1952. | 1,132,518 | 653,961,415 | 19,757,969 | 7,042,427 | 4,843,052 |
| 1953. | 1,307,810 | 759,319,800 | 22,996,531 | 7,804,109 | 5,373,841 |

${ }^{1}$ Includes non-scheduled service. $\quad{ }^{2}$ Includes excess baggage and express.

## 2.-Operating Revenue and Expenditure of Trans-Canada Air Lines, 1944-53

Source: Trans-Canada Air Lines Annual Report.

| Year | Passenger | Freight ${ }^{1}$ | Mail | Total Operating Revenue ${ }^{2}$ | Operating Expenditure ${ }^{3}$ | $\begin{gathered} \text { Net } \\ \text { Surplus }(+) \\ \text { or } \\ \text { Deficit }(-)^{4} \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | 8 | \$ | \$ | \$ | \$ |
| 1944. | 4,456,768 | 376,516 | 3,802,395 | 9,192,522 | 8,948,388 | +7,409 |
| 1945. | 5,462,940 | 361,177 | 4,250,939 | 10,512,588 | 10,250,272 | +32,772 |
| 1946. | 8,047,124 | 378,185 | 3,780,509 | 12,810,805 | 13,926,061 | -1,269,624 |
| 1947. | 10,450,524 | 534,359 | 3,808,197 | 15,297,347 | 16,796,492 | -1,761,043 |
| 1948. | 14,469,578 | 888,917 | 4,648,775 | 20,866,936 | 21,624,057 | -1,183,022 |
| 1949. | 19,460,395 | 1,161,612 | 5,400,000 | 26,523,969 | 27,472,728 | -1,419,444 |
| 1950. | 24,183,501 | 1,667,827 | 5,400,000 | 31,810,684 | 31,318,613 | +492,071 |
| 1951. | 28,666,505 | 1,913,703 | 5,741,000 | 37,043,289 | 32,670,654 | +4,372,635 |
| 1952. | 42,022,616 | 3,730,521 | 7,698,641 | 55,057,708 | 52,744,741 | +2,312,967 |
| 1953. | 48,242,942 | 4,111,456 | 7,786,119 | 62, 236,564 | 61.433,700 | -802,864 |

[^292]Canadian Pacific Air Lines Limited.-CPA operates scheduled domestic services over a total of 10,723 route miles, and overseas services from Vancouver to Australia, New Zealand and the Orient and to Mexico and to South America, totalling 20,676 route miles. Domestic services are concentrated mainly in the western and northern regions of Canada, although two daily services are flown in the Montreal-Quebec-Toronto area. CPA has five pressurized 40-passenger Convair air-liners operating on certain domestic routes.

Overseas routes are flown exclusively by DC-6B aircraft designed to accommodate both tourist and first-class passengers. These aircraft are four-engined transports having a normal seating capacity of 64 persons but capable of carrying 82 .

Following are traffic statistics for the year 1953:-

| Item |  | Domestic | Norlh <br> Pacific | South Pacific ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: |
| Revenue miles. | No. | 5,969,545 | 1,851,700 | 964, 855 |
| Revenue passengers. | No. | 213,856 | 12,597 | 4,678 |
| Revenue goods | lb. | 6,876,503 | 132,756 | 12,388 |
| Mail. | lb . | 2,441,854 | 78,962 | 7,280 |

${ }^{1}$ Includes Mexico and South America.
Independent Air Lines.-In addition to Trans-Canada Air Lines and Canadian Pacific Air Lines, there are four other domestic air lines licensed to operate scheduled services in Canada. These are:-

Central Northern Airways Limited, Winnipeg, Man.
Maritime Central Airways Limited, Charlottetown, P.E.I.
Queen Charlotte Airlines Limited, Vancouver, B.C.
Quebecair Incorporated, Mont Joli, Que.
Licensed domestic air carriers operating in Canada held valid operating certificates at Dec. 31, 1953, covering 38 scheduled, 88 flying training, and 480 nonscheduled and specialty commercial air services.

Non-scheduled services are operated by the majority of the independent air lines. These services provide effective access to sections of Canada that are inaccessible by other means of transportation, and act as feeders to the scheduled air lines. They also provide specialty services such as recreational flying, aerial photography and survey, aerial pest control and aerial advertising.

Commonwealth and Foreign Scheduled Commercial Air Services.-At the end of December 1953 there were 14 Commonwealth and foreign air carriers holding a total of 18 valid operating certificates covering international scheduled commercial air services operating into Canada, as follows:-

Air France (Compagnie Nationale Air France).-Operating between points in Metropolitan France and Montreal, Que., Canada, direct or via Shannon, Ireland, Keflavik, Iceland, or The Azores and Gander, N'f'ld., Canada; and New York, N.Y., and Chicago, Ill., U.S.A.

American Airlines, Inc.-Operating between Toronto, Ont., Canada, and New York, N.Y./Newark, N.J., U.S.A., direct or via Buffalo, N.Y., U.S.A.

British Commonwealth Pacific Airlines, Ltd.-The Canadian portion of the route between San Francisco, Cal., U.S.A., and Vancouver, B.C., Canada, of the transpacific service between Sydney, N.S.W., Australia, and/or Auckland, New Zealand and Vancouver, B.C., Canada.

British Overseas Airways Corp.-Operating between London, England, and Montreal, Que., Canada, and between London, England, and New York, N.Y., U.S.A., both routes via Prestwick, Scotland, or Shannon, Ireland, and Gander, N'f'ld., Canada; and between London, England, Gander, N'f'ld., Canada, and Bermuda.

Colonial Airlines, Inc.-Operating (a) between the terminals Ottawa, Ont., Canada, and Montreal, Que., Canada, and New York, N.Y., U.S.A., via Burlington, Vt., U.S.A., and (b) between the terminals, Ottawa, Ont., Canada, and Montreal, Que., Canada, and Washington, D.C., U.S.A., via Massena, N.Y., and/or Syracuse, N.Y., U.S.A.
K.L.M. Royal Dutch Airlines.-The Canadian portion of the route between the terminals Amsterdam, Netherlands, and Montreal, Que., Canada; and the Canadian portion of the route between the terminals Montreal, Que., Canada and Willemstad, Curaçao, Netherlands Antilles.

Northeast Airlines, Inc.-Operating between Montreal, Que., Canada, and Boston, Mass., U.S.A., via Burlington, Vt., Montpelier-Barre, Vt., White River Junction, Vt., (Lebanon Airport, N.H.) and Concord, N.H., U.S.A.
Northwest Airlines, Inc.-Operating between Winnipeg, Man., Canada, and Fargo, N.D., U.S.A., and between Minneapolis/St. Paul, Minn., U.S.A., Edmonton, Alta., Canada, Anchorage, Alaska, U.S.A., and beyond.
Pan American World Airways, Inc.-The Canadian portion of the air route between Seattle, Wash., and Fairbanks, Alaska, and with points of call at Juneau and Annette Island, Alaska, and Whitehorse, Y.T., Canada, between New York, N.Y., Philadelphia, Pa., Boston, Mass., U.S.A., and Gander, N'f'ld., Canada, Shannon, Ireland, London, England, and beyond.

Sabena (Société Anonyme Belge d'Exploitation de la Navigation Aérienne).-Operating between Brussels, Belgium, and New York, N.Y., U.S.A., via Shannon, Ireland, and Gander, N'f'ld., Canada.

Scandinavian Airlines System.-Between Stockholm, Sweden; Oslo, Norway; Copenhagen, Denmark; Prestwick, Scotland; Gander, N'f'ld., Canada and New York, N.Y., U.S.A.
T.W.A. (Trans-World Airlines, Inc.),-Operating between New York, N.Y., Boston Mass., U.S.A., and Gander, N'f'ld., Canada; The Azores, Shannon, Ireland; London, England; Paris, France; Lisbon, Portugal; and beyond.
United Air Lines, Inc.--Operating between Vancouver, B.C., Canada and Seattle, Wash., via Bellingham, Wash., U.S.A.
Western Air Lines, Inc.-Operating between Great Falls, Mont., U.S.A.; Cut Bank, Mont., U.S.A.; and Lethbridge and Edmonton, Alta., Canada; via Calgary and Penhold, Alta., Canada.

## Section 3.-Civil Aviation Statistics

Ground Facilities.-Early ground facilities for civil aviation consisted chiefly of municipal or flying-club airports adjacent to the larger urban centres and of numerous terminals from which commercial flying services operated, mainly into the northern mining regions. These airports formed the nucleus of the chain of airports now operated by the Department of Transport. These airports and aerodromes have been progressively improved and enlarged to meet the requirements of larger and heavier aircraft. Instrument Landing Systems (ILS) designed to facilitate safe landings under low visibility conditions have been installed at 17 airports. Twelve of Canada's civil airports are regular ports of call for international commercial air services.

## 3.-Aerodromes, by Province, as of September 1954

Norr.-An aerodrome is defined by the Air Regulations 1951 as: a defined area on land or water (including any buildings, installations and equipment) intended to be used wholly or in part for the arrival, departure, movement and servicing of aircraft. This table was compiled by the Aeronautical Charting Section, Department of Mines and Technical Surveys, and the aerodromes included are in a usable condition.


Air Traffic Control.-The primary functions of Air Traffic Control are to expedite and maintain an orderly flow of air traffic and to prevent collision between aircraft operating within controlled airspace and between aircraft and obstructions on the movement area of controlled airports. This is accomplished through provision of Airport Control Service and Area Control Service. In addition the following services are provided: (a) flight information, (b) alerting for search and rescue, (c) customs notification and (d) aircraft identification.

Airport Control is designed particularly to provide air-traffic control service in the vicinity of major civil airports where the volume and type of aircraft operations, together with weather conditions and other factors, indicate its need in the interest of safety. The service includes the control of pedestrians and vehicles on the manœuvring area of the airport. Control is effected by means of direct radio-telephone communication or visual signals to aircraft and surface vehicles on and in the vicinity of controlled airports. The control towers are located at Patricia Bay and Vancouver, B.C.; Lethbridge, Calgary and Edmonton, Alta.; Saskatoon and Regina, Sask.; Winnipeg, Man.; Windsor, London, Toronto, Toronto Island, Ottawa and North Bay, Ont.; Montreal, Cartierville, Quebec and Seven Islands, Que.; Moncton, N.B.; Sydney, N.S.; and Gander, N'f'ld. Most of these control towers are in continuous operation, but a few provide only 16 -hour daily service.

Area Control is designed particularly to provide air-traffic control service to aircrait operating within controlled airspace during weather conditions which prevent a pilot from seeing other aircraft or obstructions and necessitate his reliance on instruments to conduct the flight.

This service is provided by area control centres at Vancouver, B.C.; Edmonton, Alta.; Winnipeg, Man.; Toronto, Ont.; Montreal, Que.; Moncton, N.B.; and Gander, N'f'ld. Each of these centres is connected to the control towers, radio range stations and operations offices within its control area by means of an extensive system of local and longline interphone or radio circuits and through the radio communication facilities available at these offices to all aircraft requiring area control service. Each area control centre is similarly connected with the adjacent centres, including centres in the United States, for the purpose of co-ordinating the control of aircraft operating through more than one control area. This communications system permits each centre to maintain a continuous detailed record of the movements of all aircraft operating in accordance with the Instrument Flight Rules, and a general record of the movements of all aircraft operating in accordance with the Visual Flight Rules within its control area. In addition to providing area control service to aircraft operating within the controlled airspace over Newfoundland, the Gander area control centre provides this service within the airspace over approximately one-half of the North Atlantic Ocean. Area control service is provided for approximately 15,000 miles of airways, air routes and control channels.

Flight Information is designed to provide advice and information useful for the safe and efficient conduct of flight, including weather reports and forecasts, field condition reports, data concerning aids to navigation, traffic information, refuelling and transportation facilities and other related data of assistance to the pilot in planning or conducting a flight. This service is provided by all air-traffic control units but particularly by the seven area control centres-one to a region.

Alerting for Search and Rescue is designed to ensure that the appropriate organizations are notified of aircraft in need of search and rescue aid and otherwise to assist such organizations, as required. Area control centres are responsible for notifying these organizations promptly of non-arrival at destination of any aircraft for which a flight plan or flight notification has been received. This requires the maintenance and constant supervision of a continuous record of active flights to ensure that non-arrival of any aircraft is detected immediately. The service is available to any pilot who files either a flight plan or a flight notification with any communications agency of the Air Services Branch of this Department or directly with one of the area control centres or control towers.

Customs Notification Service is provided to facilitate the routine notification of the appropriate customs agency by pilots who plan to cross the United States-Canada boundary. The Air Traffic Control communications system and units connected therewith forward pilot requests to notify the customs officer at the airport of destination.

Aircraft Identification Service is provided by area control centres to assist the Department of National Defence in establishing the identification of all aircraft operating within specified areas.

Air Traffic Control employs 125 airport controllers, 75 area controllers, 101 air-traffic control assistants and a headquarters staff of six-a total of 307 persons-and operates 21 airport control towers and seven area control centres. The number of controlled operations in Canada during 1953 was $1,544,980$, an increase of $17 \cdot 7$ p.c. over the preceding year. Of this total, $74 \cdot 6$ p.e. represented civil and 25.4 p.c. military operations.

Summary of Operation Statistics.-The statistics given in Table 4 show the remarkable increase in recent years in passenger freight and mail traffic.

## 4.-Summary Statistics of Civil Aviation, 1919-53

Nork.-Figures from 1921 are given in the corresponding table of previous Year Books beginning with the 1924 edition.

| Item | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Aircraft Miles Flown- <br> Revenue. $\qquad$ <br> Non-revenue $\qquad$ | $\begin{array}{r} 35,925,311 \\ 1,821,675 \end{array}$ | $39,901,935$ $1,466,559$ | $46,253,726$ $1,905,996$ | 52,125,891 .. | $\begin{array}{r} 57,292,431 \\ 1,700,515 \end{array}$ |
| Totals ................ No. | 37,746,986 | 41,368,494 | 48,159,722 | 52,125,891 | 58,992,946 |
| Passengers Carried- <br> Revenuel. <br> Non-revenue ${ }^{2}$ | $\begin{array}{r} 1,211,149 \\ 45,763 \end{array}$ | $1,452,081$ 48,113 | $\begin{array}{r} 1,788,558 \\ 53,154 \end{array}$ | $\begin{array}{r} 2,154,434 \\ 57,330 \end{array}$ | $\begin{array}{r} 2,652,293 \\ 65,373 \end{array}$ |
| Totals ${ }^{1} \ldots \ldots \ldots \ldots \ldots$. . ${ }^{\text {No. }}$ | 1,267,865 | 1,511,021 | 1,888,689 | 2,289,779 | 2,717,666 |
| Passenger Miles- <br> Revenue. . <br> Non-revenue ${ }^{2}$ $\qquad$ $\qquad$ | $\begin{array}{r} 392,507,141 \\ 23,882,322 \end{array}$ | $\begin{array}{r} 474,367,165 \\ 25,213,468 \end{array}$ | $\begin{array}{r} 585,701,475 \\ 25,228,048 \end{array}$ | $\begin{gathered} 679,136,075{ }^{3} \\ 27,559,456 \end{gathered}$ | $\begin{array}{r} 791,185.039 \\ 34,113,939 \end{array}$ |
| Totals. . . . . . . . . . . . . . . No. | 416,389,463 | 499,580.633 | 610,929,523 | 706,695,531 | 825,298,978 |
| Freight Carried- <br> Revenue ${ }^{4}$. $\qquad$ <br> Non-revenue. $\qquad$ lı. | $\begin{array}{r} 32,852,373 \\ 3,232,369 \end{array}$ | $\begin{array}{r} 42,141,292 \\ 3,443,521 \end{array}$ | $\begin{array}{r} 53,542,103 \\ 4,129,524 \end{array}$ | $\begin{array}{r} 133,118,754 \\ 5,237,779 \end{array}$ | $\begin{array}{r} 175,476,670 \\ 4,814,274 \end{array}$ |
| Totals ${ }^{\text {a }}$. $\ldots \ldots \ldots \ldots . . . .1 \mathrm{lb}$. | 37,097,767 | 46,681,194 | 61,693,191 | 138,416,758 | 180,290,944 |
| Freight Ton-Miles- <br> Revenue................... No <br> Non-revenue | $\begin{aligned} & 4,669,861 \\ & 1,645,052 \end{aligned}$ | $\begin{aligned} & 6,420,693 \\ & 1,658,520 \end{aligned}$ | $\begin{aligned} & 8,274,995 \\ & 1,900,940 \end{aligned}$ | $\begin{aligned} & 7,722,018 \\ & 1,915,559 \end{aligned}$ | $\begin{aligned} & 9,150,409 \\ & 2,084,070 \end{aligned}$ |
| Totals................. No. | 6,314,913 | 8.079.213 | 10,175,935 | 9,637,577 | 11,234,479 |
| Mail carried lb. Mail ton-miles $\qquad$ $\qquad$ No. | $\begin{array}{r} 13,506,220 \\ 4,108,488 \end{array}$ | $\begin{array}{r} 14,241,523 \\ 4,293,447 \end{array}$ | $\begin{array}{r} 16,485,558 \\ 4,736,524 \end{array}$ | $\begin{array}{r} 17,877,593 \\ 4.953,326 \end{array}$ | $\begin{array}{r} 19,844,871 \\ 5,511,493 \end{array}$ |
| Hours Flown by AircraftTransportation revenue.... No Transportation non-revenue Patrols, surveys, etc. $\qquad$ | $\begin{array}{r} 227,563 \\ 14,770 \\ 37,988 \end{array}$ | $\begin{array}{r} 246,653 \\ 12.409 \\ 48,654 \end{array}$ | $\begin{array}{r} 478,523 \\ 22,738 \\ 50,475 \end{array}$ | $\begin{array}{r} 358,081 \\ 20,490 \\ 80,267 \end{array}$ | $\begin{array}{r} 386,070 \\ 23.954 \\ 83,193 \end{array}$ |
| Totals................... | 280,321 | 307,716 | 551,736 | 458,838 | 493,217 |

For footnotes, see end of table.
4.-Summary Statistics of Civil Aviation, 1949-53-concluded

| Item | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gasoline consumption........gal Lubricating oil consumption.. | $16,987,122$ 227,382 | $22,088,575$ 275,370 | $29,596,490$ 333,557 | $38,323,977$ 456,187 | $\begin{array}{r} 43,519,783 \\ \quad 542,732 \end{array}$ |
| Licensed civil airports (all types)........................ No. | 336 | 279 | . | 419 | 433 |
|  |  | Year Ended Mar. 31- |  |  |  |
|  |  | 1951 | 1952 | 1953 | 1954 |
| Licensed Civil Aircraft <br> (all types)- <br> Gross weight- |  |  |  |  |  |
|  |  |  |  |  |  |
| 2,001-4,000 lb........... " | 1414 | 1483 | 1, 527 | 1,267 | 1,668 |
| 4,001-10,000 lb.......... " | 398 | 446 | 454 | 450 | 488 |
| 10,001-20,000 lb.......... " | 30 | 32 | 31 | 33 | 48 |
| Over $20,000 \mathrm{lb}, \ldots . . . .$. " | 113 | 112 | 119 | 136 | 159 |
| Totals, Aircraft. . . . . . . No. | 1,973 | 2,242 | 2,301 | 2,428 | 2,694 |
| Ownership, Commercial - |  |  |  |  |  |
| Up to $2,000 \mathrm{lb} \ldots . . . .$. No. | 557 | 593 | 577 | 540 | 550 |
| 2,001-4,000 lb......... " | 264 | 279 | 282 | 279 | 308 |
| $4,001-10,000 \mathrm{lb} \ldots . . . . .$. . | 261 | 300 | 387 | 285 | 314 |
| 10,001-20,000 lb........ " | ${ }^{23}$ | 24 | ${ }_{113}^{25}$ | 25 | 30 149 |
| Over $20,000 \mathrm{lb} \ldots \ldots \ldots .{ }^{\text {a }}$ | 102 | 101 | 113 | 121 | 149 |
| Ownership, Other- $\quad 108$ |  |  |  |  |  |
| Up to $2,000 \mathrm{lb} \ldots . . . . .$. No. | 461 150 | 576 204 | 593 245 | 702 288 | 783 350 |
|  | 137 | 146 | 67 | 165 | 181 |
| Over $20,000 \mathrm{lb} . . . \ldots \ldots .$. | 7 | 8 | 6 | 8 | 19 |
|  | 11 | 11 | 6 | 15 | 10 |
|  | Year Ended <br> Mar. 31, 1950 |  |  |  |  |
| Licensed Civil Air Personnel- 56 |  |  |  |  |  |
| Commercial pilots ${ }^{\text {s }}$...........No. <br> Commercial pilotss. | 56 | $\begin{array}{r}44 \\ 484 \\ \hline\end{array}$ | 807 | 1,199 | 1,532 |
| Senior commercial.......... " | - | 157 | 165 | 218 | 337 |
| Airline transport. ......... " | - | 87 | 165 | 458 | 589 |
| Glider pilots............. " |  | 33 | 77 | 107 | 136 |
| Limited commercial pilots. " | ${ }_{775}^{653}$ | - 651 | - 612 | 969 | - |
| Transport pilots.......... " | 775 2.603 | 651 3,546 | 612 4.444 | 4, 4 4.483 |  |
| Private pilots........... " | 2,603 | - 3,546 | $\begin{array}{r}4,444 \\ \hline 28\end{array}$ | 4,483 43 | 4,508 53 |
| Air navigators............. " |  |  | 172 | 183 | 199 |
| Air engineers.............. " | 1,623 | 1,546 | 1,402 | 169 | - |
| Aircraft maintenance engineers ${ }^{7}$ | - | - | - | 1,249 | 1,429 |

${ }^{1}$ Exclusive of passengers carried between foreign stations who are included in totals. ${ }^{2}$ Includes employees other than crews. ${ }^{3}$ Exclusive of charter services, figures for which are not available. 4 Exclusive of freight carried between stations which is included in totals. 5 Old type licence. - New type licence.
${ }^{7}$ New type of licence for air engineers.
Table 5 shows civil aviation figures for 1953 by type of service. A definition of scheduled and non-scheduled carriers is given on p. 897. Statistics for international carriers include traffic over Canadian territory for both Canadian and
foreign operators; a small traffic across Canadian territory and between foreign stations is also included. Statistics for Canadian carriers operating international routes are included both as "international" and "Canadian" but duplications are excluded from the totals.
5.-Summary Statisties of Civil Aviation, by Type of Service, 1953

| Item | Canadian Carriers |  | Foreign International | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | Scheduled | Nonscheduled and Other |  |  |
| Aircraft Miles Flown- <br> Revenue transportation. ................ No. Non-revenue transportation. $\qquad$ | $\begin{array}{r} 37,681,341 \\ 1,669,424 \end{array}$ | 17,325,628 | $\begin{array}{r} 2,285,462 \\ 31,091 \end{array}$ | $\begin{array}{r} 57,292,431 \\ 1,700,515 \end{array}$ |
| Totals........................ No. | 39,350,765 | 17,325,628 | 2,316,553 | 58,992,946 |
| Passengers Carried- <br> Revenue <br> Between foreign stations <br> Non-revenue. | $\begin{array}{r} 1,789,814 \\ 99,662 \\ 50,850 \end{array}$ | 349,784 $-4,524$ | $\begin{array}{r} 512,695 \\ \hline 9,999 \end{array}$ | $\begin{array}{r} 2,652,293 \\ 99,662 \\ 65,373 \end{array}$ |
| Totals....................... No. | 1,940.326 | 354,308 | 522,694 | 2,817,328 |
| Passenger Miles-1 <br> Revenue. <br> Non-revenue | $740,614,222$ $32,107,118$ | $3,899,635$ 23,819 | $46,671,182$ $1,983,002$ | $\begin{array}{r} 791,185,039 \\ 34,113,939 \end{array}$ |
| Totals................... .... No | 772,721,340 | 3,923,454 | 48,654,184 | 825,298,978 |
| Freight CarriedRevenue. <br> Between foreign stations. <br> Non-revenue. | $\begin{array}{r} 44.754,513 \\ 124,794 \\ 3.898,264 \end{array}$ | $\begin{array}{r} 121,627,843 \\ 199,438 \end{array}$ | $\begin{array}{r} 9,094,314 \\ 716.572 \end{array}$ | $\begin{array}{r} 175,476,670 \\ 124,794 \\ 4,814,274 \end{array}$ |
| Totals $\ldots \ldots \ldots \ldots \ldots \ldots \ldots . .1$ lb. | 48.73.5.51 | 121.827,281 | 9,810,886 | 180,415,738 |
|  | $\begin{aligned} & 7,947,933 \\ & 1,927,399 \end{aligned}$ | 192,769 6,933 | $1,009,707$ 149,738 | $\begin{aligned} & 9,150,409 \\ & 2,084,070 \end{aligned}$ |
| Totals....................... No. | 9,875,332 | 199,702 | 1.159,445 | 11,234,479 |
|  | $\begin{array}{r} 15,776,157 \\ 5,324,811 \end{array}$ | $\begin{array}{r} 834,244 \\ 75,056 \end{array}$ | $\begin{array}{r} 3,234,470 \\ 111,626 \end{array}$ | $\begin{array}{r} 19,844,871 \\ 5,511,493 \end{array}$ |
| Hours Flown by Aircraft- <br> Transportation revenue. <br> Transportation non-revenue Patrols, surveys, etc. | $\begin{array}{r} 219,738 \\ 11,166 \\ 562 \end{array}$ | $\begin{array}{r} 155,190 \\ 12,680 \\ 82,631 \end{array}$ | $\begin{array}{r} 11.142 \\ 108 \end{array}$ | $\begin{array}{r} 336,070 \\ 23,954 \\ 83,193 \end{array}$ |
| Totals............... No | 231.466 | 250,501 | 11,250 | 493.217 |
| Gasoline consumption.............. .. gal. | 29,911,190 | 6,608,675 | 6,999,918 | 43,519,783 |
| Lubricating oil consumption............. | 373,402 | 112.525 | 56,805 | 542,732 |

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## 6.-Capital Investment of the Department of Transport in Air Services, as at Mar. 31, 1951-53

Note.-Compiled from Department of Transport records.

| Item | 1951 | 1952 | 1953 | Total as at Mar. 31, 1953 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | 8 | \$ | \$ |
| Airways and AirportsCivil Aviation- |  |  |  |  |
| Ordinary appropriations. | - | - | -- | 849,053 |
| Capital appropriations. | 6,114,094 | 4,547,948 | 6,800,041 | 48,972,727 |
| War appropriations- |  |  |  |  |
| Transferred from other government departments. | 233,011 | Cr. 705,977 | 21,008,338 |  |
| Value of properties transferred to Crown Assets Disposal Corporation.......... | Cr. 58,644,833 | Cr. 14,342,687 | Cr. 4,423,532 |  |
| Property retired through obsolescence, loss or abandonment. | Cr. 367,675 | Cr. 14,342,687 | Cr. 395,620 | 201,770,723 |
| Northwest Communication System transferred to Telecommunications Division. | Cr. | Cr. 12,423,493 | Cr. |  |
| Air Ministry of United Kingdom. | - | - | - | 4,913,091 |
| Telecommunications DivisionAviation Radio Aids- |  |  |  |  |
| Ordinary appropriations. . . . | 1, 303 | - | 1, $\overline{0} 2$ | 336,180 |
| Capital appropriations.. | 1,303,894 | 3,077,489 | 1,652,616 | 16,869,918 |
| War appropriations. |  | 12,423,493 | - | 18,069,453 |
| Totals, Airways and Airports. | Cr. 51,361,509 | Cr. 7,423,227 | 24,641,843 | 291,781,145 |
| Telecommunications Division (excluding |  |  |  |  |
| Radio Act and Regulations................. | 64,368 | 48,160 | 159,469 | 293,577 |
| Radio Aids to Marine Navigation- |  |  |  |  |
|  | 207,688 | 164,645 | 210,433 | 961,842 797,281 |
| Suppression of radio interferences........... | 12,302 | 20,219 | 25,690 | 86,331 |
| Totals, Other Radio Facilities...... | 284,358 | 233,024 | 395,592 | 2,139,031 |
| Meteorological Divislon- |  |  |  |  |
| Ordinary appropriations War appropriations. | 390,219 | 353,985 | 683,733 | $\begin{array}{r} 2,248,036 \\ 492,099 \end{array}$ |
| Totals, Meteorological Division...... | 390,219 | 353,985 | 683,733 | 2,740,135 |
| Canadian Government Transatlantic Air Service. | - | - | - | 4,788,369 |
| Grand Totals. | Cr. 50,686,932 | Cr. 6,836,218 | 25,221,168 | 301,48,680 |

7.-Expenditure and Revenue of the Department of Transport in connection with Air Services, Years Ended Mar. 31, 1951-53

Note.-Compiled from Department of Transport Records.


## 7.-Expenditure and Revenue of the Department of Transport in connection with Air Services, Years Ended Mar. 31, 1951-53-continued

| Expenditure, Revenue and Receipts | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
| Expenditure-concluded |  |  |  |
| Civil Aviation Division-concluded |  |  |  |
| Airways and Airports, Operation and Maintenance- |  |  |  |
| Ordinary. | 7,914,467 | 8,730,267 | 9,299,286 |
| Contributions to assist municipalities | 196,027 | 108,319 | 97,275 |
| Contribution to State of Michigan. | 24,849 | 30,420 | 32,010 |
| Contribution to International Civil Aviation Organization re Iceland Government air-aids to navigation | 22,333 | 40,636 | 33,943 |
| Contribution to Denmark in joint support of North Atlantic Air Navigation facilities in the Faroes and Greenland...... | 70,172 | 75,153 | 59,082 |
| Contribution to South Pacific Air Transport Council. . . . . . . . . | 224,500 | 112,500 | 122,500 |
| Investigation of the "Canadian Pilgrims" aircralt accident. | 3,469 |  |  |
| Airways and Airports Traffic Control. | 1,054,674 | 1,178,631 | 1,314,625 |
| Northwest Communication System-ordinary | 39,703 | 109,820 |  |
| Refund of land rentals to Trans-Canada Airlines |  | 3,300 |  |
| Contribution re landing strip, Goldfields, Sask | - | 80,000 | - |
| Totals, Civil Aviation Division | 15,302,583 | 16,825,993 | 17,604,657 |
| Telecommunications Division (excluding Aviation Radio Aids)- |  |  |  |
| Administration of Radio Act and Regulations-Ordinary | 802,727 | 828,008 | 208,699 |
| Radio Aids to Marine Narigation-Ordinary | 1,546,860 | 1,788,846 | 2,018,885 |
| Suppression of radio interferences. | 323,997 | 368.697 | 375,419 |
| Issue of radio receising licences. | 675,780 | 699,857 | 702,779 |
| Telegraph and Telephone Services- |  |  |  |
| Administration, operation and maintenance. | $\begin{array}{r} 1,216,860 \\ 226,939 \end{array}$ | $1,294,759$ 303,777 | $\begin{array}{r} 1.387,102 \\ 459,396 \end{array}$ |
| Totals. Telecommunications Division (excluding Aviation Radio Aids). | 4,793,163 | 5,283,944 | 5,852,280 |
| Meteorological DivisionOperation and maintenance. | 5.126,975 | 5,760,842 | 6,195,462 |
| Totals, Expenditu | 25,657,180 | 28,304,771 | 30,233,466 |
| Revenue and Receipts |  |  |  |
| Air Services Administration | - | - | 692 |
| Civil Avistion Division (including Aviation Radio Aids)- |  |  |  |
| Private air pilots' certificates | 3,995 | 4,839 | 5,625 |
| Aircraft registration fees | 3,586 | 4,263 | 4,918 |
| Airport licences.. | 580 | 430 | 305 |
| Airworthiness certificates | 815 | 1,060 | 1,415 |
| Fines-Aeronsuties Act and Regulations | 793 | 560 | 1,585 |
| Aircraft landing fees. | 1,791,191 | 1,603,538 | 1,896,437 |
| Rentals at airports. | 621.088 | 476,249 | 456,896 |
| Outside and hangar space rental | 364.472 | 318.671 | 407,165 |
| Rental of equipment. | 11,927 | 9.188 | 9,650 |
| Rentals-employees quarter | 128,568 | 262,147 | 238,704 |
| Miscellaneous rentals. | 48,532 | 25.382 | 59,976 |
| Power service | 72,163 | 67,726 | 57,177 |
| Concessions- |  |  |  |
| Gasoline and oil. | 361,088 | 344,333 | 421,612 |
| Taxi. | 21,743 | 24,789 | 29,443 |
| Telephone | 4,162 | 4,756 | 5,711 |
| Restaurants and sna | 19,684 | 19,500 | 33,880 |
| Other | 14,355 | 36.797 | 50,920 |
| Telephone service | 23,939 | 22,250 | 18,028 |
| Airport radio service to aircraft | 229,564 | 302,276 | 314,859 |
| Radio message tolls | 35,960 | 41,260 | 27,263 |
| Mess receipts. | 29, 262 | 24.241 | 23,037 |
| Sales miscellan | 5,890 | 5,811 | 7,377 |
| Aircrait servicing other than repai | 7,362 | 1,216 | 21 |
| Observation roof-turnstiles Miscellaneous revenue...... | 17,952 47,540 | 15,244 53,526 | 17,477 43,913 |

## 7.-Expenditure and Revenue of the Department of Transport in connection with Air Services, Years Ended Mar. 31, 1951-53-concluded

| Revenue and Receipts | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: |
|  | \$ | § | \$ |
| Revenue and Receipts-concluded |  |  |  |
| Civil Aviation Division-concluded Gander Airport-- |  |  |  |
|  |  |  |  |
| Mess hall accommodation..... | 5,388 33,799 | 5,454 29,326 | 4,253 28 28 |
| Skyways Club................. | 81,629 | 98,953 | -97,918 |
| Terminal charges | 298.606 | 135,855 | 10,142 |
| Novelty shop. | 12,363 | $\cdots$ |  |
| Coal sales. | 27,832 | 27,287 | 29,085 |
| Mess hall board | 58,915 | 8,477 | 3,638 |
| Airlines hotel dining-room | 121,893 | 75,158 | 57,608 |
| Airlines hotel bar. | 49,305 | 45,454 | 56,348 |
| Skyways Club snack | 290,222 | 267,693 | 368,785 |
| Skyways Club bar. | 114,006 | 140,713 | 159,791 |
| Laundry. | 34,018 | 34,374 | 27,735 |
| Dry-cleaning plant. | 15,657 | 16,141 | 15,941 |
| Recoverable services | 57,508 | 46,489 | 54,120 |
| Heating. | 112,021 | 122,998 | 135,213 |
| Electricity | 101,803 | 95, 873 | 87,596 |
| Bakery. | 49,945 | 58,199 | 64,579 |
| Sanitary fees | 7,774 | 5,685 | 7,622 |
| Bus operation | 5,313 | 2,165 | 2,422 |
| Sundries.. | 111 |  |  |
| Assessment collections Refunds, previous year's | 113,273 | 84,949 | 1,378 30,298 |
| Totals, Civil Aviatio | 5,457,591 | 4,972,500 | 5,376,615 |
| Totals, Civil Aviation Division................................. |  |  |  |
| Telecommunications Division (excluding Aviation Radio Aids)Radio operators' examination fees. |  |  |  |
|  | 990 | 1,170 | 1,385 |
| Radio Station Licences- |  |  |  |
| Aircraft station...... ${ }^{\text {Amal }}$ Amation | 16,856 | 17,269 | 17,623 |
| Commercial receiving station | 239 | 382 | 166 |
| Experimental station.. | 760 | 855 | 1,040 |
| Limited coast station | 750 | 800 | 800 |
| Municipal police private commercial station | 413 | 45 210 | ${ }_{56} 249$ |
| Private commercial station. | 32,958 | 45,721 | 56,198 |
| Public commercial station | 6,790 | 7,680 | 8,580 |
| Ship station. . . . . . . . . | 26,774 | 32,291 | 33,649 |
| Technical and training school s | 32 357 |  |  |
| Sale of transport publications...... | 357 37.839 | 1,293 37,056 | 1,448 34,295 |
| Fines-Radio Act and Regulations | 37,839 | 37,056 | 34,295 |
| Radio Message Tolls- |  |  |  |
| Marconi operated coast stations................ | 65,477 | 69,228 | 77,938 |
| Rentals-living quarters-employees. | 22,345 | 25,449 | 22,446 |
| Other. . . . . . . . . . . . . . . . . . . . . . | 1,860 | 4,541 | 4,296 |
| Government telegraph and telephone t | 610,601 | 693,790 | 970,883 |
| Mess receipts.................... | 1,816 | 736 | 1 488 |
| Sundries..... | ${ }_{63} 623$ | -912 | 1,654 108,394 |
| Refunds, previous year's expenditure | 63,836 | 5,738 | 108,394 |
| Totals, Telecommunications Division | 1,000,546 | 1,067,158 | 1,475,536 |
|  |  |  |  |
| Rentals-living quarters-employee | 36,849 |  |  |
| Other............................. . . . . . . . . . . . . . . . | 87 1.574 | ${ }_{975}^{254}$ | 2,993 3 |
| Sale of transport publications..............................................Radio commercial message tolls-Department of Transport |  |  |  |
| Radio commercial message tolls-Department of Transport operated coast stations. | 1,530 | 911 | 1,335 |
| Air-ground radio service. | 880 | 280 |  |
| Communication facilities-inter-office | 603 | 393 | 356 |
| Power service. |  | 2, 104 |  |
| Sundries........ | 8,454 | $2,10,017$ | 4,180 10,341 |
| Totals, Meteorological Division. | 49,983 | 32,324 | 41,287 |
| Totals, Revenue and Receipts.......... | 6,508,120 | 6,071,982 | 6,894,130 |

No statistics are available regarding total expenditure on flying operations by the Federal and Provincial Governments or by private individuals, but capital expenditure made by commercial air carriers for property as reported for the end of 1952 and 1953 is shown in Table 8.

## 8.-Cost of Property, Revenue and Expenditure for Scheduled and Other Commercial Air Carriers, 1952 and 1953

| Item | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Scheduled ${ }^{1}$ | Other | Total | Scheduled ${ }^{1}$ | Other | Total |
|  | \$ | \$ | \$ | \$ | \$ | \$ |
| Property Account- |  |  |  |  |  |  |
| Aircraft... | $11,835,273$$2.537,590$ | $2,155,297$527,498 | $13,990,570$$3,065,088$ | $13,583,865$$4,155,326$ | $2,614,601$698,585 | $16,198,466$$4,853,911$ |
| Aircraft engines........... |  |  |  |  |  |  |
| Buildings and improvements. | $\begin{aligned} & 2,726,366 \\ & 3,057,654 \end{aligned}$ |  |  |  | $\begin{aligned} & 569,814 \\ & 608,251 \end{aligned}$ | $\begin{aligned} & 6,133,968 \\ & 4,030,613 \end{aligned}$ |
| Miscellaneous....... |  | $\begin{aligned} & 451,799 \\ & 469,674 \end{aligned}$ | $\begin{aligned} & 3,178,165 \\ & 3,527,328 \end{aligned}$ | 5,564,154 $3,422,362$ |  |  |
| Totals, Cost of Property. | 20,156,883 | 3,604,248 | 23,761,151 | 26,725,707 | 4,491,251 | 31,216,958 |
| Revenue and Expenditure- |  |  |  |  |  |  |
| Revenue... | $\begin{aligned} & 73.115,634 \\ & 71,761,685 \end{aligned}$ | $\begin{aligned} & 15,403,661 \\ & 14,993,662 \end{aligned}$ | $\begin{aligned} & 90,519,295 \\ & 86,755,347 \end{aligned}$ | 84,197,975 | $\begin{aligned} & 20,057,525 \\ & 19,667,156 \end{aligned}$ | $\begin{aligned} & 104,255,500 \\ & 102,959,900 \end{aligned}$ |
| Expenditure............ |  |  |  |  |  |  |

${ }^{1}$ Includes Canadian trans-border, transatlantic and transpacific services.
Employees and Salaries and Wages.-The numbers of civil air personnel licensed in recent years are shown in Table 4, p. 904. However, the figures in Table 9 include pilots and engineers in the employ of the Federal Government and of private individuals as well as those not employed at all in the ordinary sense.
9.-Employees and Salaries and Wages in Civil Aviation, 1952 and 1953

| Year and Class of Employee | Scheduled |  | Non-scheduled |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employees | Salaries and Wages | Employees | Salaries and Wages | Employees | Salaries and Wages |
|  | No. | $\delta$ | No. | \$ | No. | \$ |
| General officers. | 419 | 2,780,813 | 93 | 478,789 | 512 | 3,259,602 |
| Clerks. | 1,100 | 2,836,149 | 99 | 226,604 | 1,199 | 3,062,753 |
| Pilots. | 328 | 3,352,894 | 375 | 1,649,926 | 703 | 5,002,820 |
| Co-pilots... | 352 | 1,727,598 | 36 | 107,485 | 388 | 1,835,083 |
| Despatchers..... | 96 | 473,518 | 23 | 66,531 | 119 | 540,049 |
| Communication operators. | 630 | 1,815,181 | 39 | 122,702 | 669 | 1,937,883 |
| Stewards or other attendants | 401 | 1,246,990 | 4 | 9,433 | 405 | 1,256,423 |
| Air engineers. . | 356 | 1,543,888 | 184 | 707,845 | 540 | 2,251,733 |
| Mechanics. | 1,921 | 7,261,288 | 201 | 502,527 | 2,122 | 7,763,815 |
| Airport employees | 1,281 | 4,027.586 | 107 | 223,708 | 1,388 | 4,251,294 |
| Stores employees. | 245 | 736,116 | 24 | 55,018 | 269 | 791,134 |
| Other employees. | 951 | 3,256,579 | 133 | 194,841 | 1,084 | 3,451,420 |
| Totals, 1952 | 8,080 | 31,058,600 | 1,318 | 4,345,499 | 9,398 | 35,404,009 |

[^294]9.-Employees and Salaries and Wages in Civil Aviation, 1952 and 1953-concluded

| Year andClass of Employee | Scheduled |  | Non-scheduled |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underset{\text { Em- }}{\text { ployees }}$ | Salaries and Wages | $\begin{array}{\|c\|} \text { Em- } \\ \text { ployees } \end{array}$ | Salaries and Wages | $\begin{array}{\|c\|} \text { Em- } \\ \text { ployees } \end{array}$ | Salaries and Wages |
|  | No. | \$ | No. | \$ | No. | \$ |
| 1953 |  |  |  |  |  |  |
| General officers | 565 | 3,586,722 | 111 | 660,807 | 676 | 4,247,529 |
| Clerks. | 1,215 | 3,217,482 | ${ }^{126}$ | 314,892 | 1,341 | 3,532,374 |
| Pilots. | 349 | 3,746,059 | 373 | 1,853, 165 | 722 | 5,599, 224 |
| Co-pilots. | 380 | 1,954,277 | 102 | ${ }^{507,272}$ | 482 | 2,461,549 |
| Despatchers. | 97 | 488,102 | ${ }^{40}$ | 121,370 | 137 | 609,472 |
| Communication operat | 775 | 2,236,082 | 33 | 100,154 | 808 | 2,336, 236 |
| Stewards or other atten | 451 | 1,466,527 | 11 | 42,339 | 462 | 1,508,866 |
| Air engineers | 430 | 1,975,870 | 182 | 751,489 | 612 | 2,727,359 |
| Mechanics. | 2,061 | 8,149,979 | 284 | 848,925 | 2,345 | 8,998,904 |
| Airport employees | 1,366 | 4,456,943 | 105 | 266,314 | 1,471 | 4,723,257 |
| Stores employees | 250 | 796,291 | 30 | 79,111 | 280 | 875,402 |
| Other employees | 1,181 | 4,169,499 | 186 | 398,793 | 1,367 | 4,568,292 |
| Totals, 19532. | 9,120 | 36,243,833 | 1,583 | 5,944,631 | 10,703 | 42,188,464 |

${ }^{1}$ Excludes 348 employees of foreign carriers domiciled in Canada.
${ }^{2}$ Excludes 402 employees of foreign carriers domiciled in Canada.

## PART VI.-OIL AND GAS PIPELINES

A special article covering the history and development of pipeline construction in Canada appears in the 1954 Canada Year Book, pp. 861-869. The information contained therein is brought up to the end of 1953 in the following Section.

## Section 1.-Pipeline Construction, 1953*

The Trans Mountain pipeline (Edmonton, Alta., to Vancouver, B.C.), construction on which was started in 1952, was completed in October 1953 at a total cost of $\$ 93,000,000$. The line is 24 inches in diameter and 718 miles in length and has three pumping stations. Though its capacity is $120,000 \mathrm{bbl}$. of oil a day, market competition on the Pacific Coast was such that the through-put for 1953 did not exceed $35,000 \mathrm{bbl}$. This flow will increase as refineries are enlarged and new ones are built in the Vancouver district and in adjoining areas of the United States.

A further extension to the Interprovincial pipeline, built in 1950 from Edmonton, Alta., to Superior, Wis., at the head of the Great Lakes, was constructed in 1953 (by the Lakehead Pipeline Company) at a cost of $\$ 72,000,000$. The extension from Superior follows a route south of the Great Lakes and across Mackinac Straits at the head of Lake Michigan. It is 643 miles long and 30 inches in diameter and will ultimately have a capacity of $300,000 \mathrm{bbl}$. of oil a day. Oil from Edmonton may now be transported over this line to Sarnia, a distance of 1,765 miles, at a cost of 64 cents a barrel. In order to utilize the present capacity of the extension, it was necessary to increase the capacity of the line to Superior by the construction (by the Interprovincial Pipe Line Company) of a 135 -mile loop of 24 -inch line from Regina, Sask., to Gretna, Man. There is now storage capacity at Edmonton for $1,000,000 \mathrm{bbl}$. of crude oil and an outlet through the Interprovincial pipeline for $200,000 \mathrm{bbl}$ a day.

[^295]In addition to construction on these trunk pipelines, the system of oil-gathering lines was extended. The capacity of Texaco Exploration Company's pipeline to Edmonton from the fields on the Bonnie Glen-Pigeon Lake trend was increased to $47,000 \mathrm{bbl}$. a day, and the Imperial Pipe Line Company line from Leduc was increased to $96,000 \mathrm{bbl}$. a day. Other construction included small lines to serve the Cessford field in Alberta; the Cantuar, Fosterton and Success fields in Saskatchewan; and a 12 -mile line to tie in the Daly field to the Interprovincial line at Cromer, Man.

In Eastern Canada, the capacity of the Portland (Maine) to Montreal oil pipeline was expanded from 158,000 to $190,000 \mathrm{bbl}$ a day. The pipeline is 236 miles long, of which 70 miles are in Canada. It consists of parallel lines 12 and 18 inches in diameter. A 200 -mile, 8 -inch products line was constructed by SunCanadian Pipe Line Company from Sarnia to Toronto. Initially the line carried 17,500 bbl. a day but ultimate capacity is double that amount. This line is in addition to that of Imperial Oil Limited from Sarnia to Toronto, the capacity of which is to be increased from 39,000 to $55,000 \mathrm{bbl}$ a day. The capacity of Trans Northern Pipe Line Company's 397 -mile, 10 -inch line from Montreal to Toronto, with a spur to Ottawa, was increased to $54,000 \mathrm{bbl}$ a day by additional compression.

At the end of 1953 , there were approximately 3,700 miles of crude-oil trunk lines, gathering lines and oil-products lines in Canada, exclusive of loops. In addition there were 960 miles of lines in the United States, between Gretna, Man., and Sarnia, Ont., carrying Canadian crude oil.

Plans are under way for the building of extensive gas lines in Canada in the next few years but construction so far has been confined to local areas. The town of Grande Prairie in the Peace River area of Alberta is being supplied with gas from the Rycroft field by a pipeline about 40 miles in length. In Saskatchewan, the city of Saskatoon is being supplied with gas from the Brock field near Kindersley by a pipeline 102 miles long. In 1953, more than 4,000 domestic services were installed.

An interesting development that will ultimately affect the building of pipelines in Canada was the construction in the United States of a plastic, oil pipeline from a field in the Williston basin of Montana to a rail point 10 miles distant. The plastic used was cellulose acetate butyrate: a 20 -foot length of pipe weighs only 13 lb . compared with 153 lb . for steel of the same length and diameter. The pipeline was laid in five days.

## Section 2.-Oil Pipeline Statistics*

There were 17 oil pipelines operating in Canada at Dec. 31, 1953, nine of which were directly linked with the Interprovincial Pipe Line Company's system. The British American Alberta Pipe Line Limited, Canadian Gulf, Edmonton, and Imperial Pipe Line Companies and the Texaco Exploration Company all deliver crude oil to Interprovincial, either at Redwater, Alta., or at the Edmonton terminal. The British American Saskatchewan Pipe Line Limited and Saskatoon Pipe Line Company link the Interprovincial system to Moose Jar and Saskatoon, respectively; Anglo-Canadian Oils Limited and the Winnipeg Pipe Line Company are offshoots which supply crude oil to Brandon and Winnipeg, Man. The Trans Mountain

[^296] Statistics.
pipeline-718 miles in length from Edmonton to Vancouver-delivers western Canadian crude oil to British Columbia refineries and in future will serve other refineries in the Pacific northwest. The Valley Pipe Line Company transports crude oil and natural gasoline from Turner Valley to refineries at Hartell and Calgary, Alta. The Amurex Oil Development Company, which commenced operations in July, operates a short gathering system from the South Cessford field in Alberta to rail terminal at Cessford. Oil from Venezuela, Arabia and other countries reaches Montreal refineries from Portland, Me., U.S.A., through the lines of the Montreal Pipe Line Company. The Trans Northern Pipe Line Company, which links refineries at Montreal, Que., and Clarkson, Ont., with numerous consuming centres including Ottawa, Belleville, Kingston, Toronto and Hamilton, carries a large variety of petroleum products. The Products Pipe Line Division of Imperial Oil at Sarnia supplies London, Hamilton, and Toronto, Ont., with products of Sarnia refineries. The Sun Pipe Line Company carries crude and refined oils from the United States to that Company's distributing centre at Sarnia, Ont. The Sarnia refineries are also supplied with considerable quantities of United States crude oil by the Buckeye Pipe Line Company. In October 1953, the SunCanadian Pipe Line Company Limited opened a new line to carry refinery products from Sarnia to Toronto, Ont.

Pipeline deliveries shown in Tables 1, 2 and 3 come to non-pipeline carriers, foreign pipelines and terminals including refineries and distributing centres. Comparative statistics for years before 1950 are not available but deliveries were relatively small as the system of the Interprovincial Pipe Line Company did not go into operation until the latter part of 1950. Net gathering-system deliveries in Alberta fell sharply after the opening of the Interprovincial system because the new trunk line carried most of the oil formerly moved eastward in railway tank cars. Starting January 1953, the Imperial Pipe Line Company have reported their operations in Alberta as a gathering system only and for this reason Alberta gathering and trunk deliveries for 1953 are not strictly comparable with those for previous years.

## 1.-Oil Delivered by Pipeline, by Province in which Shipments Terminated or were Transferred to Other Carriers, 1950-53

| Province | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: |
|  | bbl. | bbl. | bbl. | bbl. |
| British Columbia-Trunk. | 10. | 2.802 .125 | 2.004 .346 | 1,540,011 |
| Alberta - Gathering. . | 10,481, 002 | 2,802,125 | 2,004,346 | $10,885,7272$ |
| , Trunk. | 10,040,785 | 11,105,921 | 14,049,411 | 6,099,022 ${ }^{2}$ |
| Saskatohewan-Trunk | 2,089,487 | 9,782,698 | 11,164,892 | 14,189,654 |
| Manitoba ${ }^{\text {- T Trunk. }}$ | 1, 100,602 | 19,088,726 | 27,630,314 | 36,682, 339 |
| Ontario -Trunk |  |  | $3,093,944$ $49,852,761$ | $24,868,257$ $53,038,461$ |
| Quebec-Trunk. | 26,991,972 | 45,645,037 | 49,852,761 | 53,038,461 |
| Net Delivered-Trunk. | 40,222,846 | 85,622,382 | 105,791,322 | 136,418,044 |
| Totals | 50,704,848 | 88,424,507 | 107,795,668 | 147,303,771 |

[^297]2.-OAl Delisered by Pipeline, by Month in which Shipments Terminated or were Transferred to Other Carriers, 1952 and 1953

| Month | 1952 |  | $1953{ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Gathering | Trunk | Gathering | Trunk |
|  | bbl. | bbl. | bbl. | bbl. |
| January. | 127,279 | 6,937,411 | 1,190,776 | 9,534,525 |
| February | 150,898 | 6,483,721 | 858,453 | 9,313,189 |
| March... | 125, 607 | 6,676,710 | 842,419 | 10,062,887 |
| April. | 113,643 | 6,982,455 | 420,458 | 10,909,350 |
| May.. | 120,162 | 9,408,182 | 722,037 | 11,636,997 |
| June. | 113,800 | 9,036,456 | 978,593 | 11,985,569 |
| July. | 134,116 | 9,952,143 | 1,018,764 | 12,560,753 |
| August | 120,376 | 10,081, 605 | $1,007,835$ | 12,002,197 |
| September | 173.050 | 9,322,098 | 1,190,159 | 10,825,738 |
| October... | 280,672 | 10,567.070 | 983,644 | 11,941,465 |
| November | 244,838 | 9,794,425 | 801,030 | 12,117,381 |
| December | 299,875 | 10,549,046 | 871.559 | 13,527,993 |
| Totals. | 2,004,346 | 105,791,322 | 10,885, 727 | 136,418,044 |
| Grand Totals | 107,795,668 |  | 147,303, 771 |  |

[^298] strictly comparable with those for 1952.

Employee and revenue data shown in Table 3 do not include statistics for two pipelines, Anglo Canadian Oils Limited and the Sarnia Products Pipe Line Division of Imperial Oil Limited, which are operated as departments of the oil companies and manned by employees who are on the regular payroll of those companies.
3.-Operating Statistics of Oil Pipelines, 1952 and 1953

| Item |  | 1952 | 1953 |
| :---: | :---: | :---: | :---: |
| Barrels handled-Gross daily average- |  |  |  |
| Gathering. | No. | 134,838 | 160,123 |
| Trunk..... |  | 358,250 | 453,077 |
| Barrel miles (trunk lines). | 000,000 | 31.978 | 47,381 |
| A verage miles per barrel (trunk lines) | No. | 243.9 | $286 \cdot 6$ |
| Average employees. |  | 697 | 951 |
| Salaries and wages... |  | 2,833.064 | 4,188,498 |
| Man hours worked by wage-earners (inclu | No. | 498,095 | 586,268 |
| Operating revenues...................... | \$ | 21,271,008 | 28,305,431 |

## CHAPTER XX.-COMMUNICATIONS

## CONSPECTUS

Page

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\hline
\end{tabular}

Notr.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

## PART I.-GOVERNMENT CONTROL OVER AGENCIES OF COMMUNICATION*

The development and control of radio-communication in Canada from the beginning of the century is outlined in the 1945 Year Book, pp. 644-647.

The present phase of national radio broadcasting in Canada was entered upon in 1936 when, with the passage of the Canadian Broadcasting Act, the Canadian Broadcasting Corporation replaced the Canadian Radio Broadcasting Commission (see p. 931). The Act gave the Corporation wide powers in the operation of the system and gave to the Minister of Transport the technical control of all broadcasting stations and the authority to make regulations for the control of any equipment liable to cause interference with radio reception.

Except those matters covered by the Canadian Broadcasting Act, radiocommunications are now regulated under the Radio Act and Regulations. In addition, all radio-communication matters are administered in accordance with the provisions of the International Telecommunication Convention and Radio Regulations annexed thereto, as well as such regional agreements as the Inter-American Telecommunications Convention and Inter-American Agreement, and the North American Regional Broadcasting Agreement.

By Order in Council, dated June 8, 1948, responsibility for telegraph and telephone services formerly operated by the Federal Department of Public Works was transferred to the Minister of Transport. The general object of these services is to furnish wire communications for outlying and sparsely settled districts where commercial companies do not enter into the field and where the population must receive adequate communication services in the public interest.

A Crown company, Canadian Overseas Telecommunications Corporation was created by Act of Parliament (Dec. 10, 1949) to acquire for public operation all external telecommunication assets in Canada, in keeping with the Commonwealth

[^299]Telegraph Agreement signed May 11, 1948. This Agreement was designed to bring about the consolidation and strengthening of the radio and cable communication systems of the Commonwealth.

Land-line telegraph and telephone tariffs and tolls charged by companies incorporated by the Federal Government are regulated by the Board of Transport Commissioners under the provisions of the Railway Act.

Tariffs and tolls charged to the public by individuals or companies for radio telephone or telegraph communications within Canada are likewise regulated by the Board of Transport Commissioners under the provisions of the Railway Act and the Regulations made under the Radio Act.

## PART II.-WIRE COMMUNICATIONS*

## Section 1.--Telegraphs

The early history of telegraphic communication in Canada is given in the 1934-35 Year Book, p. 778.

Federal Government Telegraph and Telephone Service. $\dagger$-The function of the Telegraph and Telephone Section of the Department of Transport is to furnish wire communications for outlying and sparsely settled districts where commercial companies do not enter into the field and where the population must receive adequate communication services in the public interest. These services include: telegraph and telephone services to scattered settlements along the coast of Cape Breton Island; cable services to Campobello, Grand Manan and other islands in the Bay of Fundy, to Prince Edward Island and to a number of small islands in the Gulf of St. Lawrence; cable connections with Manitoulin Island in Ontario as well as telephone lines thereon; certain lines to outlying districts in northern Saskatchewan; telegraph lines from Edmonton to the Athabasca and Peace River country in Alberta in addition to an extensive telephone system in the latter area; telegraph and telephone communications around the coast of Vancouver Island, B.C., and adjacent islands; service to fishing, lumbering and mining centres in the interior; and an overland telegraph and telephone line serving communities from Ashcroft, B.C., to Dawson, Yukon Territory.

As at Mar. 31, 1954, the Telegraph and Telephone Service comprised 6,995 miles of pole line, 24,580 miles of wire, $224 \cdot 5$ nautical miles of submarine cable, 50 radio stations and 399 offices. The number of messages handled during the year was $1,497,903$, producing a gross revenue of $\$ 1,442,792$ and a net revenue of $\$ 1,009,483$.

Telegraph Systems.-The Canadian telegraph systems are composed of lines owned by the Federal Government and by chartered railway and telegraph companies. The Canadian facilities, in proportion to population, are among the most extensive in the world and are operated under great climatic and geographical difficulties.

[^300]
## 1.-Summary Statistics of Canadian Telegraphs, 1944-53

Nore.-Figures from 1920 are given in the corresponding table of previous Year Books beginning with the 1938 edition.

| Year | Gross Revenue | Operating | Net Operating Revenue | PoleLine Milage | Wire Milage | $\underset{\text { ployees }}{\text { Em- }}$ | Offices | Messages, Land ${ }^{2}$ | Cable- <br> grams and Marconigrams ${ }^{3}$ | Money Transferred |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | miles | miles | No. | No. | No. | No. | \$ |
| 1944.. | 16,986,491 | 14,404,835 | 2,581,656 | 52,414 | 387,677 | 8,050 | 4,834 | 16,445,450 | 2,324,863 | 8,242,926 |
| 1945... | 18,016,289 | 15,062, 231 | 2,954,058 | 52,447 | 391,476 | 8,230 | 4,804 | 17,666,904 | 2,192,173 | 8,006,128 |
| 1946... | 17,997, 726 | 16,028,900 | 1,968,826 | 52, 523 | 400,981 | 8,603 | 4,707 | 18,441,841 | 1,845,539 | 9,247, 100 |
| 1947... | 18,514,525 | 17,359,796 | 1,154,729 | 51,024 | 401,803 | 8,711 | 4,640 | 18,987, 774 | 1,613,621 | 10,988,591 |
| 1948... | 19,422,788 | 20,292,402 | Dr.869,614 | 50,958 | 405,640 | 9,093 | 4,679 | 19,013, 468 | 1,579,679 | 11,512,194 |
| 1949... | 22, 256,557 | 22,062,943 | 193,614 | 52,535 | 413,759 | 9,555 | 5,288 | 20,063,078 | 1,642,278 | 12,469,348 |
| 1950... | 23, 922, 225 | 22,545,625 | 1,376,600 | 51,999 | 414,943 | 9,757 | 5,277 | 20,477,775 | 1,687, 721 | 12,733, 989 |
| 1951... | $29,128,473$ | 27,807,547 | 1,320,926 | 53,580 | 435,348 | 10,611 | 5,233 | 21, 815, 837 | 1,785, 836 | 16,955,699 |
| 1952... | 33,093, 843 | 31,617, 156 | 1,476,687 | 52,699 | 437,581 | 11,272 | 5,256 | 21,614, 196 | 1,934,433 | 19,514,490 |
| 1953... | 36,920,384 | $33,953,196$ | 2,967,188 | 52,727 | 450,835 | 11,618 | 5,307 | 21,222,706 | 2,042,921 | 21,553,387 |

[^301]Submarine Cables.-Four cable companies operate submarine cables landing in Canada: Cable and Wireless Limited; the Commercial Cable Company; the Western Union Telegraph Company; and the French Telegraph Cable Company. These companies operate to stations in the United Kingdom, Ireland, the United States, Bermuda, Australia, New Zealand, and St. Pierre and Miquelon Islands. The number of cables operating between connected stations and the length of cables are given in the following table.

## 2.-Cable Landings in Canada, 1953

| Company and Station | Cables | Nautical Miles |
| :---: | :---: | :---: |
| Cable and Wireless Limited- | No. | No. |
| Halifax, N.S. to St. John's, N'f'ld. - St. John's, N'f'ld. to Porthcurnow, England | 1 | 2,917 |
| Halifax, N.S. to Horta, Azores-Horta, Azores to Porthcurnow, England. | 1 | 3,281 |
| Bamfield, B.C. to Sydney, Australia. | 1 | 7,851 |
| Bamfield, B.C. to Auckland, New Zealand | 1 | 6,753 |
| Halifax, N.S. to Bermuda. | 1 | 877 |
| Commercial Cable Company- |  |  |
| Canso, N.S. to Waterville, Ireland, via St. John's, N'f'ld. | 2 | 4,502 |
| Canso, N.S. to Far Rockaway, N.Y., U.S.A. | 3 | 2,891 |
| Canso, N.S. to Horta, Fayal, Azores-Horta, Azores to Waterville, Irelan | 2 | 5,873 |
| St. John's, N'f'ld. to Waterville, Ireland | 1 | 1,874 |
| St. John's, N'f'ld. to Far Rockaway, N.Y., U.S.A | 2 | 2,594 |
| Western Union Telegraph Company- |  |  |
| North Sydney, N.S. to St. Pierre and Miquelon Islands | 2 | 396 634 |
| North Sydney, N.S. to Island Cove, N'i'ld | 2 | 634 |
| North Sydney, N.S. to Colinet, N'i'ld. | 1 | ${ }_{1} 323$ |
| Canso, N.S. to Hammel, N.Y., U.S.A. | 1 | $\begin{array}{r}1,594 \\ \hline 573\end{array}$ |
| Canso, N.S. to Duxbury, Mass., U.S | 1 | 254 |
| Canso, N.S. to St. Pierre and Mique | 2 | 253 |
| Hearts Content, N'I'Id. to Valentia, Ireland | 4 | 7,505 |
| Hearts Content, N'f'ld. to Rantem Hut, N'f | 3 | 76 |
| Bay Roberts, N'I'ld. to Penzance, Englan | 4 | 8,419 |
| Bay Roberts, N'f'ld. to Horta, Azores.... | 1 | 1,341 |
| Bay Roberts, N'f'ld. to Hammel, N.Y., U.S.A. | 2 | 2,757 |
| Placentia, N'f'ld. to St. Pierre and Miquelon Islands. | 2 | 249 |
| Islands Cove Hut, N'f'ld. to St. Pierre and Miquelon Islands. | 1 | 130 |
| French Telegraph Cable CompanyCanso, N.S. to St. Pierre and Miquelon Islands. | 1 | 257 |

## Section 2.-Telephones

A brief account of the early development of telephones in Canada is given in the 1934-35 Year Book, p. 781.

Telephony in Canada to-day is moving ahead at a pace matching that of national progress generally. New devices, new systems and new services are being introduced to provide more and better communications. Operator dialing of long-distance calls is an important step towards faster and more accurate continent-wide telephone service. New equipment and methods fit into a long-range program to enable operators to dial calls straight through to distant telephones in Canada or the United States without the assistance of other operators along the route.

One of the new devices playing an increasingly important role in this development is the transistor, a discovery of telephone research. This tiny and amazingly simple electronic amplifier, based on an entirely new principle, can perform efficiently many of the functions of the ordinary vacuum tube and do many other things besides. The transistor's small size, low power consumption and expected long life make it suitable for application to submarine cable, compact military electronic equipment, computers and other devices for which the vacuum tube is not as well suited. In telephony very wide applications of the transistor are in prospect to increase the speed, accuracy and economy of switching equipment.

Telephone circuits to carry the growing volume of intercity traffic and to perform special communications functions are being provided on a scale to equal the development of switching systems. Canada's first microwave radio relay system, capable of carrying many simultaneous telephone conversations as well as television programs, was opened to service early in 1953, reaching from Toronto through Ottawa to Montreal. Extensions of this system are already being engineered and constructed further to improve long-distance telephone service and to extend the scope of television network broadcasting in Canada.

Telephone Systems.-The 2,888 telephone systems operating in 1952 included the three large provincial systems in Manitoba, Saskatchewan and Alberta, and smaller governmental systems in Ontario, Quebec and New Brunswick, together with the system operated by the Federal Department of Transport and the National Parks of Canada, Department of Resources and Development (now Northern Affairs and National Resources). Also included were 23 municipal systems, the largest being operated by the Cities of Edmonton, Fort William, and Port Arthur. Of the 2,269 co-operative telephone companies, 999 were in Saskatchewan, 838 were in Alberta and 204 in Nova Scotia. The largest among the 431 stock companies operating telephone systems in 1952 were the Bell Telephone Company and the British Columbia Telephone Company. Over 64 p.c. of the total telephone investment in Canada belongs to the Bell Telephone Company, and their telephones in Quebec and Ontario constitute 59 p.c. of the total number for Canada.

Telephone Equipment.-During the period 1943-52, there was an increase of $1,660,204$ in the number of telephones in use, representing an advance from $14 \cdot 3$ to $23 \cdot 2$ telephones per 100 population.

Of the $3,352,366$ telephones in Canada in 1952, 2,240,545 or 67 p.c. were operated from automatic switchboards and the remainder from manual switchboards. Automatic switchboards have largely displaced manual switchboards in the principal cities of Canada and are rapidly displacing them in all urban centres.

## 3.-Milages of Pole Line and Wire and Number of Telephones in Use, 1943-52

Nore.-Figures from 1911 are given in the corresponding table of previous Year Books beginning with the 1938 edition.

| Year | Systems | Pole-LineMilage | Milage of Wire | Telephones in Use |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Business | Residential | Rural ${ }^{1}$ | Public Pay | Total | Per 100 Population |
|  | No. | miles | miles | No. | No. | No. | No. | No. | No. |
| 1943.. | 3,187 | 218,702 | 6,057,880 | 484,429 | 901, 228 | 275,202 | 31,303 | 1,692,162 | 14.3 |
| 1944.. | 3,174 | 220,161 | $6,108,070$ | 504,791 | 928,061 | 286,521 | 32,550 | 1,751,923 | 14.6 |
| 1945. | 3,151 | 222,435 | 6,333,761 | 531,697 | 983,074 | 300,757 | 33,266 | 1,848,794 | $15 \cdot 3$ |
| 1946. | 3,114 | 228,983 | 6,770,137 | 585,982 | 1,079,769 | 326,405 | 33,962 | 2,026,118 | 16.5 |
| 1947.... | 3,056 | 232,054 | 7,285,681 | 645,154 | 1,194,840 | 354,779 | 35,824 | 2,230,597 | $17 \cdot 7$ |
| 1948.... | 2,992 | 235,379 | 7,913,068 | 701,869 | 1,328,373 | 383,227 | 38,399 | 2,451,868 | 19.0 |
| 1949.... | 2,971 | 242,147 | 8,725,760 | 762,294 | 1,481,876 | 414,061 | 41,381 | 2,699,612 | 19.9 |
| 1950. | 2,912 | 245,443 | 9,488,467 | 813,352 | 1,611,759 | 447,691 | 44,290 | 2,917,092 | $21 \cdot 1$ |
| 1951.... | 2,904 | 249,638 | 10,330,751 | 864,015 | 1,735,355 | 467, 171 | 47,225 | 3,113,766 | $22 \cdot 2$ |
| 1952.... | 2,888 | 253,420 | 11,265,903 | 920,269 | 1,888,889 | 492,753 | 50,455 | 3,352,366 | $23 \cdot 2$ |

Includes telephones on rural exchange lines and urban exchange lines that have more than four parties.

The density of telephones in the different provinces is influenced by the urbanization of the population because the number of telephones used for business purposes is much greater in cities and towns than in rural areas.

## 4.-Telephones in Use, by Province, 1952


Telephone Finances and Calls Serviced.-The steady increases in capitalization, revenue and expenditure, salaries and wages and number of employees of telephone companies over the ten years 1943-52 are shown in Table 5.

## 5.-Financial Statistics of Telephones, 1943-52

Norg.-Figures from 1911 are given in the corresponding table of previous Year Books beginning with the 1938 edition.

| Year | Capitalization |  | Cost of Property and Equipment | Gross <br> Revenue | Operating Expenses | Net Operating Revenue | Salaries and Wages ${ }^{1.2}$ | Employees ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Capital Stock | Funded Debt |  |  |  |  |  |  |
|  | \$ | \$ | \$ | \$ | \$ | \$ | 5 | No. |
| 1943. | 136,566,967 | 163,430,008 | 393,230,035 | 94,406,757 | 81,894, 162 | 12,512,595 | 33,581,699 | 20,694 |
| 1944... | 137,719,691 | 161,307,878 | 401,862,799 | 101,082,353 | 87,739,283 | 13,343,070 | 37,261, 134 | 21,978 |
| 1945... | 138, 680,893 | 153, 934, 250 | 418,434,346 | 109,899,862 | 96,417,884 | 13,481,978 | 41,830, 117 | 25,599 |
| 1946... | 158,430,612 | 156,099,974 | 454,214,793 | 120,675,038 | 105,750,974 | 14,924,064 | 54,147,432 | 33,170 |
| 1947... | 183,469,710 | 171,810,793 | 521, 183,575 | 134,666,857 | 116,623,149 | 18,043,708 | 66,623,983 | 35,578 |
| 1948... | 194,465,399 | 238,762,614 | 615,941,540 | 150,533,349 | 131,570,434 | 18,962,915 | 77,497,980 | 38,851 |
| 1949. | 229,208, 219 | 280, 736,941 | 716,519,781 | 169,113,048 | 153,066,308 | 16,046,740 | 90,634,477 | 42,326 |
| 1950.. | 274,088,405 | 300,765,453 | 806,826,198 | 198,823,483 | 178, 193,661 | 20,629,822 | 102,093,078 | 45,396 |
| 1951... | 286,003,119 | 360,533,546 | 909,581,399 | 240,762,657 | 213,824,471 | 26,938,186 | 117,677,652 | 47,387 |
| 1952... | 335,575,292 | 435, 249,639 | 1,027,527,807 | 279,001,814 | 244,506,402 | 34,495,412 | 131,370,832 | 48,207 |

${ }^{1}$ Includes salaries and wages charged to capital account. ${ }^{2}$ Excludes rural lines in Saskatchewan.
6.-Financial Statistics of Telephones, by Province, 1952

| Province or Territory | Capital <br> Liability | Cost of Property and <br> Equipment | Gross Revenue | Expenses | Net <br> Income | Salaries and Wages ${ }^{1}$ | $\underset{\text { ployees }}{\text { Em- }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\delta$ | \$ | \$ | \$ | \$ | \$ | No. |
| N'I'ld | 4,300,275 | 5,009,727 | 1,030,401 | 873,059 | 157,342 | 416,643 | 255 |
| P.E.I. | 2,038,818 | 2,925,678 | 759,820 | 691,000 | 68,820 | 307,985 | 176 |
| N.S. | 26,761,451 | 34,945,963 | 8,281,080 | 7,344,208 | 936,872 | 3,829,707 | 1.808 |
| N.B. | 22,886,726 | 29,753,456 | 6,357,419 | 5,730,719 | 626,700 | 3,001,000 | 1,303 |
| Que. | 452,862,789 ${ }^{2}$ | 679,007,138 ${ }^{2}$ | 193.715,3972 | 170,396,625 2 | 23,318,772 | 38,356,758 | 12,671 |
| Ont. | 12,433,165 | 22,367,813 | 7,911,039 | 6,862,584 | 1,048,455 | 53,819,453 | 19,279 |
| Man | 70,689,003 | 61,843,003 | 10,026.570 | 9,938,302 | 88,263 | 6,811,453 | 2,952 |
| Sask. | 54,172,336 | 51,962,580 | 11,584,528 | 9,761,419 | 1,823,109 | 4.219,719 ${ }^{2}$ | 1,628 ${ }^{2}$ |
| Alta. | 51,237,238 | 52,941,663 | 13,678,525 | 9,199,939 | 4,478,586 | 6,138,946 | 2,220 |
| B.C. | 73,378,125 | 86,734,863 | 25.638,571 | 23,691,367 | 1,947,204 | 14,455,505 | 5,912 |
| Yukon. | 65,000 | 30,923 | 18,464 | 17,180 | 1,284 | 13,663 | 3 |
| Totals. | 770,824,931 | 1,027,527,807 | 279,001,814 | 241,506,402 | 34,495,412 | 131,370,832 | 48,207 |

${ }^{1}$ Includes wages charged to expenses and to capital. for Quebec and Ontario are included under Quebec.
${ }^{2}$ Statistics of the Bell Telephone Company ${ }^{2}$ Excludes wages and employees for rural systems.

Telephone Calls.-Table 7 is based on estimates made by systems operating almost 90 p.c. of all telephones in Canada. Actual count of calls on days of normal business was made and after adjustment for incompleted calls, holidays, Sundays, etc., the average was multiplied by 365 . Practically all the long-distance calls were those actually completed.

## 7.-Local and Long-Distance Calls and Average Calls per Telephone and per Capita, 1913-52

Nore.-Figures from 1928 will be found in the corresponding tables of previous Year Books beginning with the 1939 edition.

| Year | Local Calls | LongDistance Calls | Total Calls | Total Calls per Capita ${ }^{1}$ | Average Calls per Telephone |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Local | LongDistance | Total |
|  | No. | No. | No. | No. | No. | No. | No. |
| 1943. | 2,929,446,000 | 50,348,000 | 2,979,794,000 | 253 | 1,731 | 29.8 | 1,761 |
| 1944. | 2,955,975,000 | 56,678,000 | 3,012,653,000 | 252 | 1,687 | $32 \cdot 4$ | 1,719 |
| 1945. | 3,145,492,000 | 64,788,000 | 3,210,280,000 | 266 | 1,701 | 35.0 | 1,736 |
| 1946....... | 3,484,248,000 | 74,757,000 | 3,559,005,000 | 290 | 1,720 | 36.9 | 1,757 |
| 1947. | 3,760,569,000 | 82,695,000 | 3,843,264,000 | 306 | 1,686 | $37 \cdot 1$ | 1,723 |
| 1948...... | 4,025,342,000 | 91,875,000 | 4,117,217,000 | 321 | 1,642 | 37.5 | 1,680 |
| 1949....... | 4,454,024,000 | 105,232,000 | 4,559,256,000 | 339 | 1,650 | $39 \cdot 0$ | 1,689 |
| 1950....... | 4,894,719,000 | 117,892,000 | 5,012,611,000 | 366 | 1,678 | $40 \cdot 4$ | 1,718 |
| 1951....... | 5,146,238,000 | 127,406,000 | 5,273,644,000 | 376 | 1,653 | 40.9 | 1,694 |
| 1952....... | 5,482,973,000 | 126,721,000 | 5,609,694,000 | 389 | 1,635 | 37.8 | 1,673 |

${ }^{1}$ Per capita figures are based on official estimates of population given at p. 137.

## PART III.-RADIO COMMUNICATIONS

In the 1945 Year Book, pp. 644-646, an outline is given of the development of administrative control over radio-communication in Canada. See also p. 914 of this volume.

## Section 1.-Administration*

The administration and regulation of radio-communication in Canada is carried out by the Telecommunications Division of the Department of Transport. The radio activities of the Division may be summarized as follows: (1) the administration of national and international radio laws and regulations and of regional agreements, involving the issuance of radio licences, inspection of radio stations, certification of radio equipment, examination of operators, allocation and monitoring of frequencies, study of radio wave propagation, compilation and settling of international accounts for radio messages, investigation and suppression of inductive interference to radio reception; and (2) construction, maintenance and operation of radio-communication stations and radio aids to marine and air navigation.

National and international radio laws and regulations include: the Canadian Broadcasting Act, the Radio Act and Regulations made thereunder; the International Telecommunication Convention and Radio Regulations annexed thereto; the Inter-American Radiocommunications Convention; the Inter-American Arrangement Concerning Radiocommunications; the North American Regional Broadcasting Agreement; those Articles of the International Civil Aviation Convention applicable to aeronautical radio requirements; the Canada Shipping Act and Radio Regulations for Ship Stations issued thereunder, and that part of the International Convention for the Safety of Life at Sea applicable to radio requirements for ships.

[^302]Licensing and Operation.-In all branches of radio, basic control is exercised over the right to establish a station, assignment of frequencies, operator standards, operating procedure, and general regulations concerning the manner in which radio stations are used.

Under the Broadcasting Act, applications for licences to establish broadcasting stations, or for modification of existing stations, are referred to the Canadian Broadeasting Corporation for its recommendations to the Minister of Transport before being dealt with by the Department of Transport. The Canadian Broadcasting Corporation also controls the linking-up of stations that form networks and, in addition, the character of programs being broadcast. With these exceptions, the control of broadcasting stations is carried out by the Telecommunications Division of the Department of Transport.

The standard broadcast band is crowded with stations that are capable of interfering with one another over the entire North American region, particularly at night. A plan for the accommodation of the largest number of stations with the least interference was evolved as a result of extensive studies conducted by Canada, Cuba, the Dominican Republic, Haiti, the Bahama Islands, Mexico, and the United States and was embodied in the North American Regional Broadcasting Agreement.

Before a new standard broadcasting station can be licensed or before modifications can be made in an existing station, engineering briefs covering the selection or change of frequency, amount of power and design of the directional antenna system must be approved by the Department of Transport and notification sent to the signatory countries of the North American Regional Broadcasting Agreement. After the establishment or change is completed, proof of performance must be submitted to establish that the actual installation is in accordance with the approved plan.

The allocation of high frequencies and their efficient utilization requires reasonably accurate information on the transmission properties of the ionosphere which vary with the season, the sunspot eycle and other factors. This information is obtained from hourly measurements of the ionosphere made at some 70 points throughout the world and analysed by the Radio Physics Laboratory, Defence Research Board, Ottawa, and by the United States Bureau of Standards at Washington, D.C. The Canadian measurement stations are located at St. John's, N'f'ld.; Resolute Bay, Cornwallis Island, and Baker Lake, N.W.T.; Fort Chimo, Que.; Churchill and Headingley, Man.; Ottawa, Ont.; and Prince Rupert, B.C. Data from these stations are correlated by the Defence Research Board. Six frequency monitoring stations are maintained at suitable points across Canada to check operating frequencies of all classes of radio stations to ensure that they do not depart from the assigned frequency by an amount greater than that permitted by the international conventions.

Under the Safety of Life at Sea Convention and the Canada Shipping Act, most passenger ships and larger cargo ships must be fitted with radiotelegraph or radiotelephone equipment, primarily for distress use. Approval is given for each make and model of equipment that comes up to the required standard and, in addition, the ship station as a whole is inspected before the licence is issued and periodically thereafter. Foreign ships are subject to inspection before sailing from Canadian ports to ensure that they conform with the requirements of the Safety of Life at Sea Convention.

Analogous inspections of aircraft radio stations are carried out. Standards are provided specifying in detail the requirements to be met to ensure an airworthy installation. A certificate of airworthiness is granted to manufacturers for each type or model of aircraft radio equipment that has been demonstrated to meet the requirements. Only type-certificated equipment is accepted for use on scheduled airlines, though other equipment, if inspected, is acceptable for other aircraft.

Marine and aeronautical radio operator standards and related regulations are covered by international agreement. The International Telecommunication Convention prescribes the qualifications for radio operators on mobile stations and the Radio Act provides that all operators, both commercial and amateur, must pass examinations to prove their ability to operate the respective classes of stations on which they are engaged. Competent operators are required on all classes of stations in order that the technical requirements prescribed under international agreement be closely adhered to and are particularly essential on ships and aircraft stations in the interests of safety of life.

Investigation and Suppression of Inductive Interference.-Under the Broadcasting Act, the use of electrical equipment that will produce harmful interference to broadcast reception is not permitted. The Telecommunications Division of the Department of Transport maintains 54 cars equipped for measuring and locating sources of interference to broadcast reception. In addition to locating the sources of interference, advice is given as to how it can be suppressed or eliminated. These cars operate from the permanent Radio Inspection Offices located in 25 cities throughout Canada.
1.-Investigations of Inductive Interference, Years Ended Mar. 31, 1950-53

| Item |  |  |
| ---: | ---: | ---: | ---: | ---: |

Industrial, scientific and medical apparatus is brought under strict control, in accordance with Regulations for Controlling Radio Interference and under the authority of Section 23 of the Canadian Broadcasting Act. Regulations require that radiation from such apparatus, which is liable to cause interference to radiocommunications, must be suppressed either by shielding or by replacing the apparatus with a non-interfering type. The Department of Transport conducts type-tests on diathermy and industrial heating apparatus submitted by manufacturers, and the types that fulfil the requirements of the Department are listed as noninterfering. The radiation from all such sources on communication frequencies must not exceed the tolerances specified by the Canadian Standards Association.

Radio Revenue.-Regulations concerning the rendering and settlement of international accounts are contained in the International Telecommunication Convention and Regulations. Sources of revenue include commercial ship and interstation messages handled by Departmental ships and land stations, radiotelegrams exchanged by foreign ships through Canadian coast stations, private commercial traffic via Departmental airway radio stations, and radio services rendered to aircraft of private airline companies by such stations. The volume of messages and words handled during the year ended Mar. 31, 1951, and the revenue therefrom, together with revenue from licence fees, examination fees, fines and forfeitures, rentals, etc., are given in Table 2.

## 2.-Messages and Words Handled and Revenue Collected by the Department of Transport, Year Ended Mar. 31, 1954

| Item | Messages | Words | Revenue |
| :---: | :---: | :---: | :---: |
| Marine | No. | No. | \$ |
| East Coast. | 389,510 | 11,505,369 | 100,245 |
| Great Lakes | 64,343 | 1,164,748 | 26,685 |
| West Coast. | 467,039 | 14,933,504 | 94,197 |
| Hudson Bay and Straits | 178,437 | 10,965,950 | 5,906 |
| Premium revenue..... | ... | ... | 23,121 |
| Airways- |  |  |  |
| Private, commercial and airline messages.............. | $\cdots$ | . | 34,665 |
| Radio service to airline companies..................... |  |  | 396, 2838 |
| Telephone service..................................... | . | . | 634 |
| Totals, Marine and Airways. | 1,099,379 | 38,569,571 | 681,741 |
|  |  |  |  |
| Other Radio Revenue-Examination fees-Radiotelegraph Operators' |  |  | $\begin{aligned} & 1,574 \\ & 1,828 \end{aligned}$ |
| Licence Fees- |  |  |  |
| LicenceAircraft stationsAmateur experimental station |  |  | 13,033 |
|  |  |  | 17,415 |
| Private commercial stations.Public commercial stations. |  |  | 74,195 |
|  |  |  | 11,190 |
| Ship stations............... |  |  | 35,468 |
| Miscellaneous. |  |  | 1,526 |
| Mess Receipto-Radio Aviatio |  |  | 3,006 |
| Publications. |  |  |  |
| Pefunds on previous year's expendi |  |  | 11,508 |
| Rentals (Communication Fscilities). |  |  | 3,181 |
| ${ }_{\text {Living }}$ Spaarters. control lines and powe |  |  | 144, 373 |
|  |  |  | 23,202 |
| Transmission line privileges |  |  | 218 |
|  |  |  | 1,700 |
| Sundry sales and services. |  |  | 444 |
| Miscellaneous. |  |  | 310 |
| Total, Other Radio Rerenue. |  |  | 354,762 |
| Grand Total, Radio Revenue ${ }^{1, \ldots, 3}$ |  |  | 1,036,503 |
| Revenue from radio receiving and private broadcasting station licences, etc. ${ }^{2}$, ${ }^{\text {a }}$. |  |  | 379,368 |

[^303]
## Section 2.-Total Radio Stations and Radio Services

The total number of radio stations in operation in Canada and on ships and aircraft registered therein are shown by classes in Table 3. Of these stations, 642 were operated by the Department of Transport. The Department of National Defence, in addition to stations established for military purposes, operated 11 permanent stations and two summer stations, situated along the Mackenzie River and in Yukon Territory, on behalf of the Department of Northern Affairs and National Resources. The Department operated 113 stations to provide communication and time-signal service for survey parties and for the protection and administration of National Parks. The Department of Public Works operated six stations, the Department of Agriculture five stations, the Department of National Health and Welfare 12 stations, the Department of National Revenue two stations, the Department of Citizenship and Immigration four stations, the Department of Fisheries nine stations, the Department of Mines and Technical Surveys 61 stations, the Royal Canadian Mounted Police 902 stations, and the National Research Council 17 stations, 16 of which were experimental.

Stations operated by the Canadian Broadcasting Corporation numbered 140 and those by private owners, 187.
3.-Radio Stations in Operation, by Class, as at Mar. 31, 1954

| Class | No. | Class | No. |
| :---: | :---: | :---: | :---: |
| Department of Transport Stations- |  | Other Stations - |  |
| Coast stations. | 51 | Ship stations (class A)................ | 3,768 |
| Radio-beacon station | 73 | Ship stations (class B-receiving only)... | 19 |
| Radio links. | 8 | Limited coast stations.................. | 18 |
| Radiotelephone stations | 2 | Aircraft stations. | 1,415 |
| Lighthouse radiotelephone stations | 170 | Public commercial stations............ | 193 |
| Canal radiotelephone stations . | 5 | Private commercial stations.......... Municipal services stations.......... | 10.721 304 |
| Ionosphere stations | 9 | Private commercial broadcasting sta- |  |
| H.F. direction finding st | 1 | tions (sound)- |  |
| Monitoring stations. | 6 | Operated by the Canadian Broad- |  |
| Land stations. | 1 | casting Corporation.. | 1063 |
| Ship stations (class A) | 40 | Operated by private owners.......... | 183 |
| Aircraft stations...... | ${ }^{27}$ | Private commercial broadcasting sta- |  |
| Radio range stations................... | 941 | tions (television)- |  |
| Combined radio range, and aeronautical communications stations | 55 | Operated by the Canadian Broadcasting Corporation | 5 |
| Combined aeronautical radiobeacon and communications stations. | 3 | Operated by private owners.......... Technical or training schools.......... | 4 9 |
| Instrument landing installations........ | 25 | Experimental stations....... | 210 |
| Aeronautical radiobeacons............ | 19 | Commercial receiving stations | 362 |
| Aeronautical communications stations.. | 32 | Commercial receiving stations (special). | 11 |
| Fan marker stations | 11 | Amateur experimental stations.......... | 6,968 |
| Weather reportin |  |  | 24,938 |

[^304]The Canadian Overseas Telecommunication Corporation.-By virtue of the Canadian Overseas Telecommunication Corporation Act which came into force on Jan. 1, 1950 (R.S.C. 1952, c. 42), the Canadian Overseas Telecommunication Corporation was established to acquire, maintain and operate the external telecommunication facilities in Canada of Cable and Wireless Limited and the Canadian Marconi Company Limited. The Corporation consists of five Directors, one of whom is also the President and General Manager of the Corporation.

By proclamation in the Canada Gazette of June 7, 1950, the said facilities of Cable and Wireless Limited and of the Canadian Marconi Company Limited were expropriated and, since that date, the Corporation has been successfully operating and maintaining these external telecommunication facilities in Canada. On May 1, 1952, a final settlement mas made with respect to the acquisition of the physical assets at a total cost of $\$ 3,143,781$. These physical assets include Headquarters established at Montreal, Que., overseas cable stations at Bamfield, B.C., Halifax, N.S., and Harbour Grace, N'f'ld., and wireless transmitting and receiving stations at Drummondville and Yamachiche, Que., respectively. The Corporation has since constructed a cable station at St. John's, N'f'ld.

The purposes of the Corporation are:-
(a) to establish, maintain and operate in Canada and elsewhere external telecommunication services for the conduct of public communications;
(b) to carry on the business of public communications by cable, radiotelegraph, radiotelephone or any other means of telecommunication between Canada and any other place and between Newfoundland and any other part of Canada;
(c) to make use of all developments in cable and radio transmission or reception for external telecommunication purposes as related to public communication services;
(d) to conduct investigations and researches with the object of improving the efficiency of telecommunication services generally; and
(e) to co-ordinate Canada's external telecommunication services with the telecommunication services of other parts of the Commonwealth.
The Avalon Telephone Company operates public commercial stations in Newfoundland to supplement its wire lines and to provide telephonic communication with isolated communities.

The Manitoba Telephone System operates radiotelephone links involving stations at the following points: Riverton, Manigotagan, Hecla Island, Gimli, Norway House, Bissett, Great Falls, The Pas, Snow Lake and Winnipeg, Man. In addition, the Manitoba Telephone System operates stations at Gimli, The Pas and Norway House, Man., to provide terminal service for ships operating on Lake Winnipeg.

Norwesto Communications Limited operates a public commercial radiotelephone service consisting of stations located at Kenora, Red Lake, Ball Lake, Sioux Narrows, Dryden, Sioux Lookout, Minaki and Redditt, which are used in conjunction with the ordinary telephone exchanges to provide telephonic communication to privately owned stations at isolated points throughout the northwestern part of the Province of Ontario.

The Red Lake Telephone Company operates a public commercial radiotelephone station at Madsen, Ont., to provide a connection between the local wire telephone system and the Norwesto Communications Limited network.

The Okanagan Telephone Company operates a public radiotelephone service between Revelstoke and Arrowhead, B.C., and a public commercial terminal station at Kelowna to provide telephonic communication to privately owned stations at isolated points in the Kelowna area.

Provincial Government Services.-Provincial authorities use radio services in many Departments. Table 4 shows the number of stations operated by the Provincial Governments.

## 4.-Radiocommunication Stations Operated by Provincial Governments, as at Mar. 31, 1954

| Province | Stations | Province | Stations |
| :---: | :---: | :---: | :---: |
|  | No. |  | No. |
| Newfoundland. | 28 | Manitoba. | 212 |
| Nova Scotia.. | 16 | Saskatchewan | 435 |
| New Brunswick | 30 | Alberta...... | 253 |
| Quebec. | + 318 | British Columbia | 692 |
| Ontario. |  | Total. | 3,129 |

Other Radiocommunication Services.-Radiotelegraphy and radiotelephony are used throughout Canada to provide means of maintaining contact with isolated points beyond the reach of the regular telegraph and telephone facilities.

Municipal government departments have steadily increased their use of radio to facilitate operations. This increase is noted in all categories of municipal services using radio as a medium of communication with vehicles, i.e., police, fire, engineering, hydro, etc. In addition, the trend toward expansion in the employment of radio for urban land mobile communication has continued and has shown no signs of abating. Such services as taxi, heavy construction, ready-mix concrete, oil pipeline construction and operation, veterinarian and rural medical have participated extensively in this increase. Public mobile radio relay message services (telephone answering service) have also been licensed to operate in a number of cities including Montreal, Toronto and Edmonton.

Public utilities, power companies, provincial power commissions, oil exploration and mineral development organizations have considerably expanded their use of radio in both urban mobile and point-to-point radio fields.

Commercial air-carrier organizations including those performing off-route charter services were licensed to operate 460 ground communications stations, 30 navigational aids stations and 516 aircraft stations. A relatively large number of licences were also issued to individuals, manufacturers, mining and oil companies, and others, to authorize the operation of aircraft stations and associated ground stations in conjunction with normal business activities.

A total of 2,460 ground stations and 1,415 aircraft stations were operated by commercial air-carrier organizations, individuals and business concerns during the year ended Mar. 31, 1954.

Commercial Point-to-Point Radiotelephone Services.-The North-West Telephone Company operates a radiotelephone service between points in British Columbia not hitherto served by telephone communications. Under licences granted by the Department of Transport, the Company has established a number of permanent public commercial radiotelephone stations in that Province. These stations are authorized to provide communication to private commercial radiotelephone stations located at isolated points in the Province. This Company is also licensed to establish limited coast stations at Lulu Island, Powell River, Vancouver, Nanaimo, Victoria, Harrison Lake, Parksville, Alert Bay, Campbell River, Hardwicke Island, Halberg, Sumas Mountain, and Prince Rupert, B.C., to provide
as ship-to-shore service. These stations, used in conjunction with the ordinary telephone exchange, provide a duplex-radiotelephone service to isolated points and to certain ships at sea, and also provide a limited amount of service to stations of the land mobile category.

The North-West Telephone Company is also licensed to provide emergency radiotelephone communication at any point in British Columbia and to carry out tests for extending the existing radiotelephone service throughout the Province.

To provide trans-river communication in the lower St. Lawrence area, the following companies operate stations in the Province of Quebec at La Malbaie, Tadoussac, Rivière-du-Loup, Rimouski, Matane, Montmagny, St. Antoine, Ile aux Grues, Cap Chat, Forestville, Trinity Bay, Seven Islands, Baie Comeau, Clarke City, Gaspé Copper Mines, Mont Louis, Chicoutimi, and Tour à Pica: La Compagnie de Téléphone de Charlevoix et Saguenay, La Compagaie de Téléphone de Kamouraska, the Quebec Telephone Corporation, Gulf of St. Lawrence Telephone Company and La Compagnie du Téléphone Saguenay, Que.

The wireline facilities between Saint John, N.B., and Digby, N.S., between Saint John, N.B., and Halifax, N.S., between Red Head, N.B., and Mount Hanley, N.S., between Lutz Mountain (Moncton), N.B., and Egmont, P.E.I., and between Charlottetown, P.E.I., and New Glasgow, N.S., are supplemented by radiotelephone lines.

The stations at Saint John, Red Head, and Lutz Mountain (Moncton), are operated by the New Brunswick Telephone Company. The terminals at Digby, Halifax, New Glasgow and Mount Hanley are operated by the Maritime Telephone and Telegraph Company. The stations at Charlottetown and Egmont are operated by the Island Telephone Company.

The Bell Telephone Company of Canada provides a land mobile terminal radiotelephone service at numerous points in Ontario and operates a microwave link between Toronto and Ottawa, Ont., and Montreal, Que., which carries television programs and is capable of providing many additional telephone circuits. Radio links are also maintained between Pelee Island and Leamington, Ont., and across the St. Lawrence between Sorel and Joliette, Que.

The Canadian National Railway Company operates an extensive radiotelegraph and radiotelephone service in Newfoundland including links between Table Mountain, N'f'ld., Cape North, N.S., and New Waterford, N.S. This Company is also authorized to provide a limited coast-station service at Port aux Basques, N'f'ld.

The Canadian National Railway Company and the Canadian Pacific Railway Company are jointly establishing microwave circuits between Toronto and Windsor and between Montreal and Quebec City.

Radio Aids to Navigation.-Marine Radio Stations.-Detailed information covering all marine radio aids to navigation is contained in the annual publication, Radio Aids to Marine Navigation which, along with the supplementary Votices to Mariners may be obtained upon request from the Department of Transport, Ottawa.

Coast Radio Stations.-The primary purpose of the coast radio station organization is to provide radiocommunication facilities whereby any ship within 500 miles of Canada's coast may establish communication with shore. Information is broadcast daily to navigators at advertised hours. In addition, urgent information such as hurricane warnings is broadcast immediately upon receipt.

Coast stations CFH Halifax and CKN Vancouver, operated jointly by the Department of Transport and the Royal Canadian Navy, participate in the British Commonwealth scheme for providing long-range communication with ships.

Coast Radio Direction Finding Service.-A direction finding service is established to enable ships to obtain-without charge-a line of bearing from the Direction Finding station.

Radio-beacon Service.-Radio beacons are established for the purpose of enabling any ship or aircraft equipped with a direction finder to determine its bearing or direction in relation to the radio-beacon station.

Generally speaking, in clear weather, each station transmits, at advertised hours, its characteristic signal for three periods of one minute separated by silent intervals of two minutes. In fog, all stations operate continuously, maintaining a uniform time cycle of three minutes, each station transmitting in its proper sequence for one minute separated by silent intervals of two minutes. At certain stations the radio-beacon signals are synchronized with the emissions of the fog alarms to permit distance finding during foggy weather.

In addition to the above radio-beacon facilities, ships equipped with direction finding apparatus may, upon request, obtain signals for the purpose of taking bearings from any of the coast stations.

Loran Stations.-Loran (long-range aid to navigation) is a system of position finding based on the difference in the time arrival of pulse-type radio signals transmitted from a pair of stations. This time difference is measured on a Loran receiver and is used in conjunction with specially prepared charts or tables to establish a line of position. The intersection of two or more lines of position determined from two or more pairs of stations provides the required position.

Medical Advice to Ships at Sea.-Ships at sea may obtain medical advice from any coast station. The messages are delivered to the port medical officer of the Department of National Health and Welfare and replies are transmitted to the ship free of charge.

Assistance Rendered by Radio to Vessels in Emergency.-Coast stations have many time, given valuable assistance to vessels in danger and a great many of the smaller ships are being fitted with radio to avail themselves of this service.

Aids to Air Navigation.-Radio aids to air navigation are provided from coast to coast and from the United States border to the Arctic along the airways used by the many Canadian airlines, United States airlines flying over Canadian territory, and Canadian and United States military aircraft. To construct and maintain these many facilities, specially trained engineers and technicians are located at six district offices: Moncton, N.B.; Montreal, Que.; Toronto, Ont.; Winnipeg, Man. Edmonton, Alta.; and Vancouver, B.C.

Radio Ranges.-The principal radio aid to air navigation provided by the Department of Transport is the radio range. These stations, located approximately every 100 miles along airways, provide specific track guidance to pilots by means of audible signals. The signals may also be used for the purpose of obtaining direction finding bearings from the aircraft. In addition, radiotelephone communications are provided between the ground and aircraft by means of which pilots may obtain weather and other information concerning the safety of flight. There
are now 94 stations in operation, a new range having been commissioned at Nanaimo, B.C. Work is continuing on the establishment of additional radio ranges to serve the airports at Terrace, B.C., and Sudbury, Ont.

Radio Beacons.-These stations provide radio signals with which pilots may use their direction finding equipment to obtain relative directional bearings to assist in the navigation of their aircraft. Nineteen are now in operation, new ones having been established at Hope, B.C., Mill Bay, B.C., and Lloydminster, Sask. Radio beacons at Prince Albert and Embarras are equipped with radiotelephone facilities to provide communications to and from aircraft. Construction is proceeding of a beacon at Eon, Que., to replace the Mecantina radio range destroyed by fire in the summer of 1952. Additional radio beacons at Terrace, Kitimat, and Alert Bay in British Columbia, and at Beaverlodge, Sask., are in various stages of planning or construction. The beacon at Greata, B.C., was moved to Naramata, B.C.

Fan Markers.-These facilities, operating on very high frequencies, indicate to a pilot when he is directly overhead. Normally, they are placed on an airway to inform the pilot when he may safely lose altitude after passing high terrain or to indicate accurately the distance from an airport. Eleven of these stations are now in operation. The fan marker at Greata, B.C., was moved across Okanagan Lake to Naramata, B.C.

Station Location Markers.-These facilities are similar to fan markers except that the signal radiated is such that aircraft may receive the same indication irrespective of the direction of flight. They are installed at the same location as a radio range to enable a pilot to determine when he is exactly over the station, thus obtaining definite indication of position. Station location markers are installed at all radio range sites except Killaloe, Ont.

Direction Finding Stations.-A high frequency direction finding station for determining the bearing of aircraft from the station is in operation at Cape Harrison, N'f'ld.

Instrument Landing Systems.-Instrument Landing Systems provide radio signals which, when received by special radio equipment aboard aircraft, permit pilots to approach airports for landing during periods of very low visibility. An installation normally consists of a localizer transmitter providing lateral guidance to the runway, a glide path transmitter providing slope guidance to the approach end of the runway, two marker transmitters providing distance indications from the runway at approximately four and one-half miles and $3,500 \mathrm{ft}$. from the runway, and a low-power radio beacon (compass locator) to assist in holding procedures and lining up on the localizer course. The localizer and marker transmitters operate on very high frequencies, the glide path on ultra high frequencies and the compass locators on low and medium frequencies. Twenty-five instrument landing systems are now in operation, a new installation having been completed at Patricia Bay, B.C. The system under construction to serve Runway 26 at Patricia Bay airport has a localizer differing from those normally used in that it is highly directive, having only a front course, and is so controlled that clearance indication is shown only $10^{\circ}$ on either side of the centre of the on-course signal.

Aeronautical Communication Stations.-To assist in providing the required communication between aircraft and the ground, 32 radio stations, operating for the most part on high frequencies, are located at strategic points across the country and into the Arctic. These stations provide communication to both domestic and
international air carriers. The international communications stations at Vancouver, B.C., Montreal, Que., Moncton, N.B., and at Goose and Gander, N'f'ld., form a major contribution on the part of Canada to international aviation. Two international stations, at Sydney and Yarmouth, N.S., provide very high frequency coverage to international airlines flying the Gander-New York route. The services provided by these international stations may be divided broadly into three classes: (1) communication facilities for Meteorological Services ;(2) communication facilities for the Air Traffic Control Services; and (3) facilities for the benefit of the airline operating agencies to provide communication with their aircraft and between their despatch offices.

Because Class 3 is provided solely for the convenience of the airline operating agencies, a system of charges has been introduced to recover from the airlines the cost of providing this portion of the service. The charge is $\$ 13$ per aircraft per oceanic crossing. Revenue for the year ended Mar. 31, 1954, was approximately $\$ 227,000$.

Very High Frequency Communications.-Owing to the overcrowded conditions of the high frequency portion of the radio spectrum and to the fact that communication in the very high frequency portion of the spectrum is relatively free from atmospheric interference, progress is being made in providing air-ground communications on the latter frequencies. Very high frequency air-ground communication facilities are now provided at 93 range stations, 2 radio-beacon stations, 7 air traffic control centres, and all 21 airport control towers. Very high frequency equipment has been provided also in all control towers and in a large number of airport vehicles to facilitate direction to traffic on the airport surface.

Weather Reporting Stations.-Weather reporting stations are located at strategic points throughout the country from coast to coast and into the Far North. Reports from these stations enable meteorological personnel to forecast weather trends that are of great importance to both domestic and transoceanic flying operations. Some of these stations are located in remote areas with which radio is the only means of communication. Radio stations are established in such areas to enable the weather reports to be rapidly forwarded to meteorological offices where the data are correlated. Four such communications stations are located at Dease Lake, B.C., Nitchequon and Indian House Lake, Que., and Coppermine, N.W.T.

Marine Communications.-Two coast stations operating on both medium and high frequencies are maintained in conjunction with the aeronautical stations at Seven Islands, Que., and Goose, N'f'ld., for the exchange of communications between ships and the shore. Communications are conducted by both radiotelegraph and radiotelephone. The station at Frobisher, N.W.T., provides radiotelephone facilities on high frequencies only.

Improvements in Radio Aids to Air Navigation.-The Montreal to Windsor airway is being equipped with VHF omnidirectional ranges. This type of facility enables the pilot in the aircraft to select, at will, his desired course. These stations operate in the very high frequency band between the portion reserved for the ILS localizers and that portion used for very high frequency. A contract has been let for a radar ground-controlled approach system for Gander, N'f'ld., airport. Work on the design of buildings, towers and underground cable system is continuing.

Wireline Services.-The Airway Traffic Control interphone system was expanded to satisfy requirements stemming from an increasing volume of both civil and military air operations. Telecommunications Division teletype circuits were
revised to facilitate the handling of air operational traffic. Additional local teletype, telephone and control-line facilities were engaged to meet new and increased requirements of the Branch. Major revisions to and repair of various governmentowned control lines were undertaken.

Other Communication Facilities.-Public address systems are provided at Air Terminal Buildings. Co-ordination of various wireline service requirements was undertaken. Existing systems, such as pneumatic tube facilities, were analysed and evaluated. A National Weatherfax System to be used for transmitting weather data in the form of maps by wire line and radio to designated stations across the country was commissioned.

## Section 3.-The Canadian Broadcasting Corporation

The history of the Canadian Broadcasting Corporation is given in the 1947 Year Book, pp. 737-740. The Corporation operates under authority of the Canadian Broadcasting Act (R.S.C. 1952, c. 32) and is headed by a Board of 11 Governors, appointed by the Governor in Council and chosen to give representation to the principal geographical divisions of Canada. The Chairman is required to devote the whole of his time to performance of his duties under the Act. The Board determines and supervises policy, but day-to-day operations and executive direction are the responsibility of the General Manager. The CBC is organized in the following divisions: Program, International Service, Engineering, Commercial, Press and Information, Broadcast Regulations, Station Relations, Personnel and Administration, and Treasury.

Under the Canadian Broadcasting Act, the CBC is responsible for regulations controlling the establishment of networks and the proportion of time that may be devoted to advertising in broadcast programs. The CBC neither exercises, nor authorizes any private station to exercise on its behalf, censorship of any broadcast program. The responsibility of having the regulations observed rests with the individual station management.

Frequency Modulation.-The development of frequency modulation is given in the 1948-49 Year Book, p. 773. On Apr. 1, 1954, there were five CBC and 29 privately owned frequency modulation stations in operation.

Television.-Regular CBC television broadcasting was begun from Toronto (CBLT) and Montreal (CBFT) in September 1952, with a program schedule of about 18 hours a week. By July 1954, the schedule averaged 50 hours a week of all types of television programs. At the same time the number of CBC stations in operation was increased to six-CBUT Vancouver, CBWT Winnipeg, CBLT Toronto, CBOT Ottawa, CBFT and CBMT Montreal. Two more CBC television outlets-one in Halifax and a French-language outlet for Ottawa-are under construction.

Twenty cities across Canada have been recommended for private television operating licences, and five private stations were on the air in July 1954. At the same time, Canadian television service had reached 60 p.c. of the population of Canada through CBC and privately owned affiliates. This represents the fastest growth in TV population coverage in the world. When the stations now projected are completed, more than 70 p.c. of all Canadians will be within reach of the national television system.

Although the linking of all Canadian television stations from coast to coast for instantaneous telecasting of programs may take several years because of the distances and difficult terrain involved, microwave facilities had reached London, Ont., on the west, and Quebec City on the east by July 1954.

As gauged by TV sets in use the advent of Canadian television has brought extensive developments in the electronics industry. When CBC television began in September 1952, 146,000 television sets were in use in Canada. One year later that number had tripled and by July 1954 more than 800,000 receivers were in use in Canadian homes.

In the year ended Mar. 31, 1954, CBC television spent $\$ 1,322,000$ on Canadian talent for live Canadian TV production. In addition, more than $\$ 181,000$ was paid to writers and for the rights to plays. Music copying and music rights accounted for another $\$ 38,000$.

Television Program Service.-A total of 7,890 hours of television programs were presented over the five CBC television stations operating during the year ended Mar. 31, 1954. CBLT in Toronto made available to its viewers a total of 2,788 hours, with CBFT presenting 1,931 hours, CBOT 2,117 hours, CBUT (which started in December 1953) 563 hours, and CBMT (the English-language outlet in Montreal which began operation in January 1954) 490 hours. Until CBMT commenced operation, CBFT in Montreal provided a separate service for its French and its English viewers and, in addition, made available a number of programs suitable to both.

Dealing with the stations in this same order, of the total hours broadcast, nature of the programs was 77.9 p.c. sustaining for Toronto, 71.5 p.c. for Montreal, 76.9 p.c. for Ottawa, $67 \cdot 1$ p.c. for Vancouver, and $48 \cdot 9$ p.c. for Montreal's Englishlanguage outlet. The balance of their schedules was taken up with commercially sponsored programs.

Radio Broadcasting Facilities.--Under Section 24 of the Canadian Broadcasting Act, the CBC is required to review all applications for licences for new stations, applications for increases in power and for changes in frequency or location. Two considerations are involved: (1) there must be non-interference with the present and proposed facilities of the CBC, and (2) that high-power transmission facilities, on both long-wave and short-wave bands, are reserved for use by the CBC. Within these limitations, it is the policy of the Board to serve community interests by giving every practical encouragement and assistance to local stations.

The CBC operates three networks: the Trans-Canada and Dominion networks serving English-language audiences from the Atlantic to the Pacific, and the Frenchlanguage network extending from the new CBC station in Moncton, N.B., to Edmonton, Alta.

The Trans-Canada network is made up of 25 basic stations- 12 CBC-owned and 13 privately owned. There are 17 supplementary stations, four of which are CBC-owned Newfoundland stations. The Dominion network consists of 31 basic stations, of which 30 are privately owned. Nineteen supplementary privately owned stations also receive Dominion network service. The French network has five basic stations, four of which are CBC-owned and one privately owned, and 18 privately owned affiliated supplementary stations.

In 1954, the CBC had 21 stations, eight of which had 50,000 -watt transmitters. In order to present programs at suitable times and to give expression to varying interests in the six regions, the CBC maintains regional offices. Production facilities
are maintained at St. John's, N'f'ld., Sydney and Halifax, N.S., Moncton, N.B., Chicoutimi, Quebec City, and Montreal, Que., Ottawa, Toronto, and Windsor, Ont., Winnipeg, Man., Regina, Sask., Edmonton, Alta., and Vancouver and Prince Rupert, B.C.

## 5.-Broadcasting Stations of CBC Networks, as at Apr. 1, 1954

Nors.-The stations marked with an asterisk (*) are CBC-owned.


CBC International Service (Shortwave).-The International Service, inaugurated on Feb. 25, 1945, is operated by the CBC on behalf of the Government of Canada. Its principal aims are to tell the people of other countries about life in Canada and to help to unify the western world in the defence of freedom.

The International_Service has been growing over the years to meet the requirements of Canada's expanding interest and influence abroad. The two 50,000 -watt transmitters at Sackville, N.B., are linked by approximately 600 miles of land lines to the studios and the program headquarters of the service in the Radio Canada Building at Montreal. Programs are broadcast daily in 16 languages-English, French, Dutch, German, Italian, Danish, Swedish, Norwegian, Finnish, Spanish, Portuguese, Czech, Slovak, Russian, Ukrainian, and Polish. In addition, regular programs are prepared on tapes and discs for relay over the radio broadcasting facilities of Austria and Greece. The excellent technical facilities of the CBC International Service assure a signal in Europe which compares very favourably with any other from the North American Continent. The International Service has succeeded in reaching increasingly large audiences in Europe, Central and South America, the Caribbean, the South Pacific area and the far reaches of the North American Continent.

More than 30,000 letters involving over 55,000 items of information are received yearly from listeners in all parts of the world, attesting to the strength of the International Service signal and to a wide interest in Canada and Canadian radio programs. These inquiries are answered by the language sections or are referred to the departments of government concerned. Technical ?reception ${ }_{2}^{154}$ reports are also verified.

Each month the International Service mails a monthly program schedule to listeners in Europe and Latin America. These schedules, in the form of illustrated booklets, contain program notes, times and frequencies, and also touch on some aspect of Canadian life. There are two editions-one for Europe and one for Latin America. They are printed in the languages of the countries to which they are sent and are mailed free on written request. Both editions together have a circulation of almost 150,000 .

In addition to broadcasting Canadian programs for more than 16 hours daily, the International Service has developed a liaison with broadcasting organizations in other countries. As a result, an increasing number of programs are relayed over the national networks of many lands, thus assuring an even wider audience for the International Service programs.

Two operations deserve special mention-the Canadian Forces Broadcast Services and the Music Transcription Service.

The International Service, in co-operation with the National Service of the CBC and the Department of National Defence provides a regular program service on tape amounting to 180 hours of material each week. This tape service is made available to Canadian Armed Forces radio stations in Korea, Japan, England, France and Germany. It also goes to Royal Canadian Navy ships operating in the North Atlantic and in Far Eastern waters. A regular tape program service is also provided to National Defence radio stations in the Yukon and Northwest Territories and in Labrador, N'f'ld. News and news features are transmitted daily in both English and French by shortwave through Radio Australia to the Far East, to the European theatre and to the northern outposts of Canada; the last-named serves both Armed Services personnel and civilians outside the range of other broadcasting services.

The music transcription service was started several years ago and now features over 100 programs of 15 - and 30 -minutes duration. It covers a wide range of material from classical to popular music, including Canadian folk songs. This music transcription service on dises is distributed to national radio organizations and to Canadian Missions abroad. It is currently being used in about 85 countries throughout the world.

Domestic Program Service.-During the year ended Mar. 31, 1951, 67,960 programs representing 22,041 hours of broadcasting were presented over the CBC Trans-Canada, Dominion, and French networks. Of the total broadcasting hours, $83 \cdot 1$ p.c. were devoted to non-commercial and public service programs and the remainder to commercial presentations. Of the total broadcasting hours in 1953-54, $64 \cdot 7$ p.c. was scheduled on the Trans-Canada network; the Dominion network released $9-1$ p.c. and the remainder was released on the French network.

The CBC originated and produced 89 p.c. of its network broadcasts. Of the remainder, $1 \cdot 6$ p.c. came from private stations and $9 \cdot 4$ p.c. were exchange programs from the United States and the British Broadcasting Corporation. Various categories of light music made up the greatest number of broadcast hours, followed in order by drama and feature, news, classical music, talks, variety, agricultural programs, women's programs, semi-classical music, educational broadcasts, children's programs, religious periods, dance music, sports programs, old-time music, symphony music, band music, sacred music, prose and poetry, and opera. Table 6 shows the proportion of time devoted to sustaining programs as compared with commercial programs in radio and analyses those made up of music as compared with the spoken word. The figures are based on the number of programs presented on the CBC's three radio networks as live programs, recorded programs, or programs that were recorded earlier for later presentation. They do not include any program that was repeated to any section of the networks. Actually, there were 11,447 programs representing 4,304 hours repeated at various times and to various sections of the networks. In this way, the figures in Table 6 differ from those presented in previous editions of the Canada Year Book.

## 6.-Classification of CBC Radio Programs, Year Ended Mar. 31, 1954

Nors.-Dashes in this table indicate that no programs were reported under these particular items. Figures do not includeany program repeated to any section of CBC networks. See text immediately preceding.

| Class of Program | Sustaining |  |  | Commercial |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Programs | Time | P.C. of Total Hours | Programs | Time | P.C. of Total Hours |
|  | No. | hrs. mins. |  | No. | hrs. mins. |  |
| Musieal |  |  |  |  |  |  |
| Opera...... | 204 | 205:25 | $1 \cdot 1$ | 36 | $108: 00$ | 2.9 |
| Symphony.. | 484 620 | $\begin{array}{r}420: 25 \\ 222 \\ \hline 10\end{array}$ | 2.3 1.2 | 73 | $71: 00$ | 1.9 |
| Sacred. ${ }^{\text {Classical }}$. | - 620 | 222:10 | 1.2 8.7 | 10 | $2: 30$ | $0 \cdot 1$ |
| Classical. .... | 2,592 2,519 | 1,594:45 | 8.7 5.7 | 12 | 6:00 | 0.2 |
| Variety.. | 2,470 | 1,208:50 | 1-1 | 1,822 | 694:55 | 18.6 |
| Light.. | 12.713 | 4, 828:30 | 26.4 | 714 | $226: 25$ | 6.0 |
| Dance.... | 3,138 | 1,218:10 | 6.7 | 9 | 2:15 | $0 \cdot 1$ |
| Old-time. | 800 | 257:15 | 1.4 | 129 | $38: 30$ | 1.0 |
| Band.. | 651 | 194:25 | 1.1 | 15 | 3:45 | 0.1 |
| Totals, Musical. | 24,191 | 10,197:10 | 55.7 | 2,863 | 1,160:50 | $31-1$ |

6.-Classification of CBC Radio Programs, Year Ended Mar. 31, 1954-concluded

${ }^{1}$ Less than 0.05 p.c.
Music and Drama.-Music and drama are two of the chief items in the CBC schedules. In the year ended Mar. 31, 1954, music made up approximately onethird of the entire network schedule, and those in the 'drama and feature' category comprised the largest percentage of time among spoken-word programs. Highquality programs of both types are heard frequently at good listening hours. Apart from regular broadcasts by Canadian symphony orchestras, much fine music is presented on 'CBC Wednesday Night'-an evening of serious programming on the Trans-Canada network-and once a week by the CBC Symphony Orchestra. Chamber music by various groups, as well as choral music originating at many Canadian points and recitals by Canadian artists and those of international reputation, are important features of the music schedules. Productions by the CBC Opera Company and by the CBC Light Opera Company are heard throughout the season. During the 1953-54 season the CBC Opera Company presented several full-scale operatic productions for television.

During an average year more than 1,000 plays are produced by the CBC for its radio networks, and hundreds for television. Chief among the English-language radio plays are the Stage series broadcast Sunday evenings to a national audience, and the longer dramas on 'CBC Wednesday Night'. 'CBC Wednesday Night' also introduced the radio anthology, an evening of prose, poetry, drama, and music woven about a central theme. In television drama CBC has won approval especially for its 90 -minute dramas on Tuesday evenings; in the 1953-54 season, 33 of these were presented. One-third of them were original plays by Canadians, and most of the remainder were adaptations by Canadians.

Finances of the CBC.-Operations for the year ended Mar. 31, 1954, after providing for depreciation and obsolescence, resulted in a surplus of $\$ 6,567,862$, amounting to $\$ 1,283,896$ for sound broadcasting and $\$ 5,283,966$ for television.

In the sound-broadcasting service, revenue from excise tax and broadcasting licence fees fell $\$ 393,620$ short of the previous year's revenue from broadcasting licence fees and the former receiving licence fees. Commercial revenue for sound broadcasting also declined and operating expenditure increased by $\$ 1,241,696$. The television service received $\$ 11,703,149$ in excise tax collections. Commercial revenue for the year was $\$ 1,334,766$ as compared to $\$ 518,380$ for the seven-month period that this service was in operation during the 1952-53 fiscal year; expenditures, however, were $\$ 4,638,174$ higher.

A fourth loan for the television service amounting to $\$ 4,750,000$ was authorized under Appropriation Act No. 3, 1953, and is to be amortized by 30 semi-annual instalments commencing Jan. 1, 1960.

Capital expenditures during 1952-53 were $\$ 1,090,640$ for the sound-broadcasting service. The principal expenditures were in connection with the Moncton, N.B., and Verchères, Que., transmitters and the Winnipeg, Man., studios. Assets costing $\$ 65,360$ were written off during the year. The sum of $\$ 3,323,974$ was spent by the television service in developing production centres at Halifax, Montreal, Ottawa, Toronto, Winnipeg, and Vancouver.

The CBC operates the International Service on behalf of the Government of Canada and all maintenance and operational costs are borne by the Government. These costs are not considered as chargeable to the CBC because the annual statutory grant and revenue from excise tax and licence fees are used only to serve listeners within Canada. Gross operating expenditure for 1953-54 exceeded those of $\mathbf{1 9 5 2 - 5 3}$ by $\$ 45,235$. The value of Crown assets in the custody of the Corporation increased $\$ 57,862$ during the year after write-offs amounting to $\$ 9,004$.

## 7.-Income and Expenditure of the CBC, Year Ended Mar. 31, 1954

| Item | Sound |  | Television |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | p.c. | \$ | p.c. | \$ | p.c. |
| Income |  |  |  |  |  |  |
| Statutory grant. | 6,250,000 | 38.23 |  | - | 6,250,000 | 21.25 |
| Excise tax. | 5,056,745 | 30.94 | 11,703,149 | 89.54 | 16,759,894 | 56.97 |
| Commercial broadcasting | 2,471,489 | 15-12 | 1,334,766 | 10-21 | 3,806,255 | 12.94 |
| Licence fees... | 274,635 | $1 \cdot 68$ | - | - | 274,635 | 0.93 |
| Miscellaneous. | 208,207 | $1 \cdot 27$ | 32,841 | 0.25 | 241,048 | 0.82 |
| International service. | 2,085,951 | 12.76 | - | - | 2,085,951 | 7.09 |
| Totals, Net Income. | 16,347,027 | 100.00 | 13,070,756 | 100.00 | 29,417,783 | $100 \cdot 00$ |
| Expenditure |  |  |  |  |  |  |
| Programs.. | 7,575,176 | 50.29 | 4,128,140 | 53.02 | 11,703,316 | 51.22 |
| Engineering. | 2,678,847 | 17.78 | 1,529,094 | $19 \cdot 64$ | 4,207,941 | $18 \cdot 42$ |
| Station networks | 1,599,291 | 10.62 | 330,155 | $4 \cdot 24$ | 1,929,446 | $8 \cdot 44$ |
| Administration. | 861,429 | $5 \cdot 72$ | 30,846 | 0.40 | 892,275 | $3 \cdot 90$ |
| Press and information | 430,825 | 2.86 | 52,252 | $0 \cdot 67$ | 483,077 | $2 \cdot 11$ |
| Commercial. | 279,212 | 1.85 | 31,421 | 0.40 | 310,633 | $1 \cdot 36$ |
| Interest on loans | 94,063 | $0 \cdot 63$ | 275,488 | 3-54 | 369.551 | $1 \cdot 62$ |
| Depreciation | 544,216 | $3 \cdot 61$ | 422,409 | $5 \cdot 42$ | 966,625 | $4 \cdot 23$ |
| Supervision (allocated to television) | -986,985 | -6.55 | 986,985 | 12.67 | $\bigcirc$ |  |
| International service. | 1,987,057 | 13.19 |  | - | 1,987,057 | 8.70 |
| Totals, Expenditure. | 15,063,131 | 100.00 | 7,786,790 | $160 \cdot 60$ | 22,849,921 | 100.00 |
| Operating surplus. | 1,283,896 | ... | 5,283,966 | ... | 6,567,862 | ... |

## Section 4.--Privately Owned Radio Broadcasting Stations*

Privately owned (non-government) broadcasting stations began operations during the early 1920 's, about 12 years before any other broadcasting service was available in Canada. By 1929, 65 of these stations, operating mainly in nonmetropolitan areas, provided regular broadcasting service to Canadian communities. In 1954, such stations numbered 147, with a total wattage of 404,450 in daytime and 377,700 at night. Operating in conjunction with AM stations are 29 FM stations with combined power of 49,985 watts. In addition, there are eight shortwave stations operating in conjunction with AM stations, having a combined wattage of 6,685 .

Generally, the privately owned stations are limited in power to 5,000 watts, many operating at 1,000 watts and some at 250 watts. Two non-government stations (CFRB Toronto and CKLW Windsor) have, since 1948, operated at 50,000 watts. Privately owned stations serve, primarily, the localities in which they are situated, the nature of the "community" served varying with circumstances. Many such stations are located in relatively small urban centres. Here, however, they serve not only the urban centre population but a larger population located in surrounding rural areas. Others serve medium-sized and metropolitan cities and, in addition, the population of cities or towns adjacent to the centre in which the station is located together with rural audiences in districts between or beyond the urban areas.

Privately owned stations have a combined capital investment currently estimated at approximately $\$ 40,000,000$, employ more than 5,000 persons, and disburse in salaries and wages an estimated $\$ 11,000,000$ annually. Revenue is obtained entirely from commercial advertising and these stations receive no part of the special 15-p.c. excise tax charged against the purchase of receivers and parts. The privately owned stations are required to pay transmitter licence fees to the Canadian Broadcasting Corporation; these totalled approximately $\$ 245,300$ in the year ended Mar. 31, 1954.

Recent years have shown a marked increase in the interest taken in broadcasting by commercial, political and legal interests, since it has become more generally recognized that broadcasting is a form of publication and a basic means of mass communication in North America. A review of this development may be found in Minute Book No. 5 of the 1951 Special Committee on Radio Broadcasting, Nov. 28, 1951, and in Minute Book No. 9 of the 1953 Special Committee, Apr. 29, 1953.

According to figures submitted to the Royal Commission on National Development in the Arts, Letters and Sciences in April 1950, the privately owned stations showed a net profit of 9 p.c. in 1948, figured as a percentage of capital, as against 7 p.c. in 1947 and 8 p.c. in 1946. The 1918 profit, as a percentage of operating revenue, was 10 p.c. as against 8 p.c. in 1947 and 10 p.c. in 1946. These figures are based on reports obtained by the Department of Transport from 109 stations in 1948,108 stations in 1947, and 88 stations in 1946. Thus, the average net profit per station was $\$ 12,516$ in 1948 , $\$ 8,597$ in 1947 and $\$ 11,228$ in 1946. Of the 109 stations reporting in 1948, 79 showed an aggregate surplus and the remainder an aggregate loss. Though no official compilations have been prepared since that time, unofficial estimates indicate that the 1954 position was relatively the same in terms of percentages.

[^305]Administration.-The non-government stations operate under the Canadian Broadcasting Act, administered by the Canadian Broadcasting Corporation, and under regulations made by the CBC, in addition to the Radio Act administered by the Department of Transport, and regulations made thereunder by that Department. Proof-of-performance statements showing public service, community service and like activities, together with financial statements, must be filed annually with the CBC and the Department of Transport. Regulations limit the amount of advertising that may be carried in any spot announcement or program and the number of announcements that may be carried in any given period of time. Program schedules must be approved in advance by the CBC and food, drug and medicine copy must be approved by the Department of National Health and Welfare.

Licences of the privately owned stations, valid for five years but subject to cancellation at any time during that period, are granted by the Government of Canada upon recommendation of the Board of Governors of the Canadian Broadcasting Corporation. The sale or transfer of any stock or shares held in any broadcasting station must be approved by the Government of Canada after review by the CBC.

Network Operations.-Network operation in Canada is at present restricted to the CBC in both AM and television fields. The CBC also has sole right-except for four private stations-to bring in commercial and other network programs from the United States. Many privately owned stations, however, serve as outletseither basic or supplementary-for CBC network programs. Under the Broadcasting Act any station may be required to carry any program designated by the CBC.

Television.-At the end of May 1954, there were 17 non-government television stations licensed in Canada, located at Sydney, N.S., Saint John, N.B., Rimouski, Quebec City and Sherbrooke, Que., Kingston, Peterborough, Hamilton, Kitchener, London, Windsor, Sudbury, and Port Arthur, Ont., Regina and Saskatoon, Sask., and Calgary and Edmonton, Alta. Five applications for such licences were pending at that date. The same terms of licence and regulations applying to AM broadcasting apply also to television broadcasting, with the additional requirement that the television broadcaster must carry a minimum of 10.5 hours weekly of CBC-produced material.

The present policy of the Government permits the licensing of one non-government television broadcasting station in any area of Canada, other than Toronto, Montreal, Ottawa, Vancouver, Winnipeg, and Halifax. These major areas are reserved exclusively for television broadcasting stations owned and operated by the Canadian Broadcasting Corporation.

## PART IV.-THE POST OFFICE

The Canada Post Office Department was created at the time of Confederation in 1867 by the Canada Post Office Act to superintend and manage the postal service of Canada under the direction of a Postmaster General. For almost a century prior to Confederation, postal services in the Canadian provinces had been controlled by the British Postmaster General and administered by his deputies. Under the French régime a courier service had been organized as early as 1703 between

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Quebec, Three Rivers and Montreal; in 1734 a post road was constructed over the same route and post houses, complete with post horses and vehicles, were established for the use of travellers. In 1851, the control of their post offices was assumed by the different provinces of British North America and at Confederation these systems merged to form the Canada Post Office.

Functions.-The basic task of the Canadian Postal Service is the handling and transmission of postal matter-letters, parcels, newspapers, magazines, etc.and in discharging this duty it maintains a wide variety of services-post offices and air, railway, land and water transportation facilities.

This basic task involves many associated functions which include the sale of postage stamps and other articles of postage; the furnishing of information to the public respecting postage rates and other postal matters; the registration of letters and other articles of mail; the insuring of parcels; the acceptance of C.O.D. articles for mail and dispatch; the sorting, making up and dispatching of ordinary and registered-mail to other offices; the sorting and delivery of incoming mail of all kinds; and the transaction of money-order and Post Office Savings Bank business.

All functions of the Postal Service, as far as the public is concerned, are centred in the post offices, of which 12,202 were in operation at Mar. 31, 1954, as against 12,259 at the same date in 1953. Postage paid in 1953-54 by means of postage stamps amounted to $\$ 64,546,067$ ( $\$ 67,182,548$ in 1953). Post-office money orders are issued for any amount up to and including $\$ 100$ at more than 7,000 post offices, for payment in almost every country in the world as well as in Canada. Orders payable in Canada only, for amounts under $\$ 16$, are issued at more than 4,000 additional post offices. Post Office Savings Banks are in operation in all parts of the country and, on Mar. 31, 1954, had total deposits of $\$ 37,792,914$.

Post offices are established for the transaction of all kinds of postal business wherever the population warrants. The post office is a complete entity in rural districts and smaller urban centres. In the larger towns and cities there is a main post office and, if size of population calls for extra services, postal stations and subpost offices are operated. Letter-carrier delivery is given in 130 cities and towns by over 5,300 uniformed letter carriers.

Postal stations are maintained on the same lines as the main post offices and perform full postal business, including general-delivery service and a post-office lock-box delivery as well as letter-carrier delivery service accommodating the surrounding district.

Because of its widespread facilities, it has been found expedient for the Post Office to assist other Government Departments in the performance of certain tasks that include the sale of unemployment insurance stamps, the collection of Government annuity payments, the distribution of income-tax forms, Civil Service application forms and the display of Government posters.

Organization.-The Canada Post Office is divided into two parts: the Operating Service and Headquarters at Ottawa. The Operating Service is organized into five regions each under a Regional Director, who is the field representative of
the Deputy Postmaster General. There are five Headquarters Branches, viz., Administration, Operations, Transportation, Financial, and Personnel, each under a Director.

Operating and secretarial features in the operating field affecting the post offices and local mail services in urban centres are taken care of by the local Postmaster. District office functions relating to services in the district, and all inspections and investigations, are under District Directors of Postal Services in strategic centres across the country.

Postal service is provided in Canada from Newfoundland to the west coast of Vancouver Island and from Pelee Island, Ont. (the most southerly inhabited point of Canada), to settlements and missions far within the Arctic.

Canada's air-mail system provides several transcontinental flights daily and constitutes a great air artery from St. John's, N'f'ld., to Victoria, B.C., intersected by branch lines and connecting lines radiating to every quarter and linking up with the United States air-mail system. Since July 1, 1918, all first-class domestic mail up to and including one ounce in weight has been carried by air between one Canadian point and another, whenever delivery can thus be expedited. On Apr. 1, 1954, this service was extended to first-class items up to and including eight ounces in weight. Air-stage service provides the sole means of communication with the outside for many areas in the hinterland. There were approximately 29,640 miles of air-mail and air-stage routes in Canada in 1954 as compared with 29,500 miles in 1953.

The principal means of mail transportation is the railway mail service which operates along about 40,000 miles of track and, in 1954, covered over $47,000,000$ track miles. The railway mail service employed a staff of 1,317 mail clerks in 1954. This staff prepares the mails for prompt delivery and dispatch while en route in the railway mail cars. Like its air-mail service, Canada's railway mail service is one of the most extensive in the world.

The rural mail delivery organization provides direct postal facilities to residents in the rural sections of the country: approximately $\overline{5}, 280$ rural mail routes were in operation in 1954 , involving about 125,000 route miles and serving 424,000 rural mail boxes. Rural mail routes are generally circular in pattern and average about 24 miles in length. About 4,300 side services were in operation in 1954 to transport mail between post offices, railway stations, steamer wharves, and airports, and 2,993 stage services operated to convey mail to and from post offices not located on railway lines. In 1954, there were approximately 750 city mail services, transporting mail to and from post offices, postal stations and sub-post offices, collecting mail from street letter-boxes and delivering parcel post. In all, about 13,000 land mail service couriers are employed and travel in the neighbourhood of $50,000,000$ miles annually. Land mail services are performed under a contract system, the contracts being awarded to the person submitting the lowest tender and competent to provide all the requisite equipment.

The increase in postal business is one of the impressive features of Canada's economic development during the past ten years. From $\$ 59,175,138$ in 1943 , gross revenue has increased year by year to $\$ 129,889,325$ by Mar. 31, 1954, an all-time high.

## Section 1.-Post Office Statistics

Tables 1, 2 and 3 give the numbers of post offices in operation together with revenue and expenditure for the past few years.
1.-Post Offices in Operation, by Province, as at Mar. 31, 1951-54

| Province or Territory | 1951 | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |
| Newfoundland. | 573 | 592 | 606 | 613 |
| Prince Edward Island. | 105 | 105 | 105 | 106 |
| Nova Scotia. | 1,278 | 1,245 | 1,215 | 1,179 |
| New Brunswick | 874 | 837 | 834 | 817 |
| Quebec. | 2,545 | 2,530 | 2,516 | 2,507 |
| Ontario. | 2,602 | 2,598 | 2,613 | 2,630 |
| Manitoba..... | 823 | 823 | 831 | 824 |
| Saskatchewan. | 1,407 | 1,397 | 1,384 | 1,364 |
| Alberta........ | 1,179 | 1,179 | 1,156 | 1,152 |
| British Columbia. | 958 | 955 | 955 | 963 |
| Yukon Territory. | 15 31 | ${ }_{31}^{13}$ | 13 | 15 |
| Northwest Territories. | 31 | 31 | 31 | 32 |
| Canada . | 12,390 | 12,305 | 12,259 | 12,202 |

## 2.-Revenue and Expenditure of the Post Office Department, Years Ended Mar. 31, 1945-54

Notg. -Figures from 1868 will be found in the corresponding table of previous Year Books beginning with the 1911 edition. Figures for Newfoundland are included from 1950.

| Year | Gross Revenue | Net Revenue ${ }^{1}$ | Expenditure ${ }^{2}$ | $\begin{aligned} & \text { Surplus ( }+ \text { ) } \\ & \text { or } \\ & \text { Deficit ( }- \text { ) } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | 8 | \$ | \$ | \$ |
| 1945. | 79,533,903 | 66,071,815 | 54,629,281 | $+11,442,534$ |
| 1946. | 83,763,007 | 68,635,559 | 57, 729,646 | +10,905,913 |
| 1947. | $86,400,951$ | 72,986,624 | 64,213,050 | +8,773,574 |
| 1948. | 91, 613,618 | 77,770,967 | 67,943,476 | +9,827,491 |
| 1949. | 95, 957,469 | 80,618,401 | 77,642,621 | +2,975,780 |
| 1950. | 101, 277,435 | 84,528,655 | 82,639,741 | +1,888,914 |
| 1951. | 105,545,456 | 90,454,678 | 91, 781,466 | -1,326,788 |
| 1952. | 122,266,675 | 104,622,208 | 97, 973,263 | +6,648,945 |
| 1953 | 129,388, 365 | 112,024, 245 | 105,553, 191 | +6,471,054 |
| 1954 | 129,889,325 | 111,107,484 | 113,581,752 | -2,474,268 |

${ }^{1}$ Gross revenue less commissions and allowances to postmasters and other smaller items. ${ }^{2}$ Excludes rental of service staff and staff post offices.

## 3.-Gross Postal Revenue of Offices collecting upwards of $\$ 10,000$ for the Years Ended Mar. 31, 1953 and 1954

Note.-Money order commissions are not included in gross postal revenue. Provincial totals of postal revenue include post offices not separately listed.

| Province and Post Office | 1953 | 1954 | Province and Post Office | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundiand | \$ | \$ | Newfoundland-concl. | \$ | \$ |
| Botwood. | 10,131 | 11,175 | Grand Falls. | 25,305 | 24,296 |
| Buchans. | 10,694 | 10,055 | Harmon Field. | 10,859 | 18,098 |
| Channel. | 10,431 | 10, 129 | St. John's | 607,597 | 608,520 |
| Corner Brook | 71,883 36,092 | 76,769 38,154 | Wabana | 15,245 | 16,698 |
| Goose Airport. | 25,192 | 24,230 | Totals, Newfoundland. | 1,263,414 | 1,309,380 |
| Sub-Office A......... | 10,677 | 20,476 |  |  |  |

## 3.-Gross Postal Revenue of Offices collecting upwards of $\$ 10,000$ for the Years Ended Mar. 31, 1953 and 1954-continued

| Province and Post Office | 1953 | 1954 | Province and Post Office | 1933 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| P. E. Island |  |  | New Brunswiek-concl. |  |  |
| Charlottetown | 212,805 | - 207,979 | Sackville | 45,226 | 44,099 |
| Montague. | 11,328 | 11,369 | Shediac | 11,582 | 11,496 |
| Summerside.............. | 70,335 | 58,999 | Sussex | 31,547 | 30,051 |
| Totals, P.E. Island | 42A,442 | 407,820 |  | 41,600 | 43,311 |
|  |  |  | Totals, New Brunswick. | 3,335,647 | 3,242,025 |
| Nova Scotia |  |  | Quebec |  |  |
| Amherst. | 76,79 | 76,941 |  |  |  |
| Annapolis Royal.......... | 13,886 | 14,008 | Acton Vale............... | 12,172 | 11,408 |
| Antigonish................ | 48,723 | 50,274 | Amos. | 41,873 | 38,986 |
| Armdale. | 21,345 |  | Amqui | 19,097 | 19,490 |
| Bedford. | 11,978 | 12.47\% | Arvida. | 43,081 | 42,591 |
| Berwick. | 11,582 | 11,685 | Asbestos. | 30,199 | 30,831 |
| Bridgetown | 16,825 | 16,996 | Aylmer East | 10,778 | 11,217 |
| Bridgewate | 43,972 | 46,281 | Bagotville................ | 18,675 | 14,847 |
| Chester.. | 10,929 | 10.769 | Baie Comeau | 32,622 | 28,212 |
| Cornwallis. | 17,473 | 16,553 | Baie St. Paul. | 12,242 | 11,193 |
| Digby. | 29,119 | 27,825 | Basilique Ste. Anne | 40,738 | 44,817 |
| Glace Bay | 65,683 | 66,005 | Beauceville East.......... | 15,689 | 16,043 |
| Halifax. | 2,031,385 | 1,999,536 | Beauharnois. | 27.527 | 27,632 |
| Hantsport | 10,439 |  | Bedford. | 17,454 | 17,855 |
| Inverness | 10, 20 | 10.592 | Berthierville | 17,037 | 16.311 |
| Kentville | 64,234 | 64,641 | Bourlamsque | 14,116 | 14,503 |
| Kingston | 20,619 | 12.366 | Brownsburg | 11,418 | 10,247 |
| Liverpool | 32,102 | 32.773 | Bucking ham | 24,160 | 23,782 |
| Lunenburg | 26,361 | 26,86? | Cabano. |  | 10,084 |
| Middleton. | 24,421 | 23,859 | Cap de la Madelein | 75,302 | 76,220 |
| Mulgrave |  | 10,075 | Chambly.. | 12,997 | 13.247 |
| New Glasgo | 95,137 | 94,000 | Chandler | 18,199 | 19.949 |
| New Waterford | 23,815 | 25,082 | Chicoutimi | 167,465 | 169.913 |
| North Sydney | 38,227 | 37,922 | Costicook | 25.648 | 25.474 |
| Parrsboro | 12,504 | 12,531 | Cookshire | 10,036 | 10,121 |
| Pictou. | 26,519 | 25,339 | Cowansville | 34,348 | 37,844 |
| Shelburne | 16,616 | 17,057 | Danville. | 13,013 | ${ }^{12.692}$ |
| Springhill | 24.562 | 23,224 | Dolbeau. | 25,115 | 24,033 |
| Stellarto | 24,997 | 24.958 | Donnscons | 13,159 | 12,381 |
| Sydney | 223.123 | 226,364 | Dorion-Vaudreuil | 14,652 | 15,672 |
| Sydney M | 21,094 | 21,396 | Drummondville | 136,067 | 145,785 |
| Truro.. | 145.428 | 146,675 | East Angus. | 12,976 | 13.158 |
| Westrille | 11,647 | 11,633 | Farnham. | 29,839 | 27.364 |
| Windsor | 35,532 | 35,593 | Forestville. |  | 13,809 |
| Wolfville | 27,320 | $2 \overline{2} .64{ }^{\circ}$ | Gardenvale | 81,576 | 176,609 |
| Yarmou | 68.406 | 69,470 | Gaspe. | 26, 201 | ${ }_{2}^{27,037}$ |
| Totals, Nova Scotia.... | 4.149,099 | 4,695,054 | Gatinea Granby | $\begin{array}{r} 20,595 \\ 152,090 \\ 120 \end{array}$ | 22,455 156,060 |
|  |  |  | Grand'M | 47,042 | 44,599 |
|  |  |  | Hull. | 139,933 | 140,345 |
|  |  |  | Hunting do | 23,874 | 21,204 |
| New Brunswick |  |  | Iberville | 18,689 |  |
|  | 47.089 | 48,341 | Joliette.................. | 89,318 | 88,19372.596 |
| Bathurst. |  |  | Jonquière-Kenogami..... | 76,397 |  |
| Champbellton | 31,466 | 59,996 28,047 | Knowlton........ | 11,611 30,498 | 10,56128,528 |
| Chatham. |  | 28,047 | Lachute. | 30,498 |  |
| Dalhousie | 22.945 | 22,799 | Lachute Mills. | 11,948 |  |
| Edmundston | 52.218 | 51,319 | Lac Mégantic | 30.792 | 28,443 |
| Fredericton | 286.56521,538 | 284,499 | Lacolle. | 14,048 | 14,40316,083 |
| Grand Fall |  | 21.942 | La Malbaie | 20,830 |  |
| Hartland | 11,727 | 10,787 | Laprairie | 11.577 | 11,822 |
| Harvey Station | 11,300$1.225,258$ | 12,019 | La Sarre. | 26,867 | 26.841 |
| Moncton. |  | 1,182, 501 | L'Assomption | 14.140 | 11.98139,120 |
| Newcastl | $1.225,258$ <br> 35.54 | 33,725 | La Tuque. | ${ }^{41,028}$ |  |
| Perth. | $\begin{aligned} & 10.476 \\ & 10.942 \end{aligned}$ |  | Lennoxvil | 28.166 | 26.411 |
| Plaster Roc |  | 10.685 | Levis. | 131,651 | 134.66614,073 |
| Saint John. | $\begin{gathered} 10.942 \\ 711.109 \end{gathered}$ | 657.393 | Loretteville. | 15,154 |  |
| St. Andrew | 10,52138,812 |  |  |  | 15.737 |
| St. Stephen............ . |  | $\stackrel{1}{41,924}$ | Magog.................... | 48,758 24,508 | $\begin{aligned} & 48,848 \\ & 22.053 \end{aligned}$ |

[^306]${ }^{2}$ Less than $\$ 10,000$.

## 3.-Gross Postal Revenue of Offices collecting upwards of $\$ 10,000$ for the Years Ended Mar. 31, 1953 and 1954 -continued

| Province and Post Office | 1953 | 1954 | Province and Post Office | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Quebec-continued |  |  | Quebec-concluded |  |  |
| Maniwaki.............. | 22,356 | 21,332 | Wate | 25,806 | 25,217 |
| Marievi | 15,036 | 13,502 | Win | 12,868 | 12,600 |
| Matane | 39,629 34,056 | 38,519 32,800 | Totals, Quebec | 27,218,926 | 27,392,476 |
| Mont Laurie | 27,758 | 26,869 |  |  |  |
| Montmagny. | 40,867 | 39,750 |  |  |  |
| Montmorency ............... | 11,152 |  |  |  |  |
|  | 16,719,623 | 16,970,215 | Ontario |  |  |
| Neuville............... | 23,359 | 21,417 |  |  |  |
| New Carlisie............... | 14,113 | 14,785 | Acton. | 22,342 | 22,189 |
|  | 42,438 | 56,354 | Agincourt | 14,706 | 14,061 |
| Noranda. <br> Parent | 11,169 | 52,229 | Aldersho | 10,082 |  |
| Parent. <br> Plessisville. | 21,415 | 20,340 | Alexandr | 16,101 | 15,531 |
| Plessisville Station........ | 13,696 | 12,243 | Alliston. | 15,986 | 16,473 |
| Port Alfred................ | 14,980 | 13,429 | Almon | 15,989 | 15,832 |
|  | 10,874 | 10,870 | Amherstburg | 29,595 | 28,703 |
| Princeville..............Quebec.............Rawdon............ | 2,645,036 | 2,650,065 | Ancaster. | 10,497 | 11,223 |
|  | 10,891 | 10,091 | Ansonvil |  | 10,213 37 |
|  | 2 | 15,882 | Arnprior. Atikokan | 35,284 17,084 | 37,724 21,227 |
| (St. Hubert) <br> Richmond. | 20,573 | 20,884 | Aurora. | 36,030 | 33,142 |
| Rigaud.................. | 10,465 |  | A ylmer | 39,697 | 33,233 |
|  | 115,150 | 119,022 | Bancroft | 16,335 | 16,404 |
| Riviere-du-Loup.......... | 51,442 | 60,747 | Barrie | 133,624 | 133,330 |
|  | 31,522 | 33,089 | Bartonvill |  | 10,135 |
| Roberval................. | 30, 170 | 30,368 | Batawa. | 20,150 | 17,617 |
|  | 69,196 | 60,886 | Beamsvil | 21,537 | 20,606 |
| Ste. Agathe-des-Monts... <br> Ste. Anne-de-Beaupré.... | 38,745 | 38,428 | Beaverton............... | 10,975 | 11,043 |
|  | $\begin{array}{r}12,744 \\ 20 \\ \hline 150\end{array}$ | 18,111 |  | $\underset{2}{227,934}$ | 229,242 13,729 |
| Ste. Anne-de-Bellevue ... | 20,710 17 171 | 19,884 17 1704 | Beverley Hills........... |  | 13,729 11,885 |
| Ste. Anne-de-la-Pocatière. St. Eustache.. | 17,171 14,805 | 17,504 14,501 | Billings Bridge (Ottawa). Blenheim............... | 13,824 27,792 | 11,885 27,393 |
| St. Félicien.............. | 19,085 | 15,821 | Blind River | 14,217 | 13,763 |
|  | 11,633 | 11,715 | Bowmanville | 42,637 | 43,671 |
| St. Georges-Ouest.......... | 10,138 |  | Bracebridge | 33,676 | 32,150 |
|  | 14,891 | ${ }^{2}$ | Bradford. | 16,852 | 16,151 |
| St. Hyacinthe | 138,890 | 137,364 | Brampton | 106,108 | 106,983 |
| St. Jean. St. Jean-Port-Joli | 125,189 10,537 | 142,690 | Brantiord | 433,187 16,201 | 428,181 |
| St. Jérôme. ............... | 71,395 | 74,224 | Brockville | 133,555 | 138,297 |
|  | 39,439 | 31,227 | Burks Falls | 10,173 | 10,321 |
| St. Joseph-d'Älma <br> St. Joseph-de-Beauce. | 12,808 | 12,824 | Burlington................. | 85,166 | 83,582 |
| St. Jovite................Ste. Marie-Beauce...... | 10,381 | 10,060 | Caledonia. | 14,159 | 13,627 |
|  | 22,434 | 22,551 | Campbellford. | 23,434 | 23,329 |
| St. Pascal................ | 12,719 | 12,484 | Camp Borden. | 29,447 | 27,334 |
|  | 13,435 | 13,168 | Crystal Beach........... |  | ${ }_{2}^{10,247}$ |
| Ste. Rose............... | 14,663 37.555 | 14,951 35,830 | Capreol................... | 10,332 13,411 | 13,642 |
| Ste. Thérese-de-Blainville <br> St. Tite. | 12,304 | 11,972 | Carleton Place | 30,017 | 29,150 |
| St. Vincent-de-Paul....... | 11,052 | 4, | Chalk River. | 10,879 | 11,636 |
|  | 14,541 | 12,890 | Chapleau. | 23,450 | 22,739 |
| Seven Islands............ | 47,625 | 42,410 | Chatham | 253,419 | 245,421 |
| Shawinigan Falls..........Shawvile............. | 115,230 | 112,496 | Chesley. | 14,032 | $\underset{2}{13,240}$ |
|  | 12,489 | 11,551 | Chestervill | 10,608 |  |
| Sherbrooke.............. | 428,623 | 429,093 | Chippawa................. | 12,183 | 12,993 |
| Sution..................... | 72,233 11,642 | 76,688 10,706 | Clarkson. | 10,479 13,600 |  |
|  | 11,642 16,982 | 10,706 15,309 | Clifinton. | 退 13,643 | 24,941 |
| Terrebonne .............. | 75,872 | 78,483 | Cobalt. | 18,099 | 16,075 |
| Three Rivers........... | 276,687 | 300,385 | Cobour | 68,829 | 71,908 |
| Timiskaming Station.... | 14,854 | 14,080 | Cochrane................. | 33,144 46,522 | 31,065 45,453 |
| Val d'Or.................. | 17,061 64,048 | 16,729 59,054 | Collingwood.............. | 46,522 29,317 | 45,453 32,065 |
| Valleyfield.............. | 75,929 | 79,260 | Copper Cliff ............... | 32,195 | 26, 186 |
|  | 74,603 | 75, 931 | Cornwall................. | 169,819 15,407 | 165,277 |
| Victoriaville. <br> Ville-Marie. | 11,107 | 10,135 | Deep | 27,383 | 26,970 |
| Ville St. Georges.......... Warwick | 28,011 | 25,646 | Down |  | 13,618 |
|  | 10,914 | 10,915 | Dresden | 15,906 | 15,360 |
| ${ }^{1}$ Included in Quebe Montreal. <br> ${ }^{5}$ Inclu | ${ }^{2}{ }^{2} \mathrm{Le}$ | than $\$ 10$ | 000. ${ }^{3}$ Opened May | 5. | ncluded in |

## 3.-Gross Fostal Revenue of Offices collecting upwards of $\mathbf{\$ 1 0 , 0 9 0}$ for the Years Bnded Mar. 31, 1953 and 1951-continued

| Province and Post Office | 1953 | 1954 | Province and Post Office | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Ontario-continued |  |  | Ontario-continued |  |  |
| Dryden. | 34,352 | 30,769 | Milton West | 26,638 | 28,372 |
| Dundas. | 55,053 | 51,899 | Minden | 10,154 | 10,606 |
| Dunnvill | 45,580 | 42,524 | Mitchell | 13,068 | 12,260 |
| Durham | 15,165 | 14,027 | Morrisburg | 15,725 | 15,892 |
| Eganville | 14,474 | 14,512 | Mount Forest | 18,358 | 17,544 |
| Elmirs. | 21,035 | 20,160 | Napanee....... | 37,442 | 35,525 |
| Elora. | 11,229 | 11,368 | New Hamburg........... | 13,314 | 14,209 |
| Englehart................. | 13,083 | 11,965 19,065 | New Liskeard. | 65,474 51,849 | 65,352 52,552 |
| Espanola.................... | 19.572 26.560 | 19,065 26,298 | Newmarket. | 51,849 16,179 | 18,306 |
| Exeter | 20,647 | 19,799 | Niagara Falls. | 427,684 | 433,567 |
| Fenelon Falls | 12,626 | 12,979 | Niagara-on-the | 38,181 | 49,939 |
| Fergus.................... | 38,018 | 37,996 | Nipigon. | 12,908 | 14,055 |
| Fonthill | 1 | 10,004 | North B | 195,429 | 197,842 |
| Forest. | 16,191 | 15,739 | Norwich | 12,955 | 12,613 |
| Fort E | 86,645 | 97,519 | Oakville | 123,916 | 148,032 |
| Fort Frances | 56,341 | 53,349 | Orangevil | 31,218 | 30,725 |
| Fort William | 306,788 | 300,407 | Orillis | 120,877 | 119,798 |
| Galt. | 191,892 | 183,480 | Oshaw | 478,646 | 522,884 |
| Gananoque | 42,145 | 40,925 | Ottaw | 2,641,906 | 2,501,549 |
| Georgetow | 70,862 | 70,673 | Owen Sound | 173,386 | 159,248 |
| Geraldton. | 23,520 | 21,033 | Palmerston | 12,888 | 12,056 |
| Goderich. | 39,490 | 38,791 | Paris. | 44,000 | 70,401 |
| Gore Bay | 10,571 | 10,307 | Parry Sound | 43,795 | 41,578 |
| Gravenhur | 29,664 | 28,404 | Pembroke. | 92,016 | 91,670 |
| Grimsby | 35,318 | 34,454 | Penetanguishene | 18,785 | 19,531 |
| Guelph. | 277,365 | 289,791 | Perth. | 50,530 | 49.407 |
| Hagersville | 19,674 | 18,826 | Petawawa Camp......... | 17,156 | 16,983 |
| Haileybury | 20,595 | 20,040 | RCAF Station Borden.. | 10.377 | 12,416 |
| Haliburton | 13,093 | 12,360 | RCAF Station Clinton.. |  | 11,155 |
| Hanover. | $2,148,929$ 30.332 | $2,090,905$ 30,505 | Rockeliffe, Ottawa...... | 11,547 | 16,907 |
| Harriston | 13,687 | 12,093 | RCAF Station Trenton. . | 30,272 | 32,660 |
| Harrow | 18,509 | 17,724 | Peterborough. | 368,775 | 356,749 |
| Hawkesb | 28,897 | 28,080 | Petrolia. | 19,960 | 18,973 |
| Hearst. | 24,430 | 21,798 | Pickering | 13,026 | 13,656 |
| Hespeler | 25,274 | 26,100 | Picton. | 53,115 | 52,301 |
| Highland Cr | 10,795 | 11,470 | Point Edwa | 13,557 | 14,500 |
| Hornepayne. | 10,572 |  | Port Arthur | 257,218 | 257,584 |
| Huntsville | 46,284 | 45,971 | Port Colborn | 75.698 | 72,091 |
| Ingersoll. | 48,606 | 46,660 | Port Credit. | 61,625 | 90,398 |
| Iroquois. | 10,360 |  | Port Dalho | 16,726 | 16,404 |
| Iroquois Fall | 13,489 | 11,842 | Port Dover | 19,301 | 18,802 |
| Jamestown. | 13,514 | 13,844 | Port Elgin. | 13,800 | 13,400 |
| Kapuskasing | 40,562 | 40,276 | Port Hope | 61,406 | 63,878 |
| Kemptville. | 17.006 | 18,207 | Port Perry | 12,914 | 12,667 |
| Kenora | 78,446 | 73,387 | Prescott | 33.274 | 35,247 |
| Kincardine | 21.476 | 20,972 | Preston | 73,257 | 74,527 |
| Kingston. | 393,685 | 391,497 | Rainy Rive | 10,434 |  |
| Kingsville. | 28,697 | 26,146 | Red Lake | 13,499 | 11,029 |
| Kirkland L | 99,916 | 93,818 | Renirew. | 55,443 | 55,665 |
| Kitchener | 497,227 | 502,491 | Richmond | 23.411 | 24,343 |
| Lakefiel | 14,379 | 13,752 | Ridgetown. | 18.513 | 18,146 |
| Iakoview | 17,048 |  | Ridgeway | 13,204 | 12,686 |
| Lambeth | 12,545 | 13,644 | Rodney | 10,218 |  |
| Learningt | 73,658 | 73,573 | St. Cathari | 409,174 | 417,293 |
| Lindsay | 87.513 | 89,122 | St. Mary's. | 33,007 | 31,829 |
| Listowel | 27,342 | 25,888 | St. Thomas | 175,747 | 174,863 |
| Little Curren | 14.756 | 14.062 | Sarnia | 258,933 | 265,403 |
| London. | 1,614,359 | 1,613,913 | Sault Ste. Marie | 241,702 | 229,378 |
| Lacknow | 10.057 |  | Scarborough Bluffs. | 21,036 |  |
| Mado | 12,602 | 12,271 | Scarborough Junction.... | 11,252 | 10,397 |
| Malton | 27,817 | 26,710 | Schreiber. | 10,372 |  |
| Maple | 11,092 | 10,303 | Schumach | 19,136 | 15,284 |
| Maratho | 16.651 | 14,055 | Seaforth. | 19.632 | 19,452 |
| Markham. | 12,400 | 13,283 | Shelburne | 11,677 | 11,671 |
| Mathes | 10,679 |  | Simooe | 97,086 | 91,630 |
| Matta | 14,856 | 13,561 | Sioux Lookout | 24,562 | 23,440 |
| Meafo | 23,992 | 23,932 | Smiths Falls.............. | 58,711 | 58,055 |
| Midland.................. | 50,861 | 50,884 | Smooth Rock Falls | 11,153 | 10,735 |

[^307]${ }^{2}$ Included with Port Credit.

${ }^{2}$ Included with Toronto.

## 3.-Gross Postal Revenue of Offices collecting upwards of $\mathbf{\$ 1 0 , 0 0 0}$ for the Years Ended Mar. 31, 1953 and 1954-continued

| Province and Post Office | 1953 | 1954 | Province and Post Office | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Ontario-concl. |  |  | Manitoba-conel. |  |  |
| Southampton. | 12,100 | 11,322 | Transcona | 17,986 | 17,844 |
| South Porcupine | 25,876 | 23,093 | Virden. | 20,576 | 21,610 |
| Stayner.. | 11,308 | 11,250 | Wawanes | 11,676 | 10,619 |
| Stoney Cree | 19,726 | 21,917 | Winkler | 11,615 | 11,374 |
| Stouff ville. | 16,275 | 16,570 | Winnipeg. . . . . . . . . . . . . . | 6,810,638 | 6,772,267 |
| Strathroy | 163,895 32,294 | - 33,043 | Totals, Manitob | 8,483,456 | 8,366,374 |
| Streetsville | 18,056 | 17,354 |  |  |  |
| Sturgeon Falls | 21,916 | 20,907 |  |  |  |
| Sudbury | 371,172 | 372,834 |  |  |  |
| Thamesville | 13,689 | 12,505 | Saskatchewan |  |  |
| Thessalon. | 12,346 | 11,142 | Assiniboia............... | 24,724 | 23,231 |
| Thornhill. | 11,562 | 12,979 | Biggar. | 17,307 | 16,881 |
| Thorold. | 64,587 | 63,645 | Broadvie | 11,251 | 10,192 |
| Tilbury. | 22,898 | 22,153 | Canora. | 17,166 | 16,640 |
| Tillsonburg | 51,893 | 50,552 | Carlyle. | 10,844 | 10,107 |
| Timmins. | 150,480 | 131.871 | Estevan | 35,946 | 38,406 |
| Toronto. | 25,065,689 | 25,592,718 | Eston. | 12,766 | 11,363 |
| Trenton. | 72,643 | 70,130 | Foam L | 11,178 | 10,833 |
| Tweed. | 17,512 | 17, 135 | Fort San. | 10,043 |  |
| Uxbridge. | 16,437 | 16,590 | Gravelbourg | 14,006 | 13,969 |
| Walkerton | 27,350 | 29,488 | Grenfell. | 10,642 |  |
| Wallaceburg | 63,899 | 56,245 | Hudson Bay | 12,087 | 10,703 |
| Waterdown | 10,506 | 11,287 | Humboldt. | 30,349 | 29,368 |
| Waterford | 14,026 | 12,800 | Indian Head | 14,686 | 14,116 |
| Waterloo | 180,442 | 187,835 | Kamsack. | 17,891 | 16,843 |
| Watford | 12,387 | 12,268 | Kerrobert | 11,416 | 11,071 |
| Welland. | 193,310 | 190,070 | Kindersley | 20,975 | 20,439 |
| Westboro (Ottawa)...... | 31,915 | 55,159 | Lloydminster | 49,502 | 47,987 |
| West Hill | 15,933 | 14,693 | Maple Creek | 20,050 | 19,744 |
| Whitby. | 37,248 | 37,277 | Meadow Lak | 17,572 | 17,342 |
| Wiarton. | 15,196 | 14,707 | Melfort. | 36,685 | 35,223 |
| Willowdal | 114,576 | 143,302 | Melville | 34,566 | 32,405 |
| Wincheste | 12,994 | 13,040 | Moose Jaw | 239,703 | 238,400 |
| Windsor. | 1,306,839 | 1,279,143 | Moosomin | 15,955 | 15.995 |
| Wingham | 23,599 | 24,451 | Nipawin. | 24,897 | 23,045 |
| Woodbridge | 14,604 | 15, 291 | North Battleford | 95,307 | 94,063 |
| Woodstock | 162,622 | 161,400 | Outlook. | 10,277 | 173,028 |
| Totals, Ontario. | 48,823,629 | 49,225,014 | Regina. | 2,118,312 | 2,198,493 |
|  |  |  | Rosetown | 24,185 | 23,412 |
|  |  |  | Rosthern | 13,842 | 13,613 |
|  |  |  | Saskatoon | 856,356 | 848,353 |
| Manitoba |  |  | Shaunavo | 20,513 | 20,780 |
|  |  |  | Shellbrook | 10,864 |  |
| Altona.................... | 13,679 | 12,763 | Swift Curren | 88,199 | 90,552 |
| Beausejour | 13,192 | 12,910 | Tisdale. | 31,045 | 27,190 |
| Boissevain | 12,101 | 11,050 | Unity. | 17,371 | 16,111 |
| Brandon. | 229,612 | 220,793 | Uranium City |  | 12,298 |
| Carman. | 17,688 | 17,081 | Wadena. | 15,388 | 14,498 |
| Dauphin. | 56,875 | 61.514 | Watrous | 11,855 | 11,544 |
| Flin Flon | 55,952 | 55,486 | Weybur | 53,598 | 52,012 |
| Fort Church | 12,042 | 12,100 | Wilkie. | 16,622 | 16,063 |
| Gimli.. | 15,588 | 10.011 | Wynyard | 13,276 | 12,940 |
| Killarney. | 12,843 | 12,343 | Yorkton | 97,084 | 94,911 |
| Minnedosa | 18,808 | 18,042 |  |  |  |
| Morden. | 15,263 | 15,142 | Totals, Saskatchewan.. | 6,106,509 | 6,042,582 |
| Neepawa | 28,000 | 27,134 |  |  |  |
| Pine Falls. | 13,204 | 11,466 |  |  |  |
| Portage la Prairie........ | 85,278 | 85,959 | Alberta |  |  |
| Roblin. | 13,397 | 13,098 |  |  |  |
| Russell | 12,782 | 11,388 | Athabasca. | 13,130 | 12,743 |
| Selkirk | 31,055 | 29,590 | Banff. | 53,821 | 59,117 |
| Sifton. | 10,502 | 16,898 | Barrhead | 16,086 | 15,130 |
| Souris | 13,556 | 13,738 | Beaverlodge |  | 10,087 |
| Steinbach | 17,767 | 19,133 | Blairmore. | 15,220 | 13,895 |
| Swan Riv The Pas. | 25,200 27,620 | 23,232 26,197 | Bonnyvill Bowden. | 13,119 12,013 | 13,513 11,507 |

[^308]
## 3.-Gross Postal Revenue of Offices collecting upwards of $\mathbf{\$ 1 0 , 0 0 0}$ for the Years Ended Mar. 31, 1953 and 1954 -continued

| Province and Post Office | 1953 | 1954 | Province and Post Office | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | $\delta$ | \$ |
| Alberta-concl. |  |  | British Columbla-concl. |  |  |
| Bowness. | 1 | 12,373 | Cloverdale | 39,524 | 38,582 |
| Brooks. | 26,742 | 24,336 | Comox |  | 10,051 |
| Calgary | 2,101,012 | 2,070,924 | Courtena | 56,831 | 55,496 |
| Camrose | 52,571 | 50,607 | Cranbrook | 49,708 | 46,804 |
| Cardston. | 20,644 | 18,173 | Creston. | 27,141 | 24,938 |
| Clareshol | 26,405 | 26,713 | Cumberland | 10,249 |  |
| Coaldale | 10,470 | 10,935 | Dawson Cre | 44,464 | 48,343 |
| Coleman | 17,549 | 14,410 | Duncan. | 72,928 | 68, 264 |
| Devon. |  | 10,163 | Enderby................. | 11,714 | 11,253 |
| Didsbury | 14,779 | 13,568 | Fernie.................. | 25,330 | 23,320 |
| Drumhell | 45,599 | 43,850 | Fort St. John. | 18,022 | 17,502 |
| Edmonton | 2,517,995 | 2,566,653 | Ganges. | 11,773 | 10,590 |
| Edson. | 22,266 | 24,304 | Gibsons. | 11,794 | 11,059 |
| Fairview | 13,470 | 12,439 | Golden. | 10,978 | 10,657 |
| Fort Macleod | 18,313 | 16,518 | Grand For | 18,839 | 17,473 |
| Fort Saskatchewan |  | 11,328 | Haney.. | 37,371 | 36,653 |
| Grande Prairie. | 50,716 | 51,589 | Hope | 17,716 | 17,863 |
| Hanns. | 21,119 | 20,964 | Kamloops | 136,046 | 135,783 |
| High Prairi | 14,199 | 14,058 | Kelowna. | 137,945 | 128,658 |
| High River | 22,661 | 19,827 | Kemano | $29,613^{2}$ | 41,414 |
| Innisfail | 21,118 | 20,460 | Kimberley | 39,292 | 34,414 |
| Jasper | 26,584 | 24.560 | Kitimat. | 13,5833 | 27,417 |
| Lacom | 32,514 | 31, 106 | Ladner | 27,224 | 25,545 |
| Leduc. | 17,231 | 15,580 | Ladysmith | 19,540 | 18,022 |
| Lethbridge | 287,433 | 291,107 | Lake Cowichan. | 11,213 | 10,543 |
| Medicine H | 128,284 | 119,905 | Langley Prairie | 41,428 | 41,881 |
| Nanton. | 11,358 | 11,271 | Merritt. | 12,054 | 12,278 |
| North Edmont | 15,511 | 15,728 | Mission City | 50,480 | 51,152 |
| Oids.. | 25,066 | 24,048 | Nanaimo | 139,300 | 130,967 |
| Peace River | 34,195 | 31,598 | Nelson. | 117,736 | 111,080 |
| Pincher Cree | 17,814 | 16,534 | New Westminster | 443,845 | 427,305 |
| Ponoka. | 30,957 | 30,216 | Ocean Falls. | 21,646 | 21,345 |
| Provost. | 10,415 | 1 | Oliver. | 26,412 | 24,448 |
| Raymond. | 14,644 | 13,792 | Osoyoos | 12,635 | 12.248 |
| RCAF Station, |  |  | Parksville | 13,381 | 12,830 |
| Edmonton. | 14,787 | 15,853 | Penticton. | 106,934 | 96,816 |
| Red Deer. | 103,688 | 108,689 | Port Alberni | 69,530 | 63,893 |
| Rocky Mountain Hous | 15,688 | 14.972 | Port Alice. | 11,223 |  |
| St. Paul | 19,079 | 19,332 | Port Coquitlam | 18,026 | 18,092 |
| Sedgewick | 10,125 |  | Powell River. | 33,099 | 28,903 |
| Stettler. | 33,522 | 33,818 | Prince George | 105,898 | 103,873 |
| Taber. | 26,173 | 24,821 | Prince Rupert | 110,643 | 105,148 |
| Three Hill | 33,595 | 37,146 | Princeton. | 19,191 | 17,097 |
| Vegreville | 22,873 | 22,491 | Qualicum Beach | 14,699 | 14,180 |
| Vermilion | 26,110 | 24,097 | Quesnel..... | 47,493 | 37,128 |
| Viking. | 10,308 | 10,083 | Revelstoke | 30,816 | 27,153 |
| Vulcan. | 15,483 | 14,400 | Rossland. | 24,315 | 22,132 |
| Wainwrigh | 27,823 | 24,764 | Royal Oak | 10,020 | 10,418 |
| Westlock. | 19,499 | 18,727 | Saanichton | 12,012 | 10,780 |
| Wetaskiw | 39,826 | 39,403 | Salmo. | 10,188 |  |
| Totals, Alberta......... | 7,530,982 | 7,445,433 | Salmon Sardis.. | 30,434 14,410 | 28,961 14,290 |
|  |  |  | Sidney..................... | 24,562 | 22,803 |
|  |  |  | Smithers................. | 20,935 | 20,969 |
|  |  |  | Steveston | 15,488 | 17,542 |
|  |  |  | Terrace. | 20,421 | 21,824 |
|  |  |  | Trail. . | 140,764 | 122,185 |
| British Columbla |  |  | Vancouv | 6,554,059 | 6,456,039 |
|  |  |  | Vancouver (AMF)4....... | 21,951 | 23,099 |
| Abbotsford | 44,303 | 41,659 | Vanderhoof. | 13,097 | 12,307 |
| Alberni. | 21, 222 | 20.820 | Vernon. | 109,175 | 101,658 |
| Aldergrove............... | 12,045 | 11,854 | Victoria | 1,362,365 | 1,338,923 |
| Armstrong. .............. | 16,331 | 15,142 | Victoria HMC Dockyard. | 23,867 | 25,435 |
| Asheroft. | 10,394 |  | West Summerland. . . . . . | 17,709 | 16,607 |
| Bralorne | 11,429 | 21.041 | Westview | 19,957 | 16,926 |
| Burns Lake. ............. | 23,140 | 21,041 | White Ro | 28,758 | 31,379 |
| Campbell River......... | 32,965 | 31,779 | Williams La | 23,739 | 24,699 |
| Chemai | 16,729 | 17,566 | Totals, British Columbia | 12,078,213 | 11,748,508 |
| Chilliwack. | 93,885 | 89,719 |  |  |  |

[^309]3.-Gross Postal Revenue of Offices collecting upwards of $\$ 10,000$ for the Years Ended Mar. 31, 1953 and 1954-concluded

| Province and Post Office | 1953 | 1954 | Province and $\mathrm{Post}^{\text {st Office }}$ | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\delta$ | \$ |  | \$ | \$ |
| Yukon Territory |  |  | Summary |  |  |
| Dawson. | 16,007 | 13,683 | Newfoundland. . ${ }^{\text {P }}$...... | 1,263,414 | 1,309,380 |
| Whitehorse | 55,307 | 61,616 | Prince Edward Island.... Nova Scotia............ | 424,442 $4,149,099$ | 407,820 $4,095,054$ |
| Totals, Yukon Territory. | 92,265 | 94,562 | New Brunswic | 3,335,647 | 3,242,025 |
|  | 92,265 | 34,562 | Quebec. | 27,218,926 | 27,392,476 |
|  |  |  | Manitoba. | $48,823,629$ $8,483,456$ | $49,225,014$ $8,366,374$ |
|  |  |  | Saskatchewan | 6, 106,509 | 6,042,582 |
|  |  |  | Alberta........ | 7,530,982 | 7,445, 433 |
| Northwest Territories |  |  | British Columbia........ | $\begin{array}{r} 12,078,213 \\ 153,605 \end{array}$ | $\begin{array}{r} 11,748,508 \\ 135,908 \end{array}$ |
| Yellowknife.. | 40,511 | 21,347 |  | 119,567,922 | 119,410,574 |
| Totals, N.W.T........... | 61,340 | 41,346 | P.C. of all Postal Revenue. | $92 \cdot 4$ | 91.9 |

Postage.-The gross revenue receipts shown in Table 2 are received mainly from postage, either in the form of postage stamps and stamped stationery, or postage meter and postage register machine impressions. Some postage is also paid in cash without stamps, stamped stationery or meter and register impressions. The gross value of the postage stamps and stamped stationery sold during each of the latest five fiscal years was: $\$ 57,249,306$ in $1949-50, \$ 57,178,573$ in 1950-51, $\$ 65,093,099$ in 1951-52, $\$ 67,182,548$ in 1952-53 and $\$ 64,546,067$ in 1953-54. Receipts from postage meter or postage register impressions and postage paid in cash by other means were as follows: $\$ 36,292,710$ in 1949-50, $\$ 39,979,297$ in 1950-51, $\$ 48,945,565$ in 1951-52, $\$ 52,733,682$ in 1952-53 and $\$ 55,398,788$ in 1953-54.

## Section 2.-Auxiliary Postal Services

Auxiliary postal services include the issuing of money orders and the operation of the Post Office Savings Bank.

Table 4 shows the amount of money-order business conducted by the Postal Service in recent years. A table showing the financial business of the Post Office Savings Bank will be found in Chapter XXVI, Currency and Banking.
4.-Operations of the Money-Order System, Years Ended Mar. 31, 1915-54

Nots.-Figures from 1868 will be found in the corresponding table of previous Year Books beginning with the 1911 edition.

| Year | Money- <br> Order <br> Offices in <br> Canada | MoneyOrders Issued in Canada | Value of Orders Issued in Canada | Value Payable in- |  | Value of Orders Issued in Other Countries, Payable in Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Canada | Other Countries |  |
|  | No. | No. | \$ | \$ | \$ | \$ |
| 1945. | 7,406 | 20,742,643 | 281,890,291 | 276,704,712 | 5,185,579 | 8,467,849 |
| 1946. | 7.377 | 22,031,756 | 290, 933,503 | 285, 574, 174 | 5,359,329 | $8,732,635$ |
| 1947. | 7,416 | 25,184,900 | 329,557,703 | 321,728, 205 | 7, 829,498 | 9,150,238 |
| 1948. | 7,546 | 27,705,523 | 370, 232,987 | 359,633,658 | 10,599,329 | 7,722,585 |
| 1949. | 7,614 | 28,851,065 | 415, 703,754 | 409,167,635 | 6,536,119 | 7,410,014 |
| 1950. | 11,252 | 38,567,500 | 479,520,987 | 473,364,799 | 6,156,187 | 6,697,818 |
| 1951. | 11,387 | 40,415, 207 | 511,915,621 | 505,935, 524 | 5,980,096 | 3,920,218 |
| 1952. | 11,320 | 41,782, 109 | 580,823,622 ${ }^{\text {r }}$ | 571,396, 122 ${ }^{\text {r }}$ | 9,427,500 | 3,019,522 |
| 1953. | 11,288 | 43,067,940 | $623,266,884{ }^{\text {r }}$ | $606,289,305 \mathrm{r}$ | 16,977,579 | 4,982,551 |
| 1954... | 11,264 | 45,797,958 | 676.080,657 | 656,515,831 | 19,564,826 | 4,763,566 |

## PART V.-THE PRESS

The Canadian Press.-The Canadian Press is the co-operative news-gathering association through which the daily newspapers receive basic world and Canadian (other than local) news reports.

The Canadian news is essentially an exchange between regions, provided by the member papers, edited by CP staffs, transmitted over CP wires and supplemented by direct CP staff reporting, particularly at Ottawa where Parliament is covered directly by CP men for the association's 92 members. World news is obtained from Reuters and the Associated Press, supplemented by a bureau at London, England, and by another at New York, U.S.A., where Canadian editors route AP, Reuters and CP copy into Canada.

Press Statistics.-The following tables are based on data estimated from Canadian Advertising. One serious difficulty has been encountered in connection with the compilation of circulation figures. Reliable circulation figures are relatively easy to obtain for daily newspapers because, in their own best interest, such papers qualify for and subscribe to the Audit Bureau of Circulation requirements: for these, A.B.C. 'net paid' figures were used. However, it is difficult to obtain reliable circulation figures for many weekly newspapers that do not subscribe to the Audit Bureau. Here total circulation (paid and free) was taken where such figures were supported by sworn statements or some other reliable record.

In compiling magazine circulation, total net paid figures, as reported by publishers to the Audit Bureau (including bulk sales), were used. Where such figures were not available-and this was rare-publishers' minimum claims or sworn statements were accepted.

Daily Newspapers.-Daily newspapers are published in Canada in three main language groups: English, French, and foreign. French daily newspapers have, as would be expected, a wide circulation in the Province of Quebec and some of the largest of these papers have been established in that Province for over 60 years. Eleven of the 13 French-language newspapers published in 1953 were established in Quebec Province; and one each in the Provinces of Ontario and New Brunswick.

Many of the daily newspapers extend their influence over the rural areas surrounding the cities where they are published. In this respect, they supplement the weekly newspapers which feature essentially local news and serve the smaller cities, towns and rural areas only.

The larger metropolitan dailies, especially those of Montreal, Que., and Toronto, Ont., have built up considerable circulation in areas outside their own citics. This is especially true since rapid freight transport by highway and latterly by air has become more common. Moreover, because they command exclusive feature services that the dailies of the smaller cities cannot afford, they are thus placed in an advantageous position in competition with the local dailies.

Weekly Newspapers.*-Weekly newspapers circulate within relatively restricted areas around their publication centres. They cater to a limited local interest but, within the areas they serve, exercise an important influence. Canada is well served by foreign-language weekly newspapers; in 1953, these had a stated circulation of 271,831 copies, among which Ukrainian language papers had a circulation of 67,251 copies, German 38,484, Yiddish 28,465, and Polish 24,690 copies.

[^310]
## 1.-Estimated Numbers and Circulations ${ }^{1}$ of reporting Daily and Weekly ${ }^{2}$ English-Language Newspapers, by Province, 1951-53

Nore.-Figures from 1945 will be found in the corresponding table of previous Year Books beginning with the 1947 edition.

| Province or Territory | 1951 |  |  |  | 1952 |  |  |  | 1953 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Daily |  | Weekly |  | Daily |  | Weekly |  | Daily |  | Weekly |  |
|  | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation |
| N'f'ld...... | 2 | 22,905 | 8 | 44,889 | 3 | 29,814 | 5 | 34,487 | 3 | 31,737 | 4 | 30,424 |
| P.E.I. | 2 | 18,713 | 1 | 3,541 | 2 | 19,044 | 1 | 3,541 | 2 | 18,852 | 1 | 5,611 |
| N.S. | 6 | 205,833 | 28 | 80,376 | 5 | 142,807 | 28 | 79,211 | 5 | 145,305 | 26 | 75,539 |
| N.B. | 3 | 71,913 | 16 | 45,398 | 3 | 72,829 | 16 | 46,849 | 3 | 74,797 | 16 | 46,554 |
| Que. | 5 | 260,835 | 27 | 429,881 | 5 | 273,153 | 28 | 316,527 | 5 | 278,037 | 30 | 335,596 |
| Ont. | 37 | 1,551,490 | 255 | 1,416,234 | 38 | 1,585,215 | 252 | 1,502,168 | 38 | 1,579,545 | 251 | 1,478,105 |
| Man. | 6 | 180,256 | 64 | 69,168 | 6 | 181,311 | 63 | 86,688 | 6 | 191,290 | 63 | 89,532 |
| Sask. | 4 | 90,839 | 151 | 149,238 | 4 | 90,826 | 151 | 162,177 | 4 | 93,925 | 145 | 156,098 |
| Alta. | 5 | 169,909 | 111 | 115,108 | 5 | 177,714 | 113 | 117,657 | 5 | 187,810 | 102 | 121,923 |
| B.C........ | 11 | 367,723 | 75 | 171,827 | 11 | 389, 188 | 76 | 181,623 | 11 | 410,310 | 77 | 188,197 |
| Yukon and N.W.T.. | - | - | 3 | 2,850 | - | - | 3 | 3,050 | - | - | 3 | 3,450 |
| Canada.. | 81 | 2,940,416 | 739 | 2,528,510 | 82 | 2,961,901 | 736 | 2,533,978 | 82 | 3,011,608 | 718 | 2,531,029 |

${ }^{1}$ Circulation not reported for all newspapers. $\quad{ }^{2}$ Includes bi-weeklies, tri-weeklies and national week-end papers.

## 2.-Estimated Numbers and Circulations ${ }^{1}$ of reporting Daily and Weekly ${ }^{2}$ French-Language Newspapers, by Province, 1951-53

Nore.-Figures from 1945 will be found in the corresponding table of previous Year Books beginning with the 1947 edition.

| Province | 1951 |  |  |  | 1952 |  |  |  | 1953 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Daily |  | Weekly |  | Daily |  | Weekly |  | Daily |  | Weekly |  |
|  | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation |
| N'f'ld...... | - | - | - | - | - | - | - | - | - | - | - | - |
| P.E.I....... | - | - | - | - | - | - | - | - | - | - | - | - |
| N.S. | - | - | 1 | 1,435 | - | - | 1 | 1,435 | - | - | 1 | 1,435 |
| N.B........ | 1 | 7,041 | 1 | 4,000 | 1 | 9,178 | 1 | 4,000 | 1 | 8,527 | 1 | 3,843 |
| Que. | 11 | 581,151 | 110 | 1,421,417 | 10 | 572,729 | 118 | 1,487,131 | 11 | 609,370 | 122 | 1,568,681 |
| Ont........ | 1 | 27,712 | 3 | 7,100 | 1 | 26,690 | 4 | 16,025 | 1 | 26,017 | 5 | 62,851 |
| Man........ | - | - | 1 | 10,447 | - | - | 1 | 9,191 | - | - | 1 | 9,291 |
| Sask....... |  | - | 1 | 1,302 | - | - | 1 | 1,202 | - | - | 1 | 1,202 |
| Alta......... |  | - | 1 | 3,612 | - | - | 1 | 2,700 | - | - | 1 | 2,700 |
| Totals.... | 13 | 615,904 | 118 | 1,449,313 | 12 | 608,597 | 127 | 1,521,684 | 13 | 643,914 | 132 | 1,650,003 |

${ }^{1}$ Circulation not reported for all newspapers.
${ }^{2}$ Includes national week-end papers.

## 3.- Istimated Numbers and Net Paid Circulations of reporting Daily and Weekly English-Language Newspapers published in Urban Centres of $\mathbf{3 0 , 0 9 8}$ Population or Over, 1952 and 1953.

Nors.-Figures from 1945 will be found in the corresponding table of previous Year Books beginning with the 1947 edition.

| Urban Centre | $\begin{gathered} \text { Census } \\ 1951 \end{gathered}$ | 1952 |  |  |  | 1953 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Daily |  | Weekly |  | Daily |  | Weekly |  |
|  | No. | No. | Net Paid Circulation | No. | Net Paid Circulation | No. | Net Paid Circulation | No. | Net Paid Circulation |
| Brantford, Ont. | 10,375 | 1 | 19,081 |  | - | 1 | 19,080 | - | - |
| Calgary, Alta... | 37,710 | 2 | 78,227 | - | - | 2 | 81,799 | - |  |
| Edmonton, Alta. | 42,925 | 1 | 80,207 | 3 | 7,425 | 1 | 85,543 | 2 | 6,998 |
| Fort William, Ont | 9,300 18,710 | 1 | 13,322 103,339 | - |  | 1 | $\begin{array}{r}13,316 \\ 104 \\ \hline\end{array}$ |  |  |
| Hamilton, Ont | 55,340 | 1 | 81,225 | 1 | 18,2501 | 1 | 84,249 | 1 | 18,000 ${ }^{1}$ |
| Kingston, Ont. | 8.710 | 1 | 17,808 | 1 | 40,614 ${ }^{2}$ | 1 | 18,959 | 1 | 38,222 ${ }^{\text {2 }}$ |
| Kitchener, Ont | 11,570 | 1 | 27,015 | - | , | 1 | 29,203 | - | ,222 |
| London, Ont. | 26,385 | 1 | 84,200 | 7 |  | 1 | 86,074 | $\overline{8}$ |  |
| Montreal, Que | 247,485 | 3 | 259,969 | 7 | 225,372 ${ }^{\text {2 }}$ | 3 | 264,665 | 8 | 234,4774 |
| Oshawa, Ont. | 11,225 | 1 | 10,903 | - |  | 1 | 11,986 |  |  |
| Ottawa, Ont. | 48,965 | 2 | 117,796 | - | - | 2 | 118,917 | $\square$ | - |
| Peterborough, Ont | 10,020 | 1 | 15,985 | 1 | 6,046 | 1 | 15,878 | 1 | 6.046 |
| Port Arthur, On | 8,425 34,970 | 1 | 11,435 | - |  | 1 | 11,353 | - | - |
| Quebec, Que. | 34,970 | 1 | 5,099 | - | 2 | 1 | 4,971 | $\checkmark$ |  |
| Regina, Sask..... | 19,160 | 1 | 42,647 | 1 | 2,487 | 1 | 43,702 | 1 | 2,400 |
| St. Catharines, On | 10,380 10,570 | $\frac{1}{2}$ | 19,731 24,939 | 2 | 28,320 | 2 | 20,882 26,862 | 2 | 25,307 ${ }^{\text {s }}$ |
| Saint John, N.B. | 13,180 | 1 | 43,339 | 1 | 6,300 | 1 | 45,062 | 1 | 6,300 |
| Sarnia, Ont.. | 9,380 | 1 | 12,196 |  |  | 1 | 12,718 |  |  |
| Saskatoon, Sask.. | 14,980 | 1 | 33,623 | - | - | 1 | 35,520 | - | - |
| Sault Ste. Marie, On | 7,855 | 1 | 12,205 | - | - | 1 | 13,100 | - |  |
| Sherbrooke, Que. | 11,545 | 1 | 8.085 | 1 | 3,400 | 1 | 8,401 | 1 | 3,400 |
| Sudbury, Ont. | 9.450 | 1 | 19,963 |  |  | 1 | 21,038 |  |  |
| Sydney, N.S. | 6,325 | 1 | 26,603 | 5 | , | 1 | 26,603 | 5 |  |
| Toronto, Ont. | 157,175 | 4 | 890,237 | 5 | 993,4426 | 4 | 865,048 | 5 | 961,123 |
| Three Rivers, Q | 9.530 | - | - | 1 | 3,889 | $-$ | - | 1 | 3,975 |
| Vancouver, B.C | 101,330 | 3 | 312,983 | 2 | 7.750 | 3 | 332,560 | 3 | 12,500 |
| Verdun, Que. | 19,805 | 2 | - 715 | ${ }_{2}^{2}$ | 32,063 ${ }^{\text {r }}$ | $\checkmark$ |  | 2 | 33,1017 |
| Victoria, B.C | 15,790 | 2 | 47,415 |  | 31,4418 | 2 | 47,377 | 1 | 31,4618 |
| Windsor, Ont | 31,815 | 1 | 71,438 | - | - | 1 | 73,242 | - | - |
| Winnipeg, Man... | 64,630 | 2 | 169,652 | - | - | 2 | 178,923 | - | - |

[^311]
## 4.-Estimated Numbers and Circulations of reporting Daily and Weekly FrenchLanguage Newspapers in Urban Centres of 30,000 Population or Over, 1952 and 1953.

Nors.-Figures from 1945 will be found in the corresponding table of previous Year Books beginning with the 1947 edition.

| Urban Centre | $\begin{gathered} \begin{array}{c} \text { Census } \\ 1951 \end{array} \\ \hline \begin{array}{c} \text { House- } \\ \text { holds } \end{array} \end{gathered}$ | 1952 |  |  |  | 1953 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Daily |  | Weekly |  | Daily |  | Weekly |  |
|  | No. | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation |
| Edmonton, Alta. | 42,925 | - | - | 1 | 2,700 | - | - | 1 | 2,700 |
| Hull, Que..... | 9,325 | 5 |  | 2 | 7,275 | $\bigcirc$ | $\stackrel{-}{5181}$ | 2 | 7, 7 , 275 |
| Montreal, Que | 247,485 | 5 | 329,412 | 15 | 1,084,037 ${ }^{1}$ | 5 | 345,481 | 17 | 1,176,386 ${ }^{2}$ |
| Ottawa, Ont.. | 48,965 | 1 | 26,690 | 15 | 1,081,0 | 1 | 26,017 | 1 | 1, $46,800^{3}$ |
| Quebec, Que. | 34,970 11545 | 2 | 192,845 | 1 |  | 2 | 198,557 | 1 | - 77 |
| Sherbrooke, Que Sudbury, Ont. | 11,545 9,450 | 1 | 20,448 | 1 | 30,775 1,825 | 1 | 23,853 | 1 | 30,775 |
| Thabury, Ont...... | 9,450 9,530 | 1 | 25,454 | 1 3 | 1,825 10,223 | 1 | 27,121 | 1 3 | 1,851 13,559 |
| Winnipeg, Man..... | 64,630 | - | 25,454 |  | 9,191 | - | 27,121 | 1 | 9,291 |

${ }^{1}$ Includes 5 bilingual, 5 national week-end, 2 Saturdsy and 1 Sunday editions.

## 5.-Estimated Numbers and Circulations of Weekly Foreign-Language Newspapers, 1951-53

Nore.-Figures from 1945 will be found in the corresponding table of previous Year Books beginning with the 1947 edition.

| Language | $1951^{1}$ |  | $1952^{1}$ |  | $1953{ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Circulation | No. | Circulation | No. | Circulation |
| Bulgarian. | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 |
| Estonian.. | 1 | 2,500 | 2 | 7,991 | 2 | 9,807 |
| Finnish... | 4 | $\cdot 17,200$ | 4 | 14,691 | 4 | 15,206 |
| German... | 4 | 30,620 | 4 | 32,484 | 5 | 38,484 |
| Hungarian. | 1 | 3,450 | 1 | 2,349 | 2 | 8,543 |
| Icelandic. . | 3 | 13,425 | 3 | 13,175 | 2 | 8,605 |
| Italian.. | $\square$ | - | 2 | 20,670 | 2 | 20,770 |
| Japanese. | 1 | 3,400 | 2 | 5,453 | 2 | 6,900 |
| Latvian... | 1 | - | 1 | 4,000 | 1 | 5,180 |
| Lithuanian. | 1 |  | 2 | 4,850 ${ }^{2}$ | 2 | $4,850^{2}$ |
| Norwegian. | 1 | 4,820 | 1 | 4,820 | 1 | 4,880 |
| Polish..... | 3 | 23,656 | 3 | 22,372 | 3 | 24,690 |
| Russian. | 1 | - | - | - | 1 | 4,020 |
| Slovak. | 1 | 3,500 | 1 | 3,128 | 1 | 3,150 |
| Swedish. | 3 | 9,871 | 2 | 5,103 | 2 | 5,271 |
| Ukrainian | 7 | 62,179 | 7 | 62,743 | 7 | ${ }^{67,251}$ |
| Yiddish.. | 3 | 28,465 | 3 | 28,465 | 3 | 28,465 |
| Yugoslav. | 1 | 4,768 | 2 | 9,088 |  | 14,759 |

${ }^{1}$ Includes some bi-and tri-weeklies. $\quad{ }^{2}$ Círculation for 1 newspaper only.

Other Publications and Periodicals.-Table 6 shows the number of publications, other than newspapers, published in Canada. Monthly and weekly magazines and periodicals enjoy the largest circulation: those dealing with home, social and welfare, agricultural and rural topics, and religious, trade, industry and related subjects are the most popular.

## 6.-Estimated Numbers and Circulations of reporting Magazines and Related Publications, by Broad Classifications, 1951-53

Note.-Figures from 1945 will be found in the corresponding table of previous Year Books beginning with the 1947 edition.

| Classification | 1951 |  |  | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Reporting |  | Listed | Reporting |  | Listed | Reporting |  |
|  | No. | No. | Circulation | No. | No. | Circulation | No. | No. | Circulation |
| Agricultural and rural | 55 | 52 | 2,534,970 | 56 | 55 | 2,569,817 | 57 | 56 | 2,588,544 |
| Arts, crafts and professions | 19 | 18 | 113,399 | 19 | 18 | 117,281 | 19 | 18 | 97,254 |
| Construction............... | 16 | 16 | 121,415 | 18 | 17 | 126,232 | 20 | 18 | 132,196 |
| Educational. | 54 | 51 | 438,899 | 57 | 54 | 464,401 | 62 | 60 | 484,002 |
| Finance and insurance..... | 14 | 7 | 67,455 | 14 | 8 | 77,642 | 14 | 9 | 104,499 |
| Government and government services. | 27 | 24 | 268,107 | 25 | 23 | 283,990 | 26 | 24 | 291,289 |
| Home, social and welfare. | 47 | 44 | 3,932,209 | 48 | 44 | 4,146,807 | 45 | 42 | 4,039,670 |
| Labour................... | 20 | 17 | 235,924 | 21 | 17 | 247, 172 | 20 | 15 | 209,783 |
| Pharmaceutical and medical. | 32 | 28 | 116,582 | 33 | 30 | 119,347 | 32 | 28 | 122,221 |
| Religious......... | 35 | 35 | 698,207 | 36 | 36 | 743,280 | 37 | 37 | 816,129 |
| Services and directories... | 61 | 52 | 300,282 | 63 | 55 | 367,475 | 62 | 55 | 435,109 |
| Sports and entertainment. | 26 | 19 | 315,580 | 30 | 24 | 320,218 | 31 | 23 | 297,450 |
| Trade, industry and other related publications..... | 171 | 158 | 790,155 | 174 | 160 | 791,390 | 178 | 167 | 848,273 |
| Transportation and travel | 29 | 28 | 235, 223 | 32 | 31 | 302,791 | 31 | 31 | 329,030 |
| Miscellaneous............. | 40 | 39 | 443,770 | 39 | 39 | 442,101 | 39 | 38 | 439,015 |
| Totals. | 646 | 588 | 10,612,177 | 665 | 611 | 11,119,944 | 673 | 621 | 11,234,464 |

## CHAPTER XXI.-DOMESTIC TRADE

## CONSPECTUS

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Nors.-The interpretation of the symbols used in the tables throughout the Year Book witl be found facing $p .1$ of this volume.

## PART I.-THE MOVEMENT AND MARKETING OF COMMODITIES

Domestic trade is broad and complicated: it encompasses all values added to commodities traded, provincially and interprovincially, by agencies and services connected with the storage, distribution and sale of goods, such as railways, steamships, warehouses, wholesale and retail stores, financial institutions, etc. Taken in a wide sense, it embraces various professional and personal services including those directed to the amusement of the people, such as theatres and sports. However, not all phases of this broad field are covered here, though, wherever possible, cross references are given to related material appearing in other Chapters. The arrangement of material in a volume such as the Year Book is governed by the necessity of interpretation from various angles. The Index will be found useful in this respect.

## Section 1.-Merchandising and Service Establishments

## Subsection 1.-Statistics of the 1951 Census of Distribution*

The 1951 Census of Distribution is the third of its kind taken in Canada. The first complete survey of trading establishments was taken as part of the Census of 1931, and related to business transacted during the calendar year 1930. The

[^312]results of that Census are contained in Vols. X and XI of the 1931 Census report and constitute the first detailed body of data available regarding the wholesale, retail, and service marketing structure of the country.

Results of the second complete Census of Distribution relate to the year 1941, and provide a means of measuring the changes which took place in the marketing structure of Canada during the years 1930-41. These data are contained in Vols. X and XI of the 1941 Census report. The information secured through the 1951 Census of Distribution, reflects the many changes that took place during the great expansion period following World War II. Complete details are contained in Vols. VII and VIII of the 1951 Census report.

Wholesale Trade.-The Census of Distribution bases its survey of wholesale trade on a concept that includes all establishments engaged in trade with customers other than household consumers, provided the establishment is mainly engaged in the resale of goods it originally purchased. Therefore, manufacturing establishments do not fall within this category nor do retailers selling to household consumers, but the definition does include those entrepreneurs who relay goods from the producer direct to retailers for resale, as well as those whose principal trade is with business establishments, and other large non-household consumers, which purchase goods for their own consumption. Contingent upon, or complementary to, these types of operation, are the wholesalers who facilitate this relay of goods, either by bringing buyer and seller together (agents and brokers), or by actually buying the goods for subsequent trading within the wholesale field itself. This results in a considerable volume of trade between the various types of wholesalers, as is shown in Table 1. It follows, therefore, that the sum of the sales of all types of wholesalers overstates the actual value of goods moving out of the wholesale field.
1.-Percentage Distribution of Wholesale Sales, by Major Type of Operation, 1951

| Major Type of Operation | Retailers (for Resale) | Industrial and Other Large Users | Other Wholesalers (for Resale) | Household Consumers | Export |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | p.c. | p.c. | p.c. | p.c. | p.c. |
| Wholesalers proper | 48.9 | 32.5 | 10.5 | $2 \cdot 0$ | $6 \cdot 1$ |
| Petroleum, bulk tank stations............ | 31.8 | $34 \cdot 4$ | 25.5 | $6 \cdot 9$ | 1.4 |
| Assemblers of primary products.......... | 15.5 | 26.9 | 43.4 | $2 \cdot 5$ | 11.7 |
| Manufacturers' sales branches and offices. | 30.8 | 37.2 | 17.3 | $0 \cdot 2$ | 14.5 |
| Agents and brokers..................... Other types of operation........ | 12.7 82.8 | 20.8 14.6 | 32.8 2.0 | 0.1 0.3 | 13.6 0.3 |
| All Establishments............ | $34 \cdot 4$ | 31.8 | 19.4 | $1 \cdot 6$ | 12.8 |

Wholesale establishments are classified by two criteria: according to the manner in which they conduct business operations (type of operation) and according to the type of goods sold (kind of business). Table 2 presents statistics classified by type of operation, and Table 3 is a compilation by kind-of-business classification. In this connection, establishments were classified individually according to the characteristics of the establishment concerned, and not on a firm basis. As a result, multiple establishments under the same ownership could be classified differently, depending on the operations of each establishment. It is also noteworthy that the classifications have their descriptive limits; consequently, each establishment was classified according to its major characteristics. Thus, it is often true that an establishment assigned to a specific category, e.g., "food", was for the most part engaged in the sale of food, but non-food commodities could have been sold in varying minor proportions.

In 1951, there were 26,167 wholesalers of all types whose aggregate volume of business transacted was $\$ 14,401,036,700$. The number of establishments increased $5 \cdot 7$ p.c. as compared with 1941, but the dollar volume of business increased about three-fold.

As in 1941, the Provinces of Ontario and Quebec accounted for most of the trade in 1951 , but to a lesser degree- $65 \cdot 6$ p.c. in 1941 compared with 58.4 p.c. in 1951. The small declines in the proportion of the Canada total accounted for by these two provinces were offset mainly by increases in Manitoba and British Columbia. Most of the total sales volume originated in the larger cities; $79 \cdot 1$ p.c. in cities of 30,000 population or over and 58.4 p.c. in the four largest Canadian citiesMontreal, Toronto, Winnipeg and Vancouver.

By kind of business, wholesalers proper were most active in groceries and food specialties, where sales of $\$ 883,272,800$ accounted for $16 \cdot 1$ p.c. of total trade in those commodities. Manufacturers' sales offices were most active in metals and metal work, machinery and electrical goods; and the trading of agents and brokers was most important in terms of dollar sales volume of farm products (raw materials).

Wholesalers of all types employed a minimum of 178,658 persons and a maximum of 224,526 in 1951. Though the figures for employees were not compiled on a basis comparable with 1941, the payroll in 1951 of $\$ 543,047,800$ was comparable with that of $\$ 189,449,100$ in 1941 , and exceeded it by $180 \cdot 6$ p.c.

Table 5 shows wholesale establishments grouped according to the number of employees for 1951 . Those with five or more employees accounted for only 36 p.c. of the total number of establishments, but were responsible for 78 p.c. of the total dollar volume of wholesale trade.
2.-Wholesale Trade, classified by Major Type of Operation, by Province, 1951

| Province and Major Type of Operation | Estab-lishments | Sales | Working Proprietor | Employees |  | Payroll | Stocks on Hand, Dec. 31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Minimum | Maximum |  |  |
| ewfoun | No. | s'000 | No. | No. | No. | \$'000 | \$'000 |
| Wholesalers proper. | 186 | 72,735 | 116 | 2,560 | 3.458 | 4,981 | 11,461 |
| Petroleum bulk tank stations..... | 25 | 19,211 | 9 | $\begin{array}{r}332 \\ 33 \\ \hline\end{array}$ | ${ }_{126}^{471}$ | 1,077 | 5,429 |
| Assemblers of primary products. Manufacturers ${ }^{\text {a }}$ (eales branches and | 9 | 1,956 |  |  |  |  |  |
| offices... | 17 | 20,003 |  | 170 | 194 | 563 | 1,403 |
| Agents and brokers. | 44 | 14,605 | 30 | 168 | 346 | 465 | 557 |
| Totals, Newfoundland | 281 | 128,510 | 159 | 3,263 | 4,595 | 7,160 | 19,207 |
| Prince Edward Island- |  |  |  |  |  |  |  |
| Wholesalers proper. |  | 16,961 |  | 344 |  | 866 |  |
| Petroleum bulk tank stations... | 26 | 6,339 |  | 55 | 66 | 129 |  |
| Assemblers of primary products. | 64 | 8,325 | 58 | 128 | 305 | 351 | 431 |
| Monufacturers sales offices. | 8 |  |  | 17 |  | 34 |  |
| Agents and brokers. | 11 | 1,400 | 10 | 22 | 34 | 48 | 155 |
| Totals, Prince Edward Island. | 157 | 33,433 | 130 | 565 | 995 | 1,427 | 2,874 |
| Nora Scoth- |  |  |  |  |  |  |  |
| Wholesslers proper. | 364 | 136,839 | 178 | 3,083 | 4,012 | 7.863 | 16,459 |
| Assemblers of primary products.. | 138 84 | 33,875 | 61 | ${ }_{374}^{617}$ | 813 | 1,718 | 2,575 |
| Manufacturers' sales branches and |  |  |  |  |  |  | 772 |
| offices.......... | 125 | 109,931 |  | 1,482 | 1,784 |  |  |
| Agents and brokers..... | 29 | 12,937 | 15 | 127 | 150 | 300 | 339 |
| Totals, Nova Scotia | 740 | 368,392 | 329 | 5,683 | 7,467 | 15,367 | 27,640 |

## 2.-Wholesale Trade, classified by Major Type of Operation, by Province, 1951continued

| Province and <br> Major Type of Operation | Estab-lishments | Sales | Working Proprietors | Employees |  | Payroll | Stocks on Hand, Dec. 31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Minimum | Maximum |  |  |
|  | No. | \$'000 | No. | No. | No. | \$'000 | $8^{\prime} 000$ |
| New Brunswick- |  |  |  |  |  |  |  |
| Wholesalers proper | 252 | 109,503 | 120 | 2,604 | 3,510 | 6,836 | 12,360 |
| Petroleum bulk tank stations. | 101 | 32,525 | 56 | 354 | ${ }^{453}$ | 986 | 3,178 |
| Assemblers of primary products.. | 72 | 30,458 | 48 | 483 | 1,603 | 1,328 | 1,175 |
| Manufacturers sales branches and offices. | 113 | 72,057 | - | 1,123 | 1,283 | 3,193 | 6,955 |
| Agents and brokers.............. | 30 | 7,134 | 29 | 95 | 118 | 248 | 567 |
| Totals, New Brunswick | 568 | 251,676 | 253 | 4,659 | 6,967 | 12,591 | 24,236 |
| Quebec- |  |  |  |  |  |  |  |
| Wholesalers proper | 3,304 | 1,755,517 | 2,200 | 29,816 | 36,670 | 87,497 | 196,741 |
| Petroleum bulk tank stations. | 341 | 218,284 | 224 | 2,189 | 2,555 | 6,877 | 5,812 |
| Assemblers of primary products. | 422 | 159,701 | 359 | 1,837 | 2,592 | 4,528 | 8,733 |
| Manufacturers' sales branches and offices. | 583 | 1,320,640 | 3 | 10,078 | 11,379 | 34,604 | 68,528 |
| Agents and brokers............... | 445 | 558,724 | 322 | 1,907 | 2,552 | 7,297 | 14,309 |
| Other types of operation | 70 | 20,623 | 65 | 363 | 445 | 876 | 1,180 |
| Totals, Quebec | 5,165 | 4,033,489 | 3,173 | 46,190 | 56,193 | 141,680 | 295,304 |
| Ontario- |  |  |  |  |  |  |  |
| Wholesalers proper | 3,669 | 1,955,327 | 2,412 | 36,535 | 44,481 | 113,136 | 226,297 |
| Petroleum bulk tank stations..... | 676 | 390,266 | ${ }_{663}^{361}$ | 4,687 2,974 | 5,561 5,254 | 13,251 9,191 | 33,434 10,858 |
| Assemblers of primary products. | 686 | 323,447 | 663 | 2,974 | 5,254 | 9,191 | 10,858 |
| offices. | 907 | 1,303,620 | 3 | 12,712 | 14,793 | 42,995 | 69,326 |
| Agents and brokers............... | 486 | 353,853 | 378 | 1,872 | 2,474 | 6,723 | 9,276 |
| Other types of operstion | 88 | 57,022 | - | 971 | 1,143 | 3,135 | 1,167 |
| Totals, Ontario. | 6,512 | 4,383,535 | 3,817 | 59,751 | 73,706 | 188,430 | 350,357 |
|  |  |  |  |  |  |  |  |
| Wholesalers proper............ | 600 | 320,210 | 315 | 7,611 | 9,361 | 22,171 | 40,262 |
| Petroleum bulk tank stations..... | 420 | 60,664 | 374 | 908 | 1,129 | 2,609 | 5,221 |
| Assemblers of primary products.. | 832 | 246,202 | 67 | 2,544 | 3,537 | 7,783 | 13,894 |
| Manufacturers sales branches and offices. | 258 | 250,926 | - | 3,068 | 3,691 | 10,053 | 21,454 |
| Agents and brokers............... | 260 | 1,148,477 | 185 | 968 | 1,121 | 3,535 | 44,061 |
| Totals, Manitoba | 2,370 | 2,626,479 | 941 | 15,099 | 18,839 | 46,151 | 124,891 |
|  |  |  |  |  |  |  |  |
| Wholesalers proper............. | 338 | 199,210 | 152 | 4,025 | 4,775 |  |  |
| Petroleum bulk tank stations..... | +984 | 72,800 372,352 | 785 | 1,216 | 1,574 | 3,072 8,473 | 7,781 |
| Assemblers of primary products.. | 2,996 | 372,352 | 33 | 3,466 | 3,932 | 8,473 | 77,629 |
| Manufacturers' sales branches and offices. | 157 | 123,112 | - | 1,603 | 2,003 | 4,940 | 16,993 |
| Agents and brokers | 50 1 | 31,371 | 18 | 161 | 203 | 482 | 671 |
| Tetals, Saskatchewan | 4,526 | 798,844 | 988 | 10,471 | 12,487 | 28,077 | 131,562 |
| Alberta- |  |  |  |  |  |  |  |
| Wholesalers proper. | ${ }_{6}^{646}$ | 392,559 | 230 | 7,605 | 9,630 |  |  |
| Petroleum bulk tank stations..... | 802 | 91,690 310 | 744 | 1,231 | 1,688 | 3,510 8,003 | 7,746 |
|  |  |  |  |  |  |  |  |
| Manufacturers' sales branches and offices. | 243 | 202,242 | - | 2,629 | 3,252 | 8,817 | 25,334 |
| Agents and brokers. Other types of operation. $\qquad$ | 130 2 | 102,504 | 76 | 482 | 727 | 1,702 | 5,079 |
| Totals, Alberta. . . . . . . . . . . | 3,695 | 1,099,373 | 1,152 | 14,907 | 19,289 | 44,655 | 130,137 |

## 2.-Wholesale Trade, classified by Major Type of Operation, by Province, 1951-

 concluded| Province and <br> Major Type of Operation | Estab lishments | Sales | WorkingPro-prietors | Employees |  | Payroll | $\begin{gathered} \text { Stocks } \\ \text { on Hand, } \end{gathered}$$\text { Dec. } 31$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Minimum | Maximum |  |  |
|  | No. | \$'000 | No. | No. | No. | \$'000 | \$'000 |
| British Columbla- |  |  |  |  |  |  |  |
| Wholesalers proper. | 1,079 | 533,880 | 454 | 11,509 | 14,169 | 35,056 | 83,602 |
| Petroleum bulk tank stations..... | 367 | 94,595 | 314 | 1,557 | 1,838 | 5,368 | 7,287 |
| Assemblers of primary products.. | 140 | 49,988 | 63 | 770 | 3,051 | 2,824 | 2,617 |
| Manufacturers' sales branches and offices. | 291 | 391,987 | 1 | 3,504 | 4,034 | 11,734 | 33,066 |
| Agents and brokers.............. | 256 | 263,165 | 197 | 681 | 802 | 2,373 | 3,460 |
| Other types of operation........... | 4 | 694 | 3 | 10 | 13 | 26 | 107 |
| Totals, British Columbia..... | 2,137 | 1,334,308 | 1,031 | 18,051 | 23,907 | 57,381 | 130,138 |
| Yukon and N.W.T.- |  |  |  |  |  |  |  |
| Wholesalers proper. |  | 1,216 | 5 | 18 | 38 | 56 | 144 |
| Petroleum bulk tank stations..... | 6 |  |  |  |  |  |  |
| Assemblers of primary products. Manufacturers' sales branches and offices. | 1 | 1,782 | 11 | 20 | 43 | 72 | 620 |
| Totals, Yukon and N.W.T | 16 | 2,998 | 16 | 38 | 81 | 128 | 764 |
| Canada-1 |  |  |  |  |  |  |  |
| Wholesalers proper............. | 10,486 | 5,492,741 | 6,222 | 105,692 | 130,637 | 312,141 | 674,160 |
| Petroleum bulk tank stations..... | 3,880 | 1,020,249 | 2,958 | 13,146 | 16,043 | 38,597 | 78,974 |
| Assemblers of primary products.. | 7,177 | 1,517,617 | 1,458 | 15,569 | 25,205 | 43,483 | 151,675 |
| Manufacturers' sales branches and offices. | 2,702 | 3,794,925 | 7 | 36,386 | 42,432 | 121,491 | 250,610 |
| Agents and brokers............... | 1,741 | 2,493,563 | 1,259 | 6,458 | 8.488 | 23,101 | 78,220 |
| Other types of operation | 165 | 78,944 | 69 | 1,369 | 1,640 | 4,108 | 2,708 |
| Totals, Canada ${ }^{1}$. | 25,167 | 14,401,037 | 11,289 | 178,658 | 224,526 | 543,048 | 1,237,110 |

[^313]Norr.-Figures for the Yukon Territory and the Northwest Territories are included in "Totals, All Establishments" but are excluded from the individual items.

| Major Type of Operation and Kind of Business | Estab-lishments | Sales | Employees |  | Payroll | Stocks on Hand, Dec. 31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Minimum | Maximum |  |  |
| Wholesalers | No. | \$'000 | No. | No. | \$'000 | \$'000 |
| Amusement, sporting and photographic goods. | 172. | 32,038 | 1,090 | 1,464 | 3,190 | 6,037 |
| Automotive............................ | 902 | 349,137 | 10,983 | 12,825 | 31,072 | 64,042 |
| Beer, wine and distilled spirits. | 261 |  |  |  |  |  |
| Chemicals, drugs and allied products.. | 357 | 163,096 | 3,889 | 4,461 | 11,923 | 16,796 |
| Coal and coke........................ | 127 | 226,665 | 2,257 | 3.116 | 6,157 | 23,302 |
| Dry goods and apparel | 979 | 281,742 | 6,375 | 7,597 | 19,709 | 55,157 |
| Electrical goods. | 390 | 185, 120 | 4,059 | 4.756 | 12,920 | 24,459 |
| Farm products (raw materials)........ | 80 | 136,420 | 415 | 585. | 1,745 | 17,224 |
| Farm supplies. | 126 | 80,386 | 969 | 1,417 | 2,621 | 5,591 |
| Food products (except groceries) and tobacco. | 1,395 | 854,099 | 10,090 | 13,534, | 27,705 | 41,531 |
| Forest products (except lumber)....... | 76 | 16,974 | 507 | 1.483 | 2,028 | 1,366 |
| Furniture and house furnishings... | 321 | 93,448 | 2,495 | 3,043. | 8,616 | 19,107 |
| General merchandise......... | 293 | 197,995 | 4,892 | 5.851 | 13,122 | 30,869 |
| Groceries and food spec | 835 | 883,273 | 12,950 | 15,170 | 33,886 | 80,700 |
| Hardware. . . . . . . . . . . . . . . . . . . . . . . | ${ }_{170}^{289}$ | 261,307 | 8.519 | 9,247. | 22,791 | 66.148 |
| Jewellery ............ | 170 70 | 27,457 9,120 | 880 246 | 1.024 | 2,836 | 8,265 |
| Leather and leather goods. | 70. | 9,120. | 24. | 31. | 914 | 1,580 |

For footnote, see end of table.
3.-Wholesale Trade, classified by Major Type of Operation and Kind of Business, 1951-continued

| Major Type of Operation and Kind of Business | Estab-lishments | Sales | Employees |  | Payroll | Stocks on Hand, <br> Dec. 31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Minimum | Maximum |  |  |
|  | No. | 8'000 | No. | No. | \$'000 | 8'000 |
| Wholesalers Proper-concl. |  |  |  |  |  |  |
| than metal).......... | 698 | 317,187 | 7,185 | 10,280 | 22,682 | 35,739 |
| Machinery equipment and supplies | 1,549 | 605,982 | 13,900 | 16,909 | 46,528 | 109,323 |
| Metals and metal work. | 141 | 216,953 | 1,539 | 1,927 | 5,952 | 15,678 |
| Paper and paper products | 320 | 212,621 | 3,740 | 4,375 | 10,807 | 16,014 |
| Petroleum and petroleum products | 6 |  |  |  |  |  |
| Plumbing and heating equipment and supplies. | 207 | 105,849 | 2,395 | 2,965 | 8,276 | 14,365 |
| Waste materials (including scrap metal) | 444 | 139,815 | 2,912 | 3,886 | 8,214 | 10,271 |
| Other kinds of business................ | 513 | 89,747 | 3,281 | 4,237 | 8,110 | 9.996 |
| Totals, Wholesalers Prop | 10,486 | 5,492,741 | 105,692 | 130,637 | 312,141 | 674,160 |
| Petroleum Bulk Tank Statio | 3,880 | 1,020,249 | 13,146 | 16,043 | 38,597 | 78,974 |
| Assemblers of Primary Products- | 5,941 | 1,160,336 | 9,289 | 11,185 | 25,265 | 129,809 |
| Farm supplies. | 120 | 34,154 | 686 | 1,220 | 1,889 | 3,847 |
| Foed products (except groceries) and tobacco. | 1,053 | 302,046 | 5,031 | 11,257 | 15,203 | 17,091 |
| Forest products (except lumber) <br> Other kinds of business. |  | 21,081 | 563 | 1,543 | 1,125 | 928 |
| Totals, Assemblers of Primary Products. | 7,177 | 1,517,617 | 15,569 | 25,205 | 43,483 | 151,675 |
| Manufacturers' Sales Branches and Offices- <br> Amusement, sporting and photographic |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| Automotive. | 135 | 315,512 | 2,382 | 2,847 | 8,555 | 18,864 |
| Beer, wine and distilled spirits. | 20 | 17,141 | 306 | 369 | 1,041 | 2,678 |
| Chemicals, drugs and allied products.. | 158 | 259,008 | 2,575 | 2,859 | 8,318 | 12,606 |
| Coal and coke. | 1 |  |  |  |  |  |
| Dry goods and appare | 204 | 273,884 | 2,033 | 2,334 | 7,158 | 11,335 |
| Electrical goods. | 187 | 407,995 | ${ }_{1}^{4,464}$ | 1,355 | $\underset{1}{13,981}$ | 11,119 |
| Farm products (raw materials) Farm supplies | -68 | 16,132 | 173 | 191 | 404 | 1,284 |
| Food products (except groceries) and tobacco. | 189 | 274,113 | 2,863 | 3,510 | 8,969 | 21,115 |
| Forest products (except lumber) | , |  |  |  |  |  |
| Furniture and house furnishings. | 81 | 29,574 | 389 | 490 | 1,431 | 2,639 |
| General merchandise...... | 4 | 2,809 | 75 | 86 | ${ }^{216}$ | 859 |
| Groceries and food specia | 275 | 307,436 | 3,679 | 4,005 | 10,717 | 21,027 |
| Hardware. | 28 | 15,913 | 188 | 216 | ${ }^{637}$ | 2,905 |
| Jewellery. | 15 | 3,722 | 46 | 53 | 161 | 431 619 |
| Leather and leather goods. . $\ldots \ldots \ldots \ldots$ | 15 | 7,722 | 86 | 91 | 347 | 619 |
| Lumber and building materials (other than metal) | 256 | 303,225 | 3,441 | 4,126 | 11,836 | 14,771 |
| Machinery, equipment and supplies.... | 580 | 465,116 | 8,534 | 9,934 | 27,735 | 56,386 |
| Metals and metal work. | 105 | 581,191 | 1,185 | 1,395 | 4,837 | 23,084 |
| Paper and paper products. | 168 | 326,918 | 1,229 | 1,358 | 5,506 | 3,836 |
| Plumbing and heating equipment and supplies | 107 | 104,194 | 1,357 | 1,570 | 5,456 | 9,007 |
| Other kinds of business.. | 115 | 49,887 | 1,004 | 1,189 | 2,989 | 4,624 |
| Totals, Manufacturers' Sales Branches and Offices........ | 2,702 | 3,794,925 | 36,386 | 42,432 | 121,491 | 250,610 |
| Agents and Brokers- |  |  |  |  |  |  |
| Amusement, sporting and photographic goods. | 12 | 1,914 | 21 | 29 | 55 | 136 |
| Automotive........................... | 32 | 13,618 | 200 | 250 | 713 | 926 |
| Beer, wine and distilled spirits......... | 20 | 6,831 | 42 | 49 | 188 | -33 |
| Chemicals, drugs and allied products.. | 42 | 15,348 | 253 71 | 299 84 | 840 217 | 1,527 |
| Coal and coke........ | ${ }_{512}^{21}$ | 10,866 | 948 | 1,105 | 3,246 | 2.949 |
| Dry goods and apparel | 512 79 | 191,520 | 948 <br> 320 | 1,105 399 | 1,065 | 1,940 |
|  | 117 | 1,345,002 |  <br> 704 | 1,125 | 2,593 | 45,994 |
| Farm supplies............... | 14 | 17,175 | 139 | 165 | 363 | 855 |
| Food products (except groceries) and tobacco. | 110. | 138,226 | 324 | 467 | 1,032 | 2,619 |

[^314]3.-Wholesale Trade, elassified by Major Type of Operation and Kind of Business, 1951 -concluded

| Major Type of Operation and Kind of Business | Estab-lishments | Sales | Employees |  | Payroll | Stocks on Hand Dec. 31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Minimum | Maximum |  |  |
| Agents and Brokers-concl. | No. | \$ 000 | No. | Mo. | \$'000 | \$'000 |
| Forest products (except lumber)....... | 9 | 4,499 | 24 | 35 | 60 | 811 |
| Furniture and house furnishings. ....... | 61 | 23,312 | 206 | 272 | 803 | 409 |
| General merchandise...... | 44 | 46,102 | 170 | 228 | 630 | 599 |
| Groceries and food specialties | 130 | 145,029 | 573 | 634 | 1,987 | 4,637 |
| Hardware. | 60 | 20,069 | 149 | 169 | 540 | 493 |
| Jewellery............................... | 22 | 3,634 | 64 | 80 | 293 | 537 |
| Leather and leather goods........... | 19 | 12,096 | 72 | 80 | 177 | 399 |
| Lumber and building materials (other than metal) | 74 | 77,422 | 363 | 530 | 1,416 | 3,979 |
| Machinery, equipment and supplies.... | 166 | 36,613 | 589 | 862 | 2,240 | 3,648 |
| Metals and metal work... | 33 | 161,226 | 443 | 478 | 2,016 | 3,028 |
| Paper and paper products.............. | 31 | 94,831 | 99 | 117 | 446 | 87 |
| Petroleum and petroleum products.... | 5 | 3,975 | 69 | 130 | 284 | 67 |
| Plumbing and heating equipment and supplies. | 24 | 4,245 | 45 | 57 | 176 | 155 |
| Other kinds of business. | 104 | 88,300 | 570 | 844 | 1,722 | 2,233 |
| Totals, Agents and Brokers. | 1,741 | 2,493,563 | 6,458 | 8,488 | 23,101 | 78,220 |
| Other Types of Operation............ | 165 | 78,944 | 1,369 | 1,640 | 4,108 | 2,708 |
| Totals, All Establishments* | 26,167 | 14,401,037 | 178,658 | 224,526 | 543,048 | 1,237,110 |

${ }^{1}$ Figures are confidential and cannot be published separately but are included in totals.
4.-Wholesale Trade in Urban Centres of over $\mathbf{3 0 , 0 0 0}$ Population, 1951

| Urban Centre | Estab-lishments | Sales | Working Proprietors | Employees |  | Payroll | Stocks on Hand, Dec. 31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Minimum | Maximum |  |  |
|  | No. | \$'000 | No. | No. | No. | \$'000 | \$'000 |
| Brantiord, Ont. | 72 | 25,045 | 50 | 462 | 544 | 1,238 | 1.996 |
| Calgary, Alta... | 463 | 356,056 | 141 | 5,349 | 6,493 | 16,558 | 33,234 |
| Edmonton, Alts. | 473 | 407,651 | 120 | 5,942 | 7,857 | 18,737 | 48,734 |
| Fort William, Ont | 82 | 60,539 | 26 | 1,029 | 1,264 | 3.150 | 6.591 |
| Halifax, N.S.. | 241 | 177.646 | 41 | 3,024 | 3,623 | 8,794 | 15,144 |
| Hamilton, Ont | 329 | 262,681 | 178 | 4,092 | 4,905 | 12,816 | 23,794 |
| Hull, Que.... | 20 | 4,317 | 21 | -91 | 105 | . 198 | . 556 |
| Kingston, Ont | 65 | 22,767 | 32 | 578 | 711 | 1,451 | 2,687 |
| Kitchener, Ont | 86 | 35,797 | 39 | 737 | 820 | 2,209 | 3,330 |
| London, Ont. | 193 | 133,022 | 59 | 2.312 | 2,682 | 7,000 | 11,863 |
| Montreal, Que | 2,799 | 3,116,851 | 1,463 | 31,608 | 37,314 | 102,662 | 204,740 |
| Oshswa, Ont | 29 | 17,439 | 14 | . 245 | , 285 | . 709 | 1,117 |
| Ottaws, Ont | 297 | 204,702 | 122 | 3, 107 | 3,630 | 9,539 | 16,620 |
| Outremont, Que. | 22 | 42.205 | 4 | 670 | 741 | 2,205 | 4,497 |
| Peterborough, On | 60 | 26.405 | 35 | 355 | 450 | 1,009 | 1,561 |
| Port Arthur, Ont | 54 | 26,207 | 26 | 638 | 1,022 | 1,983 | 3,282 |
| Quebec, Que. | 391 | 296.277 | 201 | 4,411 | 5,149 | 12,098 | 26,856 |
| Regins, Sask...... | 212 | 155,361 | 49 | 3,057 | 3,555 | 8,991 | 20,221 |
| St. Catharines, Ont | 51 | 25,861 | 25 | , 386 | 488 | 1,098 | 2,248 |
| Saint John, N.B. | 163 | 99.092 | 54 | 1,631 | 1,906 | 4,554 | 10,009 |
| St. John's, N'f'ld | 163 41 | 85,681 | 75 | 2,313 | 3.197 | 5,018 | 11,259 |
| Sarnia, Ont..... | 41 | 14,957 | 21 | 368 | 458 | 1.122 | 1,929 |
| Saskatoon, Sask. ... | 163 | 129,652 | 44 | 2,137 | 2,559 | 6.183 | 16,637 |
| Sault Ste. Marie, On | 43 85 | ${ }^{28,896}$ | 21 | 483 | 629 | 1.527 | 2,438 |
| Sherbrooke, Que | 85 | 45,852 | 38 | 825 | 991 | 2,187 | 5.629 |
| Sudbury, Ont | 55 | 52,648 | 23 | 726 | 842 | 2,079 | 4,322 |
| Sydney, N.S. | 73 | 35,151 2956 | ${ }_{36}^{21}$ | 570 | 666 | 1,525 | 2,744 |
| Three Rivers, | $\begin{array}{r}76 \\ 2.382 \\ \hline\end{array}$ | 29,856 $2.498,521$ | 36 1.281 | $\begin{array}{r}528 \\ 29,154 \\ \hline\end{array}$ | - $\begin{array}{r}6,742 \\ \hline 14\end{array}$ | 1,232 98 | 3,577 186,661 |
| Vancouver, B | 1,227 | 1,065,946 | 1.287 | 13,294 | 15,825 | 48,956 42 | 186,661 100,056 |
| Verdun, Que. | 18 | 8,710 | 7 | 279 | , 342 | -897 | 1,453 |
| Victoria, B.C. | 139 | 55,709 | 53 | 1,180 | 1,356 | 3,729 | 6,607 |
|  | 183 | 115,897 | 91 | 1,598 | 1,978 | 5,075 | 8,726 |
| Winnipeg, Man | 1,071 | 1,731,151 | 462 | 12,547 | 15,411 | 39,445 | 106,720 |

## 5.-Wholesale Trade Establishments Grouped According to Number of Employees, 1951



## 6.-Wholesale Trade, by Major and Detailed Type of Operation, 1951

Nors.-Figures for the Yukon Territory and the Northwest Territories are included in "Totals, All Establishments" but are excluded from the individual items.

| Type of Operation | Establishments | Sales | Employees |  | Payroll | Stocks on Hand. Dec. 31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Minimum | Maximum |  |  |
|  | No. | \$'000 | No. | No. | \$'000 | \$'000 |
| Wholesalers Proper- |  |  |  |  |  |  |
| Drop shippers and desk jobbers..... | 126 | 82,642 | 438 | 566 | 1,657 | ${ }^{3}$ |
| Export merchants.................. | 100 | 175,800 | 747 | 1,653 | 2,451 | 6,180 |
| Import merchants. | 1,637 | 991,044 | 16,208 | 19,585 | 51,594 | 157,216 |
| Mail order wholesaler | 98 | 34,566 | 875 | 1,126 | 2,450 | 5,097 |
| Voluntary group wholesalers........ | 139 | 375,047 | 5,003 | 5,565 | 13,663 | 28,746 |
| Wagon distributors. | 8 106 | 14,090 | 25.25 | 101.334 | ${ }^{639} 6$ | 557 476.362 |
| Wholesale merchants | 8,280 | 3,819,552 | 82,166 | 101,808 | 239,629 | 476,362 |
| Totals, Wholesalers Proper | 10,486 | 5,492,741 | 105,692 | 130,637 | 312,140 | 674,160 |
| Petroleum Buik Tank Stations- |  |  |  |  |  |  |
| Commission stations. | 2,583 | 238,627 | 2,033 | 3,236 | 4, 284 | 18,525 |
| Independent stations. | 534 | 60,622 | . 995 | 1,314 | 2,847 | 4,857 |
| Salary stations. | 763 | 721,000 | 10,118 | 11,493 | 30,776 | 55,592 |
| Totals, Petroleum Bulk Tank Stations. | 3,880 | 1,020,249 | 13,146 | 16,043 | 38,607 | 78,974 |
| Assemblers of Primary Products- |  |  |  |  |  |  |
| Buyers of primary products......... | 1,528 | 565,853 | 5,876 | 10,835 | 17,113 | 20,527 |
| Co-operative selling organizations... | 356 | 299,484 | 2,379 | 5,857 | 6,767 | 12,146 |
| Grain elevators. | 5,285 | 650,937 | 7,289 | 8,360 | 19,481 | 118,961 |
| Packers and shippers. | 8 | 1,343 | 25 | 153 | 122 | 41 |
| Totals, Assemblers of Primary Products. | 7,177 | 1,517,617 | 15,569 | 25,205 | 43,483 | 151,675 |

6.-Wholesale Trade, by Major and Detailed Type of Operation, 1951-concluded

| Type of Operation | Establishments | Sales | Employees |  | Payroll | Stocks on Hand, Dec. 31 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Minimum | Maximum |  |  |
|  | No. | \$'000 | No. | No. | \$'000 | \$'000 |
| Manufacturers' Sales Branches andOffices- |  |  |  |  |  |  |
| District or general sales offices. | 26 | 473,800 | 1,311 | 1,514 | 5,241 | 16,838 |
| out stock). | 683 | 1,121,645 | 5,166 | 6,036 | 19,936 | - |
| Manufacturers' sales branches (with stock). | 1,993 | 2,199,480 | 29,909 | 34,882 | 96,314 | 233,772 |
| Totals, Manufacturers' Sales Branches and Offices. ....... | 2,702 | 3,791,925 | 36,386 | 42,432 | 121,431 | 250,610 |
| Agents and Brokers- |  |  |  |  |  |  |
| Auction companies.... | 14 | 26,887 | 135 | 467 | 498 | 5,819 |
| Brokers. | 94 | 581,373 | 203 | 215 | 614 | 321 |
| Commission merchants. | 197 | 367,566 | 1,633 | 1,999 | 5,589 | 26,929 |
| Export agents and brokers.......... | 44 | 559,690 | 418 | . 502 | 1,586 | 24,436 |
| Import agents and brokers........... | 278 | 156,231 | 976 | 1,240 | 3,834 | 5,310 |
| Manufacturers' agents............... | 1,051 | 477,589 | 2,823 | 3,696 | 9,829 | 12,908 |
| Purchasing agents and resident buyers. | 36 | 145,435 | 114 | 159 | 419 | 1,452 |
| Selling agents.. | 27 | 178,792 | 156 | 210 | 732 | 1,045 |
| Totals, Agents and Brokers | 1,741 | 2,493,563 | 6,458 | 8,488 | 23,101 | 78,220 |
| Other Types of Operation | 165 | 78,944 | 1,369 | 1,640 | 4,107 | 2,708 |
| Totals, All Establishments ${ }^{2}$. | 26,167 | 14,401,037 | 178,658 | 224,526 | 543,048 | 1,237,110 |

${ }^{1}$ See headnote.

Retail Trade.-The tables of this Subsection incorporate data for all establishments within the scope of the 1951 Census of Distribution, the basis for inclusion being conformity to the definition that an establishment must be a recognizable place of business, engaged mainly in the selling of merchandise to household consumers. The most significant information tabulated in the Census is the total dollar volume of sales made through retail establishments during the year 1951, and the total number of such establishments in existence at a designated point in time (June 1951).

Total sales and numbers of establishments have been tabulated by province, by county or census division, by incorporated city, town or village of 1,000 population or over and, for the first time, by metropolitan area. Additional information on employment and payrolls, year-end inventories and credit have been tabulated in lesser detail in certain instances. Complete results are available in 1951 Census Vol. VII-Retail Trade.

In addition to the more obvious types of retail outlets, such as drug stores, grocery stores, restaurants and shoe stores, the Census included, among others, gasoline filling stations, lumber and building materials dealers, fuel dealers and florists. Although by far the major part of retail trade is carried on in retail establishments, a fair amount is transacted through other distribution channels, the more important of which are manufacturing bakeries and dairies, service establishments such as hotels and bowling alleys, wholesale establishments and itinerant operators without an established place of business. A summary table showing these segments of retail trade appears in the Census of 1951 Vol. X.

In 1951 , there were 151,626 retail establishments engaged mainly in selling merchandise to household consumers, and they accounted for a total sales volume of $\$ 10,652,779,800$. This was an increase of 14,295 establishments since the previous count was made in 1941, and an increase of $\$ 7,211,877,800$ in terms of dollar sales volume. All provinces, except Saskatchewan, had more retail establishments in operation in 1951 than in 1941, and all shared in the greatly expanded dollar sales volume. Ontario, with one-third of Canada's retail stores, had sales of $\$ 4,116,372,500$ or almost 40 p.c. of the total retail trade in Canada. Quebec, with 43,572 stores, had sales of $\$ 2,436,913,100$ in 1951. Sales in British Columbia were also over $\$ 1,000,000,000$. Newfoundland's retail trade was measured for the first time in 1951 and showed 4,090 stores with sales of $\$ 159,805,000$. Table 7 gives summary figures of retail trade, by province.

## 7.-Summary of Retail Trade, by Province, 1951

| Province or Territory | Stores | Sales | Stocks on Hand, Dec. 31 (at cost) | Working Proprietors | Paid Employees |  | Payroll |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Minimum | Maximum |  |
|  | No. | \$'000 | 8 '000 | No. | No. | No. | \$'000 |
| Newfoundland. | 4,090 | 159,805 | 30,558 | 4,135 | 7,070 | 9,911 | 11,281 |
| Prince Edward Island...... | 972 | 54,118 | 8,228 | 997 | 2,196 | 2,811 | 3,418 |
| Nova Scotia.. | 7,176 | 393,880 | 52,030 | 6,685 | 17,844 | 23,560 | 29,877 |
| New Brunswick. | 5,430 | 285,814 | 44,597 | 5,076 | 12,916 | 17,513 | 23,525 |
| Quebec.................... | 43,572 | 2,436,913 | 351,115 | 42,690 | 108,734 | 138,791 | 206,776 |
| Ontario. | 50,119 | 4,116,372 | 523,016 | 50,103 | 181,563 | 239,053 | 369,301 |
| Manitoba, | 7,432 | 609,284 | 84,769 | 7,687 | 27,798 | 39,971 | 57,665 |
| Saskatchewan. | 9,585 | 653,816 | 108,282 | 9,925 | 20,782 | 28,705 | 41,656 |
| Alberta.................... | 9,943 | 848,283 | 124,227 | 10,319 | 30,501 | 41,008 | 63,750 |
| British Columbia. | 13,151 | 1,082,637 | 147,773 | 12,372 | 45,067 | 62,139 | 101,897 |
| Yukon and N.W.T......... | 156 | 11,858 | 3,528 | 100 | 323 | 429 | 896 |
| Canada............... | 151,626 | 10,652,780 | 1,478,123 | 150,089 | 454,794 | 603,891 | 910,012 |

Results of the Census showed that two of the 15 census metropolitan areas accounted for retail sales well in excess of $\$ 1,000,000,000$ each-Toronto metropolitan area had sales of $\$ 1,244,003,100$ and Montreal metropolitan area, $\$ 1,211,676,300$. The 15 census metropolitan areas had a total retail sales volume of $\$ 5,104,414,300$ in 1951 , or nearly 48 p.c. of all retail sales in Canada. Retail sales in the Toronto metropolitan area represented about 30 p.c. of total Ontario retail sales, and the aggregate sales for the five Ontario metropolitan areas (Toronto, Hamilton, Ottawa, Windsor, and London) accounted for 49 p.c. of the provincial total. In comparison, retail stores in the Montreal metropolitan area had nearly 50 p.c. of the total sales for the Province of Quebec, and those for Quebec City another 8 p.c., making approximately 58 p.c. of the provincial total for the Province's two metropolitan areas. In British Columbia, Vancouver metropolitan area stores had 52.5 p.c., and those of Victoria metropolitan area, $9 \cdot 4$ p.c. of the Province's total sales.
8.-Retail Trade by Major Groups of Business, for Fifteen Census Metropolitan Areas, 1951

| Metropolitan Area | Total Stores | Total Sales | Food and Beverage |  | General Merchandise |  | Automotive |  | Apparel and Accessories |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Stores | Sales | Stores | Sales | Stores | Sales | Stores | Sales |
|  | No. | $\$^{\prime} 000$ | No. | \$'000 | No. | \$ 000 | No. | \$'000 | No. | \$'000 |
| Calgary.. | 1,353 | 181,903 | 580 | 46,315 | 34 | 40,000 | 171 | 43,751 | 181 | 14,316 |
| Edmonton. | 1,536 | 208,829 | 652 | 52,828 | 36 | 49,499 | 205 | 49,468 | 175 |  |
| Halifax.... | 1,199 | 123,131 | -682 | 41,605 | 44 | 26,418 | 90 | 22,531 | 123 | 9,057 |
| Hamilton. | 2,719 | 256,070 | 1,119 | 83.774 | 68 | 29,752 | 361 | 60,193 | 368 | 22,772 |
| London... | 1,182 | 131,437 | 399 | 37,219 | 31 |  | 174 | 31,660 | ${ }^{162}$ | 12,731 |
| Montreal. | 14,178 | 1,211,676 | 7,484 | 450,824 | 394 | 183,254 | 749 | 206, 208 | 2,477 | 119,229 |
| Ottawa. | 2,395 | 251,536 | 1.203 | 86,270 | 61 | 36,717 | 227 | 49,407 | 300 | 21,506 |
| Quebec. | 2,959 | 194,738 | 1,593 | 74,404 | 115 | 29,960 | 189 | 33,307 | 393 | 20,571 |
| Saint John, N.B. | 840 | 61,641 | 453 | 23,001 | 29 | 7,762 | 78 | 11,615 | 81 | 6,380 |
| St. John's, N'f'ld | 774 | 64,775 | 547 | 23,388 | 44 | 17,855 | 45 | 10,367 | 35 | 4,281 |
| Toronto...... | 11,253 | 1,244,003 | 4,415 | 384,436 | 310 | 212,483 | 1,022 | 272,984 | 1,993 | 99,278 |
| Vancouver. | 6,015 | 568,302 | 2,636 | 164,116 | 185 | 108,917 | - 572 | 146, 186 | 903 | 41,119 |
| Victoria. | 1,107 | 102,199 | 512 | 30,910 | 35 | 19,925 | 114 | 22,506 | 136 | ${ }^{8,386}$ |
| Windsor. | 1,661 | 145,623 | 778 | 55,577 | 47 | 11,990 | 226 | 29,084 | 185 | 13,863 |
| Winnipeg. | 3.022 | 353.051 | 1,477 | 94,171 | 83 | 94,217 | 327 | 72,585 | 359 | 18.283 |
|  | Building and Ha | aterials dware | Furniture, Appliances Home F | usehold adio and ishings | $\begin{array}{r} \text { Drug } \\ \text { Health } \end{array}$ | $\begin{aligned} & \text { liance } \\ & \text { lon } \end{aligned}$ | Secon |  | Other Re | Stores |
|  | Stores | Sales | Stores | Sales | Stores | Sales | Stores | Sales | Stores | Sales |
|  | No. | 8'000 | No. | \$'000 | No. | \$'000 | No. | \$'000 | No. | \$'000 |
| Calgary... | 69 | 15,871 | 87 | 7,240 | 70 | 1. | 31 | 1 | 130 | 1 |
| Edmonton | 107 | 17,046 | 76 | 1. | 92 | 5,008 | 30 | 760 | 163 | 11,626 |
| Halifax. | 47 | 5,601 | 34 | 3,406 | 55 | 3,140 | 20 | 222 | 104 | 11,152 |
| Hamilton. | 117 | 14,979 | 133 | 11,484 | 128 | 8,583 | 32 |  | 393 | 23,897 |
| London. | 65 | 7,745 | 72 | 8,996 | 66 | 4,624 | 17 |  | 196 | 14,545 |
| Montreal. | 518 | 63,988 | 488 | 55,645 | 457 | 30,889 | 88 | 2,712 | 1,523 | 98,927 |
| Ottawa. | 82 |  | 75 | 9,803 | 104 | 6,134 | 24 |  | 319 | 28,498 |
| Quebec. | 115 | 6,532 | 84 | 8,278 | 87 | 5,444 | 22 | 195 | 361 | 16,048 |
| Saint John, N.B. | 28 | 2,410 | 25 | 2,274 | 33 | 2,114 | 16 | 331 | 97 | 5,754 |
| St. John's, N'f'ld. | 19 | 2,997 | 10 |  | 21 | 1,032 | ${ }^{3}$ |  | ${ }^{50}$ | 4,021 |
| Toronto... | 559 | 57,820 | 526 | 54,763 | 651 | 41,328 | 156 | 3,372 | 1,621 | 117.539 |
| Vancouver | 346 | 29,077 | 257 | 21,503 | 262 | 16,254 | 138 | 2,939 | 716 | 38,192 |
| Victoria. | 48 | 4,695 | 56 | 4.949 | 37 | 2,193 | 38 | 685 | 131 | 7,949 |
| Windsor. | 100 | 7,937 | 80 | 12,489 | 79 | ${ }_{1}$ | 16 |  | 150 | 9,422 |
| Winnipeg | 128 | 27,427 | 110 | 11,417 | 178 | 11,453 | 66 | 1,291 | 294 | 22,208 |

[^315]The 106 urban centres in Canada with populations of over 10,000 in 1951 had retail sales totalling about $\$ 6,468,000,000$ in that year, or 61 p.c. of Canada's total retail trade. In the city of Montreal sales exceeded $\$ 1,000,000,000$ and those in the city of Toronto were slightly under that figure. Vancouver and Winnipeg ranked third and fourth with sales of $\$ 456,000,000$ and $\$ 310,000,000$, respectively. Table 9 shows figures for each of the 106 urban centres for 1941 and 1951.
9.-Retail Trade in Urban Centres of over 10,000 Population (in 1951), 1941 and 1951

| Urban Centre and Province | Population |  | Stores |  | Sales |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1941 | 1951 | 1941 | 1951 | 1941 | 1951 | P.C. <br> Increase <br> 1941-51 |
|  | No. | No. | No. | No. | \$'000 | \$'000 |  |
| Arvida, Que | 4,581 | 11,078 | 21 | 31 | 1,094 | 3,356 | +206.8 |
| Barrie, Ont | 9,725 | 12,514 | 191 | 198 | 7,419 | 24,782 | +234.0 |
| Belleville, Ont | 15,710 | 19,519 | 271 | 267 | 11,158 | 29,692 | +166.1 |
| Brandon, Man | 17,383 | 20,598 | 227 | 235 | 9,367 | 30,506 | $+225.7$ |
| Brantiord, On | 31,948 | 36,727 | 453 | 476 | 17,504 | 48,653 | $+178.0$ |
| Brockville, O | 11,342 | 12,301 | 167 | 168 | 6,598 | 16,785 | $+154.4$ |
| Calgary, Alta................ | 88,904 | 129,060 | 1,181 | 1,301 | 51,814 | 179, 823 | $+247.1$ |
| Cap de la Madeleine, Que.... | 11,961 | 18,667 | 123 | 1204 | 1,906 | 6,763 | +254.8 |
| Charlottetown, P.E.I. | 14,821 | 15,887 | 247 | 251 | 6,787 | 20,746 | +205.7 |
| Chatham, Ont | 17,369 | 21,218 | 336 | 328 | 13,282 | 37, 200 | +180.1 |
| Chicoutimi, Qu | 16,040 | 23,216 | 153 | 229 | 6,718 | 24,707 | +267.8 |
| Cornwall, Ont. | 14,117 | 16,899 | 242 | 279 | 7,598 | 25,728 | +238.6 |
| Dartmouth, N | 10,847 | 15,037 | 147 | 157 | 6,502 | 15,882 | +144.3 |
| Drummondville, Que | 10,555 | 14,341 | 178 | 249 | 4,564 | 16,871 | +269.7 |
| Eastview, Ont. | 7,966 | 13,799 | 86 | 96 | 1,310 | 7,379 | $+463.3$ |
| Edmundston, N | 7,096 | 10,753 | 117 | 128 | 3,061 | 7,623 | $+149.0$ |
| Edmonton, Alta | 93,817 | 159,631 | 1,126 | 1,458 | 47,931 | 204,789 | $+327.3$ |
| Forest Hill, On | 11,757 | 15,305 | 63 | 111 | 1,987 | 9,498 | +377.9 |
| Fort William, On | 30,585 | 34,947 | 348 | 356 | 15,230 | 31,468 | $+106.6$ |
| Fredericton, N.B | 10,062 | 16,018 | 192 | 226 | 7,194 | 24,985 | $+247.3$ |
| Galt, Ont. | 15,346 | 19,207 | 237 | 233 | 8,149 | 20,326 | +149.4 |
| Glace Bay, N | 25,147 | 25,586 | 293 | 262 | 7,230 | 15,830 | +118.9 |
| Granby, Que. | 14,197 | 21,989 | 219 | 335 | 4,263 | 18,104 | +324-7 |
| Grand'Mère, | 8,608 | 11,089 | 123 | 166 | 2,023 | 7,191 | $+255.4$ |
| Guelph, Ont | 23,273 | 27,386 | 330 | 340 | 11,413 | 31,906 | +179.6 |
| Halifax, N.S | 70,488 | 85,589 | 915 | 847 | 51,152 | 101,119 | $+97.7$ |
| Hamilton, On | 166,337 | 208,321 | 2,060 | 2,293 | 86,947 | 227,491 | +161.6 |
| Hull, Que. | 32,947 | 43,483 | 409 | 399 | 9,555 | 26,609 | +178.5 |
| Jacques Cartier, Que |  | 22,450 |  | 210 |  | 4,792 |  |
| Joliette, Que.. | 12,749 | 16,064 | 214 | 258 | 5,155 | 16,238 | +215.0 |
| Jonquière, Que | 13,769 | 21,618 | 127 | 215 | 5,036 | 14,275 | $+183.5$ |
| Kingston, Ont. | 30, 126 | 33,459 | 389 | 376 | 17,602 | 43,976 | +149.8 |
| Kitchener, On | 35,657 | 44,867 | 469 | 485 | 18,030 | 56,314 | $+212.3$ |
| Lachine, Que | 20,051 | 27.773 | 268 | 273 | 5,669 | 19,306 | $+240 \cdot 6$ |
| Lasalle, Que. | 4,651 | 11,633 | 36 | 82 | 474 | 3,743 | +689.4 |
| Leaside, Ont | 6,183 | 16,233 | 56 | 120 | 2,012 | 14,997 | +645.3 |
| Lethbridge, | 14,612 | 22,947 | 233 | 319 | 10,700 | 42,542 | +297.6 |
| Lévis, Que. | 11,991 | 13,162 | 143 | 155 | 2,859 | 10,271 | $+259.2$ |
| London, Ont | 78,264 | 95,343 | 1,092 | 1,053 | 39,990 | 125,682 | $+214.3$ |
| Longueuil, Que | 7,087 | 11,103 | 92 | 102 | 2,608 | 7,660 | +193.7 |
| Magog, Que. | 9,034 | 12,423 | 122 | 191 | 2,424 | 8,484 | $+250.0$ |
| Medicine Hat, | 10.571 | 16,364 | 154 | 177 | 6,640 | 21,447 | +223.0 |
| Mimico, Ont. | 8,070 | 11,342 | 69 | 80 | 1,827 | 5,055 | $+176.7$ |
| Moncton, N.B | 22,763 | 27,334 | 308 | 314 | 21,105 | 42,528 | $+101.5$ |
| Montreal, Que | 903,007 | 1,021,520 | 12,745 | 11,491 | 394,415 | 1,012,626 | +156.7 |
| Montreal North, Que | 6,152 | 14,081 | 58 | 108 | ${ }^{6} 657$ | 3,855 | $+486.9$ |
| Moose Jaw, Sask. | 20,753 | 24,355 | 268 | 269 | 10,035 | 29,745 | +196.4 |
| Mount Royal, Que | 4,888 | 11,352 | 16 | 29 | 475 | 9,952 | +1,996.0 |
| New Toronto, Ont | 9,504 | 11,194 | 106 | 127 | 4,315 | 18,123 | $+320.0$ |
| New Waterford, N.S. | 9,302 | 10,423 | 120 | 134 | 2,720 | 6,958 | $+155.8$ |
| New Westminster, B.C...... | 21,967 20 | 28,639 22 | 378 344 | 379 410 | 13,064 | 49,252 | +277.0 +165.3 |
| Niagara Falls, Ont | 20,589 | 22,874 | 344 | 410 | 14,616 | 38,775 | $+165.3$ |
| North Bay, Ont. | 15,599 | 17,944 | 207 | 222 | 8,081 | 26,494 | $+227.8$ |
| North Vancouve | 8,914 | 15,687 | 129 | 156 | 2,885 | 9,009 | +212.2 |
| Orillia, Ont. | 9,798 | 12,110 | 198 | 207 | 4,446 | 5,662 | +213.7 |
| Oshawa, Ont | 26,813 | 41.545 | 330 | 425 | 15,512 | 46.735 | $+201.3$ |
| Ottawa, Ont | 154,951 | 202,045 | 1,559 | 1,721 | 81,501 | 210,919 | $+158.8$ |
| Outremont, Que | 30,751 | 30,057 | 166 | 117 | 5,094 | 14,860 | +191.8 |
| Owen Sound, On | 14,002 | 16,423 | 246 | 234 | 6,842 | 20,720 | +202.7 |

## 9.-Retail Trade in Urban Centres of over 10,000 Population (in 1951), 1941 and 1951-

concluded

| Urban Centre and Province | Population |  | Stores |  | Sales |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1941 | 1951 | 1941 | 1951 | 1941 | 1951 | P.C. <br> Increase <br> 1941-51 |
|  | No. | No. | No. | No. | \$'000 | \$'000 |  |
| Pembroke, Ont | 11,159 | 12,704 | 163 | 152 | 5,137 | 15,740 | +206.4 |
| Penticton, B.C |  | 10,548 |  | 156 |  | 13,036 |  |
| Peterborough, On | 25,350 | 38,272 | 370 | 413 | 14,534 | 44,612 | $+206.9$ |
| Port Arthur, Ont. | 24,426 | 31,161 | 294 | 342 | 13,320 | 36,004 | $+170 \cdot 3$ |
| Prince Albert, Sask | 12,608 | 17,149 | 161 | - 208 | 6,050 | 22,545 | +272.6 |
| Quebec, Que. | 150,757 | 164,018 | 1,984 | 1,984 | 63,202 37,929 | 162,389 | +156.9 +173.6 |
| Regina, Sask | 58,245 | 71,319 | 586 120 | 546 176 | 37,929 3,409 | 103,779 12,299 | +173.6 +260.8 |
| Rimouski, Que | 7,009 8,808 | 11,565 14,633 | 120 189 | 176 218 | 3,409 4,929 | 12,299 15,652 | +260.8 +217.5 |
| Rouyn, Que..... | 8,808 18,157 | 14,633 26,342 | 189 | 185 | 4,929 2,963 | 12,652 12,358 | +217.5 +317.0 |
| St. Catharines, Ont | 30,275 | 37,984 | 457 | 519 | 21,227 | 56,910 | +168.1 |
| St. Hyacinthe, Que | 17,798 | 20,236 | 272 | 341 | 6,569 | 21,653 | $+229.6$ |
| St. Jean, Que.... | 13,646 | 19,305 | 236 | 312 | 6,922 | 18,623 | $+169.0$ |
| St. Jérôme, Que | 11,329 | 17,685 | 199 | 300 | 3,709 | 12,947 | +249.1 |
| St. John's, N'f'ld |  | 52,873 |  | 668 |  | 62,753 |  |
| St. Laurent, Que | 6,242 | 20,426 | 63 | 135 | 1,372 | 14,559 | +961.5 |
| St. Michel, Que | 2,956 | 10,539 | 30 | 68 | 268 | 2,354 | +778.7 |
| St. Thomas, Ont | 17, 132 | 18,173 | 278 | 275 | 9,415 | 24,886 | +164.3 |
| Saint John, N | 51,741 | 50,779 | 803 | 643 | 24,683 | 55,543 | +125.0 |
| Sarnia, Ont | 18,734 | 34,697 | 276 | 351 | 9,515 | 37,225 | +291.2 |
| Saskatoon, Sask | 43,027 | 53,268 | 567 | 488 | 20,780 | 64,967 | +212.6 |
| Sault Ste. Marie, Ont | 25,794 | 32,452 | 339 | 395 | 13,418 | 36,547 | +172.4 |
| Shawinigan Falls, Que | 20,325 | 26,903 | 231 | 377 | 5,937 | 23,215 | +291.0 |
| Sherbrooke, Que | 35,965 | 50,543 | 524 | 578 | 16,405 | 42,496 | +159.0 |
| Sillery, Que |  | 10,376 |  | 60 |  | 2,656 |  |
| Sorel, Que. | 12,251 | 14,961 | 201 | 232 | 4,981 | 10,835 | +117.5 |
| Stratiord, Ont | 17,038 | 18,785 | 249 | 246 | 8,023 | 23,409 | +191.8 |
| Sudbury, Ont | 32,203 | 42,410 | 366 | 439 | 20,654 | 59,531 | +188.2 |
| Sydney, N.S. | 28,305 | 31,317 | 354 | 357 | 14,779 | 34,023 | $+130 \cdot 2$ |
| Thetford Mines, Que | 12,716 | 15,095 | 193 | 214 | 3,238 | 12,048 | $+272 \cdot 1$ |
| Timmins, Ont | 28,790 | 27,743 | 290 | 308 | 14,061 | 26,253 | $+86.7$ |
| Toronto, Ont | 667,457 | 675.754 | 9,396 | 8,709 | 399,906 | 999, 108 | +149.8 |
| Trail, B.C. | 9,392 | 11,430 | 139 | 130 | 5,717 | 14,623 | +155.8 |
| Trenton, Ont | 8,323 | 10,085 | 137 | 138 | 4,567 | 12,367 | $+170 \cdot 8$ |
| Three Rivers, Que | 42,007 | 46,074 | 557 | 633 | 13,494 | 44,314 | +228.4 |
| Truro, N.S. | 10,272 | 10,756 | 176 | 181 | 8,536 | 16,343 | +91.4 |
| Valley field, Que | 17,052 | 22,414 | 214 | 293 | 6,580 | 15,803 | $+140 \cdot 2$ |
| Vancouver, B. | 275,353 | 344,833 | 4,351 | 4,338 | 145,205 | 456,160 | +214.1 |
| Verdun, Que. | 67,349 | 77,391 | 658 | 625 | 18,751 | 56,359 | $+200 \cdot 6$ |
| Victoria, B.C | 44,068 | 51,331 | 890 | 833 | 36,761 | 90,912 | $+147.3$ |
| Victoriaville, Qu | 8.516 | 13,124 | 150 | 229 | 2,875 | 11.513 | $+300 \cdot 5$ |
| Waterloo, Ont | 9,025 | 11,991 | 107 | 116 | 2,978 | 9,931 | $+233.5$ |
| Welland, Ont | 12,500 | 15,382 | 222 | 230 | 10,213 | 24,693 | +141.8 |
| Westmount, Qu | 26,047 | 25,222 | 141 | 143 | 6,820 | 16,987 | +149.1 |
| Windsor, Ont | 105,311 | 120,049 | 1,326 | 1,340 | 53,688 | 130,475 | +143.0 |
| Winnipeg, Man | 221,960 | 235,710 | 2,467 | 2,326 | 136,615 | 310,102 | +127.0 |
| Woodstock, Ont | 12,461 | 15,544 | 212 | 216 | 6,951 | 19,455 | +179.9 |

## ${ }^{1}$ Not incorporated in 1941.

When sales figures, tabulated by kind of business, are examined for 1941 and 1951, two groups are of great significance-the food and beverage group with sales of $\$ 3,232,312,000$, and the automotive group with sales of $\$ 2,544,089,000$. Together, these two groups of stores accounted for sales of $\$ 5,776,401,000$ or more than one-half of all sales in Canada's retail stores. In the food and beverage group, the outstanding development has been the growing importance of the combination store selling groceries and fresh meat; the number of such stores doubled between 1941 and 1951, and sales quadrupled. The automotive group sales increase from $\$ 594,719,500$ to $\$ 2,544,088,600$ was the largest of the many substantial increases in the decade.
10.-Number of Retail Stores and Sales, by Kind of Business, 1930, 1941 and 1951

| Kind of Business | Stores |  |  | Sales |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1930 | 1941 | 1951 | 1930 | 1941 | 1951 | P.C. Change |  |
|  |  |  |  |  |  |  | 1930/51 | 1941/51 |
|  | No. | No. | No. | \$'000 | 8'000 | \$'000 |  |  |
| Food and BeveragesCandy, nut and confectionery stores. |  |  |  |  |  |  |  |  |
|  | 8,981 | 11,583 | 8,996 | 54,176 | 67,260 | 137,017 | +153 | +104 |
| Grocery stores, without fresh meat. . | 18,166 | 21,884 | 22,239 | 243,699 | 266,028 | 622,117 | +155 | +134 |
| Combination stores (grocery stores with fresh |  |  |  |  |  |  |  |  |
| meat) | 5,162 | 6,101 | 12,152 | 161,704 | 301,351 | 1,276,804 | +690 +118 | $+324$ |
| Meat and fish markets... | 5,379 | 4,793 | 3,320 | 83,026 | 83,252 | 181,318 | +118 | +118 |
| Restaurants............ | 5,609 | 8,821 |  | 75,977 | 131,181 | 452,271 | +495 | +245 |
| Totals, Food and Beverages ${ }^{1}$ | $\cdots$ | 58,491 | 65,134 | . | 1,062,001 | 3,232,312 | .. | $+204$ |
| General Merchandise- <br> Department stores and mail order offices or houses of department stores. <br> General stores. |  |  |  |  |  |  |  |  |
|  | 148 | 504 | 649 | 355,259 | 377,806 | 910,129 | +156 | +141 |
|  | 11,355 | 11,917 | 10,457 | 207,657 | 214,748 | 519,819 | +150 | +142 |
| Variety stores. | 513 | 1,085 | 1,391 | 44,212 | 85,177 | 195, 624 | +343 | +130 |
| Totals, General Merchandise ${ }^{1}$. | 14,889 | 15,711 | 16,153 | 680,346 | 740,719 | 1,795,674 | +164 | +142 |
| Automotive- |  |  |  |  |  |  |  |  |
| Automobile dealers. | 2,736 | 2,835 | 5,168 | 253,608 47,560 | 370,956 | 1,983,751 | +682 +185 | +435 +185 |
| Farages..... | 4,140 5,503 | 3,856 10,130 | 3,694 8,394 | 47,560 66,449 | 47,561 157,558 | 135,697 338,249 | +185 +409 | +185 +115 |
| Totals, Automotive ${ }^{1}$ | 13,016 | 16,867 | 18,380 | 380,915 | 594,720 | 2,544,089 | $+568$ | +328 |
| Apparel and AccessoriesMen's and boys' clothing and clothing and furnishings stores. |  |  |  |  |  |  |  |  |
|  | 3,969 | 3,485 | 3,971 | 72,111 | 79,873 | 201,689 | +180 | +153 |
| Women's apparel and accessories stores........... <br> Family clothing stores. | 3,715 | 5,508 | 6,357 | 69,806 | 97,522 | 259,031 | +271 | +166 |
|  | 1,149 | 1,934 | 2,686 | 42,144 | 73,779 | 192,962 | + +358 | +162 |
| Shoe stores. | 1,641 | 1,674 | 2,242 |  | 44,037 | 111.488 | +211 | +153 |
| Totals, Apparel and Accessories ${ }^{1}$ | 10,474 | 12,601 | 16,283 | 219,969 | 295,212 | 783,322 | +256 | +165 |
| Building Materials and Hardware- |  |  |  |  |  |  |  |  |
| Lumber and building materials dealers. |  | 1,611 | 2,193 | 66,201 70,892 | 79,786 73,143 | 357,611 227,395 | +440 +221 | +348 +211 |
| Hardware stores........... | 2,901 | 3,020 | 3,872 | 70,892 | 73,143 | $227,395$ | +221 | +211 |
| Totals, Building Materials and Hardware | 6,144 | 5,801 | 7,887 | 164,112 | 174,203 | 673,980 | +311 | +287 |
| Furniture, Household Appliances, Radio and Home Furnishings- | 1,101 | 1,337 | 1,750 | 41,017 | 64,057 | 146,793 | +258 | +129 |
| Household appliance and radio stores. | 1,528 | 1,648 | 2,789 | 51,692 | 45,895 | 210,238 | +307 | +358 |
| Totals, Furniture, Household Appliances, Radio and Home Furnishings ${ }^{1}$ | 3,079 | 3,498 | 5,221 | 99,791 | 118,357 | 394,471 | +295 | +233 |
| Second-hand............... | 1,606 | 1,740 | 1,244 | 11,813 | 11,071 | 23,139 | +96 | +109 |

For footnote, see end of table.
10.-Number of Retail Stores and Sales, by Kind of Business, 1930, 1941 and 1951concluded

| Kind of Business | Stores |  |  | Sales |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1930 | 1941 | 1951 | 1930 | 1941 | 1951 | P.C. Change |  |
|  |  |  |  |  |  |  | 1930/51 | 1941/51 |
| Other Retail StoresDrug stores (with and without soda fountain) Tobacco stores and stands. Jewellery stores. | No. | No. | No. | \$'000 | \$'000 | \$'000 |  |  |
|  |  |  |  |  |  |  |  |  |
|  | 3,559 | 3,956 | 4,325 | 76,849 | 101,027 | 248,449 | +223 | +146 |
|  | 2,420 | 4,239 | 2,330 | 30,703 | 43,227 | 78,291 | +155 | +81 |
|  | 1,532 | 1,692 | 2,610 | 26,663 | 38,454 | 104,567 | +292 | +172 |
| Totals, Other Retail Stores ${ }^{1}$ <br> Totals, All Stores ${ }^{1}$ $\qquad$ | .. | 22,622 | 21,324 | . | 444,620 | 1,205,793 | . | +171 |
|  | 119,621 | 137,331 | 151,626 | 2,740,105 | 3,440,902 | 10,652,780 | +289 | +210 |

${ }^{1}$ Includes kinds of business for which separate figures are not shown.

Between the two Census years, 1941 and 1951, no significant change took place in the proportion of Canada's retail trade done by independent (including department) stores and chain organizations operating four or more units in the same kind of business. Chains actually accounted for a slightly smaller part of the total -16.7 p.c. in 1951 compared with $18 \cdot 6$ p.c. in 1941. On the other hand, independent stores had $83 \cdot 3$ p.c. of the total in 1951 compared with 81.4 p.c. in 1941. By individual trades, more noteworthy changes took place. Chain fillingstations dropped from 8.6 p.c. of the total in 1941 to $1 \cdot 1$ p.c. in 1951 , while chain household-appliance and radio stores decreased from $40 \cdot 5$ p.c. to $22 \cdot 6$ p.c. in the same period. In the women's apparel and accessories stores, chains increased their proportion of the total from $13 \cdot 2$ p.c. in 1941 to $17 \cdot 7$ p.c. in 1951. Results, in detail, are shown in Table 11.

A further analysis of this type of relationship is shown in Table 12, in which tabulations are given for independent stores, chain stores, and department stores, classified by economic regions for 1941 and 1951. It is evident from this analysis that the general trend for Canada as a whole, toward a greater portion of the retail business of the country being accounted for by independent stores and a smaller portion by both chain and department stores, holds true for each region.

## 11.-Number of Independent and Chain Retail Stores and Sales, by Kind of Business, 1941 and 1951

| Kind of Business | Stores |  | Sales |  | P.C. of Total Sales |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1941 | 1951 | 1941 | 1951 | 1911 | 1951 |
|  | No. | No. | \$'000 | \$'000 |  |  |
| Grocery Stores (without fresh meat)Independents. Chains. | 21,145 739 | 21,902 337 | 226,081 39,947 | 575,831 46,287 | 85.0 15.0 | 92.6 7.4 |
| Totals, Grocery Stores (without fresh meat) | 21,884 | 22,239 | 266,028 | 622,117 | $100 \cdot 0$ | $100 \cdot 0$ |

## 11.-Number of Independent and Chain Retail Stores and Sales, by Kind of Business, 1941 and 1951-continued

| Kind of Business | Stores |  | Sales |  | P.C. of Total Sales |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1941 | 1951 | 1941 | 1951 | 1941 | 1951 |
|  | No. | No. | \$'000 | 8'000 |  |  |
| fresh meat) <br> Independents. <br> Chains. |  |  |  |  |  |  |
|  | 5,304 | 11,286 | 168,140 | 710,360 | $55 \cdot 8$ | $55 \cdot 6$ |
|  | 797 | 866 | 133,211 | 566,444 | 44-2 | $44 \cdot 4$ |
| Totals, Combination Stores (grocery stores with fresh meat). | 6,101 | 12,152 | 301,351 | 1,276,804 | 100.0 | $100 \cdot 0$ |
| General Stores |  |  |  |  |  |  |
| Independents | 11,750 | 10,049 408 | 207,904 | 481,847 | 96.8 | 92.7 |
| Chains | 167 | 408 | 6,844 | 37,972 | $3 \cdot 2$ | 7-3 |
| Totals, General Stores.................... | 11,917 | 10,457 | 214,748 | 519,819 | $100 \cdot 0$ | 100.0 |
| Variety StoresIndependents. . | 559 | 794 | 11,180 | 31,149 | 13.1 | 15.9 |
| Chains... | 526 | 597 | 73,997 | 164,475 | 86.9 | $84 \cdot 1$ |
| Totals, Variety Stores................... | 1,085 | 1,391 | 85,177 | 195,624 | 100.0 | $100 \cdot 0$ |
| Filling Stations- |  |  |  |  |  |  |
| Independents. | 9,754 376 | 8,337 57 | 143,971 13,588 | 334,392 3,858 | 91.4 8.6 | 98.9 1.1 |
| Totals, Filling Stations | 10,130 | 8,394 | 157,559 | 338,249 | $100 \cdot 0$ | $100 \cdot 0$ |
| Men's and Boys' Clothing and Clothing and Furnishings Stores- |  |  |  |  |  |  |
| Totals, Men's and Boys' Clothing and Clothing and Furnishings Stores.. | 3,485 | 3,971 | 79,873 | 201,689 | $100 \cdot 0$ | $100 \cdot 0$ |
| Women's Apparel and Accessories StoresIndependents. | 5,181 | 5,834 | 84,623 | 213,185 | 86.8 | 82.3 |
| Chains... | 327 | 523 | 12,899 | 45,846 | 13.2 | $17 \cdot 7$ |
| Totals, Women's Apparel and Accessories Stores. | 5,508 | 6,357 | 97,522 | 259,031 | 100.0 | $100 \cdot 0$ |
| Shoe Stores- |  |  |  |  |  |  |
| Independents | 1,217 | 1,637 | 27,640 | 73,165 | 62.8 | $65 \cdot 6$ |
| Chains. | 457 | 605 | 16,398 | 38,323 | $37 \cdot 2$ | $34 \cdot 4$ |
| Totals, Shoe Stores. . . . . . . . . . . . . . . . . . | 1,674 | 2,242 | 44,038 | 111,488 | 100.0 | 100.0 |
| Household Appliances and Radio Stores Independents Chains. | 1,236 412 | 2,370 419 | 27,286 18,609 | 162,624 47,614 | 59.5 40.5 | 77.4 22.6 |
| Totals, Household Appliance and Radio Stores. | 1,648 | 2,789 | 45,895 | 210,238 | $100 \cdot 0$ | $100 \cdot 0$ |
| Restaurants- |  |  |  |  |  |  |
| Independents. | 7,377 301 | 11,733 295 | 112,032 14,661 | 395,934 30,984 | 88.4 11.6 | 92.8 7.2 |
| Totals, Restaurants ${ }^{\text {P }}$ | 7,678 | 12,028 | 126,693 | 426,918 | $100 \cdot 0$ | 100.0 |
| Drug Stores (with and without soda fountain)- |  |  |  |  |  |  |
| Independents. | 3,601 355 | 3,979 346 | 82,283 18,745 | $\begin{array}{r} 217,182 \\ 31,267 \end{array}$ | 81.4 18.6 | 87.4 12.6 |
| Totals, Drug Stores (with and without soda fountain). | 3,956 | 4,325 | 101,028 | 248,449 | $100 \cdot 0$ | $100 \cdot 0$ |

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## 11.-Number of Independent and Chain Retail Stores and Sales, by Kind of Business, 1941 and 1951-concluded

| Kind of Business | Stores |  | Sales |  | P.C. of <br> Total Sales |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1941 | 1951 | 1941 | 1951 | 1941 | 1951 |
| Tobacco Stores and Stands- |  |  |  |  |  |  |
| Independents............................ | 4,033 | 2,114 | 36,412 | 60,872 | 84.2 | $77 \cdot 7$ |
| Chains..................................... | 206 | 216 | 6,816 | 17,419 | 15.8 | $22 \cdot 3$ |
| Totals, Tobacco Stores and Stands........ | 4,239 | 2,330 | 43,228 | 78,291 | 100.0 | 100.0 |
| All Stores- |  |  |  |  |  |  |
| Independents. | 129,320 | 143,532 | 2,797,902 | 8,877,036 | 81.4 | 83.3 |
| Chains....... | 8,011 | 8,094 | 643,000 | 1,775,744 | $18 \cdot 6$ | 16.7 |
| Totals, All Stores. | 137,331 | 151,626 | 3,440,902 | 10,652,780 | 100.0 | $100 \cdot 0$ |

INDEPENDENT, CHAIN AND DEPARTMENT STORE SALES

12.-Relative Positions of Independent, Chain and Department Stores, by Economic Divisions, 1941 and 1951


Stores, when grouped according to the volume of annual sales, showed a wide and varied pattern. Almost 2,000 stores had less than $\$ 1,000$ sales in 1951, compared with 8,995 stores in 1941 ; sales of these stores accounted for only $0 \cdot 1$ p.c. in 1951 of the Canada total compared with $0 \cdot 2$ p.c. in 1941 . In number of establishments, the small store dominated the picture, 70 p.c. of all stores having sales of less than $\$ 50,000$ in 1951. In contrast, stores with sales of $\$ 50,000$ or over in 1951 accounted for only 30 p.c. of the total number of establishments, but made $63 \cdot 5$ p.c. of all sales in retail stores. Further details are shown in Table 13.

## 13.-Retail Establishments grouped according to Annual Sales, 1941 and 1951

| Group | Stores |  |  |  | Annual Sales |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1941 |  | 1951 |  | 1941 |  | 1951 |  |
|  | No. | p.c. | No. | p.c. | \$'000 | p.c. | \$'000 | p.e. |
| Sales- |  |  |  |  |  |  |  |  |
| Less than $\$ 1,000 \ldots$. | 8,995 | $6 \cdot 6$ | 1,912 | $1 \cdot 3$ | 5,191 | 0.2 | 1,285 | 1 |
| \$1,000-\$1,999......... | 9,958 | 7.3 | 4,287 | 2.8 | 14,146 | 0.4 | 5,989 | $0 \cdot 1$ |
| \$2,000-\$4,999......... | 24,339 | $17 \cdot 7$ | 10,572 | $7 \cdot 0$ | 81,181 | $2 \cdot 3$ | 35,063 | $0 \cdot 3$ |
| \$5,000-59,999... | 27,674 | $20 \cdot 1$ | 14,943 | $9 \cdot 9$ | 198, 189 | $5 \cdot 8$ | 109,083 | $1 \cdot 0$ |
| \$10,000-\$19,999 ....... | 27,800 | 20.2 | 25,867 | $17 \cdot 0$ | 393,385 | 11.4 | 378,093 | $3 \cdot 5$ |
| \$20,000-\$29,999 ...... | 14,339 | $10 \cdot 4$ | 20,293 | $13 \cdot 4$ | 345, 734 | $10 \cdot 0$ | 498,226 | $4 \cdot 7$ |
| \$30,000-849,999....... | 12,126 | 8.8 | 28,396 | $18 \cdot 7$ | 460,534 | 13.4 | 1,078,920 | $10 \cdot 1$ |
| \$50,000-\$99,999...... | 7,523 | $5 \cdot 5$ | 25,922 | $17 \cdot 1$ | 508,867 | 14.8 | 1,793,879 | 16.8 |
| \$100,000-\$199,999.... | 2,856 | $2 \cdot 1$ | 11,527 | $7 \cdot 6$ | 389,055 | 11.3 | 1,566,702 | 14-7 |
| \$200,000-\$299,999..... | 1,308 | $1 \cdot 0$ | 5,282 | $3 \cdot 5$ | 395,024 | 11.5 | 1,600,421 | $15 \cdot 1$ |
| $\$ 500,000-8999,999 \ldots$. <br> $\$ 1,000,000$ or over... | 413 | 0.3 | 2,625 | $1 \cdot 7$ | 649,597 | 18.9 | 3,585, 118 | 33.7 |
| Totals, All Groups... | 137,331 | $100 \cdot 0$ | 151,626 | $100 \cdot \theta$ | 3,440,902 | $100 \cdot 0$ | 10,652,780 | $100 \cdot 0$ |

${ }^{1}$ Less than 0.1 p.c.

In 1951, 56,875 or $37 \cdot 6$ p.c. of the retail stores in Canada had no paid employees, but these accounted for only 8 p.c. of total sales. Stores with fewer than 10 paid employees numbered 87,560 or $57 \cdot 7$ p.c. of the total in operation and had $51 \cdot 2$ p.c. of all sales. In comparison, stores with 10 or more employees were only $4 \cdot 7$ p.c. of the total number of establishments but had 40.5 p.c. of all sales.
14.-Retail Stores grouped according to Number of Employees, 1951


In 1951, 60,000 of Canada's 151,000 retail stores did business on a cash basis, and had total sales of $\$ 2,888,489,100$. The bulk of this trade was accounted for by the traditionally cash and carry businesses: restaurants, chain food stores, variety stores and drug stores. The important role which credit, both charge and instalment, has in retail selling is clearly shown in Table 15 and is particularly significant in such trades as the automotive group, department stores, clothing stores, and furniture and appliance stores.
15.-Retail Stores grouped by Cash Sales, Cash and Credit

| Kind of Business |  | All Stores |  | Stores Reporting Cash Sales Only |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | Sales | No. | Sales |
|  | Food and Beverages- |  | \$'000 |  | 8'000 |
|  | Grocery stores (without fiesh meat) Combination stores (grocery stores with fresh meat) <br> Meat markets | 21,706 | 595,229 | 6,971 | 163,166 |
| 2 |  | 11,460 | 1,206,661 | 2,982 | 674,164 |
| 4 |  | 3,145 | 175,514 | 2,961 | 46,502 |
|  | Restaurants. | 13,837 | 452,271 | 12,631 | 409,746 |
|  | Totals, Food and Beverage | 65,134 | 3,232,312 | 34,983 | 1,952,343 |
| 8 | General Merchandise- |  |  |  |  |
|  | Department stores. .......................... | 111 | 910,129 | 4 | 4,768 |
|  | Mail order offices or houses of department stores.. | + 5318 |  |  |  |
|  | General merchandise store | 3,646 1,391 | $\begin{aligned} & 169,387 \\ & 195,624 \end{aligned}$ | 1,077 | $\begin{array}{r} 24,778 \\ 185,698 \end{array}$ |
|  | Totals, General Merchandis | 16,153 | 1,795,674 | 3,703 | 259,585 |
| 9101112 | Automotive- |  |  |  |  |
|  | Automotive dealers. | 2,576 | 956,041 | 60 | 6,105 |
|  | Accessories, tire and battery shops | 1,021 | 81,061 | 198 | 7,206 |
|  | Garages....... | 3,694 | 135,697 | $\begin{array}{r}496 \\ \hline 2.789 \\ \hline\end{array}$ | 9,445 |
|  | Filling stations | 8,394 | 338.249 | 2,789 | 79,863 |
|  | Totals, Automotive ${ }^{1}$ | 18,380 | 2,544,089 | 3,644 | 109,920 |
|  | Apparel and Accessories- |  |  |  |  |
|  | Men's and boys' clothing and clothing and furnishings stores. | 2,591 | 162,765 | 865 | 39,101 |
| 14 | Family elothing and furnishings stores........... | 2,686 | 192,962 | 980 | 39,157 |
| 15 | Women's ready-to-wear stores.................... | 3.190 | 158,120 | 1,171 | 44,906 |
| 16 | Furriers and fur stores. | ${ }_{5}^{591}$ | 38,877 | 1.66 | 1,467 |
| 17 | Family shoe stores. | 2,047 | 99,324 | 1,284 | 60,191 |
|  | Totals, Apparel and Accessories ${ }^{\text {1 }}$ | 16,283 | 783,322 | 7,440 | 257,111 |
|  | Building Materials and Hardware- |  |  |  |  |
| 181820 | Lumber and building materials dealers............ | 1,772 | 290,466 | 103 | 5,417 |
|  | Lumber and building materials, coal and wood yards. | 421 | 67,145 | 9 | 1,187 |
|  | Hardware stores................. .............. | 3,741 | 217,419 | 588 | 15,035 |
| 20 | Totals, Building Materials and H | 7,887 | 673,980 | 1,043 | 27,756 |
|  | Furniture, Household Appliances, Radio and Home Furnishings- |  |  |  |  |
| 21 | Furniture stores.... | 1,583 | 136,726 | 123 | 4,342 |
| 22 | Household appliance stores | 1,797 | 131, 234 | 122 | 2,563 |
| 23 | Radio stores.. | 538 | 17,352 | 113 | 1,120 |
|  | Totals, Furniture, Household Appliances, Radio and Home Furnishings ${ }^{1}$ | 5,221 | 394,471 | 644 | 15,588 |
|  | Drug and Health Appliance- |  |  |  |  |
| 2425 | Drug stores (without sods fountain) | 3,825 500 | 208,068 40,381 | 1,640 214 | 17,062 |
|  | Totals, Drug and Health Appliance ${ }^{1}$ | 4,712 | 257,276 | 2,054 | 103,322 |
|  | Second-hand Stores | 1,244 | 23,139 | 841 | 12,591 |
|  | Other Retail Stores- |  |  |  |  |
| 26 27 | Fuel dealers (other than oil) | 1.431 296 | $\begin{array}{r} 185,074 \\ 5,596 \end{array}$ | 219 184 | 7,383 1,442 |
| 28 | Jewellery stores | 2,610 | 104,567 | 749 | 10,762 |
| 29 | Tobacco stores and stands. | 2,330 | 78,291 | 2,035 | 67,426 |
|  | Totals, Other Retail Stores ${ }^{1}$ | 16,612 | 948,517 | 6,191 | 150,273 |
|  | Totals, All Stores.. | 151,626 | 10,652,780 | 60,543 | 2,888,489 |

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## Sales, and Those Not Reporting Cash and Credit Sales, 1951

| Stores Reporting Both Cash and Credit Sales |  |  |  |  |  |  | Stores Not Reporting Cash and Credit Sales |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Accounts Receivable Dec. 31 |  |  |  |  |
| No. | Sales | Cash Sales | Charge <br> Sales | Instalment Sales | Charge Accounts | Instalment Accounts | No. | Sales |  |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |  | \$'000 |  |
| 8,623 | 313,992 | 204,046 | 109,946 | - | 12,778 | - | 6,112 | 118, 072 | 1 |
| 6,450 | 454,363 | 286,080 | 168.283 | - | 16,871 | - | 2,028 | 78, 134 | 2 |
| 1,471 | 104,922 | 74,383 | 30.539 | - | 3,431 | - | 713 | 24,091 | 3 |
| 325 | 18,311 | 15,590 | 2,721 | - | 337 | - | 881 | 24,214 | 4 |
| 18,695 | 996,884 | 655,204 | 341,680 | - | 36,520 | - | 11,456 | 283,085 |  |
| 636 | 893,591 | 630,959 | 191,604 | 71,028 | 49,825 | 26,383 | 9 | 11,769 | 5 |
| 1,698 93 | $\underset{2}{121,415}$ | $\underset{2}{79,148}$ | $\underset{2}{39,341}$ | $\underset{2}{2,925}$ | ${ }_{2}^{7,842}$ | $2^{930}$ | 871 91 | $\begin{array}{r} 23,194 \\ 2,264 \end{array}$ | 8 |
| 8,606 | 1,396,044 | 943,990 | 375,227 | 76,828 | 83,040 | 28,234 | 3,844 | 140,046 |  |
| 1,405 | 588,807 | 224,749 | 169.398 | 194,660 | 21,634 | 9,448 | 1,111 | 361,129 | ${ }^{9}$ |
| . 488 | 58,127 | 21,521 | 29,289 | 7,318 | 4,608 | 1,818 | . 335 | 15,727 | 11 |
| 1.302 | 66,922 | 38,610 | 26,969 | 1,343 | 4,924 | 53 | 1,836 | 59,330 | 11 |
| 2,994 | 166,656 | 120,990 | 44,389 | 1,277 | 6,005 | 28 | 2,611 | 91,730 | 12 |
| 7,852 | 1,624,005 | 709,307 | 467,772 | 446,926 | 61,045 | 22,992 | 6,884 | 810,164 |  |
| 1,329 | 108.545 | 77,307 | 27,250 | 3.988 | 5,486 | 971 | 397 | 15,119 | 13 |
| 1,175 | 134,401 | 89,295 | 35,589 | 9,527 | 8,951 | 2,812 | 531 | 19,404 | 14 |
| 1,451 | 94,771 | 59,569 | 30,037 | 5,165 | 5,312 | 1,181 | 568 | 18,443 | 15 |
| 350 | 28,664 | 12,200 | 9,372 | 7,092 | 2,426 | 2,465 | 175 | 8,746 | 16 |
| 469 | 30,243 | 25,790 | 4,452 | 2 | 780 | , | 294 | 8,891 | 17 |
| 5,815 | 437,357 | 292,280 | 118,715 | 26,361 | 25,097 | 7,635 | 3,028 | 88,854 |  |
| 1,455 | 267,401 | 82,310 | 183.053 | 2,039 | 32,508 | 707 | 214 | 17,648 | 18 |
| 378 2,477 | 63,266 176,836 | $\begin{array}{r} 16,938 \\ 106,519 \end{array}$ | $\begin{aligned} & 46,016 \\ & 65,494 \end{aligned}$ | 312 4,823 | 8,510 14,684 | 24 978 | 34 676 | 2,692 25,549 | 19 |
| 5,491 | 588,851 | 239,110 | 387,277 | 12,464 | 63,531 | 2,712 | 1,353 | 57,373 |  |
| 1.186 | 117,769 | 40,299 | 29,758 | 47,712 | 10,103 | 17.919 | 274 | 14,615 | 21 |
| 1,309 | 112,794 | 45,312 | 23,486 | 43,995 | 4,545 | 11,376 | 366 | 15,877 | 22 |
| 301 | 13,664 | 6,290 | 3,114 | 4,260 | 593 | 1,006 | 124 | 2,568 | 23 |
| 3,621 | 333,206 | 128,566 | 81,415 | 123,224 | 20,632 | 40,190 | 956 | 45,677 |  |
| $\begin{array}{r}1,698 \\ \hline 249\end{array}$ | 104,991 21,492 | 89,940 19,152 | 15,051 2,340 | 二 | 2,447 395 | 二 | 487 37 | 19,836 | 24 |
| 2,073 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 214 | ¢,558 | 4,135 | 2,055 | 368 | 492 | 78 | 189 | 3,990 |  |
|  | 152,991 |  |  |  |  |  |  |  |  |
| 59 | 3,376 | 1,876 | 1,491 |  | 17,151 |  | 265 | 24,700 | ${ }_{27}^{26}$ |
| 1,334 | 82,965 | 47,853 | 24,885 | 10,227 | 6,314 | 2,325 | 527 | 10,840 | 28 |
| 147 | 7,331 | 5,861 | 1,471 |  | 272 |  | 148 | 3,534 | 29 |
| 7,353 | 650,770 | 329,568 | 293,619 | 27,583 | 55,428 | 5,394 | 3,068 | 147,474 |  |
| 59,720 | 6,164,941 | 3,414,482 | 2,036,260 | 714,199 | 348,801 | 107,284 | 31,363 | 1,599,350 |  |

${ }^{2}$ Figures withheld to avoid disclosure of individual operations.

In addition to tabulating the total sales by kind of business (as outlined in previous tables), the Census of Distribution analyzed commodities handled by each kind of business, and estimated the total value of the main commodities sold through Canada's retail stores. Table 16 shows the distribution of total sales of $\$ 10,652,780,000$, in fairly detailed groups of commodities. Two items predominated in 1951: $\$ 2,407,842,000$ worth of food and kindred products sold to consumers was 24 p.c. of all items sold in retail outlets, and $\$ 2,302,480,000$ worth of automotive commodities (new and used cars, gas, oil, parts and accessories, etc.) accounted for 22 p.c. of all commodities sold. Clothing (men's, women's, children's) and shoes accounted for sales of $\$ 1,300,800,000$, or $12 \cdot 5$ p.c. of all commodities. When used in conjunction with the general tabulations, this commodity information becomes significant in any study of distribution problems in Canada.
16.-Estimated Sales of Commodities in Retail Stores, 1951

| Commodity | Estimated Sales | $\begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}$ | Commodity | Estimated Sales | $\begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 |  |  | \$'000 |  |
| Food and kindred products....... | 2,407,842 | $24 \cdot 0$ | Radios, record players and equip- |  |  |
| Automotive commodities........ | 2,302,480 | 22.0 |  | 44,249 | 0.4 |
| Clothing, women's, misses' and children's. | 674,917 | 6.5 | Toys, games and small wheel goods. | 33,088 | 0.3 |
| Alcoholic beverages................ | 491,902 | $4 \cdot 7$ | Second-hand merchandise........ | 32,227 | 0.3 |
| Clothing and furnishings, men's and boys' | 418,495 | $4 \cdot 0$ | Sporting goods... $1 . . . . . . . . . .$. Non-electrical appliances and sup- | 26,349 | 0.2 |
| Receipts from sales of meals and |  |  | plies. | 16,589 | 0.2 |
| lunches. | 408,875 | 3.9 | Musical instruments and acces- |  |  |
| Building materia | 341,026 | $3 \cdot 2$ | sories................... | 13,452 | $0 \cdot 1$ |
| Fuel and ice......... | 258,216 | $2 \cdot 4$ | Cameras and photographicequip- |  |  |
| Farm and garden equipment and supplies. | 234,174 | $2 \cdot 2$ | ment....................... | 12,130 11,463 | 0.1 0.1 |
| Drugs and drug sundries | 233,811 | $2 \cdot 2$ | Luggage and leather goods...... | 9,214 | 1 |
| Shoes and other footwear | 207,438 | $2 \cdot 0$ | Professional and scientific appli- |  |  |
| Electrical appliances and supplies. | 197,799 | 1.9 | ances, instruments and equip- |  |  |
| Hardware... | 195, 150 | 1.8 | ment... . . . . . . | 2,351 | 1 |
| Cigars, cigarettes and tob | 189,666 | 1.8 | Office and store equipment and |  |  |
| Furniture | 180,846 | 1.7 | furnitur | 871 | ${ }^{1}$ |
| Dry goods and notions | 168,997 | 1-6 | Miscellaneous me | 713,930 | 6.8 |
| Hay, straw, grain and feed | 143,962 | $1 \cdot 3$ |  |  |  |
| Household supplies.............. | 129,749 | $1 \cdot 2$ | Total Sales of Commodities in |  |  |
| Paper goods, stationery and books | 96,054 | 0.9 | Retail Stores. . . . . . . . | 10,435, 112 | $100 \cdot 0$ |
| House furnishings.... <br> Jewellery, silverware, clocks and watches | 94,692 93,719 | 0.9 0.8 | Add: Receipts from repairs and services. | 217,668 | ... |
| Paints, varnishes, glass and wallpaper. | 49,389 | 0.5 | al Sales of Retail Stores. | 10,652,780 | $100 \cdot 0$ |

${ }^{1}$ Less than 0.05 p.c.

Service Establishments.-Service establishments as defined in the 1951 Census of Distribution included all those places of business whose major source of gross income (annual turnover) was derived from the rendering of services, as opposed to the sale of merchandise. The following types of service were covered: amusement and recreational, such as motion-picture theatres and bowling alleys; personal services such as barber shops and shoe-repair shops; certain business services such as advertising agencies and window-display services; repair services such as auto repair, radio repair and watch repair; burial services; photography, commercial and portrait; hotels and tourist camps; and other services such as cold-storage locker rentals and taxis.

The Census excluded the following: professional services such as those services rendered by doctors, lawyers and accountants; trade services such as those services rendered by carpenters, plumbers and electricians; public utilities such as gas, electricity and water; services not carried on in an established place of business, such as domestic service in a private home; and transportation services such as air, rail and boat (except taxis operating from stands).

The total number of service establishments enumerated in the 1951 Census was 58,748 , and their total receipts were $\$ 1,085,757,900$. Included in these 1951 figures were 8,741 establishments in the hotel and tourist camp group, with receipts of $\$ 370,911,200$, which were not included in the 1941 figures. Excluding this group of service establishments, the 1951 results showed a moderate increase of 736 establishments, but receipts increased by $\$ 460,168,700$.

All groups of establishments showed very large increases in dollar volume in 1951 compared with 1941, as shown in Table 17. Two groups, however, showed declines in number of establishments-the undertaking and funeral services group and the personal services group. In the latter group declines were shown in the number of barber shops, beauty parlours, shoe-repair shops and shoe-shine parlours and were common to all provinces.

Service establishments provided employment for a minimum of 143,800 , and a maximum of 190,048 , employees in 1951, and a payroll of $\$ 259,709,200$. Excluding hotels and tourist camps, the services payroll increased $\$ 114,228,000$ over the 1941 payroll of $\$ 62,984,000$.
17.-Service Establishments, by Province and by Kind of Business, 1951

| Province and Kind of Business | Establishments | Receipts | Working Proprietors | Paid Employees |  | Payroll |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Minimum | Maximum |  |
|  | No. | \$'000 | No. | No. | No. | 8'000 |
| Province |  |  |  |  |  |  |
| Newfoundland. | 650 | 7,221 | 643 | 1,099 | 1,287 | 1,589 |
| Prince Edward Island | 367 | 2,793 | 389 | 559 | 1.707 | . 621 |
| Nova Scotia. | 2,050 | 22,554 | 1,993 | 4,151 | 5.571 | 5,540 |
| New Brunswick | 1,600 | 18,719 | 1,545 | 2,896 | 3.768 | 3,869 |
| Quebec. | 16,501 | 280,146 | 16,929 | 37,369 | 47.550 | 63,331 |
| Ontario. | 20,540 | 415,313 | 20,433 | 56,782 | 75,914 | 106,858 |
| Manitoba.... | 3.117 | 66,656 | 3,189 | 8,669 | 11.096 | 15,197 |
| Saskatchewan | 3,771 | 57, 105 | 3,758 | 6,432 | 8,032 | 10,012 |
| Alberta | 4,227 | 94,337 | 4,091 | 10,580 | 15,214 | 20,825 |
| British Columbia. | 5,848 | 118,452 | 5,662 | 15,065 | 20,634 | 31,302 |
| Yukon and Northwest Territories | 77 | 2,463 | 5, 72 | r 198 | ${ }_{2} 275$ | +536 |
| Canada | 58,748 | 1,085,758 | 58,704 | 143,800 | 190,048 | 259,709 |
| Kind of Business |  |  |  |  |  |  |
| Amusement and Recreation- |  |  |  |  |  |  |
| Regular theatres............ | 1,799 | 100,371 | 1.032 | 13,366 | 14,664 | 17,112 |
| Bowling alleys and pool halls......... | 1,915 | 18,675 | 2,000 | 2,823 | 5,647 | 3,976 |
| lishments. | 1,850 | 31,928 | 989 | 5,653 | 10,060 | 8,246 |
| Totals, Amusement and Recreation | 5,564 | 150,973 | 4,021 | 21,842 | 30,371 | 29,335 |

17.-Service Establishments, by Province and by Kind of Business, 1951-continued

|  |  |  |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Kind of Business |  |  |  |  |

17.-Service Establishments, by Province and by Kind of Business, 1951-concluded

| Kind of Business | Estab-lishments | Receipts | Working Proprietors | Paid Employees |  | Payroll |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Minimum | Maximun |  |
|  | No. | \$'000 | No. | No. | No. | \$ 000 |
| Photography- |  |  |  |  |  |  |
| Commercial photographers............Portrait photographers..........Developing, printing and enlarging | 106 | 3,417 | 105 | 402 | 668 | 1,436 |
|  | 1,057 126 | 10,426 3,346 | 1,049 130 | 1,148 | 1,555 597 | 2,086 |
| Totals, Photography............... |  |  |  |  |  |  |
|  | 1,289 | 17,189 | 1,284 | 1,951 | 2,820 | 4,353 |
| Hotels and Tourist Camps- |  |  |  |  |  |  |
| Full year hotels, licensed..... | 3,292 | 311,321 | 2,916 | 37,064 | 44,539 | 68,461 |
| Full year hotels, non-licensed | 1,036 | 25,442 | 1,059 | 5,057 | 6,546 | 7,464 |
| Seasonal hotels, licensed... | ${ }^{2} 209$ | 10,018 | 194 | 1,238 | 5,200 | 2,613 |
| Tourist courts, cabins, motels, etc | 3,040 | 11,942 | 1,235 | 1,982 | 7,717 | 1,310 |
| Other tourist camps.... | 159 | 568 | 175 | 115 | 229 | 1,89 |
| Totals, Hotels and Tourist Camps.. | 8,741 | 370,911 | 8,603 | 48,653 | 67,405 | 82,497 |
| Miscellaneous Services................. | 4,632 | 61,902 | 6,075 | 8,781 | 12,197 | 15,313 |
| Totals, All Establishments.......... | 58,748 | 1,085,758 | 58,704 | 143,800 | 190,048 | 259,709 |

## Subsection 2.-Annual Statistics of Merchandising and Service Establishments*

Current statistics on merchandising and service establishments are, in general, based on the results of the Decennial Census of Distribution. The results of the 1951 Census are shown in considerable detail in Subsection 1. Following completion of a Census, it is necessary to select new sample panels from which to make estimates for certain of the larger continuing surveys such as retail trade, wholesale trade and retail consumer credit. It is also necessary to carry out extensive revisions to bring the past estimates into agreement with the Census base and to continue this revision to the post-census estimates currently produced. At time of writing (September 1954), such new samples and revisions were not completed, so that this Subsection will deal only with certain "full-coverage" surveys not affected by post-census sampling and revising procedures. The latest available annual data on retail trade, wholesale trade and consumer credit are contained in the 1954 Year Book, pp. 928-934.

Operating Results of Retail Stores.-Operating results, profit and loss and balance-sheet data, are not covered by the Census of Distribution but are collected in a biennial survey, alternated with a similar study of certain wholesale and retail chain store trades. The 1952 retail survey gives figures for 20 major trades of the independent type of retail store. Latest results for wholesalers and retail chain stores are given in the 1954 Year Book, pp. 930 and 933 , respectively.

[^318]
## 18.-Operating Ratios of Independent Retail Stores, by Kind of Business, 1952

Note.-All figures except stock turnover are percentages of net sales.


${ }^{1}$ Includes salaries and wages and occupancy expenses.
2 Excludes delivery or proprietors' salaries. $\quad{ }^{3}$ Includes taxes and insurance, light, heat and power, repairs, maintenance, depreciation (except on delivery equipment) and rentals on rented premises. ${ }^{4}$ Includes, for unincorporated stores, proprietors' salaries or withdrawals. ${ }^{\text {Times per year-cost of goods sold, divided by average }}$ of beginning and year-end inventories.

Theatres.-The Canadian public spent a total of $\$ 118,434,481$ on motionpicture entertainment during 1952 of which $\$ 12,975,298$ was amusement taxes. Summary statistics of motion-picture theatre operations are presented in Table 19. The provincial distribution shown in Table 20 does not include itinerant operators.
19.-Summary Statistics of Motion-Picture Theatre Operations, 1952

| Item | Regular <br> Theatres | Drive-in Theatres | Community Enterprises | Itinerant Operators | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Establishments ............... No. | 1,843 | 104 | 657 | 812 | 3,416 |
| Receipts (excluding taxes)......... \$ | 98,851,349 | 4,409,426 | 1,702,824 | 495,584 | 105,459,183 |
| Amusement taxes.... .......... 8 | 12,308,148 | 540,390 | 5,96,314 | 30,446 | 12,975, 298 |
| Paid admissions............... No. | 247,732,717 | 8,379,586 | 5,363,564 | 1,487,420 | 262,963,287 |

## 20.-Motion-Picture Theatres and Receipts, by Province, 1911, 1949 and 1950-5\%

Nors.-Itinerant operators are not included in these figures. Receipts are exclusive of amusement taxes.

| Province | 1941 |  | 19491 |  | $1950{ }^{2}$ |  | $1951{ }^{1}$ |  | 19521 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Receipts | No. | Receipts | No. | Receipts | No. | Receipts | No. | Receipts |
|  |  | \$ |  | \$ |  | \$ |  | \$ |  | \$ |
| Newfoundland... | 6 | 141,317 | 56 20 | 895,857 296,851 | 63 18 | 916,634 293,807 | 71 | 1, 202, ${ }_{323,4}$ | 86 17 | $1,269,248$ 348,887 |
| Nova Scotia. | 61 | 2,195,599 | 84 | 3,113,058 | 85 | 3,269,653 | 86 | 3,475, 104 | 88 | 3,772,822 |
| New Brunswick | 39 | 1,102,265 | 67 | 2,055,491 | 66 | $2,064,199$ | 71 | 2,320,390 | 72 | 2,618,307 |
| Quebec. | 202 | 8,047,022 | 637 | 19,765,969 | 583 | 21,644,261 | 617 | 23,043,006 | 646 | 25,449, 414 |
| Ontario. | 410 | 18,757,372 | 626 | 32,951,071 | ${ }^{609}$ | 35, 557,030 | 625 | 40,139,582 | 644 | 42,806,986 |
| Manitoba | 111 | 2,475,949 | 181 | 4,432,887 | 166 | 4,426,997 | 165 | 4,897,805 | 175 | 5, 235, 192 |
| Saskatchewan. | 145 | 1,673,313 | 489 | 4,120,512 | 391 | 4,001,268 | 387 | 4,386, 055 | 386 | 5,345,231 |
| Alberta. | 144 | 2,257,115 | 311 | 5,516,078 | 262 | 5,831,685 | 274 | 6,650,644 | 275 | 7,754,465 |
| BritishColumbis ${ }^{2}$ | 122 | 4,145,945 | 228 | 7,945,072 | 206 | 8,244,218 | 209 | 9,395, 264 | 215 | 10,363,047 |
| Canad | 1,240 | 49,795,897 | 2,699 | 81,092,846 | 2,449 | 86,219,752 | 2,522 | 95,833,340 | 2,604 | 104,963,599 |

${ }^{1}$ Includes, in addition to regular theatres, establishments in which motion-picture entertainment $\mathrm{i}^{8}$ provided by community organizations such as churches, lodges, Boards of Trade etc., and drive-in theatres. In 1949 such halls numbered 469, their receipts $\$ 1,140,307$, and drive-in theatres numbered 30 , and had receipts of $\$ 1,392,760$; in 1950,586 halls had receipts of $\$ 1,251,311$ and 62 drive-in theatres had receipts of $\$ 2,290,679$; in 1951, 632 halls had receipts of $\$ 1,499,560$ and 82 drive-in theatres had receipts of $\$ 3,347,670$; and in 1952,657 halls had receipts of $\$ 1,702,824$ and 104 drive-in theatres had receipts of $\$ 1,409,426$. $\quad 2$ Includes the Yukon and Northwest Territories.

Power Laundries, Cleaning and Dyeing Plants.-The value of work performed by 307 power laundries and 991 dry-cleaning plants operating in 1952 totalled $\$ 105,331,139$. The $\$ 51,644,977$ paid in salaries and wages to 28,738 employees during the year, accounted for almost one-half of total receipts.
21.-Statistics of Power Laundries, Dry-Cleaning and Dyeing Plants, 1941 and 1947-52, and by Province, 1952


For footnotes, see end of table.

## 21.-Statistics of Power Laundries, Dry-Cleaning and Dyeing Plants, 1941 and 1947-5\%, and by Province, 195\%-concluded

| Year and Province | Plants | Employees ${ }^{1}$ | Salaries and Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Value of Work Performed |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dry-Cleaning and Dyeing Plants |  |  |  |  |
|  | No. | No | \$ | \$ | \$ |
| 1941. | 363 | 6.554 | 6,125,635 | 1,433,790 | 12,678,275 |
| 1947. | 530 | 10,906 | 14, 144,464 | 3,041,506 | 28,584, 285 |
| 1948. | 787 | 11,953 | 17,140,254 | 4,400,688 | 36,620,948 |
| 19492. | 905 | 12,886 | 20,107.095 | 4.939,685 | 42,574,449 |
| 1950. | 919 | 13,450 | 21,704,698 | 5,378,564 | 46, 249,622 |
| 1951. | 981 | 13,933 | 23,850,119 | 5,378,56 | 52,798,415 |
| 1952 |  |  |  |  |  |
| Newfoundland and P.E. Island. | 15 | 243 | 403,519 | 111,080 | 952,818 |
| Nova Scotia. | 36 | 553 | 820,753 | 209,179 | 1,743,448 |
| New Brunswick | 30 | 272 | 420,343 | 126.534 | 1,059,761 |
| Quebec. | 183 | 3,395 | 6,077,825 | 1,643,847 | 12,963, 206 |
| Ontario. | 416 | 6,376 | 12,169,109 | 2,838,334 | 26,022,586 |
| Manitoba. | 46 | 1,161 | 2,104,423 | 458,348 | 3,996,635 |
| Saskatchewan | 63 | 576 | 1,052,075 | 287,489 | 2,622,594 |
| Alberta. | 96 | 1,099 | 1,816,985 | 488,177 | 4,214,951 |
| British Columbia ${ }^{3}$. | 106 | 1,141 | 2,283,892 | 547.367 | 4,902,450 |
| Canada, 1952 | 991 | 14,816 | 27,148,924 | 6,710,355 | 58,478,449 |

${ }^{1}$ Includes salaried employees and wage-earners. $\quad{ }^{2}$ Newfoundland included from $1949 . \quad{ }^{3}$ Includes the Yukon Territory and the Northwest Territories.

Hotels.-The 1952 receipts of the 5,157 hotels in Canada amounted to $\$ 391,936,000$. These receipts comprised $\$ 201,759,000$ from the sale of beer, wine and liquor, $\$ 89,879,000$ from room rentals, $\$ 67,269,000$ from the sale of meals and $\$ 33,029,000$ from other sources.
22.-Hotels and Total Receipts, by Province, 1941, 1951 and 1952

| Province | 1941 |  |  | 1951 |  |  | 1952 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hotels | Rooms | Receipts | Hotels | Rooms | Receipts | Hotels | Rooms | Receipts |
|  | No. | No. | \$'000 | No. | No. | \$'000 | No. | No. | \$'000 |
| Newfoundland...... | 38 | 592 | 249 | ${ }_{24}^{27}$ | 811 | 1,989 | 27 24 | 779 648 | 2,283 581 |
| Nova Scotia. | 226 | 3,663 | 2,896 | 155 | 4,050 | 5,539 | 146 | 3,924 | 5,928 |
| New Brunswick | 171 | 3,570 | 1,807 | 109 | 3,265 | 3,644 | 103 | 3.214 | 3,819 |
| Quebec. . | 1,556 | 30,883 | 28,647 | 1,441 | 37,970 | 85,293 | 1,540 | 39,741 | 93,679 |
| Ontario............. | 1,762 | 40,388 | 66,076 | 1,495 | 45,118 | 116,547 | 1,489 | 46,459 | 125,488 |
| Manitoba | 278 | 7,350 | 7,953 | 276 | 7.588 | 25,892 | 285 | 7,985 | 27,691 |
| Saskatchewan...... | 595 | 11,635 | 9,297 | 536 | 12,001 | 29,886 | 530 | 12,015 | 34,790 |
| Alberta. . . . . . . . . | 433 | 12,918 | 14,218 | 445 | 14,186 | 45,038 | 449 | 14,206 | 49,857 |
| British Columbia ${ }^{\text {. . }}$ | 587 | 17,981 | 16,345 | 584 | 20,818 | 42,862 | 564 | 20,644 | 47,820 |
| Canada | 5,616 | 128,980 | 147,488 | 5,092 | 146,441 | 357,282 | 5,157 | 149,615 | 391,936 |

[^319]Farm Implement Sales.-Sales of new implements and equipment at the wholesale price level amounted to $\$ 250,277,241$ in 1952 approximately 6 p.c. higher than in 1951. This figure represents manufacturers' and importers' sales which, at the retail level, were estimated at $\$ 307,000,000$. Sales of new repair parts amounted to $\$ 31,231,946$ at the wholesale level or an estimated $\$ 42,000,000$ at the retail price. These repair parts are not included with the amounts shown for new implements and equipment.

## 23.-Farm Implement and Equipment Sales, by Province, 1951 and 1952

Nors.-Values at wholesale prices.

| Province | 1951 |  | 1952 |  | $\begin{aligned} & \text { P.C. } \\ & \text { Change } \\ & \text { 1951-52 } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ | Amount | $\begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}$ |  |
|  | 8 |  | \$ |  |  |
| Atlantic Provinces. | 6,889,061 | 2.9 | 9,118,551 | 3.6 | $+32.3$ |
| Quebec... | 23,816.008 | $10 \cdot 1$ | 23,745,129 | $9 \cdot 5$ | $-0.3$ |
| Ontario. | 58,736, 585 | $24 \cdot 9$ | 51,448,643 | $20 \cdot 6$ | -12.4 |
| Manitoba. | 31,698,984 | 13.5 | 31,578,047 | $12 \cdot 6$ | -0.4 |
| Saskatchewan. | 61,147,757 | $26 \cdot 0$ | 75,859,527 | $30 \cdot 3$ | +24.1 |
| Alberta. | 48,267,092 | 20.5 | 53,505,361 | 21.4 | $+10.9$ |
| British Columbia | 5,064,559 | $2 \cdot 1$ | 5,021,983 | $2 \cdot 0$ | -0.8 |
| Totals. | 235,620,345 | $100 \cdot 0$ | 250,277,241 | 100.0 | $+6.2$ |

Separate sales figures for different types of equipment are presented in Table 24.
24.-Sales of New Farm Implements and Equipment in Canada and in the Prairie Provinces, by Type, 1951 and 1952

Nots.-Values are mainly at wholesale prices.

| Type | Canada |  |  | Prairie Provinces |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 | $\begin{gathered} \text { P.C. } \\ \text { Change } \\ 1951-52 \end{gathered}$ | 1951 | 1952 | $\begin{gathered} \text { P.C. } \\ \text { Change } \\ \text { 1951-52 } \end{gathered}$ | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Canads } \\ & \text { Total, } \\ & 1952 \end{aligned}$ |
|  | \$ | \$ |  | \$ | \$ |  |  |
| Planting, seeding and fertilizing machinery. | 9,516.447 | 9,150,510 | -3 5 | 4. 425.452 | 4.445,216 | +0.4 | $48 \cdot 6$ |
| Ploughs.................... | 15,454,118 | 18,234,921 | $\div 150$ | 10,7:S.226 | 13.959, 013 | +29.8 | $76 \cdot 7$ |
| Tilling, cultivating and weeding machinery. | 12.507.958 | 10.137,619 | -19.0 | 8,130,469 | 5,903,720 | -27.4 | 58.2 |
| Haying machinery........ | 14.544.424 | 17,230,060 | $+16.1$ | 5, 463,840 | 5,965,558 | +9.2 | $34 \cdot 6$ |
| Harvesting machinery..... | 55,641,340 | 74,336,442 | +26.8 | 50,478,809 | 65,041,763 | +28.8 | 87.5 |
| Machines for preparing crops for market or use. | 11.381,657 | 11,324,459 | $-0.5$ | 5.671,628 | 6,760.491 | +19.2 | 59.7 |
| Tractors and engines........ | 92,661,775 | 89,991,854 | -2.9 | 49,811,432 | 52,897,416 | +6.2 | 58.8 |
| Spraying and dusting equipment. | 1,986,205 | 1.688,363 | $-15.0$ | 1,169,136 | 850,370 | $-27 \cdot 3$ | $50 \cdot 4$ |
| Farm wagons, trucks and sleighs. | 2,483,968 | 2,690.525 | +8.3 | 1.078,922 | 1,221,104 | +13.2 | 45-4 |
| Water systems and pumps.. | $5,938,424$ | 6,202,934 | +4.5 | 1,390,435 | 1,379,605 | -0.5 | $22 \cdot 2$ |
| Dairy machinery and equipment. | 3,397,615 | 3.010,878 | -11.4 | 761,554 | 717,762 | -5.8 | 23.8 |
| Barn equipment.............. | 2,313,542 | $3,115,541$ | +34.7 | 474,264 | 675,499 | +42.4 | 21.7 |
| Poultry-farm equipment.... | 532,344 | 454,845 | -14.6 | 122,893 | 186,428 | $+51.7$ | 41.0 |
| Miscellaneous farm equipment. | 3,960,498 | 2,708.290 | -31.6 | 1,353,7\%3 | 905,990 | -33.1 | $33 \cdot 5$ |
| Totals | 235,520,345 | 250,277,241 | $+6.2$ | 141,113,833 | 160,942,935 | +14.0 | 64.3 |

Sales of New Motor-Vehicles. - The post-war upward trend in new motor-vehicle sales continued in 1953 when 462,526 new vehicles were sold for $\$ 1,162,471,000$. The increase over 1952 was accounted for by passenger cars only, sales of commercial vehicles in 1953 showing a dechine of over 5,000 in number and $\$ 14,000,000$ in value from the previous year.

## 25.-Retail Sales of New Motor-Vehicles, 1939-53

| Year | Passenger Cars |  | Trucks and Buses |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | 8 | No. | \$ | No. | \$ |
| 1939. | 90,054 | 97,131,128 | 24,693 | 28,836,393 | 114,747 | 125,967,521 |
| 1940 | 101,789 | 114,928,833 | 28,763 | 33,916,445 | 130,552 | 148,845, 278 |
| 1941. | 83,650 | 108,907,312 | 34,432 | 43,008,207 | 118,082 | 151,915,519 |
| 1942-45 |  |  |  |  |  |  |
| 1946. | 77,742 | 120, 325,496 | 42,302 | 73,003,509 | 120,044 | 193,329,005 |
| 1947. | 159,205 | 283,190,390 | 71,050 | 133,047,105 | 230,255 | 416,237,495 |
| 1948. | 145,655 | 282,903,958 | 75.645 | 156,313,030 | 221,300 | 439,216,988 |
| 1949. | 202,318 | 412,297, 863 | 84,023 | 176,426.822 | 286,341 | 588,724,685 |
| 1950 | 324,903 | 661,673,944 | 104,792 | 223,995,095 | 429,695 | 885,669,039 |
| 1951. | 275,686 | 683,182,846 | 109,962 | 266,976,665 | 385, 648 | 950,159,511 |
| 1952. | 292,095 | 725,167,630 | 108,682 | 277,448,211 | 400,777 | 1,002,615,841 |
| 1953. | 359,172 | 899,726,000 | 103,354 | 262,745, 000 | 462,526 | 1,162,471,000 |

Sales Financing.-The financing of retail instalment sales increased considerably in 1953, reaching a new high level of $\$ 943,000,000$. This represents the amount financed by sales finance companies. Balances outstanding on their books at the end of the year totalled $\$ 697,000,000$ compared with $\$ 540,000,000$ at the end of 1952 .

## 26.-Retail InstaIment Paper Purchased and Balances Outstanding, by Class of Goods and Province, 1941 and 1951-53

(Millions of Dollars)

| Item | Paper Purchased |  |  |  | Balances Outstanding Dec. 31- |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1941 | 1951 | 1952 | 1953 | 1941 | 1951 | 1952 | 1953 |
| Class of Goods |  |  |  |  |  |  |  |  |
| Consumer Goods- |  |  |  |  |  |  |  |  |
| New passenger cars............. | 23 | 114 | 195 | 252 | . | 80 | 130 | 195 |
| Used passenger cars. ............. | 44 | 141 | 282 | 321 | . | 80 | 169 | 216 |
| Radio and television. . . . . . . . . . . | 2 | 5 | 21 | 38 | . | 3 | 15 | 29 |
| Household appliances............. | 5 | 15 | 50 | 64 | .. | 9 | 31 | 46 |
| Furniture... |  | 20 | 39 | 14 25 | .. | 11 | $2{ }_{2}^{7}$ | 16 |
| Totals, Consumer Goods | 77 | 299 | 591 | 714 | 49 | 186 | 373 | 512 |
| Commercial and Industrial- |  |  |  |  |  |  |  |  |
| New commercial vehicles.. | 11 | 82 | 98 | 90 | . | 64 | 77 | 78 |
| Used commercial vehicles.......... | 5 | 46 40 | 66 | 76 | $\cdots$ | 32 | 47 | 61 |
| Totals, Commercial and Industrial. | 23 | 168 | 228 | 229 | 16 | 127 | 167 | 185 |
| Totals, Retail Financing..... | 100 | 467 | 819 | 943 | 65 | 313 | 540 | 697 |
| Province |  |  |  |  |  |  |  |  |
| Atlantic Provinces. | 7 | 34 | 62 | 73 | 4 | 23 | 40 | 53 |
| Quebec...... | 16 | 102 | 172 | 195 | 10 | 71 | 113 | 146 |
| Ontario.. | 48 | 177 | 322 | 379 | 30 | 114 | 210 | 274 |
| Manitoba | 5 | 24 | 39 | 44 | 3 | 16 | 26 | 33 |
| Saskatchewan | 8 | 29 | 47 | 52 | 5 | 20 | 33 | 40 |
| Alberta. | 9 | 55 | 105 | 119 | 6 | 39 | 73 | 93 |
| British Columbia.............. | 9 | 46 | 71 | 81 | 7 | 30 | 45 | 58 |

[^320]During 1953, the increase in the number of new motor-vehicles financed by sales finance companies did not keep pace with the number sold. In 1952, 43 p.c. of new vehicles sold were financed by these companies; in 1953 the ratio declined to 41 p.c.

## 27.-Sales and Financing of New Motor-Vehicles (Passenger and Commercial), Selected Years, 1939-53

| Year | MotorVehicles Sold | MotorVehicles Financed | P.C. of Total SalesFinanced |  | Average <br> Financed Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Number | Value |  |
|  | No. | No. |  | \$ | \$ |
| 1939. | 114,747 | 37,230 | $32 \cdot 5$ | $22 \cdot 1$ | 746 |
| 1941. | 118,082 | 41,032 | $34 \cdot 7$ | $23 \cdot 0$ | 850 |
| 1946. | 120,044 | 22,866 | $19 \cdot 0$ | 14.5 | 1,224 |
| 1947. | 230,255 | 46,700 | $20 \cdot 3$ | 15.7 | 1,401 |
| 1948. | 221,300 | 51,867 | $23 \cdot 4$ | 16.8 | 1,423 |
| 19491. | 286,341 |  |  |  | 1,417 |
| 1950. | 429,695 | 135,304 | 31.5 | 21-6 | 1,415 |
| 1951. | 385,648 | 126,255 | $32 \cdot 7$ | $20 \cdot 1$ | 1,514 |
| 1952. | 400,777 | 172,587 | $43 \cdot 1$ | 29.2 | 1,695 |
| 1953. | 462,526 | 189,052 | $40 \cdot 9$ | $29 \cdot 4$ | 1,810 |

${ }^{1}$ Newfoundland included from 1949.

Advertising Agencies.-Total billings of advertising agencies in 1952 amounted to $\$ 121,666,983$ of which $\$ 120,628,827$ was commissionable billings and the rest was from other services. Gross revenue totalled $\$ 19,060,261$ compared with $\$ 17,015,496$ in 1951.
28.-Financial Statistics of Advertising Agencies, 1947-52

| Year | Amount of Billings |  |  | Gross Revenue |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Commissionable Billings | Other | Total | Amount | P.C. of Total Billings |
|  | \$ | \$ | \$ | \$ |  |
| 1947. | 64,422,777 | 171,897 | 64, 594,674 | 10,091,772 | 15.6 |
| 1948. | 73,543,766 | 218.447 | 73,762,213 | 11, 553,459 | 15.7 |
| 1949. | 86,450,968 | 291,502 | 86,742,470 | 13,526,336 | $15 \cdot 6$ |
| 1950. | 95,566.600 | 653,944 | 96,220,544 | 15,012,672 | $15 \cdot 6$ |
| 1951. | 107,461,752 | 951,833 | 108,413,585 | 17,015,496 | 15.7 |
| 1952. | 120,628.827 | 1,038,156 | 121,666,983 | 19,060,261 | 15.7 |

29.-Distribution of Advertising Billings, by Media, 1947-52

| Year | Total Commissionable Billings | Distribution of Billings |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Publications | Other <br> Visual | Me- chanical | Radio | Other | Total |
|  | \$ | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1947... | 64,422,777 | 61.8 | 4.4 | 16.3 | 15.8 | 1.7 | $100 \cdot 0$ |
| 1948... | 73,543,766 | 60.4 | $4 \cdot 5$ | $16 \cdot 1$ | 16.7 | $2 \cdot 3$ | $100 \cdot 0$ |
| 1949.. | 86,450,968 | $61 \cdot 2$ | 4.4 | $16 \cdot 4$ | $15 \cdot 7$ | $2 \cdot 3$ | $100 \cdot 0$ |
| 1950. | 95,566,600 | 59.6 59.3 | $5 \cdot 7$ | 18.5 | 16.1 | $0 \cdot 1$ | $100 \cdot 0$ |
| 1951. | 107,461,752 | 59.3 | $5 \cdot 2$ | 18.0 | $17 \cdot 3$ | $0 \cdot 2$ | $100 \cdot 0$ |
| 1952... | 120,628,827 | 59.9 | $4 \cdot 5$ | 17-1 | $17 \cdot 6$ | 0.9 | $100 \cdot 0$ |

## Section 2.-Grain Trade

## Subsection 1.-Marketing Problems and Policies, 1953-54

Production of three of Canada's major grain crops-wheat, barley and ryein 1953 was the second highest on record and yields of most other grains were also considerably above average. The cumulative effect of the 1953 crop, following the unusually large production of 1951 and the record production of 1952, continued to impose a severe strain on all grain storage and handling facilities and to call for an unusually high degree of co-ordination in marketing Canadian grain throughout this period. As in recent years, marketing arrangements for wheat, oats and barley in Western Canada in 1953-54 continued under the system of compulsory crop-year pools administered by the Canadian Wheat Board. Rye and flaxseed in Western Canada and all grains in Eastern Canada continued to be sold on the open market.

Unprecedented quantities of Western Canadian grain have necessitated a continuous review by the Canadian Wheat Board of marketing methods considered most suitable to provide adequate supplies of the various grains to meet both domestic and export commitments and, at the same time, to ensure that producers have the opportunity of delivering grain in as equitable a manner as possible. In 1953-54, initial delivery quotas of three bushels per 'specified acre' were established for individual producers on the basis of their 'specified acreage', that is, acreage seeded to wheat (other than Durums), oats, barley, and rye plus summerfallow. The initial quota was adjusted as conditions permitted, all delivery points being on a 7 -bushel quota by July 9, 1954. Durum wheat and flaxseed remained on an open quota basis throughout the crop year.

Although marketings and exports of Canadian grain during the 1953-54 crop year did not continue the record-breaking levels of the preceding two crop years, they were well above average in total volume. Preliminary data on marketings of the five major grains in Western Canada in 1953-54 indicate a total of 610,100,000 bu., compared with $844,100,000$ bu. in 1952-53 and the ten-year (1943-44-1952-53) average of $557,900,000 \mathrm{bu}$. Combined exports of the same grains (including wheat flour, rye flour, rolled oats and oatmeal in grain equivalent) amounted to $437,900,000$ bu. as against $582,800,000 \mathrm{bu}$. in 1952-53 and the ten-year average of $381,800,000 \mathrm{bu}$.

Despite abnormally heavy marketings by farmers for three successive crop years, farm stocks of wheat, barley and rye at July 31, 1954, were the highest on record for the end of a crop year and those of oats and flaxseed had been exceeded only once before.

Combined stocks of the five major grains in all positions were estimated at a record $890,000,000 \mathrm{bu}$., more than two and one-half times as great as the 1944-53 average of $325,000,000 \mathrm{bu}$. These record total stocks of high-quality grain did much to offset the otherwise serious effects of the 1954 crop which was unusually low in both yield and quality.

Wheat.-Supply and Disposition.--Stocks on hand at the beginning of the 1953-54 crop year amounted to $369,200,000$ bu. These stocks, the largest since 1943, represented the fifth consecutive annual increase from the abnormally low level of $77,700,000 \mathrm{bu}$. on hand at July 31, 1948. The next-to-record 1953 wheat crop of $614,000,000 \mathrm{bu}$., together with large carryover stocks, provided total cropyear supplies of $983,600,000$ bu., the highest level on record.
20.-Production, Imports, Exports and Domestic Use of Wheat, Crop Years Ended
(Millions of bushels)

| Item | 1947-48 | 1948-49 | 1949-50 | 1950-51 | 1951-52 | 1952-53 | 1953-54 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Carryover Aug. 1. | 86.1 | 77.7 | 102-4 | 112.2 | 189.2 | 217.2 | 369.2 |
| Production. | 341.8 | 386.3 | 371 -4 | $461 \cdot 7$ | $552 \cdot 7$ | $687 \cdot 9$ | 614.0 |
| Imports ${ }^{\text {. }}$. | 0.8 | 0.3 | 2 | 2 | 2 | 2 | 0.5 |
| Totals, Supply | 428.7 | 464.3 | 473.8 | 573.9 | 741.9 | $905 \cdot 1$ | 983 -6 |
| Exports ${ }^{\text {a }}$. | $195 \cdot 0$ | $232-3$ | $225 \cdot 1$ | 241.0 | 355.8 | 385.5 | $255 \cdot 1$ |
| Domestic use | 156.0 | $129 \cdot 6$ | 136.5 | $143 \cdot 7$ | 168.9 | $150 \cdot 4$ | $145 \cdot 8$ |
| Totals, Disposition | $351-9$ | 361.9 | $561 \cdot 6$ | 381.7 | 524.7 | 535.9 | 400.9 |
| Carryover July 31. | 77-7 | 102 -4 | 112.2 | $189 \cdot 2$ | 217-2 | $369 \cdot 2$ | 582.7 |

${ }^{1}$ Includes wheat flour in terms of wheat.
${ }^{2}$ Less than 50,000 bu.
Exports of wheat and flour in terms of wheat during 1953-54 amounted to $255,100,000$ bu. $-130,400,000$ bu. lower than the $385,500,000$ in $1952-53$ and $35,300,000$ bu. below the ten-year (1943-44-1952-53) average of $290,400,000$. The $1952-53$ total of $385,500,000 \mathrm{bu}$. constituted the second highest crop exports on record. The 1953-54 figure otherwise is comparable to previous crop years in volume of exports. Exports in 1953-54, however, were well above the pre-war (1935-36-1939-40) average of $183,000,000 \mathrm{bu}$. and included the equivalent of $46,300,000 \mathrm{bu}$. of wheat in the form of wheat flour. Domestic utilization of wheat declined in 1953-54 to $145,800,000$ bu. as against $150,400,000$ in 1952-53 and the ten-year average of $156,000,000 \mathrm{bu}$. This decline is attributed to reductions in each of the main categories of use-animal feed, seed and human consumption; the level of domestic utilization however, was well above the pre-war (1935-36-1939-40) average of $114,000,000 \mathrm{bu}$. Reflecting these reductions in exports and domestic utilization, carryover stocks at July 31, 1954, reached a next-to-record level of $594,200,000$ bu.

Price and Marketing Arrangements.-Marketing of Western Canadian wheat during the 1953-54 crop year was again conducted by the Canadian Wheat Board on a one-year pool basis with the initial payment set at $\$ 1.40$ per bushel, basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. The initial payment for No. 1 C.W. Amber Durum was established at $\$ 1.50$ per bushel as an incentive for farmers to expand production of this type for which a strong demand exists. No adjustment payments on 1953-54 deliveries were made during the 1953-54 crop year but on Nov. 6, 1954, an interim payment of 10 cents per bushel (amounting in total to some $\$ 38,000,000$ ) was announced to cover 1953-54 deliveries of wheat, with the exception of certain special varieties which had not yet been sold in sufficient quantity to justify an interim payment. Final payments to producers for wheat delivered to the $1953-54$ pool will depend on the average prices at which the Board has been able to sell the various grades, as well as on the costs incurred by the Board in carrying abnormally heavy stocks over an extended period of time.

Early in the 1953-54 crop year an interim payment of 12 cents per bushel for all grades was made on the 1952-53 pool and on Feb. 25, 1954, a final payment averaging 10.934 cents per bushel was announced on the 1952-53 pool deliveries. Prior to the deduction of the Prairie Farm Assistance levy, the net price
realized by producers in the 1952-53 pool for No. 1 Northern wheat, basis in store Fort William-Port Arthur or Vancouver, was $\$ 1.81871$ per bushel. The corresponding realized price for the 1951-52 pool was $\$ 1.83569$ per bushel.

The 1953-54 crop year coincided with the first year of the new three-year International Wheat Agreement. Under its provisions, Canada had a guaranteed export quota of $150,800,000$ bushels for $1953-54$ and, according to the final report on the year's transactions, Canadian sales under the Agreement totalled 90,900,000 bushels. The new Agreement operates under a price range of $\$ 2.05$ per bushel maximum and $\$ 1.20$ per bushel minimum in United States funds. Distribution of sales under the Agreement were quite widespread, with all but 14 of the 43 importing countries included in the pact purchasing either wheat or flour or both from Canada. The larger purchasers from Canada under the Agreement were the Federal Republic of Germany, $17,000,000$ bushels; Belgium, 13,000,000; and Japan, 12,000,000. The major part of Canada's wheat trade during 1953-54, however, was carried on in Class II wheat (that is, wheat exported outside the provisions of the International Wheat Agreement). The principal customer for Class II wheat was the United Kingdom which received exports of about $65,800,000$ bu. of Canadian wheat and flour in terms of wheat. The combined Canadian exports of $255,100,000$ bu. of wheat and wheat flour went to 83 countries, territories and colonies during the crop year.

During 1953-54, domestic sales of wheat, with the exception of Durum, were made at the same prices as those prevailing for wheat sold under the International Wheat Agreement. Between Aug. 1 and Sept. 24, 1953, Durums for the domestic market and for I.W.A. were sold at the same price, but on and after September 25 an additional ten cents per bushel was charged for domestic sales of Durum. During the first few weeks of the 1953-54 crop year, Class II prices, excepting Durums, were fractionally above the I.W.A. and domestic sales levels. For the remainder of the crop year, Class II prices for all grades except Durums coincided with I.W.A. and domestic quotations. Throughout the season, Class II Durums sold at a substantial margin over Durums sold under I.W.A. or for domestic use. No. 1 Northern, basis Fort William-Port Arthur for I.W.A. and domestic sales averaged $\$ 2.01 \frac{1}{4}$ during the month of August 1953, but declined to an average of $\$ 1.70 \frac{3}{4}$ per bushel by July 1954, the last month of the crop year.

Other Grains.-Supply and Disposition.-Preliminary data on supply and disposition of the major Canadian grains for the crop year 1953-54 together with revised and more detailed data for 1952-53 are set out in Table 31. Except for rye, production of each of the five major grains was somewhat below the record or nearrecord levels of 1952. Unusually large carryover stocks at July 31, 1953, however, more than offset the decline in production for wheat and barley. As a result, new records were established for crop-year supplies of wheat and barley which reached $983,600,000$ bushels and $373,700,000$ bushels, respectively.

Total exports of coarse grains continued in heavy volume during 1953-54. Exports of barley (including malt in barley equivalent) amounted to $93,700,000$ bushels, exceeded only by the record $122,100,000$ bushels in 1952-53. Exports of oats (including rolled oats and oatmeal) totalled $70,700,000$ bushels, surpassed only by the record $85,800,000$ bushels exported in $1944-45$ and the $74,700,000$ bushels shipped in 1943-44. Rye exports, at $16,800,000$ bushels, set a new record and exports of flaxseed, at $5,200,000$ bushels, were the largest since 1943-44. Despite substantial exports and the continuing high level of domestic use of all grains, new records were set at July 31, 1954, for year-end carryover stocks for both barley and rye, and oats stocks were the third highest on record.
31.-Distribution of Canadian Grain Crops, Crop Years Ended July 31, 1953 and 1954
(Millions of bushels)

${ }^{1}$ Import and export data for wheat, oats, barley and rye, respectively, include flour in terms of wheat, rolled oats in terms of oats, malt in terms of barley and rye flour in terms of rye.
${ }^{2}$ Less than 50,000 bu.
Price and Marketing Arrangements.-As in recent years, marketing of Western Canadian oats and barley was again carried on through compulsory crop-year pools administered by the Canadian Wheat Board. Initial payments for both grains were the same as in 1952-53, on the basis of 65 cents per bu. for No. 2 C.W. oats and 96 cents per bu. for No. 3 C.W. 6-Row barley, in store Fort William-Port Arthur. No interim payments were made on either grain during the crop year but final payments for both were announced in October 1954.

Final payments on the $101,193,954 \mathrm{bu}$. of barley delivered to the 1953-54 pool averaged $9 \cdot 71747$ cents per bu. after deduction of payment expenses and the 1 p.c. Prairie Farm Assistance Act levy. Total prices (basis in store Fort WilliamPort Arthur) realized by producers for representative grades, after deducting carrying charges in country and terminal elevators, Board administrative costs, etc., but before deducting the 1 p.c. P.F.A.A. levy, were $\$ 1 \cdot 05985$ per bu. for No. 3 C.W. 6-Row barley and $\$ 0.95009$ per bu. for No. 1 Feed barley. Final payments on the $89,725,291 \mathrm{bu}$. of oats delivered to the $1952-53$ pool averaged 6.2759 cents per bu. Total prices realized by producers for representative grades, on the same basis as for barley, were $\$ 0.70517$ for No. 2 C.W. and $\$ 0 \cdot 66175$ for No. 1 Feed oats.

Preliminary data indicate that about $11,900,000 \mathrm{bu}$. of rye and $7,400,000 \mathrm{bu}$. of flaxseed were delivered by farmers in Western Canada in 1953-54, both these grains being sold on the open market. In Eastern Canada, where commercial grain production is on a much smaller scale, all grain continued to be sold on the open market.

## Subsection 2.-Miscellaneous Grain Trade Statistics

Grain Handled at Eastern Elevators.-The sharp increases in the amount of grain handled at eastern elevators in the 1952-53 crop year reflect the record western grain production and unprecedented export movement of Canadian grain during that period. With the exception of rye, the volume of each kind of grain handled in 1952-53 showed increases over 1951-52 which in turn was a year of above-average grain movement. Total receipts of the five major grains in 1952-53 amounted to $665,051,141$ bu., about 20 p.c. above those of 1951-52 and nearly double those in each of 1949-50 and 1950-51. Total shipments, at $658,525,326$ bu., were 25 p.c. over those of 1951-52 and almost double those in each of the crop years 1949-50 and 1950-51.

## 32.-Canadian Grain Handled at Eastern Elevators, Crop Years Ended July 31, 1949-53

Nots.-Figures for the crop years ended 1922-29 are given in the 1931 Year Book, p. 626; for 1930-36 in the 1943-44 edition, p. 512; for 1937-42 in the 1947 edition, p. 816; and for 1943-48 in the 1951 edition, p. 830 .

| Item and Crop Year | Wheat | Oats | Barley | Rye | Flaxseed | Total Grain |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Receipts- | bu. | bu. | bu. | bu. | bu. | bu. |
| 1948-49. | 255,213,214 | 30,407, 034 | 34,320,228 | 8,750,556 | 14,906,168 | 343,597,200 |
| 1949-50 | 262,914,675 | 34,911,609 | 17,239,457 | 747,858 | 8,711,243 | 324,524,842 |
| 1950-51 | 208,590,769 | 30,631,192 | 35,781,508 | 5,763,488 | 7,522,620 | 288,289,577 |
| 1951-52 | 380,847,530 | 43,117,243 | 113,942,213 | 7,803,517 | 6,913,172 | 552,623,675 |
| 1952-53 | 438,086, 442 | 49,827,694 | 157, 347,406 | 8,078,375 | 11,211,224 | 665,051,141 |
| Shipments- |  |  |  |  |  |  |
| 1948-49. | 241,121,950 | 30,096,475 | 35,803.699 | 6,999, 851 | 11,355, 838 | 325,377,813 |
| 1949-50 | 251,853,362 | 33,140,216 | 18,139,086 | 1,553,094 | 11,743,926 | 316,429,684 |
| 1950-51 | 223,500,208 | 28,746,032 | 31,225,701 | 6,216,681 | 8,580,204 | 298,268,826 |
| 1951-52 | 358, 201, 436 | 42,983,657 | 109,327,850 | 7,644,936 | 6.642,468 | 524,800,347 |
| 1952-53 | 427.422,896 | 49,870,352 | 162,834,639 | 7,255,950 | 11.141,489 | 658,525,326 |

Grain Inspections.-With the exception of oats and soybeans, the volume of grain inspected by the Board of Grain Commissioners for Canada in the crop year ended July 31, 1953, was well above that of the preceding crop year. Inspections of wheat, at $479,844,901$ bu., and barley, at $145,084,914$ bu., were up by 11 p.c. and 33 p.c., respectively, but inspections of oats, at $105,623,582$ bu., were down by 9 p.c. from those of 1951-52. In total, these three grains accounted for 95 p.c. of the Canadian grain inspected in 1952-53.
33.-Quantities of Grain Inspected, Crop Years Ended July 31, 1952 and 1953

| Grain | 1951-52 |  |  | 1952-53 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Western Division | Eastern <br> Division | Total | Western Division | Eastern Division | Total |
|  | bu. | bu. | bu. | bu. | bu. | bu. |
| Wheat | 421,497,737 | 8,999,819 | 430,497,556 | 470,367,968 | 9,476,933 | 479,844,901 |
| Spring wheat. | 420,866,620 |  | 420,866,620 | 469,897,210 | 44,809 | 469,942,019 |
| Winter wheat. | ,631,117 | 8,999,819 | 9,630,936 | 470,758 | 9,492, 124 | 9,902,882 |
| Oats. | $115,602,391$ 108,830 | 688,461 212 | 116,290,852 | 105,500,800 | 122,782 | 105,623,582 |
| Rye. | $9,216.775$ | 156,510 | -9,373,285 | 14,433,627 | 341,002 | 14,774,629 |
| Flaxseed | 5,539,684 | 106,700 | 5,646,384 | 7,261,633 | 122,508 | 7,384,141 |
| Buckwheat | 48,316 | 112,397 | 160,713 | 186,850 | 164,575 | 351,425 |
| Corn. | 51,262 | 6,945,175 | 6,996,437 | 175,955 | 11,676,016 | 11,851,971 |
| Mixed grain | 799,130 | 6,527 | 805,657 | 2,217,300 | 15,480 | 2,232,780 |
| Soybeans. |  | 2,922,478 | 2,922,478 |  | 2,311,191 | 2,311,191 |
| Beans. | - | 409,083 | 409,083 | - | 686,707 | 686,707 |

Lake Shipments of Grain.-The 1953 navigation season opened with the arrival of the first vessel at the Lakehead in mid-afternoon, Mar. 27, almost equalling the record early opening at 4 a.m. Mar. 27, 1945, and closed on Dec. 14, four days earlier than in 1952. During the season, total vessel shipments of wheat, oats, barley, rye, flaxseed and buckwheat from Fort William-Port Arthur amounted to $441,983,089 \mathrm{bu}$., down slightly from the 1952 total of $450,807,914 \mathrm{bu}$. Shipments of barley and oats, at $110,471,694$ bu. and $98,202,498$ bu., respectively, set new records for the second consecutive year for these grains.

## 34.-Lake Shipments of Canadian Grain from Fort William-Port Arthur, Ont. Season of Navigation, 1952 and 1953

| Grain | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | To Canadian Ports | To U.S. Ports | Total Shipments ${ }^{1}$ | To $\underset{\text { Ports }}{\text { Canadian }}$ | TO Ports | Total <br> Shipments ${ }^{2}$ |
| Wheat........... bu. | 209,619,852 | 36,301,684 | 246,093,244 | 200,287,969 | 8,318,478 | 209, 117, 510 |
| Oats............. | 38,512,936 | 54, 191,086 | 92,704,022 | 40,860,935 | 57,341,563 | 98,202,498 |
| Barley.......... | 80,370,705 | 16,492,644 | 96,863,349 | 78,012,515 | 31,763,840 | 110,471,694 |
| Rye............. " | 3,428,631 | 5,599,384 | 9,089,225 | 3,188,236 | 14,489,023 | 17,677,259 |
| Flarseed.......... " | 6,004,797 | - | 6,058,074 | 6,283,288 | - | 6,283,288 |
| Buckwheat....... " | - | - | - | 230,840 | - | 230,840 |
| Totals........ bu. | 337,936,921 | 112,581,798 | 450,807,914 | 328,863,783 | 111,912,904 | 441,983,089 |
| Mixed grain....... lb. | - | - | - | 21,714,790 | - | 21,714,790 |
| Sample grain..... * | 12,391,370 | - | 12,391,370 | 9,762,178 | 7,090,098 | 16,852,276 |
| Screenings.......tons | 13.425 | 87,033 | 100,458 | 35,843 | 86,698 | 122,541 |

${ }^{1}$ Includes following shipments direct to Europe: wheat, 171,708; rye, 61,210; and flaxseed, $53,277 \mathrm{bu}$. ${ }^{2}$ Includes following shipments direct to Europe: wheat, 251,539 and barley, 695,339 bu.; and 259,524 bu. of wheat lost in shipwreck.

Wheat Flour.-After reaching a peak of $28,588,000 \mathrm{bbl}$. in 1946-47, Canadian wheat flour production dropped to a post-war low of $20,259,000 \mathrm{bbl}$. in 1949-50. Production in each of the following three crop years was only slightly below the five-year ( $1945-46-1949-50$ ) average of $23,985,000 \mathrm{bbl}$. A rather sharp drop in $1953-54$, however, reduced output of flour to $20,801,000 \mathrm{bbl} ., 13$ p.c. below the 1952-53 total. The proportion of milling capacity utilized for the crop year 1953-54 averaged $70 \cdot 1$ p.c. compared with $81 \cdot 4$ p.c. in 1952-53.

Exports of wheat flour during recent years have followed approximately the same pattern as production, dropping from the 1946-47 peak of $16,896,000$ bbl. to $10,151,000 \mathrm{bbl}$. in 1949-50. Exports in 1953-54 amounted to $10,277,000 \mathrm{bbl}$., representing approximately one-half the total production, a ratio which has been maintained fairly consistently in recent years.
35.-Wheat Milled for Flour, and Production and Exports of Wheat Flour, Crop Years Ended July 31, 1936-54
(Barrel=196 lb.)

| Crop Year (Aug. 1-July 31) | WheatMilled forFlour | Wheat Flour |  |
| :---: | :---: | :---: | :---: |
|  |  | Production | Exports |
|  | '000 bu. | '000 bы. | '000 bbl. |
| Av. 1935-36-1939-40. | ${ }_{69}^{67,845}$ | 15, 003 | 4,900 |
| Av. $1940-41-1944-45$. | 99,705 | 22,402 | 12,092 |
| Av. 1945-46-1949-50. | 107,330 | 23,985 | 13,173 |
| 1950-51. | 106,748 | 23,630 | 12,427 |
| 1951-52. | 104,494 | ${ }_{23}^{22,842}$ | 11,356 |
| 1953-54. | 106,727 91,855 | 23,886 20,801 | 12,556 10,277 |

## Section 3.-Live Stock Marketings*

Marketings of all classes of live stock, except hogs, were greater in 1953 than in 1952. Recorded marketings of cattle through public stockyards, packing plants and direct export were almost 24 p.c. higher in 1953; the number of graded steers increased 23 p.c., fed calves 47 p.c. and cows and heifers 14 and 13 p.c., respectively. Calf marketings, other than the older fed calves included with cattle, totalled 837,722 head as compared with 637,863 in 1952 and the marketings of sheep and lambs, at 570,289 head, exceeded the previous year's total by about 20,000 . Disposition of sheep and lambs was higher than in 1953 in all provinces except Alberta which had shown a sharp increase in 1952. Although 1953 hog marketings at $5,000,000$ head were lower by $1,700,000$ than 1952 marketings, the 1953 figure represented the third highest annual output since the peak movement of almost $8,900,000$ head in 1944. Hog gradings in 1953 indicated further lowering of quality; the proportion in Grade A dropped to 27.3 p.c. as compared with $28 \cdot 5$ p.c. in 1952 and $31 \cdot 3$ p.c. in 1951. On Mar. 31, 1953, the United States removed the restrictions on the importation of live stock and meats which had been in effect since Feb. 25, 1952. Price differentials, however, were so narrow between Canadian and United States markets that a relatively small export movement took place.

[^321]
## 36.-Live Stock Marketed at Stockyards and Packing Plants, by Grade, 1949-53

(Exclusive of Newfoundland)

| Live Stock | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cattle- |  |  |  | No. |
| Steers up to 1,000 lb.- |  |  |  |  |  |
| Choice.. | 20,741 74,388 | 17,408 60,215 | 17,939 52,887 | 27,012 | 37,346 86,060 |
| Medium. | 129,457 | 86,186 | 72,181 | 86,047 | 110,907 |
| Common. | 87,931 | 53,088 | 46,016 | 60,879 | 85,947 |
| Steers over 1,000 lb.- |  |  |  |  |  |
| Choice. | 64,104 | 43,036 | 57,754 | 106,978 | 114,746 |
| Good.. | 82,971 | 61,278 | 79.847 | 107,913 | 125,963 |
| Medium.. | 55,173 | 43,968 11,426 | 50,897 14,233 | 65,871 18,269 | 77,202 27,705 |

36.-Live Stock Marketed at Stockyards and Packing Plants, by Grade,

1949-53-continued


## 36.-Live Stock Marketed at Stockyards and Packing Plants, by Grade, 1949-53-concluded

| Live Stock | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. |
| Lamb and Sheep Carcasses-Lambs- |  |  |  |  |  |
| "A". . . . . . . . . . . . . . . . . | 9,197 | 9,843 | 10,133 | 9,553 | 13,502 |
| "B"' | 5,844 | 6,540 | 5,324 | 6,033 | 6,268 |
| "C" | 2,949 | 3,917 | 3,148 | 4,671 | 3,971 |
| "D" | 710 | 1,088 | 1,041 | 2,156 | 1,457 |
| "E" | 167 | 210 | 234 | 617 | 249 |
| Sheep................................ | 1,952 | 2,157 | 1,946 | 2,531 | 2,994 |
| Totals, Lamb and Sheep Carcasses. | 20,819 | 23,755 | 21,826 | 25,561 | 28,441 |

37.--Live Stock Marketed at Public Stockyards, Packing Plants and Direct for Export, by Province, 1953
(Exclusive of Newfoundland)

| Year and Live Stock | Maritime Provinces | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| Cattle - |  |  |  |  |  |  |  |  |
| Totals to stockyards. | 888 | 42,424 | 360,998 | 109,175 | 277,461 | 346,471 | 14,515 | 1,151,932 |
| Direct to packers..... | 25,078 | 40,092 | 194,609 | 65,313 | 82,046 | 115,268 | 26,666 | 549,072 |
| Direct for export. | 1,269 | 4,436 | 39,387 | 29 | 305 | 1,685 | 672 | 47,783 |
| Country points in other provinces ${ }^{1}$ | 26 |  | - | 289 | 10,083 | 8,210 | 204 | 18,812 |
| Totals, Cattle. | 27,261 | 86,952 | 594,994 | 174,806 | 369,895 | 471,634 | 42,057 | 1,767,599 |
| Calves - |  |  |  |  |  |  |  |  |
| Totals to stockyards... | 9,934 | 95,714 | 121,263 | 36,280 | 65,661 | 60,385 | 2,646 | 391,883 |
| Direct to packers....... | 17,426 | 171,063 | 124, 261 | 45,288 | 18,579 | 46,722 | 4,699 | 428,038 |
| Direct for export. | 819 | 363 | 2,485 | 29 | 4 |  | 98 | 3,798 |
| Country points in other provinces ${ }^{1}$ |  |  |  | 157 | 7,183 | 6,569 | 94 | 14,003 |
| Totals, Calves | 28,179 | 267,140 | 248,009 | 81,754 | 91,427 | 113,676 | 7,537 | 837,722 |
| Hogs- |  |  |  |  |  |  |  |  |
| Totals to stockyards... | 1,065 | 103, 133 | 194,125 | 55,868 | 101,437 | 247, 857 | 1,072 | 704,557 |
| Direct to packers..... | 135,688 | 706,933 | 1,649,082 | 265,236 | 318,451 | 1,184,581 | 38,286 | 4,298,257 |
| Direct for export....... | 396 | 495 | 1,446 | 156 | 109 | 12,590 | 75 | 15,267 |
| Totals, Hogs | 137,149 | 810,561 | 1,844,653 | 321,260 | 419,997 | 1,445,028 | 39,433 | 5,018,081 |
| Sheep and Lambs- |  |  |  |  |  |  |  |  |
| Totals to stockyards... | 2,434 | 37,184 | 60,308 | 9,371 | 20,478 | 33,101 | 3,040 | 165,916 |
| Direct to packers....... | 38,424 | 106.924 | 106,457 | 23,426 | 11,865 | 73,257 | 22,191 | 382,544 |
| Direct for export. <br> Country points in other provinces ${ }^{1}$ | 122 | 10 | 1,150 | 5 | 14,332 | 822 5,343 | 42 | 2,154 19,675 |
| Totals, Sheep and Lambs. | 40,980 | 144,118 | 167,915 | 32,802 | 46,678 | 112,523 | 25,273 | 570,289 |
| Total Inward Move-ment-: |  |  |  |  |  |  |  |  |
| Cattle |  | 2,008 | 113,388 | 8,918 | 18,877 | 75,700 | 2,077 | 221.059 |
| Calves........ | 100 | ${ }_{315}^{391}$ | 41,990 | 2,019 | 5,057 | 23,933 14,296 | 317 | 73,895 36,019 |
| Sheep and lambs. |  | 315 | 17,902 | 1,175 | 2,014 | 14,296 | 317 | 36,019 |

${ }^{1}$ Live stock billed through stockyards to country points outside province of origin. ${ }^{2}$ Movement from stockyards within each province to farms in the same province.

## Section 4.-Warehousing and Cold Storage*

Warehousing ranks high among the means by which the utilities of 'place', 'time' and 'possession' are added to the products of industry. Its importance has been emphasized in modern times because of the introduction of cold-storage methods to the conservation of perishable foods.

The presentation of warehousing statistics is difficult because it is not an easy matter to define clearly what are to be regarded as stocks in storage. In these days of complicated business relationships and especially since the rise of the department store and chain store as characteristic institutions in the retail merchandising field, it often happens that warehousing is carried on in close relationship with merchandising. However, if the strict economic definition of warehousing is adopted then this term should be restricted to those facilities that add the utility of 'time' to the 'form' utilities that are the product of the extraction and manufacturing industries. Because the warehouses established in close connection with retail trade are more often than not convenient places for the temporary storage of goods in process of transfer from the manufacturer or wholesaler to the consumer, then they are not, in the strict economic sense, services that add the utility of 'time' to commodities already worked up into 'form'. At least, as some clear line must be drawn and because separate statistics of the latter branch of storage are not available, it is considered practicable to interpret warehousing in this way.

The statistics of warehousing are shown together under one general heading in this Section. Subsection 1 presents statistics of the licensed storage of grain. Subsection 2 deals with cold-storage facilities without which perishable foods such as meats, dairy products, fish and fruits could not be exchanged or distributed on a wide scale; it includes also figures of stocks of food on hand. Subsection 3 deals with the storage of petroleum and its products and Subsection 4 with public warehouses and customs warehouses. The facilities that specialize in the storage of tobacco and alcoholic liquors are analysed in Subsection 5. These bonded warehouses, as they are called, are under the strict surveillance of Federal Government excise officers who supervise all movements into and from such places of storage.

## Subsection 1.-Licensed Grain Storage

Total grain storage in Canada licensed under the provisions of the Canada Grain Act by the Board of Grain Commissioners for Canada at Dec. 1, 1953, amounted to $561,505,000$ bu., an increase of $22,215,000$ bu. over the level of Dec. 1, 1952. Slightly over $16,000,000 \mathrm{bu}$. of this increase occurred in country elevators, reflecting the need for providing additional storage resulting from the cumulative effect of three large Western Canada grain crops. Licensed grain storage capacity in Canada reached a peak of $603,000,000$ bu. at Dec. 1, 1943, but, following the disposal of heavy wartime stocks, declined to $428,000,000$ bu. at Dee. 1, 1947. Since that date licensed grain storage capacity has increased each year.

[^322]The harvesting and marketing of crops of record or near-record proportions in Western Canada in 1951, 1952 and 1953 have imposed an unusually heavy strain on all grain storage and handling facilities. The problem was further complicated at the beginning of this three-year period by the large proportion of out-of-condition grain harvested in the autumn of 1951, requiring special binning and thereby reducing effective storage capacity, and the abnormally large amount of grain harvested in the spring of 1952. As a result, a much higher proportion than usual of elevator space was occupied at the beginning of the 1952-53 crop year. Despite extremely heavy domestic and export movement of grains in both 1952-53 and 1953-54, an unusually high proportion of elevator space, as indicated in Table 38, remained occupied throughout this period. Although information is given in the following table for only three dates in the crop year, weekly data on stocks of grain in various commercial positions may be obtained from the DBS Grain Statistics Weekly.

## 38.-Licensed Grain Storage Capacity and Grain in Store, 1952-53 and 1953-54

Nore.-Because these figures are exclusive of stocks in transit or in eastern mills, they are lower than those shown in Table 15, p. 412.


[^323]
## Subsection 2.-Cold Storage and Storage of Foods

Cold-Storage Warehouses.-Under the Cold Storage Act (R.S.C. 1952, c. 52), as amended (R.S.C. 1952, c. 313), subsidies are granted by the Federal Government to encourage the construction and equipment of cold-storage warehouses open to the public. The Act is administered by the Department of Agriculture.

There are five classifications of cold-storage warehouses in Canada: (1) public warehouses which store foods and food products and of which the entire space is .open to the public; (2) semi-public, or those which store foods and food products and which, though retaining part of the space for the products of the owner, allot the remainder to the public; (3) private or those which store foods and food products and allot no space to the public, a classification that includes refrigerated space in connection with abattoirs, creameries, dairies, cheese factories and wholesale and retail distributing warehouses; (4) locker plant, where the total space is occupied by lockers for rental to the public and which may, in addition, cut, process, chill and freeze foods and food products for storage in lockers; and (5) bait depots, having space used solely or principally for freezing and storing bait for the use of fishermen.

No hard and fast rule can be laid down for distinguishing between public and private warehouses. In general, those owned and operated by firms trading in the goods stored in the warehouse are considered as private, though most of these places rent space to the public when it is not required for their own purposes.

Though the figures in Tables 39 and 40, compiled by the Department of Agriculture, give some idea of the cold-storage warehouse capacity in Canada, it must be explained that it is not possible to secure completely accurate information on this subject and that these figures are approximations only.
39.-Cold-Storage Warehouses, by Province, Year Ended Mar. 31, 1954

| Province | Subsidized Public Warehouses ${ }^{1}$ |  |  |  | All Warehouses ${ }^{\text {a }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Refrigersted Space | Cost | Total Subsidy | No. | Refrigersted Space |
|  |  | cu. ft. | \$ | \$ |  | cu. ft. |
| Newfoundland.. | - | - | - | - | 52 | 1,606,968 |
| Prince Edward Island. . | 9 | 290,597 | 191,437 | 56,975 | 24 | 425,200 |
| Nova Scotia.. | 21 | 4,987,445 | 4,009,574 | 1,193,592 | 78 | 5,657,471 |
| New Brunswick. | 8 | 1,545,429 | 1,029,760 | 308,928 | 47 | 2,089,402 |
| Quebec. | 35 | 3,854,791 | 2,960,108 | 916,784 | 249 | 16,152,573 |
| Ontario. | 60 | 9,251,533 | 6,191,691 | 1,854,017 | 883 | 30,497,085 |
| Manitobs. | 9 | 3,141,532 | 2,180,934 | 654,986 | 165 | 9,575,447 |
| Saskatchewan. | 20 | 630,164 | 737,099 | 221,130 | 247 | 4,300,273 |
| Alberta. | 5 | 624,925 | 475,876 | 142,347 | 201 | 6,840,758 |
| British Columbia. | 68 | 22,845,345 | 9,491,354 | 2,850,234 | 176 | 29,736,861 |
| Totals.. | 235 | 47,171,761 | 27,267,835 | 8,158,993 | 2,122 | 166,882,038 |

${ }^{1}$ Figures are subject to revision.
40.-Storage and Refrigerated Space, ${ }^{1}$ by Province, as at June 30, 1954

| Class of Storage |
| :--- |

[^324]
## 41.- Stocks of Food Commodities on Hand in Cold Storage and in Dairy Factories, as at Jan. 1, 1953

| Item | As at Jan. 1 | $\begin{gathered} \text { Minimum } \\ \text { during } \\ \text { Year } \end{gathered}$ | Date at which Minimum Occurred | $\begin{array}{\|l} \text { Maximumu } \\ \text { during } \\ \text { Year } \end{array}$ | Date at which Maximum Occurred | TwelveMonth Average |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Butter, Creamery, Dairy and Whey- In storage...................000 ab. Total stock............. | 54,497 $\mathbf{5 4 , 4 9 7}$ | 26,604 26,849 | Apr. 1 <br> Apr. 1 | $\begin{aligned} & 94,442 \\ & 94,547 \end{aligned}$ | Oct. 1 <br> Oct. 1 | $\begin{aligned} & 59,983 \\ & 60,088 \end{aligned}$ |
| Cheese, Cheddar <br> In storage. <br> Total stock. | 40,773 40,993 | 25,401 25,542 | $\begin{array}{ll}\text { May } & 1 \\ \text { May } & 1\end{array}$ | 47,652 47,845 | $\begin{array}{ll}\text { Oct. } & 1 \\ \text { Oct. } & 1\end{array}$ | 36,634 36,851 |
| Evaporated Whole MilkTotal stock. | 64,661 | 32,570 | Apr. 1 | 81,787 | Sept. 1 | 58,316 |
| Skim-Milk Powder- <br> Total stock. | 16,645 | 11,680 | Dec. 1 | 16,858 | Oct. 1 | 14,387 |
| Eggs, Shell- <br> In storage. . <br> '000 cases <br> Total stock. | 53 54 | $\begin{aligned} & 38 \\ & 38 \end{aligned}$ | $\begin{array}{ll}\text { Dec. } \\ \text { Dec. } & 1 \\ 1\end{array}$ | 322 | $\begin{array}{ll}\text { June } & 1 \\ \text { June } & 1\end{array}$ | 158 160 |
| Eggs, Frozen- <br> In storage. '000 lb. | 5,188 | 4,091 | Mar. 1 | 7,925 | Aug. 1 | 5,889 |
| Poultry, Dressed- <br> In storage. <br> Total stock. | 23,719 23,744 | 7,054 7,104 | $\begin{array}{ll}\text { July } & 1 \\ \text { July } & 1\end{array}$ | 28,850 29,025 | $\begin{array}{ll}\text { Dec. } & 1 \\ \text { Dec. } & 1\end{array}$ | 14,422 14,470 |
| Pork, Fresh- <br> In storage. | 8,439 | 3,071 | Aug. 1 | 8,439 | Jan. 1 | 4,741 |
| Pork, Frosen- <br> In storage. | 48,817 | 5,421 | Oct. 1 | 55,349 | May 1 | 33,380 |
| Pork, Cured and in CureIn storage. | 11,557 | 9,859 | Oct. 1 | 15,592 | Mar. 1 | 12,799 |
| Lard- <br> In storage. | 12,352 | 2,309 | Oct. 1 | 12,352 | Jan. 1 | 7,369 |
| Beef, Fresh- <br> In storage. | 7,474 | 7,474 | Jan. 1 | 13,030 | Dec. 1 | 10,477 |
| Beef, Frosen- <br> In storage. | 25,105 | 20,989 | Nov. 1 | 33,368 | Apr. 1 | 26,755 |
| Beef, Cured, etc.- <br> In storage. $\text { . } 000 \mathrm{lb} .$ | 382 | 374 | Mar. 1 | 585 | June 1 | 451 |
| Veal- <br> In storage $\qquad$ | 3,891 | 2,081 | Apr. 1 | 6,765 | Nov. 1 | 4,552 |
| Mutton and Lamb- <br> In storage. | 4,482 | 1,050 | Aug. 1 | 4,482 | Jan. 1 | 2,385 |
| Fruit- <br> Apples, Fresh- <br> In storage. . . . . . . . . . . . . . . . .'000 bu. | 3,768 | 137 | June 1 | 6,531 | Nov. 1 | 2,662 |
| Frozen Fruit- <br> In storage. $\qquad$ '000 lb. | 16,558 | 7,428 | June 1 | 23,055 | Oct. 1 | 16,085 |
| In PreservationIn storage. | 12,218 | 7,407 | Aug. 1 | 12,577 | Feb. 1 | 10,372 |
| Potatoes- <br> In storage. $\qquad$ '000 bu. | 17,561 | 2,960 | June 1 | 27,468 | Nov. 1 | 14,339 |

Cold Storage of Fish.-The stocks of frozen fish held in Canada during 1953 followed the normal seasonal pattern. During the first four months, when activity in the industry was reduced because of weather conditions, stocks gradually declined. As summer operations began and production of frozen fish increased, stocks rose and continued to do so until the end of October. Production declined with the coming of winter and a greater proportion of the demand for frozen fish was supplied out of stocks.

Stock figures at the beginning of each month in 1952 and 1953 for the 10 provinces were as follows:-

|  | Month | 1952 | 1958 | Month | 1958 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ' $000,000 \mathrm{lb}$. |  |  | '000, 000 lb . |  |
| Jan. |  | $44 \cdot 5$ | $54 \cdot 7$ | Aug. 1. | $55 \cdot 4$ | $50 \cdot 5$ |
| Feb. |  | $35 \cdot 5$ | $45 \cdot 8$ | Sept. 1. | $60 \cdot 1$ | $58 \cdot 6$ |
| Mar. |  | $33 \cdot 1$ | 38.4 | Oct. 1. | $66 \cdot 3$ | 59.8 |
| Apr. |  | $27 \cdot 4$ | 34-3 | Nov. 1. | $66 \cdot 6$ | $60 \cdot 9$ |
| May |  | $29 \cdot 7$ | $32 \cdot 7$ | Dec. 1. | $60 \cdot 5$ | $57 \cdot 4$ |
| June |  | $35 \cdot 0$ 46.0 | $\stackrel{37 \cdot 3}{46.7}$ |  |  |  |
| July | .... | $46 \cdot 0$ | $46 \cdot 7$ | Averages. | $46 \cdot 7$ | 48.1 |

The holdings of frozen fish reflect the level of production as well as the market at a given time. The demand for some frozen products was not as great in 1953 as in 1952 and, despite slightly reduced supplies of fish for freezing, average monthly holdings of frozen fish were higher than those of the previous year. Dressed Pacific halibut stocks in 1953 showed the greatest increase over 1952; production of this product was high but demand was somewhat lower. Holdings of Atlantic cod fillets were larger in the first four months of 1953 than in the same period of the previous year. Canadian fillets experienced more intensive competition in the United States market from other producers which in turn reduced demand for the Canadian product. Lower than normal output during the summer and autumn period and an improved market caused stocks to decrease below 1952 levels.

Average monthly holdings of the main fish products in 1952 and 1953 for the 10 provinces were as follows:-

| Group and Product | 1952 | 1953 |
| :---: | :---: | :---: |
|  | '000,000 lb. |  |
| Frozen, Fresh Seafish- <br> Salmon, Pacific, dressed and filleted | $8 \cdot 4$ | $7 \cdot 1$ |
| Halibut, Pacific, dressed.... | $7 \cdot 5$ | $9 \cdot 3$ |
| Herring, Atlantic, round | $5 \cdot 5$ | $5 \cdot 7$ |
| Cod, Atlantic, filleted. | $4 \cdot 4$ | $4 \cdot 0$ |
| Totalb, Frozen, Frebh Seafish ${ }^{1}$. | 38.9 | 40.9 |
| Frozen, Fresh Inland Fish- |  |  |
| Whitefish, dressed and filleted. | 1.4 | 1.1 |
| Tullibee, round or dressed. | - 0.8 | $0 \cdot 7$ |
| Pickerel (yellow pike) dressed and filleted | 0.6 | 0.7 |
| Totals, Frozen, Fresh Inland Fish ${ }^{1}$ | 5-1 | $4 \cdot 7$ |
| Frozen, Smoked Fish- |  |  |
| Cod, Atlantic, filleted | 1.5 | 1.0 |
| Sea herring, dressed. | 0.7 | 0.8 0.2 |
| Totals, Frozen, Smoked Fish ${ }^{1}$ | $2 \cdot 7$ | $2 \cdot 5$ |
| Grand Totals. | 46.7 | $48 \cdot 1$ |

${ }^{1}$ Totals include other items not listed.

Cold Storage of Dairy Products.-Cold-storage facilities are a necessary adjunct in the manufacture of dairy products, most of which are perishable in varying degrees. All creameries have facilities for the storing of butter, the size and type of storage depending on the size of the creamery. If the butter produced at small country plants is not printed for immediate sale, the butter solids are disposed of or are transported to larger creameries where better refrigeration is available or to private or public cold storages in the larger urban centres.

Temperature control is important in the curing process for cheese as well as in the prevention of deterioration. Most cheese factories are equipped with mechanical refrigeration and are required to have storage capacity for 17 days' produce during the period of maximum manufacture. The cheese is then transferred to central warehouses.

Milk is placed in storage as soon as it is bottled and held until delivery. Dry whole milk and other dried milk products containing fat are usually stored in cool air chambers to prevent rancidity.

Cold Storage of Other Foods.-Cold-storage space for apples in Canada has increased rapidly in recent years as a result of the promotion of orderly marketing, the extention of the marketing season generally, and increased production in some areas. The trend has followed the curtailment in shipments to traditional markets in the United Kingdom and other European countries after World War II. There has been an increase recently in the construction of both private and co-operatively owned storages, particularly in the Province of Quebec. Increase in cold-storage capacity is illustrated by the distribution of Dec. 1 storage stocks. During the five-year period 1943-47, only 53 p.c. of the holdings were in cold storage. In 1951, 1952 and 1953 the proportions had risen to 80 p.c., 84 p.c. and 94 p.c., respectively.

Potatoes are not ordinarily held in cold storage but there has been an increase in the construction of modern type potato storage houses and warehouses, particularly in the commercial producing areas.

## Subsection 3.-Storage of Petroleum and Petroleum Products

Bulk storage plants for petroleum and petroleum products are established at convenient distributing centres, usually on a water-front so that full advantage can be taken of the lower cost of water-borne traffic. From these centres the goods are transferred by boat, rail or truck to smaller distributing depots or directly to retail outlets. The principal refining and distributing centres are located at or near Halifax, Quebec, Montreal, Ottawa, Toronto, Sarnia, Fort William, Regina, Calgary, Turner Valley, Edmonton and Vancouver.

## 42.-Inventories of Petroleum and Petroleum Products in Storage at Jan. 1, 1950-54

(Barrels of 35 Imperial gallons)
Notr.-Figures for 1940-48 are given in the 1950 Year Book, p. 852, and for 1949 in the 1954 edition, p. 925.

${ }^{1}$ Not classified separately.

## Subsection 4.-General Warehousing

Public Warehouses.-In 1944, the Dominion Bureau of Statistics began an annual census of the principal public warehouses in Canada. The latest figures available at the time of going to press are those for 1951 , which are summarized in the 1954 Canada Year Book, pp. 925-926. Complete details are given in DBS report, Warehousing, 1951.

Customs Warehouses.-Warehouses for the storage of imported goods are known as customs warehouses. These are divided into nine classes, as follows: (1) those occupied by the Federal Government, some of which are used for examination and appraisal of imported goods and others, known as Queen's Warehouses, are used for the storage of unclaimed, abandoned, seized or forfeited goods; (2) warehouses, consisting of an entire building or part thereof, properly separated from the rest of the building by a partition, which are used exclusively for the storage of imported goods consigned to the proprietor of the building; (3) buildings or parts of buildings properly partitioned off, used for the storage of imported goods consigned to the proprietor or others, or for the storage of unclaimed or seized goods; (4) sufferance warehouses operated by the owners of vessels for the storage of in-bond goods transported by water or air, those operated by railway companies and those operated by express companies; (5) yards, sheds and buildings intended for the storage of imported coal and coke; (6) farms, yards, sheds, etc., which an importer of horses or sheep intends to use for the feeding and pasturing of m ported animals other than pure-bred mares; (7) warehouses for the storage of
animals, including horses for racing, and articles for exhibition or competition for prizes; (8) warehouses for clover seed imported for the purpose of being recleaned and prepared for a foreign market; and (9) yards, sheds, etc., which importers intend to use for the storage of goods too heavy or too bulky to be admitted to an established customs warehouse.

## Subsection 5.-Bonded Warehousing and Storage of Wines

Bonded Warehousing.-The Excise Duty Branch of the Department of National Revenue considers any premises licensed under the Excise Act to be a warehouse, whether for storage of raw materials to produce finished tobacco or cigar products or for spirits or malt used for brewing. Practically the total production of spirits is placed in bonded warehouses and only a small part of the output of beer is retained in storage. Wine, unlike spirits and beer, is not secured under bond. All imports of alcoholic beverages must go through bonded warehouses before being released to Provincial Liquor Commissions or Boards, or other agencies authorized by the Commissions or Boards to take alcoholic beverages out of bond. Similarly, tobacco, cigars and cigarettes that are not stamped and duty paid are secured in bond. In addition to these warehouses, there are those in which no manufacturing or production is carried on but which are being used solely for the storage of goods upon which duty has not been paid. Goods are stored in these warehouses usually for the purpose of rapid distribution and for delivery as ships' stores.

Spirits, Tobacco and Malt in Bond.-Table 43 shows the quantities of distilled liquor, tobacco, cigars and cigarettes in bond in recent years. The yearly inventory of breweries showed an increase of total gallonage of beer in stock from $23,388,779$ gal. in 1952 to $27,334,817$ gal. in 1953.
43.-Distilled Liquor, Tobacco, Cigars and Cigarettes in Bond, Quarterly, 1950-54


Beverage spirits, as shown in Table 44, refer to spirits released for consumption but not to industrial alcohol; malt beer does not include beer made from duty-free malt; malt used is the total malt used to produce the malt beer; tobacco includes all types of manufactured tobacco products and snuff.

## 44.-Beverage Spirits, Malt Beer, Malt, Tobacco and Tobacco Products taken out of Bond, Destined for Consumption, 1944-53

Nore.-The figures published in the corresponding table of the 1952-53 and previous Year Books are on a different basis from those published in this table.

| Year | Beverage Spirits | Malt <br> Beer ${ }^{1}$ | Malt <br> Used | Cigars | Cigarettes | Tobacco |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | pf. gal. | gal. | lb . | '000 | '000 | '000 lb. |
| 1944. | 2,679,389 | 106, 256, 221 | 218, 149, 148 | 197,779 | 11,666, 421 | 27,304 |
| 1945. | 3,639,460 | 115,539,227 | 240,105,314 | 207,017 | 14,264, 673 | 29,502 |
| 1946 | 4,477,845 | 146,119,954 | 303,172,529 | 220,994 | 14, 866,931 | 29,459 |
| 1947 | 4,483,786 | 162,140,243 | 332,282,690 | 215,902 | 15, 143, 369 | 28,553 |
| 1948. | 4,580,932 | 172,630,562 | 349,081,232 | 210,016 | 15,852,875 | 29,174 |
| 1949. | 4,715,417 | 172,963,887 | 348,786,984 | 208,208 | 16,839,654 | 28,710 |
| 1950 | 4,739,707 | 171,974,662 | 340,287,033 | 198,981 | 17,167,729 | 29,187 |
| 1951 | 5,074, 217 | 179,648,482 | 353,130,285 | 169, 136 | 15,667,266 | 30,177 |
| 1952 | 5,288,884 | 195,780,017 | 378,764,899 | 200,263 | 17,848,325 | 33,637 |
| 1953 | 5,618,040 | 202,897,996 | 381,508,232 | 235,587 | 21,001, 492 | 28,732 |

${ }^{1}$ Duty has been paid herein on the malt.
Storage of Wines.-The wine industry is confined to a few localities such as the Niagara Peninsula in Ontario and the Okanagan Valley in British Columbia. Firms manufacturing native wines are not bonded, as far as the Federal Government is concerned, nor is wine in storage for maturing placed in bond. The only goods warehoused in bond in connection with wineries are sugar supplies and supplies of grape spirit distilled by the distilleries and held by the wineries for fortifying wines. Native wine produced and placed in storage for maturing and blending for the years 1948-52 was reported as follows:-

| Year |  | Ontario | Other Provinces | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1948. | $\stackrel{\mathrm{gal} .}{\S}$ | $\begin{aligned} & 4,377,487 \\ & 2,786,186 \end{aligned}$ | $\begin{aligned} & 661,134 \\ & 513,639 \end{aligned}$ | $\begin{aligned} & 5,038,621 \\ & 3,299,825 \end{aligned}$ |
| 1949. | $\underset{\$}{\mathrm{gal}}$ | $\begin{aligned} & 3,390,787 \\ & 2,240,481 \end{aligned}$ | $\begin{aligned} & 608,665 \\ & 492,678 \end{aligned}$ | $\begin{aligned} & 3,999,452 \\ & 2,733,159 \end{aligned}$ |
| 1950. | $\underset{8}{\mathrm{gal}}$ | $\begin{aligned} & 5,383,514 \\ & 3,198,462 \end{aligned}$ | $\begin{aligned} & 501,330 \\ & 404,574 \end{aligned}$ | $\begin{aligned} & 5,884,844 \\ & 3,603,036 \end{aligned}$ |
| 1951. | $\underset{8}{\mathrm{gal}}$ | $\begin{aligned} & 4,182,767 \\ & 2,729,147 \end{aligned}$ | $\begin{aligned} & 494,288 \\ & 407,849 \end{aligned}$ | $\begin{aligned} & 4,677,055 \\ & 3,136,996 \end{aligned}$ |
| 1952.. | ${ }_{\delta}^{\mathrm{gal}}$ | $\begin{aligned} & 4,383,358 \\ & 2,764,750 \end{aligned}$ | $\begin{aligned} & 552,694 \\ & 440,864 \end{aligned}$ | $\begin{aligned} & 4,936,052 \\ & 3,205,614 \end{aligned}$ |

## Section 5.-Co-operative Organizations*

Co-operative business in Canada as reported by marketing, purchasing and service organizations, and fishermen's co-operatives for the crop year ended July 31, 1953 , amounted to $\$ 1,202,325,902$. This figure is $\$ 90,000,000$ greater than the volume reported in 1952. Co-operatives reporting for the year 1953 numbered 2,773 , compared with 2,616 in 1952 and total membership was $1,429,003$, compared with $1,297,614$.

The volume of farm supplies marketed co-operatively was $\$ 876,300,000$ and sales of farm supplies and merchandise through co-operatives were valued at $\$ 256,700,000$.

[^325]Fishermen's co-operatives reported increases in sales values of fish marketed. In 1953, the volume was $\$ 17,200,000$, compared with $\$ 13,900,000$ in 1952 . Sales of supplies to fishermen through co-operatives fell off slightly. Service co-operatives reported total revenue from services offered was $\$ 20,600,000$. This is a substantial increase over the 1952 figure and is the result of more complete and accurate reporting.

Developments 1952-53.-Numerous valuable and interesting publications dealing with co-operatives were issued in 1953. One was A Guide to Co-operative Housing, prepared and published by St. Patrick's College, Ottawa, Ont. The United States Department of Agriculture made a study of the possibilities of trade between Canada and United States Co-operatives and published a bulletin entitled Trade with Canadian Co-operatives. One colour film was in production in 1953 for Manitoba Pool Elevators Limited.

Canada sent a team of agricultural and co-operative specialists to India, Pakistan and Ceylon in 1953, under the auspices of the Colombo Plan; late in the year, the Government of India sent a mission of four co-operative leaders to study co-operatives in Canada.

Marketing.-During 1953, over 1,100 farmers' marketing co-operatives were in operation and marketed agricultural products valued at $\$ 876,287,346$, an increase of $\$ 36,000,000$ over the total reported for 1952 . The sales value of dairy products marketed by co-operatives in 1953 increased by $\$ 2,300,000$ over the comparable figure for 1952.

Co-operatives engaged in marketing grain increased their volume by $\$ 80,000,000$, to a total of $\$ 510,500,000$, mainly owing to the record crop of western wheat. Livestock marketing co-operatives reported decreased sales in 1953 as hog slaughterings were down and prices of eattle fell sharnly.

Cash income from the sale of farm pioducts handled by co-operatives increased by abou: 4 p.c. in 1953 over 1952 . The increase in the sales of farm products by co-operatives also increast 1 by 4 p.c., which would seem to indicate that cooperatives are keeping pace with the increased volume.

Co-operatives handled 32.4 p.c. of all farm products marketed commercially in Canada and there has been little change in this proportion since 1947.

Merchandising.-Total sales of farm supplies, household and consumer goods by co-operatives in 1952-53, were valued at $\$ 256,730,885$, greater than the 1951-52 total by $\$ 22,000,000$. The greatest increase was reported by co-operatives handling food products (groceries). There was a substantial increase in the number of co-operatives reporting business in the grocery line and better analyses and more returns were received from Ontario and Quebec.

Financial Structure.-Total assets of co-operative marketing and purchasing associations in Canada, as at July 31, 1953, amounted to $\$ 419,000,000$. The excess of assets over liabilities was $\$ 185,600,000$ and was made up of direct liabilities to members in the form of loans and deferred patronage dividends amounting to $\$ 73,300,000$ and net worth (share capital, reserves and unallocated surplus) of $\$ 112,300,000$. Plant value was reported to be $\$ 117,000,000$ and working capital totalled $\$ 68,400,000$.

## 45.-Summary Statistics of Co-operative Marketing and Purchasing Associations, Crop Years Ended July 31, 1944-53

| Year | Associations | $\begin{aligned} & \text { Places } \\ & \text { of } \\ & \text { Business } \end{aligned}$ | Patrons | Sales of Farm Products | Sales of Supplies | Total Business ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | \$ | \$ | $\delta$ |
| 1944. | 1,792 | 4,534 | 719,080 | 459,798,798 | 65,508,771 | 527, 855,540 |
| 1945 | 1,824 | 4,441 | 738,345 | 500,481,627 | $81,360,855$ | 585,650,066 |
| 1946 | 1,953 | 4,488 | 922,928 | 454,564,927 | $95,603,311$ | 554, 329,652 |
| 1947 | 2,095 | 5,084 | 1,036,498 | 578,638,214 | 127,001,488 | 712,583,246 |
| 1948 | 2,249 | 5,423 | 1,195,372 | 616,347,477 | 157,874,045 | 780,084,955 |
| 1949. | 2,378 | 5,667 | 1,209,520 | 783,293,225 | 191,804,630 | 982,232,002 |
| 1950 | 2,495 | 5,761 | 1,223,582 | 803,638,962 | 206,082,408 | 1,015,264,763 |
| 1951 | 2,348 | 5,830 | 1,195,034 | 769,264,824 | 209,985,815 | 988, 459,832 |
| 1952 | 2,194 | 5,470 | 1,108,803 | 840,113,835 | 234, 848, 220 | 1,085, 854,744 |
| 1953 | 2,221 | 4,987 | 1,081,493 | 876,287,346 | 256,730,885 | 1,160,280,706 |
|  | Value of Plant | Total Assets |  | Liabilities the Public | Shareholders or Members | $\begin{gathered} \text { Members' } \\ \text { Equity } \end{gathered}$ |
|  | \$ |  | \$ | \$ | No. | \$ |
| 1944. | 40,664, |  | , 047,911 | 130,556,373 | 690,967 | 72,491,538 |
| 1945. | 43,048, |  | ,128,184 | 87,354, 033 | 739,804 | 83,774,151 |
| 1946 | 46,775, |  | ,467,434 | $71,012,260$ | 926,863 | 92,455,174 |
| 1947. | 53,027, |  | ,195,387 | 71,403,750 | 982,990 | 96,791,637 |
| 1948. | 75,009, |  | ,603,705 | 89,381,360 | 1,127,229 | 112,222,345 |
| 1949. | 89,832 , | 908 | ,962,924 | 106,599,688 | 1,144,698 | 130,363,236 |
| 1950 | 98,514, | 782 | ,478,777 | 111,092,652 | 1,173,126 | 143,386, 125 |
| 1951. | 99,790, |  | ,834,165 | 159,357,602 | 1,184,235 | 147,476,563 |
| 1952. | 129,983, |  | ,210,309 | 214,737,270 | 1,163,803 | 195,473,039 |
| 1953. | 117,228, | 2904 | ,930,634 | 234,339,211 | 1,195,985 | 185,591,423 |

${ }^{1}$ Includes other revenue.
46.-Farm Products Marketed, Merchandise and Supplies Handled by Co-operative Business Organizations in Canada, Crop Year Ended July 31, 1953

| Item | Associations ${ }^{1}$ | Value of Sales |
| :---: | :---: | :---: |
| Marketing- | No. | \% |
| Dairy products. | 631 | 131,936,151 |
| Fruit and vegetables. | 252 | 38,556,031 |
| Grain and seed.... | 114 | 510,547,037 |
| Live stock. | 237 | 103,854, 803 |
| Eggs and poultry | 269 | 23,749,319 |
| Lumber and wood | 23 | 1,805,483 |
| Honey.......... | 9 | $1,412,741$ |
| Wool. | 17 | 3,380,463 |
| Fur. | 13 | 533,429 |
| Tobacco. | 5 | 54,945,695 |
| Maple products | $\stackrel{2}{78}$ | 2,511,201 |
| Miscellaneous. |  | 3,054,993 |
| Totals, Marketing. | 1,181 | 876,287,346 |
| MerchandisIng- |  |  |
| Food products. | 928 | 74,307, 185 |
| Clothing and home furnishings. | 605 | 9,150,277 |
| Petroleum products and auto accesso | 763 | 29,980,554 |
| Feed, fertilizer and spray material. | 949 | $88,630,587$ |
| Machinery and equipment........ | 406 719 | $15,267,135$ $13,119,201$ |
| Miscellaneous................ | 1,109 | 26,275,946 |
| Totals, Merchandising. | 1,703 | 256,730,885 |
| Grand Totals. | 2,221 | 1,133,018,231 |

[^326]47.-Summary Statistics of Co-operative Marketing and Purchasing Associations, by Province, Crop Years Ended July 31, 1951-53

| Province | Associations | Shareholders or Members | Sales of Products | Sales of Merchandise | Total Business ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ |
| Newfoundland.............. 1951 | 38 | 5,558 | 23,889 | 2,307,707 | 2,340,101 |
| Newloundand............. 1952 | 49 | 5,051 | 9,342 | 3,010,462 | 3,027,237 |
| 1953 | 47 | 7,278 | 110,464 | 3,404,981 | 3,525,235 |
| Prince Edward Island. . . . . 1951 | 32 | 9,309 | 2,750,883 | 2,341,016 | 5,129,056 |
| 1952 | 25 | 6,036 | 3,038,243 | 3,316,385 | 6,459,366 |
| 1953 | 29 | 6,763 | 2,309,729 | 3,153,449 | 5,504,536 |
| Novs Scotia, .............. 1951 | 114 | 22,185 | 6,548,561 | 12,117,451 | 18,791,301 |
| 1952 | 108 | 23,304 | 5,483,490 | 12,398,917 | 17,969,841 |
| 1953 | 95 | 20,957 | 5,308,763 | 13,586,039 | 19,190,823 |
| New Brunswick. . . . . . . . . . 1951 | 60 | 13,354 | 5,796,290 | 4,805,791 | 10,648,559 |
| 1952 | 42 | 9,698 | 5,533,429 | 3,522,485 | 9,317,521 |
| 1953 | 45 | 10,672 | 4,895,514 | 6,336,545 | 11,327,203 |
| Quebec...................... 1951 | 716 | 89,922 | 70,317,707 | 54,813,566 | 125,910,918 |
| Quebec................. 1952 | 682 | 90,988 | 67,745,779 | 60, 233,834 | 129,155, 657 |
| 1953 | 708 | 102,664 | 70,172,704 | 72,551,838 | 144,002,218 |
| Ontario. . . . . . . . . . . . . . . . 1951 | 342 | 94,934 | 116,252,978 | 42,117,311 | 159,348, 314 |
| 1952 | 320 | 90,517 | 95,109,827 | 41,298,489 | 138,856,465 |
| 1953 | 343 | 102,374 | 103,325,205 | 41,038,859 | 146,537,314 |
| Manitoba. . . . . . . . . . . . . . 1951 | 142 | 174,717 | 76,986,941 | 12,971,325 | 90,439,708 |
| 1952 | 134 | 133,166 | 77, 062,408 | 14,318,773 | 92,290,469 |
| 1953 | 132 | 130,692 | 76, 208,672 | 14,004,409 | 90, 854,401 |
| Saskatchewan.............. 1951 | 552 | 393,529 | 216,467,659 | 34,756,876 | 252,920,020 |
| 1952 | 539 | 364,417 | 261,959,695 | 40,260,979 | 304,974,010 |
| 1953 | 527 | 373,071 | 300,619,619 | 46,294,714 | 349,693,006 |
| Alberta.................... 1951 | 224 | 218, 051 | 157,971,582 | 19,186,237 | 179,812,287 |
| 1952 | 179 | 194,839 | 182,331,593 | 13,927,971 | 197,035, 819 |
| 1953 | 190 | 231,643 | 165,271,398 | 17,649,362 | 183,498,060 |
| British Columbia . . . . . . . . 1951 | 121 | 42,255 | 43,238,489 | 14,450,609 | 58,731,057 |
| 1952 | 109 | 41,980 | 49.372,830 | 15,794,106 | 65,997,367 |
| 1953 | 99 | 53,671 | 47,874,049 | 15,014,246 | 64, 513,048 |
| Interprovincial............ ${ }^{1951} 1952$ |  | 120,421 | 72,909,845 | 10,117,926 | 84,388,511 |
|  | 7 | 148,807 | 92,467,199 | 26,765, 819 | 120,770,992 |
|  | 6 | 156,200 | 100,191,229 | 23,696,443 | 141,634,862 |
| Totals . . . . . . . . . . $\begin{array}{r}1951 \\ 1951 \\ 1953\end{array}$ |  | 1,184,235 | 769,264,824 | 209,385,815 | 988,459,832 |
|  | 2,194 | 1,108,803 | 840,113,835 | 234,848,270 | 1,085,854,744 |
|  | 2,221 | 1,125,285 | 876,287,346 | 256,730,885 | 1,100,280,706 |

${ }^{1}$ Includes other revenue.

## Section 6.-Interprovincial Freight Movements*

Statistics on interprovincial trade are difficult to collect because there are no controls or barriers to it. The only comprehensive statistics available are the loadings and unloadings of freight carried by the railways. Railway traffic is segregated into 76 classes of freight and the differences between loadings and unloadings are the imports and exports by rail for the respective provinces. Freight can, however, be imported by rail and exported by water, as with western grain which may be moved to the Ontario ports of Fort William and Port Arthur. Consequently, the statistics of Table 48 must not be taken as a measure of total interprovincial trade: these figures indicate interprovincial movement of railway freight which is one aspect only of that trade.

[^327]48.-Railway Revenue Freight Movement, by Province, 1952 and 1953

${ }^{1}$ Figures for freight originating and freight terminating do not agree because freight that originates within a certain year does not all terminate within the same year; some that terminated in 1952, for instance, originated within the previous year.

## PART II.-GOVERNMENT AIDS TO AND CONTROL OF DOMESTIC TRADE

During the post-war period, the elaborate system of government control of trade that the war effort made necessary was gradually relaxed (see the 1948-49 Year Book, pp. 837-841) until, by the beginning of 1949, only those measures to protect domestic requirements and prevent the forcing upward of prices in the Canadian market remained; since then even these have practically disappeared.

## Section 1.-Controls Affecting the Handling and Marketing of Grain

The agencies exercising control of the grain trade in Canada include the Board of Grain Commissioners, which since 1912 has administered the provisions of the Canada Grain Act and the Canadian Wheat Board, which operates under the Canadian Wheat Board Act, 1935. The former is a quasi-judicial and administrative body which, through the powers vested in it in matters of interprovincial
transportation and patents and copyrights, gives the Federal Government complete power to control the handling of grain; it has no power or duties in respect of grain prices. The Canadian Wheat Board, which began to function in the autumn of 1935, was a natural outgrowth of government stabilization measures that were taken during the depression years of the 1930's in regard to the marketing of grain crops. During this period, the Government acquired a considerable quantity of wheat and, in the 1935 session of Parliament, legislation was passed to serve the dual purpose of disposing of the holdings so acquired and, at the same time, arranging for the marketing of new crops.

An account of the organization and functions of the Board of Grain Commissioners appears in the 1941 Year Book, pp. 481-482. An article on the operations of the Canadian Wheat Board is commenced in the 1939 Year Book, pp. 569-580, and concluded in the 1947 edition.

## Section 2.-Combinations in Restraint of Trade*

The purpose of Canadian anti-combines legislation is to assist in maintaining free and open competition as a prime stimulus to the achievement of maximum production, distribution and employment in a system of free enterprise. To this end, the legislation seeks to eliminate certain practices in restraint of trade that are harmful to a system of free enterprise, practices which serve to prevent the nation's economic resources from being fully used under a system of open competition for the advantage of all citizens.

The first federal legislation in this field was enacted in 1889 and is still effective in amended form as Sect. 411 of the Criminal Code.

The Combines Investigation Act.-The Combines Investigation Act (R.S.C. 1952, c. 314), was enacted in 1923, carried into the Revised Statues of Canada for 1927, as Chapter 26, and amended in 1935, 1937, 1946, 1949, 1951, 1952 and 1954. It provides for the investigation of combinations, mergers, trusts and monopolies that have operated or are likely to operate to the detriment of the public by limiting production, fixing or enhancing prices or otherwise restraining trade. The Act defines such combinations, mergers, trusts and monopolies as "combines" and makes participation in the formation or operation of a combine an indictable offence. The Act also provides for the investigation of complaints about the practice of resale price maintenance, which is forbidden by Sect. 34 of the Act, and complaints about breaches of Sects. 411 and 412 of the Criminal Code $\dagger$ which relate to conspiracy in restraint of trade and certain discriminatory pricing practices respectively.

The functions of investigating and reporting upon alleged violations which formerly were vested in a single Commissioner have, since 1952, been exercised by an agency for investigation and research under a Director of Investigation and Research, and a board known as the Restrictive Trade Practices Commission, which consists of three members, and has the function of appraising the evidence obtained in investigations and reporting thereon.

The report to the Minister of Justice of an investigation into the manufacture, distribution and sale of matches in Canada, submitted in December 1949, alleged that a combine by way of merger, trust or monopoly existed in the wooden match

[^328]industry in Canada. Four formal charges were preferred under the Combines Investigation Act. The trial of the first charge concluded at Montreal, Que., in May 1951 with the five corporation defendants being convicted and fined a total of $\$ 85,000$ and costs. The accused appealed the conviction and sentence to the Quebec Court of Queen's Bench (Appeal Side), but the appeal was dismissed Nov. 30, 1953. Application by the accused for leave to appeal to the Supreme Court of Canada was refused on Dec. 22, 1953. The remaining three charges have been withdrawn.

A report was submitted to the Minister of Justice on May 21, 1952, alleging the existence of combines in six divisions of the rubber industry. In 1953, prosecutions were instituted under Sect. 498 of the Criminal Code in regard to three divisions of the industry, namely mechanical rubber goods, tires and tubes and rubber footwear. Each of the accused pleaded guilty and fines totalling $\$ 220,000$ and costs were imposed. In the mechanical case an application was also made on behalf of the Crown for an order prohibiting the continuation or repetition of the offence. The order was granted by the trial judge and upheld with a variation by the Ontario Court of Appeal Apr. 26, 1954. The application of the accused for leave to appeal to the Supreme Court of Canada was granted in January 1955 and the hearing of the appeal is pending. Applications for similar orders in the other two cases are in abeyance pending the appeal in the mechanical case.

In a report submitted to the Minister of Justice in October 1952, a combine was alleged to exist in the fine paper industry. Prosecution was instituted in 1953 in the Supreme Court of Ontario and on June 4, 1954, seven manufacturers, twentyone incorporated fine paper merchants, one individual fine paper merchant and one trade association secretary were found guilty as charged under Sect. 498 of the Criminal Code and subsequently were fined a total of $\$ 242,000$. The Court granted an order of prohibition pursuant to Sect. 31 of the Combines Investigation Act against the accused but directed that the order will not come into effect until the appeal in the mechanical rubber goods case has been disposed of and, if the appeal is allowed on constitutional grounds the order will not come into effect at all. The accused have appealed the conviction and sentence to the Ontario Court of Appeal.

On Jan. 22, 1953, a report was submitted to the Minister of Justice alleging that, at the time of commencement of the inquiry in 1949, a combine existed in connection with the distribution and sale of coarse papers in and around Vancouver. A prosecution under Sect. 498 was instituted in February 1954 against seven wholesale companies and three manufacturers. Following a preliminary hearing in Vancouver, the accused were committed for trial, in August 1954. At the commencement of the trial in the Supreme Court of British Columbia on Oct. 25, 1954, the seven wholesale companies and one manufacturer pleaded guilty. The trial of the two remaining manufacturers is now in progress.

In a report made to the Minister of Justice in November 1953, a combine was alleged to exist in counection with the distribution and sale of electrical wire and cable products in Canada and nine manufacturers and the selling organization of one of them were named as parties to the alleged combine. In 1954, prosecution was instituted under Sect. 498 of the Criminal Code against nine manufacturing companies and the sales company of one of them. The trial in the Supreme Court of Ontario commenced at Toronto on Jan. 10, 1955.

In May 1953, the Restrictive Trade Practices Commission submitted its first report to the Minister of Justice. This report dealt with two alleged attempts by certain officials of the Montreal District Office of a manufacturer of soap products
to persuade wholesalers to sell at prices suggested by the Company. On Nov. 16, 1953, the Minister of Justice announced that the opinion of counsel, with which he concurred, was that the case was not a suitable one for prosecution, as the offence was technical and isolated and had been committed without the knowledge and approval of the management of the Company, and apparently against its policy.

Also in May 1953, the Commission submitted a report to the Minister of Justice concerning alleged price discrimination by a manufacturer between retail hardware dealers in North Bay. The Commission stated it did not feel that it should express an opinion as to whether an offence had been committed, nor did it feel the evidence permitted it to draw general conclusions about the industry. On Nov. 16, 1953, the Minister announced that the opinion of counsel, with which he concurred, was to the effect that this was a borderline case of a technical violation and was not a suitable case upon which to found the first prosecution under Sect. 498A of the Criminal Code unless the conduct was persisted in.

In a report in January 1954, concerning an alleged attempt at resale price maintenance in the sale of certain household supplies in the Chicoutimi-Lake St. John district, the Commission concluded that there was an attempt at resale price maintenance on the part of a salesman of a manufacturer of these supplies, although responsibility for this should not, in the particular circumstances, be imputed to the Company itself. Following the institution of prosecution proceedings under Sect. 34 of the Combines Investigation Act in the police court at Chicoutimi, Que., a plea of guilty was entered by the salesman and he was fined $\$ 5$ and costs on Nov. 18, 1954.

In February 1954, the Commission submitted a report concerning an investigation into the distribution and sale of gasoline in the Vancouver area. The report expressed the conclusion that gasoline retailers had entered into agreements or arrangements fixing and enhancing the retail price of gasoline, preventing or lessening competition, and substantially controlling the retail sale of gasoline in the area concerned. Prosecution proceedings under Sect. 32 of the Combines Investigation Act against two incorporated trade associations and 32 individuals were instituted in Vancouver, B.C. in January 1955.

In a report in March 1954, concerning alleged instances of resale price maintenance in the sale of china and earthenware, the Commission concluded that a Canadian distributor for figures and other earthenware products had induced or attempted to induce various retailers in Ontario, Quebec, and British Columbia to maintain retail prices specified by such distributor and had also induced a Vancouver wholesaler to maintain wholesale prices specified by it. The Commission also found that the distributor had attempted to induce four Vancouver wholesalers to refrain from selling figures to a Vancouver retailer because the retailer had been selling them at prices less than the resale price specified by such distributor; also, that one such wholesaler had refused to supply the retailer in question for this reason. Following the institution of prosecution proceedings under Sect. 34 of the Combines Investigation Act in the police court at Toronto, Ont., the distributor pleaded guilty on Nov. 17, 1954, and was fined a total of $\$ 1,000$ on two counts.

A report of an inquiry concerning alleged instances of resale price maintenance in the distribution and sale of television sets in the Toronto district was submitted by the Commission to the Minister on Oct. 25, 1954, and made public by him on Nov. 18, 1954. The report stated that, following a newspaper advertisement by a dealer offering television sets of a particular manufacture at substantially reduced
prices, the manufacturer in question had cancelled the dealer's franchise. The cancellation was made by the Toronto branch manager of the manufacturer, acting upon his own responsibility as the officer in charge of sales in that district. The report expressed the opinion that the evidence, in which there was considerable conflict, was not strong enough to prove that the motive of the Company official who cancelled the franchise had been resale price maintenance.

In November 1954, the Commission submitted a report to the Minister concerning an alleged combine in the manufacture, distribution and sale of wire fencing in Canada. The report expressed the conclusion that from 1933 to mid-1952 Canadian manufacturers of wire fencing operated under arrangements directed principally to the maintenance of prices and elimination of price competition. It also expressed the opinion that while the arrangements referred to had been formally terminated in mid-1952, because of the long existence and continuous operation of these arrangements, the acceptance of common prices by the manufacturers had, nonetheless, virtually become a custom of the trade. In making the report public on Nov. 30, 1954, the Minister indicated that the usual consideration would be given the question of what further steps ought to be taken.

A report of an inquiry concerning an alleged combine in the distribution and sale of coal in the Timmins-Schumacher area in Ontario was submitted by the Commission to the Minister on Nov. 22, 1954, and made public by him on Dec. 14, 1954. The report concluded that, since 1947, the retail dealers handling substantially all of the coal trade in the area had been parties to a price fixing agreement; and that, because of the location of this particular market, no effective competition could be expected from outside the area. The Commission also stated that evidence showed that when the coal dealers or some of them found that price competition could not be controlled to their satisfaction through their own efforts, they prevailed upon suppliers to come to their assistance by discontinuing supplies to the dealers who were not maintaining prices. In releasing the report, the Minister indicated that the usual consideration would be given the question of what further steps ought to be taken.

As a result of the recommendation of the MacQuarrie Committee* that the practice of "loss-leader" selling should be studied, an inquiry was instituted for the purpose of determining the prevalence and effects of the practice and recommending to the Minister of Justice suitable amendment, if necessary, of the Combines Act. The information supplied to or gathered by the Director of Investigation and Research was compiled in book form and laid before the Commission in February 1954. This book was then supplied by the Commission to parties who wished to make submissions or supply further information and, with this in view, the Commission arranged for public hearings to be held at various centres in Canada in May, June, July and September 1954. A report is being prepared for submission to the Minister of Justice.

During 1953 and 1954, a variety of matters were disposed of on preliminary inquiry, and in a number of other cases investigations were proceeding. Numerous consultations and interviews were held with individuals and representatives of business groups interested in discussing the possible application of the Act to conditions encountered or to arrangements being considered.

[^329]
## Section 3.-Trade Standards*

The Standards Division of the Department of Trade and Commerce consolidates, under one Director, the administration of the Electricity Inspection Act, the Gas Inspection Act, the Electricity and Fluid Exportation Act, the Precious Metals Marking Act, the Weights and Measures Act, and the National Trade Mark and True Labelling Act.

Commodity Standards.-On Nov. 26, 1949, Parliament passed the National Trade Mark and True Labelling Act which provides a framework for the development of the National Standard and true labelling in order to circumvent public deception in advertising.

In brief, the use of the National Standard is voluntary and compliance with commodity standards affects only those manufacturers who desire to use the national trade mark. In addition, where manufacturers descriptively label any commodity or container, it must be labelled accurately to avoid public deception. The regulation applying to the labelling of fur garments, for example, has been established as a code of fair practice throughout the merchandising field.

Under the terms of the Precious Metals Marking Act, 1946 (R.S.C. 1952, c. 215), commodities composed of gold, silver, platinum or palladium may be marked with a quality mark describing accurately the quality of the metal. Where such mark is used, a trade mark registered in Canada, or for which application for registration has been made, must also be applied. Gold-plated or silver-plated articles may also be marked under certain conditions outlined in the Act. The inspection staff of the Standards Division is engaged in the examination of advertising matter, in verifying the quality of articles offered for sale and in checking the marks applied.

Weights and Measures.-The Weights and Measures Act (R.S.C. 1952, c. 292) prescribes the legal standard of weight and measure for use in Canada. The Act requires control of the type of all weighing and measuring devices used for commercial purposes and their periodic verification and surveillance directed towards the elimination of sales by short weight or short measure.

The number of inspections made in the year ended Mar. 31, 1954, was 478,227, compared with 437,644 in 1952-53. The more important inspections comprised the following: weighing machines, including scales of all kinds, 240,037; measuring machines for liquids, 92,701 ; weights, 140,053 ; other measures, 5,436 . Total expenditure was $\$ 688,425$ in 1953-54 compared with $\$ 659,975$ in 1952-53, and total revenue $\$ 658,466$ compared with $\$ 600,641$.

Electricity and Gas Inspection.-Responsibilities of the Standards Division under the Electricity Inspection Act (R.S.C. 1952, c. 94) and the Gas Inspection Act (R.S.C. 1952, c. 129) comprise the testing and stamping of every electricity and gas meter used throughout Canada for billing purposes, the object being to ensure the correct measurement of all electricity and gas sold. Canada is divided into 21 districts for administration of the tro Acts, and staff numbers 158. During the year ended Mar. 31, 1954, 1,079,711 electricity and gas meters were tested as compared with 928,827 in the preceding year. Revenue derived from the testing amounted to $\$ 790,753$ and expenditure to $\$ 608,519$.

[^330]
## 1.--Electricity and Gas Meters in Use, Years Ended Mar. 31, 1945-54

| Year | Electricity Meters | Gas Meters |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Manufactured Gas | Natural Gas | Acetylene Gas | Petroleum Gas | Total |
|  | No. | No. | No. | No. | No. | No. |
| 1945. | 2,348,150 | 552,411 | 208,046 | 4 | 1,529 | 761,990 |
| 1946. | 2,459,672 | 550,949 | 215,330 | 4 | 1,651 | 767,934 |
| 1947. | 2,647,040 | 560,046 | 225,952 | 4 | 1,725 | 787,727 |
| 1948. | 2,746,685 | 587,629 | 217,068 | 3 | 1,046 | 805,746 |
| 1949. | 2,972,725 | 600,923 | 227,393 | 3 | 4,006 | 832,325 |
| 19501. | 3,188,013 | 606,395 | 239,448 | 4 | 3,841 | 849,688 |
| 1951. | 3,405,432 | 610,096 | 252,468 | 5 | 33 | 862,602 |
| 1952. | 3,590,422 | 609,262 | 263,130 | 5 | 68 | 872,465 |
| 1953. | 3,779,739 | 599,140 | 277,248 | 5 | 1,270 | 877,663 |
| 1954.. | 3,967,952 | 593,698 | 298,166 | 4 | 429 | 892,297 |

${ }^{1}$ Figures for Newfoundland included for 1950 and subsequent years.
The Electricity and Fluid Exportation Act (R.S.C. 1952, c. 93) came into force in 1907. Under its provisions no electric energy or fluid, whether liquid or gaseous, may be exported from Canada without a licence. Total exports of electric energy during the year ended Mar. 31, 1954, amounted to $2,209,532,219 \mathrm{kwh}$. There was also a small export of natural gas and crude oil.

## Section 4.-Patents, Copyrights and Trade Marks*

Letters patent are issued subject to the provisions of the Patent Act, 1935 (R.S.C. 1952, c. 203). Applications for protection relating to patents should be addressed to the Commissioner of Patents, Ottawa.
2.-Patents Applied for, Granted, etc., Years Ended Mar. 31, 1950-54

| Item | 1950 | 1951 | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Applications for patents................... No. | 13,172 | 14,324 | 15,448 | 16,405 | 18,565 |
| Patents granted.......................... " | 8,513 | 8,461 | 9,516 | 9,700 | 9,414 |
| Granted to Canadians................... " | 655 | 627 | 708 | 748 | 606 |
| Caveats granted.............................. "* | 356 | 391 | 253 | 243 | 288 |
| Assignments.................................. " | 12,811 | 11,437 | 11,621 | 12,525 | 13,127 |
| Fees received, net.............................. \$ | 636,772 | 661,069 | 728,241 | 756,714 | 847,874 |

The number of Canadian patents granted increased fairly steadily each year from 4,522 at the beginning of the century to a peak of 12,542 in 1923 and has remained between 6,500 and 10,000 for the past ten years. Of the 9,414 granted in 1953-54, 6,849 or 73 p.c. were to inventors resident in the United States, 606 to Canadian residents and 1,013 to residents of the United Kingdom or other Commonwealth countries. Residents of France obtained 198, of Switzerland 143, of The Netherlands, 207, and of other countries 398.

Printed copies of patents issued from Jan. 1, 1949, to date are available at a nominal fee. The Canadian Patent Office Record gives a brief digest of each patent.

Canadian and foreign patents may be consulted at the Patent Office Library. The Library has records of British patents and abridged specifications thereof from 1617 to date, and of United States patents from 1872 to date, as well as many patents,

[^331]indexes, journals and reports from Australia, New Zealand, South Africa, India, Pakistan, France, Belgium, Austria, Norway, Mexico, Italy, Sweden, The Netherlands, Switzerland, Japan, Korea and Brazil.

Copyrights, Industrial Designs and Timber Marks.-Registration of copyright is governed by the Copyright Act, 1921 (R.S.C. 1952, c. 55). Applications for protection relating to copyrights should be addressed to the Commissioner of Patents, Ottawa.

The Act sets out the qualifications for a copyright and its duration: "Copyrights shall subsist in Canada. .in every original literary, dramatic, musical and artistic work, if the author was, at the date of the making of the work, a British subject, a citizen or subject of a foreign country which has adhered to the Berne Convention and the additional Protocol. . .or resident within Her Majesty's Dominions. The term for which the copyright shall subsist shall, except as otherwise expressly provided by this Act, be the life of the author and a period of fifty years after his death"

Copyright protection is extended to records, perforated rolls, cinematographic films, and other contrivances by means of which a work may be mechanically performed. The intention of the Act is to enable Canadian authors to obtain full copyright protection in Canada, in all parts of the Commonwealth, in foreign countries of the Copyright Union and in the United States of America.

Protection of industrial designs and of timber marks is afforded under the Trade Mark and Design Act and the Timber Marking Act. Registers of such designs and marks are kept by the Copyright Branch of the Patent Office and information regarding them is published in the Canadian Patent Office Record.

## 3.-Copyrights, Industrial Designs and Timber Marks Registered, Years Ended Mar. 31, 1950-54

| Item |  | 1950 | 1951 | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Copyrights registered. | No. | 4,488 | 4,700 | 4,676 | 4,976 | 5,060 |
| Industrial designs registered. |  | 653 | 628 | 480 | 431 | 560 |
| Timber marks registered. | " | 7 | 4 | 10 | 1 | 2 |
| Assignments registered | " | 426 | 512 | 497 | 523 | 548 |
| Fees received, net. | \$ | 19,325 | 19,848 | 19,382 | 20,681 | 21,181 |

Trade Marks and Shop Cards.-The Trade Marks Office, a Branch of the Department of the Secretary of State, is charged with the administration of the Unfair Competition Act, 1932 (R.S.C. 1952, c. 274) which repealed all previous Acts governing trade marks, and the Shop Cards Registration Act, which came into force on Sept. 1, 1938. Applications for registration of trade marks and shop cards should be addressed to the Registrar, Trade Marks Office, Ottawa.

A register of Trade Marks is kept, in which, subject to the provisions of the Act, any person may cause to be recorded any trade mark he has adopted and notification of any assignments, transmissions, disclaimers and judgments relating to such trade mark. In order that the public may be kept informed in the matter of trade-mark registration, a list of registered trade marks appears in the Canadian Patent Office Record which is issued weekly.

The Shop Cards Registration Act is designed to afford a measure of protection to organizations, such as trade unions, that were able formerly to register their particular designations as Union Labels under the Trade Mark and Design Act. Registrations under the Act may be renewed every 15 years.

## 4.-Trade Marks and Shop Cards Registered, Years Ended Mar. 31, 1949-53

| Item |  | 1949 | 1950 | 1951 | 1952 | 1953 |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |

## Section 5.-Subventions and Bounties on Coal*

The major problem of the Canadian coal-mining industry arises from the fact that its fields are situated far distant from the main consuming markets of the Provinces of Ontario and Quebec while these markets lie in close proximity to the bituminous and anthracite fields of the United States. Transportation subventions, which have been maintained in varying degree during the past 25 years, were designed to further the movement of Canadian coals to some portions of central Canada by equalizing, as far as possible, the laid-down costs of Canadian coals with imported coals. Subventions have been regulated by Orders in Council as it has not been considered practicable to fix the assistance by statute owing to the frequent changes in the competitive situation.
5.-Expenditure for Subventions, by Province, 1949-53

| Province | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nova Scotia................... ton | $1,853,604$ $2,435,111$ | $1,165,719$ $1,005,438$ | $2,286,537$ $3,074,466$ | $1,897,451$ $5,194,288$ | $\begin{aligned} & 1,874,410 \\ & 6,101,714 \end{aligned}$ |
| New Brunswick.................. ton | 3.025 $\square=205$ | 2,314 1,989 | 2,709 | 2,851 3,780 | 8,981 7,853 |
| Saskatchewan.. ......... ........ ton | 91,957 64,983 | 173,694 125,767 | $\begin{aligned} & 165,086 \\ & 126,042 \end{aligned}$ | 139,555 113,645 | $\begin{aligned} & 187,118 \\ & 161,439 \end{aligned}$ |
| Albert; inf eastern British <br> Colnubes ........................ ton $\$$ | $\begin{aligned} & 441,938 \\ & 897,970 \end{aligned}$ | $\begin{array}{r} 785,148 \\ 1,482,202 \end{array}$ | $\begin{array}{r} 589,581 \\ 1,165,937 \end{array}$ | $\begin{array}{r} 613,651 \\ 1,161,810 \end{array}$ | $\begin{aligned} & 606,749 \\ & 946,638 \end{aligned}$ |
| British Columbia bunker and export. ton | $\begin{aligned} & 36,170 \\ & 29,893 \end{aligned}$ | $\begin{aligned} & 6,092 \\ & 4,569 \end{aligned}$ | $\begin{aligned} & 91,611 \\ & 88,551 \end{aligned}$ | $\begin{aligned} & 59,254 \\ & 56,580 \end{aligned}$ | 1,592 1,194 |
| Totals $\qquad$ ton | $\begin{aligned} & 2,439,692 \\ & 3,431,745 \end{aligned}$ | $\begin{aligned} & 2,132,970 \\ & 2,619,915 \end{aligned}$ | $\begin{aligned} & 3,135,523 \\ & 4,455,629 \end{aligned}$ | $\begin{aligned} & 2,712,762 \\ & 6,530,103 \end{aligned}$ | $\begin{aligned} & 2,678,850 \\ & 7,218,838 \end{aligned}$ |

The Canadian Coal Equality Act (R.S.C. 1952, c. 34 -formerly known as the Coke Bounty Act) implemented one of the recommendations of the Royal Commission on Maritime Claims and was approved by Parliament on May 30, 1930. The bounty is paid on Canadian coal converted to coke and used in the manufacture of Canadian iron and steel and places the coal on a basis of equality with imported coal.

Bounties paid under this authority for the years 1949-53 were as follows:-

|  | Item | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quantity |  | 740,288 | 830,752 | 810,608 | 698,449 | 773,102 |
| Amount. |  | 366,443 | 411,222 | 401,251 | 345,732 | 382,685 |

[^332]
## Section 6.-Control and Sale of Alcoholic Beverages

The retail sale of alcoholic beverages in Canada is controlled by provincial and territorial government liquor-control authorities. Alcoholic beverages are sold directly by most of these liquor-control authorities to the consumer or to licensees for resale. However, in some provinces beer and wine are sold directly by breweries and wineries to consumers or to licensees for resale. During the year ended Mar. 31, 1953, provincial government liquor-control authorities operated 650 retail stores.

Table 6 shows revenue from administration of liquor control by provincial and territorial governments. The figures have been prepared on a new basis so that the detail is not strictly comparable with the information supplied in previous Year Books. Further details are given in DBS report The Control and Sale of Alcoholic Beverages in Canada, (fiscal year ended Mar. 31, 1953).
6.-Provincial and Territorial Revenue from Administration of Liquor Control, Year Ended Mar. 31, 1953, with Totals for 1952

Nort.-Figures include revenue collected direetly by the provincial and territorial governments as well as revenues of the liquor authorities, but exclude general sales tax.

| Province or Territory | Net Income from Retail Sales ${ }^{1}$ | Taxes | $\begin{aligned} & \text { Licences } \\ & \text { and } \\ & \text { Permits } \end{aligned}$ | Fines and Confiscations ${ }^{2}$ | Commission on General Sales Tax Collections | Total Revenue Mar. 31- |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 1953 | 1952 |
|  | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| N'f'ld | 2,202,937 | - | 598,013 ${ }^{3}$ | 18,814 | 4.656 | 2.824,420 | 2,476,000 |
| P.E.I. | 895,975 | $2: 2005$ | 31.655 | 17,650 | - | 1,219,256 | 1,035,000 |
| N.S. | 9,179,32 | - | 2;8,101 ! | 73.657 | - | 9, 501 res | 8. 363.8 |
| N.B | 6,377,969 | - | 1,970 | 24,929 | 21,413 | 6,423, 23: | 5,441,000 |
| Que............. | 21,643,113 | 1,490,979 | 11,975,916 | 178,890 | .. | 35,288, 898 | 32,357,000 |
| Ont.. | 33,076,007 | - | 14,532,066 | 82,926 | - | 47,690,999 | 44,960,000 |
| Man. | 6,408,691 | - | 2,084,847 | 63,000 | - | 8,556,538 | 8,224,000 |
| Sask. | 10,864,296 | - | 85,143 | 63,814 | 46,817 | 11,060,070 | 9,640,000 |
| Alta. | 13,944,913 | - | 1,014,948 | 197,077 | - | 15,156,938 | 13,304,000 |
| B.C. | 20,551,839 | - | 283,307 | .. | 47,803 | 20,882,949 | 20,157,000 |
| Totals....... | 125,145,064 | 1,761,654 | 30,886,267 | 720,757 | 120,695 | 158,637,437 | 146,156,000 |
| $\begin{aligned} & \text { Yukon T........ } \\ & \text { N.W.T......... } \end{aligned}$ | $\begin{aligned} & 652,770 \\ & 282,683 \end{aligned}$ | - | $\begin{array}{r} 93 \\ 4,363 \end{array}$ | $\begin{array}{r} 109 \\ 2,279 \end{array}$ | 二 | $\begin{aligned} & 652.972 \\ & 289.325 \end{aligned}$ | $\begin{aligned} & 595,000 \\ & 274,000 \end{aligned}$ |
| Canada. | 126,480,517 | 1,764,654 | 30,850,723 | 223,145 | 120,695 | 159,579,734 | 147,025,000 |

[^333]Specified revenue of the Government of Canada from alcoholic beverages comprising excise duties, excise taxes, customs duties and certain fees and licences in that connection are shown in Table 7. Federal Government revenues from the general sales tax on alcoholic beverages, however, are not available.

## 7.-Specified Revenue of the Federal Government from Alcoholic Beverages, Years Ended Mar. 31, 1949-53

Note.-Figures exclude revenue from the 10 -p.c. sales tax which is not available by comm odities.

| Nature of Levy | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| On Spirits- | \$ | \$ | \$ | \$ | \$ |
| Excise duty............................. | 40,634,698 | 46,547,587 | 60,126,300 | 42,066,718 | 41,058,349 |
| Validation fees. | 825,371 | 790,587 | 1,108,252 | 1,223,932 | 746,877 |
| Licences.................................. | 6,750 | 7,250 | 8,000 | 7,375 | 7,750 |
| Import duty ${ }^{1} \ldots \ldots . \ldots \ldots . . . . . . . . . .$. | 28,592,975 | 27,249,087 | 30,975,045 | 38,798,542 | 52,373,987 |
| Totals, on Spirits................ | 70,059,794 | 74,594,511 | 92,217,597 | 82,096,567 | 94,186,963 |
| On Malt and Malt Products- |  |  |  |  |  |
| Excise duty on- |  |  |  |  |  |
| Beer ${ }^{2}$................................ | 3,740,065 | 3,678,316 | 2,745,851 | 3,812,065 | 5,294,283 |
| Malt................................ | 55,853,055 | 56,018,292 | 65,409,427 | 73,748,003 | 80,584,283 |
| Malt extract........................ | 51,825 | - | - | - | - |
| Licences- |  |  |  |  |  |
| Beer................................ | 3,550 | 3,550 | 3,650 | 3,500 | 3,600 |
| Malt.................................. | 600 | - | - | - | - |
| Import duty on beer................... | 43,955 | 54,388 | 75,547 | 106,916 | 114,629 |
| Totals, on Malt and Malt Products. | 59,693,050 | 59,754,546 | 68,234,475 | 77,670,484 | 85,996,795 |
| On Wine- |  |  |  |  |  |
| Excise taxes........................... | 2,059,639 | 2,125,606 | 2,224,885 | 2,167,267 | 2,215,540 |
| Import duty.......................... | 580,327 | 587,451 | 696,436 | 771,733 | 879,901 |
| Totals, on Wine.................... | 2,639,966 | 2,713,057 | 2,921,321 | 2,939,000 | 3,095,441 |
| Grand Totals. . . . . . . . . . . . . . | 132,392,810 | 137,062,114 | 163,373,393 | 162,706,051 | 183,279,199 |

[^334]8.-Value of Sales of Alcoholie Beverages, Years Ended Mar. 31, 1952 and 1953

| Province or Territory | Spirits |  | Wines |  | Beer |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1952 | 1953 | 1952 | 1953 | 1952 | 1953 | 1952 | 1953 |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland....... | 3,485 | 3,772 | 299 | 356 | 1,799 | 2,661 | 5,583 | 6,789 |
| Prince Edward Island.. | .. | .. | .. | .. | .. | .. | 2,347 | 2,736 |
| Nova Scotia. | 11,155 | 12,212 | 1,596 | 1,835 | 10,596 | 11,955 | 23,347 | 26,002 |
| New Brunswick. . | 8,727 | 9,167 | 1,695 | 1,644 | 5,879 | 7,046 | 16,301 | 17,857 |
| Quebec. | 55,704 | 60,647 | 7,399 | 8,342 | 77,747 | 86,057 | 140,850 | 155,046 |
| Ontario.. | 92,082 | 99,090 | 11,095 | 11,416 | 124,831 | 164,722 | 228,008 | 275,228 |
| Manitoba. | 12,876 | 13,836 | 1,601 | 1,636 | 15,780 | 20,200 | 30,257 | 35,672 |
| Saskatchewan. | 11,911 | 13,590 | 1,863 | 1,928 | 18,391 | 21,736 | 32,165 | 37,254 |
| Alberta. | .. | 22,220 | .. | 1,815 | 24,919 | 27,629 | 45,457 | 51,664 |
| British Columbia. | 38,865 | 40,064 | 2,525 | 2,549 | 24,842 | 28,217 | 66,232 | 70,830 |
| Yukon.. | 918 | 1,020 | 36 | 41 | 687 | 746 | 1,641 | 1,807 |
| Northwest Territories.... | .. | 438 | . | 23 | 360 | 305 | 760 | 766 |
| Canada | 235,723 | 276,056 | 28,103 | 31,585 | 365,831 | 371,274 | 592,448 | 681,651 |

## PART III.-BANKRUPTCIES AND COMMERCIAL FAILURES

The three Sections of this Part, although closely related as far as subject matter is concerned, cover different aspects of the field of bankruptcies and commercial failures and the statistics presented in each Section are not comparable with those given in the other Sections.

Section 1 is limited to the administration of bankrupt estates by the Superintendent of Bankruptcy under the Bankruptcy Act (including the Farmers' Creditors Arrangement Act). This Section, however, gives definite information on the amounts realized from the assets as established by debtors and indicates that values actually paid to creditors are invariably very much lower than such estimates alone would imply. It can, therefore, be assumed that this applies in even greater degree to the more extended fields covered in Sections 2 and 3.

Section 2, on the other hand, is limited to bankruptcies and insolvencies made under federal legislation (the Bankruptcy Act and the Winding-Up Act) but not failures, sales or seizures carried out apart from such federal legislation. The Dominion Bureau of Statistics figures include failures of individuals such as wageearners. For recent years, separate data are shown for insolvencies by wage-earners as distinct from industrial and commercial mortalities. The figures of assets and
liabilities are estimates made by the debtor and, unfortunately, are not made uniformly. The human element enters into them to a considerable degree and they should, therefore, be accepted with reservations.

The statistics given in Section 3 are compiled by Dun and Bradstreet, Incorporated. This mercantile agency is interested primarily in credit information and their statistics include bankruptcies in general, insolvencies under provincial companies' Acts and such proceedings as bulk sales, bailiffs' sales, landlords' seizures, etc., when loss to creditors results. On the other hand, the statistics do not include assignments of individuals, so that, as a rule, the totals run lower than those in Section 2. Since between the years 1875 and 1919 this agency was the only source of figures of commercial failures, their statistics have an added value because they present a historical series back to 1915 though the basis of classification was changed after 1933 (see text preceding Table 7, p. 1023).

## Section 1.-Administration of Bankrupt Estates*

Federal insolvency legislation now comprises the Bankruptey Act, 1949 (R.S.C. 1952, c. 14), the Farmers' Creditors Arrangement Act, 1943 (R.S.C. 1952, c. 111), the Companies' Creditors Arrangement Act and, to some extent, the Winding-Up Act. The two Arrangement Acts are designed to avert failure and the statistics in this Section and in Section 2, therefore, do not include proposals or arrangements under these Acts. When such proposals or arrangements are rejected by the creditors or fail in their purpose the proceedings may then come under the Bankruptcy Act, the bankruptcy provisions of the Farmers' Creditors Arrangement Act and, in certain circumstances, the Winding-Up Act. There are no provisions in the Companies' Creditors Arrangement Act for the liquidation or winding-up of insolvent companies.

The Bankruptcy Act, 1949, under which the Bankruptcy Act, 1919, and amendments thereto is repealed, restores to all insolvent persons the right to make a proposal prior to bankruptcy. The summary administration provisions of the Act enable insolvent persons, other than corporations, having limited assets to obtain the benefit of the Act. A new principle has also been established in regard to the discharge of bankrupts and the Act provides that "the making of a receiving order against, or an assignment by, any person except a corporation operates as an application for discharge ${ }^{2 /}$ unless a waiver is filed in court and served upon the trustee within the prescribed delays.

The administration of bankrupt estates is supervised by the Superintendent of Bankruptcy, first appointed in 1932, with the object of conserving, as far as possible, the assets of bankrupt estates for the benefit of the creditors.

The series of statistics collected on estates closed under the Bankruptcy Act, 1919, covering the years 1933-50 are given in the 1947 Year Book, p. 846, and the 1952-53 edition, p. 915. The figures given in Table 1 are those of estates closed under the new Bankruptey Act and begin with the year 1951. Figures for the year 1951 are given in the 1954 edition, p. 955.

[^335]
## 1.-Assets, Liabilities, Assets Realized and Cost of Administration under the Bankruptey Act 1999, by Province, 1952 and 1953

| Province and Year | Estates <br> Closed | Assets <br> Estimated <br> by Debtor | Liabilities <br> Estimated <br> by Debtor | Total <br> Realisa- <br> tion | Cost of <br> Adminis- <br> tration | Paid <br> to <br> Creditors |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |

Bankruptcirs Under General Provigions of the Acri


Proposals Cnder Sect. 27 (1) (a) of the Act

| Quebec. <br> Ontario |  | \$ | $\begin{gathered} \$ \\ 578,789 \\ 28,039 \end{gathered}$ | \$ | $\begin{gathered} \$ \\ - \end{gathered}$ | $\begin{gathered} \$ \\ 160,157 \\ 5,276 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| Totals, 1952. | 33 | - | 606,828 | - | - | 165,433 |
| Totals, 1951.... | 19 | - | 1,148,237 | - | - | 661,760 |

Bankruptcies Under Genrbal Provisions of tee Act ${ }^{1}$


[^336]Summary statistics of estates closed under the Farmers' Creditors Arrangement Act are available in previous editions of the Year Book beginning with the 1947 edition. From the time the Act first came into effect on Sept. 1, 1934, to the end of 1949 there were 885 assignments and 39 receiving orders, or a total of 924 estates closed. No assignments or receiving orders were reported under the Act in 1951 or 1952 but one case was completed during 1952. During the year 1953, one new estate was reported and one case under administration was completed.

## Section 2.-Returns under the Bankruptcy and Winding-Up Acts as Compiled by the Dominion Bureau of Statistics

As stated on p. 1017, the figures in this Section cover only the bankruptcies and insolvencies under federal legislation-the Bankruptcy Act and the Winding-Up Act-and include assignments of individuals such as wage-earners.

Under the Bankruptcy and Winding-Up Acts (R.S.C. 1952, cc. 14 and 296), certain documents relating to estates administered under these Acts have, since July 1920, been forwarded to the Dominion Statistician for statistical analysis. A statistical series began with 1923, except for the analysis by branches of business which began in 1924. However, changes in the administration of bankruptcies introduced by the Bankruptcy Act of 1949 (see p. 1018) affected the comparability of the series. In that Act, provision was made for proposals from insolvent persons and, since July 1950, agreements made under this method are not included with the statistics of bankruptcies. In Table 2 the number of proposals are shown so as to give a general impression of the trend.
2.-Bankruptcies and Insolvencies under Federal Legislation, by Province, 1944-53

Notr.-Figures from 1923 are given in the corresponding table of previous Year Books beginning with the 1941 edition.

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1944... | ... | - | 3 | - | 222 | 33 | 1 | 3 | 4 | 11 | 277 |
| 1945... | ... | 1 | 3 | 1 | 225 | 27 | 3 | - | 4 | 8 | 272 |
| 1946. | ... | 1 | 3 | 2 | 236 | 20 | - | - | 4 | 12 | 278 |
| 1947. | ... | 2 | 6 | 7 | 422 | 72 | 4 | 2 | 6 | 24 | 545 |
| 1948.. | ... | 1 | 9 | 13 | 613 | 116 | 8 | 4 | 8 | 41 | 813 |
| 1949. | . | 3 | 4 | 12 | 827 | 131 | 16 | 5 | 13 | 55 | 1,066 |
| 1950.. | 3 | 8 | 17 | 20 | 967 | 186 | 16 | 9 | 16 | 61 | 1,303 |
| 1951. | 5 | 3 | 12 | 24 | 1,022 | 227 | 15 | 13 | 14 | 64 | $1_{3} 399$ |
| 1952. | 9 | - | 17 | 14 | 1,167 | 220 | 13 | 8 | 13 | 48 | 1,509 |
| 1953.. | 4 | 1 | 9 | 16 | 1,221 | 255 | 27 | 19 | 33 | 72 | 1,657 |
| Proposals- |  |  |  |  |  |  |  |  |  |  |  |
| 1950.. | - | - | - | 2 | 66 | 7 | 1 | - | - | 3 | 79 |
| 1951. | - | - | 1 | 3 | 160 | 8 | - | - | - | 4 | 176 |
| 1952... | - | - | - | 1 | 172 | 15 | - | - | - | 3 | 191 |
| 1953. | - | - | - | - | 158 | 9 | 2 | - | 1 | 1 | 171 |

[^337]Wage-earner failures have been shown separately since 1949 and are given, by area, in Table 3.

> 3.-Wage-Earner Failures, by Area, 1949-53

| Year | Atlantic Provinces | Quebec | Ontario | Prairie Provinces | British Columbia | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| 1949. | 2 | 118 | 2 | - | 2 | 124 |
| 1950......................... | - | 121 | 9 | - | 2 | 132 |
| 1951......................... | 2 | 148 | 11 | - | 2 | 163 |
| 1952.......................... | - | 155 | 8 | - | 2 | 165 |
| 1953.......................... | - | 154 | 9 | - | 1 | 164 |

## 4.-Bankruptcies and Insolvencies under Federal Legislation, by Branch of Business, 1944-5s

Nots.-Figures from 1924 are given in the corresponding table of previous Year Books beginning with the 1942 edition.

| Year | Trade | Manu-facturing | Agriculture | $\left\lvert\, \begin{aligned} & \text { Logging } \\ & \text { and } \\ & \text { Fishing } \end{aligned}\right.$ | Mining | Con-struetion | Trans-portation and Public Utilities | Finance | Service | $\begin{aligned} & \text { Not } \\ & \text { Classi- } \\ & \text { fied } \end{aligned}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1944.... | 83 | 47 | 4 | 2 | 3 | 27 | 11 | 7 | 62 | 31 | 277 |
| 1945.... | 58 | 54 | 2 | , | 3 | 39 | 12 | 6 | 70 | 28 | 272 |
| 1946.... | 77 | 57 | 2 | 4 | 3 | 32 | 14 | 7 | 64 | 18 | 278 |
| 1947... | 153 | 152 | ${ }_{6}^{6}$ | 7 | - | $\begin{array}{r}57 \\ \hline 77\end{array}$ | 20 | 5 | 92 144 | 53 | 545 |
| 1948... | 289 374 | 188 | 9 | ${ }_{10}^{4}$ | ${ }_{10}^{3}$ | 77 | 30 46 | 4 | 144 | 65 70 | -813 |
| ${ }_{1950} 194 . .$. | 374 502 5 | 232 257 | 8 | 10 | 10 | 94 97 | 46 40 | 19 20 | 203 273 | 70 | 1,066 1,303 |
| 1951.. | 570 | 269 | 20 | 8 | 8 | 126 | 42 | 27 | 255 | 74 | 1,399 |
| 1952.... | 569 | 305 | 42 | 2 | 7 | 114 | 45 | 32 | 279 | 114 | 1,509 |
| 1953.... | 650 | 359 | 37 | 6 | 10 | 124 | 52 | 30 | 286 | 103 | 1,657 |

${ }^{1}$ Newfoundland included from 1950.

## 5.-Estimated Assets and Liabilities of Bankruptcies and Insolvencles, 1944-53

Nors.-Figures from 1923 are given in the corresponding table of previous Year Books beginning with the 1942 edition.

| Year | Estimated Total Assets | Estimated Total <br> Lisbilities | Year | Estimated Total Assets | Estimated Total <br> Liabilities |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| 1944. | 2,020,302 | 4,043,864 | 1949 | 15,548,593 | 21,355,669 |
| 1945. | 1,864,359 | 3,995,109 | $1950{ }^{1}$ | 17,168,883 | 24,872,927 |
| 1946. | 4.039,339 | 5,966.153 | 1951. | 18,237,768 | 25,912,004 |
| 1947. | 5,933,211 | 10,077,557 | 1952. | 20,381, 304 | 29,658,281 |
| 1948. | 9,855,789 | 15,723,615 | 1953 | 25, 899,349 | 32,817,970 |

[^338]6．－Bankruptcies and Insolvencies，by Industries and Economic Areas， 1952 and 1953

| Industry | 1952 |  |  |  |  |  | \％ |  | 1953 |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | At－ <br> lantic <br> Prov－ <br> inces | Que． | Ont． | Prairie Prov－ inces | B．C． | Total | At－ lantic Prov－ inces | Que． | Ont． | Prairie <br> Prov－ <br> inces | B．C． |  |
| Trade－ | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． |
| General stores． | 6 | 40 | 5 | 1 | 1 | 53 | 6 | 44 | 7 | 2 | 3 | 62 |
| Grocery．．．．． | 4 | 38 | 13 | 1 | － | 56 | － | 46 | 13 | 1 | 1 | 61 |
| Confectionery．．．．．．．．． | － | 27 | 1 | － | － | 28 | － | 19 | 2 | － | － | 21 |
| Drink and tobacco．．．．． | － | 18 | 2 | － | － | 20 | － | 11 | 1 | － | － | 12 |
| Fish and meat．．．．．．．．． | 2 | 31 | 5 | － | － | 38 | － | 31 | 7 | 1 | 4 | 43 |
| Boots and shoes．．．．．．．． | － | 19 25 | $\stackrel{2}{2}$ | $\sim^{1}$ | － | 22 | － | 14 28 | 3 | 二 | 二 | 17 |
| Clothing．．．． | 3 | 47 | 11 | 4 | 1 | 66 | 2 | 50 | 19 | 2 | 13 | 86 |
| Furniture． | 1 | 20 | 2 | 1 | － | 24 | － | 25 | 3 | 2 |  | 30 |
| Books and stationery．． | － | 16 | 1 | － | － | 17 | － | 16 | 1 | － | － | 17 |
| Automobile．．．．．．．．．．．．． | 1 | 17 | 5 | 1 | 2 | 26 | 1 | 18 | 6 | 5 | － | 30 |
| Hardware．．．． | － | 12 | 5 | － | － | 17 | － | 14 | 5 | 1 | － | 20 |
| Electrical apparatus．．．． | － | 27 | 3 | 1 | － | 31 | － | 26 | 18 | 3 | 3 | 50 |
| Jewellery．．．． | 1 | 14 | 8 | － | 1 | 24 | － | 22 | 11 | 1 | 2 | 36 |
| Coal and wood．．．．．．．． | － | 13 | 2 | － | － | 15 | － | 14 | 1 | － | － | 15 |
| Drugs and chemicals．．． | － | 11 | 1 | － | 2 | 14 | － | 16 | 1 | 2 | 2 | 21 |
| Miscellaneous．．．．．．．．．． | 4 | 54 | 25 | 3 | 5 | 91 | 3 | 57 | 21 | 9 | 7 | 97 |
| Totals，Trade．．．．．．． | 22 | 429 | 93 | 13 | 12 | 569 | 15 | 451 | 120 | 29 | 35 | 650 |
| Manufacturing－ |  |  |  |  |  |  |  |  |  |  |  |  |
| Vegetable foods．．．．．．． | 1 | 27 | 1 | 2 | － | 31 | 2 | 31 | 7 | 1 | － | 41 |
| Drink and tobacco．．．．． | － | 2 | － | E | － | 2 | － | 1 | － | － | － | 1 |
| Animal foods．．．．．．．．．． | 二 | 16 | 2 | － | － | 18 | － | 21 | － | 1 | － | 22 |
| Fur and leather．．．．．．．． | － | 21 | 1 | 2 | － | 24 | － | 20 | 6 | 2 | 1 | 29 |
| Pulp and paper．．．．．．．．． | 1 | 18 | 5 | 二 | 二 | 24 | 二 | 12 |  | 二 | － | ${ }_{56}^{12}$ |
| Textiles．．．．．．．．．．．．．．．．． | － | 29 39 | $\frac{1}{7}$ | － 2 | 1 | 49 | 二 | 40 | 7 | 2 | 1 | 50 |
| Lumber and manufac－ | 1 | 31 | 5 | － | － | 37 | 2 | 32 | 4 | 2 | 5 | 45 |
| Iron and steel． | － | 14 | 2 | － | 1 | 17 | － | 10 | 6 | 1 | 1 | 18 |
| Non－ferrous metals． | － | 7 | 3 | 1 | － | 11 | － | 9 | 2 | 1 | 2 | 14 |
| Non－metallic minerals． | － | 8 | 1 | － | － | 9 | － | 9 | 2 | － | － | 11 |
| Drugs and chemicals．．． | － | 8 | 1 | － | － | 9 | － | 5 | 1 | － |  | 6 |
| Miscellaneous．．．．．．．．．． | － | 36 | 8 | － | － | 44 | － | 44 | 5 | 5 | － | 54 |
| Totals，Manufac－ turing | 3 | 256 | 37 | 7 | 2 | 305 | 4 | 286 | 44 | 15 | 10 | 359 |
| Service－ |  |  |  |  |  |  |  |  |  |  |  |  |
| Garages．．．．．．．．．．．．．． | 2 | 36 | 5 | 5 | 4 | 52 | 1 | 39 | 8 | 1 | 2 | 51 |
| Other custom and re－ pairs． | － | 41 | 6 | － | 1 | 48 | 1 | 38 | 7 | 1 | 2 | 49 |
| Personal service．．．．．．．． | － | 48 | 7 | － | 3 | 58 | 1 | 41 | 2 | ， | 1 | 45 |
| Restaurants．．．．．．．．． | 1 | 43 | 7 | 2 | 2 | 55 | 3 | 43 | 4 | 1 | 3 | 54 |
| Professional service．．．． | － | 23 |  | － | － | 23 | － | 29 | 7 | 2 | 1 | 38 |
| Recreational．．．．．．．．．． | 1 | 14 | 3 | － | － | 18 | － | 19 | 2 | － | 1 | 22 |
| Business service．．．．．．． | － | 23 | 2 | － | － | 25 | － | 21 | 3 | 3 | － | 27 |
| Totals，Service． | 4 | 228 | 30 | 7 | 10 | 279 | 6 | 230 | 33 | 8 | 9 | 286 |
| Other－ |  |  |  |  |  |  |  |  |  |  |  |  |
| Agriculture． | － | 40 | 2 | － | 1 | 42 | － | 31 | 5 | 1 | － | 37 |
| Mining．．．．．．．．．．．． | 1 | 4 | 1 | － | 1 | 7 | － | 5 | 1 | 1 | 3 | 10 |
| Logging，fishing and trapping． |  | 1 | － | － | 1 | 2 | － | 4 | － | － | 2 | 6 |
| Construetion．．．．．．．．．．． | 5 | 70 | 29 | 5 | 5 | 114 | 2 | 84 | 29 | 3 | 6 | 124 |
| Transportation and public utilities． | － | 29 | 10 | 2 | 4 | 45 | － | 36 | 8 | 5 | 3 | 52 |
| Finance ．．．．．．．．．．．．．．． | － | 26 |  | － | 3 | 32 | － | 26 | － | 3 | 1 | 30 |
| Totals，Other． | 6 | 170 | 45 | 7 | 14 | 242 | 2 | 186 | 43 | 13 | 15 | 259 |
| Not classified． | 5 | 84 | 15 | － | 10 | 114 | 3 | 68 | 15 | 14 | 3 | 103 |
| Grand Totals | 40 | 1，167 | 220 | 34 | 48 | 1，509 | 30 | 1，221 | 255 | 79 | 72 | 1，657 |

## Section 3.-Statistics of Industrial and Commercial Failures from Private Sources

A table on commercial failures for Canada, by class, for the years 1915 to 1935 (and for Newfoundland for the years 1915-32), is given in the 1936 Year Book, p. 969. In 1936, Dun and Bradstreet, Incorporated, from whose reports these figures were taken, adopted a new method of classification. The principal changes consisted of setting up a new group of construction enterprises, previously included in manufacturing, and a new class for commercial service. Real estate companies, holding and other financial companies, and agents of various kinds were omitted. These changes had the effect of confining the failure records more to industrial and commercial lines of activity, and liabilities were reduced more in proportion to the number of failures, since the companies eliminated usually ran high in indebtedness. This series extends back to 1934.

## 7.-Industrial and Commercial Failures, by Class, 1948-52, and by Province, 1953

(Source: Dun and Bradstreet, Incorporated)
Nors.-Figures from 1934 are given in the corresponding table of previous Year Books beginning with the 1946 edition.

| Year and Province | Manufacturing |  | Wholesale Trade |  | Retail Trade |  | Construction |  | Commercial Service |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Liabilities | No. | Lia- | No. | Liabilities | No. | Liabilities | No. | Liabilities | No. | Liabilities |
|  |  | \$000 |  | \$'000 |  | \$'000 |  | \$'000 |  | \$'000 |  | 8'000 |
| Totals, 1948 | 158 | 6,734 | 62 | 1,385 | 188 | 2,278 | 48 | 839 | 27 | 44 | 493 | 11,755 |
| Totals, 1949 | 177 | 8,406 | 0 | 3,516 | 247 | 3,252 | 63 | 1,329 | 40 | 776 | 556 | 17,279 |
| Totals, 1950 | 159 | 6,479 | 70 | 1,746 | 349 | 4,347 | 89 | 1,415 | 50 | 1,405 | 717 | 15,392 |
| Totals, 1951. | 174 | 6,499 | 72 | 2,892 | 387 | 5,693 | 116 | 2,360 | 48 | 1,494 | 797 | 19,048 |
| Totals, 1952. | 225 | 7,787 | 73 | 2,285 | 418 | 6,885 | 166 | 2,196 | 41 | 670 | 843 | 19,823 |
| 1853 |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | 2 | 23 |  | 210 |  | - | - | - |  | 233 |
| Prince Edward Island... | $\square$ | - 11 | - | - | 1 | 20 | - | - | - | - | 1 | 20 |
| Nova Scotia............ | 2 | 117 | - | - | ${ }^{2}$ | 155 | 1 | 52 | 二 | - | 5 | 324 |
| New Brunswick......... | 107 |  | 59 | 2,343 | ${ }_{325}^{13}$ | 5,923 | 83 | 1,835 | 41 | 570 | 13 | ${ }_{15} 251$ |
| Ontario................... | 47 | 2,438 | 15 | 2,916 | 123 | 2,919 | 41 | 1,396 | 13 | 795 | 239 | $\begin{array}{r}15,064 \\ 8,464 \\ \hline\end{array}$ |
| Manitobs | 11 | 598 | 4 | 106 | 22 | $5 \cdot 5$ | 5 | 115 | 3 | 92 | 45 | 1,486 |
| Saskatche | 1 | 33 | 1 | 12 | 9 | 241 | - | - | - | - | 11 | 286 |
| Alberta. | 1 | 558 | 3 | 192 | 14 | 303 | 6 | 401 | 1 | 41 | 25 | 1,495 |
| British Columbia....... | 16 | 806 | 1 | 13 | 50 | 1,182 | 6 | 678 | 1 | 2 | 74 | 2,681 |
| Totals, 1953 | 185 | 8,943 | 85 | 3,645 | 568 | 11,779 | 142 | 4,477 | 59 | 1,500 | 1,639 | 30,304 |

[^339]In 1953, Quebec accounted for 59 p.c. of the total failures and 50 p.c. of the liabilities; Ontario had 23 p.c. of the failures and 28 p.c. of the liabilities.

According to Dun and Bradstreet, Incorporated, commercial failures during World War II decreased steadily year by year and failures in the retail trade group, in which the majority of failures took place before the War, also decreased. After the end of the War, however, the total number of failures increased again. Failures in the retail trade group in 1953 accounted for over one-half of the total.

INDUSTRIAL AND COMMERCIAL FAILURES, BY CLASS 1935-53


MILLION DOLLARS
MILLION DOLLARS


## 8.-Industrial and Commercial Failures, by Industrial Group, 1951-53

(Source: Dum and Bradstreet, Incorporated)
Notr.-Comparable figures from 1934 are given in the corresponding table of previous Year Books.

| Industrial Group | Failures |  |  | Liabilities |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 | 1953 | 1951 | 1952 | 1953 |
|  | No. | No. | No. | \$'000 | \$'000 | \$'000 |
| Manufacturing- |  |  |  |  |  |  |
| Textiles. | 60 | 60 | 62 | 1,338 | 2,459 | 2,810 |
| Forest products | 41 | 40 | 42 | 2,324 | 1,728 | 1,327 |
| Paper, printing and publishing | 11 | 12 | 7 | 350 | 484 | 147 |
| Chemicals and drugs........ | 4 | 6 | 3 | 54 | 185 | 254 |
| Fuels................ | - | 12 | ${ }_{5}$ | $-230$ | - | 586 |
| Leather and leather products. | 5 | 12 | 5 | 230 | 436 | 94 |
| Stone, clay, glass and products. | 5 | 7 | 2 | 41 | 304 | 35 |
| Iron and steel........... | 7 | 4 | 7 | 279 | 92 | 1,132 |
| Mschinery. | 7 | 13 | 8 | 631 | 299 | 445 |
| Transportation equipment | 1 | 2 | 2 | 329 | 100 | 262 |
| All other........... | 18 | 28 | 33 | 516 | 837 | 1,146 |
| Totals, Manufacturing | 174 | 205 | 185 | 6,409 | 7,787 | 8,943 |
| Wholesale Trade- |  |  |  |  |  |  |
| Farm products, foods, groceries. | 19 | 22 | 19 | 366 | 477 | 616 |
| Clothing and furnishings.... | 6 | 3 | 4 | 60 | 253 | 125 |
| Dry goods and textiles. |  | 8 | 13 | - | 139 | 929 |
| Lumber, building materials, hardw | 6 | 7 | 10 | 201 | 286 | 609 |
| Chemicals and drugs. | 3 | 3 | 5 | 101 | 15 | 216 |
| Automotive products | ${ }_{3}$ | -2 | -3 | 129 | ${ }_{17}$ | 66 |
| All other........... | 34 | 28 | 31 | 1,960 | 1,098 | 1,044 |
| Totals, Wholesale Trade. | 72 | 73 | 85 | 2,892 | 2,285 | 3,605 |
| Eetail Trade- |  |  |  |  |  |  |
| Foods.. | 98 | 102 | 117 | 1,155 | 1,233 | 1,419 |
| Farm supplies, general stores | 17 | 16 | 30 | 404 | 200 | 634 |
| General merchandise. | 17 | 23 | 25 | 470 | 212 | 446 |
| Apparel.. | 54 | 60 | 78 | 653 | 880 | 1,442 |
| Furniture, household furniture. | 39 | 36 | 64 | 745 | 854 | 2,716 |
| Lumber, building materials, hard | 27 | 24 | 35 | 529 | 558 | 573 |
| Automotive products. | 40 | 58 | 85 | 815 | 1,720 | 3,287 |
| Restaurants. | 53 | 55 | 71 | 440 | 534 | 604 |
| Drugs. | 3 | 8 | 7 | 59 | 172 | 83 |
| All other | 39 | 36 | 56 | 423 | 522 | 575 |
| Tetals, Retall Trade. | 387 | 418 | 568 | 5,693 | 6,885 | 11,779 |
| Construction- |  |  |  |  |  |  |
| General contractors. |  | 49 |  | 1,039 | 1,267 | 2,028 |
| Carpenters and builders. | 9 | 9 | 7 | 147 | 1, 56 | 166 |
| Building sub-contractors | 59 | 46 | 74 | 1,267 | 841 | 1,931 |
| Other contractors..... | 4 | 2 | 2 | 107 | 32 | 352 |
| Totals, Construetion. | 116 | 106 | 142 | 2,560 | 2,196 | 4,477 |
| Commerelal Serrice- |  |  |  |  |  |  |
| Cleaners and dyers, tailors. | 7 | 5 | 7 | 40 | 60 | 51 |
| Haulage, buses, taxis, etc. | 15 | 14 | 13 | 428 | 213 | 322 |
| Hotels.... | 9 | 7 | 6 | 563 | 146 | 92 |
| Laundries. | 3 | 2 | 2 | 113 | 146 | 8 |
| Undertakers. | 2 |  | 3 | 18 | - | 564 |
| All other. | 12 | 13 | 28 | 332 | 105 | 463 |
| Totals, Commerelal Serrice | 48 | 41 | 59 | 1,494 | 678 | 1,500 |
| Grand Totals. | 797 | 843 | 1,039 | 13,048 | 19,823 | 30,304 |

## CHAPTER XXII.-FOREIGN TRADE

## CONSPECTUS

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Note.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The subject of foreign trade covers more than the treatment of imports and exports of commodities, important though this is. In its broader sense, foreign trade is made up of the total international exchanges of goods, services, securities and other financial exchanges, all of which are presented in their proper relationship in this Chapter. Following Part I, which is a review of Canada's trade during the period 1951-53, Part II gives detailed statistics of external commodity trade. Part III summarizes external transactions from the standpoint of the balance of international payments. Part IV outlines the various ways in which the Federal Government promotes and encourages trade relationships, and contains a brief review of the Canadian tariff structure.

## PART I.-REVIEW OF FOREIGN TRADE*

The value of world trade, expressed in United States dollars, reached a post-war peak in 1951 when it totalled $\$ 158,600,000,000$. Falling prices together with some reduction in the quantity of goods traded reduced this value by 3 p.c. in 1952, and in 1953 there was a further decline of 2 p.c. However, the volume of world trade turned upwards in 1953, the entire reduction in value in that year resulting from lower average prices than had prevailed in 1952. The actual volume of trade in 1953 was probably above the 1951 level.

Canada ranked fourth in world trade in 1951 but regained third place in 1952, her exports and imports in 1952 and 1953 being exceeded only by those of the United States and the United Kingdom. The United States increased the value of both exports and imports in 1953, and accounted for 18 p.c. of the trade of the non-communist world. However, the increase in the value of United States exports was caused entirely by sharply higher shipments under that country's mutual

[^340]security program; the value of the commercial trade of the United States declined in 1953. The trade of the United Kingdom declined moderately in value in 1953, a decline accounted for entirely by lower average prices; the volume of both exports and imports increased. Western Germany increased its exports substantially in both 1952 and 1953, and in 1953 rose to fourth place among the leading trading nations. German sales of manufactured goods in foreign markets are becoming increasingly important.

The increase in Canadian trade in the period 1951-53, both in value and volume, was considerably more rapid than was that of most other countries. Canada's share in the trade of the non-communist world advanced from $5 \cdot 2$ p.c. in 1951 to 6.0 p.c. in 1952, and to 6.3 p.c. in 1953. Canada ranked third in trade per capita among the world's important trading countries in 1951, advanced to second place in 1952 when the trade of Hong Kong was sharply reduced by adverse political conditions and, in 1953, for the first time in the post-war period, gained first place after New Zealand's control program sharply reduced that country's imports.

## 1.-World Trade, by Leading Countries, 1952 and 1953

Sourcrs: International Monetary Fund, International Financial Statistics, September 1954, and Ünited Nations Statistical Office, Population and Vital Statistics Reports, Vol. VI, Nos. 2, 3.

| Country | 1952 <br> Total <br> Trade | 1953 |  |  | $\begin{gathered} \text { Popula- } \\ \text { tion } \\ \text { mid-1953 } \end{gathered}$ | Trade per Capita |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Exports f.o.b. | Imports c.i.f. | Total Trade |  | 1952 | 1953 |
|  | $\underset{\$, 000.000}{\text { U.S. }}$ | $\begin{gathered} \text { U.S. } \\ \$ \mathbf{0} 00,000 \end{gathered}$ | U.S. | $\underset{\$^{\prime} 000,000}{\text { U.S. }}$ | '000 | U.S. 5 | U.S. 5 |
| United States | 26,803 | 15.573 | 11,837 | 27.610 | 162,654 | 168 | 170 |
| United Kingdom | 17,377 | 7.524 | 9.366 | 16,890 | 50,914 | 342 | 332 |
| Canada....... | 9,239 | 4,616 | 4,812 | 9,458 | 11,781 | 640 | 610 |
| Western Germany | 7,808 | 4,389 | 3,771 | 8,160 | 51,298 | 154 | 159 |
| France. .......... | 8,237 | 3,788 | 4,007 | 7.795 | 43,801 | 191 | 178 |
| Belgium and Luxer | 4,850 | 2,251 | 2,405 | 4,656 | 9.061 | 538 | 514 |
| Netherlands.. | 4,381 | 2,152 | 2,382 | 4,534 | 10,478 | 422 | 433 |
| Italy. | 3,697 | 1.488 | 2,395 | 3,883 | 47,015 | 79 | 83 |
| Japan. | 3,301 | 1.275 | 2,410 | 3,685 | 86,700 | 39 | 43 |
| Australia | 3,669 | 1.980 | 1,487 | 3,467 | 8,829 | 425 | 393 |
| Sweden. | 3,292 | 1,477 | 1.579 | 3.056 | 7,172 | 463 | 426 |
| Brasil | 3,419 | 1,488 | 1,299 | 2,787 | 55,772 | 63 | 50 |
| World Total . | 153,962 | 74,778 | 76,143 | 154,921 | .. | 91 | $\cdots$ |

[^341]Canadian Trade, 1951-53.-Canadian trade, like world trade, was very large in the period 1951-53. The volume of imports showed especially pronounced gains in these years under the influence of record levels of investment and consumption, of a rapidly growing population and of a large defence program. Import volume increased by 12 p.c. from 1950 to 1951, by a further 13 p.c. in 1952, and by almost another 10 p.c. in 1953 . Volume of exports increased by 11 p.c. in 1951 over 1950 and a further 11 p.c. in 1952; but in 1953 the volume of exports was about 1 p.c. lower than in 1952. Supply limitations were important in preventing Canadian exports from increasing as rapidly as Canadian imports in this period. Canadian imports account for a relatively amall part of total world production of most important commodities and, therefore, a very sharp increase in Canadian import requirements can usually be satisfied in the markets of the world without
necessitating much change in world production. Foreign sales, however, account for a large proportion of total Canadian production of most of the important export commodities, and to permit a major increase in exports a considerable increase in productive capacity is necessary, if existing capacity is already fully employed. Expansion of capacity is often a slow process, requiring much investment and development work. While a large part of the investment in Canada in recent years will eventually increase export capacity (or reduce import requirements), many major projects had not reached the production stage by 1953.

Grain is among the few important exports of which supplies can be rapidly increased in the short run, weather permitting. The Canadian harvest was exceptional in each year from 1951 to 1953, while 1951 was a year of poor harvests in many important overseas countries. Foreign demand for Canadian grain was therefore very strong in 1951, 1952 and much of 1953. Exports of wheat, barley, oats and rye accounted for about 55 p.c. of the increase in total export volume in 1951 and 72 p.c. of the further increase in 1952. The easing of grain exports in the latter part of 1953, after foreign harvests had improved and grain stocks had been rebuilt, was also the principal cause of the slight decline in export volume in that year.

Most of Canada's important imports increased substantially from 1950 to 1953 but the increase was especially pronounced in the case of investment goods and consumer durables. Imports of business and industrial machinery were 80 p.c. greater in value in 1953 than in 1950 and those of electrical apparatus 140 p.c. greater. Purchases of refrigerators and freezers from foreign countries were 261 p.c. greater than in 1950, those of cooking and heating apparatus 125 p.c. greater and those of household machinery 44 p.c. greater. Thus it appears that the value of imports of investment goods and consumer durable goods increased about twice as rapidly as that of imports in general.

Fuels are among the few items to show no increase in import volume in these years. Oil produced in Canada displaced imported petroleum in an increasing part of the Canadian market, and oil also, to an increasing extent, displaced coal in many domestic and industrial uses. These trends were responsible for a gradual decline in Canadian imports of coal and petroleum.

Trade Balance Changes.-The period 1951-53 was marked by very sharp swings in Canada's trade balance. A small import balance appeared on commodity trade in 1950 for the first time since the end of World War II and grew to $\$ 121,500,000$ in 1951. Especially important in creating this balance was the rapid deterioration in the terms of trade following the outbreak of the Korean war, although the more rapid growth of import than export volume was already important. In the latter part of 1951, the terms of trade improved as import prices fell while export prices continued to rise, and throughout the first half of 1952 the fall in import prices was more rapid than that in export prices. This change in relative prices was sufficient to far outweigh the continued greater growth in import volume than in export volume, and resulted in a large export balance of $\$ 325,500,000$ on trade in 1952.

After the middle of 1952, import prices recovered moderately and export prices continued a slow decline. About the same time the growth in export volume ceased, while that in import volume continued almost unabated. The result of
these developments was the reappearance of a large import balance on commodity trade, amounting to $\$ \mathbf{\$ 1 0 , 2 0 0 , 0 0 0}$ in $\mathbf{1 9 5 3}$. The swing in the trade balance from 1952 to $1953(\$ 535,700,000)$ was greater than has occurred between any other two peacetime years.

Despite the rapid changes in the merchandise trade balance in 1952-53, the Canadian dollar stood at a premium over the United States dollar after February 1952. Other factors in the balance of payments, notably the continued large inflow of investment capital to Canada (chiefly from the United States), offset the trade deficit and kept the Canadian dollar strong. In 1952-53, the Canadian dollar was at a premium over the United States dollar for longer than at any previous time in this century.

## 2.-Price of the United States Dollar in\Canada, by Month, 1947-53

| (Canadian cents per U.S. dollar) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Month | 1947 | 1948 | 1919 | 1950 | 1951 | 1952 | 1953 |
| January. | 100-25 | $100 \cdot 25$ | 100-25 | $110 \cdot 25$ | $105 \cdot 17$ | 100-48 | 97.05 |
| February | $100 \cdot 25$ | $100 \cdot 25$ | 100-25 | $110 \cdot 25$ | 104.92 | 100.10 | 97-73 |
| March. | $100 \cdot 25$ | $100 \cdot 25$ | 100-25 | $110 \cdot 25$ | $104 \cdot 73$ | 99.59 | 98.33 |
| April | $100 \cdot 25$ | 100.25 | 100-25 | 110-25 | 105.99 | 98.09 | 98-37 |
| May. | $100 \cdot 25$ | $100 \cdot 25$ | $100 \cdot 25$ | $110 \cdot 25$ | 106-37 | 98-38 | 99-41 |
| June. | 100.25 | 100.25 | 100.25 | 110.25 | 106.94 | 97-92 | 99-44 |
| July. | $100 \cdot 25$ | 100-25 | $100 \cdot 25$ | $110 \cdot 25$ | 106.05 | 96.91 | $99 \cdot 18$ |
| August | $100 \cdot 25$ | $100 \cdot 25$ | 100-25 | $110 \cdot 25$ | 105.56 | $96 \cdot 11$ | 98.83 |
| September | $100 \cdot 25$ | $100 \cdot 25$ | $104 \cdot 75$ | 110.25 | 105.56 | 95.98 | 98.43 |
| October. | $100 \cdot 25$ | 100.25 | $110 \cdot 25$ | $105 \cdot 34$ | 105.08 | 96.43 | 98.25 |
| November | $100 \cdot 25$ | 100-25 | $110 \cdot 25$ | 104-03 | $104 \cdot 35$ | 97.66 | 97.77 |
| December | $100 \cdot 25$ | $100 \cdot 25$ | $110 \cdot 25$ | 105-31 | 102-56 | 97.06 | 97-31 |
| Annual Averag | 100.25 | 100.25 | 103.08 | 108.92 | 105.28 | 97.89 | $\mathbf{8 8 . 3 4}$ |

Direction of Trade.-Important changes in the direction of trade accompanied the large increase in trade volume in 1951-53. In 1951 and 1952, these changes tended to increase the size of the trade balances incurred with many individual countries. In 1953, they tended generally to reduce the size of individual trade balances.

Overseas countries sharply increased their share of Canada's exports in 1951 and 1952. The principal markets for Canadian grains are overseas and grains played the chief part in the growth of exports in these jears. In addition, many overseas countries sharply increased their purchases of Canadian industrial materials in this period and also of some manufactured goods, notably motor-vehicles and electrical apparatus. At the same time, Canadian imports from most overseas countries either contracted somewhat in volume or showed insufficient increase in volume to offset the severe declines in the prices of many overseas goods from the peaks of early 1951.

These conditions began to change about the middle of 1952. The trade restrictions imposed by many sterling-area countries during the first half of 1952 to protect their exchange reserves began to affect exports, and the important Brazilian market for exports was also seriously limited by exchange problems. Overseas demand for some industrial materials, notably wood pulp, lumber, copper and zinc, was reduced, and supplies from other sources were more readily available.

Prospects of a second good harvest in 1953 in certain overseas countries led to further reductions in Canada's overseas exports in the latter part of the year. While most of the over-all decline in overseas exports was offset by increased sales to the United States, some commodities, notably motor-vehicles, could not compete in that market and others, especially farm implements, found even the United States market shrinking in 1953.

A major portion of the increase in Canada's imports from 1951 to 1953 was drawn from the United States. Many of the goods required by Canada's investment program could most readily be obtained in that market, and also the requirements of defence policy led to a major part of Canada's defence imports being procured in the United States.

In the latter part of 1951 and the early part of 1952 there was some reduction in Canadian demand for many overseas goods, especially textiles and some raw materials. Imports of these had been extremely heavy in the preceding year, but fell off as inventories in Canada were reduced. In addition, rapidly falling prices of many commodities further reduced the value of imports from overseas countries. In the latter part of 1952, prices stabilized and demand recovered, so that imports from most overseas areas in 1953 were considerably greater in volume than in 1952.

## 3.-Percentage Distribution of Trade, by Leading Countries and Trading Areas, 1951-53

| Item and Year | United States | United Kingdom | Europe | $\begin{gathered} \text { Common- } \\ \text { wealth } \\ \text { and } \\ \text { Ireland } \end{gathered}$ | Latin America | Others |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total Exports- | p.c. | p.c. | p.c. | pe . | p.c. | p.c. |
| 1951. | 58.9 | 16.0 | 8.7 | 6.7 | $5 \cdot 3$ | $4 \cdot 4$ |
| 1952. | 53.9 | $17 \cdot 3$ | 10.9 | $6 \cdot 6$ | $6 \cdot 3$ | $5 \cdot 0$ |
| 1953. | $59 \cdot 0$ | 16.0 | 8.9 | $6 \cdot 0$ | $4 \cdot 8$ | $5 \cdot 3$ |
| Imports- |  |  |  |  |  |  |
| 1951 | 68.9 | $10 \cdot 3$ | $4 \cdot 3$ | 7.5 | 6.7 | $2 \cdot 3$ |
| 1952 | $73 \cdot 9$ | $8 \cdot 9$ | 3-8 | $4 \cdot 6$ | $7 \cdot 0$ | 1.8 |
| 1953. | 73.5 | $10 \cdot 3$ | $3 \cdot 9$ | $4 \cdot 0$ | 6.6 | 1.7 |
| Total Trade- |  |  |  |  |  |  |
| 1951. | $64 \cdot 0$ | $13 \cdot 1$ | 6.5 | 7.1 | 6.0 | $3 \cdot 3$ |
| ${ }_{1953} 195$. | $63 \cdot 5$ 66.4 | 13.2 13.1 | 7.5 6.4 | 5.6 4.9 | 6.7 5.7 | 3.5 3.5 |
| 1953........ | $66 \cdot 4$ | $13 \cdot 1$ | $6 \cdot 4$ | $4 \cdot 9$ | 5•7 | $3 \cdot 5$ |

Seasonal Pattern of Canadian Trade.*-Seasonal factors exert a considerable influence on Canada's trade and complicate the analysis of that trade over short periods. When trade statistics aggregates are studied, a major concern of the observer is normally to discover whether exports or imports are rising or falling, but for periods shorter than one year it is often difficult to answer this type of question with certainty. What appears to be a change in trend may well be no more than a fluctuation related to change in the time of year, rather than to any change in economic considerations.

Among the factors chiefly responsible for the seasonal variations in Canada's trade are the importance of agricultural commodities in trade, the importance of cheap water transportation which is available for only part of the year, and special demands for certain commodities (and by some industries such as the construction industry) at certain times of the year.

[^342]Exports tend to be especially low in the first quarter when the St. LawrenceGreat Lakes waterway is closed and the movement of heavy and bulky goods is restricted. In the second quarter they rise slightly above the quarterly average, as stocks of heavy goods which have built up at Canadian ports in the winter months are cleared, then in the third quarter they tend to subside again to somewhat less than the quarterly average. In the fourth quarter, exports are especially heavy as the new grain crop moves into commercial channels, and foreign consumers build stocks of those goods that are more expensive to move in the winter months.

Imports, like exports, tend to be low in the first quarter owing chiefly to the winter ebb in economic activity in Canada. They rise sharply in the second quarter, when demand reaches its peak and transportation difficulties are less. Imports tend to fall off in the third quarter and again increase in the fourth, but the lesser importance of heavy and bulky goods in imports than in exports keeps their fourthquarter peak well below that for exports.

The differences in the seasonal pattern of exports and imports tend to produce a strong seasonal fluctuation in the trade balance, which should not be overlooked in interpreting monthly and quarterly trade values. If exports and imports were running evenly at an annual rate of $\$ 4,000,000,000$ each, then seasonal influences would account for a trade deficit of $\$ 38,000,000$ in the first quarter and $\$ 65,000,000$ in the second quarter and at the end of July the cumulative deficit would reach a peak of about $\$ 107,000,000$. The third quarter would show a net export balance of $\$ 10,000,000$ and the fourth quarter one of $\$ 93,000,000$. Although the year's trade would be in balance, every cumulative period until the year end would show an apparent import surplus. Only rarely do the export and import totals approach a balance on an annual basis but a knowledge of the seasonal trend of the trade balance assists greatly in evaluating its significance for any given short period.
4.-Post-war Seasonal Patterns of Change (Percentage of Quarterly or Monthly Average) in Export and Import Value, Price ${ }^{1}$ and Volume

| Period | Value |  | Price ${ }^{1}$ |  | Volume |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Domestic Exports | Imports | Domestic Exports | Imports | Domestic Exports | Imports |
|  | p.c. | p.c. | p c. | p.c. | p.c. | p.c. |
| First Quarter. | 89.9 | 93.7 | 100-5 | $100 \cdot 7$ | 89.4 | 92.8 |
| Second Quarter | $100 \cdot 8$ | 107.3 | $100 \cdot 0$ | 101.0 | $100 \cdot 9$ | 106.2 |
| Third Quarter. | 99.7 | 97.7 | 99.5 | 98.7 | 99.2 | 99.0 |
| Fourth Quarter. | $110 \cdot 6$ | $101-3$ | $100 \cdot 0$ | $99 \cdot 6$ | $110 \cdot 5$ | 102.0 |
| Average. | 109.0 | 106-0 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |
| January . | $94 \cdot 2$ | 95.6 | $100 \cdot 5$ | $100 \cdot 5$ | 93.5 | 94.8 |
| February | 81.9 | 85.5 | $100 \cdot 8$ | $100 \cdot 7$ | 81.1 | 84.4 |
| March.. | $93 \cdot 6$ | $100 \cdot 0$ | $100 \cdot 3$ | $100 \cdot 9$ | 93.5 | 99.3 |
| April.. | 91.1 | 105.0 | $100 \cdot 5$ | $101-5$ | $90 \cdot 4$ | 103.7 |
| May... | 109.1 | 111.7 | 99.8 | 101.1 | 109-7 | 110.2 |
| June.. | 102.2 | 105.2 | 99.9 | 100-3 | 102.8 | $104 \cdot 6$ |
| July.... | $100 \cdot 3$ | 101 -4 | 99.6 | 99.0 | 101 -1 | 102.8 |
| August.... | 99.7 | 95.1 | 99.3 | 98.6 | 99-7 | 96.4 |
| September | 96.3 | 96.5 | $99 \cdot 4$ | 98.5 | 96.7 | 97.8 |
| Oetober... | 109.4 | 106.9 | 99.7 | 99.0 | $109 \cdot 6$ | 108.3 |
| November | 111.9 | 105.0 | $100 \cdot 1$ | $99 \cdot 3$ | 111.1 | $105 \cdot 4$ |
| December. | $110 \cdot 3$ | $92 \cdot 1$ | 100-1 | $100 \cdot 6$ | 110.8 | 92-3 |

${ }^{1}$ The variability among observations for the same month of different years is sufficient to make doubtful the hypothesis that seasonal variation in price exists.

## PART II.-FOREIGN TRADE STATISTICS*

## Section 1.-Explanations re Canadian Trade Statistics

Certain problems of procedure arise in recording trade statistics and require explanation. For the correct interpretation of the statistics of foreign trade, it is necessary that the following definitions and explanations of terms used be kept in mind:-

Quantities and Values.-In all tables of imports and exports, the quantities and values are based upon the declarations of importers (import entries) and exporters (export entries), as subsequently checked by customs officials.

Imports: Valuation.-"Imports" means imports entered for consumption. "Entered for consumption" does not necessarily imply that the goods have been actually consumed in Canada, but that they have passed into the possession of the importer and that duty has been paid on that portion liable for duty.

Under the main provisions of the law, the value of merchandise imported into Canada is the fair market value or price thereof when sold for home consumption in the principal markets of the country from which said merchandise was exported. (See Sects. 35 to 45 and 55 of the Customs Act.)

Canadian Exports: Valuation.-"Canadian produce"' exported includes Canadian products or manufactures, also exports of commodities of foreign origin that have been changed in form or enhanced in value by further manufacture in Canada, such as sugar refined in Canada from imported raw sugar, aluminum extracted from imported ore, and articles constructed or manufactured from imported materials. The value of exports of Canadian merchandise is the actual amount received in Canadian dollars exclusive of freight, insurance and other handling charges.

Foreign Exports: Valuation.-"Foreign produce" exported consists of foreign merchandise that has previously been imported (entered for home consumption). The value of such commodities is the actual amount received in Canadian dollars exclusive of freight, insurance and other handling charges.

Countries to which Trade is Credited.-Imports are classified as received from the countries whence they were consigned to Canada. These countries are not necessarily the countries of actual origin of the goods, since goods produced in one country may be imported by a firm in another country and later re-sold to Canada. In such cases, the second country would be the country of consignment to which the goods would be credited.

There is one exception to this rule. An attempt is made to classify by country of actual origin all imports produced in Central and South America. The effect of this procedure, which has been in force since 1946, is to reduce slightly imports credited to the United States and to increase those credited to Central and South American countries.

Exports are always credited to the country to which they are consigned.
Discrepancies in Trade Statistics between Canada and Other Countries.-Canadian statistics of exports are rarely in exact agreement with the import statistics of its customers and parallel differences occur with Canadian imports. Among the chief factors contributing to these discrepancies are:-
(1) Differences in the system of valuation used by Canada and those of other countries, especially with respect to the treatment of transportation charges.
(2) Differences in the statistical treatment of special categories of trade, such as armaments and military supplies, government-financed gift or mutual-aid shipments, postal and express shipments, or warehouse trade.
(3) Differing definitions of territorial areas.
(4) Differing systems of geographical classification of trade, notably the consignment system used by Canada and the actual origin or ultimate destination system in use by some other countries.
(5) Differences in the time at which trade is recorded in the statistics of partner countries caused by the time required for goods to move from one country to another.

[^343]Treatment of Gold in Trade Statistics.-The general use of gold as a money metal gives it peculiar attributes that distinguish it from other commodities in trade. In particular, international movements of gold are determined largely by monetary factors rather than by ordinary trade or commercial considerations. Gold is generally acceptable; it does not have to surmount tariff barriers and is normally assured a market at a fixed minimum price. Also, gold may be bought or sold internationally without any physical movements of the metal, such transactions being recognized by simply setting aside or 'ear-marking' the metal in the vaults of some central bank.

For these reasons, movements of gold in a primary or semi-fabricated state are excluded from the statistics of Canada's commodity trade. However, as gold is produced in Canada primarily as an export commodity, a series showing new gold production available for export is published as a supplement to the trade statistics. Because this series is calculated on a production basis, a division of the figures into transactions with individual countries is not possible.

NEW GOLD PRODUCTION AVAILABLE FOR EXPORT (NET EXPORTS OF NON-MONETARY GOLD), BY MONTH, 1946-53
(Millions of dollars)

| Month | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January.... | 9-3 | $9 \cdot 0$ | $9 \cdot 6$ | 9.7 | $15 \cdot 8$ | 17-3 | 13-3 | 16.0 |
| February. . | 9.5 | 6.9 | 8.9 | $9 \cdot 6$ | 11-7 | 11.7 | 13.0 | 16.1 |
| March | $10 \cdot 0$ | 6.8 | 8-7 | $12 \cdot 1$ | 13.5 | $8 \cdot 4$ | 15.0 | $15 \cdot 6$ |
| April.. | $7 \cdot 2$ | 6.4 | $9 \cdot 5$ | $9 \cdot 8$ | 11.4 | 16.2 | $11 \cdot 2$ | 11.7 |
| May. | $10 \cdot 0$ | $8 \cdot 2$ | 8.8 | 12.4 | 15.8 | 13.0 | $8 \cdot 5$ | 12.0 |
| June. | 7.7 | $8 \cdot 6$ | $9 \cdot 6$ | 9.8 | 15.0 | 13.8 | 14.6 | $13 \cdot 7$ |
| July.. | $6 \cdot 6$ | 10-1 | 10.8 | 9.4 | 14.8 | 13.4 | 14.9 | $9 \cdot 3$ |
| August.. | 7.5 | $7 \cdot 5$ | 9.7 | 13.8 | 13.8 | 11.0 | 9.6 | 10.7 |
| September. | 6.8 | $8 \cdot 4$ | 11.9 | 11.2 | 10.8 | $10 \cdot 8$ | 12.8 | 10.4 |
| October. | 8.5 | 9-2 | $9 \cdot 6$ | 13-2 | 16.4 | 8.2 | 10.1 | $9 \cdot 9$ |
| Novemiber. | 6.0 | 7-2 | $9 \cdot 1$ | $15 \cdot 4$ | $12 \cdot 3$ | $7 \cdot 7$ | $13 \cdot 6$ | 9-1 |
| December. | 6.7 | 11.0 | 12.8 | 12.5 | $11 \cdot 3$ | $18 \cdot 3$ | 13.5 | 9.8 |
| Totals. | 95.8 | 99.3 | 119.0 | 138.9 | 162.6 | $149 \cdot 8$ | $150 \cdot 1$ | $144 \cdot 3$ |

## Section 2.-Total Foreign Trade

In considering the figures in Sections 2 to 6, reference should be made to the explanatory notes on trade in Section 1. It must be emphasized that gold imports and exports are excluded from all tables.

92428-66

TOTAL EXPORTS (excluding gold) AND IMPORTS FOR CONSUMPTION


## 1.-Value of Total Foreign Trade of Canada (Excluding Gold), 1939-53

Nore.-These figures are available on a calendar-year basis only since 1919; figures for 1919-34 are given in the 1950 Year Book, p. 905 and for 1935-38 in the 1954 edition, p. 969 . Figures for the years ended Mar. 31, 1868-1939, are given in the 1940 Year Book, p. 526.

| Year | Imports |  |  | Exports |  |  | Balance of Trade: Excess of Exports ( + ) Imports (-) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dutiable | Free | Total | Domestic Produce | Foreign Produce | Total |  |
|  | $\$$ | 8 | \$ | \$ | 8 | \$ | \$ |
| 1939.. | 427,470,633 | 323,584,901 | 751,055, 534 | 924, 926,104 | 10,995,609 | 935,921,713 | $+184,866,179$ |
| 1940.. | 582,934, 898 | 499,015, 821 | 1,081,950,719 | 1,178,954,420 | 14,263,172 | 1,193,217,592 | +111,266,873 |
| 1941. | 732,791,033 | 716,000,617 | $1,448,791,650$ | 1,621,003,175 | 19,451,366 | 1,640,454,541 | +191,662,891 |
| 1942. | 715,018,745 | 929,223,188 | $1,644,241,933$ | 2,363, 773.296 | 21,692,750 | 2,385, 466,046 | +741,224,113 |
| 1943... | 836,548, 673 | 898,528,217 | 1,735, 076,890 | 2,971, 475, 277 | 29,877,002 | 3,001, 352, 279 | +1,266,275,389 |
| 1944. | 884,751,584 | 874,146,613 | 1,758,898,197 | 3,439,953,165 | 43,145,447 3 | 3,483,098,612 | 1,724, 200, 415 |
| 1945. | 798,795, 201 | 786,979,941 | $1,585,775,142$ | 3,218,330,353 | 49,093, 935 | 3,267,424, 288 | +1,681,649,146 |
| 1946. | 1,078,943,972 | 848,335,430 | 1,927,279,402 | 2,312,215,301 | 26,950,546 | 2,339,165,847 | +411,886,445 |
| 1947. | 1,562,690,081 | $1,011,254,044$ | 2,573,944,125 | 2,774, 902,355 | 36,888, 055 | 2, 811,790,410 | $+237,846,285$ |
| 1948. | 1,382, 202,722 | 1, 254, 742,630 | $2,636,945,352$ | 3,075,438,085 | 34,590,583 3 | $3,110,028,668$ | $+473,083,316$ |
| 1949. | 1,444, 123,667 | 1,317,083,574 | 2,761,207,241 | 2,992, 960, 978 | 29,491,8563 | 3,022,452,834 | +261,245,593 |
| 1950 | 1,617,948,425 | $1,556,304,713$ | 3, 174, 253, 138 | 3,118,386,551 | 38,686, 1223 | 3,157,072,673 | -17,180,465 |
| 1951 | 2,174, 304,400 | 1,910,552, 078 | 4, 084, 856,478 | 3, 914,460, 776 | 48,923, 9395 | 3,963,384, 315 | -121,472,163 |
| 1952. | 2,162,882,381 | $1,867,585,272$ | 4, 030, 467,653 | 4,301, 080,679 | 54,878, 985 | 4,355, 959,664 | +325,492,011 |
| 1953. | 2,417,960, 243 | 1,964,870,187 | 4,382,830,430 | $4,117,405,882$ | $55,195,2334$ | 4,172,601,115 | $-210,229,315$ |

## Section 3.-Trade by Geographic Areas

The tables in this Section provide information about Canada's total foreign trade by continent and by country, with special reference in Tables 4 to 8 to the distribution of trade among the principal geographic areas.
2.-Trade of Canada, by Continent, 1951-53

| Continent | 1951 |  | 1952 |  | 1953 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Value | $\begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}$ | Value | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ | Value | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ |
|  | \$'000 |  | \$'000 |  | \$'000 |  |
| Europe- Imports |  |  |  |  |  |  |
| United Kingdom. Other Europe...... | 420.984 177.944 | $10 \cdot 3$ 4.4 | 359.757 151,797 | 8.9 3.8 | 453,391 173,822 | 10.3 4.0 |
| North America- |  |  |  |  |  |  |
| United States. Other North America. | 2. 512.927 | 68.8 2.8 | $2,976,962$ 114,813 | 73.9 2.8 | $3,221,214$ 92,943 | 73.5 $2 \cdot 1$ |
| South America. | 246,666 | 6.0 | 237,073 | $5 \cdot 9$ | 252.332 | $5 \cdot 7$ |
| Asia.. | 195.355 | $4 \cdot 8$ | 120.800 | $3 \cdot 0$ | 114.079 | 2.6 |
| Oceania | 84, 102 | $2 \cdot 1$ | 43.114 | 1.0 | 42.226 | $1 \cdot 0$ |
| Africa. | 31.552 | 0.8 | 26,152 | 0.7 | 32.523 | 0.8 |
| Totals, ImpertsExports ( | 4,681,856 | $100 \cdot 0$ | 4,030,468 | $100 \cdot 0$ | 4,382,830 | $10 \cdot 0$ |
|  |  |  |  |  |  |  |
| Earope- |  |  |  |  |  |  |
| United Kingdom. Other Europe. | 631,461 369,696 | 16.1 9.4 | 745.845 500.345 | 11.3 11.6 | 665,232 387,285 | 16.2 9.4 |
| North America- |  |  |  |  |  |  |
| United States....... | 2. 297.674 | 58.7 | 2,306,955 | $53 \cdot 6$ | 2,418,915 | 58.7 |
| Other North America. | 123,336 | $3 \cdot 2$ | 140,519 | $3 \cdot 3$ | 111,627 | $2 \cdot 7$ |
| South America | 140.145 | $3 \cdot 6$ | 186,984 | $4 \cdot 3$ | 139.393 | $3 \cdot 4$ |
| Asia. | 19037 | 4.9 | 254,140 | $5 \cdot 9$ | 258,204 | 6.3 |
| Oceanis | \%s.955 | $2 \cdot 0$ | 76,033 | 1.5 | 53,716 | $1 \cdot 3$ |
| Africa. | \$2. $\$ 19$ | $2 \cdot 1$ | 90,259 | 2.2 | 83,034 | $2 \cdot 0$ |
| Totals, Fipports (Domestic). | 3,914,460 | $160 \cdot 0$ | 4,301,080 | $160 \cdot 6$ | 4,117,406 | $100 \cdot 0$ |

3.-Trade of Canada, by Leading Countries, 1951-53

| Rank |  |  | Country | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1951 | 1952 | 1953 |  |  |  |  |
|  |  |  | Imports | \$'000 | \$'000 | \$'000 |
| 1 | 1 | 1 |  | 2,812.927 | 2,976.962 | 3,221,214 |
| 2 | 2 | 2 | United Kingdom. | 420,955 | 359.757 | 453,391 |
| 3 | 3 | 3 | Venezuela....... | 136.718 | 135755 | 155, 147 |
| ${ }_{6}^{91}$ | 10 4 | ${ }_{5}^{4}$ | Western Germany | 30.9361 | 22.629 | 35,507 |
| 6 | 4 | 5 | Brazil. . . . . . . . . | 40.627 | 35.103 | 35,047 |

For footnote, see end of table.
3.-Trade of Canada, by Leading Countries, 1951-53-concluded

4.-Values and Percentages ${ }^{1}$ of Trade with Selected Overseas Countries via the United States, 1952 and 1953

| Country | Imports vis the United States |  |  |  | Domestic Exports via the United States |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1952 |  | 1953 |  | 1952 |  | 1953 |  |
| Totals, North America. | $\$ 000$ - | p.c. | \$ 000 - | p.c. | $\$^{\prime} 000$ $538$ | $\begin{aligned} & \text { p.c. } \\ & 19.0 \end{aligned}$ | \$'000 238 | $\begin{gathered} \text { p.c. } \\ \text { g.e } \end{gathered}$ |
| Central America and Antilles |  |  |  |  |  |  |  |  |
| British West Indies. | 108 | $0 \cdot 4$ | 236 | 1.0 | 1,306 | $4 \cdot 1$ | 1,505 | 4-3 |
| Costa Rica. | 347 | $4 \cdot 0$ | 1,903 | $20 \cdot 1$ | 982 | 37.6 | 895 | $40-7$ |
| Cuba. | 107 | $0 \cdot 6$ | 1,530 | $13 \cdot 1$ | 6,263 | 25.9 | 3.363 | $20 \cdot 9$ |
| Dominican Repablic. | 15 | $0 \cdot 3$ | 11 | - | 1,464 | 31.5 | 1,210 | $30 \cdot 3$ |
| Mexico...... | 681 | $2 \cdot 8$ | 5,419 | 34-3 | 23,126 | 58.3 | 15,901 | 54-9 |
| Netherlands Antilles | 365 40 | 3.1 |  | $\stackrel{-2}{5}$ | 915 | $59-4$ 8.9 | 713 | 54.5 20.6 |
| Panama. | 40 | $1 \cdot 0$ | 817 | 22.5 | 1.011 | $8 \cdot 9$ | 901 | $20 \cdot 6$ |
| Totals, Central America and Antilles ${ }^{2}$ | 2,061 | 1.8 | 11,706 | 13.0 | 40,459 | 29.4 | 29,199 | 26.8 |
| South America |  |  |  |  |  |  |  |  |
| British Guiana. | 206 | 0.9 | 561 | $3 \cdot 2$ | 73 | $1 \cdot 1$ | 65 | $1-4$ |
| Argentina | 90 | $2 \cdot 1$ | 543 | $9 \cdot 9$ | 7.062 | \$5.§ | 3, ¢20 | $50 \cdot 1$ |
| Bolivia................... ........ | - | - | 1 | - | 795 | $19 \cdot 4$ | 3\% 3 | 6.8 |
| Brazil. | 1.792 | $5 \cdot 1$ | 4,01: | 11.5 | 41,250 | 50.7 | S,722 | 23.2 |
| Chile. | 27 | 0.8 | 105 | $10 \cdot 0$ | 4.939 | 45.9 | $\underline{2.943}$ | $74 \cdot 6$ |
| Colombia. | 2.053 | $11 \cdot 4$ | 4.4.4 | $19 \cdot 3$ | 5, \50 | $42 \cdot 6$ | 5.3006 | 26.6 |
| Peru... | 104 | 1.3 | 302 | $10 \cdot 3$ | 3, +21 | 20.9 | 4.043 | 26.8 |
| Venexuela. | 57.014 | $42 \cdot 0$ | 79.358 | $51 \cdot 5$ | 17.§29 | $50 \cdot 0$ | 13.491 | 37-0 |
| Totals, South America ${ }^{3}$. | 61,438 | 25.9 | 90,918 | 36.0 | 85.212 | 45.8 | 41,015 | 29.4 |
| Northwestern Europe |  |  |  |  |  |  |  |  |
| United Kingdom. | 62 | -- | 198 | - | 24,406 | $3 \cdot 3$ | 32,206 | 4.8 |
| Belgiom and Luxembourg | $15 \quad 0.1$ |  | 116 | $0 \cdot 4$ | 14.132 | $13 \cdot 5$ | 17.2325.912 | 24.8 |
| France.. | 194 | 1.0 |  | $0 \cdot 3$ | 8.932 | $18 \cdot 5$ |  | $27 \cdot 6$ |
| Western Germany | 256 | 1.1 | 165 | 0.5 | 8.011 | $8 \cdot 4$ | $5.55 \%$ | 6.6 |
| Ireland...... | 71 | 15-4 | - | - | 152 | 0.7 | 1.333 | $10 \cdot 0$ |
| Netherlands | 52 | $0 \cdot 3$ | 6 | - | 2.454 | $5 \cdot 9$ | 4.053 | 9-6 |
| Norway | 4 | $0 \cdot 1$ |  | $\overline{0-3}$ | 1.151 | $3 \cdot 0$ | \$66 | $2 \cdot 3$ |
| Sweden. | 14 | 0.2 | 25 |  | 2.256 | 18.5 | 795 | $17 \cdot 3$ |
| Switzerland | 153 | 0.9 | 416 | $2 \cdot 0$ | 3.005 | 11.2 | 3.529 | 18.5 |
| Totals, Northwestern Europe ${ }^{2}$. | 841 | 0.2 | 1,088 | 1.8 | 66,220 | $5 \cdot 7$ | 79,321 | $8 \cdot 6$ |
| Southern Europe |  |  |  |  |  |  |  |  |
| Italy. | $\begin{aligned} & 272 \\ & 302 \\ & 115 \end{aligned}$ | $\begin{array}{r} 2 \cdot 3 \\ 16 \cdot 8 \\ 2.7 \end{array}$ | 24138 | 1.7 | $\begin{array}{r}4,481 \\ \hline 529\end{array}$ | 8.513.1 | 7,116557 | $21 \cdot 4$14.0 |
| Portugal |  |  |  | 1.9 |  |  |  |  |
| Spain. |  |  | 250 | $5 \cdot 4$ | 1,060 | $29 \cdot 6$ | 454 | $3 \cdot 2$ |
| Totals, Southern Europe'. | 726 | 4.0 | 557 | 2.6 | 9,071 | 13-3 | 9,521 | 16.7 |
| Totals, Eastern Europe. | 165 | $2-2$ | 85 | $1 \cdot 6$ | 2,278 | 8.8 | 1,034 | $27 \cdot 4$ |
| Middle East |  |  |  |  |  |  |  |  |
| Arabia. | $\begin{array}{r} 2,649 \\ 96 \\ 36 \\ 7,662 \\ \hline \end{array}$ | $\begin{array}{r} 35 \cdot 0 \\ 20 \cdot 8 \\ 3.1 \\ 50 \cdot 4 \end{array}$ | $\begin{array}{r} 3 \\ 341 \\ 19 \\ 12.853 \end{array}$ | $0 \cdot 1$ | 1,957 | 92.5 | 1,148 | 43.4 |
| Egypt............................... |  |  |  | 8.1 | 1.434 | 7.4 | 924 | $\div \cdot 9$ |
|  |  |  |  | 1.4 | 1.615 | $13 \cdot 5$ | 692 | 7.6 |
| Lebanon and Syria |  |  |  | $65 \cdot 4$ | 2.659 | 24.6 | 1,603 | 27.9 |
| Totals, Middle East ${ }^{\text {2 }}$ | 11,419 | 38.9 | 13,504 | 4.9 | 12,361 | $24 \cdot 6$ | 6,975 | 21.0 |

For footnotes, see end of table.

## 4.-Values and Percentages ${ }^{1}$ of Trade with Selected Overseas Countries via the United States, 1952 and 1953-concluded

| Country | Imports via the United States |  |  |  | Domestic Exports via the United States |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1952 |  | 1953 |  | 1952 |  | 1953 |  |
|  | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. |
| Other Asia |  |  |  |  |  |  |  |  |
| Ceylon. | 1 |  | 7 | - | 516 | 8.9 | 337 | $10 \cdot 2$ |
| India. | 442 | 1.6 | 204 | 0.8 | 1,582 | 2.9 | 1,142 | $3 \cdot 1$ |
| Malaya and Singapor | 370 | 1.5 | 1,001 | 4.6 | 4,239 | $60 \cdot 0$ | 832 | 29.2 |
| Pakistan.............. | 2 | 1.0 | 27 | 4.8 | 1,343 | 8.4 | 437 | 1.4 |
| Japan. | 479 | $3 \cdot 6$ | 1,421 | $10 \cdot 4$ | 3,574 | $3 \cdot 5$ | 6,782 | $5 \cdot 7$ |
| Philippines. | 170 | $3 \cdot 1$ | 176 | 5.9 | 1,340 | $8 \cdot 4$ | 895 | 6.5 |
| Totals, Other Asia ${ }^{\text {a }}$. | 1,600 | 1.7 | 2,933 | $3 \cdot 3$ | 20,075 | $9 \cdot 0$ | 16,960 | $7 \cdot 1$ |
| Other Africa |  |  |  |  |  |  |  |  |
| British East Africa. | 425 | 4.4 | 354 | $3 \cdot 8$ | 533 | 51.7 | 162 | 46.6 |
| British West Africa. | 1,865 | $25 \cdot 6$ | 522 | 11.0 | 1,141 | 88.7 | 2,559 | 86.6 |
| Southern Rhodesia. | 432 | $29 \cdot 6$ | 153 | 14.9 | 807 | 36.8 | 319 | 17-7 |
| Union of South Africa. | 66 | 1.6 | 22 | 0.5 | 16,605 | $34 \cdot 7$ | 16,838 | 33.2 |
| Belgian Congo.. | 568 | 57-4 | 649 | 28.9 | 4,860 | 82.4 | 2,805 | 83.8 |
| Totals, Other Africa ${ }^{2}$. | 3,583 | 14.0 | 1,773 | 6.2 | 29,292 | 41.9 | 27,321 | 39.0 |
| Oceania |  |  |  |  |  |  |  |  |
| Australia... | 13 | $0 \cdot 1$ | 53 | 0.2 | 21,629 | 43.5 | 13,742 | 34.7 |
| New Zealand | - |  | 3 | - | 3,672 | 19.5 | 701 | 9.4 |
| Totals, Oceania ${ }^{2}$. | 110 | 0.3 | 660 | 1.6 | 26,780 | $35 \cdot 2$ | 16,330 | $30 \cdot 4$ |
| Grand Totals ${ }^{2}$. | 81,948 | 7.8 | 123,224 | $10 \cdot 6$ | 292,785 | 14.7 | 227,916 | 13.4 |

${ }^{1}$ Percentage of total imports or exports credited to country or area. ${ }^{2}$ Includes other countries not specified.

## 5.-Total Value of Imports, by Country, 1947-53, with Averages, 1935-39

| Country | Averages 1935-39 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | 8'000 | \$'000 | 8'000 | \$'000 | \$'000 | \$ ${ }^{\prime 000}$ |
| North America |  |  |  |  |  |  |  |  |
| Newfoundland | 2,188 | 9,427 | 11,091 | $918{ }^{1}$ | ... | ... | ... | ... |
| Alaska | 93 | 744 | 1,323 | 1,218 | 976 | 1,483 | 2,333 | 2,961 |
| Greenland | $311$ | - 15 | - |  | - |  |  |  |
| St. Pierre and Miquelon... <br> United States | $\begin{array}{r} 26 \\ 418,738 \end{array}$ |  | 1,805,763 ${ }^{11}$ | $\left\lvert\, \begin{array}{r} 12 \\ 1,951,860 \end{array}\right.$ | $\left\lvert\, \begin{array}{r} 18 \\ 2,130,476 \end{array}\right.$ | $2,812,827$ | 2,976,962 | $3,221,214$ |
|  |  |  |  |  |  |  | 2,976,902 |  |
| Totals, North America | 421, 356 | 1,984,864 | 1,818,188 | 1,954,008 | 2,131,470 | 2,814,436 | 2,979,344 | 3,224,247 |
| Central America and Antilles |  |  |  |  |  |  |  |  |
| Bahamas. | $2{ }^{2}$ | 615 | 648 | 818 | 532 | 346 | 406 | 427 |
| Barbados | 3,261 | 7,776 | 6,387 | 7,080 | 10,057 | 13,409 | 8,666 | 2,375 |
| Bermuda. | 102 | 57 | 139 | 144 | 87 | 82 | 317 | 126 |
| British Honduras | 87 | 584 | 834 | 295 | 445 | 458 | 26 | ${ }^{139}$ |
|  | 5,160 | 6,371 | 9,557 | 16,577 | 19,080 | 18,041 | 9,204 | 11,761 |
| Leeward and Windward Islands | 1,816 | 199 | 308 | 16,597 | 395 | 956 | 216 | 1,210 |
| Trinidad and Tobago....... | 2.387 | 5,654 | 9,027 | 14,575 | 15,205 | 15,082 | 9,660 | 8,062 |

[^344]5.-Total Value of Imports, by Country, 1947-53, with Averages, 1535-35-continued

| Country | AverAges $1935-39$ | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Central America and Antilles-concluded | \$'000 | \$'000 | \$'000 | \$'000 | \$000 | \$'000 | \$'000 | \$'000 |
| American Virgin Islands... | 1 | 16 | 46 | 14 | 12 | 166 | - |  |
| Costa Rica. | 74 | 727 | 3,109 | 2,119 | 3,378 | 8,785 | 8,740 | 9,472 |
| Cubs. | 615 | 23.751 | 22,606 | 6,562 | 4,134 | 8,333 | 18,615 | 11,654 |
| Dominican Rep | 4 | 8,186 | 17,270 | 3,822 | 1,180 | 1,126 | 6,000 | 5,854 |
| El Salvador. | 19 | 1,342 | 1,166 | 1,054 | 848 | 1,183 | 771 | 1,389 |
| French West Indies | 1 | 19 | 57 | 123 |  |  | 2 |  |
| Guatemals. | 67 | 9,488 | 8,209 | 5,743 | 5,781 | 4,618 | 2,080 | 3,259 |
| Haiti. | 63 | 227 | 176 | 1,026 | 1,769 | 3,020 | 1,928 | 748 |
| Honduras | 49 | 6,999 | 6,182 | 6,986 | 5.621 | 4,027 | 4,643 | 4,594 |
| Mexico | 667 | 16.980 | 27.258 | 25.494 | 32.974 | 18,013 | 23.937 | 15,785 |
| Netherlands | 150 | 8,648 | 7,286 | 3,713 | 17.336 | 10,809 | 11,747 | 8,154 |
| Nicaragua |  | 87 | 172 | 179 | ${ }_{5} 339$ | 596 | 501 | ${ }^{391}$ |
| Panama. | 32 | 2,107 | 1,226 | 2,572 | 5,478 | 3,492 | 4,125 | 3,637 |
| Paerto Rico | 13 | 270 | 1,583 | 523 | 931 | 1,276 | 846 | 872 |
| Totals, Central America and Antilles. | 14,570 | 100,103 | 125,246 | 99,717 | 123,582 | 113,818 | 112,431 | 89,909 |
| South America |  |  |  |  |  |  |  |  |
| British Guian | 5,846 | 12,358 | 15,380 | 22,355 | 21,735 | 25,025 | 23,660 | 17,800 |
| Argentina | 5.374 | 17,961 | 5,746 | 3,324 | 10,913 | 13,955 | 4,374 | 8.529 |
| Bolivis. | 26 |  |  | 2.049 | 2,442 | 1,848 | 3,351 | 1.415 |
| Brasil. | 920 | 13,888 | 20.559 | 21,163 | 28,178 | 40,627 | 35,103 | 35,047 |
| Chile. | 125 | 339 | 332 | 598 | 1,353 | 2,153 | 3,282 | 1,052 |
| Colombi | 5,139 | 9,197 | 8,668 | 12,588 | 13,342 | 13,063 | 18,004 | 23,215 |
| Ecuador | 41 | 207 | 889 | 1,137 | 1,473 | 2,438 | 2,751 | 2,688 |
| French Guiana |  | ${ }^{1}$ | - | - | - | - | - |  |
| Paraguay | 62 | 232 | 230 | 374 | 350 | 343 | 346 | 260 |
| Peru. | 3.554 | 407 | 1,989 | 2.465 | 3,961 | 5.588 | 8,050 | 2,928 |
| Surinam |  | 519 | 873 | 326 | 228 | 1,141 | 528 | 1,345 |
| Uraguay | 180 | 321 | 714 | 1,069 | 2,770 | 3,768 | 1,863 | 2,903 |
| Venezuels | 1,662 | 46,688 | 94,758 | 91.697 | 87,264 | 136,718 | 135,758 | 155,147 |
| Totals, South Amer | 22,930 | 104,123 | 150,138 | 159,145 | 174,010 | 246,665 | 237,073 | 252,332 |
| Northwestern Europe |  |  |  |  |  |  |  |  |
| United Kingdo | 124,047 | 189,370 | 299,502 | 307,450 | 404, 213 | 420,985 | 359,757 | 453,391 |
| Anstria. | 24 | 89 | 281 | 382 |  | 3,191 | 2,917 | 2,967 |
| Belgium and Luxembourg. | 6,330 | 10,120 | 13.661 | 19,022 | 22.795 | 39.095 | 33.216 | 29.082 |
| Denmark | 165 | 1,455 | 9.585 | 1,893 | 1,406 | 3,730 | 2,167 | 2,175 |
| France. | 6.382 | 8,755 | 12.648 | 13.309 | 14.669 | 23,974 | 19,117 | 22.267 |
| Western Germ | 10,364 ${ }^{2}$ | $498{ }^{2}$ | 1,7293 | 7,134 | 11,026 ${ }^{2}$ | 30,9362 ${ }^{2}$ | 22,629 | 35,507 |
| Iceland. | 3i] | 30 | 76 | 52 | 233 | -26 | 50 | 80 |
| Ireland. | 69. | 76 | 85 | 71 | 148 | 785 | 462 | 582 |
| Yetherlan | 3,984 | 3,530 | 5,831 | 6,688 | 8,896 | 14.010 | 16,495 | 22,298 |
| Norway | 742 | 4,999 | 1,103 | 1.212 | 1.405 | 2.977 | 3,857 | 2,289 |
| Sweden | 2,044 | 3,184 | 2.763 | 3,474 | 5,145 | 11.808 | 8.611 | 9,341 |
| Switzerland | 3,110. | 11,941 | 7,444 | 10,902 | 14,464 | 16,398 | 16.396 | 20.437 |
| Totals, Northwestern Europe | 157,485 | 234,047 | 251,768 | 371,589 | 485,262 | 567,916 | 485,675 | 600,416 |
| Southern Europe |  |  |  |  |  |  |  |  |
| Gibraltar Malta. |  |  |  | - 22 | 20 | $\square_{47}$ | 51 | ${ }^{67}$ |
| Asores and Madeira | $15 \%$ | 655 | 364 | 554 | 387 | 410 | 285 | 179 |
| Greece. |  | 95 | 144 | 135 | 203 | 174 | 197 | 224 |
| Italy. | 2,403 | 3,8:2 | 6,981 | 9.048 | 9,373 | 14.217 | 11.735 | 14.271 |
| Portugal | 265 ! | 1,409 | 1.177 | 1.351 | 1,698 | 1,980 | 1,798 | 1.962 |
| Spain. | 989\% | 3,002 | 2.586 | 2.427 | 3,558 | 7,114 | 4.260 | 4.619 |
| Totals, Southern Europe | 3,863 | 9,047 | 11,257 | 13,537 | 15,24e | 23,943 | 18,326 | 21,322 |

[^345]5.-Total Value of Imports, by Country, 1947-53, with Averages, 1935-39-continued


[^346]${ }^{2}$ Not listed separately.
5.-Total Value of Imports, by Country, 1947-53, with Averages, 1935-39-concluded

| Country | Averages 1935-39 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ 000 | \$'000 | \$'000 | \$'000 | \$'000 | \$ 000 | \$'000 | \$'000 |
| Other Africa |  |  |  |  |  |  |  |  |
| British East Africa........ | 2,683 | 7,683 | 9,543 | 6,094 59 | 15,067 | 10,864 | 9,593 | 9,393 |
| Northern Rhodesis........ | ${ }^{1}$ | 29 181 | 19 484 | 59 798 | [ 51 | 1,496 | 15 1.459 | 2,837 1,027 |
| Union of South Africa |  | 4,228 | 3,816 | 3,862 | 4,964 | 5,372 | 4,165 | 4,616 |
| Other British South Africa | 210 |  |  | - | - | $\bigcirc$ | - |  |
| Gambia.................... | 701 | -6,493 | 9,751 | 6,709 | 8,999 | 7,112 | $\overline{5,523}$ | 3,159 |
| Nigeria.. | 370 | 2,149 | 4,939 | 2,593 | 1,486 | 898 | 1,764 | 1,584 |
| Sierra Leone. Other British West Africa. | 2 |  |  | ${ }^{10}$ | $2{ }^{294}$ |  | -6 | 2 |
| Belgian Congo. | 5 | 815 | 1,644 | 703 | 1,481 | 3,052 | 990 | 2,247 |
| Canary Islands | 10 | 2 |  | 11 | 6 | 16 | 22 | 30 |
| French Africa. | 61 | 252 | 112 | 17 | 543 | 398 | 404 | 2,631 |
| Liberia.. | 14. | 25 | 7 | 7 |  | 183 | 29 | 372 |
| Madagascar | 31 | 18 | 28 | 9 | 8 | 29 | 2, | 8 |
| Marocco.. | 32 | 36 | 346 | 142 | 704 | 1,071 | 1,049 | 529 |
| Portuguese Africa | 15 | 392 |  | 212 | 109 | 198 | 576 | 73 |
| Totals, Other Africa. | 8,455 | 22,320 | 30,779 | 21,224 | 34,113 | 30,748 | 25,595 | 28,518 |
|  |  |  |  |  |  |  |  |  |
| Oceania |  |  |  |  |  |  |  |  |
| Australia. | 9,728 | 14,222 | 27,415 | 27,429 | 32, 803 | 46,228 | 18,712 | 23,464 |
| Fiji....... | 2,341 | 4,178 | 8,275 | 7,997 | 10,194 | 5,993 | 6,487 | 5,554 |
| New Zealand.......... | 4,754 | 10,831 | 11,603 | 8,910 | 11,855 | 30,107 | 14,231 | 8,572 |
| Other British Oceanis. |  |  |  | - |  |  | - |  |
| French Oceanis |  | 18 | - | 417 | 476 | 360 | 1 | - |
| Hawaii. .............. | 186 | 709 | 796 | 361 | 495 | 1,414 | 3.473 | 4,635 |
| United States Oceania |  | - | - | 85 | 115 |  | 210 |  |
| Totals, Oceania | 17,015. | 23,959 | 48,089 | 45,199 | 55,938 | 84,102 | 43,114 | 42,225 |
| Grand Total | 681,582 | ,573,944 | 2,036,945 | 2,761,207 | 3,174,253 | 4,084,856 | 4,030,468 | 4,382,830 |
| Totals, Commonwealth Countries. | 194,42 | 354,284 | 503,980 | 494,158 | 645,624. | 722,059 | 544,462 | 623,962 |
| Totals, United States and Dependencies. | 419,030 1 | 1,976,412 | 1,809,511 | 1,954,061 | 2,133,005 | 2,817,265 | 2,983,824 | 3,229,682 |

${ }^{1}$ Included with Other British South Africa.
${ }^{2}$ Less than $\$ 500$.
6.-Value of Domestic Exports, by Country, 1947-53, with Averages, 1935-39

| Country | $\begin{gathered} \text { Aver- } \\ \text { ages } \\ \text { 1935-39 } \end{gathered}$ | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | $\mathbf{8}^{\prime} 000$ | \$'000 | \$'000 | \$ 000 | \$'000 | \$'000 | \$'000 |
| North America |  |  |  |  |  |  |  |  |
| Newfoundland. | 8,048 | 55,085 | 55,055 | 9,2291 | ... | ... | ... | ... |
| Alaska | 154 | 300 | 565 | 1,003 | 959 | 2,264 | 1,249 | 1,130 |
| Greenland.............. | - | 128 | \$5 | 27 | 134 | 206 | 303 | 194 |
| St. Pierre and Miquelon. | ${ }^{309}$ | ${ }^{1.158}$ | 1.432 | 1,208 | 1,061 | 1,186 | 1.279 | 1.319 |
| United States.......... | 321.294 | .034.226, | 1.500,98i | 1,503,459 | 2,020,988 | 2,297,675 | 2,306,955 | 2,418,915 |
| Totak, North America. . | 229,805, | ,090,887 | ,358,426 | 1,514,931 | 2,023,142 | 2,301,330 | 2,309,787 | 2,421,558 |

${ }^{1}$ January to March only.
6.-Value of Domestic Exports, by Country, 1947-53, with Averages, 1935-39-con.

| Country | Averages 1935-39 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | 8'000 | 8'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Central America and Antilles |  |  |  |  |  |  |  |  |
| Bahamas | 1 | 3,688 | 3,636 | 2,268 | 1,937 | 2,136 | 2,353 | 2,298 |
| Barbados | 1,218 | 9,063 | 5,654 | 5,013 | 2,974 | 4,584 | 3,912 | 3,734 |
| Bermuda | 1,381 | 5,108 | 4,102 | 3,616 | 2,991 | 3,693 | 3,158 | 3,070 |
| British Honduras. | , 255 | 1,375 | 1,151 | 600 | 491 | 572 | 381 | 376 |
| Jamaica | 3,887 | 18,214 | 12,350 | 9,033 | 7,495 | 10,213 | 10,591 | 12,490 |
| Leeward and Windward Islands. | 1,600 | 7,592 | 6.177 | 4,515 | 3,213 | 4,229 | 4,276 | 3,864 |
| Trinidad and Tobago.... | 3,372 | 26,354 | 17,105 | 12,325 | 7,476 | 9,950 | 11,034 | 9,490 |
| American Virgin Islands... | 42 | 160 | 116 | 126 | 156 | 181 | 167 | 178 |
| Costa Rica. | 103 | 1,780 | 1,216 | 1,859 | 2,312 | 2,175 | 2,612 | 2,199 |
| Cuba, | 1,418 | 7,502 | 10,987 | 14,391 | 18,005 | 20,424 | 24,181 | 16,124 |
| Dominican Republic | 171 | 1,914 | 2,386 | 2,194 | 2,954 | 4,060 | 4,643 | 3,993 |
| El Salvador. | 69 | 665 | 1,103 | 927 | 1,467 | 2,002 | 2,230 | 1.901 |
| French West I | 157 | 1,743 | 538 | 70 | 39 | 40 | 47 | 26 |
| Guatemala. | 117 | 1,630 | 1,548 | 1,697 | 2,401 | 2,365 | 1,896 | 2,234 |
| Haiti. | 131 | 1,366 | 1,393 | 1,602 | 2,513 | 2,588 | 3,417 | 2,670 |
| Honduras | 159 | 641 | 677 | 678 | 613 | 3,575 | 1,736 | 556 |
| Mexico. | 2,630 | 11,701 | 15,045 | 15,411 | 17,624 | 29,880 | 39,641 | 28,986 |
| Netherlands | 176 | 1,844 | 2,175 | 2,003 | 4,464 | 1,834 | 1,541 | 1,308 |
| Nicaragua | 72 | 590 | 701 | 638 | 756 | 1,097 | 1,185 | 1,354 |
| Panama.. | 316 | 1,882 | 4,123 | 13,632 | 9.019 | 5,961 | 11,359 | 4,380 |
| Puerto Rico | 425 | 2,605 | 2,300 | 5,962 | 7,643 | 8,120 | 7,328 | 7,753 |
| Totals, Central America and Antilles. | 17,699 | 107,416 | 94,485 | 98,560 | 96,544 | 119,680 | 137,688 | 108,984 |
| South America |  |  |  |  |  |  |  |  |
| British Guiana <br> Falkland Islands. | ${ }_{2}^{1,344}$ | 10,273 39 | ${ }_{2}^{8,229}$ | 5,676 7 | 4,052 | 5,308 2 | 6,356 31 | 4,777 |
| Argentina. | 4,696 | 31,697 | 16,680 | 2,902 | 13,360 | 8,883 | 8,227 | 7,641 |
| Bolivia. | 113 | 567 | 1,046 | 1,908 | 2,267 | 3,484 | 6,398 | 5,501 |
| Brazil. | 4,012 | 31,660 | 28,601 | 17,259 | 15,806 | 53,684 | 81,367 | 37,561 |
| Chile. | 848 | 4,392 | 4,495 | 3,633 | 6,864 | 13,751 | 10,090 | 3,945 |
| Colombia | 1,296 | 9,950 | 8,406 | 8,012 | 14,806 | 12,311 | 13,756 | 20,146 |
| Ecuador | 93 | 1,626 | 1,308 | 1,727 | 1,432 | 2,713 | 2,030 | 4,220 |
| French Gu | 36 | 264 | 129 | 129. | 5 | 4 | 3 | 6 |
| Paraguay |  | 153 | 369 | 133 | 110 | 167 | 112 | 339 |
| Peru. | 1,072 | 3,695 | 2,529 | 7,050 | 3,744 | 5,054 | 16,405 | 15,108 |
| Surinam | 49 | 826 | 695 | 960 | 863 | 934 | 1,097 | 712 |
| Uruguay | 310 | 3,371 | 4,201 | 2,282 | 1,918 | 6,868 | 5,429 | 2.912 |
| Venezuela | 1,139 | 12,989 | 16,935 | 27,689 | 25,457 | 26,982 | 35.683 | 36,485 |
| Totals, South America... | 15,016 | 111,501 | 93,622 | 79,367 | 90,684 | 140,145 | 186,984 | 139,394 |
| Northwestern Europe |  |  |  |  |  |  |  |  |
| United Kingdom.......... | 353,741 | 751,198 | 686,914 | 704,956 | 469,910 | 631,461 | 745,845 | 665,232 |
| Austria. | 27 | 3,070 | 3,110 | 3,706 | 2,369 | 2,166 | 5,216 | 5,136 |
| Belgium and Luxembourg. | 13,204 | 52,749 | 33,035 | 56,525 | 66,351 | 94,457 | 104,376 | 69,510 |
| Denmark. ................ | 1,438 | 4.328 | 7,748 | 3,109 | 923 | 5,587 | 9,881 | 6.303 |
| France. | 8,566 | 81,058 | 92,963 | 36,004 | 18,403 | 46,538 | 48,264 | 32.281 |
| Western Gern | 9,6393 | 6,690? | 13,2143 | 23,4513 | 8,873 ${ }^{3}$ | 37,028 ${ }^{3}$ | 94,863 | 83, 858 |
| Iceland. | 28 | 2,485 | 1,845 | 743 | 847 | 700 | 833 | 2,058 |
| Ireland | 3,861 | 17,598 | 9,257 | 9,052 | 13,321 | 20,921 | 23,058 | 13,356 |
| Netherlands | 10,062 | 55,939 | 43,684 | 13,759 | 8,617 | 26, 191 | 41,508 | 42,382 |
| Norway | 7,247 | 20,320 | 23,429 | 21,736 | 18,924 | 32,198 | 39,002 | 37,278 |
| Sweden | 3,593 | 17,461 | 7,207 | 5,516 | 4,250 | 12,125 | 12,198 | 4,587 |
| Switzerland | 948 | 14,196 | 19,389 | 32,281 | 26,435 | 25,345 | 26,918 | 29,833 |
| Totals, Northwestern Europe. | 412,354 | ,027,093 | 941,795 | 910,839 | 639,223 | 934,716 | ,151,964 | 991,814 |

[^347]6.-Value of Domestic Exports, by Country, 1947-53, with Averages, 1935-39-con.

| Country | Averages 1935-39 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\mathbf{\$}^{\prime} 000$ | \$'000 | \$ ${ }^{\prime} 000$ | \$'000 | \$ 000 | \$'000 | \$'000 | \$'000 |
| Southern Surope |  |  |  |  |  |  |  |  |
| Gibraltar. | 9. | 252 | 15 | 336 | 329 | 648 | 353 | 486 |
| Malta... | 377 | 6,705 | 3,250 | 3,905 | 4,680 | 2,150 | 3,111 | 3,307 |
| Greece. | 1,142 | 5,440 | 9,663 | 2,615 | 1,833 | 2,703 | 4,415 | 1,560 |
| Italy... | 2,785 | 35,688 | 32,379 | 12,567 | 15,476 | 48,763 | 52,645 | 33,179 |
| Portagal. | 170 | 3,502 | 5,181 | 8,405 | 5,641 | 4,665 | 4,026 | 3,991 |
| Asores and Madeira | 8 | 392 | 77 | 101 | 210 | 259 | 224 | 231 |
| Spain. | 495 | 941 | 596 | 387 | 5,642 | 742 | 3,579 | 14,179 |
| Tetaks, Southern Europe | 4,986 | 52,920 | 51,160 | 28,316 | 33,811 | 59,930 | ©8,252 | 56,924 |
| Bastern Europe |  |  |  |  |  |  |  |  |
| Albenia. | 3 | 505 | 90 | - | 1 | 1 |  | - |
| Bulgaria. | 10. | 14 | 123 | 279 | 215 | 8 | 2 | 3 |
| Cxechoslovakia | 881 | 13,779 | 11,395 | 3,030 | 2,179 | 492 | 367 | 123 |
| Finlsnd. | 539 | 1,212 | 2,280 | 607 | 600 | 3,129 | 2,694 | 1,388 |
| Eastern Germany |  | 2 | 2 | 2 | 2 |  | - |  |
| Hungary. | 4 | 946 | 820 | 75 | 86 |  | 81 | 48 |
| Latvis.: | 242 | - | - | $\bigcirc$ | - |  | - |  |
| Poland.. | ${ }_{8} 196$ | 15,380 |  |  | 1,432 | - 94 |  | 183 |
| Roumanis. | 52 | 103 | 440 | 338 | 122 | 11 | 45 | 94 |
| Union of Soviet Socialist Republics. |  | 4,866 |  | 93 | 182 | 7 |  |  |
| Yugoslavia.. | 18 | . 6,729 | 2,250 | 734 | 818 | 2,739 | 22,613 | 1,940 |
| Totals, Eastern Europe. . | 3,091 | 43,534 | 23,313 | 7,102 | 5,035 | 6,510 | 25,873 | 3,779 |
| Middle East |  |  |  |  |  |  |  |  |
| Aden. | 109. | 1,602 | 2,653 | 57 | 31 | 25 | 127 | 34 |
| Anglo-Egyptian Sudan...... | 109 | 1,028 | 42 | 37 | 75 | 34 | 104 | 17 |
| Arabia. |  | 3 |  | 3,142 | 875 | 1,414 | 2,149 | 2,644 |
| Egypt. | 399 | 10,922 | 10,205 | 4,762 | 3,716 | 2,466 | 19,363 | 11,688 |
| Ethiopia | 1 | 94 | 74 | 42 | 54 | 198 | 54 | 55 |
| Iran... | 118 | 946 | 684 | 11,987 | 993 | 1,000 | 585 | 753 |
| Iraq | 55 | 2,160 | 831 | 472 | 70 | 1,062 | 313 | 458 |
| Israel | 251 | 8,473 | 5,036 | 12,709 | 12,126 | 11,816 | 11,940 | 9,059 |
| Italisn Africa |  |  |  | 92 | 184 |  |  |  |
| Jordan. |  |  |  | 211 | 46 | 1,071 | 105 | 38 |
| Libya. | 1 | 5 | 5 | 11 | 374 | 2,029 | 854 | 1,279 |
| Lebanon | 80 | 2,546 | 6,094 |  | 1,462 | 7,036 | 9.355 | 5,161 |
| Syris.. | 388 | 2,229 | 2,012 | , 14.12 | 1,762 | 7,036 | 580 | 578 |
| Turkey | 388 | 2,229 | 2.012 | 14,121 | 3,744 | 2,962 | 4,791 | 1,455 |
| Totals, Mddle East. | 1,511 | 30,012 | 27,636 | 50,921 | 23,749 | 31,117 | 50,326 | 33,219 |
| Other Asla |  |  |  |  |  |  |  |  |
| Ceylon. | 246 | 4,079 | 1,710 | 2,159 | 4,353 | 3.470 | 5,825 | 3,307 |
| Indis.... | 3,732 | 42,947 | 33, 698 | 72,551 | 31,520 | 35,737 | 55.423 | 37,187 |
| Pakistan. |  |  | 7,775 | 18,097 | 8.681 | 4,486 | 16,016 | 32,103 |
| Malaya and Singapore...... | 2,173 | 7,464 | 9,288 | 10,437 | 4,097 | 12,796 | 9,582 | 9,000 |
| Other British East Indies.. |  |  | ${ }^{16}$ | 5, 2 | 4,097 | 10,796 | 7,067 | 2,854 27 |
| ${ }^{2}$ Lees than 8500. | ${ }^{2}$ Includer | with We | ern Gerr | any. | ${ }^{2}$ Not | sted sep | ately. |  |

6.-Value of Domestic Exports, by Country, 1947-53, with Averages, 1935-39-concl.

| Country | $\begin{gathered} \text { Aver- } \\ \text { ages } \\ 1935-39 \end{gathered}$ | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | 8'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Other Asia-conel. |  |  |  |  |  |  |  |  |
| Afghanistan. | 1 | 36 | 43 | 14 | 52 | 97 | 272 | 150 |
| Burma.. | 71 | 823 | 173 | 54 | 30 | 279 | 1,023 | 444 |
| China... | 3,808 | 34,984 | 29,128 | 13,801 | 2,057 | 367 | 1,156 | ,482 |
| French East Indies | 85 | 858 | 498 | 177 | 69 | 223 | 327 | , 351 |
| Indonesia. | 801 | 5,807 | 7,959 | 4,640 | 3,052 | 5,227 | 6,250 | 1,990 |
| Japan. | 21,880 | 559 | 8,001 | 5,860 | 20,533 | 72,976 | 102,603 | 118,568 |
| Korea. |  | 30 | 23 | 233 | 1,143 | 213 | 335 | 14,991 |
| Philippines. | 1,523 | 10,448 | 9,810 | 13,983 | 10,829 | 15,598 | 16,045 | 13,872 |
| Portuguese Asia |  | 147 | 104 | 162 | 103 | ${ }_{2} 107$ | ${ }^{282}$ | ${ }_{1} 190$ |
| Thailand... | 22 | 415 | 609 | 752 | 1,200 | 2,378 | 1,976 | 1,509 |
| Totals, Other Asia. | 36,001 | 115,003 | 117,092 | 148,022 | 95,757 | 163,986 | 224,196 | 238,025 |
| Other Africa |  |  |  |  |  |  |  |  |
| British East Africa........ | 789 | 4,682 | 3,473 | 1,730 | 849 | 1,444 | 1,031 | 348 |
| Northern Rhodesia........ |  | 450 | 606 | 553 | 395 | 281 | 467 | 414 |
| Southern Rhodesia........ | 970 | 7,369 | 2,711 | 2,665 | 1,202 | 2,669 | 2,195 | 1,806 |
| Union of South Africa. . . . . |  | 66,674 | 83,248 | 77,713 | 42,561 | 52,736 | 47,852 | 50,763 |
| Other British South Africa | 15,457 | 15 | 6 | 15 | 5 | 27 | 12 | 15 |
| Gambia................... | 35 | 66 | 26 |  | 12 | 26 | 9 | 29 |
| Gold Coast | 270 | 1,652 | 2,072 | 1,489 | 581 | 980 | 254 | 1,749 |
| Nigeria. ................... | 145 | 2,285 | 876 | 1,068 | 247 | 796 | 865 | 942 |
| Sierra Leone. . . . . . . . . . . . | 203 | 811 | 717 | 303 | 219 | 200 | 159 | 235 |
| Other British West Africa. |  | 2 | 6 |  |  | 1 | - | 1 |
| Belgian Congo............. | 89 | 1,292 | 2,241 | 2,459 | 2,471 | 4,318 | 5,900 | 3,349 |
| Canary Islands............. | 17 | 46 | 12 | 49 | 237 | 107 | 825 | 23 |
| French Africa.............. | 248 | 4,598 | 2,747 | 2,243 | 1,927 | 6,748 | 3,226 | 1,248 |
| Liberia. | 17 | 144 | 129 | 119 | 109 | 1,373 | 203 | 3,145 |
| Madagascar................ | 13 | 176 | 408 | 227 | 117 | 102 | ${ }_{4} 97$ | ${ }^{64}$ |
| Morocco................... | 711 | 1,447 | 1,700 | 1,268 | 1,700 | 3,381 | 4,630 | 3,809 |
| Portuguese Afri | 1,675 | 1,898 62 | 3,258 | 3,604 95 | 2,702 | 2,827 75 | 2,088 64 | 1,997 59 |
| Totals, Other Africa..... | 20,648 | 93,668 | 104,291 | 95,607 | 55,393 | 78,090 | 69,878 | 69,996 |
|  |  |  |  |  |  |  |  |  |
| Australia. | 28,924 | 60, 294 | 38,257492 | $\begin{array}{r} 35,363 \\ 598 \end{array}$ | 35,446234 | 49,079802 | 49,697519 | 39,629 |
| Fiji... | 387 | 1,386 |  |  |  |  |  | 7 424 |
| New Zealand. ........... | 12,799 | 37,38663 | 18,375 | 14,489 61 | 10,98315 | 21,75782 | 18,84471 | 7,47564 |
| Other British Oceania..... |  |  |  |  |  |  |  |  |
| French Oceania. . . . . . . . | 80 | 230 | 153 | 295 | 737 | 626 | 424 | 487 |
| Hawaii. ................... | 1,207 | 3,299 | 5,867 | 8,311 | 6,830 | 6,418 | 6,280 | 5,385 |
| United States Oceania. | 2 | 199 | 318 | 182 | 205 | 191 | 198 | 253 |
| Totals, Oceanla. <br> Grand Totals. | 43,424 | 102,857 | 63,619 | 59,299 | 54,449 | 78,955 | 76,033 | 53,717 |
|  | 884,536 | 2,774,902 | 3,075,438 | 2,992,961 | 3,118,387 | 3,914,460 | 4,301,081 | 4,117,406 |
| Totals, Commonwealth Countries. | 443,261 | 1,141,608 | 1,018,099 | 1,005,972 | 655,089 | 872,407 | 1,097,533 | 897,585 |
| Totals, United States <br> Dependencies. | 323,124 | 1,040,789 | 1,510,453 | 1,519,048 | 2,036,780 | 2,314,848 | 2,322,177 | 2,433,614 |

${ }^{1}$ Less than $\$ 500$.
${ }^{2}$ Included with Other British South Africa.
7.-Value of Trade with Commonwealth and Foreign Countries, Significant Years, 1886-1953

| Item and Year | Canadian Trade with- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom |  | United States |  | Other Commonwealth Countries |  | Other Foreign Countries |  |
|  | Value | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ | Value | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ | Value | $\begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}$ | Value | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ |
|  | \$ 000 |  | \$'000 |  | \$'000 |  | \$'000 |  |
| Imports |  |  |  |  |  |  |  |  |
| Ended Mar. 31- |  |  |  |  |  |  |  |  |
| 1886. | 39,033 | 40.7 | 42,819 | 44-6 | 2,384 | $2 \cdot 5$ | 11,757 | 12.2 |
| 1891. | 42,019 | 37.7 | 52,033 | 46.7 | 2,318 | $2 \cdot 1$ | 15,163 | 13.5 |
| 1996. | 32,825 | 31.2 | 53,529 | 50.8 | 2,389 | $2 \cdot 2$ | 16,619 | $15 \cdot 8$ |
| 1901. | 42,820 | 24.1 | 107,378 | 60.3 | 3,833 | $2 \cdot 2$ | ${ }^{23,900}$ | $13 \cdot 4$ |
| 1911. | 109,935 | 24.3 | 275,824 | 60.8 | 19,533 | $4 \cdot 4$ | 47,433 | 10.5 |
| 1916. | 77,404 | $15 \cdot 2$ | 370,881 | 73.0 | 27,826 | 5-5 | 32,091 | 6.3 |
| 1921. | 213,974 | 17-3 | 856,177 | 69.0 | 52,029 | $4 \cdot 2$ | 117,979 | $9 \cdot 5$ |
| Ended Dec. 31- |  |  |  |  |  |  |  |  |
| 1926. | 164,707 | 16.3 | 668,747 | 66-3 | 49,907 | 5.0 | 124,980 | 12.4 |
| 1929. | 194,778 | 15.0 | 893,585 | 68.8 | 62,287 | 4.8 | 148,343 | 11.4 |
| 1937. | 147, 292 | 18.2 | 490,505 | 60.7 | 89,304 | 11.0 | 81,796 | $10 \cdot 1$ |
| 1939. | 114,007 | 15.2 | 496,898 | 66.1 | 74,893 | 10.0 | 65,257 | $8 \cdot 7$ |
| 1943 | 134,965 | 7.7 | 1,423,672 | 82.1 | 103,666 | 6.0 | 72,773 | $4 \cdot 2$ |
| 1946 | 201,433 | $10 \cdot 4$ | 1,405,297 | 72.0 | 139.067 | $7 \cdot 2$ | 181,482 | 9.4 |
| 1947. | 189,370 | 7.4 | 1,974,679 | 76.7 | 165,024 | 6.4 | 244, 871 | 9.5 |
| 1948. | 299,502 | $11 \cdot 4$ | 1,805,763 | 68.5 | 204,612 | $7 \cdot 7$ | 327,069 | 12.4 |
| 1949. | 307,450 404,213 | 111.1 | $1,951,860$ $2,130,476$ | $70 \cdot 7$ | 186.779 | 6.8 7.6 | 315,118 398.153 | 11.4 12.5 |
| 1951. | 420,985 | 10.3 | 2,1312,927 | 67.1 68.9 | 306,104 | $7 \cdot 6$ | 398,153 544,840 | $12 \cdot 5$ 13.3 |
| 1952. | 359,757 | 8.9 | 2,976,962 | 73.9 | 184, 704 | $4 \cdot 6$ | 509,044 | $12 \cdot 6$ |
| 1953. | 453,391 | $10 \cdot 3$ | 3,221,214 | 73.5 | 170,571 | 3.9 | 537,654 | $12 \cdot 3$ |
| Erports (Domestic) |  |  |  |  |  |  |  |  |
| Ended Mar. 31- |  |  |  |  |  |  |  |  |
| 1886. | 36,694 | 47-2 | 34,284 | 44.1 | 3.263 | $4 \cdot 2$ | 3,515 | $4 \cdot 5$ |
| 1891. | 43,244 | 48.8 | 37,743 | 42.6 | 3.893 | $4 \cdot 4$ | 3,791 | 4.2 |
| 1896. | 62.718 | 57.2 | 37.789 | 34-4 | 4.048 | $3 \cdot 7$ | 5,152 | 4.7 |
| 1901. | 92,858 | $52 \cdot 3$ | 67,984 | 38.3 | 7.891 | $4 \cdot 5$ | 8,700 | 4.9 |
| 1906. | 127,456 | 54.2 | 83,546 | $35 \cdot 5$ | 10,965 | $4 \cdot 6$ | 13,516 | $5 \cdot 7$ |
| 1911. | 132,157 | 48.2 | 104,116 | 38.0 | 16,811 | 6.1 | 21.233 | 7.7 |
| 1916. | 451.852 | 60.9 | 201, 106 | 27.1 | 30,677 | 4.2 | 57, 974 | 7.8 |
| 1921. | 312,845 | $26 \cdot 3$ | 542,323 | $45 \cdot 6$ | 90,607 | 7.6 | 243,389 | 20.5 |
| Ended Dec. 31- |  |  |  |  |  |  |  |  |
| 1926. | 459,223 | 36.4 | 457,878 | 36-3 | 95,701 | $7 \cdot 6$ | 248,439 | $19 \cdot 7$ |
| 1929. | 290,295 | 25.2 | 492,686 | $42 \cdot 8$ | 105,006 | $9 \cdot 1$ | 264,430 | 22.9 |
| 1937. | 402,062 | 40.3 | 360.012 | 36.1 | 104, 159 | $10 \cdot 4$ | 131,134 | 13.2 |
| 1939. | 328,099 $1,032,647$ | 35.5 34.8 | 380,392 $1.149,232$ | 41.1 | 102, 707 | 11.1 | 113,728 | $12 \cdot 3$ |
| 1946. | 1,052,647 | 34.8 25.8 | $1,149,23$ 887,941 | 38.7 38.4 | 369.015 307,195 | $12 \cdot 4$ $13 \cdot 3$ | 420,581 519.574 | 14.2 22.4 |
| 1947. | 751, 198 | $27 \cdot 1$ | 1,034,226 | 37.3 | 417,303 | 15.0 | 572,175 | 20.6 |
| 1948. | 686,914 | 22.3 | 1,500,987 | 48.8 | 345,477 | 11.3 | 542,060 | 17.6 |
| 1949. | 704,956 | 23.6 | 1,503,459 | 50.2 | 310,067 | $10 \cdot 4$ | 474,480 | 15.9 |
| 1950. | 469,910 | $15 \cdot 1$ | 2,020,988 | 64.8 | 185,179 | $5 \cdot 9$ | 442.310 | 14.2 |
| 1951. | 631.461 745,845 | 16.1 17.3 | $2,297,675$ 2306955 | 58.7 | 240.946 | $6 \cdot 2$ | 744.379 | 19.0 |
| 1953. | 665,232 | $\xrightarrow[16-2]{17}$ | 2,418,915 | 58.7 58.7 | 261, 358 | 6.1 5.6 | 986,593 800,906 | 19.9 19.5 |

8.-Values of Dutiable and Free Imports, by Leading Countries, 1951-53

| Country | 1951 |  |  | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dutiable | Free | Total | Dutiable | Free | Total | Dutiable | Free | Total |
|  | 8'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | $\$^{\prime} 000$ | \$'000 |
| United States. | 1,624,802 | 1,188,125 | 2,812,927 | 1,694,823 | 1,282,139 | 2.976,962 | 1,904,030 | 1,317,184 | 3,221,214 |
| Totals, North America ${ }^{1}$. | 1,626,245 | 1,188,191 | 2,814,436 | 1,697,078 | 1,282,264 | 2,979,343 | 1,906,669 | 1,317,578 | 3,24,247 |
| Central America and Antilles |  |  |  |  |  |  |  |  |  |
| Barbados. | 10,562 | 2,846 | 13,409 | 6,976 | 1,690 | 8,666 | 589 | 1,786 | 2,375 |
| Trinidad and Tobago.... | 8,371 | 6,711 | 15,082 | 3,972 | 5,687 | 9,659 | 405 | 7,657 | 8,062 |
| Costa Rica. | 8,785 | - | 8,785 | 8,736 | 4 | 8,740 | 9,456 | 17 | 9,473 |
| Cuba. | 6,848 | 1,485 | 8,333 | 16,785 | 1,831 | 18,615 | 10,326 | 1,328 | 11,654 |
| Dominican Republic..... | 1,107 | 19 | 1,126 | 5,870 | 130 | 6,000 | 5,794 | 60 | 5,854 |
| Honduras. | 4.013 | 14 | 4,027 | 4,636 | 7 | 4,643 | 4,581 | 13 | 4,594 |
| Mexico. | 7,841 | 10,171 | 18,012 | 6,027 | 17,911 | 23,937 | 7,327 | 8,458 | 15,785 |
| Netherlands Antilles. | 10,657 | 152 | 10,809 | 11,530 | 217 | 11,747 | 7,802 | 352 55 | 8,154 |
| Panama. | 3,487 | 5 | 3,492 | 4,123 | 2 | 4,125 | 3,581 | 55 | 3,637 |
| Totals, Central America and Antilles ${ }^{1}$ | 86,617 | 27,199 | 113,817 | 81,717 | 30,713 | 112,429 | 67,708 | 22,202 | 89,910 |
| South America |  |  |  |  |  |  |  |  |  |
| British Guiana. | 15,534 | 9,491 | 25,025 | 13,891 | 9,769 | 23,660 | 6,809 | 10,990 | 17,799 |
| Argentina. . . . . . . . . . . | 10,539 | 3,416 | 13,955 | 2,365 | 2,010 | 4,374 | 1,779 | 6,749 | 8,528 |
| Brazil. .. | 27,617 | 13,009 | 40,627 | 23,804 | 11,299 | 35,103 | 24,424 | 10,622 | 35,046 |
| Colombia | 13,032 278 |  | 13,063 5,588 | 17,145 384 |  | 18,005 8,050 | 21,289 735 |  | 23,29 2,928 |
| Peru..... | 11,001 | 5,310 125,716 | 5,588 136,718 | 8,631 | 127,127 | 135,758 | 10,199 | 144,947 | 155,146 |
| Totals, South America ${ }^{1}$. | 83,174 | 163,490 | 246,667 | 70,522 | 166,550 | 237,071 | 68,983 | 183,349 | 252,332 |
| Northwestern Europe |  |  |  |  |  |  |  |  |  |
| United Kingdom. | 173,624 | 247,361 | 420,985 | 156,819 | 202,938 | 359,757 | 193,695 | 259,696 | 453,391 |
| Belgium and Luxembourg | - 29,522 | 9,573 | 39,095 | 26,697 | 6,519 | 33,216 | 20,248 | 8.834 6.741 | 29,082 22,267 |
| France. | 18,968 | 5,005 | 23,974 | 14,864 |  |  | 25, 643 | 9,864 | 35,507 |
| Western Germany | 25,3942 | 5,5422 | 30,936 ${ }^{2}$ | 6,196 8,075 | 6,433 8,419 | 16,495 | 11,137 | 11,161 | 22,298 |
| Netherlands. | 7,508 2,074 | 6.503 903 | 14,011 2,977 | 8,075 1,253 | 8,419 2,601 | 16,495 3,857 | 1,707 | 1,583 | 2,290 |
| Sweden. | 9,827 | 1,981 | 11,808 | 6,981 | 1,630 | 8,611 | 7,746 | 1,595 | 9,341 |
| Switzerland | 13,712 | 2,686 | 16,398 | 13,733 | 2,663 | 16,396 | 17,320 | 3,116 | 20,436 |
| Totals, Northwestern Europe ${ }^{1}$ | 286,925 | 280,989 | 567,916 | 248,910 | 236,762 | 485,674 | 297,616 | 302,801 | 600,417 |

[^348]${ }^{2}$ Includes Eastern Germany.
8.-Values of Dutiable and Free Imports, by Leading Countries, 1951-53-concluded

| Country | 1951 |  |  | 195? |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dutiable | Free | Total | Dutiable | Free | Total | Dutiable | Free | Total |
|  | \$000 | \$'000 | \$ 000 | \$'000 | \$,000 | \$ 000 | \$ '000 | \$'000 | \$'000 |
| Southern Europe |  |  |  |  |  |  |  |  |  |
| Italy. | 11,471 | 2,746 | 14.217 | 8.555 | 3.181 | 11,735 | 10,734 | 3,537 | 14,271 |
| Spain.................... | 5,463 | 1,651 | 7,114 | 1.886 | 2,374 | 4,260 | 1,833 | 2,786 | 4,619 |
| Totals, Southern Europel | 18,588 | 5,435 | 23,342 | 12,143 | 6,183 | 18,325 | 13,352 | 7,365 | 21,321 |
| Totak, Eastern Europe. | 5,306 | 1,763 | 7,069 | 4,561 | 2,589 | 7,353 | 3,929 | 1,547 | 5,476 |
|  |  |  |  |  |  |  |  |  |  |
| Arabia................. | $65$ | $\begin{aligned} & 22.659 \\ & 16.313 \end{aligned}$ | 22,659 16,381 | $\begin{aligned} & 10 \\ & 44 \end{aligned}$ | $\begin{array}{r} 7,549: \\ 15,199 \end{array}$ | 7.559 15.243 | 5 41 | 2,191 19,599 | $\begin{array}{r} 2,196 \\ 19,640 \end{array}$ |
| Totals, Middle Fast ${ }^{1}$. $\ldots$. | 3,323 | 41,874 | 45,205 | 1,605 | 27,233: | 29,339 | 1,385 | 29,266 | 30,651 |
| Other Asla |  |  |  |  |  |  |  |  |  |
| Cevlon. | 6. ${ }^{464}$ | $\begin{aligned} & 15,929 \mid \\ & 33,952 \end{aligned}$ | 16.3964+40217 | $\begin{array}{r} 723 \\ 3.026 \end{array}$ | 11,76923,795 | 12.49226.822 | 965+4.675 | $\begin{aligned} & 13,496 \\ & 21,950 \end{aligned}$ | 14,46126,627 |
| Madis... |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Japan. Philippines | 11,490244 | $\begin{aligned} & 1,087 \\ & 8,710 \end{aligned}$ | $\begin{array}{r} 12.577 \\ 8.954 \end{array}$ | $11,418$ | $\begin{aligned} & 1,744 \\ & \mathbf{5}, 198 \end{aligned}$ | $\begin{array}{r} 13,162 \\ 5,423 \end{array}$ | $\begin{array}{r} 12,205 \\ 62 \end{array}$ | $\begin{aligned} & 1,425 \\ & 2,924 \end{aligned}$ | 13,630 |
|  |  |  |  |  |  |  |  |  | 2,986 |
| Totals, Other Asla ${ }^{1} \ldots \ldots$ | 24,101 | 126,853 | 150,953 | 18,964 | 73,054 | 92,015 | 21,975 | 65,759 | 87,734 |
|  |  |  |  |  |  |  |  |  |  |
| British East Africa. | 2.7893.302698 | 8.0753.810 | $\begin{array}{r}10,864 \\ 7 \\ 7 \\ \hline 112\end{array}$ | $\begin{aligned} & 2.129 \\ & 2.653 \end{aligned}$ | $\begin{aligned} & 7,465 \\ & 2 \end{aligned}$ |  | 5,5242,523 | $\begin{aligned} & 3.869 \\ & 636 \end{aligned}$ | 9,3933,159 |
| Gold Coast. |  |  |  |  |  |  |  |  |  |
| Union of South Africa.... |  | 4,673 | 5,372 | $62 \%$ | 3.535 | 4105 | 826 | 3,790 | 4,616 |
| Totals, Other Africa ${ }^{1}$. ${ }^{\text {. }}$ | 10,6es | 20,140 | 30,74i | 8,340 | 17.253 | 25,594 | 15,643 | 12,874 | 28,517 |
| Oceania |  |  |  |  |  |  |  |  |  |
| Australia. | $\begin{array}{r} 16.559 \\ 5.986 \\ 5.543 \end{array}$ | $\begin{aligned} & 29,669 \\ & 24.564 \end{aligned}$ | $\begin{array}{r} 46.227 \\ 5.993 \\ 30.107 \end{array}$ | 4,708 <br> 6,487 | 14.004 | 18.712 | 9.689 | $13,5: 5$ | 23,4645,554 |
| Fini. |  |  |  |  |  |  |  |  |  |
| New Zealand |  |  |  | 4,395 | 9.836 | 14.231 | 4531 | ¢, 059 | 8.572 |
| Totals, Oceanial ${ }^{\text {a }}$. . . . .Grand Totals.......... | 29,485 | 54,617 | 84,101 | 19,036 | 24,078 | 43,114 | 20,101 | 22, r 25 | 42,225 |
|  | 2,174,304 | 1,910,352 | 4.084,856 | 2,162,882 | 1,867,583 | 4,030, 468 | 2.412,960 | 1,964,870 | 4,382,830 |
| Totals, Commonwealth Countries | 274,576 | 456,513 | [27,089 | 219,547 | 324,915 | 541,462 | 251,738 | 3i2,224 | 523,962 |

Totak, Other Countries $1,503,7281,454,040 ; 3,357,7681,943,3351,542,671 / 3,486,606 / 2,166,222 \mid 1,592,646 / 3,755,868$

[^349]The proportion of imports subject to duty varies widely between countries and geographic areas. Generally, the Canadian tariff imposes duties on a greater proportion of manufactured goods than of natural products. Countries supplying chiefly manufactures to Canada tend to have duties charged on a greater proportion of their goods and also to have relatively higher average ad valorem rates of duty charged on their goods than is the case with countries supplying chiefly natural products. Variations in the proportion of imports dutiable as between different countries, or in the average ad valorem rates of duty charged on imports from different countries, therefore, do not necessarily indicate differences in the tariff relations between Canada and these countries.

## 9.-Average Ad Valorem Rates of Duty Collected and Percentage Proportions of Imports from the United Kingdom and from the United States to Totals of Dutiable and Free Imports, 1944-53.

Note.-Figures for the years ended Mar. 31, 1868-1938, are given in the 1940 Year Book, p. 532. Calendar-year figures for 1939-43 are given in the 1954 edition, p. 982.

| Year | United Kingdom |  |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Ad Valorem Rates of Duty on- |  | $\left\lvert\, \begin{gathered} \text { Dutiable } \\ \text { to } \\ \text { Total } \\ \text { Dutiable } \end{gathered}\right.$ | $\begin{gathered} \text { Free } \\ \text { to } \\ \text { Total } \\ \text { Free } \end{gathered}$ | $\begin{gathered} \text { Per- } \\ \text { centage } \\ \text { of All } \\ \text { Imports } \end{gathered}$ | Average Ad Valorem Rates of Duty on- |  | $\left\|\begin{array}{c} \text { Dutiable } \\ \text { to } \\ \text { Total } \\ \text { Dutiable } \end{array}\right\|$ | Free to Total Free | Percentage of All Imports |
|  | Dutiable Imports | Total Imports |  |  |  | Dutiable Imports | Total Imports |  |  |  |
|  | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1944... | $16 \cdot 3$ | $6 \cdot 1$ | $4 \cdot 7$ | $7 \cdot 9$ | 6.3 | 18.7 | $10 \cdot 2$ | 89.0 | 75.5 | 82.3 |
| 1945... | $17 \cdot 6$ | $4 \cdot 7$ | $4 \cdot 7$ | $13 \cdot 1$ | $8 \cdot 9$ | $19 \cdot 3$ | 11.1 | 86.6 | 64.8 | 75.8 |
| 1946... | 17.5 | $4 \cdot 5$ | 4.8 | $17 \cdot 7$ | 10.5 | 19.4 | 12.7 | 85.4 | 57.0 | 72.9 |
| 1947... | 15.9 | $6 \cdot 4$ | $4 \cdot 9$ | 11.3 | $7 \cdot 4$ | 19.5 | $13 \cdot 1$ | 84.9 | $64 \cdot 0$ | 76.7 |
| 1948... | $17 \cdot 1$ | $7 \cdot 7$ | 9.8 | $13 \cdot 1$ | 11.4 | $15 \cdot 7$ | $9 \cdot 1$ | 76.2 | 60.0 | 68.5 |
| 1949... | 16.2 | 6.9 | $9 \cdot 1$ | $13 \cdot 4$ | $11 \cdot 1$ | 16.0 | $9 \cdot 0$ | $75 \cdot 6$ | $65 \cdot 3$ | 70.7 |
| 1950... | $16 \cdot 6$ | 6.2 | $9 \cdot 3$ | 16.3 | 12.7 | $16 \cdot 3$ | $9 \cdot 0$ | $72 \cdot 6$ | $61 \cdot 4$ | $67 \cdot 1$ |
| 1951... | 15.8 | $6 \cdot 5$ | 8.0 | 12.9 | $10 \cdot 3$ | 16.5 | 9.5 | $74 \cdot 7$ | 62.2 | 68.9 |
| 1952... | 16.5 | $7 \cdot 2$ | 7.3 | $10 \cdot 9$ | 8.9 | 16.8 | $9 \cdot 6$ | 78.4 | 68.7 | 73.9 |
| 1953... | 16.1 | 6.9 | 8.0 | $13 \cdot 2$ | $10 \cdot 3$ | $17 \cdot 4$ | $10 \cdot 3$ | 78.7 | 67.0 | 73.5 |

## Section 4.-Trade by Commodities

The tables in this Section provide detailed information on the composition of Canada's imports and exports, with commodities shown by group and individually.
10.-Imports and Exports, by Main Group, 1951-53

| Group | Imports |  |  | Domestic Exports |  |  | Total Trade ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 | 1953 | 1951 | 1952 | 1953 | 1951 | 1952 | 1953 |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| United Kingdom |  |  |  |  |  |  |  |  |  |
| Agricultural and vegetable products........... | 21,316 | 23,725 | 26,506 | 231,585 | 256,458 | 305,302 | 253,040 | 280,562 | 331,835 |
| Animals and animal products.............. | 12,778 | 10,175 | 13,447 | 29,860 | 35,948 | 18,581 | 42,695 | 46,631 | 32,326 |
| Fibres, textiles and textile products. | 139,094 | 86,432 | 113,352 | 1,265 | 1,013 | 1,144 | 140,878 | 88,333 | 114,984 |
| Wood, wood products and paper $\qquad$ | 4,345 | 4,338 | 4,972 | 141,181 | 165,045 | 110,604 | 145,568 | 169,411 | 115,626 |
| Iron and its products..... | 126,553 | 122,539 | 161,540 | 19,914 | 37,951 | 27,481 | 148,344 | 162,475 | 190,233 |
| Non-ferrous metals and their products. | 42,621 | 43,203 | 51,991 | 181,635 | 222,860 | 180,157 | 225,097 | 266,224 | 232,334 |
| Non-metallic minerals and their products. | 32,864 | 27,318 | 30,154 | 13,073 | 13,770 | 8,603 | 46,124 | 41,393 | 38,903 |
| Chemicals products ................. | 16,188 | 12,225 | 18,551 | 10,370 | 9,712 | 8,551 | 26,806 | 22,054 | 27,236 |
| Miscellaneous commod- ities....................... | 25,225 | 29,803 | 32,879 | 2,579 | 3,087 | 4,809 | 28,153 | 33,722 | 38,788 |
| Totals, United Kingdom.... | 420,985 | 359,757 | 453,391 | 631,461 | 745,845 | 665,232 | 1,056,705 | 1,110,806 | 1,122,265 |
| United States |  |  |  |  |  |  |  |  |  |
| Agricultural and vegetable products......... | 208,451 | 220,647 | 218,294 | 263,443 | 301,307 | 271,298 | 472,857 | 524,162 | 490,648 |
| Animals and animal products. | 73,546 | 49,696 | 55,226 | 265,528 | 147,966 | 179,372 | 341,327 | 201,587 | 237,185 |
| Fibres, textiles and textile products. | 220,966 | 197,369 | 194,178 | 19,588 | 17,442 | 14,890 | 244,841 | 217,939 | 211,414 |
| Wood, wood products and paper. |  |  |  |  |  |  |  |  |  |
| Iron and its products... | 1,146,844 | 1,230,801 | 1,324,656 | 169,188 | 172,701 | 182,872 | 1,330,364 | 1,418,089 | 1,523,958 |
| Non-ferrous metals and their products. | 192,827 | 198,039 | 261,344 | 278,009 | 349,650 | 408, 521 | 473,655 | 551,376 | 673,979 |
| Non-metallic minerals and their products. | 435 , | 419,4 | 415,704 | 89,926 |  | 107,009 |  |  |  |
| Chemicals and allied |  |  | 415 | 89, |  | 107,009 | 530,719 | 522,370 | 530,283 |
| products.... | 165,061 | 166,249 | 191,812 | 67,253 | 75,107 | 84,599 | 233,607 | 242,556 | 277,572 |
| Miscellaneous ities commod- | 243,748 | 371,191 | 413,151 | 30,159 | 65,125 | 78,904 | 278,527 | 442,773 | 500,046 |
| Totals, United States | 2,812,927 | 2,976,962 | 3,221,214 | 2,297,675 | 2,306,955 | 2,418,914 | 5,146,839 | 5,326,007 | 5,684,266 |
| All Countries |  |  |  |  |  |  |  |  |  |
| Agricultural and vegetable products......... | 542,641 | 489,192 | 488,368 | 894,210 | 1,183,496 | 1,096,763 | 1,438,395 | 1,675,662 | 1,586,602 |
| $\underset{\text { products.................. }}{\text { Animal }}$ | 125,562 | 85,540 | 88,227 | 348,033 | 237,942 | 250,919 | 476,207 | 328,163 | $1,580,602$ 342,226 |
| Fibres, textiles and textile |  | -359, 440 | -387, 115 | 348,033 36,858 | -27,697 | 24, 333 | 476,207 | 32,163 | 342,226 |
| products. | 483,520 | 359,440 | 387,115 | 36,858 | 27,697 | 24,333 | 528,754 | 392,109 | 415,238 |
| paper. | 137,047 | 134,554 | 160,951 | 1,399,076 | 1,366,787 | 1,295,396 | 1,536,973 | 1,502,025 | 1,457,344 |
| Iron and its products. | 1,332,251 | 1,406,627 | 1,531,556 | 342,299 | 406,946 | 358,438 | 1,692,766 | 1,834,318 | 1,911,354 |
| Non-ferrous metals and their products. | 290,848 | 296,875 | 364,571 | 569,870 | 706,732 | 682,183 | 865,139 | $1,007,810$ | 1,051,642 |
| Non - metallic minerals and their products. | 684,535 | 641,885 | 658,476 | 131,529 | 143,474 | 147,393 | 821,392 | 792,066 | 813,795 |
| Chemicals and allied |  |  |  |  |  |  |  | 792,066 | 813,795 |
| products.... | 191,813 | 187,713 | 221,834 | 131,690 | 124,565 | 137,885 | 325,596 | 314,048 | 361,446 |
| ities............. | 296.638 | 428,642 | 481,733 | 60,895 | 103,441 | 124,095 | 363,018 | 540,227 | 615,784 |
| Totals, All Countries. | 4,084,856 | 4,030,468 | 4,382,830 | 3,914,460 | 4,301,081 | 4,117,406 | 8,048,241 | 8,386,427 | 8,555,431 |

[^350]
## 11.-Leading Imports, 1930, 1939, 1946 and 1951-53

Note.--Commodities are arranged in order of value in 1953.

| Commodity | 1930 | 1939 | 1946 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | 8'000 | \$'000 | 8'000 |
| Machinery (non-farm) and parts | 50,435 | 42,831 | 130,287 | 328,741 | 360,969 | 401,856 |
| Automobile parts (except engines). | 23,359 | 25,308 | 66,453 | 195, 177 | 190,337 | 222,284 |
| Petroleum, crude and partly refined | 41,787 | 39,650 | 89,483 | 233,148 | 210,036 | 213,094 |
| Electrical apparatus, n.o.p | 30,281 | 27,891 | 47,788 | 120,101 | 139,567 | 198,245 |
| Tractors and parts. | 10,763 | 15,003 | 45,620 | 125,562 | 119,253 | 126,354 |
| Rolling-mill products (iron and steel) | 46,509 | 32,336 | 53,376 | 173,127 | 143,133 | 124,813 |
| Aircraft and parts (except engines) | 1.346 | 5,550 | 9,448 | 41,438 | 95,212 | 111,893 |
| Engines, internal combustion, and parts | 9,345 | 7,096 | 19,650 | 80,314 | 126,332 | 107,736 |
| Coal, bituminous | 25,858 | 19,640 | 77,052 | 115, 275 | 99,571 | 94,680 |
| Farm implements and machinery (except tractors) and parts. | 11,181 | 5,915 | 22,732 | 69,529 | 78,044 | 82,795 |
| Automobiles, passenger | 15,898 | 13,725 | 25,209 | 56,632 | 49,484 | 79,454 |
| Tourist purchases | 1 | 9,487 | 9,125 | 47,071 | 66,682 | 73,840 |
| Fuel oils. | 3,228 | 1,650 | 33,066 | 58,389 | 64,908 | 65,151 |
| Non-commercial items | 12,259 | 5,430 | 14,173 | 32,544 | 47,095 | 60,923 |
| Pipes, tubes and fittings (iron and steel) | 4,103 | 2,340 | 8,411 | 43,183 | 57,261 | 58,327 |
| Coffee, green | 4,505 | 4,110 | 15,473 | 48,438 | 50,775 | 57,595 |
| Cotton fabrics. | 13,443 | 10,935 | 54,163 | 54,984 | 53,248 | 55,906 |
| Refrigerators and freeze | 2,101 | 1,189 | 5,201 | 30,620 | 43,891 | 55,530 |
| Cotton, raw | 14,216 | 17,176 | 42,812 | 94,315 | 65,956 | 55,494 |
| Principal chemicals (except acids) n.o.p | 8,845 | 12,321 | 16,734 | 43,940 | 49,824 | 54,505 |
| Gasoline | 16,330 | 7,998 | 14,912 | 33.444 | 39,148 | 48,650 |
| Sugar, unrefined | 3,638 | 9,983 | 32,416 | 77,100 | 59,546 | 47,491 |
| Wool fabrics | 19,503 | 10,408 | 20,115 | 38,567 | 32,213 | 41,743 |
| Coal, anthracite. | 30.099 | 21,938 | 41,987 | 51,238 | 49,430 | 40,079 |
| Paperboard, paper and products | 12,908 | 8,654 | 18,834 | 34,831 | 29,921 | 39,208 |
| Apparel (except hats) of all textiles. | 16,614 | 6,941 | 12,222 | 25,000 | 26,091 | 35,672 |
| Cooking and heating apparatus, and parts | 1,561 | 2,332 | 10,462 | 18,911 | 22,444 | 33,538 |
| Newspapers, magazines and advertising matter. | 5,055 | 8,436 | 13,434 | 25,133 | 28,385 | 33,446 |
| Synthetic plastics, primary forms | 1 | 2,506 | 15,386 | 22,413 | 23,020 | 32,498 |
| Parcels of small value | 5,642 | 4,185 | 14,460 | 22,025 | 33,691 | 32,396 |
| Tools. | 2,351 | 2,377 | 10,135 | 19,117 | 22,566 | 31,004 |
| Vegetables, fresh | 7,192 | 6,150 | 25,748 | 26,295 | 37,969 | 29,250 |
| Iron ore | 3,324 | 4,179 | 6,467 | 22,671 | 26,519 | 28,194 |
| Citrus fruits, fresh | 13,020 | 8,860 | 34,632 | 26,699 | 26,712 | 26,509 |
| Rubber, crude and semi-fabricated. | 9,987 | 12,860 | 10,013 | 64,973 | 29,287 | 26,408 |
| Logs, timber and lumber | 7,523 | 3,767 | 6,035 | 23,210 | 20,798 | 23,585 |
| Drugs and medicines. | 3,652 | 3,992 | 9,440 | 22,981 | 22,111 | 22,877 |
| Bananas, fresh | 2,540 | 2,398 | 20,119 | 19,598 | 20,939 | 22,837 |
| Vegetable oils (except essential oils). | 10,556 | 7,778 | 11.302 | 35,025 | 19,098 | 22,390 |
| Wool, raw. | 3,195 | 4,509 | 18,707 | 54,361 | 18,052 | 22,334 |

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## 12.-Leading Domestic Exports, 1930, 1939, 1946 and 1951-53

Nors.-Commodities are arranged in order of value in 1953.

| Commodity | 1930 | 1939 | 1946 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newsprint paper | 133,371 | 115,687 | 265,865 | 536,372 | 591,790 | 619,033 |
| Wheat. | 185,786 | 109,051 | 250,306 | 441,043 | 621,292 | 567,907 |
| Planks and boards. | 36,743 | 48,829 | 125,391 | 312,198 | 295,949 | 282,736 |
| Wood pulp. | 39,060 | 31,000 | 114,021 | 365, 133 | 291,863 | 248, 675 |
| Aluminum, primary and semi-fabricated. | 8,110 | 25,950 | 51,390 | 120,853 | 155,106 | 173,378 |
| Nickel, primary and semi-fabricated. | 20,505 | 57,934 | 55,205 | 136,689 | 150,982 | 162,542 |
| Barley. | 987 | 7,882 | 9,688 | 58,822 | 145,684 | 136,729 |
| Copper, primary and semi-fabricated. | 31,233 | 52,396 | 34,940 | 81,691 | 100,806 | 117,351 |
| Wheat flour. | 37,540 | 16,378 | 126,733 | 113,854 | 116,055 | 102,160 |
| Asbestos, unmanufactured. | 8,453 | 2,902 | 23,839 | 80,333 | 86,510 | 83,973 |
| Farm implements and machinery (except tractors) and parts. | 10,302 | 6,975 | 28,662 | 96,873 | 95,692 | 67,821 |
| Whisky | 21,747 | 7,914 | 29,650 | 54,039 | 54, 254 | 63,086 |
| Oats | 1,061 | 4,142 | 23,108 | 53,899 | 68,240 | 60,403 |
| Zinc, primsry and semi-fabricated | 6,254 | 9,922 | 27,659 | 83,669 | 96,283 | 57,572 |
| Fish, fresh and frozen. | 8,475 | 10,212 | 31,110 | 53,363 | 52,852 | 51,219 |
| Pulpwood. | 13,612 | 11,901 | 28,731 | 68,103 | 64,820 | 45,859 |
| Fertilizers, chemical | 5,606 | 9,179 | 32,108 | 35,734 | 42,293 | 42,633 |
| Aircraft and parts (except engines). | 113 | 347 | 9,507 | 7,524 | 37,503 | 40,247 |
| Lesd, primary and semi-fabricated. | 8,274 | 9,850 | 16,715 | 45,290 | 49,676 | 37,835 |
| Electrical apparatus, n.o.p. | 2,291 | 3,229 | 20,939 | 17,729 | 33,892 | 37,705 |
| Machinery (non-farm) and parts. | 6,109 | 10,873 | 15,535 | 40,271 | 47,378 | 37,282 |
| Automobiles, passenger | 4,750 | 4,206 | 11,340 | 38,490 | 43,634 | 36,061 |
| Iron ore. | 3 | 43 | 4,353 | 18,576 | 22,333 | 30,843 |
| Pigs, ingots, blooms and billets (iron and steel) | 67 | 2,691 | 3,328 | 14,433 | 25,032 | 29,508 |
| Abrasives, artificial, crude. | 2,842 | 4,380 | 11,727 | 21,377 | 17,701 | 28,976 |
| Platinum metals and scrap. | 1,627 | 6,178 | 15,450 | 30,359 | 30,627 | 26,290 |
| Guns, rifles and other firearms | 1 | 16 | 4,145 | 15 | 5,627 | 24,110 |
| Fodders, n.o.p. | 2,782 | 6,729 | 13,288 | 25,319 | 29,483 | 23,143 |
| Fish, cured. | 8,583 | 3,884 | 13,808 | 27,588 | 25,538 | 22,271 |
| Automobiles, freight. | 6,061 | 8,157 | 43,201 | 24,873 | 48,832 | 22,258 |
| Fur skins, undressed. | 15,202 | 14,130 | 30,928 | 28,316 | 23,507 | 21,070 |
| Shingles. | 4,132 | 8,225 | 11,211 | 27,483 | 20,002 | 20,913 |
| Non-commercial items. | 6,213 | 2,402 | 39,951 | 17,378 | 18,720 | 20,295 |
| Rye. | 527 | 2,045 | 8,904 | 13,457 | 17,198 | 20,186 |
| Cartridges, gun and rifle. | 40 | 801 | 694 | 2,373 | 10,139 | 19,873 |
| Plywoods and veneers. | 145 | 1,608 | 12,026 | 18,046 | 18,655 | 19,025 |
| Shipe sold. | 626 | 373 | 17,856 | 8,070 | 10,592 | 18,453 |
| Molluscs and crustaceans | 5,642 | 3,542 | 14,162 | 15,228 | 17,510 | 17,588 |
| Ferro-alloys. | 2,694 | 2,477 | 9,485 | 31,347 | 30,380 | 17,207 |
| Automobile parts (except engines). | 1,588 | 2,992 | 21,110 | 15,763 | 18,549 | 16,999 |

${ }^{1}$ Less than $\$ 500$.

Detailed Imports and Exports.-Detailed statistics of all commodities of any importance imported into Canada from all countries, from the United Kingdom and from the United States, during the calendar years 1950-53, are given in Table 13 while corresponding statistics for domestic exports appear in Table 14.
13.-Principal Imports into Canada for Consumption from All Countries,

| No. | Item | All Countries |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1950 | 1951 | 1952 | 1953 |
| 1234 | I. Agricultural and Vegetable Products <br> A. Mainly Food |  |  |  |  |
|  | Fruits, fresh........................... ${ }^{8}$ | 57,883,759 | 59,687,372 | 63,460,360 | 66,997,129 |
|  | Fruits, dried............................... 1 l / | $91,754,819$ <br> $11,878,275$ | 90,770,584 | $\begin{aligned} & 99,007,788 \\ & 12,952,208 \end{aligned}$ | $\begin{array}{r} 112,161,647 \\ 15,320,398 \end{array}$ |
|  | Fruits, canned or preserved.............. \$ | 10,832,511 | 13,541,824 | 13,276,921 | 13,088,744 |
|  | Fruit juices and fruit syrups................ gal. | $\begin{array}{r} 9,900,719 \\ 10,391,102 \end{array}$ | $\begin{array}{r} 10,686,943 \\ 8,753,428 \end{array}$ | $\begin{aligned} & 13,811,557 \\ & 10,071,300 \end{aligned}$ | $\begin{aligned} & 15,244,162 \\ & 13,881,768 \end{aligned}$ |
|  | Totals, Fruits......................... \$ | 90,985, 647 | 94,735,191 | 99,760,789 | 109,288,039 |
| 5 | Nuts....................................... . $\$$ | 22,372,557 | 22,780,324 | 21,077,298 | 20,049,212 |
| 8 | Vegetables- <br> Vegetables, fresh $\qquad$ | 23,258,901 | 26, 295.324 | 37,968,933 | 29,250,036 |
|  | Vegetables, dried............................ $\$$ | 453, 176 | 1,598,925 | 1,353,918 | 2,756,469 |
|  | Vegetables, canned................. ...... lb. | 1,613,446 | 14,558,732 | $33,546,967$ 3,472 |  |
| 9 | Pickles, sauces and catsups............... gal. | 336,625 <br> 451,245 | $1,848,116$ $1,830,485$ | $3,477,283$ $3,313,928$ | $2,170,766$ $3,904,666$ |
|  | ces and catsups............... \% | 454,810 | 1,647,830 | 2,960,110 | 3,484,280 |
|  | Totals, Vegetables.................... \$ | 24,503,512 | 31,390,195 | 45,760,244 | 37,661,551 |
|  | Grains and Farinaceous Products- |  |  |  |  |
| 11 | Mrains.............................................. | -649,222 | 1,060,661 | 1,476,553 | 829,507 |
| 12 | Prepared foods and bakery products.... . \$ | 2,401,701 | 3,911,085 | 3,849,491 | 5,413,041 |
| 18 | Other farinaceous products.................. \& | 314,868 | 315,013 | 330,027 | 506,647 |
|  | Totals, Grains and Farinaceous Products. \$ | 39,406, 993 | 46,086,051 | 37,763,003 | 35,066,197 |
| 14 | Oils, vegetable, for food.................. ${ }_{\text {\% }}$ | 3,085,866 | 4,020,548 | 2,134,033 |  |
| 115 | Sugar and its products....................... $\%$ | $86,944,954$ | $85,862,388$ $11,733,095$ | 71, ${ }^{2929,307}$ | $60,046,405$ |
|  |  | $16,018,701$ <br> $83,913,500$ | $11,733,095$ <br> $89,765,806$ | $15,022,057$ <br> $99,739,245$ | $16,406,430$ $110,106,693$ |
|  | Coffee and chicory . . . . . . . . . . . . . . . . . . . . | 82,545,733 | 89,597,626 | 52,873,922 | 60,858,498 |
| 18 | Spices..................................... 1 lb . | $5,660,407$ | 5,390,009 | 4,556,424 | 5,579,412 |
|  | \$ | 4,388, 938 | 3,755,983 | 3,095,958 | 3,564,237 |
| 19 | Tea....................................... lb lb. | 55, 198,271 | 42,456, 287 | 45, 908, 126 | 45,839,662 |
|  |  | 28,610,731 | 21,017,954 | $18,825,750$ | 19,872,205 |
| 20 | Other vegetable products mainly food...... § | 2,975,921 | 2,690,506 | 2,905,380 | 3,822,574 |
|  | Totals, A. Mainly Food................. \& | 361,839,553 | 373,669,861 | 370,517,741 | 369,456,445 |
|  | B. Other than Food |  |  |  |  |
| $\begin{aligned} & \mathbf{2 1} \\ & \mathbf{2 2} \end{aligned}$ | Beverages, Alcoholic- |  |  |  |  |
|  | Brewed | 163,697 $2,257,276$ | 245,634 $3,098,723$ | 3,995,406 | 274,300 $3,867,588$ |
|  | Distilled............................................. ga. | 14,525,215 | 15,589,620 | 17,457,092 | 16,693,085 |
| 23 | Wines..................................... \& | 2,171,163 | 2,545,267 | 2,998,745 | 3,351,616 |
|  | Totals, Beverages, Alcoholic............ \$ | 16,860,075 | 18,380,521 | 20,709,590 | 20,319,001 |
| 24 | Gums and resins...................... ${ }^{\text {\% }}$ | 5,998,974 | 6,450,067 | 5,052,344 | 5,056,834 |
|  | Oil cake and oil cake meal...................ewt. | $\begin{array}{r} 401,352 \\ 1,626,823 \end{array}$ | - $9221,9781,402$ | $\begin{aligned} & 442,715 \\ & 2,088,690 \end{aligned}$ | 745,566 $2,754,877$ |
| $\begin{aligned} & 26 \\ & 27 \\ & 28 \\ & 29 \\ & 30 \\ & 31 \end{aligned}$ | Oils, vegetable, not food...................... \$ | 31, 162,293 | 34,929, 198 | 20,343,128 | 23,243,412 |
|  | Plants, shrubs, trees and vines................ \$ | 2,265,085 | 2,932,625 | 3,393,741 | 3,921,609 |
|  | Rubber and manufactures of.................. 8 | 48, 679,690 | 84, 529,303 | $52,134,919$ | $50,569,545$ |
|  | Seeds....................................... $\$$ | $7,132,545$ | $8,453,292$ | $4,716,096$ | 2,511,908 |
|  | Tobacco and manufactures of ............... \$ | $3,998,898$ $4,911,395$ | $3,668,036$ $5,846,864$ | $4,623,941$ $5,612,188$ | $5,204,043$ $5,330,469$ |
|  | Other vegetable products, not food......... \$ | 4,911,395 | $5,846,864$ | 5,612,188 | 5,330,469 |
|  | Totals, B. Other Than Food........... \% | 122,635,778 | 168,971,308 | 118,674,637 | 118,911,698 |
|  | Totals, Agricultural and Vegetable Products................................... \$ | 484,475, 331 | 542,641,169 | 489,192,378 | 488,368,143 |

the United Kingdom and the United States, 1950-58

| United Kingdom |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | 1951 | 1952 | 1953 | 1950 | 1951 | 1952 | 1953 |  |
|  |  | 114 | 2,959 | 34,791,540 | 37, 890,484 | 40,062, 655 | 41,581,352 | 1 |
| 332,473 | 48 | 770 | 79,170 | 32,552,198 | $38,040,220$ | 43, 679,875 | 44,233,950 | 2 |
| 40,331 | 22 | 65 | 5,804 | 5,015,566 | 6,194,660 | 6,077,530 | 6,385,328 |  |
| 448,478 | 599,566 | 687,490 | 854,710 | 2,224,675 | $5,789,100$ | 5,893,862 | 6,069,348 | 3 |
| 130,444 | 11,675 | 21,391 | 29,065 | 6,993,565 | 9,327,771 | 11,833,425 | 12,169,363 | 4 |
| 111,083 | 18,981 | 31,085 | 47, 133 | 7,985,420 | 7,710,801 | 8,798,197 | 11,874,916 |  |
| 599,892 | 618,569 | 718,754 | 910,606 | 50,017, 201 | 57,585,045 | 60,832,294 | 65,910,944 |  |
| 92,356 | 59,870 | 92,425 | 185, 215 | 4,404,703 | 3,979,964 | 3,637,487 | 3,833,429 | 5 |
| 2.299 | 1,186 | 34,657 | 336 | 20,918, 172 | 22,677,187 | 34,053,975 | 25,867, 969 | 6 |
| 224,879 | 1,012,882 | 497,476 | 355,889 | 118,236 | 474,356 | 780,724 | 2,292,872 | 7 |
| 1,170 110 | 9,169 920 | 3,295 | 51,061 | 530,225 | 9,448, 669 | 27,030,120 | 12,276,659 | 8 |
| 14,845 | 9,161 | 16,607 | 23, 2120 | 176,512 | 1, $1,436,783$ | $2,544,524$ $2,988,797$ | 1,475,965 | 9 |
| 33,842 | 23,016 | 46,698 | 59,949 | 126,488 | 1,264,765 | 2,549,428 | 2,886,173 |  |
| 261,130 | 1,068,004 | 579,443 | 423,442 | 21,256,449 | 25,455,166 | 39,928,651 | 32,522,979 |  |
| 1,093 | - | 11 | 1.392 | 32,950,231 | 37,612,833 | 31,383,375 | 27,528, 204 | 10 |
| 758,430 | 2,223 360,576 | 1,171 | 4,193 | 621,686 | 1,047, 205 | 1,458,150 | 747,607 | 11 |
| +28 | 601 | -385 | 797,156 | $\begin{aligned} & 536,605 \\ & 193,914 \end{aligned}$ | $\begin{array}{r} 1,423,660 \\ 220,303 \end{array}$ | $\begin{array}{r} 1,494,433 \\ 249,206 \end{array}$ | $2,335,190$ 355,722 | 12 |
| 1,760,500 | 2,363,400 | 2,191,378 | 2,803,351 | 34,302,436 | 40,304,001 | 34,585,164 | 30,966,723 |  |
| 61,982 | - | 3,174 | 51,963 | 2,550,912 | 3,752,334 | 1,663,387 | 2,275,769 | 14 |
| 4,579,000 | 3,121,993 | 4,631,470 | 4,655.116 | 737,877 | 1,440,132 | 2,493,035 | 3,263,403 | 15 |
| 2,761,086 | 275,339 | 974.847 | 471.35\% | 1,603,983 | 3,313,542 | 6,149,396 | 6,386,666 | 16 |
| ${ }^{2,521,093}$ | 371,117 | 251,382 | 1,400,889 | 1,455,273 | 1,903,475 | 2,850,982 | 4,568,029 | 17 |
| 1,379,052 | 213,059 | 140,444 | 793.520 | 1,087,302 | 1,574,810 | 2,550,403 | 4,396,290 |  |
| 842,695 | 603,472 | 695,058 | 727,090 | 888,564 | 832,399 | 554,788 | 549,631 | 18 |
| 448,320 458,752 | 311,369 513,491 | 320,598 $1,836.029$ | 342,582 4.264 .868 | 552,865 | 543,922 48,808 | 397,663 | 335,137 |  |
| 251,510 | 290, 363 | 673,941 | 2,179,138 | 44,508 | 44,539 | 138,464 81,379 | 35,101 20,865 | 19 |
| 271,248 | 239,359 | 388,058 | 334,721 | 2,467,421 | 2,326,257 | 2,288,009 | 3,375,146 | 20 |
| 12,466,076 | 8,561,325 | 10,714,532 | 13,151,012 | 119,025,657 | 140,299,742 | 154,606,868 | 153,287, 351 |  |
| 161,749 | 236.890 | 246.417 | 269,491 | 98 | 20 |  | - | 21 |
| $\begin{aligned} & 1,118,136 \\ & 8.834,495 \end{aligned}$ | $1,312,207$ <br> $9,195,573$ | 1,363,027 | 1,429,456 | 276.974 | 636,425 | 1,416,293 | 1,398, 180 | 22 |
| $8,84,495$ 150,547 | 9,195,573 | $1,3,364,340$ 323,926 | $\begin{array}{r} 9,605,413 \\ 387,124 \end{array}$ | 2,336,247 47,732 | $\begin{array}{r} 2,186,655 \\ 34,085 \end{array}$ | $\begin{array}{r} 3,563,214 \\ 14,549 \end{array}$ | $2,842, \leqslant 11$ | 23 |
| 9,146,791 | 9,623,638 | 9,934,683 | 10,262,058 | 2,384,077 | 2,220,760 | 3,577,763 | 2,883,878 |  |
| 168,235 | 90,289 | 60,262 | 69,301 | 4,808,204 | 5,306.051 | 4,408,481 | 4,413,466 | 24 |
|  |  |  |  | $\begin{array}{r}\text {, } 390,038 \\ 1,594.895 \\ \hline\end{array}$ | 5.921,977 | 2,42,715 | 745,566 | 25 |
| 2,511,429 | 426,505 | 562,823 | 677,556 | 1,594,895 | $3,781,402$ $15,436,530$ | $2,088,690$ $16.302,665$ | 2,754,87 |  |
| 36,247 | 65,169 | 40.663 | 25,088 | 20,779.016 | 1,256,569 | 1,471,479 | $14,323,059$ $1,835,460$ | 27 |
| 1,394,979 | 1,775,640 | 1,520,531 | 1,859,897 | 20,379,298 | 26,146,489 | 27,759,569 | 29,384, 265 | 28 |
| 2,006, 890 | $444,208$ | 461.576 | 124,375 | 4,171,261 | 6,881.649 | 3,105,611 | 1,640,796 | 29 |
| 119,224 110,539 | 131,272 197,544 | 141,266 288,385 | 185,932 150.461 | $2,583,017$ $4,229,538$ | 2,320,362 | 3,147, 777 | 3,627, 517 | 30 |
|  |  |  |  |  |  | 4,178,227 | 4,143,001 |  |
| 15,494,33 | 12,754, 265 | 13,010,189 | 13.354,668, | 61,046.062 | 68,150,879 | 66,040,262 | 65,006,709 |  |
| 27,960,410 | 21,315,590 | 23,724, 721 | 26,505,680 | 180,071,719 | 208, 150,621 | 220,617,130 | 218,294,060 |  |

13.-Principal Imports into Canada for Consumption from All Countries,

| No. | Item | All Countries |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1950 | 1951 | 1952 | 1953 |
| II. Animals, Fishery, and Animal Products |  |  |  |  |  |
| 1 | Animals, living........................... \$ | 2,249, 817 | 3,166,889 | 3,552,968 | 3,632,845 |
| 2 | Bone, ivory and shell products.............. \& | 922, 376 | 1,100,573 | 960,455 | 928,361 |
| 3 | Feathers and quills and manufactures of.... \$ | 622,781 | 802,038 | 602,364 | 403,719 |
|  | Fishery Products, n.o.p.- <br> Fish, fresh or frozen. | 1,325,872 | 2,309,562 | 1,833,027 | 1,873,801 |
| 4 | Fish, salted, dried, smoked or pickled.... lb. | 2,362,425 | 2,576,317 | 3,317,003 | 3,371,974 |
|  | Fish, salted, dried, smoked or pickled.... ${ }^{8}$ | , 357,757 | 380,037 | 472, 259 | 470,824 |
| ${ }^{6}$ | Fish, eanned or preserved, n.o.p........... \$ | 1,864,470 | 2,833,849 | 2,919,177 | 3,744,548 |
|  | Other fishery products, n.o.p.............. § | 780,613 | 901,660 | 1,040,631 | 1,430,646 |
|  | Totals, Fishery Products, n.o.p.......... \$ | 4,328,712 | 6,425,108 | 6,265,094 | 7,519,819 |
| 8 | Furs and manufactures of.................. \$ | 21,998,958 | 21,586,369 | 23,513,823 | 21,011,727 |
| 9 | Hairs and bristles and manufactures of...... 8 | 2,414,154 | 3,296,611 | 1,735, 243 | 2,519,077 |
| 10 | Hides and skins, raw (except fur skins)...... No. | $3,334,534$ | $2,715,160$ | 2,138,115 | 2,122,075 |
|  | \% | 13,250, 251 | 14,211,736 | 6,151,353 | 6,893,889 |
| 11 | Leather, unmanufactured.................... \$ | $8,396,187$ | 9,413, 621 | 7,618,838. | 9,218,846 |
| 12 | Leather, manufactured....................... \$ | 6,389,230 | 7,618,333 | 7,330,476 | 9,994,223 |
| 13 | Meats................................... \$ | 8,392,475 | 23,509,614 | 9,723,487 | 13,100,122 |
| 14 | Milk and its products...................... \$ | 3,875,263 | 13, 858,047 | 7,701,597 | 2,986,701 |
| 15 | Oils, fats, greases and waxes................. \$ | 8,249,468 | 9,846,662 | 2,731,791 | 3,797,972 |
| 16 | Other animal products...................... \& | 5,877,970 | 10,726,422 | 7,652,380 | 6,219,349 |
|  | Totals, Animals, Fishery, and Animal Products | 86,967,642 | 125,562,023 | 85,539,869 | 88,226,650 |
|  | III. Fibres and Textiles |  |  |  |  |
|  | Cotton and Its Products- <br> Cotton, raw and unmanufactured......... lb |  |  |  |  |
| 17 |  | $90,927,016$ | $96,569,667$ | $67,609,703$ | 57,084, 800 |
| 18 | Yarn, thread and cordage.............. lb. | 5,751,452 | 8,620,429 | 7,346,219 | 8,835,130 |
|  | \$ | 7,963,543 | 15,304, 761 | 9,724,564 | $10,145,550$ |
|  | Piece goods (fabrics)..................... lb. | 36,742,289 | 41,394, 177 | $43,853,849$ | $48,444,349$ |
| 20 | 8 | 45,901,357 | $54,984,071$ $16,290,789$ | 53, 247,824 $18,613,967$ | $\begin{aligned} & 55,905,850 \\ & 24,369,472 \end{aligned}$ |
|  | Totals, Cotton and Its Products......... \$ | 157,444, 47? | 183,149,288 | 149,196,058 | 147,505,672 |
| 21 | Flax, hemp, jute and manufactures of ....... \$ | 25,589,198 | 31,091,992 | 23,634,618 | 21,923,906 |
| 22 | Silk and manufactures of...................... § | 7,712,259 | 7,631,573 | 6,737,895 | 6,498,282 |
| 23 | Wool and Its Products- Wool, raw and unmanufactured $\ldots . . . . . . . . . ~$ lb | 51,302,972 | 44,586,013 | 32,449,179 | 40,441,143 |
|  |  | 55,305,983 | 94,809,397 | 28,919,148 | 42,748,466 |
|  | Piece goods (fabrics) .................... lb. | 10,496,962 | 9,647,393 | 10,061,631 | 13,194,618 |
|  | 8 | 31,719,026 | 38,566,565 | 32, 212,824 | 41,742,778 |
| 25 | Other woollen products.................. 8 | 20,663,762 | 29,156,198 | 20,614,606 | 31,001,831 |
|  | Totals, Wool and Its Products.......... \$ | 107,688,771 | 162,532,160 | 81,746,578 | 115,493,075 |
| 2627 | Synthetic textile fibre and manulactures of.. \$ | 21,299,101 | 35,452,640 | 40,128,726 | 46,586,154 |
|  | Other textile products...................... \$ | 44,775,025 | $63,662,729$ | 57,996,142 | 49, 107,837 |
|  | Totals, Fibres and Textiles............. \$ | 364,508,831 | 483,520,382 | 359,440,017 | 387,114,926 |
| IV. Wood, Wood Products and Paper |  |  |  |  |  |
| 28 | Lumber and timber...................... M ft . | 86,174 | 17 ${ }^{132,538}$ | ${ }_{17}^{151,778}$ | 158,783 18,779872 |
|  |  | 11,629,216 | 17,776,625 | 17,237,513 | $18,779,872$ $11,906,510$ |
| 29 30 | Other wood, unmanufactured... ............. ${ }_{\text {\% }}^{\text {\% }}$ ( Wood, manufactured | 6,267,037 | 10,440,991 | 10,490,659 | 22,699,053 |
| 31 | Paper and manufactures of.................... | 23,433,530 | 34,831,145 | 29,920,960 | 39, 208,074 |
| 32 | Books and printed matter................... \& | 42,489,410 | 50,913,423 | 56, 508, 336 | 68,357,706 |
|  | Totals, Wood, Wood Produets and Paper. \$ | 100,365,624 | 137,046,510 | 134,553,621 | 160,951,215 |

the United Kingdom and the United States, 1950-53-continued

| United Kingdom |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | 1951 | 1952 | 1953 | 1950 | 1951 | 1952 | 1953 |  |
| 259,514 | 327,277 | 248.035 | 478,920 | 1,963,128 | 2,803,224 | 3,280,507 | 3,092,693 | 1 |
| 274,192 | 340,788 | 32S.739 | 332,178 | 539,916 | 622,223 | 527,795 | 515,689 | 2 |
| 23,254 | 48,784 | 7, 805 | 20,950 | 413,048 | 346,518 | 305,068 | 218, 153 | 3 |
| 512 | 849 | 4.797 | 7,479 | 1,055,339 | 1,399,541 | 1,131,297 | 1,482,139 | 4 |
| 504, 154 | 586,782 | $679 . \$ 32$ | 750,695 | 223,057 | 140,342 | 168,538 | 193,705 | 5 |
| 69.42 | 83,577 | \$4,563 | 104,023 | 44,771 | 28,108 | 33,096 | 33,864 |  |
| 36,078 | 29,763 | 76.899 | 57,468 | 709,317 | 1,005,629 | 1,210,054 | 1,659,401 | ${ }_{5}$ |
| 6.989 | 3,209 | 2.541 | 7,210 | 659,876 | 691,282 | 905,949 | 1,194,021 | 7 |
| 113,021 | 117,398 | 168,800 | 176,180 | 2,469,303 | 3,124,560 | 3,280,396 | 4,369,425 |  |
| 755,857 | 1,914,672 | 2,033,476 | 2,255,670 | 18,946,672 | 16,794,008 | 17,408,708 | 15,872,424 | 8 |
| 18,716 | 14,547 | 143,863 | 240,698 | 2,259,109 | 2,873,133 | 860, 556 | 790,24 |  |
| 1,620 | 30.696 | 55,711 | 126,518 | 2,188, 829 | 1,789,499 | 1,807,3¢2. | 1,722,258 | 10 |
| 2,684 | 77,455 | 52,299 | 133,550 | 9,153,083 | 9,878,810 | 5,414, 3 \% 0 | 6,162,404 |  |
| 4,787,955 | 5,372,166 | 3,536,594 | 4,470,997 | 3,341, 831 | 3,417,541 | 3,915, 157 | 4,408,445 | 11 |
| 2,606,567 | 3,182,012 | 2,808,103 | 3,900,209 | 2,967,965 | 3,683,764 | 3,808,906 | $5,059,081$ | 12 |
| 66,180 | 545,646 | 164,745 | 148,721 | 4,846.857 | 15,424,396 | 4,982,732 | 8.840,070 | 13 |
| 12,290 258,36 | 13,180 | 14,702 | 12.953 | - 377,396 | 721.330 | 4 4 \% ${ }^{\text {a }}$, 561 | 352,297 | 14 |
| 543,475 | 697,187 | 577,334 | 5SS,041 | 2, $2,134,836$ | 9,5054, 6.92 | $2,395.300$ 3.048 .934 | $2.656,886$ $2.888,439$ | 15 |
| 9,722,051 | 12,778,083 | 10,175,239 | 13,447,083 | 57,239,70i | 73,545,708 | 49,696,190 | 55,226,253 |  |
| 74,883 | 54,862 | 291,212 | 579, 053 | 193, 939, 465 | 211,276,537 | 149, 134,322 | 139,936,032 | 17 |
| - 19,396 | 21,470 | 17,650 | 214.8709 | 70,74,966 | $95.178,118$ | 5i, 737,777 | 46,449, 298 |  |
| 2,992,754 | 3,741,346 | 2,252,327 | 4,134.135 | 2,693,675 | 4,492,970 | 5,031,139 | 4,636,144 | 18 |
| $4,057,318$ $3,802,758$ | 7,676,557 $3,030,389$ | $3,557,918$ $2,500,994$ | ${ }^{4,945} .05{ }^{\text {a }}$ | $3,804,871$ $25,558,436$ |  | 6.04, 502 | 5,076,007 |  |
| 7,616,811 | $7,203,247$ | 5,203,138 | 6.540, 352 | 31,056,358 | 39,415. 297 |  | $38,439,102$ $43,837,118$ | 19 |
| 4,916,544 | 5,364,333 | 3,798, 144 | 4,484,349 | 3,731,146 | 6,939,534 | 11.782,875 | 15,921,775 | 20 |
| 16,610,069 | 20,265,607 | 12,576,850 | 16,193,659 | 109,367,341 | 148,599,138 | 120, 465,817 | 111,284, 198 |  |
| 5,531,431 | 6,790,943 | 4,933,563 | 5,304,147 | 2,837,657 | 4,926, $100^{-7}$ | 4,590,662 | 3,851, 399 | 21 |
| 584,131 | 682,259 | 460,574 | 388,029 | 4,834,055 | 4,350,497 | 4,416,215 | 3,910,279 | 22 |
| 19,651,329 | 16,304,644 | 10,016,731 | 14,074, 403 | 1,740,82S | 3,736.617 | 1,882,679 | 3,410,328 | 23 |
| $\begin{array}{r}29,889,284 \\ 9,585 \\ \hline 10\end{array}$ | 43,147,632 | 12,447,219 | 20,320,999 | 2, 183, 323 | 6,845.112 | 1,806,300 | 3,454, 449 |  |
| 9,585,410 $28,320,135$ | 8,305,733 | 9,257,474 | 12,266, 265 | 164, 712 | 1S2.739 | 275,031 | 277,070 | 24 |
| 14,060,639 | 20,400,441 | 14,226,025 | - $20,763,746$ | 1.088,655 | 1,472.902 | r $1,540,260$ | - ${ }^{978} 287,906$ | 25 |
| 72,270,058 | 96,247.116 | 56,090,545 | 79,509,310 | 3,734,650 | 8.868,117 | 4,041,126 | 6,721,328 |  |
| 5,338,572 | 5,993,749 | 5.033,431 | 4,86\%.070 | 11,733,536 | 20.402,147 | 29,851,157 | 35,651,965 | 26 |
| 12,578,894 | 9,114,459 | -.336.671 | 7.0s9.570; | 19.265.675 | 33,819,535 | 34, 004,486 | $32,758,675$ | 27 |
| 112,913,155 | 139,09, 133 | 86,431,634 | 113,352,091 | 151,275,914 | 220,965,541 | 197,369,463 | 194,177,844 |  |
|  |  |  | ! |  |  |  |  |  |
| 2,769 | 11,684 | 260 | 22,935 | $82,490$ | $125,65 s$ | $147,036$ | $150,464$ | 28 |
| 2,255 | 12,925 | 41,427 | 3,062 | 5,990,637 | 9.689, 455 | 10.105,361 | 10.506,169 | 29 |
| 408.259 | 422.694 | 445,781 | 799,804 | 14,253,000 | 19.664.596 | 16.672,267 | 18.653,379 | 30 |
| 1,158,815 | 1,580,458: | 1,411,918 | 1,316,272 | 22,013,853. | 32,758,186 | 25.060,689 | 37,040,284 | 31 |
| 2,109.667 | 2,317,197! | 2,438,747 | 2,829,592 | 39,064,032 | 47,010,3\$3. | 52.276,802 | 63,084,018 | 32 |
| 3,681,765 | 4,34,958 | 4,358,153! | 4,971, 685 | 92,329,546 | 125,629,514 | 123,516,554 | 146,848,186 |  |

13.-Principal Imports into Canada for Consumption from All Countries,

| No. | Item | All Countries |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1950 | 1951 | 1952 | 1953 |
| V. Iron and Its Products |  |  |  |  |  |
| 1 | Iron ore................................. ton | 3,070,557 | 3,831,418 | 4,267,658 | 4,167,571 |
|  | \$ | 16,801,727 | 22,671,265 | 26,519,451 | 28,193,710 |
| 2 | Ferro-alloys............................ \% | 1,352,604 | 4,259,507 | 4,318,859 | 1,420,019 |
|  | Pigs, ingots, blooms and billets.............. | 3,375,898 | 11,387,617 | $12,265,573$ | 3,938,728 |
| 4 | Scrap iron or steel. . . . . . . . . . . . . . . . . . . . . | 5,398,014 | 3,854,606 | 6,840,473 | 3,477,794 |
| 5 | Castings and forgings...................... \$ | 9,580,131 | 13,739,383 | 12,812,225 | 12,648,809 |
| ${ }^{6}$ | Rolling-mill products........................ § | 93,639,001 | 173, 127, 013 | 143, 132, 810 | 124,812,769 |
|  | Tubes, pipes and fittings..................... § | 35, 393, 818 | 43, 182, 776 | 57, 260, 868 | 58,327,482 |
| 8 | Wire.......................................... § | 7,127,473 | 12,303,865 | 12,217,796 | 9,457,645 |
| 9 | Chains........ . . . . . . . . . . . . . . . . . . . . . . . . $\mathrm{s}^{\text {d }}$ | 3,064,506 | 4,470,801 | 4,899,907 | 4,070,736 |
| 10 | Engines and boilers | 54,639,927 | 88,421, 897 | 136,068,401 | 116,729,688 |
| 11 | Farm implements and machinery ............ 8 | 161,642,021 | 195,081,777 | 197, 266, 261 | 209,143, 129 |
|  | Hardware and cutlery | 11,782,673 | 16,899,982 | 14,345,061 | 16,202,007 |
| 12 | Machinery (except agricultural | 226, 248,681 | 328,741,288 | 360, 969,466 | 401,855,756 |
| 14 | Springs. | 110,698 | 119.148 | 242,430 | 233,670 |
| 15 | Stamped and coated products.............. \$ | 8,287, 010 | 10,128, 840 | 9,677,168 | 11,668,309 |
| 16 | Tools and hand implements................. \$ | 13,483,504 | 19,117,292 | 22,565,650 | 31,003,887 |
|  | Vehicles and Parts- |  |  |  |  |
| 17 | Automobiles, freight. . . . . . . . . . . . . . . . No. | $\begin{array}{r} 6,770 \\ 10,587,697 \end{array}$ | $\begin{array}{r} 5,642 \\ 13,991,589 \end{array}$ | $\begin{array}{r} 4,087 \\ 11,742,706 \end{array}$ | $\begin{array}{r} 5,103 \\ 17,304,400 \end{array}$ |
| 18 | Automobiles, passenger.,............... No. | 81,758 | 42,692 | 34,906 | 53,372 |
|  | 8 | 75,329,592 | 56,632,484 | 49,483,641 | 79,454,061 |
| 1920 | Automobile parts......................... \$ | 158,404, 838 | 195, 177, 254 | 190,337,126 | 222, 283,607 |
|  | Other vehicles........................... \& | 16,779,182 | 17,309,597 | 22,362,198 | 38,207,588 |
|  | Totals, Vehicles | 261, 101,309 | 283,110,924 | 273,925,671 | 357,249,656 |
| 21 | Other iron and steel products | 67,200,073 | 101,633,382 | 111,298,828 | 141,121,789 |
|  | 8 | 980,229,068 | 1,332,251,363 | 1,406,626,898 | 1,531,555,583 |
|  | VI. Non-ferrous Metals |  |  |  |  |
| 22 | minu |  |  |  |  |
|  | Bauxite................................... cwist. | $\begin{array}{r} 37,232,540 \\ 9,890,125 \end{array}$ |  |  | 53,769,306 $16,583,744$ |
| 23 | Aluminum and manufactures of, n.o.p...... \$ | 8,825,665 | 12,698,393 | 9,725,059 | 16,577,726 |
|  | Totals, Aluminum....................... | 18,715,790 | 28,071,406 | 22,640,068 | 33,161,470 |
| 24 | Brass and manufactures | 14,491,830 | 16,422,410 |  | 17,795,987 |
| 25 | Copper and manufactures of................... \$ | 2,371,098 | 4,052,877 | 10,925,982 | 9,928,043 |
| 26 | Lead and manufactures of.................... \$ | 594,835 | 786,269 | 532,388 | 436,918 |
| 27 | Nickel and manufactures of.................. \$ | 6,880,228 | 6,098,654 | 5,481,997 | 7,412,689 |
| 28 | Precious metals and manuiactures of........ \% | 31,398,398 | 30, 208, 153 | 27,645,543 | 30,859,243 |
| 29 | Tin and its products. | 10,399,050 | 19,626,067 | 10,672,578 | 8,363,792 |
| 30 31 | Zinc and manufactures of ...................... 8 | 3,356,966 | 4,261,378 | 2,840,328 | $3,466,279$ |
| 3132 | Alloys, n.o.p................................. $\mathbf{8}^{\text {d }}$ | 1,346,988 | 2,092,860 | 1,785,599 | 1,187,594 |
|  | Clocks and watches........................ | 12,011,801 | 10,213,573 | 9,631,178 | 13,536,815 |
| 32 33 | Electrical apparatus, n.o.p.................... \% | 82,564,937 | 120, 101, 053 | 139,567, 267 | 198,275,341 |
| 343536 | Gas apparatus................................ \$ | 491,349 | 775,929 | 552,747 | 773,581 |
|  | Printing materials........................ \$ | 2,380, 033 | 2,184,479 | 1,899, 059 | 2,065,556 |
| 36 | Other non-ferrous metals..................... \$ | 28,523, 263 | 45, 353,375 | 49,270,512 | 37,308,033 |
|  | Totals, Non-ferrous Metals........... \$ | 215,526,566 | 290,848,483 | 296,875,244 | 361,571,341 |
|  | VII. Non-metallic Minerals |  |  |  |  |
| 3838 | Asbestos and manufactures of.............. \$ | 2,631,352 | 3,428,453 | 3,398,361 | 3,310,175 |
|  | Clay and manufactures of................... \$ | 33,699,110 | 43, 403,839 | 37,483,324 | 40,559,444 |
|  | Coal and Its Products- |  |  |  |  |
| 39 | \$ | $54,285,320$ | 51, 244,639 | 49,433,409 | $40,088,265$ |
| 40 | Coal, bituminous and coal, n.o.p......... ton | 22,668,440 | 22,947,974 | 21,037,990 | 20, 276,487 |
|  | ( ${ }^{8}$ | 120,478, 811 | 116,844,809 | 101, 236,846 | 96,479,188 |
| 41 | Coke..................................... ton | ${ }^{642,254}$ | 956,755 | 1325,259 | 656,259 |
|  | \$ | 11,029,927 | 16,911,483 | 13,464,933 | 11,565,770 |
| 42 | Other coal products...................... \$ | 4,552,299 | 5,367,309 | 4,068, 257 | 5,089,685 |
|  | Totals, Coal and Its Products. . . . . . . . \$ | 190,346, 357 | 190,368,240 | 168,203,445 | 153,222,808 |

the United Kingdom and the United States, 1950-53-continued

| United Kingdom |  |  |  | United States |  |  |  | No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | 1951 | 1952 | 1953 | 1950 | 1951 | 1952 | 1953 |  |
| 11 | - | 11 | - | 2,975,659 | 3,690,269 | 4,106,737 | 4,008, 810 | 1 |
| 643 |  | 586 |  | 15,971,317 | 21,329,066 | 24,196,991 | 25, 705, 847 |  |
| 53,651 | 16,097 | 233,007 | 65, 257 | 706,657 | 2,935,699 | 2,929,219 | 1,297,717 | 2 |
| 224,533 | 2,343 | 273 | 33, 191 | 2,714,998 | 10,493,226 | 12,253,425 | 3,307,713 | 3 |
| 88 | 23,925 | 561 | 728 | 2,257,089 | $3,221,800$ | 6,463,791 | 2,253,879 | 4 |
| 3,065,590 | 5,214,799 | 4,583,922 | 3,948,505 | 6,491,038 | 8,486, 671 | 7,779,767 | 8,383,088 | 5 |
| 13,956.804 | 19,926,906 | 13,679,216 | 15, 156,653 | 73,930,035 | 120,308,700 | 105,660,277 | 99,930,686 | 5 |
| 5, 737, 243 | 9,712, 871 | 10,434,660 | 9,904,859 | $29,388,650$ | 31,470, 258 | 44,666,910 | 45,471,839 | 7 |
| 2,436,907 | 2,933,122 | 2,605,180 | 2,876,328 | 4,664,157 | 8,900,762 | 9,244,241 | 6,121,529 | 8 |
| 384,881 | 613.034 | 720,188 | 532,344 | 2,665,384 | 3,819,233 | 4,131,453 | 3,405,466 | 9 |
| 6,711,083 | 8,692, 858 | 10,965, 873 | 19,468,251 | 47, 833,732 | 79,566,355 | 124, 839,820 | 96, 643,373 | 10 |
| $8,694.520$ | 6,877, 118 | 6,400.501 | 5,440, 814 | 152,576,162 | 187,581,155 | 190,122,002 | 202,780,530 | 11 |
| 2,261,610 | 2,317,343 | 1,879.922 | 2,902.693 | 8,404,167 | 12,271,447 | 10,666,683 | 11,042,021 | 12 |
| 17,277,251 | 21,373,473 | 33,533. 249 | 46,784.124 | 204, 984,479 | 296,978,195 | 314,085, 222 | 339,052,657 | 18 |
| 33.144 | 19,248 | 5,446 | 14,243 | 107,554 | 99,900 | 235,941 | 216,474 | 14 |
| 389,189 | 517,107 | 342,838 | 461,634 | 7,801,886 | 9,278,468 | 9,119,524 | 10,854,225 | 15 |
| 1,641,727 | 2,664,520 | 2,983,767 | 3,492,231 | 10,897,049 | 14,900,400 | 17,313,990 | 25.099.239 | 16 |
| 5,173 | 2,267 | 1,057 | 855 | 1,587 | 3,375 | 2,996 | 3,938 | 17 |
| 4,824,792 | 2,405, 202 | 1,114.046 | 1,286,521 | 5,756.886 | 11,586,387 | 10,591,121 | 15,690,026 |  |
| 77,666 | 28,518 | 20,748 | 28,141 | 3,183 | 14, 105 | 14,053 | 23,687 | 18 |
| 68.366 .135 | 26,506,824 | 19,637,203 | 28,475.498 | 6,337,796 | 30,077,048 | 29,734,701 | 49,554,083 |  |
| 4.232 .470 | 5,760,199 | 3,693,936 | $4,246.390$ | 154.107,515 | 189.341,476 | 186,556,394 | 217, 809,816 | 19 |
| 3,186,381 | 2,899,296 | 1,970,276 | 6,728,952 | 13,276,687 | 13,985,787 | 20,142,949 | 31, 139,400 | 20 |
| 80,609,778 | 37,571.521 | 26,415,461 | 40,737,361 | 179,478,884 | 244, 990,668 | 247,025,165 | 314, 193,325 |  |
| 5,401,273 | 8,07i, 0i1 | 7,753,815 | 9,720,976 | 60,134,549 | 90,212,316 | 100,066,764 | 128,896,174 | 21 |
| 148,849,915 | 126,553,356 | 122,538,665 | 161,540,192 | 811,607,787 | 1,146,844,319 | 1,230,801,185 | 1,324,655,782 |  |
| - | - | - | - | 1,819,401 | 2,792,244 | 1,758,157 |  | 23 |
|  |  |  |  | 2,239,082 | 3,149,235 | 1,485, 043 | 1,618,710 |  |
| 1,053,418 | 1,948.806 | 1,158.941 | 3,922,476 | 7,351,214 | 10,109,553 | 8,156.809 | 12,548, 423 | 23 |
| 1,053,418 | 1.948, 506 | 1,158,941 | 3,922,476 | 9,590,296 | 13,258,788 | 9,641,852 | 14.167,133 |  |
| 818,572 | 843,496 | 731,671 | 1,171,54 | 13,522,765 | 15,352,644 | 12,367,644 | 16,296,439 | 24 |
| 219,828 | 436,778 | 283,556 | 1,546, 197 | 2,092.066 | 2,938,860 | 10,630,311 | 4,230,502 | 25 |
| 47.605; | 211,476 | 275,478 | 135,795 | 273,630 | 245,229 | 206,227 | 245,919 | 26 |
| 435.590 | 496.528 | 399,425 | 336.855 | 6,093,227 | 5.236.512 | 4,526,170 | 6,379,799 | 27 |
| 22,324.4, ${ }^{-1}$ | 18,284,492 | 18,191.3¢5 | 17,471.716 | 8,324,307 | 10,512.169 | 9,038,780 | 12,591,823 | 28 |
| 1,923.106 | 2,515,464 | 646,139 | 1,059.833, | 1,091,922 | 5,113,020 | 906,091 | 181,486 | 29 |
| 41.244 | 48,741 | 15,022 | 48,125 | 3,257,369 | 4,123,916 | 2,744,457 | 3,375.216 | 30 |
| 389.117 | 545.040 | 429.283 | 374.701 | 928,566 | 1,541,081 | 1,308,404 | 786,217 | 31 |
| 183,399 | 331,395 | 374.806 | 292.574 | 4.691,385 | 3,987,431 | 3,094,797 | 4,096,199 | 32 |
| 9,284,924 | 14,669, 101 | 18,050.315 | 22,557,492 | 71,644.630 | 103,560,737 | 118,822,867 | 172,292.968 | 33 |
| 9.458 75.009 | 8.525 | 13,522 | 25.428 | 453.864 | 707,473 | 534.719 | 738.027 | 34 |
| 75.009 $1,514,753$ | 89,044 $2,192.032$ | 40,788 $2,592,521$ | 59.796 2.988 .003 | 2,297.961 | 2.083 .692 24.165 .026 | 1,851.636 | 1,992,454 | 35 |
|  |  |  |  |  |  |  |  |  |
| 38,220,797 | 42,620,918 | 43,202,852 | 51,950,571 | 135,685,578 | 192,826,668 | 198,489,231 | 251,34,212 |  |
| $386.941$ | 635,049 | 534.648 | 413,389 | 2,226,629 | 2,706,742 | 2.795,749 | 2,860,994 | 37 |
| 13,576, 56 | 16,933,548 | 13,490,607 | 14,133.903 | 18,887,335 | 24,418,877 | 22,482,782 | 24,619,175 | 38 |
| 395.867 | 291.656 | 344.743 | 338.861 | 3.890 .254 | 3,561,775 | 3.550.120 | 2,650,193 | 39 |
| 4,702.789 | 3,397,935 | 4,382.614 | 4,662.312 | 49,580,505 | 47,846.704 | 45,050.795 | 35.425.953 |  |
| 28.007 |  | 11,289. | 13.522 | 22,640.395 | 22,947,920 | 21,026.701 | 20262.965 | 40 |
| 272.370 | - | 105,351 | 125,090 | 120.205.703 | 116.843.834 | 101, 131.495 | 96,354,098 |  |
|  |  | $\begin{array}{r} 24 \\ 288 \\ 58 \end{array}$ | 186 4.979 | 642.053 11.026 .824 3.6 | 956.737 16.910 .494 | 825.235 $13,464.345$ | 656.073 $11,560.791$ | 41 |
| 758,685 | 662,421 | 367.697 | $\begin{array}{r} 4,979 \\ 1,170,355 \end{array}$ | $\begin{gathered} 11,026,824 \\ 3,686,377 \end{gathered}$ | $\begin{array}{r} 16.910 .494 \\ 4.362 .340 \end{array}$ | $\begin{array}{r} 13,464.345 \\ 3,696.434 \end{array}$ | $\begin{array}{r} 11,560.791 \\ 2,743.696 \end{array}$ | 48 |
| 5,736,947 | 4.060,400 | 4.856.250 | 5,962.7e6 | 184,501.469 | 185, 963,372 | 163,343.069 | 147.084.538 |  |

13.-Principal Imports into Canada for Consumption from All Countries'

| No. | Item | All Countries |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1950 | 1951 | 1952 | 1953 |
| 2 | VII. Non-metallic Minerals-concluded |  |  |  |  |
|  | Glass and manufactures of................. \$ | 28,150,003 | 31,768,775 | 27,049,456 | 37,423,611 |
|  | Graphite and its products.................... \$ | 566,024 | 788,533 | 745,737 | 824,788 |
|  | Mica and manufactures of.................... \% | 757,825 | 976,467 | 728,889 | 719,544 |
|  | Petroleum, Asphalt and Products- <br> Petroleum, crude............................... | 2,804,519 | 2,948,512 | 2,896,508 | 2,857,130 |
| 4 |  | 204,135, 857 | 233,363,537 | 210,265,558 | 213,286,105 |
| 5 | Fuel oil for ships' stores. . . . . . . . . . . . . . . gal. | 10,695,294 | 14,258,112 | 15,598,798 | 18,796,458 |
|  | Fuel | 442,869 | 679,982 | 692,812 | -940,737 |
| 6 | Coal oil and kerosene..................... gal. | 15,722,711 | 18,971,434 | 33, 814,292 | 26,708,398 |
| 7 | Gasoline. . . . . . . . . . . . . . . . . . . . . . . . . . . . . gal. | 246,462,585 | 202,565,570 | $\begin{array}{r} 4,013,338 \\ 250,206,488 \end{array}$ | $\begin{array}{r} 3,256,297 \\ 291,608,276 \end{array}$ |
|  | \$ | 39,759,478 | 33,395, 830 | 39,123,900 | 48,622, 821 |
| 8 | Lubricating oils......................... gal. | 17,710,328 | 28,898,979 | 31, 301,602 | 34,947,510 |
|  | Other petroleum and espalt producto \$ | 5,315,068 | 9,946,077 | 9,068,545 | 9,046,270 |
| 9 | Other petroleum and asphalt products..... \$ | 56,453,374 | 74,186,674 | 78,798,296 | 82,897,096 |
|  | Totals, Petroleum, Asphalt and Products. \$ | 307,962,521 | 353,893,663 | 341,962,449 | 358,049,326 |
| 110 | Stone and its produc | 24,620,481 | 33,965,946 | 36,147,439 | 35,642,188 |
|  | Other non-metallic minerals. ................ \% | 23,007,754 | 25,941,420 | 26,165,595 | 28,723,596 |
|  | Totals, Non-metallic Minerals........... \$ <br> VIII. Chemicals and Allied Products | 611,741, 427 | 684,535,336 | 641,884,695 | 658,475,580 |
|  |  |  |  |  |  |
| 12 | Acids | 5,613,559 | 7,541,211 | 5,938,509 | 6,991,334 |
| 13 | Alcohols, indus | 880,171 | 1,227,877 | 1,109,316 | 1,403,722 |
| 14 | Cellulose products....................... \& | 6,233,519 | 7,226,520 | 2,555,137 | 1,067,162 |
| 15 | Drugs, medicinal and pharmaceutical products. | 18,629,297 | 22,427, 117 | 21,780,213 | 22,417, 251 |
| 16 | Dyeing and tanning materials................. \$ | 12,907,549 | 13,759,164 | 10,023,151 | 11,167,457 |
| 17 | Explosives................................... \$ | 1,385,735 | 1,652,679 | 2,247,146 | 1,997,394 |
| 18 | Fertilizers.................................... . cwt. | 7,446,737 | 8,223,278 | 9,273,758 | 10,062,743 |
|  | 8 | 8,792,439 | 10,234, 838 | $10,465,092$ | 11,989,622 |
| 19 | Paints, pigments and varnishes............. \% | 18,211,825 | 20,861, 237 | 17,213, 669 | 21,199,445 |
| 20 | Perfumery, cosmetics and toilet preparations. \$ | 357,674 | 646, 619 | 904, 186 | 1,445,102 |
| 21 | Soap, common laundry ..................... lb . | 2,376,681 | 2,232,190 | 1,870,190 | 1, 229,484 |
|  | \% | 286, 664 | 316,397 | 224,947 | 149,055 |
| 22 | Soap, other. | 569, 185 | 571,216 | 575,955 | 796,262 |
| 23 | Inorganic Chemicals, n.o.p.- <br> Alum and compounds of aluminum and iron cwt. | 107,653 | 213,747 | 233,455 | 332,444 |
|  | \% ${ }^{\text {s }}$ | 291, 149 | 535, 929 | 535,363 | 700,991 |
| 24 | Ammonia and its compounds............ lb. | 20, 944, 861 | 15,768, 181 | 26,226,535 | 24,992,787 |
| 25 |  | 817,977 $3,867,857$ | r 647,273 | $1,042,442$ $9,508,205$ | $\begin{aligned} & 1,060,625 \\ & 6,862,779 \end{aligned}$ |
|  | tin and zinc. | -284,446 | 2,933,347 | 1,084,824 | -669,003 |
| 26 | Potash and potassium compounds, n.o.p... lb. | 8,311,341 | 9,504,604 | 7,864,429 | 8,834,097 |
| 27 |  | - 815, ${ }^{815}, 391,731$ | $1,028,463$ $365,832,915$ | 783,239 $316,686,013$ | $\begin{array}{r} 829,179 \\ 562,601,076 \end{array}$ |
|  |  | - 9 , 154,542 | 11,497,777 | $9,443,862$ | 14,009,916 |
| 28 | Other inorganic chemicals................ \& | 11,673,211 | 12,790, 185 | 12,826,243 | 14,501,858 |
|  | tals, Inorganic Chemicals, n.o.p....... \$ | 23,036, 340 | 26,792,974 | 25,715, 97 | 31,771,572 |
| 29 | Other chemicals and allied products........ \$ | 61,317,098 | 78,555,098 | 88,959,783 | 109,438,867 |
|  | Totals, Chemicals and Allied Products. \$ | 158,221,055 | 191,812,947 | 187,713,077 | 221,834,245 |
|  |  |  |  |  |  |
| 30 | Amusement and sporting goods, n.o.p....... \$ | 11,507,730 | 15,881,079 | 17,642,564 | 23,068,781 |
| 31 | Brushes..................................... § | 993,686 | 1,280,870 | 1,135,464 | 1,397,950 |
|  | Containers, n.o.p.......................... \$ | 5,821,110 | 7,628,265 | 7,672,760 | 8,787,495 |
| 33 | Household and personal equipment.......... 8 | 26,852,160 | 44,908, 354 | $60,340,934$ | 76,044,533 |
| 3. | Mineral and aerated waters................... \% | 86,611 | 103,049 | 138,710 | 169,715 |
|  | Musical instruments........................ \% | 3,861,103 | 4,738,636 | 4,986,268 | 6,878,997 |
|  | Scientific and educational equipment ........ \$ | 23,161,004 | 27,010,665 | 26,434, 209 | 29,722,893 |
|  | Ships and vessels........................ $\mathbf{8}^{\text {S }}$ | 1,658,036 | 2,729,617 | 3, 620, 012 | 1,682,265 |
| 334 | Vehicles (except iron)........................ $\frac{8}{8}$ | 13, 140,045 | 44,454, 932 | 101,552,426 | 120,645,098 |
|  | Works of art................................ \$ | 2,471,515 | $3,262,143$ | 2,527,969 | 2,552,288 |
| 41 | Miscellaneous imports under special conditions \$ | 48,528,968 | 81,969,796 | 121,655,529 | 126,998,752 |
|  | Other miscellaneous commodities............ \$ | 34,135,626 | 62,670,859 | 80,935,009 | 83,783,980 |
|  | 1s, Miscellaneous Products......... \& | 172,217,594 | 296,638,265 | 428,641,854 | 481,732,747 |
|  | Grand Totals, Imports for Consumption. \$ | 3,174,253,138 | 4,084,856,478 | 4,030,467,653 | 4,382,830,430 |

the United Kingdom and the United States, 1950-5s-concluded

| United Kingdom |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | 1951 | 1952 | 1953 | 1950 | 1951 | 1952 | 1953 |  |
| 6,065,878 | 6,321,195 | 3,776,478 | 5,184.940 | 18,375,666 | 20,449,504 | 19,640,089 | 26,433,572 | 1 |
| 90,905 | $102,80{ }^{0}$ | $135.6 \%$ | 141.609 | 422.864 | 608,711 | 535,721 | 580.806 | 2 |
| 37,741 | 32,487 | 20.342 | 16.021 | 474.724 | 544,948 | 438,697 | 472,004 | 3 |
| - | - | - | - | 1,094,514 | 760,522 | 711,995 | 510,315 | 4 |
| - |  |  |  | 90,278,634 | 58,811,632 | 54,635,919 | 40, 202,895 |  |
| - |  |  | - | 10,695, 294 | 14, 258, 112 | 15,598,798 | 18,796, 458 | 5 |
|  |  |  | 281 | 11,348,869 | 679.982 15.631 .880 | 692,812 $27,970,000$ | 24, ${ }^{9+290.737}$ | 5 |
| 二 | 556 |  | 84 | 1,389,949 | 1.952,184 | 3,242,686 | 24,018,590 | 6 |
| - |  |  |  | 204, 115, 317 | 182,233.536 | 210, 402,995 | 272,159, 401 | 7 |
| - |  |  |  | 32,827,557 | 30,271,192 | 32,777,759 | 45, 429,430 |  |
| 29,794 | 26,570 | 32,499 | 86,264 | 17,655,339 | 28, 822.084 | 31,211,612 | $34,808,089$ | 8 |
| 21,722 | 21.181 | 48,606 | 73,133 | 5.268,208 | 9,877, 888 | 8,966,675 | 8,929, 061 |  |
| 64,121 | 10,662 | 30,414 | 44,824 | 39,436,646 | 55,433.578 | 64,313,862 | 66,756,25i | , |
| 85,843 | 32,399 | 79,020 | 118,041 | 169,643,863 | 158,026,356 | 164, 629, 713 | 165, 776,970 |  |
| 2,734 | 3.4i2,013 | 3.200 | 2.781.952 | 19,946,539 | 24,395.739 | 26,009,135 | 27,410,908 | 10 |
| 1,486,543 | 1,274,052 | 1,224,661 | 1,401.501 | 16,379,875 | 18, 738,703 | 19,577,962 | 20,465,388 | 11 |
| 30,201,816 | 32,841,010 | 27,318,207 | 30,154, 422 | 430,838,504 | 435,853,352 | 419, 5252,512 | 415,701,355 |  |
| 959.517 | 1,361,730 | 635,840 | 628.228 | 4,332,341 | 5,473,182 | 4,960,413 | 5,718,956 | 12 |
| 1,14 ${ }^{\circ}$ | 1.672 |  | 4,903 | 872,802 | 1,216.530 | 1.100,333 | 1,388,040 | 13 |
| 818,013 | 912,85i | 162,921 |  | 5,363,212 | 6,094,769 | 2,276,155 | 1,067,162 | 14 |
| 1,664,666 | 1.681,080 | 1.751,054 | 1,790,454 | 16,178,810 | 19,619,856 | 18,605,060 | 19,133,069 | 15 |
| 1,721.531 | 1,853.528 | 1.309.46\%. | $1.380,019$ | 8,370,078 | $8.380,411$ | 6.150,837 | 6,518,012 | 16 |
| 376,679 | 88.266 | 103.950 | 126,841. | 920,590 | 1,464.984 | 2.036 .834 | 1,729,141 | 17 |
| 4,558 | $8,7 \times 3$ | 7.504 | 15,142 | 6,251,275 | 7,537,072 | $8.041,436$ | 8,427,446 | 18 |
| 4,321 | 18.561 | 25.23 | 45,569 | 6,846,050 | 9,002.585 | S. 676,074. | 9,521,716 |  |
| 2,526,380 | 2,932,200 | 2,251.514' | 4,169,06? | 15,582,991 | 17,703,783 | 14, 568.658 | 16,881,337 | 19 |
| 107,930 | $67.10{ }^{\circ}$ | 54, 664 | 97,07\%. | 95. 722 | 406,153; | 650.760 | 1,074.173 | 20 |
| 86.362 | 21.330 | $864^{\prime}$ | 13.705 | 2.215 .513 | 2.209,7\%0. | 1.869.326 | 1,208,044 | 21 |
| 14,33 ${ }^{\text {¢ }}$ | 2.700 | 130 | 1,273 | 260.041 | 313, 433 , | 224.817 | 147,010 |  |
| 124, 422 | 110,645. | 76,241 | 103,750 | 429.498 | 433,011 | 473,905 | 661,887 | 22 |
| $\begin{array}{r} 59,726 \\ 100,557 \end{array}$ | $\begin{aligned} & 154,558 \\ & 260.699 \end{aligned}$ | $\begin{gathered} 90.85 i \\ 171,250 \end{gathered}$ | $\begin{aligned} & 148,749 \\ & 263.673 \end{aligned}$ | $\begin{array}{r} 47,705 \\ 189,953 \end{array}$ | $\begin{array}{r} 58.529 \\ 272,730 \end{array}$ | $\begin{aligned} & 140.130 \\ & 35 \% .970 \end{aligned}$ | $\begin{aligned} & 178,201 \\ & 425,928 \end{aligned}$ | 23 |
| 929,073 | 2,021.396 | 8:2.62: | 1,154,76\% | 19,999,112 | 13,701.523 | 25,329.015 | 23,679,906 | 4 |
| 57,754 | 109.556 | 49.858 : | 6-1.659] | 757,505 | 531.885 | 990.265 | 977,845 | A |
| 2,614,975 | 628,220 | \$10.994] | 3,599.514 | 912,242 | 1,544. 895 | 4,171,065 | 3,258,855 | 25 |
| 145.782 | 56,013 | 53.559 | 279.499, | 111,439 | 1:4,519 | 401.074 | 387, 204 |  |
| 967,649 <br> 148,868 | 1,068,415 | 662513 | 605,308 11.868 | 6,001,219 | 7,301,965 | 128.876 | 6,160,227 | 26 |
| $7 \mathrm{7}, 559,769$ | 134.301,269 | 32,949.312 | 139,468, 121 | 151,302,152 | 226,754,416 | 279.888 .985 | 415. 433.985 | §7 |
| 2,092,723 | 2,992,526 | 1,535,7t2 | 3,089, 850 | 6,557,852 | -,971.541 | 7, 129.119 | 10,125,793 |  |
| 390,665 | 351,132 | 268.10: | 267,333, | 11, 100,983. | 12,238,955 | 12.481.946 | 14,078,112 | 28 |
| 2,936,349 | 3,945,346 | 2,210,385; | 082,916 | 19.245,778 | 21,888, 046 | 22.185,321 | 26,515,933 |  |
| 2,791,754 | 3,222.445 | 3,613,485 | 6.120.55s! | 56, 105,095 | 73,064,114 | 84,039,628 | 101,455.763 | 2) |
| 14,047,043 | 16,188,139 | 12,225,014 | 18,550,650 | 134,603, 008 | 165,065,857 | 166,248,838; | 191,812,229 |  |
| 2,465,298. | 2,700,209 | 2,857,753 | 3,411,519 | 7.084 .026 | 11,146.526 | 12.716.955 | 16,319,621 |  |
| 362,517, | 613,471 | 340.385 | 375,606; | 599.409 | 587,742 | 12.71.152 | 16.867,053 | 31 |
| 2,018,007 | 2.5i4, 429 | 2.580 .607 | 2,975,859 | 2,551.669 | 3.086,074 | 3.256.762 | 3,475,879 | 32 |
| 3.672.222 | 3,436.383 | 2,678.559 | 3,355, 899 | 21,446.243 | 39,435,901 | 55,586.35\%; | 69,259,210 | 33 |
| 5,931 458,590 | 3,233 516,043 | 6.196, 643.220 | 5.056 820.6 | 2.532.241 | ${ }^{18.837}$ | 19.123 | 10.235 | 34 |
| + 4 458,590 | 1,336,808 | 643.220, $2.0<1.7$ | 1,786.202 | 2.532 .414 | 3,263.130 | 3.194.431 | 4,661,308 | 35 |
| 1,285,188 | $1,336,808$ 268,844 | 2,0¢1.476 | $1,786,202$ 516,050 | $20,281.739$ $1,232.710$ | 23,370.006, 2,101,916 | $21.731 .33 \%$ 3.265 .85 | 24,540,956 | 36 |
| 1,885,123 | 3,078.854 | 4, 459.922 | 7.701.315 | 11,245,624 | 41,067, 44 | 96. $\times 32.517$ | 112,711,249 | 38 |
| 866.620 | 1.030.126 | 992.178 | 782.422: | 73.152 | 838,509 | $731.50{ }^{-1}$ | 944, $20{ }^{\text {a }}$ | 39 |
| 2,209,224 | 3,010.066 | 6.011 .930 | 3.975, 83 | 44,858. 45 | $77.456,279$ | 113,993,599 | 120, 139,975 | 40 |
| 3,130,216 | 6,656,832 | 6, 937.075. | 7, 142,235: | 24,290.052 | $41.375,715$ | 59,145, 207 | 59,361,783 | 41 |
| 18,516,512 | 25,225,298 | 23,802,658 | 32,879, 034 ${ }^{\text {] }}$ | 136,903,766 | 243,748, 078 | 371,190,834 | 413,151,495 |  |
| 404,213,449 | 420,484,515 | 359,757,123 | 453,391,388 | 2,130,475,929 | 2,812,927,298: | 2,976,962,352 | 3,221,214,416 |  |

14.-Principal Exports of Canadian Produce from Canada to All Countries,

the United Kingdom and the United States，1950－53

| United Kingdom |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | 1951 | 1952 | 1953 | 1950 | 1951 | 1952 | 1953 |  |
| 3，680，760 | 1，900，464 | 1，581，436 | － | 10，532，247 | 10，351，424 | 10，628，969 | 12，092，447 | 1 |
|  |  |  | － | 630，544 | 31，280 | 122，987 | ， 739 | 2 |
|  |  |  |  | 108，404 | 6，347 | 2，750 | 169 |  |
| 16，651 | 29，847 | 26，918 | 16，690 | 3，458，731 | 2，927，905 | 2，667，573 | 3，270，948 | 3 |
| 5，696 | 12，123 | 6，867 | 4，864 | 505,671 210,356 | 466,975 167,520 | 464,750 100,856 | 558,762 40,704 |  |
| － | － |  |  | 168，553 | 148，587 | 99，321 | 55， 866 |  |
| 3，686，456 | 1，912，587 | 1，588，303 | 4，864 | 11，314，875 | 10，973， 333 | 11，195，790 | 12，707，244 |  |
| － | － | － | － | － | 577 | 508 | 15 | 5 |
| － | － | － | －${ }_{25}$ | 4，688，193 | 4，981，505 | 5，286， 176 | 4，563，689 | 6 |
|  |  |  |  | 13 | ${ }_{26}^{27}$ | 302 273 | 600 454 | 7 |
| 4，644， 276 | 8，357，948 | 5，984， 765 | 6，099，957 | 13，695， 570 | 20，994， 355 | 497， 981 | 241.636 | 8 |
| 416,691 | 872，103 | 638，967 | 639，166 | 1，122，056 | 2，190，798 | 60，528 | 20，171 |  |
| 9，576 | 19，106 | 13，712 | 14，468 | 12，033 | 26，462 | 3，032 | 12，135 | 9 |
| 426，267 | 891，209 | 652，679 | 653，659 | 5，822，298 | 7，198，791 | 5，350，009 | 4，596，449 |  |
| 86，967，949 | 85，742，135 | 103，529，484 | 103，641，307 | 14，951，226 | 37，916，746 | 44，082，487 | 12，924，462 | 10 |
| 173，650，751 | 159，179，214 | 189，575，022 | 206，390，806 | 28，485，785 | 65，036，229 | 72，533，242 | 23，693，726 |  |
| 4，349，704 | 4，792，478 | 4，870，147 | 3，883，279 | 91，668 | 200，188 | －15，268 | 52，271 | 11 |
| 40，962， 695 | 43，005， 246 | 39， 265,294 | 33，359，001 | 669,813 | 1，586，558 | 127， 235 | 404， 107 |  |
| 18，588 | －3，922 | 2， 2.348 | 24，372 | 311，302 | 813，852 | 444，407 | 338，495 | 12 |
| 481，643 | 8，987，088 | 2，766，622 | 40，426， 114 | 55，603，035 | 88，389，954 | 119，601，424 | 126，738，883 | 13 |
| 215，096，677 | 211，175，470 | 231，609，286 | 280，200，293 | 85，069，935 | 155，826，593 | 192，706， 308 | 151，175，211 |  |
| － | － | － | － | 652 | 376 | 39 | 19 | 14 |
| － | － | － | － | 7.369 | 10，559 | 673 | 250 |  |
| 15，182 | 30，733 | 21，451 | 51，471 | 33，687 | 43，292 | 42，577 | 123，590 | 15 |
| 二 | － |  | 1，875 | 6，576，136 | 5，824，539 | $8,633,823$ | 8，795，360 | 16 |
|  |  | 二 | 687 <br> 577 | 2，880，651 | 2，434，882 | 3，319，385 | 3，743，788 |  |
|  |  |  | 572 | 1，812，161 | 1，717，675 | 1，878，719 | 1，883，454 | 17 |
| 15.182 | 30，733 | 21，451 | 52，735 | 4，756，499 | 4，195，849 | 5，240，681 | 5，750，832 |  |
| － | － | － | 4，235 | 76，234 | 10，086 | 20，941 | 2，692 | 18 |
| ＝ |  | － |  | 103 | 75，969 | 967 | 1，438，463 | 19 |
| 二 |  |  |  | 3.904 | 2，676 | 1，190 | 291 | 20 |
| 6，608 | 5，712 | 10，531 | 5，136 | 1659,156 <br> 25 | 278，121 | 182,488 218 | 241，561 | 22 |
| 219，231，190 | 214，015，711 | 233，882，250 | 280，920，922 | 107，477，497 | 178，700，501 | 214，918，340 | 176，117，449 |  |
| 二 | － | － | － | 1，528， 618 | 1，776，864 | 1，620，120 | 2，050，932 | 23 |
| $\overline{55,190}$ |  |  |  | 1，638，142 | 1，951，738 | 1，923，866 | 2，746，680 |  |
| 377，611 | 639，527 | 782，359 | 918，552 | 33，521，556 | 44，207，395 | $4,968,425$ $44,276,091$ | $5,975,851$ $53,222,482$ | 24 |
|  |  |  |  | 2，852 | 2 | 20 | 17 | 25 |
|  |  |  | － | 3，564 | 52 | 96 | 57 |  |
| 377，611 | 639，527 | 782，359 | 918，552 | 35，163，262 | 46，159，185 | 46，200， 053 | 55，969，219 |  |
| 17，078 |  | 21，272 |  | 18，502 | 15，400 | 37，586 | 24，081 | 26 |
| － | 228,480 861.079 |  | 1，442，549 | 498，769 | 576，547 | 964，528 | 607，273 | 27 |
|  | 861，079 |  | 5， $268,567$. $2,935,916$ | 1，669，839 | 1，860，357 | 4，303，649 | 2，431，779 |  |
| 22，423 | 14，624 | 460,456 13,156 | 2，935，916 10,880 | 461,317 89,174 | 493,884 104,156 | 394,083 110 | 520,021 158,372 | 28 |
| 418，271 | 1，884，770 | 414，793 | 203，694 | 4，376，316 | $6,646,934$ | 5，521，065 | 4，497，897 | 30 |

14.-Principal Exports of Canadian Produce from Canada to All Countries

| No. | Item | All Countries |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1950 | 1951 | 1952 | 1953 |
| 1. Agricultural and Vegetable Productsconcluded |  |  |  |  |  |
| 1 | Seed potatoes. . . . . . . . . . . . . . . . . . . . . bus. | $\begin{aligned} & 4,894,177 \\ & 5,237,405 \end{aligned}$ | $\begin{aligned} & 3,837,545 \\ & 4,086,204 \end{aligned}$ | $\begin{aligned} & 2,256,189 \\ & 6,364,126 \end{aligned}$ | $3,390,868$ $6,612,655$ |
| $\stackrel{2}{3}$ | Seeds, n.o.p.................................. . . . | 25,474,285 | 23,829,089 | 26,780,975 | 24,179,567 |
|  | Tobacco, unmanufactured.................... . lb . | 22,508,262 | 29,180,473 | 38,315, 173 | 28,389, 217 |
|  | \$ | 10,551,660 | 16,413,373 | 22,221,125 | 15,682,664 |
| 5 | Tobacco, manufactured..................... \$ | 90,959 | 206,746 | 389,151 | 444,675 |
|  | Other vegetable products, not food........... § | 12,945,864 | 16,121,251 | 17,293,930 | 18,616,706 |
|  |  | 116,390,882 | 153,921,522 | 156,388,987 | 153,308,186 |
|  | Totals, Agricultural and Vegetable Products............................... \& | 636,897,823 | 891,209,730 | 1,183,496,418 | 1,096,762,974 |
|  | II. Animals, Fishery, and Animal Products |  |  |  |  |
| 6 | Animals, Living- |  |  |  |  |
|  | Cattle, swine, sheep and poultry, pure bred for improvement of stock. | 7,834,215 | 8,345,138 | 1,157,852 | 6,136,434 |
| 7 | Cattle, n.o.p..................................... No. | 7335,239 | 219,563 | 12,537 | 49,155 |
|  |  | 71,651,067 | 55,027,616 | 3,139,181 | 9,150,680 |
| 8 | Horses................................. . . . . . ${ }_{8}$ | $\begin{array}{r} 26,858 \\ 1,002,325 \end{array}$ | 11,072 557,329 | 6,996 358,167 | 12,563 615,697 |
| 9 | Other animals, living.................... \& | 4,084,523 | 1,348,166 | 1,163,968 | 1,352,769 |
|  | Totals, Animals, Living................. | 84,572,130 | 65,278,249 | 5,819,168 | 17,255,580 |
| ; 10 | Bones, horns, etc. Fishery Products, n.o.p.\$$\qquad$ | 352,988 | 367,154 | 122,027 | 320,520 |
| 11 |  | 2,947,048 | 2,815,073 | 3,083,326 | 2,990,198 |
|  | Fish, fresh or frozen ........................ cwt. | 62,411,981 | 66,274,959 | 67,924,242 | 66,632,848 |
| 12 | Fish, salted, dried, pickled and smoked... cwt. | 2,083,745 | 2,100,536 | 1,844, 168 | 1,633,654 |
|  |  | 28,628,118 | 27,607,811 | 25,543, 823 | 22,273,695 |
|  | Fish, canned or preserved, n.o.p.......... cwt. | 477,168 | 478,504 | 490, 173 | 598,154 |
|  | Fish, canned or preserved, n.o.p............ 8 \% | 15,248,687 | 16,192,679 | 13,986,347 | 18,373,822 |
| 14 | Other fishery products, n.o.p.............. | 6,429,049 | 7,388,996 | 5,870,355 | 3,853,912 |
|  | Totals, Fishery Products, n.o.p......... \$ | 112,717,835 | 117,464,445 | 113,324,767 | 111,134, 277 |
| 15 | Furs and manufactures of.................. $\$$ | 25,298, 256 | 29, 864, 201 | 24,405,531 | 22,340,616 |
| 16 | Hair and bristles and manufactures of....... \& | 1,318,813 | 2,424,048 | 1,312,381 | 1,192,960 |
| 17 | Hides and skins, raw (except fur skins)....... No. | 2,149,127 | 1,609,314 | 1,631,268 | 2,035, 233 |
|  | , 8 | 14, 409, 710 | 13,791, 138 | 5,534,442 | 7,568,957 |
|  | Leather, unmanufactured.................. \$ | 6,035,152 | 7,014,585 | $4.455,148$ | 6,790,639 |
| 19 | Leather, manufactured.................... \& | 1,912,636 | 2,151,633 | 2,177,394 | 2,725,791 |
|  | Bacon and hams, shoulders and sides....... cwt. | $\begin{array}{r} 785,267 \\ 28,306,976 \end{array}$ | 6,61,325 | 2,502, 3916 | $\begin{array}{r} 70,274 \\ \mathbf{5}, 508,128 \end{array}$ |
|  | Other meats and preparations of ............ $\%$ | 46,211,060 | 68,812,411 | 46,061,361 | 46,521,396 |
|  | Milk and Its Products- |  |  |  |  |
| 2 | Butter.........................................w. ${ }_{8}$. | $\begin{gathered} 16,291 \\ 943,042 \end{gathered}$ | $\begin{array}{r} 5,437 \\ 387,404 \end{array}$ | $\begin{array}{r} 8,656 \\ 568,833 \end{array}$ | 1,907 125,798 |
| 2 | Cheese................................... . . . . . . | 631,096 | 306,532 | 20,949 | 164,294 |
|  | 8 | 16,551,508 | 10,231,725 | 879.546 | 4,518,175 |
|  | Milk, processed.......................... . ewt. | 557,644 | 410,406 | 686,782 | 573,847 |
|  | Mik, procesed....................... \$ | 9,171,452 | $9,011,843$ | 13,237,392 | 10,621,890 |
| 25 | Other milk products...................... \$ | 915,808 | 1,867,632 | 1,004,519 | 934,396 |
|  | Totals, Milk and Its Products.......... \& | 27,581,810 | 21,498,604 | 15,690,290 | 16,200,259 |
| $\begin{aligned} & \mathbf{2 6} \\ & \underset{27}{ } \end{aligned}$ | Oils, fats, greases and waxes............... \$ | 5,455,367 | 6,522,462 | 5,256,159 | 3,622,438 |
|  | Other animal products........................ § | 11,602,304 | 9,194,796 | 11, 280,843 | 9,737,419 |
|  | Totals, Animals, Fishery, and Animal Products | 365,775,038 | 348,033,470 | 237,941,527 | 250,918,980 |

the United Kingdom and the United States，1950－58－continued

| United Kingdom |  |  |  | United States |  |  |  | No． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | 1951 | 1952 | 1953 | 1950 | 1951 | 1952 | 1953 |  |
| － | － | － | － | 3，881，329 | 3，061，810 | 1，284，301 | 2，053，313 | 1 |
|  |  |  |  | 3，966，402 | 3，003，288 | 3，486，728 | 3，751，632 |  |
| 15，766，470 | 23，${ }_{223}$ | $2,165,008$ $31,927,373$ | 1，876，852 | 11，961， 110 | 11，734， 055 | 10，233，359 | 10，683， 664 | 3 |
| $15,760,437$ $8,320,337$ | 13， 2311,339 | 18，601，170 | 23，282，564 $12,905,136$ | 126 | 113 | 12 | 82 128 | 3 |
| 153.17 | ， 3128 | 55，538 | 102，905 | 49，691 | 43，896 | 34，437 | 34，111 | 4 |
| 153，827 | 313，788 | 62，383 | 143，112 | 11，703，607 | 14，680，791 | 16，067，331 | 17，109，232 | 5 |
| 9，564，034 | 17，569，063 | 22，576，135 | 24，381，536 | 69，459，416 | 84，742，059 | 86，388，522 | 95，180，136 |  |
| 228，795，224 | 231，584，774 | 256，458，385 | 365，302，458 | 176，936，913 | 263，442，560 | 301，306，862 | 271，297，585 |  |
|  | 250 | － | － | 7，322，754 | 7，975， 275 | 920，439 | 5，720，041 |  |
|  |  | － |  | 433，992 | 218，607 | 11，763 | 47，677 | 7 |
|  | － | － |  | $71,516,369$ 26,788 | $54,873,719$ 10,964 | 3，060，420 | 9，017，031 | 8 |
| 2，800 |  |  |  | 990， 873 | 544，408 | 349，570 | 576，972 |  |
| 3，640 | 2，726 | 11，974 | 20，094 | 4，036，778 | 1，300，593 | 1，069，144 | 1，254，652 | 9 |
| 6，585 | 2，976 | 11，974 | 20，094 | 83，866，774 | 64，693，995 | 5，399，573 | 16，568， 696 |  |
| － | 15，400 | － | － | 350，880 | 351，502 | 121，845 | 278， 621 | 10 |
| $\cdots$ | － | － | －－ | 2，941，058 | 2，804，321 | 3，064，849 | 2，964，578 | 11 |
|  | － |  |  | 62，217，984 | 65，969，421 | 67，446，622 | 65，979，634 |  |
| － | － |  |  | 481,782 $6.884,616$ | 6． 476.334 | 467,300 $6,669,971$ | 5，392，791 | 12 |
| 127，794 | 169，643 | 14，782 | 128，945 | 39，650 | 32，573 | 143，363 | 152，538 | 13 |
| 4，891，776 | 7，043， 334 | 761，539 | 4，646，857 | 2，944，225 | 2，126，404 | 5，513，058 | 6，072，136 |  |
| 86，325 | 128，290 | 1，850 | 43，056 | 6，152，805 | 7，066，840 | 5，655，509 | 3，562，586 | 14 |
| 4，978，101 | 7，171，824 | 763，389 | 4，689，913 | 78，199，630 | 81，863，566 | 85，285， 160 | 81，111，842 |  |
| 4，009，635 | 7，325，579 | 4，052，900 | 3，896，948 | 20，807，744 | 21，834，659 | 19，742，138 | 17，808， 914 | 15 |
| 338，409 | 1，018，317 | 492，342 | 429，952 | 794，887 | 1，291，866 | 700，697 | 632， 164 | 16 |
| 156，150 | 188，062 | 84，388 | 131，464 | 1，659，415 | 1，354，170 | 1，460，490 | 1，575，373 | 17 |
| 1，109，158 | $1,291,814$ $1,254,006$ | 1，191， 219 | 452，902 | 9，231，712 | 11，820，419 | 4，702，112 | 4，642，635 |  |
| 91，460 | 1，117，711 | 1， 5191,078 | 1，725，696 | $3,134,683$ $1,631,947$ | 3，819，979 $1,606,386$ | $2,213,147$ $1,788,558$ | $3,166,598$ $2,249,222$ | 18 |
| $\begin{array}{r}723,403 \\ \hline 24,400,029\end{array}$ | 18，915 |  | 113，10 | 1，52，817 | ，34，997 | 1， 25,595 | 2，60，970 | 20 |
| 24，400，029 | 629，559 | ［ $\overline{\square 14}$ |  | 3，406，398 | 2，567，150 | 1，978，978 | 4，951，312 |  |
| 904 | 447.349 | 28，244，712 | 2，640，169 | 40，686，259 | 63，900， 286 | 13，138， 843 | 38，186，379 | 21 |
| 二 | － | － | － | 417 | 1.465 | 2，234 | 220 | 22 |
| 592，398 | $\overline{271.517}$ |  |  | 27，494 | 112，706 | 174，226 | 17，158 |  |
| 15，072，739 | 8，718，302 | 47，641 | 3，868，688 | 1，187，400 | 1，188，436 | 15,462 673,871 | 10,716 450,245 | 23 |
| － | 54，639 | － | ， | 31，070 | 3，366 | 130，835 | 21，406 | 24 |
| 二 | $\underline{712,552}$ | 二 | － | 330，625 | 44．451 | 1，640，021 | 252，037 |  |
|  |  | － | － | 344，058 | 493，864 | 156，309 | 491，685 | 25 |
| 15，072，739 | 9，430，854 | 47，641 | 3，868，688 | 1，889，577 | 1，839，457 | 2，644，427 | 1，211，125 |  |
| 59，968 | 939，462 | 322，302 | 175，948 | 2，328，663 | 2，759，893 | 2，344，298 | 1，550，146 | 26 |
| 2，420，866 | 215，112 | 552，279 | 567，318 | 7，003，717 | 7，178，538 | 7，905，889 | 7，014，549 | 27 |
| 58，346，185 | 29，859，563 | 35，948，295 | 18，580，735 | 253，332，871 | 265，527，696 | 147，965，965 | 179，372，203 |  |

14.-Principal Exports of Canadian Produce from Canada to All Countries,

| No. | Item | All Countries |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1950 | 1951 | 1952 | 1953 |
| $\begin{aligned} & 1 \\ & 2 \\ & 3 \\ & 4 \end{aligned}$ | III. Fibres and Textiles |  |  |  |  |
|  | Cotton and manufactures of. $\qquad$ $\$$ Flax, hemp, jute and manufactures of $\qquad$ Silk and manufactures of. $\$$ Wool, raw (includes noils and tops) $\qquad$ lb. | 7,151,961 | 10,960,752 | 7,041.833 | 3,374,395 |
|  |  | 2,004,574 | 1,234,434 | 1,386,542 | 564,914 |
|  |  | 6,763 | ${ }^{2} 763$ | 1,385 | $6,201$ |
|  |  | 3,756,947 | 2,326,790 | 3,170,992 | 3,436, 268 |
|  |  | 2,480,077 | 2,201,134 | 1,937,985 | 1,899,138 |
|  | Other wool and manufactures of. Synthetic fibre and manufactures of. $\qquad$ 8 Other textile products. $\qquad$ $\$$ <br> Totals, Fibres and Textiles $\qquad$ $\$$ <br> IV. Wood, Wood Products and Paper | 3,817,812 | 5,295, 801 | 2,525,060 | 3,870,420 |
|  |  | $5,118,279$ | 4,267, 695 | 3,227, 236 | 5,210,303 |
|  |  | 8,993,984 | 12,897,765 | 11,576,770 | 9,407,842 |
|  |  | 29,573,450 | 36,858,344 | 27,696,811 | 24,333,213 |
| 8 |  | 57,029 | 43,063 | 52,228 |  |
| 8 | Logs................................................. $\mathrm{Mft}_{\mathrm{s}}$. | 4,308,117 | 4,707,423 | 4,796,034 | 4,394, 811 |
| 9 | Railroad ties.............................. No. | 451,139 | 168,478 | 899,632 | 1,494,293 |
|  |  | 1,322,244 | 480,609 | $3,345,857$ | 4,497,341 |
| 10 | Planks and boards........................ $\mathrm{Mff}_{\mathrm{ft}}$. | 3,575,322 | 3,435,510 | 3,328,563 | 3,369,686 |
|  |  | 290,846,700 | 312,198,092 | 295,948,736 | 282, 736, 266 |
| 11 | Timber, square. . . . . . . . . . . . . . . . . . . . . . $\mathrm{sft}_{\mathrm{s}}$. | $\begin{array}{r} 3,330 \\ 274,390 \end{array}$ | 3,868 424,919 | $\begin{array}{r} 11,095 \\ 1,256,318 \end{array}$ | $\begin{array}{r} 11,909 \\ 1,012,840 \end{array}$ |
| 12 | Shingles............................... squares | 2,923,892 | 2,588,360 | 2,112,826 | 2,071,338 |
|  |  | 32,400,879 | 27,482,820 | 20,002,127 | 20,913,175 |
| 4 | Pulpwood. <br> Spoolwood $\qquad$ | 34,767,878 | 68,102,942 | 64,819,755 | 45,859,364 |
|  |  | $\begin{aligned} & 17,640 \\ & 100,04 \end{aligned}$ | 1, 12,017 | 16,999 | 8,257 |
| 15 | Wood pulp................................ ewt. | 2,132,878 | $1,604,071$ $44,866.161$ | $2,748,213$ $38,811,599$ | $\begin{array}{r} 1,233,697 \\ 39,003,018 \end{array}$ |
|  |  | 208,555,549 | 365, 132,884 | 291,863,498 | 248,674,880 |
| 16 | Pulp board, wall board and paper board. . . cwt. | 1,640,549 | 2,281,317 | 1,837,327 | $1,413,368$ |
|  | Pulp board, wall board and paper board.... | $7,955,430$ | 14,062,016 | 11,252,536 | 7,017,949 |
| 17 | Book paper................................ cwt. | 345, 223 | 548,769 | 575,442 | 568,027 |
|  |  | 2,755,746 | 5,283,533 | 5,343,040 | 4,872,808 |
| 18 | Newsprint. . . . . . . . . . . . . . . . . . . . . . . . . . . . . cwst. | 98,761, 380 | 102, 241, 224 | 106,548,605 | 107,505,019 |
|  |  | 485,746,314 | 536,372,498 | 591,790, 209 | 619,033,394 |
| 19 | Wrapping paper | 194,605 | 333,011 | 278,707 $3,177,136$ | + 223,271 |
|  | Newsprint, mutilated, or beater stock, and cwt. waste paper................................... 8 Other wood products and paper. | $1,515,159$ $1,282,991$ | $3,728,972$ $1,423,477$ | $3,177,136$ 972,320 | $1,875,276$ 855,795 |
|  |  | 3,529,075 | 6,278,987 | 2, 887,880 | 1,774,980 |
| 21 |  | 36,834,702 | 53,216,365 | 67,555,704 | 51,499,079 |
|  | Totals, Wood, Wood Products and Paper \$ | 1,112,945,061 | 1,399,076,131 | 1,366,787,043 | 1,295,395,860 |
| V. Iron and Its Products |  |  |  |  |  |
| 2 |  | 2,227,475 | 3,225,767 | 3,846,998 | 4,819,975 |
|  | Ferro-lloys....... | 13,309,782 | 18,596,137 | 22,333,472 | 30,842,991 |
| 23 | Ferro-alloys............................. ton | 122,479 | 190,454 | + 159,095 | 17, $\begin{array}{r}906,010 \\ \hline\end{array}$ |
| 24 | \% | $17,075,226$ 364,988 | $31,347,284$ 262,673 | $30,379,519$ 432,314 | $17,206,690$ 472,427 |
|  | Pigs, ingots, blooms and billets............. | 21,330,625 | 14,433,432 | 25,031,837 | 29,507,976 |
| 25 | ton | 62,618 | 39,804 | 87,788 | + 410,009 |
|  | \% | 2,034,221 | 1,615,678 | 4,187,183 | 15,877,155 |
| 26 | Castings and forgings................... cwt. | 310,911 | 504,868 | + 483,667 |  |
| 27 | \$ | 3,413,917 | $6,291,097$ 45,739 | $6,173,570$ 72,707 | $5,899,407$ 115,920 |
| 2 | 8 | 7,120,615 | 11,805,614 | 18,844,126 | 16,863,034 |
| 2 | Tubes, pipes and fittings.................. \$ | 2,016,177 | 1,978,360 | 2,250,818 | 1,440,713 |
| 29 | Wire. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \% $^{\text {d }}$ | 845,611 | 764,006 | 752,936 | 762,458 |
| 30 | Chains....................................... 8 | 122,821 | 298,991 | 217,017 | 41,238 |
| 31 | Engines, boilers and parts................... 8 | 14,986, 267 | 9,844,185 | 10, 222, 284 | 13,456,969 |
| 32 | Farm implements and machinery............ \% | 87,811,385 | $106,438,161$ 5 | $105,408,256$ $3,600,951$ | $74,316,318$ $2,349,805$ |
| 33 | Hardware and cutlery | $4,500,031$ $25,644,253$ | $5,160,128$ $40,270,782$ | $3,600,951$ $47,377,520$ | $2,349,805$ $37,281,996$ |
| 34 35 |  | $25,644,253$ 128,586 | $40,270,782$ $1,007,879$ | $47,377,520$ 203,040 | $37,281,996$ 303,660 |
| 35 36 |  | 128,586 972,298 | $1,007,879$ $1,255,073$ | 1, 2036,834 | 1,189,721 |
|  | Vehicles and Parts- |  |  |  |  |
| 37 | Automobiles, freigh | 10,249 | 23,308 | 38,268 | 22,257,887 |
| 38 |  | $8,827,198$ 24,085 | $24,872,620$ 37,181 | 48,831,551 41,666 | $22,257,887$ 27,977 |
|  | Automobiles, passenger.................. No | 19,364,912 | 38,490,266 | 43,634,467 | 36,061,152 |
| 3 | Vehicles, n.o.p................................ | 12,036,038 | 15, 763,431 | 18,548,647 | 16,999,484 |
|  |  | 5,213,115 | 3,136,382 | 4,059,250 | 5,605,633 |
|  | als, Vehic | 45,441,263 | 82,262,699 | 115,073, 915 | 80,924,156 |
| 41 | Other iron and steel prod | 4,355,460 | 8.929,197 | 13,492,761 | 30,173,765 |
|  | Totals, Iron and Its Pro | 251,108,538. | 342,298,703 | 406,946,039 | 358,438,05 |

the United Kingdom and the United States, 1950-53-continued

| United Kingdom |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | 1951 | 1952 | 1953 | 1950 | 1951 | 1952 | 1953 |  |
| 144,257 | 572,153 | 223,735 | 244,215 | 1,421,958 | 1,708,304 | 1,700,383 | 1,127,603 |  |
| 277,763 | 87,247 | 387,036 | 6,820 | 1,623,122 | 1,054, 114 | 991,885 | 555, 106 |  |
| - |  |  |  | 5,990 | 138 | 1,238 | 1,067 |  |
| 794,716 | 271.621 | 584,364 | 1,239,457 | 2,880,314 | 2,036,751 | 2,586,628 | 2,189,998 |  |
| 453,681 | 26i, 123 | 338,736 | 644, 383 | 1,940,525 | 1,924, 194 | 1,599, 249 | 1,251,621 |  |
| 4,315 58,676 | 5.527 131,771 | 1,602 16,783 | 1,411 200,077 | $3,133,140$ $3,391,448$ | $3.090,668$ $2,233,100$ | $2,063,130$ $1,533,563$ | 2,291,605 |  |
| 200,034 | 201,034 | 45,295 | 47,508 | 6,826,803 | 9,577,955 | 9,552,083 | 1,721,494 |  |
| 1,138,726 | 1,251,859 | 1,013,187 | 1,14, 414 | 18,3t2,986 | 19,588,473 | 17,441,531 | 14,889,518 |  |
| 5,245 | 4,932 | 12,490 | 5,586 | 49,120 | 35,030 | 32,380 | 33,028 |  |
| 433,277 | 585, 238 | 1,541,182 | 646,983 | 3,639,353 | 3,815,306 | 2,863,469 | 3,255,453 |  |
| 27,987 | 61,345 | 757, 359 | 1,216,883 | 38,477 | 25,415 | 8,273 | 123,248 |  |
| 59,480 | 168,520 | 2,493,517 | 3,635,195 | 54,335 | 35,754 | 10,519 | 227,077 |  |
| 275,425 | 895,238 | 850,460 | 596,173 | 3,022,169 | 2,167,358 | 2,251,166 | 2,450,493 | 10 |
| 20,353,111 | 78,964,272 | 81,958,339 | 48,735, 951 | 249,599,076 | 196,780,626 | 190,983,006 | 206,676,735 |  |
| -6093 | 1,001 | 6,821 | 4,452 | 11,747 | ${ }_{6} 65$ | ${ }^{6} 659$ | 1,855 | 11 |
| 78,984 | 141,464 | 826,647 | 405,040 | 114, 172 | 49,662 | 49,239 | 177,632 |  |
| 28,704 | 38,050 | 18,997 | 22,632 | 2,842,467 | 2,477,396 | 2,056,913 | 2,006,989 | 12 |
| 235,316 | 457,582 | 178, 917 | 263,788 | 31,619,357 | 26,231,355 | 19,518,305 | 20,246,703 |  |
| 767,503 | 3,229,909 | 5,030,867 | 4,047,559 | 33,963,132 | 59,330,714 | 55,050,639 | 40,296,940 | 13 |
| 12,875 | 7,085 | 12,596 | 4,138 | 4,166 | 3,875 | 4,150 | 3,644 | 14 |
| 1,581, 248 | ${ }_{4}^{931.012}$ | 2,168,600 | 662,919 | 461,570 | 464,942 | 533,216 | 497,657 |  |
| 2,358,402 | 4.345.017 | 4,213,695 | 4,299,021 | 33,888,883 | 36,628,212 | 31,779,570 | 31,989,816 | 15 |
| 13,128,894 | 37,730.627 | 35,208, 295 | 28,099, 255 | 191,005,507 | 276,760,578 | 225,082,376 | 202,247,663 |  |
| 28,689 | 295,032 | 289,097 | 52,261 | 1,389,975 | 1,623,995 | 1,355,094 | 1,304,754 | 16 |
| 203,849 | 2,406,975 | 2,625,884 | 310,533 | 6,357,938 | 8,633.986 | 6,896, 202 | 6,413,057 |  |
|  | 154 | 513 |  | 298,451 | 430,739 | 452,976 | 470,048 | 17 |
|  | 1,444,094 | 2, $\begin{array}{r}2,692 \\ \hline 101\end{array}$ |  | 2,162,123 | 3,427,448 | 3,599,627 | 3,736,419 |  |
| 381,903 $1,861,9$ | 1,444, | 2,620,10 | $3,162,152$ $18,237,016$ | 94,498,732 | 95,498,938 | 97,019,236 | 98,344,316 | 8 |
| 24, 801 | 76.817 | 45,366 | 21,331 | 43,452 | 82,528 | 46,065 | 501, 94,250 |  |
| 195,362 | 864,501 | 514,116 | 179,009 | 289,450 | 831,600 | 381,139 | 807,776 |  |
|  | 68,417 | 56,418 | 32,354 | 1,282,959 | 1,333,531 | 915.625 | 821,919 | 24 |
|  | 319.388 | 179,491 | 90,270 | 3,528,977 | 5,825,120 | 2,707,834 | 1,683,037 |  |
| 1,787,604 | 7,851,267 | 17,741,178 | 5,290,486 | 30,444,835 | 35,542,151 | 38,967,581 | 40,719,702 | 21 |
| 45,086,6e8 | 141,180,763 | 165,045,447 | 110, c01, 08 ) | 1,016,395,752 | 1,114,581,439 | 1,081,015,011 | 1,691,450,118 |  |
| 142,589 | 775.832 | 705,004 | 1,205,259 | 2,031,646 | 2,184,708 | 2,010,526 | 2,064,767 | 27 |
| 707.013 | 3,796,025 | 3,630,527 | 6,541,794 | 12,329,032 | 13,121,180 | 11,393,824 | 14,126,702 |  |
| 44,894 | 52,057 | 78,093 | 37,980 | 72,935 | 132,569 | 75,585 | 50,725 | 23 |
| 5,236,921 | 8,772,649 | 16,814,031 | 7,329,303 | 11,073,470 | 21,659,692 | 12,520,008 | 9,556,261 |  |
|  | 134,160 | 6, 108,271 | 41,241 $2,883,313$ | $11,364,476$ $21,303,200$ | 14, 262,215 | 323,591 | 5,408,749 | 24 |
|  | 134,160 | 6,470,946 | 2,883,313 | $21,303,200$ 62,618 | $14,267,405$ 39,804 | $18,490,995$ 27,308 | $25,475,046$ 96,251 | 25 |
| - | - | 2,419,844 | 7,925,118 | 2,034,221 | 1,615,678 | 1,206,607 | 3,491,706 |  |
| - | - | 108 |  | 309,986 | 502,644 | 479,694 | 422,798 | 26 |
|  | 1,158 | 4,700 |  | 3,393,165 | 6,223,703 | 6,117,305 | 5,753,307 |  |
| 81,799 | 2,331,424 | 3,867, 293 | 299,361 | 2,236,621 | 2,582,323 | 3,845, 2451 | 90,715 $10,902,580$ | 27 |
| 1,340 | 27.474 | 245,680 | 42,938 | 89,870 | 579,210 | 446,883 | 253,393 | 28 |
| 32,468 | 32.658 | 17,187 | 8,645 | 647,208 | 284,287 | 391,409 | 572,211 | 29 |
| 29,465 | 1,607 |  |  | 70,312 | 279,715 | 185,702 | 34,828 | 30 |
| 662,995 | 678,150 | 301, 261 | 194, 899 | 646,035 | 3,095,375 | 1,659,246 | 3,064,407 | 31 |
| 852,613 1.58156 | -571,611 | 435,477 | 218,770 | 70,660,697 | 83,495,253 | 83,724,597 | 58,116,105 | 32 |
| 1,581,564 | 1,523,514 | 893,914 | 569,851 | 293,164 | 676,547 | 723,978 | 598,766 | 33 |
| 536,751 | 987,173 | 1,193,645 | 1,132,116. | 7,350.089 | 12,445,398 | 16,005,212 | 16,680,602 | 34 |
| 3,306 |  |  |  | 31.994 | 77,059 | 52.615 | 202,352 | 35 |
|  |  | 162,678 |  | 175,909 | 263,294 | 276,965 | 311,364 | 36 |
| - | - | - |  | - |  | 126 | 157 | 37 |
| 12 |  |  | 9,911 |  | 9,734 | 234,144 | 267,918 |  |
| 180,490 | 332,603 | 311.284 | 63,786 | 18,368 | 16,278 | 84,114 | 49,542 | 38 |
| 34,487 | 26,791 | 153.531 | 130,129 | 854,276 | 2,793,824 | 4,323,215 | 1,517,347 | 39 |
| 3,789 | 7,169 | 15,934 | 19,068 | 1,883,383 | 1,751,478 | 2,356,126 | 4,412,504 | 40 |
| 218,766 | 366,563 | 510,749 | 222,894 | 2,756,027 | 4,571,314 | 6,997,599 | 6,247,311 |  |
| 154.453 | 637,213 | 932,997 | 47,312 | 754,436 | 3,950,345 | 8,660,622 | 27,484, 933 | 41 |
| 10,099,505 | 15,913,895 | 37,950,964 | 27,481,230 | 136,445,450 | 169,187,728 | 172,701,418 | 182,871,874 |  |

14.-Principal Exports of Canadian Produce from Canada to All Countries,

| No. | Item | All Countries |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1950 | 1951 | 1952 | 1953 |
|  | VI. Non-ferrous Metals |  |  |  |  |
| 1 | Aluminum and manufactures of............. \$ | 106, 867,384 | 124,779,435 | 162,337, 931 | 177, 855, 833 |
| 2 | Brass and manufactures of................... \$ | 3,361,514 | 5,660,419 | 22,872,165 | 10,859,392 |
| 3 | Copper and mnaufactures of.................... \& | 87,587,076 | 87, 188, 071 | 119,490,527 | 124,676,914 |
| $\stackrel{4}{5}$ | Lead and manufactures of.................... ${ }^{\text {N }}$ ¢ | 38,198,933 | 45, 392, 480 | 49,742,671 | 37, 889,541 |
| 5 |  | $\begin{array}{r} 2,433,023 \\ 105,299,743 \end{array}$ | $\begin{array}{r} 2,623,656 \\ 136,689,457 \end{array}$ | $\begin{array}{r} 2,840,445 \\ 150,981,762 \end{array}$ | $\begin{array}{r} 2,902,355 \\ 162,542,304 \end{array}$ |
| 6 | Precious metals and manufactures of (except gold). | 33,567,611 | 48,523,961 | 47,377,657 | 44,351,543 |
| 7 | Zinc and manufactures of ...................... \$ | 58,893,117 | 84,450,009 | 96,703,447 | 57,698,596 |
| 8 | Clocks and watches and parts................. \% | 352,877 | 1,064,249 | 1,184,108 | 735,740 |
| 9 | Electrical apparatus, n.o.p.................... § | 11,088,618 | 17, 729,307 | 33,891, 933 | 37,705,272 |
| 10 | Printing materials....................... \& | 33,975 | 39,279 | 67,531 | 226,915 |
| 11 | Other non-ferrous metals, including alloys, n.o.p. ....................................... \& | 12,011,458 | 18,353,526 | 22,082,589 | 27,641,103 |
|  | Totals, Non-ferrous Metals........... \$ | 457,262,306 | 569,870,193 | 706,732,321 | 682,183,153 |
|  | VII. Non-metallic Minerals |  |  |  |  |
| 12 | Asbestos and manufactur | 63, 474,897 | 81, 830, 822 | 87,774,683 | 84,557,404 |
| 13 | Clay and manufactures of...................... \$ | 2,201,272 | 2,537,880 | 2,482,784 | 1,946,456 |
| 14 | Coal.................................... ton | 394,961 | 435,083 | 388,960 | 255,274 |
|  | 8 | 3,198,040 | 3,495,664 | 3,203,522 | 1,999,908 |
| 15 | Coke..................................... ton | 413,343 | 219,340 | 359,456 | 200,017 |
|  | \$ | 6,321,205 | 3,962,267 | 5,937,349 | 3,209,246 |
| 16 | Creosote and coal-tar oils, n.o.p.......... gal. | 3,145, 898 | 2,369,760 | 4,605,408 | 2,672,411 |
|  | \$ | 778,182 | 858,933 | 1,327,279 | 933,957 |
| 17 | Other coal products.................... § | 1,363 | 71,883 | 80,412 | 110,710 |
|  | Totals, Coal and Its Products. . . . . . . . \% | 10,298,790 | 8,388,747 | 10,548,562 | 6,253,821 |
| 18 | Glass and manufactur | 932,269 | 970,031 | 521,837 | 1,982,805 |
| 19 | Graphite, crude or refined.................. cwt. | 60,870 | 23,032 | 33,716 | 65,053 320 |
|  | 8 | 313,457 | 156,536 | 191,563 | 320,688 176,128 |
| 20 | Mica and manufactures | 166,641 | +484,768 | 156,859 | 6.772, ${ }^{1728}$ |
| 21 | Petroleum and product | 299, 173 | 2,038,384 | 8,893,192 | 6,772,831 |
| 22 | Stone and its products. | 21,612,350 | 29,097, 164 | 24, 201, 111 | 36,600,068 |
| 23 | Other non-metallic minerals................. \% | 4,355,911 | 6,025, 114 | 8,703,176 | 8,782,921 |
|  | \$ | 103,654,760 | 131,529,446 | 143,473,767 | 147,393,122 |
|  | VIII. Chemicals and Allied Products |  |  |  |  |
| 24 | Acids.................................... cwt. | 1,347,042 | 1,871,420 | 1,033,192 | 1,147,752 |
|  | \% | 3,523,635 | 5,823,003 | 2,999, 224 | 1,868, 972 |
| 25 | Alcohols, industrial.......................... \% | 119,126 | 31,341 | 88, 433 | 19,254 |
| 2627 | Cellulose products....................... $\%$ | 183,232 | 1,437,804 | 513,848 | 966,258 |
|  | Drugs, medicinal and pharmaceutical preparations. | 4,297,654 | 6,036,553 | 5,087,949 | 5,659,105 |
| 28 | Explosives................................... § | 769, 125 | 1,249, 183 |  |  |
| 29 | Fertilizers................................... cwt. | 14,831,896 | 12,452,669 | 14, 914, 870 | 14, 235,565 |
|  | \$ | 38,873, 834 | 35,733,727 | 42,292, 804 | 42,632,854 |
| 30 | Paints, pigments and varnish | 4,025, 051 | 7,998,501 | 3,773,183 | 3,574,399 |
| 31 | Perfumery, cosmetics and toilet preparations. \$ | 76,499 | 115,196 | 123,268 | 74,727 2368 |
| 32 | Soap...................................... lb. | 168,566 | 219,421 | 245,915 | 236,368 |
|  | 8 | 19,558 | 44,745 | 39,203 | 42,644 |
| 33 | Inorganic chemicals, n.o.p.................. \$ | 7,726,038 | 13,862,104 | 12,394,055 | 11,307,220 |
| 34 | Other chemicals and allied products........ \% | 40,911,730 | 69,357,572 | 57,253,097 | 71,739,782 |
|  | Totals, Chemicals and Allied Products. 8 | 100,525, 482 | 131,689,729 | 124,565,264 | 137,885,215 |
|  | IX. Miscellaneous Commodities |  |  |  |  |
| 35 | Amusement and sporting goods, n.o.p....... \$ | 469,087 | 611,361 | 555,597 | 1,100,819 |
| 36 | Brushes..................................... \$ | 219,280 | 231,870 | 216,663 | 265,317 |
| 37 | Containers, n.o.p............................. 8 | 1,873,876 | 3,188,209 | 4,688,446 | 2,855,057 |
| 38 | Household and personal equipment, n.o.p.... \$ | 2,717,691 | 4,531,937 | 3,016,805 | 3,318,583 |
| 39 | Mineral and aerated waters................. 8 | 20,745 | 8,081 | ${ }^{300}$ |  |
| 40 | Musical instruments ....................... ${ }_{\text {\% }}$ | 373,526 | -697,672 | 565,894 |  |
| 41 | Scientific and educational equipment........ \$ | 2,645,730 | 5,520,440 | $5,569,151$ | 5,787,968 |
| 42 | Ships and vessels and materials for ships | 22,847,268 | 8,773,962 | 11,629,593 | $19.992,175$ 40.388 .878 |
| 43 | Vehicles (except iron) <br> Works of art | $4,846,058$ 38,963 | $7,928,199$ 66,149 | $17,783,410$ 54,033 | $40,388,878$ 94,081 |
| 45 | Other miscellaneous commodities............. \$ | 24,591,869 | 29,336,750 | 39,361,597 | 49,709,033 |
|  | Totals, Miscellaneous Commodities... \$ | 60,644,093 | 60,894,630 | 103,441,489 | 124,095,313 |
|  | Grand Totals, Exports................ \$ | 3,118,386,551 | ,914,460,376 | 4,301,080,679 | 4,117,405,882 |

the United Kingdom and the United States, 1950-53-concluded

| United Kingdom |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | 1951 | 1952 | 1953 | 1950 | 1951 | 1952 | 1953 |  |
| 39,224,584 | 57, 230,082 | 90,555.027 | 65,906,538 | 49,532,763 | 40,976,605 | 44,720,237 | 90.696,455 |  |
| 263,662 | 945,87\% | 1,018,550 | 63,462 | 2,285,647 | 2,183,592 | 12,039,921 | 7,513.446 |  |
| 29,275,343 | 28,588,864 | 24,793,572 | 32,273,396 | 41,940,025 | 31.116, 178 | 56,468,840 | 69,702,539 |  |
| 2,157,474 | 12,246,268 | 8,788,073 | 10,022,265 | 30,699,705 | 24,012,520 | 35,792,72i | 22,539,480 |  |
| 432,88\% | 626,842 | 619,034 | ${ }^{6} 651,848$ | 1,770,850 | 1,767,873 | 1,905,83i | 1.915.031 | 5 |
| 18,997,379 | 32,323,665 | 33,744,999 | 35,841,974 | 76,184,02 4 | 92,415,560 | 99,849,500 | 108,116,94E |  |
| 11,841,426 | 15.488, 835 | 17,524,949 | 14, 845,550 | 20,946,111 | 31,965,425 | $29.433,560$ | 28,653,052 | ${ }^{6}$ |
| 12,537,326 | 27, 330,564 | 36,507,644 | 10,352,594 | 39,039,988 | 45,586,330 | 52.052.25\% | 45.306.831 | 7 |
| 24.515 | 51.587 | 36.048 | 14,574 | 15,228 | 125,669 | 242.733. | 142.491 | 8 |
| 32.70 | 195.013 | 2,563,932 | 5,991, 22 2, | 2.683,428 | 3,497,388 | 8,633.971 | 17.012. 158 | 9 |
| 8.051 | 3,369 | 819 | 6,854 | 22,981 | 34,358 | 61,063 | 216,097 | 18 |
| 3,038,145 | 6,730,651 | 7,326,611 | 4,834,535 | 3,693,283 | 6,095.036 | 10,355,551 | 15.621.65: | 11 |
| 117,400,678 | 181,631,775 | 222,800,254 | 180,156,564 | 267,013,186 | 278,008,661 | 349,650,360 | 408,521,132 |  |
| 4,761,368 | 6,371.965 | 8,009,965 | 6,088,705 | 44,571.911 | 54.800,442 | 54,182,008 | 51,451,816 | 12 |
|  | 2,200 | 1,003 | 150 | 526, 850 | 1,003,595 | 1,120,988 | 1,122,31\% | 13 |
| - | 11.2 | - | - | 347.8 | 29 | 276.225 | 244.32; | 14 |
|  | $10 \leq .451$ |  |  | 2.723 .305 | 2. 158,906 | 2.024 .525 | 1,880.35! |  |
| 8,8883 | 11.315 | 9.448 | 13.1 | 395.665 | 197.661 | ${ }^{339.023}$ | 247,405 | 15 |
| 397,55 | 449,329 | 382,645 | 525,999 | 5,535, 752 | 3,120,931 | 5.117 .173 | 2,321, 55: | 18 |
| 二 |  |  |  | 3,145,493 | 2,309.760 | 4.605.408 | 2,672,41 ${ }^{\text {933, }}$, | 16 |
| - |  |  |  | 1,232 | 11,63s | 1.80.412 | 101,78! | 17 |
| 397,550 | 557,780 | 352,6 | 525,9 | 9,037,211 | 6,210,40 | 8.549,392 | 5,237,94! |  |
| $-\quad 42$ |  |  |  | 320,595 $60,63 \%$ | 270.444 22.966 | 183,833 33,695 | $\begin{array}{r} 1,737,208 \\ 65,01 \end{array}$ | 18 |
|  | - | - |  | 311,505 | 155,769 | 191.341 | 320,22; |  |
|  |  |  |  | 165, 592 | 435.041 | 129.151 | 120,35i | 20 |
| ${ }^{193}$ | 907, 267 | 176,700 | 06, 22 | 73.519 | $851.35{ }^{\circ}$ | 8. 480.97 | 6.654,82 | 21 |
| 3,504. 969 | 4.428,128 | 3,730, 335 | 1,606,237 | 16,714,275 | 23.263 .605 | 19.35.7.793 | 34.384, 11: | 22 |
| 863.214 | 804,332 | 1, 467,745 | 378,571 | 2,261,190 | 2.935,012 | 4.405.583 | 5.980.39: | 23 |
| 9,526,836 | 13,072,558 | 13,769,685 | 602, 7681 | 73,982,934 | 89,925,676 | 96,640,36? | 107,009,19\% |  |
| 90,112 | 106.194 | 29,032 | 7,043 | 1.234,094 | 1.715.996 | 955.903 | 1,131,71 | 24 |
| 890.441 | 1,182.695 | 360,790 | 75,439 | 2,378.180 | 4.032 .478 | 2,430.693 | 1,693,74 |  |
| 14.263 | ${ }^{6} \mathbf{6} .969$ | 8,70:1 |  | 70,953 | 18,016 | 74,770 | 17,735 | 25 |
| 7,443 | 43,951 |  | 3.625 ; | 48,896 | 213,430 | 60,162 | 592,58i | 25 |
| 32,554 |  | 65.210 | 26,994] | 209 | 220.134 | 572.37E | 820,22! | 27 |
| - | 235,295 |  | - | 354,643 $10.943,891$ | $\begin{array}{r} 36,856 \\ 10,724,633 \end{array}$ | 13. 041,573 |  | 28 |
|  |  | 55' |  | 28,595,218 | 30,800,905 | 37.468.621 | $39,894,24$ |  |
| 329,798 | 785.791 | $35 \% .305$ | 502,682] | 2,813.316 | 3,737,026 | 2.003 .980 | 2, 100, 53 : | 30 |
| 912 | 7.735 | 71 |  | 36,912 | 10.013 | 32.52? | 4,82: | 31 |
| - | - |  | - 1 | 10,942 | 7.350 | 3,960 | 97 | 32 |
| 569.07 |  |  |  | 4,920,9\%\% | 1.318 | 994.90C | 50\% |  |
| 4,148,579 | 6,894,513 | 7,230,794 | 1,87,852 | $4,920,94$ <br> $19,069,140$ | 19,546.714 | 6, $25,468,631$ | $\begin{array}{r} 6,997,791 \\ 32,476,41! \end{array}$ | 34 |
| 5,933,085 | 10,370,451 | 9,712,4 | 8,351,16 | 58,498,824 | 67,253,116 | 75,107,037 | 84,598,6\% |  |
| $\begin{gathered} 67,503 \\ 32 \end{gathered}$ | 117,146 | 76,919 | 64,211 | $159322$ | 192.611 | 284, 412 | $831.37 t$ | 35 |
| 85.290 |  |  |  | $14.225$ | 10.701 | 4, 48 \% | 74.81 | 35 |
| 109,894 | 229,465 | 135,961 | 21,90 | 76 | 463.301 | 466,918 | 510,50, | 37 |
| - |  |  |  | 1.544 |  |  |  | 39 |
|  |  |  | 716 | $283.183!$ | 645,095 | 500.109 | 523,69" | 45 |
| 306,50 30.98 | 619,98 | 535.65 | 519.528 | 697.464 | 2,126,443 | 2,188.77 | $2.725,245$ | 41 |
| 296,041 | 161,670 | $828^{\circ} .503^{\prime}$ | 14.519 1.695 .683 | 2.52\%.43: | 656.242 $5,943.674$ | 34, 975.273 | 1.419,84: | 42 |
| -110 |  | 3.645 | 1.6. 4.930 | 38.523 | 5,976.642 | 31,04. 4.068 | 36,617.056 | 4 |
| 2,026,797 | 1,346.941 | 1.357.960 | 2,452,706 | 15,154,449 | 19,805,506 | 26,123.250 | 35,850,70\% | 45 |
| 2,923,154 | 2,578,916 | 2,086,746 | 4,808,621 | 20,008, 694 | 30,159,195 | 65,125, 392 | 78,504,401 |  |
| 469,910,011 | 631,460,954 | 745,845,393. | 665,232, 6 | 20,887, | ,674, |  | 2,418,914,783 |  |

## Section 5.-Imports and Exports by Degree of Manufacture, by Origin and by Purpose

Analyses of Canada's trade from the angle of degree of manufacture of imports and exports with leading countries are of value to the student of economic relationships because they present, in summary form, details with significant meaning in the complementary relationship of manufacturing and commerce between geographical areas and countries.
15.-Imports according to Degree of Manufacture, by Leading Countries, 1952 and 1953

| Country | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Raw Materials | Partly Manu- <br> factured | Fully or Chiefly Manufactured | Raw Materials | Partly Manufactured | Fully or Chiefly Manufactured |
| North America | \$'000 | \$ 000 | \$'000 | 8'000 | $8{ }^{\prime} 000$ | \$'000 |
| United States. $\qquad$ <br> Totals, North Americal $\qquad$ <br> Central America and Antilles | 483,726 | 111,705 | 2,381,531 | 434,797 | 91,546 | 2,694,872 |
|  | 483,751 | 111,726 | 2,383,866 | 434,821 | 91,552 | 2,697,874 |
|  |  |  |  |  |  |  |
| Barbados. | - | 6,542 | 2,123 | - | 206 | 2,169 |
| Jamaica. | 394 | 7,366 | 1,445 | 252 | 10,123 | 1,387 |
| Trinidad and Tobago | 5,434 | 3,709 | 517 | 7,133 | 105 | 824 |
| Costa Rica | 8,736 | - | 4 | 9,460 |  | 13 |
| Cuba.. | 2,607 | 11,659 | 4,349 | 2,206 | 5,139 | 4,309 |
| Dominican Republic | 950 | 4,982 | 68 | 391 | 5,446 | 17 |
| Honduras. . | 4,638 |  | 1 | 4,584 | 10 |  |
| Mexico. | 22,040 | 274 | 1,623 | 13,915 | 333 | 1,536 |
| Netherlands Antilles | 4.211 | - | 11,537 | $\begin{array}{r}337 \\ 3.595 \\ \hline\end{array}$ | 17 | 7,818 25 |
| Totals, Central America and Antilles ${ }^{1}$ <br> South America |  |  |  |  |  |  |
|  | 54,616 | 35,136 | 22,679 | 48,068 | 22,777 | 19,065 |
|  |  |  |  |  |  |  |
| British Guiana. | 9,718 | 13,035 | 908 | 10,794 | 5,891 | 1,115 |
| Argentina | 991 | 391 | 2,992 | 5.810 | 133 | 2,587 |
| Brazil. | 30.337 | 479 | 4,287 | 29,240 | 772 | 5,035 |
| Colombia | 17,993 |  | 11 | 23,153 | 8 | 54 |
| Peru...... | 7,692 127,798 | 3 | $\begin{array}{r}355 \\ 7 \\ \hline 959\end{array}$ | 146,548 | 4 | 376 8,872 |
| Venezuela | 127,798 | 1 | 7,959 | 146,275 |  | 8,872 |
| Totals, South America ${ }^{1}$ $\qquad$ <br> Northwestern Europe | 204,924 | 14,125 | 18,021 | 225,874 | 7,472 | 18,985 |
|  |  |  |  |  |  |  |
| United Kingdom. | 11,378 | 33,880 | 314,499 | 11,718 | 44,044 | 397,629 |
| Belgium and Luxembourg. | 677 | 2,431 | 30,108 | 1,312 | 2,561 | 25,209 |
| France: . . . . . . | 831 | 387 | 17,899 | 671 | 1,373 | 20,224 |
| Western Germany . . . . . . . . . . . . . . . . | 246 | 199 | 22,184 | 207 | 1,644 | 33,656 |
| Netherlands............................. | 2,995 | 1,730 | 11,770 | 3,693 | 2,705 | 15,900 |
| Norway. | 23 | 1,997 | 1,837 | ${ }_{168}^{6}$ | 252 | 2,032 |
| Sweden.... | 248 30 | 179 16 | r 8,185 | 143 | 531 | 8,642 20,292 |
| Totals, Northwestern Europe ${ }^{1} . . . .$. | 17,294 | 40,874 | 427,508 | 18,464 | 53,180 | 528,773 |
| Southern Europe |  |  |  |  |  |  |
| Italy ......................................... | 866 | 869 | 10,000 | 1,287 | 1,291 | 11,693 |
|  | 596 | 1,269 | 2,396 | 739 | 1,568 | 2,311 |
| Totals, Southern Europe ${ }^{\text { }}$. . . . . . . . | 1,579 | 2,490 | 14,258 | 2,205 | 2,945 | 16,171 |
| Eastern Europe. | 2,463 | 11 | 5,079 | 928 | 269 | 4,279 |

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## 15.-Imports according to Degree of Manufacture, by Leading Countries, 1952 and 1553 -concluded

| Country | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Raw Materials | Partly Manufactured | Fully or Chiefly Manufactured | Raw Materials | Partly <br> Manu- <br> factured | Fully or Chiefly Manufactured |
| Middle East | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Arabis................... | 7,558 15,234 | 二 | 18 | 2,193 19,630 | 二 | ${ }_{10}^{4}$ |
| Totals, Middle Enstr. | 25,584 | 75 | 3,678 | 25,503 | 64 | 4,483 |
| Other Asia |  | 314 |  |  |  |  |
| Indis. | 4,415 | 247 | 22,159 | 3,885 | , 242 | 22,500 |
| Malaya and Singapore | 19,342 | 5,878 | 253 | 17,294 | 3,687 | 916 |
| Japan. | 2,014 | 110 | 11,037 | 1,794 | 507 | 11,329 |
| Philippines | 785 | 4,397 | 242 | 737 | 2,170 | 79 |
| Totals, Other Asla | 35,409 | 11,124 | 47,488 | 27,547 | 11,061 | 49,124 |
| Other Africa |  |  |  |  |  |  |
| British East Africa. | 6,672 | 2,128 | 793 | 3,285 | 5,520 | 588 |
| Union of South Africa | 1.330 | 1,762 | 1,074 | 1,629 | 1,383 | 1,604 |
| Gold Coast. | 5,370 | 47 | 106 | 2,944 | 113 | 102 |
| Totals, Other Africal | 18,658 | 4,066 | 2,272 | 13,891 | 11,936 | 2,690 |
| Oceania |  |  |  |  |  |  |
| Australia | 6,834 | 3,54i | 8,332 | 6.543 | 9,211 | 7,711 |
| New Zealand | 7,301 | 2,724 | 4,206 | 7,191 | 1,296 | 85 |
| Totals, Oeeanial. | 14,139 | 12,958 | 16,018 | 13,753 | 16,44 | 12,028 |
| Grand Totals. | 855,418 | 233,183 | 2,940,854 | 812,056 | 217,762 | 3,353,073 |

${ }^{1}$ Includes other countries not specified.
16.-Exports of Canadian Produce according to Degree of Manufaeture, by Leading Countries, 1952 and 1953


[^353]16.-Exports of Canadian Produce according to Degree of Manufacture, by Leading Countries, 1952 and 1953-continued

| Country | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Raw Materials | Partly Manufactured | Fully or Chiefly Manufactured | Raw Materials | Partly Manufactured | Fully or Chiefly Manufactured |
| South America | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| British Guiana. | 484 | 95 | 5,777 | 601 | 65 | 4,111 |
| Argentina. | 39 | 1,097 | 7.091 | 1,138 | 1,325 | 5,178 |
| Bolivia. | 5,195 | 53 | 1,150 | 4,616 | 21 | 864 |
| Brazil | 14,631 | 8,981 | 57,755 | 10,596 | 4,916 | 22,048 |
| Chile. | 3,904 | 1,877 | 4,308 | 34 | 1,269 | 2,643 |
| Colombia | 1,070 | 1,788 | 10,898 | 2,061 | 2,211 | 15,874 |
| Peru. | 10,359 | 926 | 5,120. | 8,352 | 953 | 5,803 |
| Venezuela | 2,810 | 1,488 | 31,385 | 3,066 | 922 | 32,497 |
| Totals, South Americal | 40,017 | 16,850 | 130,117 | 33,474 | 12,113 | 98,805 |
| Northwestern Europe |  |  |  |  |  |  |
| United Kingdom........................ | 308,994 | 345,514 | 91,337 | 318,220 | 246,850 | 100,161 |
| Belgium and Luxembourg | 83,517 | 5,380 | 15,479. | 46,593 | 4,918 | 17,999 |
| Denmark | 7,474 | 334 | 2,073 | 3,578 | 816 | 1,909 |
| France. | 18,060 | 17,596 | 12,608 | 7,322 | 10,368 | 14,592 |
| Western Germany | 81,636 | 7,269 | 5,957 | 70,190 | 7,529 | 6,139 |
| Ireland...... | 14,010 | 5,873 | 3,176 | 10.818 | 514 | 2.024 |
| Netherlands | 33,617 | 3,992 | 3,900 | 33,993 | 3,531 | 4,857 |
| Norway. | 34,055 | ${ }^{262}$ | 4,685 | 33,489 | 231 | 3,557 |
| Sweden. | 3,239 | 5,577 | 3,382 | ${ }^{480}$ | 2,359 | 1,748 |
| Switzerland | 18,214 | 2,702 | 6,002 | 21,945 | 1,990 | 5,898 |
| Totals, Northwestern Europe ${ }^{1}$. | 606,283 | 395,410 | 150,271 | 551,054 | 279,695 | 161,065 |
| Southern Europe |  |  |  |  |  |  |
| Italy. | 32,512 | 5,834 | 14,298 | 16,954 | 3,049 | 13,167 |
| Totals, Southern Europe ${ }^{1}$ | 40,847 | 8,228 | 19,276 | 35,308 | 4,223 | 17,393 |
| Eastern Europe <br> Yugoslavia. | 21,562 | 108 | 944 | 1,369 | 33 | 538 |
| Totals, Eastern Europe ${ }^{1}$ | 22,944 | 398 | 2,531 | 1,871 | 496 | 1,412 |
| Middle East |  |  |  |  |  |  |
| Egypt. | 7,272 | 231 | 11,860 | 7,125 | 226 | 4,337 |
| Israel............ | 5,003 3,385 | 231 | 6,318 | 6,931 1,139 | 393 |  |
| Totals, Middle East ${ }^{1}$. | 17,087 | 1,387 | 31,850 | 17,821 | 1,294 | 14,103 |
| Other Asia |  |  |  |  |  |  |
| India. | 38,582 | 4,803 | 12,038 | 26,855 | 2,287 | 8,044 |
| Malaya and Singapore | 196 | 147 | 6,724 | ${ }_{281}^{202}$ | 871 | 7,848 |
| Hong Kong. | 609 | 842 | 8,131 | ${ }^{23} 281$ | 871 35 | 8,276 |
| Pakistan. | 4,621 | 1,862 | 9,533 | 23,791 | 35 | 8,276 |
| Japan | 84,062 | 9,674 | 8,868 | 83,935 | 22,298 | 12,336 |
| Philippines | 51 | 872 | 15,121 | 46 | 200 | 13.625 |
| Totals, Other Asia ${ }^{1}$. | 128,308 | 18,431 | 77,457 | 143,407 | 27,462 | 67,155 |
| Other Africa |  |  |  |  |  |  |
| Union of South Africa. | 10,552 | 5,648 | 31,652 | 14,032 | 9,302 | 27,429 |
| Totals, Other Africal. | 14,224 | 8,360 | 47,293 | 14,439 | 12,056 | 43,501 |

[^354]16.-Exports of Canadian Produce aceording to Degree of Manufacture, by Leading Countries, 1952 and 1953 -concluded

${ }^{2}$ Inclades other countries not specified.

## 17.-Imports of Certain Raw Materials Used in Canadian Manufactures, 1944-53

Norg.-Figures for the years ended Mar. 31, 1902-10, are given in the 1926 Year Book, p. 463; those for the years ended Mar. 31, 1911-39, are given in the 1940 edition, p. 533. Calendar-year figures are available for 1926 and subsequent years; those for 1926-43 are given in the 1918-49 edition, pp. 927-928.

| Year | Sugar for Refining | Vegetable Oil for Sosp | Cottonseed Oil, Crude | Rubber, Raw (including Balata) and Latex | Tobacco, Raw | Hides and Skins | Cotton, Raw (including Linters) | Hemp, Dressed or Cn- dressed | Silk, etc., Raw |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | gal. | cwt. | cwt. | lb. | t. | cwt. | cwt. | 1 b . |
| 1944 | 445,829 | 1,902,400 | 306,224 | 164,536 | 1,380,157 | 230,597 | 1,816,530 | - |  |
| 1945. | 418,838 | 3,293,622 | 244,814 | 186,609 | 1,581,290 | 121,689 | 2,023,135 |  |  |
| 1946. | 430,849 | 2,661,722 | 82,555 | 300,523 | 1,745,604 | 95,687 | 1,916,390 | 448 | 22,893 |
| 1947. | 498,118 | 1,862,044 | 49,321 | 774,559 | 1,589,359 | 350,083 | 2,039,139 | - | 342,850 |
| 1948. | 613,879 | 562,644 | 120,758 | 957,147 | 1,617,341 | 325,669 | 1,824,746 | - | 124,504 |
| 1949 | 622,278 | 516.730 | 593,353 | 897,114 | 1,577,395 | 3.691,2321 | 2,206,595 | 1,661 | 128,501 |
| 1950. | 639,095 | 2,106,880 | 842,854 | 1,036,433 | 1,321,546 | 3,334,534 | 2, 455, 101 | 2,154 | 137,664 |
| 1951. | 546,276 | 1,410,260 | 290,157 | 1,075,486 | 1,151,574 | 2,715.1601 | 2,140,281 | 2,501 | 70,187 |
| 1952. | 593,215 | 1,339,850 | 642, 421 | 789,594 | 1,677,403 | 2,138,1151 | 1,799,866 | 4,838 | 40,053 |
| 1953.... | 549,425 | 3,360,540 | 465,196 | 934,146 | 1,497,356 | 2,122,075 ${ }^{1}$ | 1,738, 161 | 860 | 60,966 |
|  | Wool. Raw ${ }^{2}$ | Noils, <br> Waste <br> and <br> Tops, <br> Wool | Artificial Silk Rovings, Yarns, etc. | Manila, Sisal, Istle, Tampico | Rags, Waste Paper, and Other Waste | $\begin{aligned} & \text { Iron } \\ & \text { Ore } \end{aligned}$ | Alumina, Bauxite, Cryolite | Tin in Blocks, Ingots, etc. | Petroleum Crude for <br> Refining |
|  | cwt. | cwt. | lb. | cwt. | cwt. | tons | cwt. | cwt. | '000 gal. |
| 1944. | 281,475 | 62,492 | 10,161,758 | 810,906 | 1,098.846 | 3,126,649 | 26,613,324 | 26,823 | 1,996,445 |
| 1945 | 304,923 | 72,849 | 13,954,822 | 730,086 | 1,125.341 | 3,739,867 | 18,880,295 | 71,950 | 1,987,943 |
| 1946. | 532,407 | 118,787 | 7,874,871 | 967,970 | 1,767,857 | 2,281,677 | 25,723,852 | 84,020 | 2,218,963 |
| 1947. | 395,439 | 121,067 | 21, 975,689 | 937,017 | 2,012,162 | $3,944,550$ | 28,002,714 | 88,723 | 2,395,283 |
| 1948. | 425,248 | 181,038 | 21,107,587 | 792,391 | 2,294,396 | 4,300,163 | 40,306,649 | 80,588 | 2,643,758 |
| $1949 .$ | 321,443 344,383 | 127,971 168,647 | 22,646,972 | 440,487 628 | 1,583, 833 | 2,517, 235 | 35, 887, 446 | 82.332 | 2,587,709 |
| 1951. | 301,300 | 144,560 | 27,819,536 | 628,737 | 2,020,442 2,610 | $3,070,557$ $3,831.418$ | $37,312,022$ $48,170,988$ | 107,909 137,430 | 2,752,700 |
| 1952. | 245,422 | 79,071 | 19,677,988 | 905,353 | 1,716,001 | 4,267,658 | 49,148.729 | 88,466 | 2,841,963 |
| 1953. | 271,000 | 133,379 | 19,913,723 | 515,635 | 1,723,226 | 4,167,571 | 53,777,021 | 82,928 | 2,781,707 |

[^355][^356]
## 18.-Imports according to Origin, by Group and Degree of Manufacture, 1952 and 1953

| Origin | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | All Countries | United Kingdom | United States | All Countries |
|  | \$'000 | \$'000 | 8'000 | \$'000 | \$'000 | \$'000 |
| Farm Origin |  |  |  |  |  |  |
| Canadlan Farm Products- <br> Field Crops- |  |  |  |  |  |  |
| Raw materials............. | 848 | 84,118 | 94, 242 | 459 | 72,967 | 81,997 |
| Partly manufactured |  | 2,299 | 2,918 | 18 | 2,922 | 4,128 |
| Fully or chiefly manufactured. | 19,095 | 31,748 | 57,900 | 21,051 | 32,621 | 60,870 |
| Totals, Field Crops. | 19,947 | 118,165 | 155,060 | 21,528 | 108,510 | 146,995 |
| Animal Husbandry- |  |  |  |  |  |  |
| Raw materials.. | 2,694 | 13,950 | 34,179 | 2,372 | 19,591 | 43,453 |
| Partly manufactured | 13,552 | 7,330 | 25,142 | 23,159 | 7,226 | 34,558 |
| Fully or chiefly manufactured.......... | 47,851 | 13,041 | 80,802 | 65,109 | 16,605 | 100,460 |
| Totals, Animal Husbandry | 64,097 | 34,321 | 140,123 | 30,640 | 43,422 | 178,471 |
| All Canadian Farm Products- |  |  |  |  |  |  |
| Raw materials. . . . | 3,542 | 98,068 | 128,422 | 2,831 | 92,558 | 125,450 |
| Partly manufactured | 13,556 | 9,629 | 28,060 | 23,177 | 10,148 | 38,685 |
| Fully or chiefly manufactured......... | 66,946 | 44,790 | 138,701 | 86,161 | 49,226 | 161,331 |
| Totals, Canadinn Farm Products..... | 84,044 | 152,486 | 295,183 | 112,169 | 151,932 | 325,466 |
| Foreign Farm Products- |  |  |  |  |  |  |
| Field Crops- |  |  |  |  |  |  |
| Raw materials....................... | 870 | 106,937 | 241,824 81,512 | 1,353 | 93,068 <br> 13,551 | 225,895 72,194 |
| Fully or chiefly manufactured.......... | 26,874 | 121,830 | 220,644 | 30,584 | 130,858 | 238,547 |
| Totals, Field Crops. | 27,841 | 243,594 | 543,980 | 32,441 | 237,477 | 536,636 |
| Animal Husbandry- |  |  |  |  |  |  |
| Raw materials....................... | 1,271 | 7,123 | 10,193 | 1,269 | 4,853 |  |
| Partly manufactured. <br> Fully or chiefly manufactured | r 49 | $\begin{array}{r} 25 \\ 6,357 \end{array}$ | $\begin{array}{r} 34 \\ 8,859 \end{array}$ |  | 6,024 | 8,870 |
| Totals, Animal Husbandry............. | 1,764 | 13,505 | 19,085 | 1,694 | 10,879 | 15,577 |
| All Foreign Farm Products- |  |  |  |  |  |  |
| Raw materials.. | 2,142 | 114,060 | 252,017 | 2,022 | 13,553 | 72,198 |
| Partly manufatured........ | 27,365 | 128,187 | 229,503 | 31,008 | 136,882 | 247,418 |
| Totals, Foreign Farm Products. | 29,606 | 257,099 | 563,065 | 34,135 | 248,356 | 552,214 |
| All Farm Products- |  |  |  |  |  |  |
| All Field Crops- |  |  |  |  |  |  |
| Raw materials...... | 1,719 | 191,055 | 336,066 84,430 |  | 166,035 16,472 | 307,892 76,322 |
| Partly manufactured. ${ }^{\text {Fully or chielly }}$ manufactured........... | 1,7100 45,970 | 17,126 153,578 |  | 51,636 | 163,479 | 299,418 |
| Totals, All Field Crops. | 47,788 | 361,759 | 699,040 | 53,970 | 345,986 | 683,632 |
| All Animal Husbandry- |  |  |  |  |  |  |
| Raw materials.. | 3,965 | 21,073 | 44,372 |  |  | $50,155$ |
| Partly manufactured Fully or chiefly man | 13,555 48,341 | 7,355 19,398 | 25,176 89,660 | 23,160 65,533 | 7,228 22,629 | 34,562 109,331 |
| Totals, All Animal Husbandry | 65,861 | 47,826 | 159, 208 | 92,334 | 54,301 | 194,048 |

For footnote, see end of table.

## 18.-Imports according to Origin, by Group and Degree of Manufacture, 1952 and 1953 -concluded

| Origin | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | $\begin{gathered} \text { All } \\ \text { Countries } \end{gathered}$ | United Kingdom | United States | $\underset{\text { Countries }}{\text { All }}$ |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Farm Origin-concl. <br> All Farm ProductsRaw materials. Partly manufactured. Fully or chiefly manufactured..... <br> Totals, Farm Origin $\qquad$ |  |  |  |  |  |  |
|  | 5,484 |  |  |  |  |  |
|  | 13,653 | 212,127 | 109,606 | 23,682 | 130,479 | 358,048 |
|  | 9,311 | 172,927 | 368,204 | 117,168 | 186,107 | 408,749 |
|  | 113,150 | 409,585 | 858,248 | 146,303 | 400,287 | 877,680 |
| Wildlife Origin |  |  |  |  |  |  |
| Raw materials. . | 378 | 7,328 | 8,739 | 475 | 7,826 | 9,232 |
| Partly manufactured. | 52 | 1,110 | 1,217 | 67 | 1,467 | 1,699 |
| Fully or chiefly manufactured | 328 | 851 | 1,205 | 300 | 755 | 1,092 |
| Totals, WIdlife Origin | 758 | 9,289 | 11,161 | 842 | 10,048 | 12,023 |
| Marine Origin |  |  |  |  |  |  |
| Paw materials | 7 | 2,072 | 2,888 | 71 | 2,729 | 3,339 |
|  | -317 | 3,771 | 6.314 | - 325 | -4,941 | 8,232 |
| Totals, Marine Origin................... | 324 | 5,813 | 9,202 | 396 | 7,670 | 11,571 |
| Forest Origin |  |  |  |  |  |  |
| Raw materials . . . . . . . . . . . . . . . . . . | 2 | 5,256 | 5,339 | 1. | 6,462 | 6,595 |
| Partly manufactured....................... |  | 27,384 | 29,322 | 55 | 28,377 | 31,086 |
|  | 4,305 | 93,765 | 103,794 | 4,944 | 114,566 | 127,271 |
| Totals, Forest Origin................... | 4,349 | 126,405 | 138, 455 | 5,000 | 149,405 | 164,952 |
| Mineral Oridin |  |  |  |  |  |  |
| Raw materials..................................................... | 5,307 | 256,857 | 458,929 | 5,717 | 227,221 | 434,764 |
|  | 19,558 | 49,753 | 82,666 | 19,521 | 29,493 | 64,274 |
|  | 173.756 | 1,606,973 | 1,880,115 | 228,010 | 1,814,141 | 2,140,922 |
| Totals, Mineral Origin................. | 158,522 | 1,913,583 | 2,421,710 | 253,248 | 2,070,855 | 2,059,5ce |
| Mixed Origin |  |  |  |  |  |  |
| Raw materials. | - | 85 | 85 | - | 79 | 79 |
| Partly manufactured | 572 | 8,977 | 10.374 | 719 | 8,507 | 9,759 |
| Fully or chiefly manufactured | 41,482 | 503,195 | 581,231 | 46,882 | 574,363 | 666,807 |
| Totals, Mhed Origin................... | 42,054 | 512,257 | 591,690 | 47,501 | 582,949 | 676,645 |
| Reeapltulation |  |  |  |  |  |  |
| Raw materials. <br> Partly manufactured <br> Fully or chiefiy manufactured | 11,378 | 483,726 | 856,418 | 11,718 | 434,797 |  |
|  | 33,880 | 111,705 | 233,185 | 44,044 | 41,546 | 217,702 |
|  | 314,493 | 2,281,531 | 2,940,84 | 397,629 | 2,014,872 | 3,353, 772 |
| Grand Totals. | 359,757 | 2,976,962 | 4,030,468 | 458,391 | 3,221,215 | 4,382,830 |

${ }^{1}$ In this classification the expression "Canadian Farm Products" refers to all commodities of which the basic raw materials are such as Canadian farms produce. "Foreign Farm Products" covers materials or commodities such as Canada does not produce in their original forms, e.g., cane sugar, tea, rubber, cotton, silk, eto.

## 19.-Exports according to Origin, by Group and Degree of Manufacture, 1952 and 1953

| Origin | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | $\left\lvert\, \begin{gathered} \text { All } \\ \text { Countries } \end{gathered}\right.$ | United Kingdom | United States | All Countries |
|  | \$'000 | \$'000 | \$'000 | 8'000 | \$'000 | \$'000 |
| Farm Origin |  |  |  |  |  |  |
| Canadian Farm Products-1 Field Crops- |  |  |  |  |  |  |
| Raw materials.. | 214,750 | 218,130 | 947, 226 | 260,640 | 186,457 | 875,281 |
| Partly manufactured | +387 | 3,168 | 8,225 | , ${ }^{7}$ | 2,963 | 7,473 |
| Fully or chiefly manufactured.......... | 41,207 | 72,852 | 207,938 | 44,397 | 74,837 | 202,779 |
| Totals, Field Crops. | 256,343 | 294,150 | 1,163,388 | 305,044 | 264,257 | 1,085,533 |
| Animal Husbandry - |  |  |  |  |  |  |
| Raw materials..... | 29,838 | 21,066 | 57,152, | 4,695 | 47,472 | 61,072 |
| Partly manufactured | 1,191 | 4,212 | 6,683 | 1,774 | 4,822 | 9,865 |
| Fully or chiefly manufactured......... | 197 | 19,486 | 38,166 | 4,016 | 27,543 | 47,556 |
| Totals, Animal Husbandry. | 31,226 | 44,763 | 102,002 | 10,485 | 79,837 | 118,493 |
| All Canadian Farm Products- |  |  |  |  |  |  |
| Raw materials... | 244,588 | 239,196 | 1,004,377 | 265,335 | 233,929 | 936,353 |
| Partly manufactured | 1,578 | 7,379 | 14,908 | 1,781 | 7,785 | 17,338 |
| Fully or chiefly manufactured. | 41,404 | 92,338 | 246, 104 | 48,413 | 102, 379 | 250,335 |
| Tolals, Canadin Farm Products | 287,569 | 338,913 | 1,265,390 | 315,529 | 344,093 | 1,204,026 |
| Forsion Farm Products- |  |  |  |  |  |  |
| Field Crops- |  |  |  |  |  |  |
| Raw materials. <br> Partly manufactured $\qquad$ | 二 | 1, ${ }^{448}$ | 646 <br> 1,869 |  | 1,222 | 1,382 |
| Fully or chiefly manufactured | 639 | 15,535 | 34,409 | 452 | 13,700 | 20,188 |
| Totals, Field Crops. | 639 | 17,762 | 36,924 | 452 | 14,928 | 21,576 |
| Animal Husbandry- |  |  |  |  |  |  |
| Raw materials..... | - | - | - | - | - | - |
| Partly manufactured. ....... | - |  |  | - |  | 6 |
| Fully or chiefly manufacture | - | 1 | 1. |  | 1 | 6 |
| Totals, Animal Husbandry ............. | - | 1 | 1 | - | 1 | 6 |
| All Foreign Farm Products- |  |  |  |  |  |  |
| Raw materials............. | - | 448 |  | - | 6 |  |
| Partly manufactured. | - | 1,779 | 1,869 | - | 1,222 | 1,382 |
| Fully or chiefly manufactured. | 639 | 15,537 | 34,410 | 452 | 13,702 | 20,194 |
| Totals, Foreign Farm Products. | 639 | 17,764 | 36,925 | 452 | 14,930 | 21,582 |
| All Farm Products- |  |  |  |  |  |  |
| All Field Crops- |  |  |  |  |  |  |
| Raw materials..... | 214,750 | 218,578 4,947 | [ $\begin{array}{r}947,872 \\ \\ 10,094\end{array}$ | 260,640 | 186,463 4,185 | 875,287 |
| Partly manufactured......... | 41, 4 4875 | 4,947 88,388 | 10,094 <br> 242,346 | 44,849 | 88,537 | 222,967 |
| Totals, All Field Crops................. | 256,982 | 311,913 | 1,200,312 | 305,496 | 279,185 | 1,107,109 |
| All Animal Husbandry- $\quad 20,838$ |  |  |  |  |  |  |
| Raw materials..... | 29,838 | 21,066 | 5 57,152 |  |  | 61,072 9,865 |
| Partly manufactured. ........ | 1,191 197 | 4,211 19,487 | 6,683 <br> 38,168 | 1,774 4,016 | r ${ }^{4}, 822$ | 9,865 47,562 |
| Fully or chiefly manufactured. | 197 | 19,487 | 38,168 | 4,016 | 27,544 |  |
| Totals, All Animal Husbandry.......... | 31,226 | 44,764 | 102,003 | 10,485 | 79,838 | 118,499 |

For footnote, see end of table.
19.-Frperts according to Origin, by Group and Degree of Manufacture, 1552 and 1953-concluded

| Origin | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | $\left\lvert\, \begin{gathered} \text { All } \\ \text { Countries } \end{gathered}\right.$ | United Kingdom | United States | All Countries |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$ ${ }^{\prime} 000$ | \$ 000 |
| Farm Origin-concluded <br> All Farm Products- <br> Raw materials. <br> Partly manufactured. <br> Fully or chiefly manufactured. <br> Totals, Farm Origin <br> Wildiffe Origin |  |  |  |  |  |  |
|  | 24,588 |  |  | 265,335 | 233,936 | 936,359 |
|  | 24,388 | 26,158 | 1, 16,788 | 26,335 | 23,9,47 | 18,721 |
|  | 42,043 | 107,875 | 280,514 | 48,865 | 115,480 | 270,528 |
|  | 288,208 | 356,677 | 1,302,315 | 315,981 | 359,023 | 1,225,608 |
|  |  |  |  |  |  |  |
| Raw materials. <br> Partly manufactured <br> Fully or chiefly manufactured <br> Totals, WildHfe Origin. | 4,057 | 19,009 | 23,602 | 3,900 | 16,784 | 21,122 |
|  | - 4 | 288 483 | 377 521 | 3 | 481 | 666 605 |
|  | 4,051 | 15,775 | 24,500 | 3,304 | 17,832 | 22,393 |
| Marine Origin |  |  |  |  |  |  |
| Rsw materials. <br> Partly manufactured <br> Fully or chiefly manufactured. | 2 | 69,545 | 70, 102 | 1 | 67,967 | 68,858 |
|  | 81 | 368 |  | 65 | 705 | 770 |
|  | 989 | 17,597 | 46,213 | 4,783 | 14.371 | 44,161 |
| Totals, Marine Origln. | 1,072 | 87,510 | 116,76 | 4,849 | 88,043 | 113,789 |
|  |  |  |  |  |  |  |
| Raw materials. <br> Partly manuiactured. <br> Fully or chiefly manulactured | 20.134 | 68,098 | 95,280 | 8,200 | 53,394 | 64,142 |
|  | 123,843 | 435,234 | 614,669 | 79,315 | 430,781 | 556,129 |
|  | 21,095 | 577,722 | 656,928 | 23,134 | 607,299 | 675,214 |
| Totak, Forest Origin | 165,071 | 1,081,054 | 1,366,877 | 110,649 | 1,091,474 | 1,235,485 |
| Mineral Origln |  |  |  |  |  |  |
| Rsw materials. <br> Partly manufactured <br> Fully or chiefly manufactured | 40,214 | 120,048 | 205, 353 | 40,784 | 144,814 | 235,418 |
|  | 220.012 | 318,801 | 608,537 | 165,688 | 385,703 | 612,571 |
|  | 16,379 | 204,838 | 482,367 | 12,372 | 193,793 | 381,248 |
| Totals, Mineral Origin | 276,6es | 613,687 | 1,296,957 | 218,84 | 724,311 | 1,223,237 |
| Mixed Origin |  |  |  |  |  |  |
| Raw materials. <br> Partly manufactured. <br> Fully or chiefly manufactured <br> Totals, Mired Origin. | - | - | - | - | 1,886 |  |
|  | - | 349 | 391 | - | 1,888 | 1.365 |
|  | 10,829 | 117,904 | 193,975 | 11,003 | 141,057 | 228,637 |
|  | 10,879 | 118,253 | 194,366 | 11,003 | 143,231 | 230,893 |
| Recapitulation |  |  |  |  |  |  |
| Raw materials. Partly manufactured Fully or chicfly manufactured | 368,994 | 516,344 | 1,399,361 | 318,220 | 518,782 | 1,327,791 |
|  | 315,514 91,387 | 1, 764,192 | 1, 241, 201 | 246,850 | 826,965 | 1,189,222 |
| Grand Totals | 745,845 | 2,306,955 | 4,301, 081 | 665,232 | 2,418,915 | 4,117,406 |

[^357]20.-Imports according to Purpose, by Group, 1952 and 1953

| Group and Purpose | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | All Countries | $\begin{gathered} \text { United } \\ \text { Kingdom } \end{gathered}$ | United States | All Countries |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Producers' Materlals |  |  |  |  |  |  |
| Farm Materials |  |  |  |  |  |  |
| Fodders. | 5 | 14,610 | 14,638 | . | 10,896 | 10,979 |
| Fertilizers | 136 | 8,865 | 10,778, | 145 | 9,723 | 12,327 |
| Seeds. | 461 | 3,057 | 4,579 | 122 | 1,603 | 2,410 |
| Other | 1,011 | 8,207 | 9,779 | 782 | 8,827 | 10,261 |
| Totals, Farm Materlals. | 1,612 | 34,739 | 39,775 | 1,049 | 31,050 | 35,977 |
| Manufacturers' Materlals |  |  |  |  |  |  |
| Foodstuffs and beverages.............. | 447 | 5,781 1,555 | 10,397 | - 359 | 6,183 1.514 | 9,531 2,769 |
| Tobacco, smokers supples.................. | 61,670 | 157,130 | 283,241 | 81,908 | 143,593 | 289,897 |
| Fur and leather goods.................... | 5,441 | 26,579 | 37,706 | 6,711 | 26,488 | 38,031 |
| Sawmills............................... | - 798 | - ${ }^{122}$ | $\overline{32}, 235$ | - 880 |  |  |
| Rubber industries......................................... | 798 52,705 | 99,122 494,608 | 32,235 785,306 | 66,841 | 11,413 483,660 | 30,197 796,265 |
| Totals, Manufacturers' Materials.... | 121,061 | 694,775 | 1,151,683 | 156,698 | 672,850 | 1,166,689 |
| Bumding and Construction Materials | 16,486 | 112,719 | 148,383 | 17,359 | 123,269 | 155,340 |
| Other Producers' Materials. | 51 | 1,823 | 1,887 | 60 | 2,202 | 2,276 |
| Totals, Producers' Materials........... | 139,211 | 844,056 | 1,341,728 | 175,166 | 829,371 | 1,360,283 |
| Producers' Equipment |  |  |  |  |  |  |
| Farm. | 6,756 | 193,250 | 202,673 | 6,260 | 206,461 | 215,850 |
| Commerce and industry ................. | 64,527 | 525,472 | 612,388 | 79,156 | 585,418 | 690,109 |
| Totals, Producers' Equipment........ | 71,283 | 718,723 | 815,061 | 85,416 | 791,880 | 905,959 |
| Fuel, Electricity and Lubricants |  |  |  |  |  |  |
| Fuel. | 4,493 | 241,069 | 267,102 | 4,794 | 238,745 | 262,316 |
| Electricity <br> Lubricants | 53 | 10,443 | 10,570 | 78 | 10,762 | 10,897 |
| Totals, Fuel, ete........................ | 4,546 | 251,614 | 27\%,773 | 4,872 | 249,822 | 273,528 |
| Transport |  |  |  |  |  |  |
| Road................................... | 26,719 | 267,066 | 294,795 | 37,802 | 322,312 | 363,170 |
| Rail.. |  | 7,119 | 7,851 | 1,116 | 6,167 | 7,651 |
| Aircraft. .................................. | 11,653 | 150,723 | 162,607 | 23,699 | 134,199 | 158,204 |
| Totals, Transpert..................... | 39,030 | 433,048 | 473,402 | 66,258 | 482,863 | 552,859 |
| Auxiliary Materials for Commerce and Industry |  |  |  |  |  |  |
| Advertising material................... | 355 | 4,722 | 5,143 | 391 | 6,008 | 6,507 |
| Containers.. | 3,337 | 19,401 | 25,384 | 4,114 | 22,234 9,466 |  |
| Other. | 122 | 7,077 | 7,236 | 165 | 9,460 | 9,014 |
| Totals, Auxiliary Materials............ | 3,813 | 31,200 | 37,763 | 4,670 | 37,708 | 45,608 |

20.-Imports according to Purpose, by Group, 1952 and 1953-concluded

| Group and Purpose | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | $\left\lvert\, \begin{gathered} \text { All } \\ \text { Countries } \end{gathered}\right.$ | United Kingdom | United States | $\underset{\text { Countries }}{\text { All }}$ |
|  | \$'000 | \$'000 | \$'000 | 8'000 | \$'000 | \$'000 |
| Consumer Goods |  |  |  |  |  |  |
| Foods. | 10,262 | 121,926 | 282,676 | 10,551 | 125,724 | 273,620 |
| Beverages | 10,786 | 14,889 | 102,460 | 13,287 | 19,061 | 114,970 |
| Smokers' supplies | 326 | 2,661 | 3,331 | 361 | 3,430 | 4,152 |
| Clothing | 14,684 | 54,863 | 73,597 | 19,185 | 25,477 | 50,896 |
|  | 25,303 | 122,464 | 159,188 | 30,702 | 147,375 | 194,412 |
| Jewellery, time pieces, etc................ | 1,820 | 8,715 | 22,931 | 2,058 | 10,955 | 30,683 |
| Books, educational supplies, etc........... | 3,345 | 44,020 23,691 | 50,083 31,546 | 5,569 | 51,095 41,041 | 58,052 51,801 |
| Medical supplies, etc. | 2,719 | 31,004 | 36,617 | 2,442 | 32,246 | 37,990 |
| Other. | 1,300 | 5,028 | 7,405 | 1,591 | 7,649 | 10,975 |
| Totals, Consumer Goods | 74,774 | 429,261 | 769,835 | 89,353 | 461,052 | 827,552 |
| Totals, Munitions and War Stores. | 4,806 | 26,721 | 31,949 | 3,050 | 40,419 | 44,713 |
| Totaks, Live Animals for Food. | - | 850 | 891 | - | 486 | 486 |
| Totals, Unclassified. | 22,293 | 211,449 | 282,065 | 24,566 | 324,613 | 371,842 |
| Grand Totals. | 359,737 | 2,976,962 | 4,839,468 | 453,391 | 3,221,214 | 4,282,830 |

21.-Exports according to Purpose, by Group, 1952 and 1953

| Group and Purpose | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | $\left\lvert\, \begin{gathered} \text { All } \\ \text { Countries } \end{gathered}\right.$ | United Kingdom | United States |  |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$ ${ }^{\prime} 000$ |
| Producers' Materials <br> Fari Materils |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Fodders | 2.685 | 136,672 | 271,729 | 42,882 | 143,601 | 257,388 |
| Fertilizer |  | 38,406 | 43,231 | 40 | 40,510 | 43,290 |
| Seeds... | 15 | 13,720 | 17,107 | 736 | 14,430 | 19,246 |
| Other. | - | 3,921 | 4,139 | - | 4,201 | 4,256 |
| Totals, Farm Materuls. | 2,704 | 192,720 | 336,205 | 43,657 | 202,741 | 324,181 |
| Mancfactiters' Materlals |  |  |  |  |  |  |
| Foodstuffis and beverages............... | 189,575 | 72,570 | 621,337 | 206,391 | 23,720 | 567,939 |
| Texacco, smokers supplies. .............. | 18,601 | +10 | 22,238 | 12,905 |  | 15.690 10 |
| Fur and leather goods..... | 5,474 | -26,206 | 11,038 | 6,095 | -4,696 | 10,988 |
| Sawmills............ | 2,368 | 2,913 | 6,052 | 1,052 | 25,433 | - 5 , 408 |
| Rubber industries. |  | 278 | , 281 | -, | 349 | , 352 |
| Other manufactures. | 330,955 | 1,313,248 | 1,898,416. | 264,890 | 1,376,507 | 1,846,181 |
| Totals, Manutactiters' Materinls. | 547,856 | 1.419,609 | 2,593,299 | 492,201 | 1,433,793 | 2,482,712 |
| Bullding and Conbtriction Matzrlals | 99,122 | 219,107 | 350,764 | 56,724 | 237,390 | 327,580 |
| Other Produckrs' Materinls. | - | 1,737 | 2,030 | - | 384 | 566 |
| Totals, Producers' Materials. | 649,683 | 1,833,173 | 3,282,298 | 592,583 | 1,874,308 | 3,135,039 |
| Producers' Equipment |  |  |  |  |  |  |
| Farm.. | 473 | 91,621 | 114,842 | 266 | 73,719 | 91,326 |
| Commerce and industry | 9,366 | 49,141 | 128,261 | 9,256 | 70,010 | 124,608 |
| Totals, Producers' Equipment | 9,859 | 140,761 | 213,103 | 9,571 | 143,730 | 215,934 |

21.-Exports according to Purpose, by Group, 1952 and 1953-concluded

| Group and Purpose | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { United } \\ \text { Kingdom } \end{gathered}$ | United States | $\underset{\text { Countries }}{\text { All }}$ | United Kingdom | United States | All Countries |
|  | \$ 000 | \$'000 | \$'000 | \$'000 | \%'000 | \$'000 |
| Fuel, Electricity and Lubricants |  |  |  |  |  |  |
| Fuel. | 1,023 | 14,388 | 18,842 | 1,055 | 6,984 | 9,796 |
|  | - | 9,174 ${ }^{\text {8 }}$ | 9,176 <br> 203 | - | 8,343 12 | 8,345 42 |
| Totals, Fuel, etc | 1,023 | 23,571 | 28,221 | 1,055 | 15,338 | 18,184 |
| Transport |  |  |  |  |  |  |
| Road. | 501 | 8,009 | 124,969 | 214 | 4,096 | 80,767 |
| Water |  | 905 | 11,506 | - | 1,304 | 19,778 19 |
| Aircraft | 829 | 33,943 | 37,503 | 1,609 | 36,515 | 40,247 |
| Totals, 'Transport. | 1,330 | 43,564 | 180,178 | 1,822 | 44,047 | 149,772 |
| Auxiliary Materials for Commerce and Industry |  |  |  |  |  |  |
| Containers Other. | 762 | 5,944 7 | 14,689 196 |  | 4,562 | 8,801 121 |
| Totals, Auxiliary Materials. | 762 | 5,951 | 14,885 | 238 | 4,562 | 8,922 |
| Consumer Goods |  |  |  |  |  |  |
|  | 220 | 120,009 | 329, 04 | 48, 033 | 149.493 | 317,670 |
| Beverages.... | 782 | 46,484 | 57,079 | 919 | 57,706 | 68,094 |
| Smokers' supplies......................... | 56 |  | 373 | 103 |  | ${ }_{6} 437$ |
| Clothing. | 526 | 4,207 | 6,496 | 411 | 4,589 | 6,800 |
| Household goods. ...................... | 128 | 3,286 | 9,424 | 56 | 2,560 | 7,139 |
| Jewellery, timepieces, etc............... | 56 | - 270 | 1,318 | $\stackrel{29}{ }$ | ${ }_{3} 168$ | $\begin{array}{r}842 \\ 7 \\ \hline 891\end{array}$ |
| Books, educational supplies, etc......... | 209 | 4,142 | 10,505 | ${ }_{539} 23$ | 3,352 8,398 | 11,891 |
| Recreational equipment, etc. Medical supplies, etc....... | 608 | 7,217 | 10,645 6,664 | 539 189 | 8,398 21 | 11,583 7,661 |
| Medical supplies, etc. | 129 9 | 1,865 | -784 | 11 | 2, 352 | ${ }_{6} 64$ |
| Totals, Consumer Goods............. | 73,723 | 193,87\% | 432,692 | 51,123 | 228,875 | 428,763 |
| Totals, Munitions and War Stores... | 1 | 8,434 | 15,765 | - | 38,391 | 43,983 |
| Totals, Live Animals for Food | - | 2,709 | 2,814 | - | 6,562 | 6,706 |
| Totals, Unclassified | 9,485 | 54,915 | 101,125. | 8,890 | 63,101 | 110,104 |
| Grand Totals | 745,845 | 2,306,955 | 4,301,081 | 665,232 | 2,418,915 | 4,117,406 |

## Section 6.-Comparison of Value, Price and Volume of Foreign Trade

Since the end of World War II there has been a substantial increase in the value of Canada's exports and imports. Changes in the value of trade, however, are the joint product of changes in the volume of goods traded and of the prices at which transactions are conducted. To assess the significance of value changes it is desirable to eliminate the contributions made to them by the price and volume factors.

Special indexes of export and import prices have been developed to provide this information. These indexes are based chiefly on unit values (average prices) calculated from the trade statistics, supplemented by information on wholesale and retail prices. Price relatives are calculated for a sample of commodities representing the greater part of export and import trade, and these relatives are weighted
by the percentage of 1948 trade represented by each commodity in the sample in obtaining group and total indexes. By dividing these price indexes into the trade values the effects of price change are removed from the values, or by dividing the price index into an index of values on the same time-base an index is obtained showing changes in the volume of trade from year to year.

The grouping of commodities used in these calculations differs slightly from that of the regular trade statistics, changes being desirable to simplify the pricing problem. The chief difference is that the first two main groups of the trade statistics have been combined into one group, "agricultural and animal products", and that the sub-group "rubber and its products" has been transferred from this group to the "miscellaneous" group.

The import totals differ from those usually published by the exclusion of certain goods brought into Canada by the governments of the United Kingdom and NATO countries for the use of their defence forces. Table 22 shows the value of trade adjusted for pricing purposes, and the value, price and volume indexes of Canadian trade for 1950-53.

Movements in value, price and volume have not always been the same. The volume of imports increased in each year shown in the table, but a sharp fall in import prices reduced the value of imports in 1952 below their 1951 value. From 1950 to 1951 rising prices accounted for more than half of the increase in import value; from 1952 to 1953 there was little change in import prices, and the whole of the value gain was caused by a further increase in import volume. Export prices, like import prices, reached a peak in 1951 and have declined since that year, but in 1952 there was a sufficient increase in the volume of exports to more than offset the decline in prices, and the value of exports advanced.
22.-Declared Values and Value, Price and Physical Volume Indexes of Foreign Trade, by Commodity Group, 1950-53

| Commodity Group ${ }^{1}$ | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: |
|  | Drccared Values |  |  |  |
| Imports- | \$'000 | $\mathbf{8}^{\prime} 000$ | \$'000 | \$'000 |
| Agricultural and animal products | 522,763 | 583,674 | 522,597 | 526,025 |
| Fibres and textiles. | 364,509 | 483,520 | 359,440 | 387,115 |
| Wood products and pap | 95,859 | 132,383 | 129,411 | 154,445 |
| Iron and steel and products | 977,582 | 1,328,055 | 1,402,232 | 1,521,044 |
| Non-ferrous metals and product | 219,730 | 297,353 | 304, 218 | 376,170 |
| Non-metallic minerals and produ Chemicals and fertilizer......... | 608,445 161,517 | 681,356 194,992 | 638,754 190,843 | 654,524 225,786 |
| Miscellaneous....... | 222,819 | 375,749 | 464,059 | 507,986 |
| Totals, Adjusted Imports ${ }^{2}$. <br> Importa for use of U.K. and NATO Governments. | 3,173,224 1,029 | 4,077,083 | 4,011,535 18,913 | $4,353,094$ 29,736 |
| Totals, Declared Values of Imports. | 3,174,253 | 4,484,856 | 4,030,468 | 4,382,830 |
| Domestic Erports- |  |  |  |  |
| Agricultural and animal products. | 990,520 | 1,213,176 | 1,403,747 | 1,339,348 |
| Fibres and textiles. | 29,573 | 36,858 | 27,697 | 24,333 |
| Wood products and pa | 1,112,945 | 1,399,076 | 1,366,787 | 1,295,396 |
| Iron and steel and products | 273,242 | 350,369 | 417,538 | 376,891 |
| Non-ferrous metals and products. | 457,262 | 569,870 | 706,732 | 682,183 |
| Non-metallic minerals and product | 103,655 | 131,529 | 143,474 | 147,393 |
| Chemicals and fertilizer | 100,525 | 131,690 | 124,565 | 137,885 |
| Miscellaneous | 50.665 | 81,892 | 110,540 | 113,977 |
| Totals, Declared Values of Exports ${ }^{3}$ | 3,118,287 | 3,914,460 | 4,301,080 | 4,117,406 |

For footnotes, see end of table, p. 1081.
22.-Declared Values and Value, Price and Physical Volume Indexes of Foreign Trade, by Commodity Group, 1950-53-continued

| Commodity Group ${ }^{\text {a }}$ | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: |
|  | Value Indexes ( $1948=100$ ) |  |  |  |
| Imports- |  |  |  |  |
| Agricultural and animal products. | 129.7 | 144.8 | 129.7 | $130 \cdot 5$ |
| Fibres and textiles. | $104 \cdot 0$ | $137 \cdot 9$ | $102 \cdot 5$ | $110 \cdot 4$ |
| Wood products and paper. | $135 \cdot 9$ | $187 \cdot 6$ | 183.4 | 218.9 |
| Iron and steel and products. | $124 \cdot 8$ | $169 \cdot 5$ | 179.0 | 194.2 |
| Non-ferrous metals and products | $140 \cdot 5$ | $190 \cdot 1$ | $194 \cdot 5$ | $240 \cdot 5$ |
| Non-metallic minerals and products. | $100 \cdot 9$ | $112 \cdot 9$ | $105 \cdot 9$ | 108.5 |
| Chemicals and fertilizer. | $133 \cdot 2$ | $160 \cdot 8$ | 157.3 | 186.2 |
| Miscellaneous. | $152 \cdot 6$ | $257 \cdot 4$ | $317 \cdot 9 \mathrm{r}$ | 347.9 |
| Tetals, Imports ${ }^{2}$. | 120.4 | 154-8 | 152 -3 | $165 \cdot 2$ |
| Domestic Exports- |  |  |  |  |
| Agricultural and animal products. | 94.7 | 116.0 | $134 \cdot 3$ | 128.1 |
| Fibres and textiles. | $64 \cdot 9$ | 80.9 | $60 \cdot 8$ | 53.4 |
| Wood products and paper | 116.7 | $146 \cdot 7$ | $143 \cdot 3$ | $135 \cdot 8$ |
| Iron and steel and products | $75 \cdot 3$ | $96 \cdot 5$ | $115 \cdot 1$ | 103.9 |
| Non-ferrous metals and products | $115 \cdot 5$ | $143 \cdot 9$ | 178.5 | $172 \cdot 3$ |
| Non-metallic minerals and products | $109 \cdot 2$ | $138 \cdot 6$ | 151.2 | 155.3 |
| Chemicals and fertilizer | 125.9 52.2 | 164.9 84.3 | 156.0 113.8 | $172 \cdot 7$ |
| Is, E | 101.4 | 127.3 |  |  |
|  |  | $\underset{(19}{\mathrm{P}_{\mathrm{RIC}}}$ | ExEs <br> 0) |  |
|  |  |  |  |  |
| Agricultural and animal products. | $108 \cdot 2$ | $122 \cdot 4$ | $102 \cdot 3{ }^{\text {r }}$ | $97 \cdot 4$ |
| Fibres and textiles.. | $109 \cdot 3$ | $158 \cdot 6$ | $108 \cdot 5$ | $100 \cdot 4$ |
| Wood products and paper | $111 \cdot 6$ | 118.4 | $115 \cdot 3$ | $117 \cdot 1$ |
| Iron and steel and products | $116 \cdot 1$ | 122.5 | $117 \cdot 3$ | $120 \cdot 1$ |
| Non-ferrous metals and products | 106.9 | 121.2 | $120 \cdot 5$ | 119.7 |
| Non-metallic minerals and products. | $104 \cdot 4$ | 108.8 | 101.7 | $104 \cdot 8$ |
| Chemicals and fertilizer. | 102.8 | 117.2 | $109.0{ }^{\text {r }}$ | 109.4 |
| Miscellaneous.. | $121 \cdot 5$ | 166.6 | 123.5 | 111.0 |
| Totals, Imports ${ }^{2}$ | 110.3 | 126.2 | $110 \cdot 4$ r | 109.4 |
| Domestic Exports- |  |  |  |  |
| Agricultural and animal products. | $105 \cdot 6$ | 114.8 | 107.6 | $103 \cdot 5$ |
| Fibres and textiles............. | 112.8 105.0 |  | $120 \cdot 0$ 122.4 | $114 \cdot 1$ 118.3 |
| Wood products and paper... | 105.0 | 122.4 | 122.4 | 118.3 |
| Iron and steel and products...... | $113 \cdot 7$ | 126.2 | $131 \cdot 4$ \% | 134.2 |
| Non-ferrous metals and products.... Non-metallic minerals and products. | $115 \cdot 1$ 120.4 | 137.9 131.7 | ${ }_{143.1}$ | $135 \cdot 0$ 149.5 |
| Non-metallic minerals and products. | $120 \cdot 4$ $104 \cdot 2$ | 131.7 116.7 | $143 \cdot 1$ 119.3 | $149 \cdot 5$ 117.1 |
| Miscellaneous...... | $112 \cdot 0$ | $132 \cdot 3$ | 129.7 | $123 \cdot 7$ |
| Totals, Exports ${ }^{3}$ | $108 \cdot 3$ | 123.0 | 121.8 | 118.3 |
|  | Volume Indexes$(1948=100)$ |  |  |  |
| Imports- |  |  |  |  |
| Agricultural and animal products. | 119.9 | $118 \cdot 3$ | 126.8 ${ }^{\text {r }}$ | 134.0 |
| Fibres and textiles................ | $85 \cdot 2$ | $86 \cdot 9$ | 94.5 | $110 \cdot 0$ |
| Wood products and paper. | 121.8 | $158 \cdot 4$ | $159 \cdot 1$ | 186.9 |
| Iron and steel and products. | 107.5 | 138.4 | $152 \cdot 6$ | 161.7 |
| Non-ferrous metals and products | 131.4 | 156.8 | 161.4 | $200 \cdot 9$ |
| Non-metallic minerals and products. | 96.6 | $103 \cdot 8$ | 104-1 | $103 \cdot 5$ |
| Chemicals and fertilizer. | $129 \cdot 6$ | $137 \cdot 2$ | $144 \cdot 3$ r | $170 \cdot 2$ |
| Miscellaneous. | $125 \cdot 6$ | 154.5 | $257 \cdot 4$ | 313.4 |
| Totals, Imports ${ }^{\text {a }}$. | 109.2 | 122.7 | $138.0{ }^{\text {r }}$ | 151.0 |

For footnotes, see end of table.
22.-Declared Values and Value, Price and Physical Volume Indexes of Foreign Trade, by Commodity Group, 1950-53-concluded

| Commodity Group ${ }^{1}$ | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: |
|  | Volume Indexiss-concluded |  |  |  |
| Domestic Exports- |  |  |  |  |
| Agricultural and animal products. | 89.7 | 101-0 | 124.8 | 123.8 |
| Fibres and textiles. | $57 \cdot 5$ | 57.9 | 50.7 | 46.8 |
| Wood products and paper. | 111.1 | 119.9 | 117 -1 | 114.8 |
| Iron and steel and products..... | 66.2 | 76.5 | 87.6 | 77.4 |
| Non-ferrous metals and products. | 100-3 | 104-4 | $125 \cdot 2{ }^{\text {r }}$ | $127 \cdot 6$ |
| Non-metallic minerals and products | 90.7 | $105 \cdot 2$ | $105 \cdot 7$ | $103-9$ |
| Chemicals and fertilizer....... | $120 \cdot 8$ | 141.3 | $130 \cdot 8$ | 147.5 |
| Miscellaneous. | $46 \cdot 6$ | 63.7 | 87.7 | 94.9 |
| Totals, Exports ${ }^{2}$ | 38.5 | 103.5 | 114.9 | 113.2 |

[^358]
## PART III.-EXTERNAL TRANSACTIONS*

## Section 1.-Canadian Balance of International Payments

Canada experienced a current account deficit of $\$ 339,000,000$ in 1953; this deficit was in contrast to the surplus of $\$ 164,000,000$ recorded in 1952, which had in turn followed two years of deficit, the first since 1933. An underlying tendency for Canada to be a net importer of capital during periods of great economic activity thus reasserted itself in 1953 when the volume of goods and services imported in response to demands in the Canadian economy rose sharply.

The sudden change from surplus to deficit in 1953 can best be regarded in the perspective of developments over several years. Superimposed on an economy with strong and growing investment and consumption demands has been the increased tempo of defence activities since 1950. These influences have been basic factors in the deficits of the past few years. In 1952, the period of deficits was temporarily ended because of two major developments, namely, the very marked improvement in the terms of trade and a large increase in the volume of grain exports. Since further improvements along these lines were not forthcoming in 1953, the underlying strong increase in import volume led to the reappearance of a current deficit. While there was a marked deterioration in the surplus with overseas countries and an increase in the deficit with the United States in 1953, these developments had the effect of yielding current balances with the United States and overseas countries generally which were remarkably close to those of 1951.

The reappearance of a current account deficit of $\$ 439,000,000$ in 1953 was accompanied, of course, by net capital imports of this amount. The deficit was more than balanced by heavy flows of long-term capital into Canada for direct and portfolio investment, which have been a feature of Canada's balance of payments in recent years. In 1952, the current account surplus and long-term inflows were

[^359]balanced by very large outward movements of short-term capital. Short-term movements in 1953, while still outwards, were sharply lower than in 1952. These changes took place without any great change in the external value of the Canadian dollar.

Exchange transfers in settlement of overseas balances were much lower in 1953 than in 1952. In the earlier year, Canada's current account surplus with overseas countries, offset by a small net capital export from Canada, gave rise to record net multilateral receipts of more than $\$ 1,000,000,000$ available in the United States account. In 1953, the overseas surpluses fell to $\$ 485,000,000$ but there was a significant net import of capital from overseas of $\$ 139,000,000$, giving rise to net multilateral settlements of $\$ 624,000,000$. The receipt by Canada in 1953 of exchange transfers in excess of the net balance of goods and services provided to overseas countries represented, in part, a settlement of the earlier current account deficits of these countries, which were financed through the extension of the loans now being repaid; it also reflected the use by overseas countries of their available resources for investment in the Canadian economy rather than for imports on the scale of the previous year.


Current Account Transactions.-The abrupt swing in Canada's current account from surplus to deficit in 1953 was mainly the result of a deterioration of $\$ 546,000,000$ in the commodity trade balance. The most important factor was a continued rise in import volume, although a slight decrease in export volume and some shift in terms of trade were contributory. Unadjusted trade returns indicate a rise of 9 p.c. in the value of imports, attributable to larger volume. The value of domestic exports declined by about 4 p.c., reflecting mainly the fall of 3 p.c. in export prices. On an annual basis, the effect of price changes was to lead to some
worsening of the terms of trade in 1953, compared with 1952; the terms of trade in 1953, however, were still substantially more favourable than those of any year from 1948 to 1951. This was a reflection of the fact that the rapid rise in export and import prices in 1951 had since been largely reversed for imports but not for exports; import prices in 1952 and 1953 were at about the 1950 average, while export prices were well above that average.

The decrease in export values in 1953 was spread over a number of leading commodities. The improved supply situation abroad was an important factor in the $8 \cdot 5$ p.c. decline of wheat exports, but the 1953 total of $\$ 568,000,000$ was above that of any post-war year except 1952. Sales of newsprint rose to an all-time peak of $\$ 619,000,000$, but sales of wood and other wood products fell, owing partly to lower prices. Exports of aluminum, copper and nickel were higher, but these gains were more than offset by the lower values of zinc and lead exports which were particularly affected by low prices. There were some substantial decreases in the value of exports of manufactured goods. Exports of automobiles were well below the exceptional levels of 1952 . Unusually high sales in earlier years, combined with declining farm income in the United States and exchange difficulties overseas, contributed to the decline in exports of farm implements.

The decrease in exports was concentrated in overseas markets. Exports of grains to the United Kingdom rose in 1953, particularly exports of barley, and increases occurred in some other products; sharp decreases in exports of beef, lumber, zinc and aluminum more than offset these increases. Most other sterling-area countries also reduced their imports from Canada; the major exceptions were the Union of South Africa and Pakistan. Large exports of wheat, some of which were financed under the Colombo Plan, raised exports to the latter country. Exports to OEEC countries in Europe and their dependencies fell sharply. The drop in exports of grains to this group of countries (which included Belgium, Canada's third largest market in 1952) was the major factor in the over-all decline. Exports to other foreign countries were generally lower. The major exceptions were Japan and Korea; the former was Canada's third largest export market in 1953. In contrast to overseas markets, purchases by the United States increased. With prices somewhat lower, the increase in value reflected an appreciable increase in volume. Seven of the nine groups of exports to the United States were higher in value in 1953.

For most groups of imports, prices were only slightly different from the 1952 levels. Group price indexes were substantially lower for fibres and textiles and the miscellaneous products groups. Volume indexes were significantly higher in all import groups except non-metallic minerals. The increases are, of course, closely related to the heavy spending on consumption and investment which characterized the Canadian economy in 1953. Import volume from the United States rose by almost 8 p.c. as major increases occurred in the value of imports of electrical apparatus and automobiles and parts. Imports from overseas countries generally rose, the Enited Kingdom accounting for most of the increase.

The deficit on non-merchandise items in 1953 was $\$ 382,000,000$, an increase of $\$ 57,000,000$ over 1952. Large payments on income account and for business services lead each year to substantial net payments on account of this group of transactions. The largest contributor to the change from 1952 was the freight and shipping account where the effects of a much larger volume of imports and a small reduction in the volume of exports led to a significant deficit. Miscellaneous current transactions also led to an increased deficit. Higher defence expenditure
in Canada by the United States Government was more than offset by Canadian Government spending abroad, including some special settlements of costs in Korea. On the other hand, there were larger net receipts by Canada on income account and on migrants' account and inheritances.

Capital Movements.-Persistent inflows of long-term capital to finance Canadian development continued, through 1953, to be the outstanding feature of the capital account in Canada's balance of payments. Of particular significance in 1953 was the net import of capital from overseas countries amounting to $\$ 139,000,000$. In only two other years since the War have net inflows occurred, and the amount in each case was less than half the figure for 1953. While repayments on official loans accounted for a substantial part of the inflow, there were also important transfers of private capital for direct and other long-term investment.

Inflows for direct investment in foreign-controlled companies and branches have risen year by year since the War and reached $\$ 398,000,000$ in 1953, a rise of 15 p.c. over 1952. Movements from the United Kingdom and other overseas countries rose significantly and were greater than in any two previous post-war years, but well over 80 p.c. of the net inflows continued to be from the United States. Slightly more than three-quarters of the gross inflows from that country were for mining, petroleum and related utilities. Movements of capital from Canada for direct investment abroad continued at a high level in 1953, totalling $\$ 56,000,000$, but failed to equal the record of the previous year.

A substantial volume of sales of new Canadian security issues abroad, mainly in the United States, contributed to a net capital inflow from transactions in Canadian securities. Trading in outstanding issues resulted in repatriation. Net repurchases of bonds and debentures of governments and municipalities totalled $\$ 59,000,000$, but were offset to the extent of $\$ 28,000,000$ by sales of corporate securities. While the general pattern of trading over the year as a whole was the same as in 1952, these opposite movements took place on a reduced scale and the net capital export was also smaller in 1953. Transactions with the United Kingdom led to an inflow of $\$ 27,000,000$, the first annual sales balance since 1937, and net sales of $\$ 22,000,000$ to other overseas countries were also higher than in 1952. The capital export to the United States fell from $\$ 104,000,000$ in 1952 to $\$ 80,000,000$ in 1953. Proceeds of the sales abroad of new issues totalled $\$ 342,000,000$; about two-thirds of this total represented borrowing by provincial governments and municipalities, while most of the balance covered new issues of corporation bonds and stocks. Retirements aggregating $\$ 142,000,000$ were dominated by the negotiated repurchase for Government account of $\$ 75,000,000$ of an external loan. Transactions in foreign securities were practically in balance and the result of all security transactions was a capital import of $\$ 168,000,000$.

Other capital movements in 1953 included the receipt by Canada of principal repayments of $\$ 87,000,000$ on loans to other governments, and a reduction of $\$ 17,000,000$ in Canadian dollar holdings of foreigners. Official holdings of gold and foreign exchange were reduced by $\$ 38,000,000$, which was less than the amount of the special repatriation transaction mentioned in the preceding paragraph.

The major change from 1952 to 1953 in the capital account was in "other capital movements", which resulted in a net outflow of $\$ 179,000,000$ in contrast to the spectacular outfiow of over $\$ 500,000,000$ in 1952 . These outflows followed
a period of substantial inflows in 1950 and the first half of 1951 . With the reemergence of a current account deficit in 1953, a much smaller part of long-term capital inflows was available for other capital movements. This category includes a wide variety of transactions including changes in loans and advances outstanding, in inter-company accounts, and in private, commercial and banking balances and short-term investments abroad.

## 1.-Current Account between Canada and All Countries, 1930-53

(Net Credits +; Net Debits -)
(Millions of Canadian Dollars)

| Year | Current Receipts | Current <br> Expenditure | Net Balance Balance on Current Account | Year | Current Receipts ${ }^{1}$ | Current <br> Expenditure ${ }^{2}$ | Net Balance | Mutual <br> Aid and Other Official Contributions in Current Account | Net Balance on Current Account |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1930. | 1,297 | 1,634 | -337 | 1942. | 3,376 | 2,275 | +1,101 | -1,002 |  |
| 1931.... | 972 | 1,146 | -1.4 | 1943. | 4,064 | 2,858 | +1,206 | -518 | +688 |
| 1932.... | 808 | 904 | -96 | 1944. | 4,557 | 3,539 | +1,018 | -960 | +58 |
| 1933... | 829 | 831 | -2 | 1945. | 4,456 | 2,910 | +1,546 | -858 | +688 |
| 1934.... | 1,020 | 952 | +68 | 1916. | 3,365 | 2,905 | + 460 | -97 | +363 |
| 1935.... | 1,145 | 1,020 | $+125$ | 1977. | 3,748 | 3,661 | $+87$ | -38 | +49 |
| 1936.... | 1,430 | 1.186 | +24 | 1978. | 4,147 | 3,673 | +474 | -23 | +451 |
| 1937. | 1,593 | 1,413 | $+180$ | 1949. | 4,089 | 3,906 | +183 | -6 | +177 |
| 1938.... | 1,361 | 1,261 | $+100$ | 1950. | 4,297 | 4,569 | $-272$ | -62 | $-334$ |
| 1939.... | 1,457 | 1.331 | +126 | 1951.. | 5,311 | 5,674 | $-363$ | -154 | $-517$ |
| 1940.... | 1,766 2,458 | 1,627 1,967 | +149 +491 | ${ }_{1953} 195$. | 5,858 | 5,478 $\mathbf{5 , 9 2 7}$ | +380 +169 | -216 -270 | +164 |
| 1941.... | 2,458 | 1,967 | +491 |  | 5,758 | 5,927 | -169 | -270 | -439 |

${ }^{1}$ Includes Mutual Aid exports.
${ }^{2}$ Excludes Mutual Aid offsets.

## 2.-Geographical Distribution of the Balance on Current Account between Canada and Other Countries, 1930-53

Nore.-In the years 1942 -48 balances include exports of currently produced goods provided as Mutual Aid or Official Contributions. (See also Table 1.)
(Net Credits +; Net Debits -)
(Millions of Cansdian Dollars)

| Year | United States ${ }^{1}$ | United Kingdom ${ }^{2}$ | Other Overseas Countries ${ }^{2}$ | $\underset{\text { Countries }}{\text { All }}$ | Year | United States ${ }^{1}$ | United Kingdom ${ }^{2}$ | Other Overseas Countries ${ }^{2}$ | $\underset{\text { Countries }}{\text { All }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1930. | -344 | -106 | +113 | -337 | 1942. | -180 | +1,223 | +58 | +1,101 |
| 1931.. | -205 | -54 | +85 | -174 | 1943. | -19 | +1,149 | +76 | +1,206 |
| 1932. | -168 | -14 | +86 | -96 | 194. | +31 | +746 | +241 | +1,018 |
| 1933. | $-113$ | $+26$ | +85 | -2 | 1945. | +36 | +747 | +763 | +1,546 |
| 1934. | -80 | +46 | $+102$ | +68 | 1946. | -607 | +500 | +567 | +460 |
| 1935. | -29 | +62 | +92 | +125 | 1947. | -1,134 | +633 | +588 | $+87$ |
| 1936. | $-1$ | $+122$ | +123 | $+244$ | 1948. | -393 | $+486$ | +381 | +474 |
| 1937. | -77 | +135 | +122 | $+180$ | 1949. | -601 | +446 | +332 | +177 |
| 1938. | -149 | +127 | +122 | $+100$ |  | -400 | +24 | +42 | -334 |
| 1939. | -116 | +137 +343 | +105 | +126 | 1951. | -951 | +223 | $+211$ | -517 |
| 1940. | -292 -318 | +343 +734 | +98 +75 | +149 +491 | ${ }_{1953}^{195}$ | -849 -924 |  | +625 +343 | +164 |
| 1941. | -318 | +734 | +75 | +491 | 1953 | -924 | +142 | +343 | -439 |

[^360]
## 3.-Balance of International Payments between Canada and All Countries, 1948-53

## (Millions of Canadian Dollars)

| Item | 1948 | 1949 | 1950 | 1951 | 1952 | 1953p |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A. Current Receipts- |  |  |  |  |  |  |
| Merchandise exports (adjusted) ${ }^{1}$ | 3,030 | 2,989 | 3,139 | 3,950 | 4,339 | 4,152 |
| Mutual Aid to NATO countries |  |  | 57 | 145 | 200 | 246 |
| Gold production available for expo | 119 | 139 | 163 | 150 | 150 | 144 |
| Tourist and travel expenditure. | 279 | 285 | 275 | 274 | 275 | 302 |
| Interest and dividends | 70 | 83 | 91 | 115 | 145 | 164 |
| Freight and shipping | 336 | 303 | 284 | 351 | 383 | 337 |
| All other current credits | 313 | 290 | 288 | 326 | 366 | 413 |
| Totals, Current Receipts | 4,147 | 4,089 | 4,297 | 5,311 | 5,858 | 5,758 |
| B. Current Payments- |  |  |  |  |  |  |
| Merchandise imports (adjusted) | 2,598 | 2,696 | 3,129 | 4,097 | 3,850 | 4,209 |
| Tourist and travel expenditure | 134 | 193 | 226 | 280 | 341 | 365 |
| Interest and dividends | 325 | 390 | 475 | 450 | 413 | 410 |
| Freight and shipping. | 279 | 253 | 301 | 354 | 375 | 382 |
| Official contributions | 23 | 6 | 62 | 154 | 216 | 270 |
| All other current debits | 337 | 374 | 438 | 493 | 499 | 561 |
| Totals, Current Payments. | 3,696 | 3,912 | 4,631 | 5,828 | 5,694 | 6,197 |
| C. Net Balance on Current Adcount | +451 | $+177$ | -334 | -517 | +164 | -439 |
| D. Capital Tranbactions- |  |  |  |  |  |  |
| Net new issues or retirements of Canadian securities held abroad. | $+36$ | -42 | -74 | +227 | +227 | +200 |
| Net sales or purchases of outstanding securities... | -4 | +30 | +399 | +53 | -82 | -10 |
| Loans and Advances by Government of Canada- |  |  |  |  |  |  |
| Loan of 1946 to United Kingdom. <br> Post-war loans to other countries. | -52 | -120 +13 | -50 +23 | +14 +20 | +14 +19 | 14 +23 |
| Repayments on war loans to United Kingdom.. | +64 | +5 | +51 | +34 | +23 | +50 |
| Change in Canadian dollar holdings of foreigners.. | $-21$ | +40 | +233 | -192 | $-66$ | $-17$ |
| Other capital movements ${ }^{2}$...................... | +25 | -63 | +224 | +91 | -565 | -261 |
| Net Moyement of Capiral Exclusive of Change in Official Holdings of Gold and U.S. Dollars | +45 | -43 | +1,028 | $\div 556$ | -84 | +397 |
| E. Change in Ofriclal Holdings | +496 | $+134$ | +694 | +39 | +80 | -42 |

${ }^{1}$ Includes official contributions in kind, n.o.p.
${ }^{2}$ Includes errors and omissions.
4.-Current Account Transactions between Canada and the United States, 1948-53
(Millions of Canadian Dollars)

| Item | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 ${ }^{\text {p }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A. Current Receipts- |  |  |  |  |  |  |
| Merchandise exports (adjusted) | 1,508 | 1,521 | 2,046 | 2,326 | 2,346 | 2,458 |
| Net exports of non-monetary gol | 119 | 139 | 163 | 150 | 150 | 144 |
| Travel expenditure, | 267 | 267 | 260 | 258 | 257 | 282 |
| Interest and dividends | 37 | 40 | 50 | 57 | 85 | 99 |
| Freight and shipping | 131 | 126 | 157 | 164 | 174 | 164 |
| All other current receipts | 185 | 176 | 201 | 223 | 262 | 296 |
| Totals, Current Receipts | 2,247 | 2,269 | 2,877 | 3,178 | 3,274 | 3,443 |
| B. Current Paymenps- |  |  |  |  |  |  |
| Merchandise imports (adjusted) | 1,797 113 | 1,899 165 | 2,093 193 | 2,842 246 | $\begin{array}{r}2,817 \\ \hline 294\end{array}$ | 3,046 307 |
| Interest and dividends | 267 | 325 | 411 | 382 | 344 | 341 |
| Freight and shipping | 213 | 193 | 240 | 276 | 302 | 301 |
| All other current payments | 250 | 288 | 340 | 383 | 366 | 372 |
| Totals, Current Payments. | 2,640 | 2,870 | 3,277 | 4,129 | 4,123 | 4,367 |
| C. Current Account Balance | -393 | -601 | -400 | -951 | -849 | -924 |

5.-Current Account Transactions between Canada and the United Kingdom, 1948-53
(Millions of Canadian Dollars)

| Item | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 ${ }^{\text {D }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A. Currentr Racisits- |  |  |  |  |  |  |
| Merchandise exports (adjusted). | 703 | 701 | 469 | 636 | 727 | 656 |
| Travel expenditure., | 9 | 11 | 7 | 8 | 10 | 12 |
| Interest and dividend | 9 | 9 | 6 | 30 | 29 | 31 |
| Freight and shipping.- | 105 96 | 89 87 | 61 47 | 91 56 | 105 54 | 87 56 |
| Tozals, Curbent Rucitips | 922 | 897 | 590 | 821 | 925 | 842 |
| B. Curbrat Patigents- |  |  |  |  |  |  |
| Merchandise imports (adjusted) | 287 | 300 | 399 | . 417 | 350 | 462 |
| Travel expenditure. | 12 | 17 | 19 | 20 | 27 | 31 |
| Interest and dividends. | 50 | 55 | 54 | 57 | 56 | 55 |
| Freight and shipping | 34 | 32 | 36 | 43 | 42 | 45 |
| All other current payments. | 53 | 47 | 58 | 61 | 62 | 107 |
| Tomals, Current Payments. | 436 | 451 | 566 | 598 | 537 | 700 |
| C. Curernt Account Bamance | +486 | +446 | +24 | +223 | +388 | +142 |

## 6.-Capital Transactions between Canada and the United States, ${ }^{1}$ 1949-53

(Millions of Canadian Dollars)

| Item | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A. Current Account Balancz. | -601 | -400 | -951 | -849 | -924 |
| B. Captral Account- |  |  |  |  |  |
| Direct investments in Canada | $+84$ | $+200$ | +270 | +319 | +330 |
| Canadian direct investments abroad | +16 | +41 | -4 | -42 | -26 |
| New issues of Canadian securities. | +105 | +210 | $+404$ | +315 | $+329$ |
| Retirements of Canadian securities. | -136 | $-263$ | -159 | -75 | -132 |
| Net trade in outstanding Canadian securities.............. | +25 | $+362$ | $+20$ | -104 | -80 |
| Transsctions in foreign securities....... | +16 | +73 | +17 | +4 | +3 |
| Change in Canadian dollar holdings of foreig | -8 -38 | +89 +249 | -53 +59 | -37 -458 | -1 -165 |
| Net capital movement |  |  |  |  |  |
| Balance settled by exchange transfers | +671 | +961 +133 | $\begin{aligned} & +554 \\ & +436 \end{aligned}$ | +1,007 | $\begin{aligned} & +258 \\ & +624 \end{aligned}$ |
| C. Change in Opmill Holdings of Gold and U.S. Dollars | +134 | +694 | +39 | +80 | -42 |

${ }^{1}$ Includes some capital transactions on account of "other overseas countries". and omissions.
${ }^{2}$ Includes errors

## Section 2.-Travel Between Canada and Other Countries

In 1953, more than $51,000,000$ persons crossed the International Boundary from the United States to Canada, $3,000,000$ more than the previous record established in 1952. United States travellers entering Canada numbered $28,000,000$ and residents of Canada returning from visits to the United States numbered $23,000,000$. Travellers arriving in Canada from overseas by way of both Canadian and United States ports numbered 38,200 in 1953 as compared with 38,000 in 1952, while residents of Canada returning from overseas countries numbered 80,500 in 1953 and 64,800 in 1952.

Receipts from travel in Canada by non-residents had been fairly constant throughout the period $1948-52$, but reached a new record of $\$ 302,000,000$ in 1953 , an increase of $\$ 27,000,000$ over the previous year. On the other hand, expenditures of Canadian travellers in other countries increased by $\$ 24,000,000$ to $\$ 365,000,000$ in the same comparison. The debit balance on travel account with the United States, which had been $\$ 37,000,000$ in 1952 , was reduced to $\$ 25,000,000$ in 1953 , but that with overseas countries increased from $\$ 29,000,000$ to $\$ 38,000,000$, resulting in a total debit balance on travel account with all countries of $\$ 63,000,000$ in 1953 as compared with $\$ 66,000,000$ in 1952.

United States Travel Expenditures in Canada.-Residents of the United States travelling in Canada in 1953 spent a record amount of $\$ 282,000,000$, $\$ 25,000,000$ more than in 1952 ; automobile traffic accounted for over $\$ 14,000,000$ of the increase and non-automobile traffic for nearly $\$ 11,000,000$.

The total number of non-resident automobiles entering Canada in 1953 was $8,200,000$, an increase of nearly 9 p.c. over 1952. Non-permit or local traffic increased by 8 p.c. and entries on customs permits by 10 p.c. Expenditures of customs-permit automobile traffic increased at a rate slightly higher than the volume, resulting in average expenditures somewhat above the 1952 figure. All provinces, except Ontario, recorded increases ranging from $\$ 1.56$ per vehicle in Manitoba to $\$ 12.64$ in Saskatchewan. Ontario's decline amounted to $\$ 2.17$ per vehicle. Expenditures of the non-permit class increased by $\$ 3,000,000$ or 17 p.c. in 1953.

Of the 46,289,129 automobiles registered in the United States in 1953, 2,465,495, or slightly over 5 p.c., entered Canada on customs permits.

Bus traffic accounted for nearly half the $\$ 11,000,000$ increase in expenditures of non-automobile traffic in 1953, although the volume declined by 5 p.c. The $\$ 3,000,000$ increase in expenditures of travellers by air in 1953 was accounted for by increased volume, since average expenditure was slightly less than in 1952. Travellers by rail spent about $\$ 2,000,000$ less in 1953 , the result of a decline of over 8 p.c. in volume, although average expenditure was higher. Lower average expenditure for travellers arriving by boat offset an increase in volume, leaving the aggregate unchanged from the previous year. Expenditures of the residuary classification known as "Other travellers" increased by nearly $\$ 5,000,000$ during 1953 as a result of a greater number of entries. Included in the expenditure of this class are passenger fares earned by Canadian companies carrying residents of the United States overseas.

Although residents of the United States spent more on travel outside their own country in 1953 than in any previous year, for the first time in over twenty years Canada received a smaller portion of that expenditure than Europe and the Mediterranean area. According to the United States Department of Commerce, expenditures on travel outside the United States in 1953 surpassed the previous record established in 1952 by about 10 p.c. In 1953, European and Mediterranean countries received 33 p.c., Canada 32 p.c., Mexico 21 p.c., the West Indies and Central America 9 p.c., and other countries 5 p.c.

Canadian Travel Expenditures in the United States.-Expenditures by residents of Canada in the United States reached a new peak in 1953, but the rate of increase was more moderate than that experienced in 1952 and also more moderate than the rate of increase in volume would indicate. Expenditures by residents of Canada in the United States are estimated at $\$ 307,000,000$, an increase of more than $\$ 13,000,000$ over the previous year.

Although the number of visits to Canada by residents of the United States exceeded visits of Canadians to the United States by nearly $5,000,000$ or over 20 p.c., expenditures of Canadians in the United States exceeded expenditures of Americans in Canada by $\$ 25,000,000$ or approximately 9 p.c. It will be noted that in a corresponding comparison in 1952, visits by Americans exceeded return visits of Canadians by 22 p.c. and Canadian expenditures in the United States were 14 p.c. higher than American expenditures in Canada. Thus, it appears that average expenditures by Canadians in foreign countries are higher than non-resident expenditures in Canada. In 1953, the average rate per person for visits lasting longer than 48 hours was $\$ 86$ for Canadians visiting the United States and $\$ 52$ for Americans visiting Canada compared with $\$ 88$ and $\$ 51$, respectively, in 1952. If the population of the two countries is taken into consideration, residents of Canada spent an average of $\$ 20.79$ per capita in the United States during 1953, and residents of the United States spent an average of $\$ 1.77$ per capita in Canada.

Most of the gain in expenditures by Canadians in the United States was in the short-term category which accounted for nearly 73 p.c. or over $\$ 10,000,000$ of the increase over 1952. Within the short-term group, expenditures of the two-day motorists accounted for 41 p.c. of the increase, followed in order of importance by other travellers making up 34 p.c., and the one-day motorists 25 p.c. Shopping trips close to the 48 -hour period in the United States may have been responsible for a considerable portion of the gain in the two-day class. Purchases declared under the $\$ 100$ customs exemption were $\$ 72,000,000$ in 1953 , an increase of nearly $\$ 6,000,000$ over the previous year. The advance in value of declared purchases made up 42 p.c. of the total increase of Canadian travel expenditures in the United States in 1953 and 41 p.c. of the increase in 1952 over 1951. The pattern of expenditures for purchases of merchandise did not change materially during the period 1950 to 1953 when purchases of clothing made up nearly 50 p.c. of the expenditures declared under the $\$ 100$ exemption.

Travel Between Canada and Overseas Countries.-Travel between Canada and overseas countries produced the greatest debit balance in 1953 of any year on record. The adverse balance on overseas travel account during 1953 amounted to $\$ 38,000,000$, an increase of $\$ 9,000,000$ over the previous high established in 1952.

Visitors arriving in Canada direct from overseas countries by way of Canadian ports in 1953 numbered 21,600 of whom 11,300 or 52 p.c. travelled by boat and the other 48 p.c., representing 10,300 passengers, travelled by air. The total represents a decline from the 1952 figure of over 2 p.c.; ship traffic declined 7 p.c. and air traffic increased between 3 and 4 p.c. In addition to the direct traffic to Canada, 16,600 overseas visitors arrived via the United States, making a total of 38,200 .

Expenditures in Canada by non-immigrant arrivals from overseas countries. are estimated at $\$ 20,000,000, \$ 2,000,000$ higher than the previous record expenditures in 1949 and 1952. Included in these totals are transportation costs paid to Canadian carriers.

Residents of Canada returning from overseas countries via Canadian ports numbered 61,500 , an increase of 12 p.c. over the previous record in 1952. Approximately 45 p.c. of the residents returning direct in 1953 re-entered through the airports of Gander, Dorval and Malton compared with 38 p.c. in 1952. Canadian travellers returning by way of the United States are estimated at 19,000 making a total of 80,500 via Canadian and United States ports.

Expenditures of Canadians travelling in overseas countries amounted to $\$ 58,000,000$ in 1953 , the highest ever recorded and an increase of 23 p.c. or $\$ 11,000,000$ over the previous year. Included in this amount are transportation fares paid to non-Canadian carriers.

## 7.-Number and Expenditure of Foreign Travellers in Canada and Canadian Travellers Abroad, 1952 and 1953

| Year and Class of Traveller | Foreign Travellers in Canada ${ }^{1}$ | Foreign Expenditure in Canada | Canadians Travelling Abroad ${ }^{1}$ | Canadian Expenditure Ábroad | Excess of Foreign Travellers in Canada ${ }^{1}$ | Excess of Foreign Expenditure in Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$'000 | No. | \$'000 | No. | 8'000 |
| 1952 |  |  |  |  |  |  |
| Travellers from and to overseas countries. | 22,000 | 18,000 | 54,812 | 47,000 | -32,812 | -29,000 |
| Travellers from and to the United States- <br> Automobile- |  |  |  |  |  |  |
| Short-term visit ${ }^{2}$....... | 15,775,123 | 36,000 | 11,173,553 | 41,800 | +4,601,570 | -5,800 |
| Long-term visit. | 2,793,123 | 106,500 | 1,240,135 | 76,700 | +1,552,988 | $+29,800$ |
| Rail...................... | 1,110,471 | 45,900 | 554,573 | 75, 200 | $+555,898$ | $-29,300$ |
| Boat | 302,834 | 14,200 | 95,656 | 3,800 | +207,178 | +10,400 |
| Bus (exclusive of local bus) | 375, 051 | 18,100 | 587,998 | 51,500 | $-212,947$ | $-33,400$ |
| Aircraft. . . . . . . . . . . . . . | 185,129 | 21,900 | 165,562 | 26,100 | +19,567 | -4,200 |
| Other (pedestrians, local bus, etc.). | 5,735,103 | 14,400 | 7,694,547 | 18,400 | -1,959,444 | -4,000 |
| Totals, United States | 26,276,834 | 257,000 | 21,512,024 | 293,500 | +4,764,810 | -36,500 |
| Totals, All Countries. | 26,298,834 | 275,000 | 21,566,836 | 340,500 | +4,731,998 | $-65,500$ |
| 1953 |  |  |  |  |  |  |
| Travellers from and to overseas countries. | 21,575 | 20,000 | 61,482 | 58,000 | -39,907 | -38,000 |
| Travellers from and to the United States-Automobile- |  |  |  |  |  |  |
| Short-term visit ${ }^{2}$. $\ldots . .$. | 16,389,423 | 40,400 | 12,194,920 | 48,500 | +4,194,503 | -8,100 |
| Long-term visit......... | 3,003, 821 | 116,500 | 1,389,432 | 84,500 | +1,614,389 | +32,000 |
| Rail. | 1,026,109 | 43,900 | 512,523 | 61,600 | +513,586 | -17,700 |
| Boat. | 325,404 | 14,200 | 127,144 | 5,100 | $+198,260$ | $+9,100$ |
| Bus (exclusive of local bus) | 352,205 | 23,000 | 538,222 | 45,900 | -186.017 | -22,900 |
| Aircraft. ................. | 213,415 | 24,900 | 200,456 | 39,900 | +12,959 | -15,000 |
|  | 6,714,369 | 19,300 | 8,349,145 | 21,800 | -1,634,776 | -2,500 |
| Totals, United States..... | 28,024,746 | 282,200 | 23,311,842 | 307,300 | +4,712,904 | -25.100 |
| Totals, All Countries.... | 28,046,321 | 302,200 | 23,373,324 | 365,300 | +4,672,997 | -63,100 |

[^361]
## 8.-Summary of Highway Traffic at Canadian Border Points, by Province, 1952 and 1953

| Province or Territory | Forkign Vrhicles Inward |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Non-Permit Class Local Traffic |  | Travellers' Vehicle Permits |  | Commercial Vehicles |  |
|  | 1958 | 1953 | 1952 | 1953 | 1952 | 1953 |
| Nova Scotia and Sew Brunswick. | No. | No. | No. | No. | No. | No. |
|  | 967,478289,369$3,806,941$ | $1,009,549$348,679 | 152,421393,507 | 161,286413,016 | 89,95143,110 | $\begin{aligned} & 83,707 \\ & 59,019 \end{aligned}$ |
| Quebec....................... |  |  |  |  |  |  |
| Ontario....................... | $\begin{array}{r} 3,806,941 \\ 71,783 \end{array}$ | 4,127,205 | 1,362,363 | 1,534,135 | 138,571 | 190,197 |
| Saskatchewan............... | $\begin{aligned} & 71,783 \\ & 25,655 \end{aligned}$ | 25,493 | 19,288 | 21,155 | 6,801 5,658 | 7.218 |
| Alberta. | $\begin{array}{r} 19,817 \\ 109,917 \end{array}$ | $\begin{array}{r} 23,254 \\ 122,165 \end{array}$ | 42,743 | 44.450 | 3,988 | 7,927 6,013 |
| British Columbis............ |  |  | 262,5507,253 | 283,8468,255 | 14,606 | 17,232 |
| Yukon Territory.............. | 109,917 2,263 | $\begin{array}{r} 122,165 \\ 1,520 \end{array}$ |  |  |  | 1,176 |
| Totals................... | 5,293,253 \| 5,729,199 |  | 2,278,165 2,506,114 |  | 363,736 | 372,489 |
| Percentage increase, 1953 over 1952. | +8.2 |  | +10.0 |  | +22.6 |  |
|  | Canadian Vehiches Returning |  |  |  |  |  |
|  | Aiter Stay of 24 Hours or Less |  | After Stay of Over 24 Hours |  | CommercialVehicles |  |
|  | 1952 | 1953 | 1952 | 1953 | 1952 | 1953 |
| Novs Scotis and New Branswick. |  | No. | No. | No. | No. | No. |
|  | $\begin{array}{r} 1.0-1,888 \\ 559,205 \end{array}$ | 1,128,197 | 31,698141,396 | 44,816160,510 | $\begin{aligned} & 91,690 \\ & 68,751 \end{aligned}$ | $93,575$ |
| Quebec. |  |  |  |  |  |  |
| Ontario........... . . . . . . . . . | $\begin{array}{r} 559.205 \\ 1.36 .502 \\ 115.066 \end{array}$ | 1.485.384 | 263,158 | 281,225 | $\begin{array}{r} 68,751 \\ 136,040 \end{array}$ | 112,547 |
| Manitoba..................... |  | 125,330 | 44,49831,011 | 51,059 | $\begin{aligned} & 16,975 \\ & 13,731 \end{aligned}$ | 20,222 |
| Saskatchewan................ | 115,966 55,101 | 5.265 |  | -34,529 |  |  |
| Alberta..................... | $\begin{array}{r} 28,146 \\ 265,460 \\ 46 \end{array}$ | $\begin{array}{r} 28,036 \\ 513,797 \end{array}$ | $\begin{array}{r} 31,211 \\ 341,260 \\ 14,235 \end{array}$ |  | $\begin{array}{r} 13,731 \\ 8,418 \end{array}$ | 7.172 |
| British Columbia............ |  |  |  | 153,443212 | $\begin{array}{r} 28,471 \\ 95 \end{array}$ | 32,910 121 |
| Yukon Territory............. | $\begin{array}{r} 465,460 \\ 212 \end{array}$ | $\begin{array}{r} 513,797 \\ 405 \end{array}$ | $\begin{array}{r} 141,23 \mathrm{~S} \\ 16 \mathrm{i} \end{array}$ |  |  |  |
| Totals | 3,024,480 4,015,922 |  | 685,426 | 761,253 | 361,171 | 371,366 |
| Percentage increase, 1953 over 1952.................... | $+9.5$ |  | +11.1 |  | +2.0 |  |

Tourist Information.-Tourist information generally is supplied by the Canadian Government Travel Bureau, Ottawa, while detailed information on the National Parks and Historic Sites is available from the Department of Northern Affairs and National Resources, Ottawa. For advice regarding specific provinces or particular cities or resorts, the tourist may apply to the provincial or municipal bureau of information concerned. (See Directory of Sources of Official Information in Chapter XXIX under the heading "Tourist Trade".)

## PART IV.--THE GOVERNMENT AND FOREIGN TRADE

## Section 1.-Foreign Trade Service and Associated Agencies concerned with the Development of Foreign Trade*

Foreign trade contributes substantially to the welfare and prosperity of Canadians, largely because of the fact that the productive capacity of Canada is greater than the ability of its population to consume the output of farms, factories,

[^362]forests, fisheries and mines. Every effort is made, therefore, to establish and maintain close commercial relations with other countries whose markets are essential to the Canadian economy. It is appreciated, however, that two-way trade should be encouraged in order that goods and services may be accepted in partial payment for the products Canada is in a position to export. Furthermore, many commodities that are not indigenous to this country have to be imported from abroad. Some of these are required for Canadian industrial processes and others may be classed as consumer goods necessary for the maintenance of a high standard of living.

Although many private firms have established connections in other countries that enable them to maintain a steady flow of goods in either direction, others require the assistance of government agencies in finding markets or sources of supply. Import and export controls, imposed by many countries for a variety of reasons, together with post-war foreign exchange difficulties, present problems that no single firm or even an association of manufacturers, exporters or importers can solve without assistance from government representatives.

The Department of Trade and Commerce and associated agencies are at the disposal of exporters and importers engaged directly in the development of Canada's commercial relations with other countries. Services obtainable from the various branches, divisions and agencies are described below.

Canadian Trade Commissioner Service.-The Canadian Trade Commissioner Service is one of the important instruments in the continuous effort to increase Canadian international trade, to give world-wide distribution to Canadian products and to locate the best sources of supply for imports. With headquarters at Ottawa, the Service maintains 53 offices in 43 countries, staffed with trained Canadian trade officials and commodity specialists. The work of the Trade Commissioners in the field is co-ordinated at Ottawa by four Area Trade Officers. These officers are familiar with every aspect of foreign trade in their geographical or political areas and are responsible to the Director of the Service for the collection, preparation and presentation of information on all trade matters in their respective territories.

Trade Commissioners bring together exporters and importers of Canada and other countries. They study potential markets for specific Canadian products and report on the exact kind of goods in demand, prices, competitive conditions, trade and exchange regulations, tariffs, shipping and packaging requirements, labelling, etc. Inquiries for Canadian goods are forwarded to the Department at Ottawa or directly to interested Canadian firms. For Canadian importers, Trade Commissioners seek sources of supply of a wide variety of goods. The preparation of economic and other reports for departmental use is an important activity for the Trade Commissioner, while much attention is given to the dissemination of information on the Canadian International Trade Fair, securing exhibitors and encouraging the visits of foreign buyers. Assistance is also given to Canadian exhibitors at overseas trade fairs and a constant liaison is maintained with foreign goyernment trade departments.

In countries where Canada maintains a diplomatic mission as well as a trade office, Trade Commissioners form an integral part of the mission and assume the title of Commercial Counsellor or Commercial Secretary. In some foreign countries they act as Consuls General, Consuls or Vice-Consuls, according to their_status as Foreign Service Officers.

In order to provide Canadian manufacturers, exporters and importers with up-to-date information concerning their territories more effectively than is possible by correspondence, tours of Canadian industrial centres are arranged from time to time for Trade Commissioners. Such direct contacts enable specific problems to be discussed and, at the same time, serve to bring into focus for the Trade Commissioner the Canadian industrial picture as a whole. He thus returns to his post with a knowledge of current Canadian conditions and in a better position to assist in the development and extension of Canadian trade opportunities.

## FOREIGN TRADE SERVICE REPRESENTATIVES ABROAD, AS AT JAN. 1, 1955

Argentina.-C. S. Bissett, Commercial Counsellor, Canadian Embassy, Bartolomé Mitré 478, Buenos Aires.

Austrania.-C. M. Croft, Commercial Counsellor for Canada, City Mutual Life Bldg., 60 Hunter Street, Sydney, N.S.W.
R. W. Blake, Commercial Secretary for Canada and Agricultural Secretary, 83 William Street, Melbourne.

Belelay Congo.-A. B. Brodie, Canadian Government Trade Commissioner, Forescom Building, Leopoldville. Territory includes Angola and French Equatorial Africa.

Belgrom.-T. J. Monty, Commercial Counsellor, Canadian Embassy, 35 rue de la Science, Brussels. Territory includes Luxembourg.
Brasic.-C. J. Van Tighem, Commercial Secretary, Canadian Embassy, Edificio Metropole, Av. Presidente Wilson 165, Rio de Janeiro. M. P. Carson, Consul and Trade Commissioner, Canadian Consulate, Edificio Alois, Rua 7 de Abril 252, São Paulo.

Crylon.-James J. Hurley, High Commissioner for Canada, 6 Gregory's Road, Cinnamon Garden, Colombo.

Chils.-R. E. Gravel, Commercial Secretary, Canadian Embassy, 6th Floor, Av. General Bulnes, 129, Santiago.

CoLombia.-W. J. Millyard, Commercial Secretary, Cangdian Embassy, Avenida Jimenez No. 7-25, Bogota. Territory includes Ecuador.

Cuba.-G. A. Browne, Commercial Secretary, Canadian Embassy, Edificio Motor Centre, Calle Infanta 16, Havana.

Dramark.-C. F. Wilson, Commercial Counsellor, Canadian Legation, 4 Trondhjems Plads, Copenhagen. Territory includes Greenland.

Dominican Republic.-M. B. Bursey, Commercial Counsellor, Edificio Copello 408, Calle El Conde, Ciudad Trujillo. Territory includes Haiti and Puerto Rico.

Egypt.-M. R. M. Dale, Commercial Secretary, Canadian Embassy, 6 Sharia Rouston Pasha, Garden City, Cairo. Territory includes Aden, Sudan, Cyprus, Ethiopia and Saudi Arabia.

Francz.-B. C. Butler, Commercial Counsellor for Canada, 3 rue Scribe, Paris. Territory includes Algeria, French Morocco, French West Africa and Tunisia. R. Campbell Smith, Commercial Secretary for Canada, 3 rue Scribe, Paris.

Germany.-B. A. Macdonald, Commercial Counsellor, Canadian Embassy, 22 Zitelmannstrasse, Bonn.

Grerce.-H. W. Richardson, Commercial Secretary, Canadian Embassy, 31 Vassillissis Sophias Ave., Athens. Territory includes Israel and Turkey.
Guatzmala.-J. C. Depocas, Canadian Government Trade Commissioner, 5 a Avenida Sud, 10-68, Guatemala City. Territory includes Costa Rica, El Salvador, Honduras, Nicaragua, Panama and Canal Zone.

## FOREIGN TRADE SERVICE REPRESENTATIVES ABROAD-continued

Hong Kong.-T. R. G. Fletcher, Canadian Government Trade Commissioner, Hong Kong and Shanghai Banking Corporation Building, Hong Kong. Territory includes China, Indo-China, Macao and Taiwan.

India.-Richard Grew, Commercial Counsellor, Office of the High Commissioner for Canada, 4 Aurangzeb Road, New Delhi.
D. M. Holton, Commercial Secretary for Canada, Gresham Assurance House, Mint Road, Bombay.

Indonesia.-W. D. Wallace, Commercial Secretary, Canadian Embassy, Budi Krmulian No. 6, Djakarta.

Ireland-T. Grant Major, Commercial Counsellor for Canada, 66 Upper O'Connell Street, Dublin.

Italy.-S. G. MacDonald, Commercial Counsellòr, Canadian Embassy, Via Saverio Mercadante 15, Rome. Territory includes Libya, Malta and Yugoslavia.

Jamaica.-M. B. Palmer, Canadian Government Trade Commissioner, Canadian Bank of Commerce Chambers, Kingston. Territory includes Bahamas and British Honduras.

Japan.-J. C. Britton, Commercial Counsellor, Canadian Embassy, Tokyo. Territory includes Korea.
Paul Sykes, Canadian Government Trade Commissioner, 7th Floor, Crescent Building, 72 Kyomachi, Ikutaku, Kobe.

Lebanon.-G. F. G. Hughes, Commercial Secretary, Canadian Legation, Alpha Building, Rue Clemenceau, Beirut. Territory includes Iraq, Jordan and Syria.

Mexico-M. T. Stewart, Commercial Counsellor, Canadian Embassy, Edificio Internacional, Paseo de la Reforma, Mexico, D.F.
Tex Netherlands.-V.L. Chapin, Commercial Secretary, Canadian Embassy, Sophialaan 1-A, The Hague.
New Zealand.-L. S. Glass, Commercial Secretary, Office of the High Commissioner for Canada, Government Life Insurance Building, Wellington. Territory includes Fiji and Western Samoa.
Norway.-J. L. Mutter, Commercial Counsellor, Canadian Legation, Fridtjof Nansens Plass 5, Oslo. Territory includes Iceland.

Pakistan.-R. K. Thomson, Commercial Secretary, Office of the High Commissioner for Canada, Hotel Metropole, Victoria Road, Karachi. Territory includes Afghanistan and Iran.
Peru.-H. J. Horne, Commercial Secretary, Canadian Embassy, Edificio Boza, Carabaya 831, Plaza San Martin, Lima. Territory includes Bolivia.

Philippinvs.-F. H. Palmer, Consul General of Canada and Trade Commissioner, Ayala Building, Juan Luna Street, Manila.
Portugal--L. M. Cosgrave, Commercial Counsellor, Canadian Legation, Avenida de Praia da Vitoria $48-1^{\circ} \mathrm{D}$, Lisbon. Territory includes The Azores and Madeira.
Singapore.-D. S. Armstrong, Canadian Government Trade Commissioner, Room F-3, Union Building, Singapore. Territory includes Brunei, Burma, Federation of Malaya, North Borneo, Sarawak and Thailand.
South Africa.-K. F. Noble, Canadian Government Trade Commissioner, Mutual Building, Harrison Street, Johannesburg. Territory includes Federation of Rhodesia and Nyasaland, Portuguese East Africa, Kenya, Tanganyika, Uganda and Zanzibar. A. W. Evans, Canadian Government Trade Commissioner, Grand Parade Centre Building, Adderley Street, Cape Town. Territory includes South-West Africa, Mauritius and Madagascar.
Spain.-B. I. Rankin, Commercial Secretary, Canadian Embassy, Edificio España, Avenida de Jose Antonio 88, Madrid. Territory includes Balearic Islands, Canary Islands, Gibraltar, Rio de Oro, Spanish Morocco and Tangier.

FOREIGN TRADE SERVICE REPRESENTATIVES ABROAD-concluded
Swrdxn.-F. W. Fraser, Commercial Counsellor, Canadian Legation, Strandvagen, 7-C, Stockholm. Territory includes Finland.

Switzerland.-W. Van Vliet, Commercial Secretary, Canadian Embassy, Kirchenfeldstrasse 88, Berne. Territory includes Austria, Czechoslovakia and Hungary.
Trinidad.-P. V. McLane, Canadian Government Trade Commissioner, Colonial Building, 72 South Quay, Port-of-Spain. Territory includes Barbados, Windward and Leeward Islands, British Guiana, Dutch Guiana, French Guiana, and French West Indies.
United Kingdom.-R. P. Bower, Commercial Counsellor, Office of the High Commissioner for Canada, Canada House, Trafalgar Square, London, S.W.1.
(Post Vacant) Canadian Government Trade Commissioner, Martins Bank Building, Water Street, Liverpool.
T. Grant Major, Canadian Government Trade Commissioner, 36 Victoria Square, Belfast. Territory includes Northern Ireland.
Unitrd Statrs.-R. G. C. Smith, Commercial Counsellor, Canadian Embassy, 1746 Massachusetts Ave., N.W., Washington, D.C.
H. A. Gilbert, Commercial Secretary, Canadian Embassy, 1746 Massachusetts Ave., N.W., Washington 6, D.C.
S. V. Allen, Consul and Senior Trade Commissioner, Canadian Consulate General, 620 Fifth Avenue, New York, N.Y.
C. R. Gallow, Consul and Trade Commissioner, Canadian Consulate General, 620 Fifth Avenue, New York City 20.
D. H. Cheney, Vice Consul and Trade Commissioner, Canadian Consulate General, 532 Little Building, 80 Boylston Street, Boston 16, Mass.
R. V. N. Gordon, Vice Consul and Trade Commissioner, Canadian Consulate General, Chicago Daily News Building, 400 West Madison Street, Chicago, Ill.
M. J. Vechsler, Consul of Canada and Trade Commissioner, Canadian Consulate, 1035 Penobscot Building, Detroit 26, Mich.
Leslie G. Chance, Consul General, Canadian Consulate General, Associated Realty Building, 510 West Sixth St., Los Angeles 14, Cal.
G. A. Newman, Consul and Trade Commissioner, Canadian Consulate, 215-217 International Trade Mart, New Orleans, La.
Christopher C. Eberts, Consul General, Canadian Consulate General, 3rd Floor, Kohl Building, 400 Montgomery Street, San Francisco, Cal.
C. Norman Senior, Consul General, Canadian Consulate General, The Tower Building, 7th Ave. at Olive Way, Seattle 1, Wash.
Uruguay.-W. Gibson-Smith, Commercial Secretary, Canadian Embassy, Calle Colonia 1013, $7^{\circ}$ Piso, Montevideo. Territory includes Paraguay.
Venezcela.-H. L. Brown, Commercial Counsellor, Canadian Embassy, Edificio Pan American, Puente Urapal, Caracas. Territory includes Netherlands Antilles.

Agricultural Representatives
Argbntina.-W. F. Hillhouse, Agricultural Secretary, Canadian Embassy, Bartolomé Mitré 478, Buenos Aires. Territory includes Paraguay and Uruguay.
Australia.-R. W. Blake, Agricultural Secretary for Canada, 83 William Street, Melbourne.
The Netherlands.-C. J. Small, Acting Agricultural Secretary, Canadian Embassy, Sophialaan 1-A, The Hague. Territory includes Belgium and Luxembourg.
United Kingdom.-D. A. B. Marshall, Commercial Secretary (Agricultural), Office of the High Commissioner for Canada, Canada House, Trafalgar Square, London, S.W.1.
United States.-Dr. W. C. Hopper, Agricultural Counsellor, Canadian Embassy, 1746 Massachusetts Avenue, N.W., Washington, D.C.
Venezuela.-D. B. Laughton, Acting Agricultural Secretary, Canadian Embassy, Edificio Pan American, Puente Urapal, Caracas. Territory includes Colombia.

## Fisheries Representative

Italy.-M. S. Strong, Commercial Secretary (Fisheries), Canadian Embassy, Via Saverio Mercadante 15, Rome.

Timber Representative
Untted Kingdom.-G. H. Rochester, Commercial Secretary (Timber), Office of the High Commissioner for Canada, Canada House, Trafalgar Square, London, S.W.1.

Commodities Branch.-The Commodities Branch is responsible for maintaining the liaison with industry and with export and import trades essential to the foreign trade promotion work of the Department. The Branch assembles trade information and data on products for use by Trade Commissioners in posts abroad, and officers of the Branch maintain contact with industry through personal visits and by exchange of correspondence with this purpose in view. Through correspondence with Canadian Government Trade Commissioners abroad, officers of the Branch are able to follow conditions in foreign markets and to supply this information for the benefit of Canadian traders.

The Branch contains commodity specialists organized in three divisions: the Machinery and Metals Divison, the Forest Products and Chemicals Division, and the Consumer Goods Division. Within these Divisions, individual commodity specialists are concerned with such particular groups of products as machine tools and plant equipment, non-ferrous metals, steel, chemicals, lumber, leather and rubber, as well as a very wide range of consumer products. It is the function of the commodity specialist to call the attention of Trade Commissioners to changes in supply conditions and to products available for export. They also relay market news received from Trade Commissioners to Canadian manufacturers and exporters. Close attention is paid to developing opportunities for promoting sales abroad of Canadian products, and exporters are informed about regulations governing foreign trade.

Agriculture and Fisheries Branch.-The main functions of this Branch include: (1) trade promotion relating to agricultural and fisheries products; (2) the programming, receiving and disseminating of information on foreign agriculture and fisheries; and (3) acting as a focal point for liaison on agricultural and fisheries matters with the Department of Agriculture, the Department of Fisheries, the Canadian Wheat Board, and other government departments and boards.

In the field of trade promotion, the Grain Division and the Food and Agriculture Division assist Canadian exporters of agricultural and fisheries products in finding markets in other countries. Canadian firms are supplied with information with respect to market conditions and requirements in foreign markets, competition from other sources of supply, exchange and tariff restrictions and other related information. Canadian Trade Commissioners throughout the world are kept fully informed on such matters as production and price trends in Canada, quantities of commodities available for export and sources of supply.

The Grain Division deals specifically with matters relating to Canada's grain trade. Assistance is rendered foreign governments and other buyers in the purchase of Canadian wheat, flour and other cereals. Close contact is maintained with the flour millers as well as daily liaison with the Canadian Wheat Board.

The Commodity Officers concerned with live stock, live-stock products, meat, dairy and poultry products, fruits and vegetables, and fish and fisheries products, keep in contact with the trade and trade organizations dealing with these commodities. They are in close touch with the officers of other departments of government concerned with the disposition of Canadian production surplus to domestic requirements, and who are responsible for such items as health standards, grading and inspection.

A great deal of information pertaining to foreign agriculture and fisheries is received from the Canadian Trade Commissioners. This material, which reflects foreign government policy, production trends and market information, is processed in the Branch and distributed to the departments of government concerned and others interested. Much of it is published in Foreign Trade. The Trade Commissioner Service includes a number of officers who deal specifically with agricultural and fisheries matters. Some of these officers are located in Canada's most important export outlets and others in those countries with which Canada competes on world markets, particularly in such commodities as wheat, coarse grains, live stock, meats and dairy products. The information received from the agricultural officers and other Trade Commissioners on foreign agricultural developments is distributed in Canada through publications issued by the Economics Division of the Department of Agriculture and by direct communication with producers and exporters. Fisheries information from abroad is passed immediately to the Department of Fisheries, the provincial departments concerned, the Fisheries Council, and to fish exporters.

International Trade Relations Branch.-This Branch deals with a wide variety of current trade issues, ranging from the analysis of developments in international commercial relations to assisting in the reopening of dollar markets for Canadian products in Europe and to finding practical solutions for tariff difficulties encountered by Canadian exporters. The Branch has under constant review Canada's trading relations with other countries, and studies the effects of the work of such international organizations as the European Payments Union and the Organization for European Economic Co-operation on Canadian and world trade.

Trade treaties are under continuous examination by the Branch, which is responsible for the preparation of material for trade and tariff negotiations with other countries. Material is collected on foreign tariffs, customs legislation, taxes affecting trade, import licensing, exchange regulations, documentation, sanitation, marking and labelling requirements, and measures pertaining to quotas, embargoes and other import restrictions. These data are analysed, interpreted, clarified and made available in easily comprehensible form to exporters, government officials and other export interests.

Exporters who encounter difficulties resulting from the trade policies or regulations of other countries are given expert advice and interpretations of foreign regulations. Also, the Branch initiates official consultations with other governments respecting such problems.

Economics Branch.-The Economics Branch maintains a continuous review of business conditions in Canada and conducts special studies on particular industries or on any aspect of Canada's economic development, as required. Aspects of the general economic situation considered include foreign trade, investment, consumption, production, prices, incomes and employment, as well as conditions in industries and localities.

Industrial Development Branch.-This Branch co-ordinates the assistance offered by the Federal Government in the establishment of new industries in Canada. Acting in this capacity, information is provided on a multiplicity of matters pertaining to industry establishment and assists in solving the variety of problems encountered by Canadian and foreign businessmen.

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The Branch also.aids those established firms that wish to expand into new lines of production. Inquiries from foreign firms and individuals regarding the manufacture of products in Canada under licence or royalty are screened and brought to the attention of Canadian manufacturers interested in producing additional items.

The Branch acts in an advisory capacity to the Immigration Branch of the Department of Citizenship and Immigration regarding the admission of individuals, other than those from Commonwealth countries and the United States, who wish to establish new industries in Canada. It also works in close co-operation with a widespread network of organizations throughout Canada, including industrial development departments of the provinces, municipalities, railways, banks, power companies, chambers of commerce, boards of trade, and the Canadian Manufacturers' Association.

Information Branch.-The principal function of the Information Branch is to furnish the commercial community of Canada with information concerning the assistance that exporters and importers may obtain from the Department of Trade and Commerce. The Branch is responsible also for stimulating a better appreciation by the general public of the importance of trade to the welfare of Canada. The attention of exporters and potential exporters is directed to opportunities for the disposal of their products in markets abroad, and of importers to the sources of supply for raw materials and consumer goods unobtainable in Canada. Its principal educational and informative medium is Foreign Trade, fortnightly publication of the Foreign Trade Service, in which are reproduced reports of Canadian Trade Commissioners on conditions in their respective territories, articles by Head Office personnel and economists of the Dominion Bureau of Statistics, news items and charts portraying trade trends. Press releases are prepared and distributed to newspapers at home, and material of a similar character dispatched to Canadian Trade Commissioners for distribution to newspapers abroad. Pamphlets and brochures are prepared to supplement other information on foreign markets, sources of supply, documentation, regulations and trade restrictions. Assistance is rendered to correspondents of newspapers and periodicals at home and abroad in the preparation of articles pertaining to various phases of Canada's foreign trade. The educational and promotional work of this Branch is supported by moderate advertising at home and abroad, through the daily press, periodicals and trade papers as well as films and radio.

Canadian Government Exhibition Commission.-The Canadian Government Exhibition Commission publicizes Canada by graphic media of all kinds and helps to sell Canadian products abroad. The Commission is solely responsible for the construction and administration of Federal Government exhibits at international expositions, trade fairs and displays outside Canada and of international trade fairs in Canada sponsored by the Government of Canada. The Commission's first fulfilment of the latter responsibility was the inauguration of the Canadian International Trade Fair, held annually at Toronto since 1948.

The Commission also co-operates with Canadian exporters in securing representation for goods at trade fairs and trade promotional displays, and is equipped to advise individual Canadian companies in the preparation of exhibits. It distributes, at its various presentations, literature produced by other government departments and agencies.

Export Gredits Insurance Corporation.-The Export Credits Insurance Corporation was established under the provisions of the Export Credits Insurance Act, 1944, and as amended in August 1916, May 1948, and March 1954. The Corporation, which is administered by a board of directors including the Deputy Minister of Trade and Commerce, the Deputy Minister of Finance and the Governor of the Bank of Canada, insures exporters against losses arising from credit and political risks involved in the export or in an agreement for the export of goods. Policies are generally issued on a yearly basis, covering exporters' sales to all countries. The main risks covered include: insolvency or protracted default on the part of the buyer; exchange restrictions in the buyer's country preventing the transfer of funds to Canada; cancellation of an import licence or the imposition of restrictions on the importation of goods not previously subject to restrictions; the occurrence of war between the buyer's country and Canada, or of war, revolution, etc., in the buyer's country.

The insurance is available under two main classifications-general commodities and capital goods. Covèrage for general commodities can be procured by exporters under two types of policies: (1) the Contracts Policy, which insures an exporter against loss from the time he books the order until payment is received; or (2) the Shipments Policy, obtainable at lower rates of premium and covering the exporter from the time of shipment until payment is received.

Insurance of capital goods offers protection to exporters dealing in plant equipment, heavy machinery, etc., where extended credit for lengthy periods is often necessary. Specific policies are issued for transactions involving capital goods but the general terms and conditions are the same as those applicable to policies for general commodities.

The Corporation insures exporters on a co-insurance basis up to a maximum of 85 p.c. of the gross invoice value of shipments. This co-insurance basis also operates in the distribution of recoveries obtained after payment of a loss, and these recoveries are shared by the Corporation and the exporter in the proportions of 85 and 15 p.c., respectively.

The Corporation, from its inception to Dec. 31, 1953, issued policies having a total value of $\$ 432,781,526$. Claims paid to exporters during the same period amounted to $\$ 3,888,180$. A large majority of these claims resulted from exchange transfer difficulties, with relatively few arising from insolvencies. Recoveries made amounted to $\$ 1,716,829$. Excess of income over expenditure to Dec. 31, 1953, was \$1,068,112, which was added to the Corporation's underwriting reserve.

International Economic and Technical Co-operation Division.-The administration of Canada's participation in the Colombo Plan-a Commonwealth effort to help the peoples of South and Southeast Asia to raise their standards of living and productivity-is the responsibility of this Division. This contribution is of two types-capital aid and technical co-operation. Under capital assistance, grants of goods or services are made to countries in the area on a government-to-government basis. Technical co-operation embraces the training of Asian peoples in a variety of fields in Canada and the supplying of Canadian experts to advise and instruct abroad. The Division also assists the United Nations and its specialized agencies in the recruiting of technical experts and in the arrangement of courses of instruction for trainees sent to Canada for study. For the year ended Mar. 31, 1954, \$25,000,000 was voted by Parliament for capital aid and an additional $\$ 400,000$ was provided for the Colombo Plan technical co-operation program.

## Section 2.-The Development of Tariffs

A short sketch of trade and tariffs prior to Confederation is given in the 1940 Year Book, pp. 480-482. The 1942 Year Book, pp. 427-428, traces the development from Confederation to the adoption in 1904 of the present form of preferential tariff.

Owing to the limitations of space in the Year Book, it has been necessary, in regard to tariffs, to adopt the policy of confining any detail regarding commodities and countries to tariff relationships in force at present and to summarize as much as possible historical data and details of preceding tariffs, giving references to those editions of the Year Book where extended treatments may be found.

## Subsection 1.-The Canadian Tariff Structure*

The Canadian Tariff consists, in the main, of three sets of tariff rates-British Preferential, Most-Favoured-Nation and General.

The British Preferential Tariff rates are, with some exceptions, the lowest rates. They are applied to imported dutiable commodities shipped direct to Canada from countries of the Commonwealth and from the British colonies and other dependent overseas territories. Some Commonwealth countries have trade agreements with Canada which provide for rates of duty, on certain specified goods, lower than the British Preferential rates.

The Most-Favoured-Nation rates are usually higher than British Preferential rates. They are applied to dutiable commodities imported from countries outside the Commonwealth with which Canada has made trade agreements. The rates are usually lower than the General Tariff rates. Under trade agreements made with various countries, rates of duty lower than the Most-Favoured-Nation rates may be applied to goods from those countries. The most important trade agreement concerning the effective rates applied to goods imported from countries entitled to Most-Favoured-Nation rates is the General Agreement on Tariffs and Trade.

The General Tariff rates are applied to goods imported from the few countries with which Canada has not made trade agreements.

There are numerous goods which are duty free under the British Preferential Tariff, or under both the British Preferential and Most-Favoured-Nation Tariff, or under all Tariffs.

Valuation.-Sect. 35 of the Customs Act provides that, when any ad valorem duty is imposed, the value of the goods for purposes of calculating the duty "shall be the fair market value of such or the like goods when sold for home consumption in the ordinary course of trade under fully competitive conditions, in like quantities and under comparable conditions of sale, etc." or, the price for which the goods were sold to the purchaser in Canada, whichever is the greater. There are further provisions for determining the value for duty when the fair market value cannot be found. Internal taxes in the country of export, the cost of shipping the goods to Canada, and similar charges, however, are not included in the value for duty.

Dumping.-Sect. 6 of the Customs Tariff provides that when the actual selling price of goods being imported is less than their fair market value, and the goods are of a class or kind made or produced in Canada, a special or dumping duty

[^363]shall be collected. This duty is to be equal to the difference between the actual selling price and the fair market value of the goods, except that it may not be more than 50 p.c. of the value for duty. These provisions are designed to offset the advantage foreign exporters may achieve by exporting to Canada at less than the going prices.

Drawback.-There are provisions in the Customs Tariff for the repayment of a portion of the duty paid on imported materials used in the manufacture of products later exported. The purpose of these drawbacks (as these repayments of duty are called) is to assist Canadian manufacturers to compete with foreign producers of similar goods. A second class of drawback, known as "home consumption" drawbacks, applies to imported materials and parts in the production of specified goods to be consumed in Canada.

The Tariff Board.-The Tariff Board, constituted by the Tariff Board Act, 1931, consists of three members, one of whom is chairman and another vice-chairman. The duties and powers of the Board derive from three Statutes of Canada: the Tariff Board Act, the Customs Act, and the Excise Tax Act.

Under the Tariff Board Act, the Board makes inquiry into and reports upon any matter in relation to goods that, if brought into Canada or produced in Canada, are subject to or exempt from duties of customs or excise and on which the Minister of Finance desires information. The investigation into any such matter may include inquiry as to the effect that an increase or decrease of the existing rate of duty upon a given commodity might have upon industry or trade and the extent to which the consumer is protected from exploitation. It is also the duty of the Board to inquire into any other matter in relation to the trade and commerce of Canada that the Governor in Council sees fit to refer to the Board for inquiry and report. Usually the references take one of two forms: authority for review of sections of the Customs Tariff relating to an entire industry, or for investigation in respect of specified commodities. Reports are tabled in Parliament.

Under the provisions of the Customs Act and the Excise Tax Act, the Tariff Board is authorized to act as a tribunal to hear appeals from rulings of the Department of National Revenue in respect of matters of administration including those of excise taxes, tariff classification, value for duty, and drawback of customs duties. Declarations of the Board on appeals on questions of fact are final and conclusive, with provision for appeal on questions of law to the Exchequer Court of Canada. Tariff references and appeals receive public hearings at which interested parties submit oral statements and written briefs relating to matters under consideration.

## Subsection 2.-Tariff and Trade Arrangements with other Countries, as at June 1, 1954

Canads's tariff arrangements with other countries fall into three main categories: trade agreements with a number of Commonwealth countries; the General Agreement on Tariffs and Trade (GATT); and other agreements and arrangements.

The Commonwealth countries with which Canada has trade agreements are as follows: Australia, British West Indies, Ceylon, Ireland, New Zealand, Union of South Africa, and the United Kingdom and Colonies. These agreements have been modified and supplemented by the GATT. Preferential arrangements are also in force with respect to Southern Rhodesia, India and Pakistan.

Canada exchanges most-favoured-nation treatment with 34 countries under the General Agreement on Tariffs and Trade. The Protocol of Provisional Application of the General Agreement on Tariffs and Trade was signed by Canada on Oct. 30, 1947, and brought the Agreement into force on Jan. 1, 1948.

The GATT is a multilateral trade agreement and the most-favoured-nation rates of duty bound under it apply equally to all signatories. The Agreement consists of three parts: the general provisions related to the schedules of tariff concessions and the exchange of most-favoured-nation treatment; the provisions relating to a code of regulations for conducting international trade; and the administrative provisions of the Agreement.

Under the new system of multilateral tariff negotiations, initiated under the GATT, three conferences have taken place: at Geneva, Switzerland, in 1947; at Annecy, France, in 1949; and at Torquay, England, in 1950-51. The tariff concessions Canada granted and received at the Geneva Conference are described in the 1948-49 Year Book, pp. 875-877, and those negotiated at Annecy are discussed in the 1950 Year Book, pp. 968-970. The Torquay negotiations were discussed in the 1952-53 edition, pp. 996-997. The existing tariff concessions remain in force until June 30, 1955, and, thereafter, unless modified in accordance with the terms of the Agreement.

Canada already had most-favoured-nation trade agreements with a number of GATT members prior to the effective date of the General Agreement. These agreements with individual countries continue in force in conjunction with the General Agreement. As an exception, however, the Canada-U.S. Trade Agreement of 1938 is suspended for so long as both countries continue to be contracting parties to GATT.

Tariff and Trade Arrangements with Commonwealth Countries, as at June 1, 1954

| Country | Agreement | Terms |
| :---: | :---: | :---: |
| Australia. | Trade Agreement signed July 8, 1931; in force Aug. 3, 1931. GATT effective Jan. 1, 1948. | Agreement includes schedules of tariff rates and exchange of British preferential rates on items not scheduled. May be terminated on six months notice. |
| British West Indies (Bahamas, Barbados, British Honduras, Jamaica, Leeward and Windward Islands, Trinidad and Tobago), Bermuda and British Guiana. | Trade Agreement signed July 6, 1925, in force Apr. 30, 1927; Canadian notice of termination of Nov. 23, 1938, was replaced by notice of Dec. 27, 1939, which continued the Agreement. <br> The British West Indies, with the exception of Jamaica, are contracting parties to GATT. | The parties exchange specified tariff preferences. Agreement may be terminated on six months notice. |
| Ceylon. | Ceylon is a party to the Trade Agreement of 1937 between United Kingdom and Canada. GATT effective July 29, 1948. | Canada and Ceylon exchange preferential tariff treatment. |

# Tariff and Trade Arrangements with Commonwealth Countries, as at June 1, 1954-concluded 

| Country | Agreement | Terms |
| :---: | :---: | :---: |
| India.................. | Since 1897, Canada has unilaterally accorded British preferential treatment to India but without contractual obligation. GATT effective July 8, 1948. |  |
| Ireland............... | Trade Agreement signed Aug. 20, 1932; in force Jan. 2, 1933. | Canada grants British preferential tariff in return for preferential rates where such exist and for most - favourednation rates on non-preferential items. May be terminated on six months notice. |
| New Zealand......... | Trade Agreement signed Apr. 23, 1932; in force May 24, 1932. GATT effective July 26, 1948. | The parties exchange specific preferences on scheduled goods and reciprocally concede British preferential rates on items not scheduled. May be terminated on six months notice. |
| Pakistan.............. | Canada unilaterally accords Pakistan British preferential treatment but without contractual obligation. <br> GATT effective July 30, 1948. |  |
| Southern Rhodesin. | Trade Agreement of Aug. 20, 1932, was terminated on Jan. 2, 1938, on notice from Southern Rhodesia. Tariff treatment established therein continues to be reciprocally accorded. <br> GATT effective May 19, 1948. | Canada grants British preferential treatment and Southern Rhodesia extends tariff preferences granted to Commonwealth countries other than the United Kingdom. |
| Union of South Africa. | Trade Agreement signed Aug. 20, 1932; in force Oct. 13, 1932. | Agreement includes schedules of tariff preferences granted by each country. May be terminated on six months notice. |
|  | Exchange of notes Aug. 2-31, 1935; effective retroactive from July 1, 1935. GATT effective June 14, 1948. | Exchange of most • favoured nation treatment. May be terminated on six months notice. |
| United Kingdom..... | Trade Agreement signed Feb. 23, 1937; in force Sept. 1, 1937. Modified by an exchange of letters of Nov. 16, 1938, and an exchange of notes Oct. 30 , 1947. <br> GATT effective Jan. 1, 1948. | Various concessions by both countries including exchange of preferential tariff rates (some minor reservations by Canada). Extends to Colonial Empire. |

## Tariff and Trade Arrangements with Non-Commonwealth Countries, as at June 1, 1954

| Argentina............ | Trade Agreement signed Oct. 2, <br> 1941; provisionally in force <br> Nov. 15, 1941. | Exchange of most - favoured <br> nation treatment. Provisional <br> application may be terminated |
| :--- | :--- | :--- | :--- |
| on three months notice. |  |  |

Tariff and Trade Arrangements with Non-Commonwealth Countries, as at June 1, 1954-continued

| Country | Agreement | Terms |
| :---: | :---: | :---: |
| Benelux (Belgium, Luxembourg and The Netherlands). | Convention of Commerce with Belgium (including Luxembourg and Belgian colonies) entered into effect Oct. 22, 1924. The Convention was suspended during the War but reinstated by exchange of notes Feb. 1 and 5, 1946; includes Netherlands Antilles and Surinam. <br> GATT covering Benelux as a whole effective Jan. 1, 1948. | Exchange of most - favoured nation tariff treatment. May be terminated on a one-year notice. |
| Bolivia. | Order in Council of July 20, 1935, accepted Article 15 of the United Kingdom - Bolivia Treaty of Commerce of Aug. 1, 1911. | Exchange of most - favoured nation treatment. May be terminated on a one-year notice. |
| Brazil. | Trade Agreement signed Oct. 17, 1941; provisionally in force from date of signing and definitively on Apr. 16, 1943. <br> GAT'T effective July 31, 1948. | Exchange of most - favoured nation treatment. May be terminated on six months notice. |
| Burma. | GATT effective July 29, 1948. |  |
| Chille. | Trade Agreement signed Sept. 10, 1941; in force provisionally Oct. 15,1941 , and definitively on Oct. 29, 1943. <br> GATT effective Mar. 16, 1948. | Exchange of most - favoured nation treatment. May be terminated on six months notice. |
| China................. | Modus vivendi signed Sept. 26, 1946; in effect since Sept. 28, 1946. China withdrew from GATT on May 5, 1950. | Exchange of most - favoured nation treatment. May be terminated on three months notice. |
| Colombia. | Treaty of Commerce with United Kingdom of Feb. 16, 1866, applies to Canada. Modified by protocol of Aug. 20, 1912, and exchange of notes Dec. 30, 1938. <br> A Trade Agreement between Colombia and Canada was signed Feb. 20, 1946, but has not been put into force. | Exchange of most - favoured nation treatment. May be terminated on three months notice. |
| Costa Rica. | Modus vivendi signed Nov. 18, 1950; brought into force Jan. 26, 1951. | Exchange of most - favoured nation treatment. May be terminated on three months notice. |
| Cuba. | GATT effective Jan. 1, 1948. |  |
| Czechoslovakia. | Convention of Commerce signed Mar. 15, 1928; in force Nov. 14, 1928. <br> GATT effective May 21, 1948. | Exchange of most - favoured nation treatment. May be terminated on a one-year notice. |
| Denmark (including Greenland). | Treaties of Peace and Commerce with United Kingdom of Feb. 13,1660 , and July 11, 1670, apply to Canada. <br> GATT effective May 28, 1950. | Exchange of most - favoured nation treatment. Declaration of May 9,1912 , provides means for separate termination by Dominions on a one-year notice. |

Tariff and Trade Arrangements with Non-Commonwealth Countries, as at
June 1, 1954-continued

| Country | Agreement | Terms |
| :---: | :---: | :---: |
| Dominican Republic. | Trade Agreement signed Mar. 8, 1940; in force provisionally Mar. 15, 1950, and definitively Jan. 22, 1941. <br> GATT effective May 19, 1950. | Exchange of most - favoured nation treatment including scheduled concessions. May be terminated on six months notice. |
| Ecuador.............. | Modus vivendi signed Nov. 10, 1950; in force Dec. 1, 1950. | Exchange of most - favoured nation treatment. May be terminated on three months notice. |
| Egypt................. | Exchange of notes Nov. 26 and Dec. 3, 1952; in force Dec. 3, 1952. | Exchange of most - favoured nation rates. May be terminated on six months notice. |
| El Salvador......... | Exchange of notes of Nov. 2, 1937; in force Nov. 17, 1937. | Exchange of most - favoured nation treatment. May be terminated on four months notice. |
| Finland............... | Exchange of notes of Nov. 13-17, 1948; effective Nov. 17, 1948. GATT effective May 25, 1950. | Exchange of most-favoured nation treatment. May be terminated on three months notice. |
| France and French Overseas Treritories. | Trade Agreement signed May 12, 1933; in force June 10, 1933. Exchange of notes of Sept. 29, 1934, and additional protocol of Feb. 26, 1935. <br> GATT effective Jan. 1, 1948. | Exchange of most - favoured nation treatment including scheduled concessions. May be terminated on three months notice. |
| Westirn Grrmany... | GATT effective Oct. 1, 1951. |  |
| Griece. | Modus vivendi by exchange of notes of July 24-28, 1947; effective Aug. 28, 1947. <br> GATT effective Mar. 1, 1950. | Exchange of most - favoured nation treatment. May be terminated on three months notice. |
| Gremeland. . . . . . . . . | (See Denmark.) |  |
| Guatrmala. | Trade Agreement signed Sept. 28, 1937; in force Jan. 14, 1939. | Exchange of most-favoured nation treatment. May be terminated on six months notice. |
| Harti. . . . . . . . . . . . . . | Trade Agreement signed Apr. 23, 1937; in force Jan. 10, 1939. GATT effective Jan. 1, 1950. | Exchange of most - favoured nation treatment. May be terminated on six months notice. |
| Icmand. .............. | Although there is no contractual obligation, Canada and Iceland adhere to the terms of a treaty originally concluded between Denmark and the United Kingdom on Feb. 13, 1660. | Exchange of most - favoured nation treatment. |
| Indonesia.. | GATT effective Mar. 1, 1948. |  |
| Iran. | Special arrangement by Order in Council effective Feb. 1, 1951. | Canada grants most - favoured nation tariff rates as long as Iran accords reciprocal treatment. |

Tariff and Trade Arrangements with Non-Commonwealth Countries, as at June 1, 1954-continued

| Country | Agreement | Terms |
| :---: | :---: | :---: |
| Iraq................... | Special arrangement by Order in Council effective Sept. 15, 1951. | Canada grants and receives most - favoured - nation tariff rates. |
| IsRamel. . . . . . . . . . . . . | Canada-United Kingdom Agreement of 1937 applied under the British Palestine Mandate. Since the creation of the State of Israel in May 1948, Canada has continued to grant most-favoured-nation rates. |  |
| Italy.................. | Modus vivendi by exchange of notes of Apr. 23-28, 1948; effective Apr. 28, 1948. <br> GATT effective Jan. 1, 1950. | Exchange of most-favoured nation treatment. May be terminated on three months notice. |
| Japan. | Agreement on Commerce, signed Mar. 31, 1954; effective on ratification. Not yet ratified (June 1, 1954). | Exchange of most - favoured nation treatment. Remains in force for one year from ratification and thereafter unless terminated on three months notice. |
| Korea. | Participated in Torquay negotiations but has not yet (June 1, 1954) become a Contracting Party to GATT. |  |
| Lebanon. . . . . . . . . . . | Special arrangement by Order in Council of Nov. 19, 1946. <br> Lebanon withdrew from GATT Mar. 1, 1951. | Canada grants most - favoured nation tariff rates as long as Lebanon accords reciprocal treatment. |
| Liberia. . . . . . . . . . . . . | GATT effective Jan. 1, 1950. |  |
| Mexico. | Trade Agreement signed Feb. 8, 1946; in force provisionally same date. Ratifications exchanged on May 6, 1947; definitively in force 30 days from that date. | Exchange of most - favoured nation treatment. May be terminated on six months notice. |
| Nicaragua. | Trade Agreement signed Dec. 19, 1946; in force provisionally same date. GATT effective May 28, 1950. | Exchange of most-favoured nation treatment. Provisional application may be terminated on three months notice. |
| NORWAY. . . . . . . . . . | Convention of Commerce and Navigation with United Kingdom of Mar. 18, 1826, applied to Canada. <br> GATT effective July 10, 1948. | Exchange of most - favoured nation treatment. Convention of May 16,1913 , provides means for separate termination by Dominions on a one-year notice. |
| Panama. | Order in Council of July 20, 1935, accepted Article 12 of United Kingdom - Panama Treaty of Commerce of Sept. 25, 1928. Treaty terminated in 1942 but Canada continues to grant and receive most - favoured - nation tariff rates. |  |
| Paraguay. | Exchange of notes of May 21, 1940; in force June 21, 1940. | Exchange of most - favoured nation treatment. May be terminated on three months notice. |

Tariff and Trade Arrangements with Non-Commonwealth Countries, as at June 1, 1954 -continued

| Country | Agreement | Terms |
| :---: | :---: | :---: |
| Prefu. | GATT effective Oct. 8, 1951. |  |
| Philippines........... | No agreement at present. United States - Canada Agreement of 1938 (now suspended) applied to Philippines until Philippines attained independence in 1946. Canada and Philippines have continued to exchange most-favoured-nation treatment. <br> Participated in Torquay negotiations but has not yet (June 1, 1954) become a Contracting Party to GATT. | June 1, 1954 |
| Poland. | Convention of Commerce signed July 3, 1935; in force Aug. 15, 1936. | Exchange of most - favoured nation treatment including scheduled reductions. May be terminated on three months notice. |
| Portugal, Portugutse Adjacent Islands and Portuguese Overseas Provincess. | Trade Agreement signed May 28, 1954, provisionally in effect July 1, 1954, definitively in force on ratification; not yet ratified (June 1, 1954). | Exchange of most - favourednation treatment. Remains in effect for two years from ratification and thereafter unless terminated on three months notice. |
| Spain and Spanish Possessions. | Since Aug. 1, 1928, Canada has adhered to the United KingdomSpain Treaty of Commerce of Oct. 31, 1922. | Exchange of most - favoured nation treatment. May be terminated on six months notice. |
|  | Trade Agreement signed May 26, 1954, provisionally in effect July 1, 1954, definitively in force on ratification; not yet ratified (June 1, 1954). | Supplements and amends United Kingdom - Spanish Treaty of Commerce. Remains in effect for three years from ratification, and thereafter unless terminated on three months notice. |
| Sweden.. | United Kingdom-Sweden Convention of Commerce and Navigation of Mar. 18, 1826, applies to Canada. <br> GATT effective May 1, 1950. | Exchange of most - favoured nation treatment. Declaration of Nov. 27, 1911, provides means for separate termination by Dominions on a one-year notice. |
| Switzerland. | United Kingdom Switzerland Treaty of Friendship, Commerce and Reciprocal Establishment of Sept. 6, 1855, applies to Canada. By exchange of notes Liechtenstein included under terms of this agreement, effective Aug. 2, 1947. | Exchange of most - favoured nation treatment. Convention of Mar. 30, 1914, provides means for separate termination by the Dominions on a one-year notice. |
| Stria. | Special Arrangement by Order in Council of Nov. 19, 1946. <br> Syria withdrew from GATT Aug. 6, 1951. | Canada grants most - favoured nation tariff rates as long as Syria accords reciprocal treatment. |

Tariff and Trade Arrangements with Non-Commonwealth Countries, as at June 1, 1954-concluded

| Country | Agreement | Terms |
| :---: | :---: | :---: |
| Turkey. | Exchange of notes signed Mar. 1, 1948; in effect Mar. 15, 1948. GATT effective Oct. 17, 1951. | Exchange of most - favoured nation treatment. May be terminated on three months notice. |
| United States. | Trade Agreement signed Nov. 17, 1938, suspended as long as both countries continue to be contracting parties to GATT. GATT effective Jan. 1, 1948. |  |
| Uruguay. | Trade Agreement signed Aug. 12, 1936, in force May 15, 1940. Additional Protocol signed Oct. 19, 1953, not yet ratified (June 1, 1954). <br> GAT'T effective Dec. 16, 1953. | Exchange of most - favoured nation treatment. May be terminated on six months notice. |
| Venezurla.. | Modus vivendi signed and brought into force Oct. 11, 1950; renewed each year. | Exchange of most - favoured nation treatment. Made for one year subject to annual renewal. |
| Yuaoslavia.......... | Trade Agreements Act of June 11, 1928, accepted Article 30 of United Kingdom - Serb - CroatSlovene Treaty of Commerce and Navigation of May 12, 1927; in force Aug. 9, 1928. | Exchange of most - favoured nation treatment. May be terminated on a one-year notice. |

## CHAPTER XXIII.-PRICES*

## CONSPECTUS



Note.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## Section 1.-Index Numbers of Wholesale Prices

Wholesale prices are not restricted in this Chapter to the normal meaning of that word but may be conceived as applying to the sale of commodities in large quantities. They may include price quotations ranging from those paid by primary producers for basic raw materials to prices paid by retailers for finished articles. Within this broad group, numerous sub-classifications are available, such as component material, degree of manufacture and special-purpose series. Wholesale prices are frequently very sensitive to changing conditions and are often used to gauge the economic effect of events as well as to forecast retail price changes. An example of this is the price increase that followed the outbreak of hostilities in Korea in 1950.

A new series of wholesale price index numbers, related to the base period 1935-39, was introduced in January 1951. Background material concerning the construction of this index is available in DBS Reference Paper No. 24, Wholesale Price Indexes, 1913-1950.

Wholesale price index numbers in Canada cover the period dating from Confederation in 1867. An intermittent decline characterized the first 30 years of this interval but, from an average of $56 \cdot 8$ in 1897, the general wholesale index (1935-39 = 100) advanced without appreciable interruption to $83 \cdot 9$ in July 1914. By November 1918, this index had reached $173 \cdot 1$ and continued upward to a post-war inflationary peak of $214 \cdot 2$ in May 1920. The subsequent deflationary period lasted about two years, and between 1922 and 1929 price levels remained comparatively stable. Annual averages in this interval held between a high of 133.8 for 1925 and $124 \cdot 6$ for 1929. For the four years following 1929, depressionary influences were so severe that prices fell almost to the level of those of 1913. In February 1933, the wholesale index touched an extreme low of 82.8 before turning upward again.

[^364]Irregular recovery then continued until 1937, but the highest point reached, 110•6 in July 1937, was substantially below the 1926 average. The collapse of the wheat market in 1938, together with a fairly general depression in other markets, carried wholesale price levels just prior to the outbreak of war in 1939 down to about 15 p.c. above the 1913 level. The August 1939 index of $95 \cdot 6$ marked the extreme low of a two-year decline. The movement of prices prior to the outbreak of World War I was very different from that which preceded World War II. The relatively low level of prices in August 1939 probably influenced the sharper initial advance at the outbreak of war. However, during 1940, price levels steadied and showed no sign of a steep increase until 1941. By that time, great expansion in wartime production had made serious inroads into stocks of nearly all basic commodities and, at the end of 1941, wheat remained the only important commodity for which stocks exceeded predictable requirements. The introduction of general price control in December 1941 ended a year in which wholesale prices had advanced 10 p.c. as compared with about 3 p.c. in 1940 . The effectiveness of price control is indicated by the fact that increases in wholesale prices amounted to only $3 \cdot 1$ p.c. and $5 \cdot 2$ p.c. during the years 1942 and 1943, respectively, and the December 1944 index was slightly below the December 1943 figure. The December 1945 index of 132.9 was 10 p.c. above that for December 1941, when price control became generally effective.

The precipitous advance in United States general wholesale prices that began during the latter half of 1946 was of great concern to Canadian price-control authorities. The advance had been anticipated in July 1946, when the Canadian dollar was returned to par with the United States dollar, thus reducing the Canadian dollar cost of imports from the United States. This provided a buffer of 10 p.c. only and the rise in United States prices was greater than that on a majority of imported articles so that continuous pressure was felt, especially among individual items. The Canadian general wholesale price index rose from 132.3 to 142.5 , an increase of over 8 p.c. between May 1945 and December 1946.

The Canadian price rise accelerated in 1947 as internal controls continued to be relaxed. The monthly general wholesale index advanced without interruption from $142 \cdot 5$ at December 1946 to $179 \cdot 9$ at December 1947, an increase of 26 p.c. The rise carried through into 1948, although at a decreasing rate, and by December the index had reached a level of $202 \cdot 0$. Wholesale price levels during 1949 were generally stable, then rose slightly during the first five months of 1950 to reach an index level of 204.7 by May. In June, a sharp gain to $209 \cdot 2$ occurred, owing mainly to rapidly advancing prices for live stock, lumber, iron and steel products and non-ferrous metals. An important factor stimulating further advance was the outbreak of war in Korea. The effect on basic commodities originating in or near that area was particularly sharp and by the end of the year the index had risen to $225 \cdot 2$.

In 1951, the index reached new peak levels, culminating in an all-time high of 243.7 in July. This trend was reversed in the second half of the year when the index declined steadily, reflecting marked recessions in animal products and textile products. The December 1951 index at $237 \cdot 7$, however, was still $5 \cdot 6$ p.c. above December 1950.

The downward movement continued throughout the first 10 months of 1952, the total index standing at 220.2 for $\oint$ ctober. Declines were recorded by most of the main commodity groups, although an upward trend was still apparent in iron and steel products and non-metallic mineral products.

During the period October 1952 to October 1953 the total index changed by only 0.2 points from 220.2 to 220.4 as an increase in the animal products group and continued increases in iron and steel products and non-metallic mineral products offset declines in all other groups. Rather widespread decreases between October 1953 and December 1954 moved the total index down $5 \cdot 1$ points to $215 \cdot 3,11 \cdot 7$ p.e. below the peak figure of July 1951. All groups, except non-ferrous metals and chemicals which rose about 1 p.c., contributed to this decline.

## 1.-Annual Index Numbers of Wholesale Price Groups, 1945-54, and Monthly Indexes, 1953 and 1954

$(1935-39=100)$

| Year and Month | General Wholesale | Raw and Partly Manufactured Goods | Fully and Chiefly Manufactured Goods | Industrial Materials | Canadian Farm Products ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Field | Animal | Total |
| 1945. | $132 \cdot 1$ | 136.2 | 129.8 | $143 \cdot 2$ | 162-5 | 170-2 | $166 \cdot 4$ |
| 1946. | 138.9 | $140 \cdot 1$ | 138.0 | $148 \cdot 6$ | 177.9 | 181.2 | $179 \cdot 5$ |
| 1947. | 163.3 | $164 \cdot 3$ | $162 \cdot 4$ | 187.0 | 184-1 | $200 \cdot 2$ | 192.2 |
| 1948. | 193.4 | 196.3 | 192.4 | $222 \cdot 7$ | $200 \cdot 6$ | 263.7 | $232 \cdot 1$ |
| 1949. | 198.3 | 197.1 | 199.2 | 218.0 | 191.9 | 265.4 | 228.7 |
| 1950. | 211.2 | 212.8 | 211.0 | $244 \cdot 6$ | 191.9 | 281.4 | $236 \cdot 7$ |
| 1951. | $240 \cdot 2$ | 237.9 | $242 \cdot 4$ | $296 \cdot 1$ | $200 \cdot 4$ | 336.9 | 268.6 |
| 1952. | 226.0 | $218 \cdot 7$ | $230 \cdot 7$ | $252 \cdot 6$ | $223 \cdot 0$ | 277.5 | $250 \cdot 2$ |
| 1953. | $220 \cdot 7$ | 207.0 | 228.8 | $232 \cdot 3$ | $178 \cdot 1$ | 263.8 | $220 \cdot 9$ |
| 1954. | $217 \cdot 0$ | 204-8 | 224.2 | 223.7 | 162.6 | 256.2 | $209 \cdot 4$ |
| 1953 |  |  |  |  |  |  |  |
| January. | 221.5 | $209 \cdot 3$ | 228.7 | $240 \cdot 2$ | 201.6 | 266.4 | $234 \cdot 0$ |
| February | $221 \cdot 1$ | 208.0 | 228.8 | 238.4 | 196.6 | $263 \cdot 1$ | 229.9 |
| March | 221.9 | 209.9 | $229 \cdot 2$ | 237.5 | 191.9 | $264 \cdot 3$ | $228 \cdot 1$ |
| April. | $219 \cdot 5$ | $205 \cdot 6$ | $227 \cdot 8$ | $232 \cdot 9$ | $187 \cdot 6$ | $255 \cdot 8$ | 221.7 |
| May. | $220 \cdot 0$ | 206.4 | 228.2 | $234 \cdot 2$ | $185 \cdot 2$ | 263.2 | 224-2 |
| June. | 221.5 | 207-2 | $230 \cdot 2$ | 234.0 | 184.5 | 268.7 | $226 \cdot 6$ |
| July. | 221.0 | $207 \cdot 2$ | $229 \cdot 3$ | 231.7 | 187.7 | $265 \cdot 3$ | 226.5 |
| August. | $222 \cdot 2$ | 210-1 | 229.7 | $231-4$ | $164 \cdot 3$ | 269.9 | $217 \cdot 1$ |
| September | 221.2 | 207 -1 | $229 \cdot 8$ | 228.8 | 161.0 | 263.7 | 212.4 |
| October. | $220 \cdot 4$ | $205 \cdot 0$ | 228.8 | 227.0 | 158.8 | $265 \cdot 3$ | $212 \cdot 0$ |
| November | 218.7 | 203-3 | $228 \cdot 0$ | $225 \cdot 8$ | 158.7 | $258 \cdot 0$ | $208 \cdot 4$ |
| December. | $219 \cdot 0$ | 204-4 | $227 \cdot 6$ | $225 \cdot 8$ | 158.9 | $261 \cdot 6$ | $210 \cdot 2$ |
| 1954 |  |  |  |  |  |  |  |
| February | 219.8 219.0 | 206.5 | $227 \cdot 8$ $227 \cdot 3$ | $224 \cdot 1$ $223 \cdot 6$ | $159 \cdot 4$ $160 \cdot 0$ | $266 \cdot 3$ 264 | ${ }_{212}^{212 \cdot 9}$ |
| March.. | 218.6 | $204 \cdot 3$ | 226.9 | $222 \cdot 8$ | 158.3 | 262.0 | $210 \cdot 2$ |
| April. | $217 \cdot 9$ | $205 \cdot 7$ | $225 \cdot 1$ | 223.9 | $157 \cdot 6$ | $260 \cdot 4$ | $209 \cdot 0$ |
| May.. | 218.2 | $207 \cdot 5$ | 224.5 | $224 \cdot 2$ | $158 \cdot 2$ | 268.0 | $213 \cdot 1$ |
| June. | $217 \cdot 8$ | 206.7 | $224 \cdot 5$ | 223.9 | 158.9 | $267 \cdot 3$ | $213 \cdot 1$ |
| July. | 217.4 | 207.4 | $223 \cdot 6$ | $224 \cdot 2$ | $173 \cdot 6$ | 262 -1 | 217.8 |
| August. | $215 \cdot 8$ | $204 \cdot 9$ | $222 \cdot 3$ | $222 \cdot 1$ | $167 \cdot 6$ | 248.2 | $207 \cdot 9$ |
| September | $215 \cdot 3$ | 202.9 | $222 \cdot 6$ | 221.7 | $162 \cdot 6$ | $245 \cdot 5$ | $204 \cdot 1$ |
| October | $214 \cdot 3$ | 201.4 | 221.8 | $223 \cdot 3$ | 161.8 | $240 \cdot 5$ | $201 \cdot 1$ |
| Novemb | 214.8 | $202 \cdot 1$ | $222 \cdot 2$ | $224 \cdot 1$ | 164.0 | $243 \cdot 6$ | 203.8 |
| December. | $215 \cdot 3$ | 203-4 | 222-3 | 224.0 | 163.5 | $245 \cdot 9$ | 204.7 |

[^365]Residential Building Materials.-In March 1949, a series of index numbers of residential building material prices (basis: $1935-39=100$ ) was established to meet the need for a more precise measurement of material components of residential construction. A description of the index together with a record back to 1926 is given in DBS bulletin, Price Index Numbers of Residential Building Materials 1926 to 1948.

The slow decline in residential building material prices which commenced in the final quarter of 1951 continued through the following three years. This change is illustrated by the composite index which, after touching a post-war peak of 290.8 in September and October 1951, subsequently dropped to 283.3 in December 1952. By March 1953, a slight recovery to $284 \cdot 7$ had taken place, but the index dropped again to reach $278 \cdot 7$ by December 1954. Among the various components, lower prices were most apparent in lumber products, electrical equipment, and plumbing and heating equipment, but other groups continued to exert a firmer price tone.
2.-Annual Price Index Numbers of Residential Building Materials, 1945-54, and Monthly Indexes, 1953 and 1954

| Year and Month | Composite Index | $(1935-39=100)$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Principal Components |  |  |  |  |  |  |  |  |
|  |  |  | Brick Tile and Stone | Lumber and Lumber Products | Lath, Plaster and Insulation | Roofing Material | Paint and Glass | Plumb- <br> ing and <br> Heating <br> Equip- <br> ment | Electrical Equipment and Fixtures | Other <br> Materials |
| 1945. | 148.3 | 102 -1 | 116.4 | $191 \cdot 3$ | $104 \cdot 8$ | $135 \cdot 5$ | 142.2 | 122.2 | $111 \cdot 4$ | 118.0 |
| 1946 | $154 \cdot 5$ | 102-0 | $121 \cdot 0$ | $202 \cdot 1$ | $104 \cdot 2$ | $146 \cdot 2$ | $144 \cdot 2$ | $127 \cdot 2$ | 116.9 | 126.4 |
| 1947 | $180 \cdot 4$ | 109-7 | $133 \cdot 4$ | $242 \cdot 0$ | $107 \cdot 3$ | 172-3 | $169 \cdot 6$ | $145 \cdot 2$ | 147-4 | $143 \cdot 0$ |
| 1948. | 217.5 | 122-3 | $143 \cdot 1$ | $305 \cdot 8$ | 116.7 | $201 \cdot 6$ | $183 \cdot 1$ | $168 \cdot 3$ | 169.8 | $162 \cdot 3$ |
| 1949 | 228.0 | 127.0 | 151.0 | $322 \cdot 1$ | 118.1 | $190 \cdot 5$ | 179-6 | $180 \cdot 2$ | $173 \cdot 4$ | $174 \cdot 7$ |
| 1950 | 242.7 | $131 \cdot 3$ | 163.8 | $349 \cdot 2$ | 116.7 | 235.4 | 174.8 | 183.2 | $184 \cdot 5$ | $181 \cdot 1$ |
| 1051. | 286.2 | $140 \cdot 9$ | $180 \cdot 7$ | $425 \cdot 0$ | 128.3 | 235.8 | 197.8 | $210 \cdot 4$ | $213 \cdot 3$ | 212-7 |
| 1952 | 284.8 | 149.5 | 195-3 | 415-7 | $128 \cdot 5$ | $217 \cdot 7$ | 194.9 | $215 \cdot 6$ | $212 \cdot 0$ | $226 \cdot 3$ |
| 1953. | $282 \cdot 6$ | 151.8 | 205.8 | $410 \cdot 6$ | 128.5 | $218 \cdot 6$ | $203 \cdot 8$ | 209.0 | $211 \cdot 4$ | $229 \cdot 5$ |
| 1954. | $277 \cdot 5$ | $151 \cdot 3$ | 207-4 | $400 \cdot 5$ | 128.8 | $233 \cdot 4$ | 208.9 | 202-8 | $207 \cdot 7$ | 226.6 |
| 1953 |  |  |  |  |  |  |  |  |  |  |
| January. | $283 \cdot 6$ | $152 \cdot 1$ | $199 \cdot 5$ | 412.2 | 129.1 | 217.0 | 202.7 | $213 \cdot 1$ | 211.0 | 228.8 |
| February | 283.9 | $152 \cdot 1$ | 199.5 | $412 \cdot 8$ | $129 \cdot 1$ | 217.0 | $202 \cdot 2$ | $213 \cdot 1$ | 211.0 | 228.8 |
| March. | 284-7 | $152 \cdot 1$ | 205-7 | $413 \cdot 9$ | $129 \cdot 1$ | 217.0 | $202 \cdot 2$ | 211.7 | 217.9 | 228.8 |
| April. | $284 \cdot 3$ | $151 \cdot 6$ | $205 \cdot 7$ | $413 \cdot 3$ | $129 \cdot 1$ | 216.9 | 201.8 | 211.7 | $217 \cdot 9$ | 228.8 |
| May. | 284-3 | $151 \cdot 6$ | $207 \cdot 4$ | $413 \cdot 5$ | $129 \cdot 1$ | 216.9 | $202 \cdot 7$ | $212 \cdot 1$ | $209 \cdot 7$ | 228.8 |
| June | $284 \cdot 1$ | $151 \cdot 6$ | 207-4 | $413 \cdot 2$ | 128.9 | $219 \cdot 7$ | $202 \cdot 7$ | $211 \cdot 3$ | $209 \cdot 7$ | 228.8 |
| July. | 284.0 | $151 \cdot 6$ | 207.4 | $412 \cdot 8$ | 128.9 | $219-7$ | $203 \cdot 9$ | 211.3 | $209 \cdot 7$ | 228.8 |
| August | $283 \cdot 7$ | $151 \cdot 7$ | $207 \cdot 4$ | $412 \cdot 6$ | $127 \cdot 7$ | $219 \cdot 7$ | $204 \cdot 4$ | $210 \cdot 5$ | $210 \cdot 0$ | 228.8 |
| September | $280 \cdot 9$ | $151 \cdot 7$ | 207.4 | $409 \cdot 0$ | $127 \cdot 7$ | $219 \cdot 7$ | $205 \cdot 2$ | $203 \cdot 4$ | $210 \cdot 0$ | $230 \cdot 4$ |
| October. | $280 \cdot 2$ | 151 -7 | $207 \cdot 4$ | 406.7 | $127 \cdot 7$ | $219 \cdot 7$ | 205-7 | $203 \cdot 4$ | $214 \cdot 6$ | 231.0 |
| November | $279 \cdot 2$ | 151 -7 | $207 \cdot 4$ | $405 \cdot 0$ | $127 \cdot 7$ | $219 \cdot 7$ | $205 \cdot 7$ | $203 \cdot 4$ | 208.2 | 231.0 |
| December. | $278 \cdot 2$ | $152 \cdot 5$ | $207 \cdot 4$ | $402 \cdot 6$ | $127 \cdot 7$ | 219•7 | 206.5 | $203 \cdot 5$ | $207 \cdot 3$ | $231 \cdot 0$ |
| 1954 |  |  |  |  |  |  |  |  |  |  |
| January.. | 277-3 | 153.5 | 207-4 | $400 \cdot 7$ | $127 \cdot 7$ | 219.8 | 206.5 | $203 \cdot 5$ | $207 \cdot 3$ | 227.5 |
| February | $276 \cdot 7$ | $153 \cdot 5$ | 207.4 | 398.9 | $127 \cdot 7$ | $226 \cdot 2$ | 206.5 | $203 \cdot 5$ | 206.2 | $227 \cdot 2$ |
| March. | $275 \cdot 9$ | $152 \cdot 5$ | $207 \cdot 4$ | 397-3 | $129 \cdot 2$ | $226 \cdot 2$ | 206.5 | 203-3 | $203 \cdot 7$ | $227 \cdot 2$ |
| April. | $276 \cdot 1$ | 151.7 | $207 \cdot 4$ | 397.3 | $129 \cdot 2$ | $226 \cdot 1$ | $205 \cdot 2$ | 203.8 | $209 \cdot 2$ | $227 \cdot 2$ |
| May. | $275 \cdot 9$ | $151 \cdot 1$ | $207 \cdot 4$ | $397 \cdot 4$ | $129 \cdot 2$ | $226 \cdot 1$ | 206.9 | 202-2 | $209 \cdot 2$ | $227 \cdot 2$ |
| June. | 277 -4 | $151 \cdot 1$ | $207 \cdot 4$ | $400 \cdot 4$ | $129 \cdot 2$ | 229-3 | $208 \cdot 2$ | $202 \cdot 1$ | $209 \cdot 9$ | $227 \cdot 8$ |
| July. | 278.2 | $151 \cdot 1$ | 207.4 | $402 \cdot 4$ | $129 \cdot 2$ | $235 \cdot 8$ | 209.5 | $200 \cdot 9$ | 209.9 | 227.8 |
| August | 278.0 | 151-1 | $207 \cdot 4$ | $402 \cdot 5$ | 1292 | $235 \cdot 8$ | $210 \cdot 8$ | $200 \cdot 9$ | $205 \cdot 6$ | $224 \cdot 7$ |
| September | $278 \cdot 6$ | $151 \cdot 1$ | $207 \cdot 4$ | $402 \cdot 5$ | $129 \cdot 2$ | $242 \cdot 2$ | $210 \cdot 8$ | 203.0 | $205 \cdot 6$ | 225.5 |
| October. | 278.6 | $151 \cdot 1$ | $207-4$ | $402 \cdot 5$ | $129 \cdot 2$ | $242 \cdot 2$ | 211.2 | 203.0 | $205 \cdot 6$ | 225.5 |
| November | 278.4 | 151-1 | 207.4 | $401 \cdot 9$ | 129.2 | $242 \cdot 2$ | 211.7 | 203.0 | $205 \cdot 6$ | $225 \cdot 5$ |
| December. | 278.7 | 149.1 | $207 \cdot 4$ | $403 \cdot 3$ | 126.9 | $245 \cdot 5$ | $212 \cdot 5$ | 203.0 | $205 \cdot 6$ | $225 \cdot 5$ |

Non-residential Building Materials.-An index has been prepared to measure the price change of materials used in non-residential building construction. The index has been constructed on the base $1949=100$, using weights obtained from data on cost of building materials provided by general and trade contractors for a sample of buildings constructed in Canada during the years 1948-50. The methods of constructing the index are explained in DBS Reference Paper No. 43, NonResidential Building Materials Price Index, 1935-1952. Price indexes for twelve principal component material groups have been calculated by months from January 1949; indexes for nine of these are given in Table 3 for 1953 and 1954.

The composite index of non-residential building materials increased from 112.6 in January 1951 to a peak of 124.9 in March 1953. Most of this increase of 12.3 points or 10.9 p.c. took place during 1951, the composite index increasing $9 \cdot 7$ points from January 1951 to December 1951 as compared with only $2 \cdot 6$ during the longer period December 1951 to March 1953. All component groups contributed to the increase during this period.

During the period March 1953 to December 1954 the composite index decreased 4.5 points or 3.6 p.c. Changes were relatively small for most of the groups during this period with the exception of plumbing and heating and other equipment which declined 5.4 p.c., and lumber products which declined 2.8 p.c.

## 3.-Annual Price Index Numbers of Non-residential Building Materials, 1950-54, and Monthly Indexes, 1958 and 1954

$(1949=100)$

| Year and Month | Composite Index | Principal Components |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\left\|\begin{array}{c} \text { Cement } \\ \text { and } \\ \text { Con- } \\ \text { crete } \\ \text { Mix } \end{array}\right\|$ | Blocks, Brick and Stone | $\begin{gathered} \text { Lumber } \\ \text { sand } \\ \text { Lumber } \\ \text { Pro- } \\ \text { ducts } \end{gathered}$ | Lath, Plaster and Insulation | Roofing Materials | Paint and Glass | Plumb- ing, <br> Heating and Other Equipment | Electrical Equipment and Materials | Steel and Metal Work |
| 1950. | $105 \cdot 0$ | 103.2 | 104-3 | 110-3 | 98.7 | $104 \cdot 7$ | 100.5 | 103.0 | $105 \cdot 8$ | 107-3 |
| 1951. | 118.6 | 111 -3 | 113.0 | $128 \cdot 3$ | 107-1 | 128.9 | 113.0 | 115.7 | $125 \cdot 4$ | 122.0 |
| 1952. | 123.2 | 117 -4 | 119-7 | $127 \cdot 9$ | $109 \cdot 7$ | $134 \cdot 5$ | $115 \cdot 6$ | $121-3$ | 121.7 | $131 \cdot 3$ |
| 1953. | 124-4 | $120 \cdot 2$ | 125.9 | 127.8 | $110 \cdot 0$ | $133 \cdot 6$ | 125 -3 | 119.2 | 119 -6 | 134-7 |
| 1954. | 121.8 | $120 \cdot 9$ | $127 \cdot 0$ | 124-5 | 109.7 | 132.8 | 128.2 | $115 \cdot 2$ | 117-6 | 128.2 |
| 1953 |  |  |  |  |  |  |  |  |  |  |
| January... | 124.6 | $120 \cdot 4$ | 123.0 | 128.7 | $110 \cdot 8$ | $135 \cdot 1$ | $124 \cdot 9$ | $121-4$ | 118.6 | $134 \cdot 7$ |
| February | 124-7 | $120 \cdot 4$ | 123.4 | 128.8 | $110 \cdot 3$ | $135 \cdot 1$ | 124.9 | 121 -4 | $118 \cdot 6$ | $134 \cdot 7$ |
| March. | 124.9 | $120 \cdot 4$ | 126.0 | 128.9 | $110 \cdot 3$ | $135 \cdot 1$ | 124-9 | 121.2 | $119 \cdot 6$ | 134.8 |
| April. | 124-8 | $119 \cdot 3$ | 126.0 | 129.0 | $110 \cdot 2$ | 134-9 | 124.9 | 121.1 | 119.9 | 134.8 |
| May. | 124.7 | 119.3 | 126.5 | 129.1 | $110 \cdot 2$ | 134.9 | 124.9 | 120.9 | 118.5 | $134 \cdot 7$ |
| June. | 124-6 | 119-3 | 126.5 | $128 \cdot 8$ | $110 \cdot 2$ | $132 \cdot 6$ | 124.9 | $121 \cdot 1$ | $118 \cdot 7$ | $134 \cdot 7$ |
| July.. | 124.7 | $120 \cdot 4$ | 126.5 | 128.7 | $110 \cdot 2$ | $132 \cdot 6$ | 124.9 | $120 \cdot 4$ | 119.6 | $134 \cdot 7$ |
| August. | 124-5 | $120 \cdot 5$ | 126.5 | 128.2 | $109 \cdot 6$ | $132 \cdot 6$ | 124.9 | 119.9 | 119.7 | 134-7 |
| Septembe | $123 \cdot 6$ | $120 \cdot 5$ | 126.5 | 128.8 | 109-6 | $132 \cdot 6$ | 125.0 | 115.8 | 119.7 | 134.8 |
| October | 123.8 | $120 \cdot 5$ | 126.5 | 126.2 | 109-6 | $132 \cdot 6$ | $126 \cdot 4$ | $115 \cdot 8$ | $121 \cdot 1$ | 134-8 |
| November | 123.7 | 120.5 | 126.5 | 125.7 | $109 \cdot 6$ | $132 \cdot 6$ | 126.4 | 115.8 | $120 \cdot 8$ | 134.8 |
| December. | 123-6 | 120.9 | 126.5 | 124.9 | $109 \cdot 6$ | 132.8 | 126.4 | $115 \cdot 8$ | $120 \cdot 7$ | $134 \cdot 5$ |
| $1954$ |  |  |  |  |  |  |  |  |  |  |
| February | 123.1 | 122.1 | 126.5 | 124.7 124.2 | $109 \cdot 8$ 109.3 | 132.9 132.8 | 126-4 | $115 \cdot 8$ 115.6 | $120 \cdot 7$ 120.4 | $133 \cdot 1$ $132 \cdot 3$ |
| March. | $122 \cdot 9$ | 121.8 | $126 \cdot 6$ | 123.7 | 109.9 | 132.6 | $128 \cdot 1$ | 115.6 | $120 \cdot 0$ | $132 \cdot 3$ |
| April. | 122.6 | $120 \cdot 5$ | 126.6 | 123.6 | 109.9 | 132 -5 | 128.0 | 115.0 | $120 \cdot 0$ | $132 \cdot 0$ |
| May. | 121.1 | 120.4 | 126.6 | $123 \cdot 6$ | 109.8 | $132 \cdot 4$ | 128.1 | 114.9 | $120 \cdot 0$ | 125.0 |
| June | 121.2 | $120 \cdot 6$ | 126.6 | 124-2 | 109.8 | 132-7 | 128.2 | 114.7 | $120 \cdot 1$ | $125 \cdot 0$ |
| July. | 121-2 | $120 \cdot 6$ | 127.3 | 125.2 | 109.8 | 132-7 | $128 \cdot 2$ | 113.9 | $120 \cdot 1$ | $125 \cdot 0$ |
| August. | $120 \cdot 2$ | $120 \cdot 6$ | $127 \cdot 3$ | 125.2 | 109.8 | 132-7 | 128.2 | 113.9 | 112.1 | 125.0 |
| September | $120 \cdot 4$ 120.5 | $120 \cdot 6$ $120 \cdot 6$ | $127 \cdot 5$ 127.5 | 124.8 124.8 | $110 \cdot 0$ 110.4 | $133-1$ | 128.3 128.3 | 114.7 114.7 | $112 \cdot 1$ | 125.3 |
| Novembe | $120 \cdot 5$ 120.5 | 120.6 120.8 | 127.5 127.5 | 124.8 124.9 | 110.4 110.4 | $133 \cdot 1$ $133 \cdot 1$ 1 | 128.3 128.3 | 114.7 114.7 | 112.1 112.1 | $125 \cdot 2$ 125 |
| December | 120-4 | $120 \cdot 1$ | 127-5 | 125.3 | 108.2 | 133-2 | 128.4 | 114.7 | 112.1 | $125 \cdot 2$ |

World Wholesale Price Indexes.-Price changes within different countries have varied widely during the years after World War II. Comparisons of Canadian wholesale price indexes and those of other countries are given in Table 4.

## 4.-Index Numbers of Wholesale Prices in Canada and other Countries, 1949 and December 1952 and 1953

(Base: $1948=100$, except for France where $1949=100$. Source: Monthly Bulletin of Statistics of the United Nations.)

| Country | 1949 | Month of December- |  | Country | 1949 | Month of December- |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1952 | 1953 |  |  | 1952 | 1953 |
| Australia. | 112 | 187 | 186 | New Zealand. | 99 | 142 | 140 |
| Canada. | 103 | 114 | 113 | Norway. | 102 | 155 | 152 |
| Chile. | 114 | 232 | 313 | Peru (Lima). | 140 | 198 | 212 |
| Denmark | 102 | 139 | 131 | Portugal (Lisbon) | 104 r | 118 r | 110 |
| Finland. | 101 | 162 | 157 | Sweden.......... | 101 | 143 | 138 |
| France. | 100 | 140 | 138 | Switzerland. | 95 | 100 | 97 |
| India. | 104 | 102 | 106 | Union of South A | 106 | 151 | 150 |
| Mexico (Mexico C | 110 | 151 | 152 | United Kingdom | 105 | 149 | 149 |
| The Netherlands | 104 | 139 | 134 | United States. | 95 | 105 | 105 |

## Section 2.-The Consumer Price Index

The Consumer Price Index is Canada's official measure of retail price change. It replaces the Cost-of-Living Index and is the fifth in a series of Canadian index numbers of retail prices dating back to 1900. This new measure was introduced by the Dominion Bureau of Statistics in October 1952 in a publication entitled, The Consumer Price Index, January 1949-August 1952. Detailed information on the main aspects of the index is contained in that publication.

The purpose of the Consumer Price Index is to measure changes in retail prices of goods and services bought by a representative cross-section of the Canadian urban population. The families covered by the Index lived in 27 Canadian cities of 30,000 population or over, ranged in size from two adults to two adults with four children and had annual incomes ranging from $\$ 1,650$ to $\$ 4,050$ during the survey year ended Aug. 31, 1948.

The budget of the Consumer Price Index represents the post-war level of consumption of those families. A list of 224 of the principal goods and services they purchased in the survey year forms the pricing sample of the Index, and the relative amounts they spent on those and similar categories of items determine the relative importance, or weight, given to each item in the Index.

The monthly index number is calculated from a sample of more than 50,000 retail price quotations. Prices are collected by field representatives in 16 cities across Canada and they are obtained by mail questionnaires in 17 other cities. All cities covered, except Charlottetown, had a population of 30,000 or over as at the 1951 Census.

Price changes are measured from month to month and applied to the cost of the Index budget. The budget is often described as a market basket of goods and services. The physical content of this basket is kept constant and only changes in retail prices are allowed to influence its cost over time. A comparison between the current cost and the base-period cost of the same constant basket yields the Index, that is, a measure of the average percentage change in all retail prices from the base period to date. For some of the food items entering into the basket, the quantities are allowed to vary as between months but not as between years, in order to take account of seasonal variations in consumption.

Because the Index refers to a post-war level of living it was fitting that a post-war year be selected as the reference level of prices. Of the post-war years, 1949 was considered the most suitable because price levels were relatively stable. The fact that 1949 is a satisfactory reference level for other index number measurements, such as those related to industrial production, agriculture, imports and exports, was another important consideration.

The percentage distribution of the main group weights as of the base period is as follows:-

| Budget Group | $\begin{gathered} 1949 \\ \text { Base } \\ \text { Weight } \end{gathered}$ |
| :---: | :---: |
| Food. | 31.7 |
| Clothing. | 11.5 |
| Shelter. | 14.8 |
| Household operation. | $17 \cdot 3$ |
| Other commodities and services. | $24 \cdot 7$ |
| Total.. | 100.0 |

Consumer Price Index Movements.-From a post-war peak of $118 \cdot 2$ in January 1952, the Consumer Price Index declined $2 \cdot 1$ p.c. in 1952, to reach $115 \cdot 7$ on Jan. 2, 1953. Most of the decrease occurred during the early part of the year, but the summer and autumn months were noticeably stable. The first four months of 1953 witnessed a further drop of slightly more than 1 p.c. which brought the index to 114.4 on May 1. A series of five consecutive monthly increases moved the index up to 116.7 by Oct. 1, but was followed by three decreases which placed the index for January 1954 at 115•7, the same level as a year earlier. The first significant change during 1954 occurred between May and June, when the index rose 0.5 p.c. from $115 \cdot 5$ to $116 \cdot 1$.

In contrast with the two-year period from June 1950 to June 1952 which revealed a general upward movement in prices followed by a sharp fall, the period June 1952 to June 1954 was characterized by the absence of any trend and by diverging movements between the components of the index. Between June 1952 and June 1954, food prices fluctuated seasonally over a wide range and were down $3 \cdot 2$ p.c. over the entire period. Non-food commodities were practically unchanged, but services, including shelter, moved up gradually for a gain of more than 5 p.c. As a result, the index for June 1954 stood only 0.1 point above the level of June 1952.

## CONSUMER PRICE INDEXES, 1950-54

$1949=100$

5.-Annual Consumer Price Index, 1945-54, and Monthly Indexes, 1953 and 1954 $(1949=100)$

| Year and Month | Food | Shelter | Clothing | Household Operation | Other Commodities and Services | Total Consumer Price Index |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1945. | $66 \cdot 3$ | 91.4 | 66.9 | 74.9 | 86.4 | 75.0 |
| 1946. | $70 \cdot 0$ | 91.8 | 69.2 | $77 \cdot 2$ | 88.7 | $77 \cdot 5$ |
| 1947. | 79.5 | 95.1 | 78.9 | 86.2 | 91.6 | 84.8 |
| 1948. | $97 \cdot 5$ | $98 \cdot 3$ | $95 \cdot 6$ | 96.8 | 96.5 | $97 \cdot 0$ |
| 1949. | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |
| 1950. | $102 \cdot 6$ | $106 \cdot 2$ | 99.7 | $102 \cdot 4$ | $103 \cdot 1$ | $102 \cdot 9$ |
| 1951. | $117 \cdot 0$ | 114.4 | 109.8 | $113 \cdot 1$ | 111.5 | $113 \cdot 7$ |
| 1952. | 116.8 | $120 \cdot 2$ | 111.8 | 116.2 | 116.0 | 116.5 |
| 1953. | 112.6 | $123 \cdot 6$ | $110 \cdot 1$ | $117 \cdot 0$ | $115 \cdot 8$ | 115.5 |
| 1954. | $112 \cdot 2$ | 126.5 | 109.4 | $117 \cdot 4$ | $117 \cdot 4$ | 116.2 |
| 1953 |  |  |  |  |  |  |
| January . | 113.5 | $122 \cdot 3$ | 109.7 | 116.5 | 116.7 | 115-7 |
| February. | 112.7 | 122.5 | $109 \cdot 6$ | $116 \cdot 6$ | 116.7 | $115 \cdot 5$ |
| March. | 111.6 | 122.5 | 109.7 | 116.7 | 115-2 | 114.8 |
| April. | $110 \cdot 9$ | $122 \cdot 7$ | 109-7 | 116.9 | 115.0 | $114 \cdot 6$ |
| May. | $110 \cdot 1$ | $122 \cdot 9$ | $110 \cdot 1$ | 116.6 | $115 \cdot 1$ | 114.4 |
| June. | 111.4 | $123 \cdot 6$ | $110 \cdot 1$ | 116.6 | $115 \cdot 1$ | $114 \cdot 9$ |
| July. | 112.7 | 123.9 | $110 \cdot 3$ | $117 \cdot 0$ | $115 \cdot 2$ | $115 \cdot 4$ |
| August | 112.8 | $124 \cdot 1$ | $110 \cdot 4$ | $117 \cdot 2$ | $115 \cdot 8$ | $115 \cdot 7$ |
| September | 114.0 | 124.2 | $110 \cdot 4$ | 117.4 | $115 \cdot 9$ | 116.2 |
| October. | 115.5 | 124.5 | $110 \cdot 3$ | 117.5 | $116 \cdot 0$ | 116.7 |
| November | 113.4 | $125 \cdot 0$ | $110 \cdot 3$ | 117 -4 | 116.3 | 116.2 |
| December. | $112 \cdot 1$ | $125 \cdot 2$ | $110 \cdot 2$ | $117 \cdot 4$ | 116-3 | $115 \cdot 8$ |

5.-Annual Consumer Price Index, 1915-54, and Monthly Indexes, 1953 and 1954concluded

| Year and Month | Food | Shelter | Clothing | Household Operation | Other Commodities and Services | Total Consumer Price Index |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1954 |  |  |  |  |  |  |
| January.. | $111 \cdot 6$ | 125.4 | $110 \cdot 1$ | 117.5 | 116.4 | $115 \cdot 7$ |
| February. | $111-7$ | $125 \cdot 4$ | $110 \cdot 0$ | 117.5 | 116.5 | 115.7 |
| March. | $110 \cdot 7$ | $125 \cdot 6$ | 109-8 | $117 \cdot 6$ | $116 \cdot 6$ | $115 \cdot 5$ |
| April. | $110 \cdot 4$ | $125 \cdot 6$ | $109 \cdot 9$ | 118.1 | $117 \cdot 2$ | $115 \cdot 6$ |
| May.. | $110 \cdot 2$ | $125 \cdot 8$ | $109 \cdot 9$ | $117 \cdot 3$ | 117.5 | 115.5 |
| June.. | $112 \cdot 0$ | 126.4 | 109-7 | 117-1 | 117.5 | 116.1 |
| July... | 112 -1 | $126 \cdot 6$ | $109 \cdot 6$ | $117 \cdot 2$ | $117 \cdot 6$ | 116.2 |
| August. | 114.4 | $127 \cdot 0$ | $109 \cdot 6$ | 117.2 | 117.7 | 117.0 |
| September. | 113.8 | $127 \cdot 2$ | $109 \cdot 5$ | 117.2 | $117 \cdot 6$ | 116.8 |
| October. | $113 \cdot 8$ | $127 \cdot 4$ | 108-4 | 117.3 | 117.9 | 116.8 |
| November | $113 \cdot 4$ $112 \cdot 6$ | $127 \cdot 9$ $128 \cdot 2$ | 108.2 | $117 \cdot 2$ $117 \cdot 1$ | 118.2 118.2 | 116.8 116.6 |

Table 6 provides single commodity price relatives on the base $1949=100$ for a number of important foods entering into the food component of the Consumer Price Index. It also provides a record of average prices based on the actual average level of prices prevailing in October 1952 and calculated for the other months on the basis of the price relatives.
6.-Urban Average and Relative Retail Prices of Staple Foods, Annually 1945-54, and Monthly, 1953 and 1954
$(1949=100)$

| Year and Month | Beef, sirloin, per lb . |  | Pork, fresh loins, per lb. |  | Lard, pare, per lb. |  | $\begin{gathered} \text { Eggs, "A", } \\ \text { fresh, } \\ \text { per doz. } \end{gathered}$ |  | Milk, fresh, per qt. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Price | Price Relative | AverAge Price | Price Relative | Aver- <br> age <br> Price | Price Relative | Average Price | Price Relative | Average Price | Price <br> Rela- <br> tive |
|  | cts. |  | cts. |  | cts. |  | cts. |  | cts. |  |
| 1945. | 42.9 | 60.9 | 38.9 | 60.9 | 17.0 | 72-5 | 47-2 | 76.7 | $10 \cdot 3$ | 57.8 |
| 1946 | 44.2 | $62 \cdot 7$ | $42 \cdot 3$ | 66.2 | 18.5 | 78.9 | 48.7 | $79 \cdot 2$ | $12 \cdot 2$ | $68 \cdot 6$ |
| 1947 | 48.3 | 68.6 | 46.5 | 72.9 | 25.5 | $108 \cdot 6$ | $50-3$ | 81.8 | 15.2 | 85.4 |
| 1948. | 62.5 | 88.7 | 58.5 | 91.7 | 28.9 | $123 \cdot 3$ | $59 \cdot 7$ | $97 \cdot 1$ | $17 \cdot 3$ | 96.9 |
| 1949. | $70 \cdot 4$ | $100 \cdot 0$ | 63.8 | $100 \cdot 0$ | $23 \cdot 5$ | $100 \cdot 0$ | 61.5 | $100 \cdot 0$ | 17.8 | $100 \cdot 0$ |
| 1950. | 82.8 | $117 \cdot 6$ | $63 \cdot 4$ | 99.3 | 22.4 | $95 \cdot 3$ | 56.5 | 91.8 | 18.3 | 102.9 |
| 1951 | $101 \cdot 1$ | $143 \cdot 5$ | $73 \cdot 3$ | 114.8 | 28.4 | $121-1$ | 71.6 | 116.5 | 19.6 | $110 \cdot 0$ |
| 1952 | 93.4 | $132 \cdot 7$ | 63.2 | 99.0 | $17 \cdot 0$ | $72 \cdot 5$ | 59.1 | 96.0 | 21.1 | 118.4 |
| 1953 | 79.6 | 113.0 | 72.5 | $113 \cdot 7$ | $20 \cdot 8$ | 88.4 | $67 \cdot 6$ | 109.9 | 21.1 | 118.5 |
| 1954. | 77.0 | 109.4 | 74.6 | 116.8 | $26 \cdot 3$ | $112 \cdot 2$ | $57 \cdot 1$ | $92 \cdot 9$ | 21.1 | 118.5 |
| 1953 |  |  |  |  |  |  |  |  |  |  |
| January. | 84.0 | $119 \cdot 3$ | $65 \cdot 0$ | $101 \cdot 9$ | $16 \cdot 4$ | 69.9 | $55 \cdot 7$ | $90 \cdot 6$ | 21.1 | 118.5 |
| February | 84.9 | $120 \cdot 6$ | $70 \cdot 0$ | 109.7 | 16.5 | $70 \cdot 3$ | 54.7 | 88.9 | 21.1 | 118.5 |
| March. | 81.3 | 115.5 | 66.2 | 103.7 | 16.9 | 72.0 | 60.0 | 97.5 | 21.1 | 118.5 |
| April. | 78.8 | 111.9 | $65 \cdot 1$ | 102.0 | $17 \cdot 6$ | 75.0 | 63.7 | $103 \cdot 6$ | 21.1 | 118.5 |
| May. | 78-7 | 111.8 | 72.6 | 113.8 | $18 \cdot 1$ | $77 \cdot 1$ | 65.0 | 105.7 | 21.1 | 118.5 |
| June. | 79.3 | 112.6 | 77.7 | 121.8 | 18.7 | $79 \cdot 7$ | 66.2 | $107 \cdot 6$ | 21.1 | 118.5 |
| July... | $80 \cdot 2$ | 113.9 | 74.3 | 116.4 | 19.1 | 81.4 | $75 \cdot 4$ | $122 \cdot 6$ | 21.1 | 118.5 |
| August............ | 80.2 | 113.9 | 76.8 | $120 \cdot 3$ | $20 \cdot 1$ | $85 \cdot 6$ | 79.1 | 128.6 | 21.1 | 118.5 |
| September........ | $80 \cdot 1$ | 113.8 | 76.5 | 119.9 | 24.2 | 103-1 | $80 \cdot 4$ | $130 \cdot 7$ | 21.1 | 118.5 |
| October......... | 79.0 74.5 | 112.2 105.8 | 77.6 74.5 | $121 \cdot 6$ | 27.1 | 115.5 | 82.6 | $134 \cdot 3$ | 21.1 | 118.5 |
| December. | 73.8 | 104.8 10.8 | 74.1 | 116.7 <br> 116.1 | 27.0 27 | $116 \cdot 3$ $115 \cdot 0$ | 67.8 60.4 | $110 \cdot 2$ 98.2 | 21.1 21.1 | 118.5 118.5 |

6.-Urban Average and Relative Retail Prices of Staple Foods, Annually 1945-54, and Monthly, 1953 and 1954-concluded
$(1949=100)$

| Year and Month | Beef, sirloin, per lb. |  | Pork, fresh loins, per lb. |  | Lard, pure, per lb. |  | $\begin{gathered} \text { Eggs, "A", } \\ \text { fresh, } \\ \text { per doz. } \end{gathered}$ |  | Milk, fresh, per qt. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Price | Price Relative | Aver$\xrightarrow[\text { Price }]{\text { age }}$ | Price Relative | Average Price | Price Relative | Average Price | Price Relative | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { Price } \end{aligned}$ | Price <br> Relative |
|  | cts. |  | cts. |  | cts. |  | cts. |  | cts. |  |
| 1954 |  |  |  |  |  |  |  |  |  |  |
| January.. | 74.8 | 106.2 | $75 \cdot 4$ | 118.1 | 27.0 | $115 \cdot 0$ | $54 \cdot 5$ | $88 \cdot 6$ | $21 \cdot 1$ | 118.5 |
| February | 74.5 | $105 \cdot 8$ | 78.0 | $122 \cdot 2$ | $27 \cdot 3$ | 116.3 | 56.5 | $91 \cdot 9$ | 21.1 | 118.5 |
| March. | 71.7 | 101.8 | 77.7 | 121.8 | $27 \cdot 3$ | 116.3 | 56.3 | 91.5 | 21.1 | 118.5 |
| April. | $71 \cdot 7$ | 101.8 | $76 \cdot 3$ | 119.6 | $27 \cdot 5$ | $117 \cdot 2$ | $51 \cdot 9$ | 84.4 | $21 \cdot 1$ | 118.5 |
| May. | $73 \cdot 1$ | 103.8 | $77 \cdot 3$ | $121 \cdot 1$ | $27 \cdot 6$ | $117 \cdot 6$ | 51.5 | 83.7 | $21 \cdot 1$ | 118.5 |
| June | $77 \cdot 1$ | 109.5 | 81.9 | $128 \cdot 3$ | $27 \cdot 5$ | $117 \cdot 2$ | $52 \cdot 0$ | 84.5 | $21 \cdot 1$ | $118 \cdot 5$ |
| July | 78.2 | 111.1 | $77 \cdot 9$ | $122 \cdot 1$ | 26.4 | $112 \cdot 5$ | 59.0 | $95 \cdot 9$ | 21.1 | $118 \cdot 5$ |
| August | 81.1 | 115.2 | $76 \cdot 1$ | 119.2 | $25 \cdot 4$ | $108 \cdot 2$ | 61.2 | 99.5 | $21 \cdot 1$ | 118.5 |
| Septemb | $82 \cdot 1$ | $116 \cdot 6$ | 72.5 | $113 \cdot 6$ | $24 \cdot 7$ | 105-2 | $63 \cdot 0$ | 102.4 | $21-1$ | 118.5 |
| October | 81.0 | 115.0 | 68.2 | 106.9 | $25 \cdot 0$ | $106 \cdot 5$ | $64 \cdot 9$ | $105 \cdot 5$ | $21 \cdot 1$ | 118.5 |
| November.. | $79 \cdot 9$ | $113 \cdot 5$ | 66.5 | 104-2 | $25 \cdot 1$ | $106 \cdot 9$ | $62 \cdot 4$ | 101.4 | $21 \cdot 1$ | 118.5 |
| December........ | 78.9 | $112 \cdot 1$ | 67.0 | 105.0 | $25 \cdot 3$ | $107 \cdot 8$ | $52 \cdot 4$ | $85 \cdot 2$ | $21 \cdot 1$ | 118.5 |
|  | Flour, per lb. |  | Tomatoes, canned, 21's, tin |  | Potatoes,10 lb. |  | $\begin{aligned} & \text { Sugar, } \\ & \text { granulated, } \\ & \text { per lb. } \end{aligned}$ |  | Bread, per lb. |  |
|  | Average | Price Rela- | Average | Price Rela- | Aver- <br> age <br> Price$\quad$Price <br> Rela- <br> tive |  | Aver- <br> age <br> PricePrice <br> Rela- <br> tive |  | Aver- Price <br> age <br> Price <br> Rela- <br> tive  |  |
|  | $\begin{aligned} & \text { age } \\ & \text { Price } \end{aligned}$ | Relative | $\begin{aligned} & \text { age } \\ & \text { Price } \end{aligned}$ | $\begin{aligned} & \text { Rela- } \\ & \text { tive } \end{aligned}$ |  |  |  |  |  |  |
|  | cts. |  | cts. |  | cts. |  | cts. |  | cts. |  |
| 1945. | $4 \cdot 0$ | 57.0 | 13.5 | $67 \cdot 1$ | $34 \cdot 9$ | $100 \cdot 3$ | $8 \cdot 1$ | $87 \cdot 5$ | $6 \cdot 6$ | 66.7 |
| 1946. | $4 \cdot 0$ | $56 \cdot 8$ | 14.2 | $70 \cdot 7$ | $34 \cdot 3$ | 98.4 | $8 \cdot 1$ | $87 \cdot 5$ | $6 \cdot 6$ | 66.7 |
| 1947. | $4 \cdot 5$ | $64 \cdot 7$ | 18.5 | $92 \cdot 1$ | 33.8 | $97 \cdot 1$ | $8 \cdot 8$ | $95 \cdot 2$ | $7 \cdot 1$ | $72 \cdot 4$ |
| 1948. | $6 \cdot 1$ | 88.0 | 24.4 | 121.7 | $40 \cdot 4$ | $116 \cdot 1$ | $9 \cdot 1$ | $98 \cdot 6$ | $9 \cdot 1$ | 92.2 |
| 1949. | $7 \cdot 0$ | $100 \cdot 0$ | $20 \cdot 1$ | $100 \cdot 0$ | 34.8 | $100 \cdot 0$ | $9 \cdot 2$ | $100 \cdot 0$ | $9 \cdot 9$ | $100 \cdot 0$ |
| 1950. | $7 \cdot 3$ | $104 \cdot 8$ | $17 \cdot 7$ | 88.0 | $33 \cdot 2$ | $95 \cdot 4$ | $10 \cdot 6$ | 114.4 | $10 \cdot 3$ | $104 \cdot 6$ |
| 1951. | $7 \cdot 5$ | $106 \cdot 9$ | 23.1 | $115 \cdot 0$ | $34 \cdot 8$ | 99.9 | $12 \cdot 0$ | 129.8 | 11.4 | 115.5 |
| 1952. | $7 \cdot 4$ | 105.9 | 28.8 | $143 \cdot 6$ | 68.6 | 196.9 | 11.2 | 121.0 | 11.8 | 119.3 |
| 1953 | $7 \cdot 6$ | 108.9 | $24 \cdot 4$ | 121.8 | 39.0 | 111.8 | $10 \cdot 0$ | 107.8 | $12 \cdot 0$ | 121.5 |
| 1954. | $7 \cdot 7$ | $110 \cdot 2$ | 21.5 | $107 \cdot 4$ | 37.5 | $107 \cdot 6$ | $9 \cdot 4$ | 101.8 | $12 \cdot 5$ | 126.8 |
| 1953 |  |  |  |  |  |  |  |  |  |  |
| January. | $7 \cdot 3$ | $104 \cdot 7$ | 26.1 | $130 \cdot 1$ | 53.1 | 152.4 | $10 \cdot 4$ | 112.7 | $11 \cdot 6$ | 117.7 |
| February | $7 \cdot 3$ | 104.7 | $25 \cdot 9$ | $129 \cdot 1$ | 51.2 | 147.0 | $10 \cdot 2$ | $110 \cdot 6$ | 11.6 | 117.7 |
| March. | $7 \cdot 3$ | $104 \cdot 7$ | $25 \cdot 7$ | $128 \cdot 1$ | $44 \cdot 2$ | 126.9 | $10 \cdot 2$ | $110 \cdot 6$ | $11 \cdot 6$ | $117 \cdot 7$ |
| April. | $7 \cdot 3$ | $104 \cdot 7$ | 25.3 | $126 \cdot 1$ | $40 \cdot 0$ | 114-8 | $10 \cdot 1$ | 109.5 | 11.6 | $117 \cdot 7$ |
| May. | $7 \cdot 4$ | $106 \cdot 2$ | $24 \cdot 9$ | $124 \cdot 1$ | 36.9 | $105 \cdot 9$ | $10 \cdot 0$ | 108.4 | 11.7 | 118.7 |
| June. | $7 \cdot 5$ | $107 \cdot 6$ | 24.7 | 123.1 | $37 \cdot 1$ | $106 \cdot 5$ | $9 \cdot 9$ | $107 \cdot 3$ | 11.8 | 119.7 |
| July. | $7 \cdot 8$ | 111.9 | 24.6 | $122 \cdot 6$ | 42.9 | 123 -2 | $9 \cdot 9$ | $107 \cdot 3$ | $12 \cdot 1$ | 122.8 |
| August | $7 \cdot 8$ | 111.9 | 24.3 | $121 \cdot 1$ | 38.8 | 111.4 | $9 \cdot 8$ | 106-2 | $12 \cdot 2$ | 123.8 |
| September | $7 \cdot 8$ | 111.9 | $24 \cdot 0$ | $119 \cdot 6$ | $32 \cdot 6$ | $93 \cdot 6$ | $9 \cdot 8$ | $106 \cdot 2$ | $12 \cdot 3$ | $124 \cdot 8$ |
| October... | $7 \cdot 8$ | 111.9 | 23.4 | $116 \cdot 6$ | $31 \cdot 1$ | $89 \cdot 3$ | $9 \cdot 8$ | $106 \cdot 2$ | $12 \cdot 3$ | 124.8 |
| November | $7 \cdot 9$ | $113 \cdot 3$ | 22.4 | 111.7 | $30 \cdot 2$ | $86 \cdot 7$ | $9 \cdot 7$ | $105 \cdot 1$ | $12 \cdot 4$ | $125 \cdot 8$ |
| December. | $7 \cdot 9$ | $113 \cdot 3$ | $22 \cdot 0$ | 109-7 | $29 \cdot 3$ | $84 \cdot 1$ | $9 \cdot 6$ | $104 \cdot 1$ | $12 \cdot 5$ | 126.8 |
| 1954 |  |  |  |  |  |  |  |  |  |  |
| January.......... | 7.9 | $113 \cdot 3$ | 21.6 | $107 \cdot 7$ | 29.4 | $84 \cdot 4$ | $9 \cdot 6$ | $104 \cdot 1$ | $12 \cdot 5$ | 126.8 |
| February........ | 7.8 | 111.9 | $21 \cdot 3$ | 106.2 | $29 \cdot 2$ | 83.8 | $9 \cdot 6$ | 104-1 | $12 \cdot 5$ | 126.8 |
| March........... | $7 \cdot 8$ | 111.9 | 21.1 | $105 \cdot 2$ | 28.9 | 83.0 | 9.5 | $103 \cdot 0$ | $12 \cdot 5$ | 126.8 |
| April............ | $7 \cdot 7$ | $110 \cdot 5$ | $20 \cdot 7$ | 103.2 | $27 \cdot 7$ | 79.5 | $9 \cdot 5$ | $103 \cdot 0$ | $12 \cdot 5$ | 126.8 |
| May... | $7 \cdot 7$ | 110.5 | $20 \cdot 5$ | $102 \cdot 2$ | $28 \cdot 6$ | $82 \cdot 1$ | $9 \cdot 4$ | 101.9 | $12 \cdot 5$ | 126.8 |
| June.. | $7 \cdot 7$ | $110 \cdot 5$ | $20 \cdot 4$ | 101.7 | $32 \cdot 3$ | 92.7 | $9 \cdot 4$ | 101.9 | 12.5 | 126.8 |
| July . | $7 \cdot 7$ | 110.5 | $20 \cdot 5$ | $102 \cdot 2$ | $43 \cdot 6$ | $125 \cdot 2$ | $9 \cdot 3$ | $100 \cdot 8$ | 12.5 | 126.8 |
| August | $7 \cdot 7$ | $110 \cdot 5$ | $20 \cdot 5$ | $102 \cdot 2$ | $57 \cdot 4$ | $164 \cdot 8$ | $9 \cdot 3$ | $100 \cdot 8$ | 12.5 | 126.8 |
| September....... | $7 \cdot 6$ | 109.0 | $20 \cdot 8$ | $103 \cdot 7$ | $46 \cdot 5$ | $133 \cdot 5$ | $9 \cdot 3$ | 100.8 | 12.5 | 126.8 |
| October......... | $7 \cdot 6$ $7 \cdot 5$ | $109 \cdot 0$ $107 \cdot 6$ | 21.5 23.9 | $107 \cdot 2$ $119 \cdot 1$ | $40 \cdot 6$ $42 \cdot 1$ | 116.5 120.9 | $9 \cdot 2$ $9 \cdot 3$ | 99.7 100.8 | 12.5 12.5 12.5 | 126.8 126.8 |
| November....... | $7 \cdot 5$ 7.5 | $107 \cdot 6$ $107 \cdot 6$ | $23 \cdot 9$ 25.7 | $119 \cdot 1$ $128 \cdot 1$ | $42 \cdot 1$ $43 \cdot 5$ | $120 \cdot 9$ 124.9 | $9 \cdot 3$ $9 \cdot 3$ | $100 \cdot 8$ 100.8 | 12.5 12.5 | $126 \cdot 8$ 126.8 |

Consumer Price Indexes for Regional Cities.-Revised regional consumer price indexes were released by the Dominion Bureau of Statistics in November 1953 for nine cities or city combinations. The new series, which replace the cost-of-living indexes for eight regional cities, appear in Table 7. The index for St. John's, N'f'ld., which was prepared subsequent to the date Newfoundland joined Confederation, is calculated on the base June 1951=100 and is shown in Table 7 on that base.

The construction of each regional consumer price index involved three main phases: (1) the conversion of an existing cost-of-living index inclusive of all tobacco taxes, from the base August $1939=100$ to the base $1949=100$, up to and including Sept. 1, 1953; (2) the calculation of an entirely new index incorporating a revised weighting system and price sample, on the base Sept. 1, 1953=100; and (3) the linking of the new series to the converted series as at Sept. 1, 1953, to form a continuous index on the base $1949=100$.

The regional indexes are not designed to show whether it costs more or less to live in one city than in another, and should not be used for that purpose. Their function is to measure percentage changes in retail prices-over a certain time in each city or city combination-of a fixed basket of goods and services representing the level of consumption of a particular group of families.

## 7.-Consumer Price Indexes for Regional Cities, Annually 1945-54, and Monthly, 1953 and 1954

$(1949=100)$

| Year and Month | $\begin{gathered} \text { St. } \\ \text { John's, } \\ \text { N'f'ld. } \end{gathered}$ | $\begin{aligned} & \text { Halifax, } \\ & \text { N.S. } \end{aligned}$ | $\begin{aligned} & \text { Saint } \\ & \text { John, } \\ & \text { N.B. } \end{aligned}$ | Montreal. Que. | Ottawa, Ont. | Toronto, Ont. | $\begin{aligned} & \text { Winni- } \\ & \text { peg, } \\ & \text { Man. } \end{aligned}$ | Saska- <br> toon- <br> Regina, <br> Sask | Ed- montonCalgary, Alta. | Vancouver B.C. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1945 | ... | 77-6 | $75 \cdot 8$ | 74.4 | $73 \cdot 8$ | 75-3 | $75 \cdot 2$ | $74 \cdot 0$ | 75-3 | 73.6 |
| 1946 | ... | $79 \cdot 6$ | 77.9 | 76.9 | 76.5 | $77 \cdot 9$ | $77 \cdot 5$ | $76 \cdot 6$ | $77 \cdot 8$ | $75 \cdot 9$ |
| 1947 | ... | $86 \cdot 3$ | 84.6 | 84.3 | 84.5 | $85 \cdot 5$ | 84.3 | 84.4 | $84 \cdot 6$ | 83.3 |
| 1948 | ... | 96.8 | $97 \cdot 0$ | 96.6 | 96.5 | $97 \cdot 0$ | $95 \cdot 8$ | 96.9 | $96 \cdot 1$ | 96.0 |
| 1949 | .. | $100 \cdot 0$ | $100 \cdot 0$ | 100-0 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |
| 1950 | . | $102 \cdot 1$ | $103 \cdot 3$ | 103.7 | $103 \cdot 1$ | 104-1 | 103.8 | $102 \cdot 2$ | 103.9 | $103 \cdot 6$ |
| 1951. |  | $112 \cdot 1$ | $114 \cdot 1$ | $116 \cdot 1$ | 115-3 | 115.4 | $114 \cdot 6$ | 111.7 | 113.5 | $114 \cdot 3$ |
| 1952. | $103 \cdot 5$ | $115 \cdot 3$ | 117.4 | $117 \cdot 6$ | 1168 | $117 \cdot 5$ | $116 \cdot 1$ | $112 \cdot 8$ | 114.8 | 117.4 |
| 1953. | $102 \cdot 2$ | $113 \cdot 2$ | $115 \cdot 3$ | 116.3 | $115 \cdot 0$ | 116.8 | 114.4 | $113 \cdot 1$ | 114.0 | 116.1 |
| 1954. | $102 \cdot 8$ | 114.1 | $116 \cdot 6$ | 116.8 | 116.2 | $118 \cdot 3$ | $115 \cdot 3$ | $114 \cdot 2$ | 114.9 | $117 \cdot 4$ |
| 1953 |  |  |  |  |  |  |  |  |  |  |
| January. | 102 -4 | 112.8 | $114 \cdot 7$ | $115 \cdot 7$ | 114.4 | 115.9 | 113.7 | 111.9 | $112 \cdot 6$ | 116.2 |
| February | $102 \cdot 3$ | $113 \cdot 1$ | 114.8 | 116.2 | 114.8 | 116.0 | $114 \cdot 1$ | $112 \cdot 1$ | $112 \cdot 6$ | $115 \cdot 7$ |
| March. | $101 \cdot 3$ | 112.9 | $114 \cdot 5$ | 115.8 | $114 \cdot 3$ | $115 \cdot 9$ | 113.7 | $112 \cdot 2$ | 113.0 | $115 \cdot 5$ |
| April | $101 \cdot 5$ | $112 \cdot 7$ | $114 \cdot 6$ | 114.8 | $114 \cdot 3$ | $115 \cdot 7$ | 113.9 | $112 \cdot 3$ | $113 \cdot 1$ | $115 \cdot 6$ |
| May | $101 \cdot 1$ | $112 \cdot 2$ | 114.4 | 114.9 | $113 \cdot 7$ | 115-7 | $113 \cdot 6$ | $112 \cdot 1$ | $113 \cdot 2$ | $115 \cdot 7$ |
| June | $101 \cdot 2$ | 112.7 | 114.9 | 116.0 | 114.7 | 116.5 | $114 \cdot 1$ | $112 \cdot 9$ | 114.0 | $115 \cdot 8$ |
| July | $101 \cdot 9$ | $113 \cdot 7$ | $115 \cdot 8$ | 117.3 | $115 \cdot 2$ | 117.2 | $115 \cdot 2$ | 113.9 | 114.7 | 116.5 |
| August | $102 \cdot 9$ | 114.2 | 116.7 | $117 \cdot 0$ | 115.4 | 117.5 | 115.0 | $114 \cdot 2$ | $115 \cdot 3$ | 116.0 |
| Septemb | 102.8 | 113.8 | $116 \cdot 1$ | 116.5 | $115 \cdot 5$ | $117 \cdot 6$ | 114.7 | 113.8 | $115 \cdot 1$ | $116 \cdot 2$ |
| October | $102 \cdot 8$ | $114 \cdot 0$ | $116 \cdot 1$ | 117.4 | 116.4 | 118.4 | 115.0 | $114 \cdot 3$ | $115 \cdot 3$ | 116.7 |
| Novembe | $103 \cdot 1$ | $113 \cdot 6$ | $115 \cdot 9$ | 117.0 | 116.0 | 117.8 | 115.2 | $113 \cdot 7$ | 114.9 | 116.5 |
| December | $102 \cdot 7$ | $113 \cdot 2$ | $115 \cdot 5$ | 116.7 | 115.5 | $117 \cdot 6$ | 114.7 | $113 \cdot 3$ | 114.5 | $116 \cdot 3$ |
| 1954 |  |  |  |  |  |  |  |  |  |  |
| January.. | $102 \cdot 6$ | 113.2 | $115 \cdot 4$ | 116.7 | $115 \cdot 3$ | $117 \cdot 7$ | 114.9 | 113.2 | 114.4 | 116.2 |
| Februar | $102 \cdot 4$ | 113.8 | $115 \cdot 8$ | 116.8 | $115 \cdot 5$ | $117 \cdot 6$ | $115 \cdot 0$ | $113 \cdot 5$ | 114 -3 | 116.4 |
| March | $102 \cdot 2$ | $113 \cdot 7$ | $116 \cdot 2$ | 116.3 | $115 \cdot 3$ | $117 \cdot 4$ | 114.7 | $113 \cdot 7$ | 114.4 | 116.3 |
| April. | $102 \cdot 0$ | 113.8 | $115 \cdot 9$ | 116.3 | $115 \cdot 5$ | $117 \cdot 7$ | 114.9 | $113 \cdot 6$ | 114.3 | $116 \cdot 9$ |
| May | $102 \cdot 2$ | $113 \cdot 6$ | $115 \cdot 8$ | 116.3 | $115 \cdot 5$ | $117 \cdot 7$ | 114.8 | $113 \cdot 5$ | 114.4 | 116.9 |
| June | $102 \cdot 5$ | 113.9 | 116.2 | 117.0 | $116 \cdot 1$ | 118.2 | $115 \cdot 3$ | $114 \cdot 1$ | 114.8 | 117-1 |
| July | $102 \cdot 6$ | $113 \cdot 8$ | 116.2 | 117.2 | 116.4 | 118.8 | 115.5 | $114 \cdot 1$ | 114.8 | 117.0 |
| Augus | $104 \cdot 4$ | $115 \cdot 3$ | $117 \cdot 6$ | 117.2 | 117.0 | 119.0 | 116.4 | $115 \cdot 3$ | 115.4 | 118.1 |
| Septemb | $103 \cdot 4$ | 114.8 | $117 \cdot 7$ | $116 \cdot 6$ | 116.9 | 118.8 | 115.7 | $115 \cdot 1$ | $115 \cdot 7$ | $118 \cdot 1$ |
| Octobe | $103 \cdot 0$ | $114 \cdot 6$ | ${ }^{117 \cdot 6}$ | $117 \cdot 0$ | $117 \cdot 3$ | 118.9 | $115 \cdot 5$ | $115 \cdot 2$ | $115 \cdot 6$ | $118 \cdot 6$ |
| November | 102.8 102.9 | 114.5 114.5 | 117.5 117.5 | 117.1 117.0 | 117.2 117.0 | 118.9 118.8 | $115 \cdot 7$ | 114.8 | $115 \cdot 3$ | 118.6 |

${ }^{1}$ Explanation of methods used in compiling St. John's, N'f'ld., index (June $1951=100$ ) is given in DBS Reference Paper No. 23.

World Retail Price Indexes.-In order to place changes in Canadian retail prices in perspective with those occurring in other countries, Table 8 provides retail price indexes for selected countries and dates. It will be noted that increases in retail prices since 1949 have been world-wide. With the exception of Chile and Peru, where large increases in retail prices occurred, prices were relatively stable in all countries at the end of 1953. These indexes measure price change only within each country and should not be used to compare actual levels of living costs from country to country.

## 8.-Index Numbers of Retail Prices in Canada and other Countries, 1949 and December 1952 and 1953

(Base: $1948=100$, except for France and The Netherlands where $1949=100$. Source: Monthly Bulletin of Statistics of the United Nations.)

| Country | 1949 | MonthofDecember- |  | Country | 1949 | Month <br> of <br> December- |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1952 | 1953 |  |  | 1952 | 1953 |
| Australia....................... | 109 | 181 \% | 187 | The Netherlands. | 100 | 122 | 122 |
| Canada. | $104{ }^{\text {\% }}$ | 120 | 120 | New Zealand. | 102 | 130 | 138 |
| Chile (Santiago)............... | 119 | 205 | 321 | Norway. | 100 | 135 | 137 |
| Denmark. | 101 | 124 | 123 | Peru (Lima).................... | 115 | 156 | 170 |
| Finland. | 108 r | 155 | 155 | Sweden, | 102 | 130 | 130 |
| France (Paris)................. | 100 | 145 | 142 | Switzerland. | 99 | 105 | 104 |
| Iceland (Reykjavik).. | 102 | 177 | 173 | Union of South Africa. | 104 | 129 | 130 |
| India. | 101 | 104 | 105 | United Kingdom. | 103 | 128 | 130 |
| Mexico (Mexico City).......... | 105 | 147 | 140 | United States. | 99 | 111 | 112 |

## Section 3.-Index Numbers of Security Prices

Security prices have long been utilized in statistical measurements related to economic phenomena and are, generally, sensitive to changing business conditions although this valuable characteristic is sometimes overshadowed by the fact that their movements may be influenced greatly by speculative interest very remotely associated with underlying economic conditions. Thus, in 1928 and 1929 commonstock prices advanced far beyond levels indicated by business profits and prospects. Security-price trends also have been at variance with other business indexes for short intervals at other periods.

Common Stocks.-Common-stock prices were firmer in the final quarter of 1952 but the trend was reversed in the opening months of 1953 . Changes in security price levels in 1953 reflected, in part, prospects for peace in Korea together with a
less tense international situation. From a 1952 low point of $163 \cdot 6$ for October, the investors composite index advanced to $172 \cdot 3$ by January 1953. Following relative steadiness in February and March, the index dropped sharply in April to touch 160.8. Continued firmness was maintained at this level until October when a further sharp drop to 151.9 occurred-the lowest index level since December 1950. A nearly continuous increase from October 1953 to December 1954 brought the index up to $206 \cdot 8$, above the October 1953 index by $36 \cdot 1$ p.c. In November 1954 the index passed the previous all-time high of $197 \cdot 8$ established in September 1929.

## 9.--Investors Index Numbers of Common Stocks, by Month, 1953 and 1954

$(1935-39=100)$

| Year and Month | Types of Stocks |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Industrials |  |  |  |  |  |  |  |  |  |
|  | $\begin{array}{\|c\|} \text { Mas- } \\ \text { chinery } \\ \text { and } \\ \text { Equip- } \\ \text { ment } \end{array}$ | Pulp and Paper | Milling | Oils | Textiles and Clothing | Food and Allied Products | Beverages |  | Industrial Mines | Industrials, Total |
| 1953 <br> January | 432.9 | $502 \cdot 5$ | $132 \cdot 6$ | 147.3 | $279 \cdot 0$ | 115-2 | 382-5 | $293 \cdot 6$ | 137.0 | 174-3 |
|  |  |  |  |  |  |  |  |  |  |  |
| February. | 419.9 | 494.4 | 133.4 | 143.0 | 269.4 | 117.0 | $387 \cdot 0$ | 291.0 | 131.0 | $170 \cdot 0$ |
| March. | 415.5 | 501.9 | $130 \cdot 6$ | $145 \cdot 3$ | 261.5 | 117.8 | 396.8 | $293 \cdot 3$ | 129.5 | 170.8 |
| April. | 382.7 | $472 \cdot 6$ | $130 \cdot 4$ | 136.8 | $247 \cdot 7$ | 118.2 | $384 \cdot 4$ | 282.2 | 118.3 | $160 \cdot 6$ |
| May.............. | $381 \cdot 6$ | 471.0 | 128.3 | 134-6 | $235 \cdot 1$ | 118.2 | $395 \cdot 9$ | $275 \cdot 1$ | 116.4 | $159 \cdot 1$ |
| June.............. | 378.9 | 471.9 | 128.8 | 127.4 | $217 \cdot 6$ | 118.3 | 388.1 | $270 \cdot 7$ | 116.5 | $155 \cdot 5$ |
| July.. | 394.9 | 494.9 | 129.8 | 129-3 | $202 \cdot 7$ | 124.3 | $408 \cdot 6$ | 278.5 | 121.2 | $160 \cdot 5$ |
| August............ | 396.9 | 518.9 | 136.4 | $131 \cdot 3$ | 211.5 | 125.7 | 411.4 | 283.8 | 117-7 | $161 \cdot 6$ |
| September....... | 375-2 | 509.2 | 132.8 | 120.8 | 199.4 | 123.2 | $397 \cdot 8$ | 269.4 | 109.2 | 152.2 |
| October......... | 374-3 | 503.3 | $131 \cdot 3$ | 118.5 | 189.8 | $123 \cdot 3$ | $400 \cdot 8$ | $267 \cdot 0$ | $109 \cdot 1$ | 150.9 |
| November... | 392.7 | $533 \cdot 9$ | $131 \cdot 0$ | $117 \cdot 8$ | 175-2 | $124 \cdot 6$ | 417.9 | $273 \cdot 6$ | 108.4 | 153.2 |
| December. | 391.5 | 544.4 | 129-1 | 119.4 | 180.7 | 122.4 | 420-4 | $276 \cdot 1$ | 103.4 | 152.7 |
| 1954 | $395 \cdot 3$ | $562 \cdot 6$ | $129 \cdot 3$ | 126-1 | 168.8 | 122-9 | $434 \cdot 5$ | $283 \cdot 6$ | 102-7 | $156 \cdot 5$ |
| January.......... |  |  |  |  |  |  |  |  |  |  |
| February........ | 418.4 | 589.4 | 129.9 | 136-3 | 158.4 | 123.6 | $447 \cdot 9$ | 286.8 | $103 \cdot 4$ | 163.2 |
| March........... | 432.8 | 596.4 | $131-1$ | 136-4 | 166.3 | 123.8 | $440 \cdot 0$ | $285 \cdot 2$ | 108.9 | $165 \cdot 1$ |
| April. ............ | 458.8 | 628.5 | 133.9 | $145 \cdot 4$ | $163 \cdot 1$ | 124.6 | $453 \cdot 6$ | $298 \cdot 6$ | 116.0 | 174.7 |
| May.............. | 474-2 | 679.8 | $137 \cdot 6$ | 147.6 | 153.2 | 133.0 | 476.4 | 322.8 | 118.9 | 181.0 |
| June.. | 469.1 | $685 \cdot 1$ | $134 \cdot 0$ | 142.8 | 151.4 | 136.8 | 474.5 | 321.7 | 123.8 | $180 \cdot 4$ |
| July............... | 503.6 | 718.4 | 138.3 | 138.2 | 151-6 | 135.5 | 480.1 | 331.4 | 122.3 | 181.8 |
| August............ | 520.8 | $744 \cdot 3$ | $145 \cdot 4$ | 142-1 | 161.2 | $142 \cdot 6$ | $497 \cdot 6$ | 348.5 | 125.0 | 187.9 |
| September....... | 510.7 | 750-1 | 151.9 | 145.0 | $154 \cdot 1$ | 144.5 | 509.4 | $347 \cdot 6$ | $133 \cdot 3$ | 191-4 |
| October.......... | 499.0 | 740.0 | 156.8 | 150.8 | $167 \cdot 0$ | 144.9 | 500.0 | 342-7 | $132 \cdot 0$ | 191.9 |
| November....... | 523.2 | $789 \cdot 3$ | $158 \cdot 4$ | 158.4 | 170.2 | 150.9 | 519.8 | 358.7 | 144.5 | 203.0 |
| December........ | 554.9 | $830 \cdot 4$ | 156 -5 | 163.5 | 175-2 | 150.8. | 521.5 | $385 \cdot 6$ | 149-3 | 210.5 |

9.-Investors Index Numbers of Common Stocks, by Month, 1953 and 1954-concluded

| Year and Month | Types of Stocks |  |  |  |  | Investors Composite Index |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Public Utilities |  |  |  | Banks, Total |  |
|  | Transportation | Telephone and <br> Telegraph | Power and Traction | Public Utilities, Total |  |  |
| 1953 |  |  |  |  |  |  |
| January....... | 353.6 | $97 \cdot 8$ | $146 \cdot 3$ | 167.9 | $162 \cdot 0$ | 172-3 |
| February..... | 341.7 | 98.1 | 146.2 | 166.0 | 164.8 | 169.0 |
| March.... | 344-2 | $100 \cdot 0$ | 147.0 | 167.7 | $165 \cdot 9$ | $170 \cdot 0$ |
| April. | 314.0 | 99-3 | 144.8 | 161.0 | 163.0 | 160.8 |
| May. | 307.7 296.0 | 101.1 | 143.4 | $160 \cdot 4$ | 166-3 | 159.8 |
| June. | 296.0 296.4 | $101 \cdot 4$ 101.4 | 140.9 141.9 | 157.5 157.9 | $168 \cdot 4$ 169.1 | $156 \cdot 8$ 160.7 |
| August | 281.8 | 99-3 | $142 \cdot 9$ | 154.6 | 171.7 | 161.2 |
| September | 261.5 | $95 \cdot 0$ | 141.5 | 148.1 | $171 \cdot 6$ | 152.9 |
| October.. | $263 \cdot 2$ | $95 \cdot 3$ | 142.9 | 149.0 | 168.5 | 151.9 |
| November. | $255 \cdot 7$ | $100 \cdot 4$ | $140 \cdot 1$ | $149 \cdot 4$ | $175 \cdot 4$ | 154-2 |
| December............. | 254-2 | 101-2 | 131.4 | 146.4 | $180 \cdot 2$ | 153.6 |
| 1954 |  |  |  |  |  |  |
| January.. | $265 \cdot 4$ | $102 \cdot 5$ | 131.5 | $149 \cdot 1$ | $185 \cdot 5$ | $157 \cdot 4$ |
| February. | $272 \cdot 8$ | 103.6 | 134.0 | 151.9 | 189.6 | 163.2 |
| March.... | $267 \cdot 0$ | 105.9 | 137.2 | $153 \cdot 3$ | 192.5 | 165.0 |
| April... | $280 \cdot 6$ | 107.8 | 145.0 | 159.5 | 195.4 | $173 \cdot 6$ |
| May... | $274 \cdot 6$ | $110 \cdot 1$ | $152 \cdot 6$ | 162.4 | $204 \cdot 0$ | 179.5 |
| June.. | $301 \cdot 6$ | 110.5 | 151.8 | $167 \cdot 2$ | 212.2 | $180 \cdot 5$ |
| July........ | 297.5 | $112 \cdot 9$ | $156 \cdot 4$ | 169.4 | 216.4 | 182.3 |
| August...... | $296 \cdot 6$ $295 \cdot 0$ | $114 \cdot 6$ 114.0 | 156.7 159.0 | $170 \cdot 2$ 170.4 | 217.3 215.0 | 187.0 189.5 |
| October... | $296 \cdot 6$ | $115 \cdot 4$ | 158.8 | 171.4 | 217.4 | 190.2 |
| November | $314 \cdot 6$ | $115 \cdot 6$ | $156 \cdot 6$ | 173.8 | 224-2 | 199.5 |
| December. | $337 \cdot 5$ | $118 \cdot 6$ | 162.9 | 181.8 | 227.0 | 206.8 |

Preferred Stocks.-Preferred stock prices remained within exceptionally narrow limits during the final quarter of 1952 and the first two months of 1953. From a level of $161 \cdot 2$ in October, the index moved to $161 \cdot 6$ by February 1953. A firmer tone lifted prices to 163.6 in March but by April this advance had been cancelled and the index again stood at $161 \cdot 6$. From that date to the end of 1953 prices held relatively steady. Slight increases in January and February 1954 were followed by more substantial subsequent changes to bring the index for December to $175 \cdot 4-8 \cdot 5$ p.c. above the December 1953 index.

## 10.-Index Numbers of Preferred Stocks, by Month, 1945-54

( $1935-39=100$ )
Nore.-Figures for 1927-44 are given in the 1948-49 Year Book, p. 958.

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1945. | 131.8 | $132 \cdot 1$ | $130 \cdot 9$ | $130 \cdot 3$ | 132.4 | 137.2 | 138.0 | 137.8 | 139.4 | 142.5 | $145 \cdot 0$ | 146.6 |
| 1946. | $152 \cdot 1$ | $154 \cdot 1$ | $154 \cdot 5$ | 157.8 | 159.7 | $161 \cdot 6$ | 157.5 | 157.9 | 151.4 | 153.6 | $154 \cdot 7$ | 153.5 |
| 1947. | 157.5 | 158.5 | $156 \cdot 0$ | $153 \cdot 1$ | 154.3 | 155.8 | $155 \cdot 4$ | $153 \cdot 5$ | $153 \cdot 6$ | $152 \cdot 0$ | $150 \cdot 2$ | 148.1 |
| 1948. | 144.5 | 141.0 | 138.9 | 144-2 | 147.0 | 148.2 | 147.5 | 146.4 | 144.8 | 143.7 | $144 \cdot 6$ | 144.6 |
| 1949 | $144 \cdot 7$ | 144.0 | 142.8 | $140 \cdot 9$ | 139.9 | $136 \cdot 3$ | 138.6 | $140 \cdot 4$ | 141.8 | 145.8 | 150.0 | $150 \cdot 7$ |
| 1950 | 152.4 | 153.0 | 153.7 | $154 \cdot 4$ | 157-3 | 158.2 | $154 \cdot 6$ | $155 \cdot 6$ | 158.2 | $161 \cdot 1$ | $161 \cdot 1$ | $150 \cdot 2$ |
| 1951 | 166.0 | $169 \cdot 3$ | 166.0 | 165.2 | $164 \cdot 3$ | 162.2 | 163.1 | 165.2 | 166.4 | 164.2 | $162 \cdot 8$ | 159.5 |
| 1952 | 161.4 | $160 \cdot 6$ | $159 \cdot 5$ | $157 \cdot 2$ | 157-2 | 157.7 | 159.8 | 163.6 | 162.4 | 161.2 | $160 \cdot 3$ | $160 \cdot 7$ |
| 1953 | $161 \cdot 0$ | $161 \cdot 6$ | 163.6 | 161.6 | 162.9 | 163.0 | 163.8 | $164 \cdot 3$ | $162 \cdot 0$ | 161.0 | 161 -6 | 161-7 |
| 1954. | 162 -6 | 163.6 | 165.4 | 168.0 | 169.7 | 170.7 | 171-3 | 173.0 | $173 \cdot 4$ | $174 \cdot 1$ | 175-4 | 175-4 |

Mining Stocks.-Prices for mining stocks, after touching a 1952 low point of $99 \cdot 1$ in October, advanced to $\mathbf{1 0 6 \cdot 0}$ in January 1953 which subsequently proved to be the turning point for a decline that lowered the index to 79.9 by December. Both golds and base metals shared in the recession but the latter group suffered the greater loss. After reaching a peak of $\mathbf{1 8 0 \cdot 6}$ in January 1953 as compared with 166.9 in October 1952, the base metals index receded to 131.5 by December. Over the same period, gold stocks series moved between $69 \cdot 5$ for October 1952, 73.5 for January, and $57 \cdot 3$ for December. From the December 1953 level the total index increased 26.3 p.c. to $100 \cdot 9$ by December 1954. Golds advanced 18.0 p.c. during this period to $67 \cdot 6$, and base metals moved up $34 \cdot 8$ p.c. to $177 \cdot 2$ p.c.

## 11.-Weighted Index Numbers of Prices of Mining Stocks, by Month, 1951-54

( $1935-39=100$ )

| Year and Month | Gold | Base Metals | Total | Year and Month | Gold | Base Metals | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1951 |  |  |  | 1953 |  |  |  |
| January. | 68.8 | 163.5 | 97.6 | January. | 73.5 | $180 \cdot 6$ | 106.0 |
| February | $74 \cdot 3$ | $174 \cdot 5$ | 104-7 | February | $72 \cdot 2$ | 174-3 | $103 \cdot 2$ |
| March | 71.2 | $156 \cdot 7$ | 100-3 | March. | $70 \cdot 1$ | $174 \cdot 0$ | 101.7 |
| April | 66.8 | $165 \cdot 3$ | 96.7 | April. | 69.2 | 159.0 | 96.5 |
| May. | $63 \cdot 7$ | $153 \cdot 6$ | 92.5 | May. | 68.9 | 150.9 | 93.8 |
| June | $63 \cdot 7$ | $152 \cdot 3$ | $90 \cdot 6$ | June. | 66.8 | $1+3.7$ | 90.2 |
| July . | 65.5 | $155 \cdot 0$ | 92.7 | July. | $66 \cdot 3$ | 148.9 | 91.4 |
| August. | 69.7 | $161 \cdot 7$ | 97-7 | August. | $67 \cdot 5$ | 144.0 | $90 \cdot 7$ |
| September. | 73.7 | $173 \cdot 6$ | 104-0 | September | $62 \cdot 5$ | $136 \cdot 3$ | $85 \cdot 0$ |
| October. | 75-3 | $181 \cdot 2$ | 107.5 | October. | $60 \cdot 1$ | $134 \cdot 3$ | 82.7 |
| November | 71.9 | $172 \cdot 3$ | $102 \cdot 4$ | November | $60 \cdot 1$ | $137 \cdot 6$ | 83.7 |
| December | 73.2 | $172 \cdot 4$ | 103.4 | December | $57-3$ | 131.5 | 79.9 |
| 1952 |  |  |  | 1954 |  |  |  |
| January. | 72.0 | $177 \cdot 7$ | $104 \cdot 2$ | January.. | $60 \cdot 3$ | $131 \cdot 2$ | 81.9 |
| February | 71.2 | 174.6 | $102 \cdot 6$ | February | $62 \cdot 1$ | 132.0 | 83.4 |
| March. | 73.4 | $169 \cdot 6$ | $102 \cdot 7$ | March. | 61.5 | 136.5 | 84.3 |
| April. | 77.0 | $162 \cdot 1$ | $102 \cdot 8$ | April. | 64.8 | 145.5 | $89 \cdot 3$ |
| May. | 75.1 | 161-6 | $101 \cdot 4$ | May. | 64.4 | 146.5 | 89.4 |
| June. | $75 \cdot 5$ | 169.6 | 102.0 | June. | 63.9 | 149.7 | 90.0 |
| July | $76 \cdot 6$ | $176 \cdot 6$ | $107 \cdot 0$ | July. | $64 \cdot 9$ | 154-0 | $92 \cdot 0$ |
| August. | 77.6 | $184 \cdot 9$ | $110 \cdot 2$ | August | 67.8 | 159.2 | $95 \cdot 6$ |
| September | 74.4 | $180 \cdot 2$ | $106 \cdot 6$ | September | 68.3 | $160 \cdot 8$ | 96.4 |
| October. | $69 \cdot 5$ | 166.9 | 99.1 | October.. | $66 \cdot 2$ | 161.0 | $95 \cdot 0$ |
| November | 71.1 | 168.8 | 100.8 | Novemb | 65.6 | 168.7 | $97 \cdot 0$ |
| December | 73.2 | $172 \cdot 5$ | 103.4 | Decembe | $67 \cdot 6$ | $177 \cdot 2$ | 100-9 |

## Section 4.-Index Numbers of Bond Yields

The exceptional financial requirements of the war years 1914-18 turned the federal authorities to the domestic market, a field that had hitherto served mainly the needs of the provinces and municipalities. Historical records of long-term bond yields in the domestic market prior to 1914 are obtainable, therefore, from provincial and municipal sources only.

The growing importance of Federal Government financing in the domestic market since World War I made it advisable to publish the Government's index of long-term bond yields shown in Table 12. This series $(1935-39=100)$ has been prepared from January 1937 on the basis of yield computed for a 15 -year, 3-p.c. theoretical issue by the Bank of Canada.

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The easier tone for Government of Canada obligations, which developed in the second half of 1951, continued through 1952 and into 1953. There was, however, evidence of a more stable market in 1953 as indicated by the long-term bond yield index which hovered around $119 \cdot 0$. But a sharp reversal occurred in 1954 as the yield index dropped to 98.9 by December. This reflected to a large extent changes in interest rates abroad, particularly in the United States.

## 12.-Index Numbers of Government of Canada Long-Term Bond Yields, by Month, 1945-54

$(1935-39=100)$

| Month | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January. | 96.7 | $90 \cdot 0$ | 84.9 | $92 \cdot 1$ | 95.4 | $90 \cdot 1$ | 97.9 | 113.4 | 118.3 | 115.0 |
| February | $96 \cdot 6$ | 85.9 | $84 \cdot 7$ | $92 \cdot 1$ | 95.2 | $90 \cdot 3$ | 97.7 | 113.9 | 118.8 | 112.7 |
| March | 96.3 | $83 \cdot 8$ | $84 \cdot 6$ | 96.7 | $94 \cdot 7$ | 90.2 | $104 \cdot 6$ | $115 \cdot 1$ | 118.9 | $104 \cdot 7$ |
| April | 96.0 | $84 \cdot 3$ | 84.8 | 96.5 | 94.4 | 90.7 | $104 \cdot 9$ | $115 \cdot 3$ | 118.9 | $100 \cdot 2$ |
| May. | 96.0 | $85 \cdot 1$ | $84 \cdot 6$ | $95 \cdot 3$ | 94.4 | $90 \cdot 2$ | 104-9 | 112.6 | $119 \cdot 6$ | 99.7 |
| June. | $95 \cdot 6$ | 84.9 | $84 \cdot 3$ | $95 \cdot 4$ | 94.4 | $90 \cdot 2$ | 105-3 | 114.0 | $120 \cdot 6$ | 99.7 |
| July | $94 \cdot 6$ | $85 \cdot 1$ | 83.8 | $95 \cdot 6$ | 93.8 | 91.0 | 104-7 | $117 \cdot 3$ | 120.7 | $97 \cdot 9$ |
| August | 94.4 | $85 \cdot 0$ | 83.9 | 96.2 | 92.7 | 90.5 | $104 \cdot 9$ | $119 \cdot 1$ | 121.0 | $97 \cdot 3$ |
| Septembe | $94 \cdot 6$ | 84.9 | 84.0 | $96 \cdot 1$ | 91.8 | 89.8 | $105 \cdot 0$ | $119 \cdot 6$ | 121.5 | $97 \cdot 9$ |
| October | $94 \cdot 4$ | 85.0 | $84 \cdot 2$ | $96 \cdot 3$ | $89 \cdot 1$ | $92 \cdot 0$ | $105 \cdot 7$ | 118.6 | $120 \cdot 8$ | $98 \cdot 1$ |
| Novemb | $93 \cdot 9$ | $85 \cdot 0$ | 84.4 | $95 \cdot 7$ | $89 \cdot 2$ | 93.9 | 107.8 | 117.8 | 118.8 | 98.8 |
| December | $92 \cdot 2$ | $85 \cdot 0$ | 84.8 | $95 \cdot 5$ | $90 \cdot 3$ | 96.7 | $112 \cdot 0$ | 118.0 | $117 \cdot 3$ | 98.9 |

## CHAPTER XXIV.-PUBLIG FINANCE*

## CONSPECTUS

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Nore.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

## Section 1.-Combined Statistics of Public Finance for All Governments

Combined statistics of public finance for all governments in Canada-federal, provincial and municipal-are presented in this Section. Additional information is provided for each level of government in Sections 2, 3 and 4.

Combined Revenue and Expenditure.-Tables 1 and 3 give details of the federal, provincial and municipal net combined revenue by sources and net combined current and capital expenditure by services, respectively, for 1951. This net basis has been prepared by deducting from revenue, and the appropriate expenditure, certain specified amounts such as grants-in-aid and shared-cost contributions from other governments, institutional revenue, certain other sales of commodities and services, and interest, premium, discount and exchange revenue. Amounts provided for debt retirement are excluded to avoid duplication since all expenditure resulting from capital borrowings is included.

Inter-governmental transfers such as subsidy payments by the Federal Government to the provincial governments are unconditional grants and, therefore, cannot be offset against any specific expenditure. These are set out separately in Tables $\mathbf{1}$ and $\mathbf{3}$ in order to prevent duplication and to provide additive totals. Because of the differing accounting practices of governments and variations in fiscal year-ends, discrepancies appear between the amounts recorded as inter-governmental transfers in the two tables.

Tables 2 and 4 show combined revenue of all governments, and combined expenditure of all governments, respectively, for the years 1948-51, both exclusive of inter-governmental transfers.

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## 1.-Combined Revenue of All Governments, 1951

Nore.-Figures for the fiscal years ended nearest Dec. 31.

| Item | Federal | Provincial | Municipal ${ }^{1}$ | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | \$'000 |
| Taxes- |  |  |  |  |
| Corporation. | 1,143,953 | 188,457 | - | 1,332,410 |
| Customs duties and import. | 347,208 | - | - | 347,208 |
| Gasoline. | - | 178,461 | - | 178, 461 |
| General sales. | 573,471 | 90,675 | 27,807 | 691,953 |
| Income-persons. | 976,888 | 65 | - | 976,953 |
| Liquor ${ }^{2}$. ${ }^{\text {. }}$ | 119,939 | 144,163 | - | 264,102 |
| Succession duties. | 38,208 | 34,190 | - | 72,398 |
| Real and personal property. | - | 6,324 | $468,716^{3}$ | 475,040 |
| Tobacco. | 206,945 | 9,829 | - | 216,774 |
| Withholding. | 55,017 | - | - | 55,017 |
| Other. | 203,513 | 53,258 | 63,158 | 319,929 |
| Totals, Taxes. | 3,665,142 | 705,422 | 559,681 | 4,930,245 |
| Licences, Permits and Fees- |  |  |  |  |
| Motor-vehicle. | 270 | 72,700 | - | 72,970 |
| Other. | 6,028 | 20,835 | 16,343 | 43,206 |
| Totals, Licences, Permits and Fees............. | 6,298 | 93,535 | 16,343 | 116,176 |
| Public domain. | 2,685 | 131,658 | - | 134,343 |
| Public utility contributions to municipalities........... | - | - | 29,323 | 29,323 |
| Post Office (net)........................................ | 6,695 | - | - | 6,695 |
| Bank of Canada profits................................ | 24,018 | - | - | 24,018 |
| Bullion and coinage. | 4,838 | - | - | 4,838 |
| Miscellaneous revenue. | 29,6774 | 14,793 | 45,459 | 89,929 |
| Totals, Revenue (excluding Inter-governmental Transfers). | 3,739,353 | 945,408 | 650,806 | 5,335,567 |
| Inter-governmental Transfers- |  |  |  |  |
| Federal subsidies to provinces...................... | - | 20,022 | - | 20,022 |
| Subsidies to municipalities......................... | - | - | 20,455 | 20,455 |
| Transitional grant to Newfoundland............... | - | 6,500 | - | 6,500 |
| Dominion-Provincial Taxation Agreements. . . . . . . . | - | 95,731 | - | 95,731 |
| Share of income tax on power utilities............... | - | 3,713 | - | 3,713 |
| Nova Scotia highway tax........................ | - | 245 | - | 245 |
| Manitoba Municipal Commissioner's levy ............ | - | 520 | - | 520 |
| Interest on Common School Fund. | - | 134 | - | 134 |
| Totals, Inter-governmental Transfers. | - | 126,865 | 20,455 | 147,320 |
| Grand Totals, 1951. | 3,739,353 | 1,072,273 | 671,261 | 5,482,887 |

${ }^{1}$ Revenue of municipalities in the Province of Quebec is estimated. ${ }^{2}$ Includes provincial profits from liquor control. ${ }^{3}$ Excludes personal property which is inseparable from other taxes. $\quad{ }^{4}$ Includes $\$ 1,786,000$ of excess of refunds over expenditure re expansion of industry. ${ }^{\circ}$ Includes federal grants to municipalities in lieu of taxes on federal properties which are not segregated from provincial subsidies to municipalities.

## 2.-Combined Revenue of All Governments, exclusive of Inter-governmental Transfers, 1948-51

Norg.-Figures for the fiscal years ended nearest Dec. 31. Revenue of municipalities in the Province of Quebec is estimated.

| Item | 1948 | 1949 | 19501 | $1951{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | \$'000 |
| Taxes- | 646,296 | 732,380 | 989,588 | 1,332,410 |
| Customs duties and import | 223,786 | 226,403 | 296,433 | 1,347,208 |
| Gasoline............ | 124,305 | 137,759 | 155,441 | 178, 461 |
| General sales. | 440,502 | 481,343 | 561,356 | 691,953 |
| Income-persons. | 762,749 | 622,104 | 652,444 | 976.953 |
| Liquor ${ }^{2}$. | 229,712 | 241,513 | 268,118 | 264,102 |
| Succession duties. | 54,672 | 59,084 | 64,815 | 72.398 |
| Real and personal property ${ }^{2}$ | 341,265 | 373,759 | 405,617 | 475,040 |
| Tobacco. | 199,398 | 215,912 | 216.998 | 216.774 |
| Withholding | 43,445 | 47,475 | 61,610 | 55.017 |
| Other.. | 237,450 | 168,356 | 230.986 | 319,929 |
| Totals, Taxes | 3,303,580 | 3,306,088 | 3,903,406 | 4,930,245 |
| Licences, Permits and Fees- |  |  |  |  |
| Motor-vehicle. Other........ | 51,471 30,793 | 58,198 33,472 | 66,948 37,681 | 72,970 43,206 |
| Totals, Licences, Permits and Fees. | 82,264 | 91,670 | 104,629 | 116,176 |
| Public domain. | 74,228 | 94,218 | 116,406 | 134,343 |
| Public utility contributions to municipalities | 20.415 | 23,718 | 24,469 | 29,323 |
| Post Office (net). | 3,011 | 1,933 |  | 6,695 |
| Bank of Canada profits | 19,107 | 20,442 | 19,663 | 24,018 |
| Bullion and coinage. | 3,253 | 4,524 | 4.708 | 4,838 |
| Miscellaneous revenue | 168,330 | 111,302 | 120,020 | 89,929 |
| Totals, Revenue (excluding Inter-governmental Transfers) | 3,674,188 | 3,653,895 | 4,293,301 | 5,335,567 |

${ }^{1}$ Includes provincial and municipal revenue of Newfoundland. ${ }^{2}$ Includes provincial profits from liquor control. ${ }^{3}$ Excludes personal property for municipal governments which is inseparable from other taxes. ${ }^{4}$ Expenditure exceeds revenue. See Table 3 where net excess is included under
"Other Expenditure".

## 3.-Combined Expenditure of All Governments, 1951

Notz.-Figures for the fiscal years ended nearest Dec. 31.

| Item | Federal | Provincial | Municipal ${ }^{1}$ | Total |
| :---: | :---: | :---: | :---: | :---: |
| Public Welfare- | \$'000 | \$'000 | \$'000 | \$'000 |
| Health and hospitsl care. | 28,813 | 166.225 | 45,727 | 240,765 |
| Labour and unemployment insurance | 56,594 | 4,749 |  | 61,343 |
| Relief..... |  | 12,864 | 6,787 | 19,651 |
| Old age pensions. | 132,742 | 35,364 |  | 168, 106 |
| Family sllowances | 322,317 |  | 68.636 | 322,317 |
| Other..... | 20,277 | 48,950 | 68,636 | 137,863 |
| Totals, Public Welfare. | 560,743 | 268,152 | 121,150 | 950,045 |
| Education. | 21,102 | 191,768 | 270,799 | 483,669 |
| Transportation | 148,839 | 302.829 | 121,222 | 572,890 |
| Agriculture..... | 70,734 | 25,509 | - | 96.243 |
| Public domain.. | -51.087 | 60,999 | - | 112,086 |
| National defence. | 1,400.709 | - | - | 1,400.709 |
| Veterans' pensions and afterca | 198,230 | - | - | 198,230 |
| Expansion of industry. . . . . . . . . . . . . . . . . . . . . . . |  | - | - |  |
| Price control and rationing., ......................... Debt charges, net (excluding retirements).......... | 205 432.516 | $\overline{50,641}$ | 35,688 | 205 518,845 |
| Other expenditure. | 399,761 | 139,472 | 223,958 | 763,191 |
| Totals, Erpenditure (excluding Inter-governmental Transfers). | 3,283,926 | 1,039,370 | 772,817 | 5,096,113 |

For footnotes, see end of table.

## 3.-Combined Expenditure of All Governments, 1951-concluded

| Item | Federal | Provincial | Municipal ${ }^{1}$ | Total |
| :---: | :---: | :---: | :---: | :---: |
| Inter-governmental Transfers- | \$'000 | \$'000 | \$'000 | \$'000 |
| Federal subsidies to provinces. | 20,108 | - | - | 20,108 |
| Transitional grant to Newfoundland. | 6,500 | - 7 | - | 6,500 |
| Provincial subsidies to municipalities. |  | 19,723 | - | 19,723 |
| Dominion-Provincial Taxation Agreements | 96,868 |  | - | 96,868 |
| Share of income tax on electric power utilities | 3,732 | - | - | 3,732 |
| Nova Scotia highway tax......... | - | - | 246 | 246 |
| Manitoba Municipal Commissioner's levy........... |  | - | 486 | 486 |
| Interest on Common School Fund................. | 134 | - | - | 134 |
| Grants to Municipalities in lieu of taxes on federal properties. | 2,062 | - | - | 2,062 |
| Totals, Inter-governmental Transfers.......... | 129,404 | 19,723 | 732 | 149,859 |
| Grand Totals. | 3,413,330 | 1,059,093 | 773,549 | 5,245,972 |

${ }^{1}$ Expenditure of municipalities in the Province of Quebec is estimated.
${ }^{2}$ Refunds of expenditure exceeded expenditures. Excess included in Table 1 under "Miscellaneous Revenue".

## 4.-Combined Expenditure of All Governments, exclusive of Inter-governmental Transfers, 1948-51

Nots.-Figures for the fiscal years ended nearest Dec. 31. Expenditure of municipalities in the Province of Quebec is estimated.

| Item | 1948 | $1949{ }^{1}$ | $1950{ }^{1}$ | $1951{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | \$'000 |
| Public Welfare- Health and hospital care | 137,738 | 194,579 | 215,599 | 240,765 |
| Labour and unemployment insurance. | 45,466 | 52,182 | 60,361 | 61,343 |
| Relief. . . | 10,992 | 18,754 | 17,708 | 19,651 |
| Old age pensions | 93,938 | 127,906 | 139,912 | 168,106 |
| Family allowances | 272,608 | 299,347 | 311,277 | 322,317 |
| Other.. | 98,705 | 117,812 | 129,847 | 137,863 |
| Totals, Public Welfare. . . . . . . . . . . . . . . . . . . . . . | 659,447 | 810,580 | 874,704 | 950,045 |
| Education. | 364,405 | 406,590 | 446,190 | 483,669 |
| Transportation | 467,703 | 514,022 | 489,296 | 572,890 |
| Agriculture. | 89,971 | 107,700 | 202,603 | 96,243 |
| Public domain. | 91,304 | 103,602 | 68,436 | 112,086 |
| National defence. | 256,092 | 372,596 | 759,779 | 1,400,709 |
| Veterans' pensions and aftercare | 235, 578 | 202,466 | 191,777 | 198,230 |
| Price control and rationing. | 30,721 | 2,748 |  | 205 |
| Debt charges, net (excluding retirements) | 475,136 | 490,159 | 446,360 | 518,845 |
| Other expenditure........................ | 450,257 | 493,159 | 621,472 | 763,191 |
| Totals, Expenditure (excluding Inter-governmental Transfers). | 3,120,614 | 3,503,622 | 4,100,617 | 5,096,113 |

${ }^{1}$ Includes provincial and municipal expenditure of Newfoundland.
Combined Debt.-Tables 5 and 6 give details of combined debt of all governments. Table 5 shows the aggregate debt of the federal, provincial and municipal governments and the inter-governmental debt which is deducted to arrive at a combined government figure. Table 6 shows the combined debt, exclusive of intergovernmental debt for the years 1948-51 inclusive.

## 5.-Composition of Total Debt of All Governments, 1951 <br> Nore.-Figures for fiscal years ended nearest Dec. 31.

| Item | Federal | Provincial | Municipal | Total | Deduct Inter-governmental Debt | Combined Governmental Debt |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | $8 ' 000$ | \$'000 | \$'000 | \$'000 |
| Funded debt Less Sinking F | $\begin{array}{r} 13,280,242 \\ 25,903 \end{array}$ | $2,211,084$ 364,929 | $1,392,265$ 104,094 | $\begin{array}{r} 16,883,591 \\ 494,926 \end{array}$ | 18,205 | $\begin{array}{r} 16,865,386 \\ 494,926 \end{array}$ |
| Net funded debt | 13,254,339 | 1,846,155 | 1,288, 171 | 16,388,665 | 18,205 | 16,370,460 |
| Treasury bills. | 1,400,000 ${ }^{1}$ | 153,122 | 2,935 | 1,556,057 | 87,206 | 1,468,851 |
| Savings deposits | 38,031 | 1,548 |  | 39,579 | - | 39,579 |
| Temporary loans. |  | . 996 | 89,692 | -90,688 | 119.657 | -90,688 |
| Other direct liabilities | $3,302,342^{2}$ | 195,614 | 202,673 | 3,700,629 | 119,657 | 3,580,972 |
| Totals, Direct Debt (less Sinking Funds)...... | 17,994,712 | 2,197,435 | 1,583,471 | 21,775,618 | 225,068 | 21,550,550 |
| Indirect Debt- |  |  |  |  |  |  |
| Guaranteed bonds........ Less Sinking Funds. | $\begin{array}{r} 620,622^{3} \\ 7,482 \end{array}$ | $\begin{array}{r} 900,558 \\ 4,885 \end{array}$ | 23,888 750 | $\begin{array}{r} 1,545,068 \\ 13,117 \end{array}$ | 12,992 54 | $\begin{array}{r} 1,532,076 \\ 13,063 \end{array}$ |
| Net guaranteed bonds. | 613,140 | 895,673 | 23,138 | 1,531,951 | 12,938 | 1,519,013 |
| Loans under the Municipal Improvement Assistance |  |  |  |  |  |  |
| Act, 1938............. | - | 3,945 | - | 3,945 | 3,945 | - |
| other indirect liabilities. | 69,2044 | 47,991 | - | 117,195 | 8,218 | 108,977 |
| Totals, Indirect Debt (Iess Sinking Funds). | 682,344 | 947,609 | 23,138 | 1,653,091 | 25,101 | 1,627,990 |
| Grand Totals. | 18,677,056 | 3,145,044 | 1,606,609 | 23,428,709 | 250,169 | 23,178,540 |

${ }^{1}$ Includes $\$ 200,000,000$ deposit certificates and $\$ 750,000,000$ six-month treasury bills. ${ }^{2}$ Excludeg provincial debt account of $811,920,000$ and includes Unemployment Insurance Fund investment securities of $\$ 774,867,000$. ${ }^{3}$ Includes guaranteed and unguaranteed bonds of the Canadian National Railways as at Mar, 31, to correspond with fiscal year-end of the Federal Government. -Excludes contingent liability in respect of Federal Government guarantee of deposits maintained by chartered banks in the Bank of Canada, miscellaneous guarantees the amounts of which were not finally determined or were indeterminate at the close of the fiscal year, and contingent liabilities of the Canadian National Railways.

## 6.-Combined Debt of All Governments, exclusive of Inter-governmental Debt, 1948-51

Note.-Figures for fiscal years ended nearest Dec. 31. The debt of municipalities in the Province of Quebec is estimated.

| Item | 1948 | 1949 | $1950{ }^{1 \times}$ | $1951{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: |
| Direct Debt- | \$'000 | \$'000 | 8'000 | \$'000 |
| Funded debt | 16,810,054 | 16,763,373 | 16,708,748 | 16,865,386 |
| Less Sinking Funds. | 399, 158 | 499,992 | 464,403 | 494,926 |
| Net funded debt | 16,410,896 | 16,263,381 | 16,244,345 | 16,370,460 |
| Treasury bills. | 1,339,872 | 1,339,681 | 1,463,835 | 1,468,851 |
| Savings deposits | 104,761 | 107,746 | 39,432 | 39,579 |
| Temporary loans.: | 71,409 | 87,896 | 88,985 | 90,688 |
| Other direct liabilitie | 2,196,743 | 2,372,761 | 2,786,373 | 3,580,972 |
| Totals, Direct Debt (less Sinking Funds) | 20,123,681 | 20,171,465 | 20,622,970 | 21,550,550 |
| Indireet Debt- |  |  |  |  |
| Guaranteed bonds. | 1,194,630 | 1,405,206 | 1,517,400 | 1,532,076 |
| Less Sinking Funds | 31,331 | 29,738 | 33,817 | 13,063 |
| Net guaranteed bonds.......... | 1,163,299 | 1,375,468 | 1,483,583 | 1,519,013 |
| Guaranteed bank loans and other indirect liabilities | 80,637 | 116,507 | 102,800 | 108,977 |
| Totals, Indirect Debt (less Sinking Funds) | 1,243,936 | 1,491,975 | 1,586,383 | 1,627,990 |
| Grand Totals. | 21,367,617 | 21,663,440 | 22,209,353 | 23,178,540 |

${ }^{1}$ Includes provincial and municipal debt of Newfoundland.
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## Section 2.-Federal Public Finance

A sketch of public finance from the French regime to the outbreak of World War I appears in the 1941 Year Book, pp. 742-743. Detailed sketches re tax changes from 1914 to 1938 will be found in issues of the Year Book beginning with the 1926 edition. An outline of the financing of Canada's war effort, including the more important changes in taxation during the war years from 1939 to 1945, is given in the 1945 Year Book, pp. 918-923. Budgets for the years ended Mar. 31, 1946-51 will be found in issues of the Year Book beginning with the 1946 edition. The most important post-war Budget changes, up to and including the 1952-53 Budget, are summarized in the 1952-53 Year Book, pp. 1026-1030. The post-war financial policy of the Government of Canada is outlined in the 1954 Year Book at pp. 1061-1064.

The 1954-55 Budget.-The Budget for 1954-55 was presented by the Minister of Finance on Apr. 6, 1954. A number of changes in the tax rate structure were proposed. The more important of these are outlined briefly as follows:-

An amendment to re-establish past policy with respect to the tax status of fire and casualty mutual insurance companies withdrew the provision in the income tax regulations which limits the deductions for capital costs to the amount taken on the taxpayers' books of account.

No immediate provisions were recommended in the succession duty law, but it was announced that work had commenced on rewriting the present statutory provisions.

No increases in customs tariff were proposed, and the duty was eliminated on machinery and apparatus, including tubing of a type not made in Canada, for use in operation of potash and rock-salt mines. Duty free entry was provided for materials and parts used in the construction and repair of railway signal systems. The duties on motor rail cars or units were suspended until July 1, 1956, and on uranium until July 1, 1958.

Some of the principal items on which the tariff was substantially reduced included automatic controls for certain sterilizing processes, tear gas ammunition for use by law enforcement authorities and impregnated jute fabric used by nurserymen. The exemption, from duty and taxes, of motor-vehicles imported as settlers' effects, was increased from a valuation of $\$ 1,500$ to $\$ 2,500$.

Certain items were added to the schedule of exemption with regard to the sales tax: for example, road machinery and fire-fighting equipment (when purchased for use by municipalities), wall panels, sheet music and hearing aids-but no change was proposed in the general sales tax rate. It was expected that a total annual revenue loss under all sales tax changes would be about $\$ 3,000,000$.

Some changes were recommended with regard to the 15 p.c. special excise tax. This was reduced from 15 p.c. to 10 p.c. on items such as soft drinks, candy, cosmetics, tires and tubes, motorcycles, smokers' accessories, clocks, watches and jewellery, and was removed completely from furs, electrical household appliances, certain types of sporting goods, and luggage.

A technical change was made in the method of taxing beer: the tax on malt being replaced by a gallonage tax. A loss of about $\$ 36,000,000$ in annual revenue is expected.

Total revenue, after taking into account these tax changes, was expected to amount to $\$ 4,464,000,000$, plus old age security taxes of approximately $\$ 305,000,000$. Estimated expenditures amount to $\$ 4,460,000,000$. Total ordinary revenue for
the fiscal year ending Mar. 31, 1954, amounted to $\$ 4,321,771,000$; special receipts and credits amounted to $\$ 74,548,000$. Grand total revenue was $\$ 4,396,320,000$ and expenditures were $\$ 4,350,522,000$ resulting in an excess of revenue over expenditure or a decrease in the net debt of $\$ 45,797,000$.

## Subsection 1.-Balance Sheets of the Federal Government

Table 7 shows the balance sheets of the Federal Government as at Mar. 31, 1953 and 1954. The figures of this table are on a basis not strictly comparable to those in previous Year Books, chiefly because of changes in the method of accounting for cash.

7.-Balance Sheet of the Federal Government, as at Mar. 31, 1953 and 1954

| Assets | 1953 | 1954 |
| :---: | :---: | :---: |
| Assets- | \$ | \$ |
| Cash and Other Current Assets- |  |  |
| Cash in current and special deposits. | 255,836,979 | 359,909,146 |
| Cash in hands of collectors and in transit. ....................... | 129,693,034 | 123,643,105 |
| Cash in miscellaneous departmental imprest and advance accounts. . Other Liquid Assets- | 11,142,586 | 1 |
| Exchange Fund account-advances represented by cash and securities. | 1,770,789,386 | 1,763,768,540 |
| Securities investment account. | 159,472,985 | 18,012,950 |
| Working Capital Advances- |  |  |
| Crown corporations. ............................................ | 23,927,192 | 22,711,692 |
| Defence Production Revolving Fund.............................. | 102,110,487 | 80,243,742 |
| Temporary loan to Old Age Security Fund | 99,483, 324 | 45,837,905 |
| Departmental. | 96,019,433 | 42,456,068 |
| Miscellaneous accountable | 12,795,715 | 35,239,640 |
| Miscellaneous accounts receivable. | 30,538,798 | 22,466,483 |
|  | 2,591, 809,919 | 2,514,289,271 |

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## 7.-Balance Sheet of the Federal Government, as at Mar. 31, 1953 and 1954-continued

| Assets and Liabilities | 1953 | 1954 |
| :---: | :---: | :---: |
|  | 8 | \$ |
| Assets-concluded |  |  |
| Loans to, and investments in, Crown agencies- |  |  |
| Bank of Canada-capital stock............... | 5,920,000 | 2 |
| Central Mortgage and Housing Corporation-capital and loans | 432,534,975 | 531, 350,210 |
| Canadian Farm Loan Board-capital stock and loans. | 28,921,347 | 32,619,949 |
| Railway and steamship companies................... | 1,045,687,379 | 1,027,445,275 ${ }^{3}$ |
| Miscellaneous.. | 192,124,119 | 203,666,348 |
|  | 1,705,187,820 | 1,795,081,782 |
| Other Loans and Investments- |  |  |
| To provincial and municipal governments. | 87,246,392 | 83,577,461 |
| To United Kingdom and other governments | 1,864,894,875 | 1,772,347,300 |
| Canada's Subscription to Capital of - |  |  |
| International Monetary Fund........... . . . . . . . . . . . . . . . . | 322,502,497 | 322,502,497 |
| International Bank for Reconstruction and Development. ........ | 70, 864, 349 | 70,864, 349 |
| Soldier Settlement and Veterans Land Act loans. | 162,665,595 | 162,015,272 |
| Miscellaneous......................... | 17,928,054 | 26,589,641 |
|  | 2,526,101,762 | 2,437,896,520 |
| Sinking fund and other investments held for retirement of unmatured funded debt. <br> Province debt accounts. | 27,625,178 | 101,850,768 |
|  | 2,296,152 | 2,296,152 |
| Deferred Charges- |  |  |
| Unamortized discounts and commissions on loans ............. $60.659,579$ 70,926,393 |  |  |
| Unamortized portio not Civil Service Superannuation Accountliability.................................................................. | 189,000,000 | 189,000,000 |
|  | 249,659,579 | 259,926,393 |
| Sundry suspense accounts.......................................... | 199,943,521 | 192,295,616 |
| Gross Totals, Aetive Assets | 7,302,623,931 | 7,303,636,502 |
| Less: Reserve for possible losses on ultimate realization of active assets. | 545,867,388 | 496,384,065 |
| Net Totals, Active Assets......................................... | 6,756,756,543 | 6,807,252,437 |
| Net Debt- |  |  |
| Non-active Assets- |  |  |
| Capital expenditures.............................................. | 1,125,550, 860 | 1,154,616,455 |
| Other ........................................................ | 556,281,473 | 561,304,088 |
| Consolidated deficit account. | 9,479,901,936 | 9,400,016,521 |
| Totals, Net Debt | 11,161,734,269 | 11,115,937,064 |
| Totals, Gross Debt | 17,918,490,812 | 17,923,189,502 |
| Liabilities- ${ }^{\text {a }}$ |  |  |
| Floating Debt-- |  |  |
| Matured funded debt outstanding. | 20,017,378 | 68,247,172 |
| Notes and other obligations payable on demand.................... | 282,000,828 | 268, 673,566 |
| Interest due and outstanding....................................... | 57, 105,303 | 56,339,424 |
| Outstanding cheques and warrants | $230,769,091$ $257,585,611$ | 249, 20247,5303 |
| Post Office account................................................. | 25,423,585 | 23,656,800 |
|  | 863,901,795 | 868,525,819 |
| Deposit and Trust Accounts- |  |  |
| Post Office Savings Bank. | 39,322,230 | 37,792,914 |
| Miscellaneous........................................................... | $22,541,594$ $121,203,568$ | - $143,308,191$ |
|  | 183,067,752 | 204, 134,009 |

For footnotes, see end of table.
7.-Balance Sheet of the Federal Government, as at Mar. 31, 1953 and 1954-concluded

| Liabilities | 1953 | 1954 |
| :---: | :---: | :---: |
|  | \$ | \$ |
| Labillties-concluded <br> Insurance, Pension and Guaranty Accounts- |  |  |
| Insurance, Pension and Guaranty AccountsGovernment annuities | 736,540,927 | 798,454,014 |
| Insurance and guaranty funds. | 77,929,446 | ${ }_{5}$ |
| Pension and retirement funds. | 752, 659,174 | ${ }^{5} 5$ |
| Superannuation account . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . |  | 656,667,961 |
| Permanent Services pension account Miscellaneous.................... | 二 | $\begin{aligned} & 217,157,456 \\ & 100,611,473 \end{aligned}$ |
|  | 1,567,129,547 | 1,772,890,904 |
| Deferred Credits- |  |  |
| Interest accrued on public debt. | 113,416,921 | 125,424,745 |
| Miscellaneous............... | 16,529,332 | 25,913,884 |
|  | 129,946,253 | 151,338,629 |
| Sundry Suspense Accounts- |  |  |
| Defence equipment replacement................................... | 271, 133, 711 | 305.722,925 |
| Miscellaneous.............................................. | 32,940,863 | 32,488,997 |
|  | 351,997,908 | 338,211,922 |
| Province Debt Accounts. | 11,919,968 | 11,919,969 |
| Funded Debt Unmatured- |  |  |
| Payzble in Canada- |  |  |
|  | $14,416,039,540$ $52,904,299$ | $14,184,058,110$ $51,070,140$ |
| Payable in New York............................................... | 341,583,750 | 341,040,000 |
|  | 14,810,527,589 | 14,576, 168,250 |
| Totals, Liabilities or Gross Debt. | 17,918,490,812 | 17,923,189,502 |

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## Subsection 2.-Revenue and Expenditure

In the fiscal year ended Mar. 31, 1954, Federal Government revenue amounted to $\$ 4,396,000,000$ compared with $\$ 4,361,000,000$ in the previous year, an increase of $\$ 35,000,000$. During the same period, expenditure increased by $\$ 13,000,000$ from $\$ 4,337,000,000$ to $\$ 4,351,000,000$. The surplus of revenue over expenditure for the fiscal year was $\$ 46,000,000$.

Tax revenue was $\$ 6,000,000$ greater than in the previous fiscal year and nontax revenue increased $\$ 38,000,000$. Special receipts and other credits decreased by $\$ 9,000,000$.
8.-Details of Revenue, Years Ended Mar. 31, 1952-54

| Revenue | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
| Ordinary RevenueTax Revenue- |  |  |  |
| Customs import duties. | 346,364,563 | 389,442,109 | 407,312,241 |
| Excise duties . | 217,939,983 | 241,360,370 | 226,732,460 |
| Incorne tax ${ }^{1}$ | 2,161,373,408 ${ }^{2}$ | 2,473,790,089 ${ }^{2}$ | 2,432,603,505 ${ }^{2}$ |
| Excess profits tax | 2,364,909 |  | , ${ }^{\text {2 }}$ |
| Sales tax (net).. | $573,470,562^{2}$ | 566, 233, 1672r | 587,331,544 ${ }^{2}$ |
| Succession duties | $38,207,985$ $318,053,672$ | $\begin{array}{r}38,070,530 \\ 288,696 \\ \hline\end{array}$ | 39, 137,594 |
| Totals, Tax Revenue. | 3,657,775,082 | 3,997,592,937 | 4,003,584,453 |

For footnotes, see end of table p. 1134.
8.-Details of Revenue, Years Ended Mar. 31, 1952-51-concluded

| Revenue | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: |
| Ordinary Revenue-concluded <br> Non-tax Revenue- |  |  |  |
|  |  |  |  |
| Post Office................ | 104,610,122 | 111,904,487 | 110,952,751 |
| Return on investments ${ }^{3}$. | 117,621,906 | 116,905,516 | 151,857,858 |
|  | 4,838,495 | 4,386,195 | 4,241,246 |
|  | 54,901,137 | 46,938,466 | 51,134,970 |
| Totals, Non-tax Revenue. . . . . . . . . . . . . . . . . . . | 281,971,660 | 280,134,664 | 318,186,825 |
| Tetals, Ordinary Revenue................... | 3,939,746,742 | 4,277,727,601 | 4,321,771,278 |
| Special Receipts and Other Credits................. | 41,161,910 | 83,095,188 | 74,548,305 |
| Grand Totals, Revenue.................... | 3,980,908,652 | 4,360,822,789 | 4,396,319,583 |

${ }^{1}$ Includes personal corporations and income tax on interest, dividends, rents and royalties going abroad ${ }^{2}$ Excludes tax credited to Old Age Security Fund. ${ }^{2}$ Includes interest on investments, and profits o the Bank of Canada.

## 9.-Details of Expenditure, Years Ended Mar. 31, 1952-54

| Expenditure | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
| Finance. | 873,613,548 | 946,967, 875 | 971,375,876 |
| Public Debt Charges- |  |  |  |
| Interest on public debt. | $519,985,151{ }^{1}$ | 451,389,581 | 476,061,625 |
| Annual amortization of bond discounts and commissions | 9,665,895 | 11,981,787 | 17,796,353 |
| Servicing of public debt Cost of loan flotation. | 384,889 $1,051,474$ | 508,411 $1,089,578$ | 604,408 $1,265,762$ |
| Totals, Public Debt Charges | 651,034,809 | 464,919,297 | 495,728,146 |
| Provincial subsidies and tax rental paym | 187,208, 186 | 338,699,912 | 340,967,635 |
| Government contribution to Civil Service Superannu |  |  |  |
| Account.............................. | 110,910,777 | 38,801,864 | 54,450,680 |
| Reserve for possible losses on realization of active assets. | 75,000,000 | 75,000,000 | 50,000,000 |
| Other................................................... | 29,459,826 | 29,546,862 | 30,289,475 |
| Agriculture | 67,134,389 | 106,710,890 | 108,361,384 |
| Freight assislance of western feed grains | 14,999, 240 | 20,661, 349 | 16,898,758 |
| Other....................... | 52, 136,149 | 86,049,541 | 91, 862,632 |
| Auditor General's Office | 601,128 | 576,211 | 614,880 |
| Canadian Broadeasting Corpor |  | 8,235,311 | 24,996,275 |
| Chief Electoral Officer. | 367,736 | 464,487 | 5,527,130 |
| Citizenship and Immigratio | 23,240,788 | 23,646,348 | 28, 478, 651 |
| National Film Board. |  |  | 2,997,528 |
| Civil Service Commission | 1,691,663 | 1,909,508 | 2,051,348 |
| Defence Production. | 30,978,479 | 88,817,141 | 47,898,563 |
| Capital assistance to defence industry | 22,694,911 | 79,079,468 | 37, 884,896 |
| Other. | 8,283,568 | 9,737,688 | 10,073,667 |
| External Affairs | 37,582,459 | 39,251,463 | 45,718,964 |
| Fisheries. | 8,733,025 | 10,776,926 | 9,254,771 |
| Governor General and Lieutenan | 275, 114 | 396,924 | 399, 086 |
| Insurance. | 403,336 | 448, 619 | 492,239 |
| Justice, including Penitentiaries | 14,038,715 | 14,908, 495 | 15,017,396 |
| Labour. . . . . . . . . | 64,302,099 | 67,021,861 | 67,561,441 |
| Unemployment Insurance Act, administration and Government contribution. | 65,844,691 | 56,168,859 | 67,919,075 |
| Government annuities (payment required to maintain reserve) <br> Other. | $\begin{array}{r} 940,138 \\ 9,517,270 \end{array}$ | $\begin{array}{r} 748,617 \\ 10,109,885 \end{array}$ | $\begin{array}{r} 98,911 \\ 9,545,455 \end{array}$ |
| Legislation | 5,945,263 | 6,157,261 | 5,600,210 |
| Mines and Technical Surveys | 27,751,836 | 29,658,169 | 38,536,620 |
| National Defence.......... | 1,415,473,862 | 1,882,418,468 | 1,805,914,922 |
| Defence Appropriation Act | 126,415,799 | 235,063,387 | 289,707,408 |
| Other.. | 1,289,058,06s | 1,647,365,141 | 1,516,207,516 |

9.-Details of Expenditure, Years Ended Mar. 31, 1952-54—concluded

${ }^{1}$ Includes $\$ 87,510,068$ adjustment required to place interest on public debt on accrual basis. $\quad{ }^{2}$ Canadian Broadcasting Corporation now operated as a separate administrative unit; previously shown under National Revenue. ${ }^{2}$ See Resources and Development.

4 Pensions under the Old Age Security Act of 1951 (effective January, 1952) are paid out of the Old Age Security Fund account and are not recorded under departmental expenditure. See pp. 264-267. 5 Name of Department changed to Northern Affairs and National Resources. ©See Citizenship and Immigration. ${ }^{2}$ See Public Works.

## 10.-Per Capita Revenue and Expenditure, by Principal Items, Years Ended Mar. 31, 1952-54

Nore.-Figures of revenue and expenditure to which these per capita figures relate are given in Tables 8 and 9 . The basis of calculation was the estimated population as at June 1 of the immediately preceding year for 1953 and 1954; for 1952, Census of 1951 figure was used.

| Revenue and Expenditure | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
| Ordinary RevenueTax Revenue- |  |  |  |
| Customs import duties. | $24 \cdot 72$ | 26.99 | 27.56 |
| Excise duties... | $15 \cdot 56$ | 16.73 | $15 \cdot 34$ |
| Income tax...... | 154-28 | 171-43 | 164-58 |
| Sxcess profits tax | 0.17 40.94 | $\stackrel{-}{39} 24$ | $\overline{39-74}$ |
| Succession duties. | $2 \cdot 73$ | $2 \cdot 64$ | 2.64 |
| Other taxes. | $22 \cdot 70$ | 20.01 | 21.00 |
| Totals, Tax Revenue. | 261 -10 | 277-04 | 270-86 |

10.-Per Capita Revenue and Expenditure, by Principal Items, Years Ended Mar. 31, 1952-54-concluded

| Revenue and Expenditure | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: |
| Ordinary Revenue-concluded Non-tax Revenue- |  |  |  |
|  |  |  |  |
| Post Office. | 7.47 | $7 \cdot 76$ | 7.51 |
| Return on investments | 8.40 | $8 \cdot 10$ | $10 \cdot 27$ |
| Bullion and coinage. .......................................................................... | 0.34 3.92 | $0 \cdot 30$ $3 \cdot 25$ | 0.29 3.48 |
| Other. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | $3 \cdot 92$ | 3.25 | $3 \cdot 46$ |
| Totals, Non-tax Revenue. | $20 \cdot 13$ | 19.41 | 21.53 |
| Totals, Ordinary Revenue. | $281 \cdot 23$ | 296.45 | 292.39 |
| Special Receipts and Other Credits. | 2.94 | 5.76 | $5 \cdot 04$ |
| Grand Totals, Revenue | 284-17 | 302-21 | $297 \cdot 43$ |
| Expenditure- <br> Finance- |  |  |  |
|  |  |  |  |
| Annual amortization of bond discounts and commissions | 0.69 | 0.83 | 1.20 |
| Servicing of public debt............................... | 0.03 | 0.08 | 0.04 |
| Cost of loan flotations.................................. | 0.08 | 0.08 | 0.09 |
| Totals, Public Debt Charges. | 57.91 | 52.22 | \$3.54 |
| Provincial subsidies and taz rental payments Other. | $\begin{array}{r} 9.08 \\ 15.57 \end{array}$ | $\begin{array}{r} 28.47 \\ 9.98 \end{array}$ | $\begin{gathered} 29.07 \\ 9.11 \end{gathered}$ |
| Totals, Department of Finance............ | 62.36 | $65 \cdot 62$ | 65.72 |
| Agriculture. | 4.79 | $7 \cdot 40$ | $7 \cdot 33$ |
| Auditor General's Office. | $0 \cdot 04$ | $0 \cdot 04$ | 0.04 |
| Canadian Broadcasting Corporation | - | 0.57 | 1.69 |
| Chief Electoral Officer........ | 0.03 | $0 \cdot 03$ | 0.37 |
| Citizenship and Immigration | 1-66 | $1 \cdot 64$ | $1 \cdot 72$ |
| Civil Service Commission. | $0 \cdot 12$ | 0.13 | $0 \cdot 14$ |
| Defence Production.. | $2 \cdot 21$ | 6.16 | $3 \cdot 24$ |
| External Affairs. | $2 \cdot 68$ | $2 \cdot 72$ | 3.09 |
| Fisheries. | $0 \cdot 62$ | $0 \cdot 75$ | $0 \cdot 63$ |
| Governor General and Lieutenant-Governors | $0 \cdot 02$ | 0.03 | $0 \cdot 03$ |
| Insurance. | 0.03 | $0 \cdot 03$ | $0 \cdot 03$ |
| Justice, including Penitentiaries | 1.00 | 1.03 | 1.02 |
| Labour............... | $4 \cdot 59$ | $4 \cdot 64$ | 457 |
| Legislation. | 0.43 | $0 \cdot 43$ | $0 \cdot 38$ |
| Mines and Technical Surveys | 1.98 | $2 \cdot 06$ | $2 \cdot 61$ |
| National Defence..... | 101.04 | 130.45 | 122.18 |
| National Film Board. ....... | 0.19 | 0.20 | 0.20 |
| National Health and Welfare.... | $35 \cdot 60$ | $28 \cdot 17$ | $29 \cdot 13$ |
| National Research Council and Atomic Energy Control Board. | $1 \cdot 79$ | 1.96 | $1 \cdot 90$ |
| National Revenue........... | $3 \cdot 86$ |  | $3 \cdot 38$ |
| Northern Affairs and National Resources | 1 |  | 1.30 |
| Post Office. . . . . . . . . . . . . . | 6.99 | $7 \cdot 31$ | $7 \cdot 68$ |
| Prime Minister's Office | 0.29 | $0 \cdot 26$ | 0.25 |
| Privy Council Office. | 0.02 | $0 \cdot 02$ | $0 \cdot 02$ |
| Public Printing and Stationery | 0.08 | $0 \cdot 11$ | $0 \cdot 14$ |
|  | $5 \cdot 54$ | 5-67 | $7 \cdot 78$ |
| Resources and Development | $2 \cdot 27$ | $2 \cdot 47$ | 2 |
| Royal Canadian Mounted Police | 1.95 | $2 \cdot 16$ | $2 \cdot 29$ |
| Secretary of State. . . . . . | 0.17 | $0 \cdot 15$ | 0.22 |
| Trade and Commerce. . . | $1 \cdot 56$ $7 \cdot 13$ | 1.15 7.20 | 1.12 7.98 |
| Veterans Affairs | 15.42 | 16.73 | $16 \cdot 15$ |
| Grand Totals, Expenditure. | 266-46 | $300 \cdot 57$ | 294-33 |

${ }^{1}$ See Resources and Development.
${ }^{2}$ See Northarn Affairs and National Resources*

## Subsection 3.-Analysis of Revenue from Taxation

Table 11 gives a comparison of total expenditure with taxation revenue and total revenue for each of the fiscal years ended Mar. 31 since 1950. During the war years expenditure far exceeded revenue but in 1947 taxation met over 92 p.c. of
expenditure and revenue from all sources exceeded expenditure. For 1948 and 1949, revenue from taxation alone exceeded total expenditure by a substantial amount owing to the maintenance of high taxation levels and a greatly increased national income.

## 11.-Relationship of Total Expenditure to Taxation Revenue and to Total Revenue, Years Ended Mar. 31, 1950-54

Note.-Figures for 1940-49 are given in the 1951 Year Book, p. 989.

| Year | Total Expenditure | Taxation Revenue | Total Revenue | Percentage to Total Expenditure of |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Taxation Revenue | All <br> Revenue |
|  | \$ | \$ | \$ | p.c. | p.c. |
| 1950. | 2,448,615,662 | 2,323,117,079 | 2,580,140,615 | 94.87 | $105 \cdot 37$ |
| 1951. | 2,901,241,698 | 2,785,349,899 | 3,112,535,948 | 96.01 | $107 \cdot 28$ |
| 1952. | 3,732,875,250 | 3,657,775,082 | 3,980,908,652 | 97-99 | $106 \cdot 64$ |
| 1953. | 4,337,275,512 | 3,997,592,937 | 4,360, 822,789 | 92.17 | $100 \cdot 54$ |
| 1954.. | 4,350,522,378 | 4,003,584,453 | 4,396,319,583 | 92.03 | 101.05 |

The following analysis of taxation revenue is confined to excise duties, excise taxes, income tax and succession duties; customs receipts constitute a single item in the Public Accounts and cannot be further analysed here.

## Excise Duties

Excise duties proper are presented below with a summary of the excise tariff and statistics arising as a by-product of administration, such as the quantities of grain and other products used in distillation and the quantities of goods taken out of bond and subject to excise tax.

Canadian Excise Tariff.-The following is a statement of the Canadian excise tariff, as at Aug. 20, 1954:-


A drawback of 99 p.c. of the duty may be granted when domestic spirits, testing not less than 50 p.c. over proof, are delivered in limited quantities for medicinal or research purposes to universities, scientific or research laboratories, bona fide public hospitals, or health institutions in receipt of Federal Government aid.
12.-Gross Excise Duties Collected, Years Ended Mar. 31, 1949-54

| Item | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | 8 | \$ |
| Spirits. | 40,634,697 | 46,547,587 | 60,126,300 | 45,944, 724 | 48,627,965 | 69,194,020 |
| Validation fee | 825,371 | 790,587 | 1,108, 252 | 1,223,933 | 746,877 |  |
| Beer or malt liquo | 3,740,065 | 3,678,316 | 2,745,851 | 3,812,065 | 5,294,283 | 4,799,823 |
| Malt syrup. | 55, 55, ${ }^{\text {5 }}$, 825 |  |  |  |  |  |
| Malt.... | 55,853,055 | 56,018,292 | 65,409.427 | 73,748,003 | 80,584,283 | 78,733,288 |
| Tobacco and cigarette | 106,033,181 | $115,778,732$ | 114,282.662 | 100,547,951 | 116,701,207 | 96,724,855 |
| Cigars.. | 207, 823 | 203.043 | 203,945 | 162.968 | 212,817 | 245, 862 |
| Licence | 39,115 | 38,241 | 38,009 | 36,092 | 38,183 | 36.519 |
| Totals ${ }^{1}$ | 207,385,132 | 223,054,798 | 243,914,446 | 225, 475, 736 | 252,205,615 | 249,734,366 |

${ }^{1}$ These totals do not agree with net excise duties as shown in Table 8 owing to refunds and drawbacks and, for spirits, a transfer tax which is included here.

Statistics of Licences and Distillation.-As a result of the collection of excise duties, statistics are compiled of excise licences issued and of distillation.
13.-Statistics of Licences and Distillation, Years Ended Mar. 31, 1949-54

| Item |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |

The quantity of spirits manufactured has fluctuated greatly since 1920, varying from a low of $2,356,329$ proof gal. in that year to a high of $35,555,059$ proof gal. recorded in 1945.

Alcohol and Tobacco Taken Out of Bond.-The amounts of beverage spirits, malt beer, malt, cigars, cigarettes and other tobacco taken out of bond for consumption are given in Table 44, p. 1002.

## Excise Taxes Collected

The statistics given in Table 14 represent gross excise tax collection by the Excise Division of the Department of National-Revenue.

# 14.-Excise Taxes Collected, by Commodity and Province, Years Ended Mar. 31, 1949-54 

(Accrued Revenue)

| Commodity and Province | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \% | \$ | \$ | \$ | \$ | $\xi$ |
| Commodity <br> Domestic- |  |  |  |  |  |  |
| Amusements.............. | 2,587,398 | ... | ... | $\cdots$ | ... | ... |
| Automobiles, tires and tubes. | 32,976,441 | 32,988,931 | 59,791,585 | 89,111,798 | 78,810,971 | 92,498,632 |
| Beverages................ | 27,684,207 | 1,627,143 | 7,187,086 | 19,159,576 | 12,342,608 | 11,577,882 |
| Candy and chewing gum | 19,543,584 | 1,030,143 | 9,914,041 | 10,845, 824 | 11,216,434 | 11,812,938 |
| Carbonic acid gas... | 332,677 |  | 150,827 | 377,207 | 214,538 | 220,859 |
| Cigarette papers and tubes | 6,706,224 | 6,887,029 | 7,369,511 | 382,121 |  |  |
| Cigars, cigarettes and tobacco. | 77,529,716 | 82,574,363 | 84,203,237 | 104,806,864 | 100,678,509 | 110,946,708 |
| Electrical and gas apparatus. | 3,619,983 | ... | 1,607,101 | 3,731,560 | 3,269,802 | 3,701,518 |
| Embossed cheques (departmental). | 409,974 | 359,617 | 391,377 | 433,667 | 334,884 |  |
| Furs....................... | 3,570,044 | 2,773,723 | 4,165,195 | 4,221,849 | 5,213,346 | 3,366,217 |
| Gasoline. | 90,006 | 84,004 | 85,831 | 81,663 | 86,768 | 86,568 |
| Lighters. | 403,537 | 269,302 | 242,495 | 320,122 | 235,889 | 218,211 |
| Matches. | 2,994,124 | 756,837 | 755,311 | 1,387,225 | 1,071,159 | 1,019,072 |
| Other manufactures' tax | 16,739,711 | 6,911,787 | 9,235,677 | 22,779,222 | 13,176,366 | 11,200,616 |
| Phonographs, radios and tubes. | 3,499,260 | 3,065, 057 | 5,372,408 | 7,912,329 | 10,085, 974 | 15,874,8171 |
| Playing cards | 614,400 | 648,000 | 834,400 | 665,200 | 723,600 | 709,600 |
| Sales, domes | 342,075,177 | 363,308,872 | 406,350,795 | 521,173,389 | 611,362,280 | 633,817,293 |
| Stamps. | 13,605,236 | 9,014,763 | 10,553,385 | 10,912,768 | 10,226, 135 | ... |
| Toilet preparations. <br> Transportation and transmission. <br> Wines | 7,582,907 | 4,246,481 | 4,452,144 | 8,233,581 | 6,961,538 | 6,768,726 |
|  | 29,034,392 | 3,967,088 |  |  |  |  |
|  | 2,059,639 | 2,125,606 | 2,224,885 | 2,167,267 | 2,215,540 | 2,230,673 |
| Penalties and interest..... | 291,819 | 286,054 | 286,513 | 381,055 | 374,691 | 309,888 |
| Totals, Domestic....... | 593,950,456 | 522,924,800 | $615,173,804$ | 809,084, 287 | 868,601,032 | 906,360,218 |
| Importe | 55, 058, 635 | 60,317,200 | 82,100,696 | 114,865, 035 | 135,346,520 | 146,539,166 |
| Grand Totals ${ }^{2} \ldots \ldots \ldots$. | 649,009,091 | 583,242,000 | 697,274,500 | 923,949,323 ${ }^{3}$ | 1,003,947,5463 | 1,052,899,3872 |
| Province |  |  |  |  |  |  |
| Newfoundland ....... |  | 2,928,142 | 3,071, 105 | 4,222,529 | 4,731,662 | 4,626,420 |
| Prince Edward Island | 354,308 | 775,093 | 192,576 | 294,581 | 319.600 | 270,371 |
| Nova Scotia. | $9,712,259$ | 7,297,503 | 8,237,983 | 11,085,795 | 12,567, 288 | 12,133,679 |
| New Brunsw | 6,092,221 | 4,765,769 | 5,410,375 | 7,020,959 | 7,565,327 | 7,560,701 |
| Quebec. | 259,953,961 | 234,362,155 | 259,597,052 | 330,235,421 | 355,969,247 | 367,621,043 |
| Ontario | 311,081,866 | 285, 628,445 | 364,386, 263 | 493,684,889 | 532,863,493 | 571,852,942 |
| Manitob | 20,255,931 | 15,186,782 | 16,957,296 | 23,477,085 | 26,006,361 | 25,871,465 |
| Saskatch | 5,207,665 | 3,712,245 | 4,068,319 | 5,780,443 | 6, 897, 755 | 7,533,164 |
| Alberta | 10,760,329 | 7,784,071 | 8,716,339 | 13,415,997 | 17,592,743 | 17,654,558 |
| British Columbia | 24,972,017 | 20,785,415 | 26,010,974 | 33,957,805 | 38,800,329 | 37,430,555 |
| Yukon Territory. | 203,295 | 208,220 | 180,873 | 267,536 | -279,666 | -290,982 |
| General for Canada- |  |  |  |  |  |  |
| Departmental sales. | 409, 974 | 359,620 | 391,376 | 433,668 | 334,884 |  |
| Miscellaneous............ | 2,334 | 46,268 | 52,484 | 71,452 | 17,695 | 51,712 |
| British post-office parcels. | 2,932 | 2,272 | 1,485 | 1,163 | 1,495 | 1,796 |

${ }^{1}$ Total includes television sets and tubes ( $\$ 11,340,860$ ).
${ }^{2}$ Includes 2 p.c. sales tax.
${ }^{2}$ Includes refunds and drawbacks

## Income Tax

Income Tax Collections by the Department of National Revenue on a Fiscal Year Basis.-Statistics of income tax collections are gathered at the time the payments are made and are, therefore, up-to-date. Over 85 p.c. of individual taxpayers are wage or salary earners who have almost the whole of their tax
liability deducted at the source by their employers. All other taxpayers are required to pay most of their estimated tax during the taxation year. As a result, most of the tax is collected during the same year in which the related income is earned, and only a limited residue remains to be collected when the returns are filed. The collections for a given fiscal year include tax deductions and instalments for twelve months, embracing portions of two taxation years, and a mixture of year-end payments for the first of these years and for the preceding year, and cannot, therefore, be closely related to the statistics for a given taxation year. As little information about a taxpayer is received when the payment is made, and as a single cheque from one employer may frequently cover the tax payments of hundreds of employees, the payments cannot be statistically related to taxpayers by occupation or income. Descriptive classifications of taxpayers are available only from tax returns, but collection statistics, if interpreted with the current tax structure and the above factors in mind, indicate the trend of income in advance of the final compilation of statistics.

The statistics given in Table 15 pertain to tax collections by the Taxation Division of the Department of National Revenue. The collections are for fiscal years ended Mar. 31.

## 15.-Taxes Collected by the Taxation Division of the Department of National Revenue, Years Ended Mar. 31, 1947-54

Nore.-Figures for 1917-34 are given in the 1947 Year Book, pp. 999-1000, for 1935-46 in the 1951 edition, p. 994.

| Fiscal Year Ended Mar. 31 - | Income Tax |  |  | Excess Profits Tax | Succession Duties | Total Collections |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Individual | Corporation | Total |  |  |  |
|  | \$ | \$ | § | \$ | \$ | \$ |
| 1947. | 724,666,2921 | 238,791,953 | $963,458,2451$ | 448,697,443 ${ }^{1}$ | 23,576,071 | 1,435,731,759 ${ }^{1}$ |
| 1948. | 695,717,243 | 364,131,114 | 1,059, 848,357 | 227,030,494 | 30,828,040 | 1,317,706,891 |
| 1949. | 806,009,280 | 491,990,124 | 1,297,999,404 | 44,791,918 | 25,549,777 | 1,368,341,099 |
| 1950. | 669,457,059 | 603,193,132 | 1,272,650,191 | $-1,788,387^{2}$ | 29,919,780 | 1,300,781,584 |
| 1951. | 713,938,999 | 799,196,511 | 1,513,135,510 | 10,140,910 | 33,599,089 | 1,556,875,509 |
| 1952. | 1,030,793,334 ${ }^{3}$ | $1,132,680,074^{3}$ | $2,163,473,408{ }^{3}$ | 2,364,909 | 38,207,985 | 2,204,046,302 |
| 1953..... | 1,278, 949,939 ${ }^{3}$ | 1,276,940,150 ${ }^{3}$ | 2,555, 890, 089 2 | - | 38,070,529 | 2,593,960,618 |
| 1954. | $1,332,116,907{ }^{3}$ | 1,246, 786, $598{ }^{3}$ | 2,578,903,505 ${ }^{3}$ | - | 39,137,594 | 2,618,041,099 |

[^368]Individual Income-Tax Statistics.-Individual income-tax statistics are presented in Table 16 on a calendar-year basis, and are compiled from a 10 -p.c. sample of all returns received. Taxpayers are shown for certain selected cities and occupational classifications.
16.-Number of Taxpayers, and Amounts of Income and Tax, by Selected Cities and Occupational Class, 1952

| $\begin{gathered} \text { City } \\ \text { and Class } \end{gathered}$ | Taxpayers | Total Income Declared | Tax <br> Payable ${ }^{1}$ | Class | Taxpayers | Total Income Declared | Tax <br> Payable ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Clty | No. | \$'000 | \$'000 |  | No. | \$ 000 | \$'000 |
| St John's, N'f'ld. | 12,940 | 42,359 | 4.280 | Fishermen | 2,640 | 9,852 | 1,052 |
| Haiflax... | 18,100 | 97,094 53 | 4,486 | Totals, Primary |  |  |  |
| Montreal. | 409,620 | 1,408,604 | 162,346 | Producers..... | 72,100 | 286,076 | 29,476 |
| Quebec. | 39,480 | 129, 204 | 13.866 |  |  |  |  |
| Sherbrool | 11,280 | 34,108 | 2,861 | Accountants | 2,310 | 18,541 | 4,321 |
| Ottawa | 73,530 | 242,974 | 27,272 | Medical doctors. | 9,520 | 100,172 | 23,967 |
| Toronto | 468,620 | 1,619,364 | 206,026 | Dentists............ | 3,790 | 26,956 | 4,496 |
| Oshawa | 15,670 | 53,181 | 5.578 | Lawyers and notaries. . | 5,050 | 46,572 | 10,730 |
| Hamilton | 92,460 | 311,486 | 33,660 | Engineers and archi- |  |  |  |
| St. Catharines | 20,850 | 73,575 | 8,181 | tects.... | 1,740 | 21,343 | 6,341 |
| Niagara Falls | 16,240 | 56,084 | 5,949 | Entertainers. | 1,980 | 8,915 | 1,222 |
| Kitchener | 24,780 | 80,963 | 9,601 | Osteopaths, etc | 1,450 | 7,940 | 1,128 |
| London. | 40,170 | 125,732 | 12,903 | Nurses | 3,420 | 6,476 | 466 |
| Windsor. | 48,740 | 164,295 | 15,905 | Other professional | 2,440 | 10,240 | 1,370 |
| Sudbury <br> Fort William and Port Arthur. | 19,180 | 65,817 | 6,375 | Totals, Professionals. | 31,700 | 247,155 | 54,041 |
|  |  | 89,333 | 8,965 |  |  |  |  |
| Winnipeg | 115,320 | 364,684 |  | Eraployee | 2,753,590 | 8,361,048 | 753,393 |
| Regina. | 26, 290 | 85.063 | 8,743 | Salesm | 33,230 | 152,826 | 19,341 |
| Saskatoo | 17,770 | 55,919 | 5,677 |  |  |  |  |
| Calgary.. | 52,590 | 179,933 | 20,888 | Business proprietors, |  |  |  |
| Edmonton | 66,270 | 214,956 | 23,294 | without employees... | 22,240 | 66,538 | 4,963 |
| Vancouver | 163,090 | 548,834 | 61,007 | Business proprietors, |  |  |  |
| New West | 20,070 | 61,350 | 5,272 | with employees.. | 85,480 | 450,791 | 70,842 |
| Victoria. | 31,210 | 104,928 | 11,545 | Partners in business | 50,600 | 293,752 | 56,714 |
| Other localitie | 1,261,950 | 4,012,855 | 360,929 |  |  |  |  |
| Grand Total | 3,125,100 | 10,274,033 | 1,071,783 | Proprietors.... | 158,320 | 811,081 | 132,519 |
|  |  |  |  | Investo | 55,870 | 332,389 | 73,788 |
| Occupational Class |  |  |  | Pensioners | 8,370 11,920 | 26,637 | 2,511 |
| Farmers | 67,830 | 269,048 | 27,505 |  |  |  |  |
| Forestry operators.... | 1.630 | 7,176 | 919 | Grand Tota | 3,125,100 | 10,274,033 | 1,071,783 |

${ }^{1}$ Includes old age security tax.

## 17.-Individual Income-Tax Statistics, by Income Class, 1951 and 1952

| Income Class | Taxpayers |  | Total Income Declared |  | Tax Payable |  | AverageTax |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 | 1951 | 1952 | 1951 | $1952^{1}$ | 1951 | $1952{ }^{1}$ |
|  | No. | No. | \$'000 | 8'000 | \$'000 | $8^{\prime} 000$ | \$ | \$ |
| Under \$1,000. | 17,910 | 24,550 | 10.247 | 15,633 | 655 | 1,027 | 37 | 42 |
| \$1,000 to $\$ 1,100$. | 55.180 | 53,210 | 58,689 | 56,443 | 635 | 746 | 12 | 14 |
| \$1,100 to $\$ 1,200$. | 65.360 | 67,890 | 75,227 | 78,422 | 1,476 | 1,794 | 23 | 26 |
| \$1,200 to $\$ 1,300$. | 72,270 | 69,860 | 90,107 | 87,124 | 2,633 | 2,878 | 36 | 41 |
| \$1,300 to $\$ 1,400$ | 74,350 | 71,100 | 100,363 | 95,822 | 3,845 | 4,110 | 52 | 58 |
| \$1,400 to \$1,500 | 76,230 | 71,360 | 110,504 | 103,275 | 5,075 | 5,344 | 67 | 75 |
| \$1,500 to \$1,600. | 77,680 | 77,950 | 120,292 | 120,591 | 6,145 | 6,893 | 79 | 88 |
| \$1,600 to \$1,700 | 78,180 | 75,630 | 129,421 | 124,690 | 7,358 | 7,870 | 94 | 104 |
| \$1,700 to \$1,800 | 75,730 | 76,660 | 132,412 | 133,889 | 8,189 | 9,196 | 108 | 120 |
| \$1,800 to \$1,900. | 73,000 | 77,310 | 135,140 | 142,762 | 8,907 | 10,473 | 122 | 135 |
| \$1,900 to \$2,000. | 67,020 | 71,160 | 130,800 | 138,934 | 9,127 | 10,855 | 136 | 153 |
| $\$ 1,000$ to, but not ing, $\$ 2,000$ | 715,000 | 712,130 | 1,082,955 | 1,081,952 | 53,390 | 60,159 | 75 | 84 |

[^369]17.-Individual Income-Tax Statistics, by Income Class, 1951 and 1952-concluded

| Income Class | Taxpayers |  | Total Income Declared |  | $\underset{\text { Tayable }}{\text { Tax }}$ |  | AverageTax |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 | 1951 | 1952 | 1951 | $1952^{1}$ | 1951 | $1952^{1}$ |
|  | No. | No. | \$'000 | \$'000 | \$'000 | 8 '000 | \$ | \$ |
| \$2,000 to \$2,100. | 78,750 | 78,090 | 161,786 | 160,015 | 10,080 | 11,373 | 128 | 146 |
| \$2,100 to $\$ 2,200$. | 82,540 | 82,860 | 177, 393 | 178,133 | 10,678 | 12,531 | 129 | 151 |
| \$2,200 to \$2,300 | 85,840 | 89,810 | 193,132 | 201,849 | 11,171 | 13,764 | 130 | 153 |
| \$2,300 to \$2,400 | 99,360 | 94,110 | 233,159 | 221,006 | 12,440 | 14,338 | 125 | 152 |
| \$2,400 to \$2,500. | 98,270 | 102,770 | 240,739 | 251,558 | 12,505 | 15,724 | 127 | 153 |
| \$2,500 to \$2,600. | 104,940 | 106,350 | 267,657 | 271,173 | 13,491 | 16,881 | 129 | 159 |
| \$2,600 to \$2,700 | 103,950 | 109,900 | 275,169 | 290,894 | 13,677 | 17,623 | 132 | 160 |
| \$2,700 to \$2,800 | 107,230 | 109,880 | 294,729 | 301,936 | 14,622 | 18,505 | 136 | 168 |
| \$2,800 to \$2,900 | 102,710 | 107,660 | 292,423 | 306,398 | 14,900 | 18,582 | 145 | 173 |
| \$2,900 to $\$ 3,000$ | 98,030 | 105,090 | 288,793 | 309, 852 | 14,991 | 19,312 | 153 | 184 |
| $\$ 2,000$ to, but not including, $\$ 3,000$. | 961,620 | 986,520 | 2,424,980 | 2,492,814 | 128,555 | 158,633 | 134 | 161 |
| \$3,000 to \$3,500 | 407,470. | 481, 220 | 1,315,207 | 1,556,341 | 75,983 | 105,007 | 186 | 218 |
| \$3,500 to 84,000 | 236,180 | 327,530 | 879,676 | 1,220,110 | 60,658 | 95,946 | 257 | 293 |
| \$4,000 to $\$ 4,500$. | 134,580 | 191,550 | 568,599 | 809,162 | 44,925 | 73,403 | 334 | 383 |
| \$4,500 to \$5,000. | 77,170 | 111,660 | 365,435 | 527,428 | 32,516 | 53,315 | 421 | 477 |
| $\$ 3,000$ to, but not including, 85,000 . | 855,400 | 1,111,960 | 3,128,917 | 4,113,041 | 214,082 | 327,671 | 250 | 295 |
| \$5,000 to $\$ 6,000$. | 84,620 | 113,790 | 459,439 | 617,618 | 46,723 | 70,591 | 552 | 620 |
| \$6,000 to $\$ 7,000$. | 41,320 | 54,790 | 266,971 | 352,817 | 31,910 | 46,316 | 772 | 845 |
| \$7,000 to \$8,000. | 23,520 | 29,610 | 175,648 | 220,593 | 23,478 | 31,994 | 998 | 1,081 |
| \$8,000 to $\$ 9,000$. | 16,350 | 18,500 | 138,924 | 156,228 | 20,560 | 24,608 | 1,257 | 1,330 |
| \$9,000 to $\$ 10,000$ | 11,080 | 13,610 | 105,404 | 128,644 | 16,701 | 22,024 | 1,507 | 1,618 |
| $\$ 5,000$ to, but not including, $\$ 10,000 \ldots \ldots \ldots$. | 176,890 | 230,300 | 1,146,386 | 1,475,900 | 139,372 | 195,533 | 788 | 849 |
| \$10,000 to \$15,000. | 28,280 | 33,740 | 339,645 | 406,292 | 64,199 | 82,771 | 2,270 | 2,453 |
| \$15,000 to \$20,000. | 10,070 | 11,940 | 171,948 | 203,799 | 42,941 | 53,800 | 4,264 | 4,506 |
| \$20,000 to $\$ 25,000 \ldots . . .$. | 4,520 | 5,460 | 100,603 | 121,548 | 29,838 | 37,761 | 6,601 | 6,916 |
| $\$ 10,000$ to, but not including, $\$ 25,000$ | 42,870 | 51,140 | 612,196 | 731,639 | 136,978 | 174,332 | 3,195 | 3,409 |
| \$25,000 to 850,000 | 6,690 | 6,660 | 221,746 | 220,039 | 80,507 | 84,155 | 12,034 | 12,636 |
| \$50,000 or over............ | 1,570 | 1,840 | 120,123 | 143,015 | 58,528 | 70,273 | 37,279 | 38,192 |
| \$25,000 or over | 8,260 | 8,500 | 341,869 | 363.054 | 139,035 | 154,428 | 16,832 | 18,168 |
| Grand Totals | 2,777,950 | 3,125,100 | 8,747,550 | 10,274,033 | 812,067 | 1,071,783 | 292 | 343 |

${ }^{1}$ Includes old age security tax.

Corporation Income-Tax Statistics.-Corporation statistics presented in Tables 18 and 19 are on a taxation-year basis prior to assessment. The data were extracted and compiled from the returns shortly after they were filed and are as declared by the taxpayer without the scrutiny or revision of the Department of National Revenue. Provincial figures contain an unavoidable bias in favour of Ontario and Quebec because many large corporations operating across Canada file their returns in one or other of these two Provinces.
18.-Summary Statistics for Corporations Reporting a Profit, Taxation Years 1951 and 1952

| Item | 1951 |  |  | 1952 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Corporations Reporting | $\begin{aligned} & \text { Current } \\ & \text { Year } \\ & \text { Profit } \end{aligned}$ | Income Tax <br> Declared | Corporations Reporting | Current Year Profit | $\left\lvert\, \begin{gathered} \text { Income } \\ \text { Tax } \\ \text { Declared }{ }^{1} \end{gathered}\right.$ |
|  | No. | $\$^{\prime} 000$ | \$'000 | No. | \$'000 | \$'000 |
| Active taxable corporations - excluding co-operatives and Crown corporations. | 30,992 | 2,786,338 | 1,161,643 | 32,432 | 2,630,897 | 1,228,819 |
| Inactive corporations.................... | 754 | -491 | 105 | 790 | -699 | 180 |
| Co-operatives..... | 1,974 | 8,521 | 2,352 | 1,999 | 9,619 | 3,295 |
| Crown corporations | - | - |  | 7 | 12,719 | 6,579 |
| Totals, Taxable Corporations. | 33,720 | 2,795,350 | 1,164,100 | 35,228 | 2,653,934 | 1,238,873 |
| Personal corporations. | 1,206 | 20,458 | - 36 | 1,343 | 21,777 | - 12 |
| Other exempt corporations ${ }^{2}$. . . . . . . . . . . . | 2,378 | 34,934 | 36 | 2,275 | 24,749 | 12 |
| Grand Totals-Taxable and Exempt | 37,304 | 2,850,742 | 1,164,136 | 38,846 | 2,700,455 | 1,238,885 |

${ }^{2}$ Includes old age security tax. recorded here as tax declared.
${ }^{2}$ Includes foreign corporations paying $\$ 100$ filing fee which is
19.-Distribution of Active Taxable Corporations Reporting a Profit, by Income Class, Industry and Province, Taxation Years, 1951 and 1952

${ }^{1}$ Includes old age security tax.

## Succession Duties

The first imposition of succession duties in Canada was in 1892, when Nova Scotia, New Brunswick, Quebec and Ontario enacted legislation of this nature. Legislation was passed in the other provinces in the following years: Manitoba, 1893; Prince Edward Island and British Columbia, 1894; Saskatchewan and Alberta, 1905. The Federal Government first imposed succession duties in 1941. Current legislation is the Dominion Succession Duty Act (R.S.C. 1952, c. 89).

Table 20 shows the receipts of the various governments from this source for 1952, 1953 and 1954.

In 1947, seven provinces-Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia - withdrew from the succession-duty field. The seven provinces entered into agreements with the Federal Government to 'rent out' the succession-duty field for the period Apr. 1, 1947, to Mar. 31, 1952. Accordingly, in these provinces, the previous combination of federal and provincial succession duties was replaced by a single federal succession duty at double the previous federal level which, for most provinces, resulted in a combined duty approximately the same as previously levied under the separate federal and provincial duties. The Provinces of Quebec and Ontario did not enter into the agreements but the doubled rates of federal duty were applied and are capable of being reduced up to one-half by a credit for the duty paid to these Provinces. Yukon Territory in 1948, and the Province of Newfoundland in 1949, entered into a similar tax-rental agreement.

In 1952, the tax-rental agreements expired but new five-year agreements were negotiated with the same eight provinces which again elected not to tax in the succession-duty field. The Province of Ontario also entered into an agreement on income tax, but elected to continue to tax in the succession-duty field. Consequently, in all the provinces of Canada the situation in regard to succession duty is likely to be the same as that described above until Mar. 31, 1957.

Double taxation of estates resulting from taxation of the same property by more than one Canadian jurisdiction has been common in the past, but with the withdrawal of eight of the provinces from the field, and an interprovincial agreement between Ontario and Quebec, the credit provision of the federal legislation has reduced this problem considerably. In the international field, dual taxation has been dealt with by way of tax conventions. A tax convention between Canada and the United States was signed on June 8, 1944, and amended effective Nov. 21, 1951. An agreement respecting succession duties was signed June 5, 1946, between Canada and the United Kingdom. A convention between Canada and France, signed on Mar. 16, 1951, came into effect on July 2, 1953.

## 20.-Federal and Provincial Net Revenue from Succession Duties, Years Ended Mar. 31, 1952-54

Note.-Statistics for 1948-51 are given in the 1954 Year Book, p. 1080.

| Province | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 |
| Federal..................................................... | 38,208 | 38,071 | 39,138 |
| Provincial- <br> Newfoundland | - | , | - |
|  | 12 25 | $-2$ | $\frac{1}{5}$ |

[^370]20.-Federal and Provincial Net Revenue from Succession Duties, Years Ended Mar. 31, 1952-54-concluded

| Province | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: |
|  | \$'000 | \$ ${ }^{\prime} 00$ | \$'000 |
| Provincial-concluded New Branswick. . | 1 | 6 | - |
| Quebec... | 12,248 | 12,500 | 13,000 |
| Ontario... | 21,652 | 19,500 | 16,500 |
| Manitobs. | 15 | 2 | 3 |
| Saskatchewan. | 30 | 44 | - |
| Alberta. | 25 | 25 | 15 |
| British Columbia. | - | - | - |

[^371]Federal Duty.-Beneficiaries are divided into four classes, as follows:-
(1) Widow or dependent child or dependent grandchild.
(2) Husband; parent; grandparent; child over 18 years of age, not infirm; son- or daughter-in-law.
(3) Lineal ancestor other than parent or grandparent; brother, sister or their descendant; uncle or aunt or their descendant.
(4) Others.

No duty is payable on estates not exceeding $\$ 50,000$, or on bequests of up to $\$ 1,000$ to any one individual, nor is duty levied on gifts to the Federal Government or provinces, on residential property of certain diplomatic or consular officials, on pensions administered by the Canadian Pensions Commission or those payable by allied nations for war services, nor on insurance moneys or annuities if the person with whom the contract was made was domiciled outside Canada at the time of death. Provision is made for increased exemptions and reduced duties for those dying as a result of war service. Bequests to non-profit charitable organizations in Canada are exempt.

Widows are exempt up to $\$ 20,000$, dependent children to $\$ 5,000$ each and, where dependent children do not benefit, the widow's exemption is increased by $\$ 5,000$ for each child who does not benefit. For dependent orphaned children, there is a further exemption of $\$ 15,000$ (in addition to $\$ 5,000$ ) divisible proportionately among such orphans according to their number and the value of each individual benefit. Duty is payable on the excess only when the limit is passed, i.e., these exemptions are deductible exemptions.

Gifts made during the lifetime of the deceased are exempt if the transfer was carried out more than three years prior to his death and the recipient of such gifts secured full possession at the time of the transfer and the donor (the deceased), thereaf ter, did not retain any rights therein or secure any benefits therefrom.

If gift tax payable under the provisions of the Income Tax Act has been paid in connection with the transfer made by a deceased person during his lifetime then no succession duty is payable in respect of such gift except to the extent that succession duty thereon is in excess of the gift tax.

The difficulties of working out succession-duty tables to show the combined effects of federal and provincial duties are readily realized. The best that can be done here is to choose typical estates in the main classes laid down in the legislation and give examples of the combined duties applicable to them. This has been attempted in Tables 21, 22 and 23.

Examples of the rates of duty and duty levied are given in Table 21.
21.-Occurrence of Succession Duties in all Provinces (except Quebec and Ontario) on Typical Estates

| Class | Aggregate Net Value | Dutiable Value | Rate | Duty |
| :---: | :---: | :---: | :---: | :---: |
| A. Widow only | \$ | \$ | p.c. | \$ |
|  | 60.000 | 40,000 | $10 \cdot 6$ | 4,240 |
|  | 100.000 | 80,000 | 14.7 | 11,760 |
|  | 300,000 | 280,000 | 26.7 | 74,760 |
|  | 500,000 | 480,000 | 32.7 | 156.960 |
|  | 1,000,000 | 980,000 | 38.7 | 379,260 |
| B. Only child over 25 years................... | 60,000 | 60,000 | 11.9 | 7.140 |
|  | 100,000 | 100,000 | 16.7 | 16,700 |
|  | 300.000 | 300.000 | 28.7 | 86,100 |
|  | 500,000 | 500,000 | 34.7 | 173,500 |
|  | 1,000,000 | 1,000,000 | $40 \cdot 7$ | 407,000 |
| C. Brother or sister............................. | 60,000 | 60,000 | 13.9 | 8,340 |
|  | 100,000 | 100,000 | 18.7 | 18,700 |
|  | 300,000 | 300.000 | $30 \cdot 7$ | 92,100 |
|  | 500,000 | 500,000 | 36.7 | 183,500 |
|  | 1,000,000 | 1,000,000 | $42 \cdot 7$ | 427,000 |
| D. Stranger................................. | 60,000 : | 60,000 | $15 \cdot 9$ | 9,540 |
|  | 100,000 | 100,000 | $20 \cdot 7$ | 20,700 |
|  | 300,000 ) | 300,000 | 32.7 | 98,100 |
|  | 500,000 | 500,000 | 38.7 | 193,500 |
|  | 1,000,000 \% | 1,000,000 | $44 \cdot 7$ | 447,000 |

Occurrence of Combined Federal and Provincial Succession Duties.Only the Provinces of Quebec and Ontario have retained their own succession duties. In Tables 22 and 23, for all classes of beneficiaries, the duties collectable are shown where an estate of given value is left to one beneficiary only. It would be impossible to cover the many different combinations of the various beneficiaries and the exemptions and saving clauses to be found in the legislation of the respective provinces. Each estate is, moreover, assumed to be wholly situated within the province and the beneficiary domiciled therein to be the sole heir.

Quebec.-The current legislation under which succession duties are collected is S.Q. 1943, c. 18, as amended. As stated above, the following text and table can give only a broad outline of such duties as are applied to comparable classes of beneficiaries in other provinces. Full details regarding other cases may be obtained from the Act or from the Collector of Succession Duties, Provincial Revenue Offices, Quebec, Que.

Under the legislation, beneficiaries are divided into three classes, as follows:-
(1) Those in direct ascending or descending line, of a relationship between consorts, between father- or mother-in-law and son- or daughter-in-law, or between step-father or step-mother and step-son or step-daughter. There is no limitation of degree in the direct ascending or descending line in these relationships.
(2) Those in collateral line including a brother or sister, or descendant of a brother or sister of the deceased; or to a brother or sister or son or daughter of a brother or sister of the father or mother of the deceased.
(3) Others.

No duty is payable when the aggregate value of the property passing to persons in Class (1) does not exceed $\$ 10,000$; in an estate, the aggregate value of which does not exceed $\$ 50,000$, this sum is increased by $\$ 1,500$ for each child, in the first degree,
under 25 years of age，domiciled in the Province，left by and surviving the deceased （ $15-16$ Geo．VI，c． 14 ）．If the whole value of the estate is less than $\$ 1,000$ ，bequests to collateral relatives are exempt．No duty is payable on bequests of up to $\$ 1,000$ to beneficiaries in Class（3）who have been in the employ of the testator for five years or more．In estates that devolved prior to Mar．10，1949，no duty is payable on legacies for religious，charitable or educational purposes in Quebec and the same privilege is extended to legacies for similar work outside the Province，pro－ vided that the province or State within which the work is to be carried out extends reciprocal privileges under its succession duty laws．Since Mar．10， 1949 （ 13 Geo．VI，c．32），all legacies，gifts and subscriptions for religious，charitable and educational purposes are tax－free，regardless of the country，province or State where the institutions benefiting therefrom are located．

22．－Occurrence of Federal and Quebec Succession Duties on Typical Estates

| Class | Aggre－ gate Net Value | Federal Duty ${ }^{1}$ |  |  | Provincial Duty |  |  | Com－ bined Duties ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Dutiable Value | Rate | Duty | Dutiable Value | Rate | Duty |  |
| A．Widow only．．．．．．．． | \＄ | \＄ | p．c． | \＄ | \＄ | p．c． | \＄ | 8 |
|  | 20，000 | － | 二 | － | 20，000 | 2.80 | 560 | 560 |
|  | 25,000 50 | 二 | － | － | 25,000 50 | 3.00 4.00 | 750 2.000 | 750 2000 |
|  | 50,000 60,000 | 40，000 | $10 \cdot 60$ | 4，240 | 50,000 60,000 | 4.00 $5 \cdot 60$ | 2,000 3,360 | 2,000 5,480 |
|  | 100，000 | 80，000 | 14.70 | 11，760 | 100，000 | 8.00 | 8，000 | 13，880 |
|  | 300，000 | 280，000 | 26.70 | 74，760 | 300,000 | 12.00 | 36，000 | 74，760 |
|  | 500，000 | 480，000 | 32.70 | 156，960 | 500，000 | 15.50 | 77，500 | 156，960 |
|  | 1，000，000 | 980，000 | 38.70 | 379，260 | 1，000，000 | 23.00 | 230，000 | 419，630 |
| B．Only child over 25 years． | 20，000 | － | － | － | 20，000 | $2 \cdot 80$ | 560 | 560 |
|  | 25，000 | － | － | － | 25，000 | 3.00 | 750 | 750 |
|  | 50，000 | － | － | － | 50，000 | 4.00 | 2，000 | 2，000 |
|  | 60，000 | 60，000 | 11.90 | 7，140 | 60，000 | $5 \cdot 60$ | 3，360 | 7，140 |
|  | 100，000 | 100,000 | 16.70 | 16，700 | 100，000 | 8.00 | 8，000 | 16，700 |
|  | 300，000 | 300,000 | 28.70 | 86， 100 | 300，000 | 12.00 | 36，000 | 86，100 |
|  | 500，000 | 500，000 | $34 \cdot 70$ | 173，500 | 500，000 | 15.50 | 77，500 | 173，500 |
|  | 1，000，000 | 1，000，000 | 40.70 | 407，000 | 1，000，000 | 23.00 | 230，000 | 433，500 |
| C．Brother or sister．．． | 20,000 | 二 | 二 | － | 20,000 | 7.80 | 1，560 | 1，560 |
|  | 25,000 | － | － | － | 25，000 | 8.50 | 2，125 | 2，125 |
|  | 50,000 | 0 | ， | 8 | 50.000 | $12 \cdot 00$ | 6,000 | 6，000 |
|  | 60，000 | 60，000 | 13.90 | 8，340 | 60，000 | 13.40 | 8，040 | 12，210 |
|  | 100，000 | 100，000 | 18.70 | 18，700 | 100,000 | 16.00 | 16，000 | 25，350 |
|  | 300，000 | 300，000 | 30.70 | 92，100 | 300，000 | $19 \cdot 00$ | 57.000 | 103，050 |
|  | 500，000 | 500，000 | 36.70 | 183，500 | 500，000 | $21 \cdot 67$ | 108，350 | 200.100 |
|  | 1，000，000 | 1，000，000 | 42－70 | 427，000 | 1，000，000 | 28.33 | 283，300 | 496，800 |
| D．Stranger．．．．．．．．．． | 20,000 | － | － | － | 20，000 | 14.00 | 2，800 | 2，800 |
|  | 25，000 | － | － | － | 25，000 | 14.50 | 3，625 | 3，625 |
|  | 50,000 | － | － | － | 50,000 | 17.00 | 8，500 | 8，500 |
|  | 60，000 | 60，000 | $15 \cdot 90$ | 9，540 | 60，000 | 18.00 | 10，800 | 15，570 |
|  | 100，000 | 100，000 | 20.70 | 20，700 | 100，000 | 22.00 | 22，000 | 32，350 |
|  | 300,000 | 300，000 | 32.70 | 98，100 | 300，000 | 25.75 | 77，250 | 126，300 |
|  | 500．000 | 500，000 | 38.70 | 193，500 | 500.000 | 28.25 | 141，250 | 239，000 |
|  | 1，000，000 | 1，000，000 | 44－70 | 447，000 | 1，000，000 | 34.50 | 345，000 | 568，500 |

[^372]（2）Brother；sister；nephew；niece；uncle；aunt；cousin；child of nephew or niece．
（3）Others．
No duty is payable on estates not exceeding $\$ 5,000$ in aggregate value，nor on estates not exceeding $\$ 50,000$ willed to persons in Class（1），nor on those not exceeding $\$ 10,000$ willed to persons in Class（2）．

Where any person in Class（3）was in the employ of the deceased for at least five years immediately prior to his death，no duty is payable with respect to any benefits which such person derived from the deceased where the total value of such benefits is not in excess of $\$ 1,000$ ．Such benefits，though exempt are，nevertheless， taken as a factor in fixing the rates applicable to the dutiable portions of the estate．

Bequests for religious or educational purposes to any religious or educational organization which carries on its work solely in Canada，and bequests for charitable purposes to any charitable organization which carries on its work solely in Ontario， are exempt from duty and are ignored altogether in the computation of duty on the portions of the estate that are not exempt．The same rule applies to bequests to the Canadian National Institute for the Blind，the Canadian Red Cross Society and other approved patriotic organizations．

23．－Occurrence of Federal and Ontario Succession Duties on Typical Estates

| Class | Aggre－ gate Net Value | Federal Duty ${ }^{1}$ |  |  | Provincial Duty |  |  | $\begin{aligned} & \text { Com- } \\ & \text { bined } \\ & \text { Duties }{ }^{2} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Dutiable Value | Rate | Duty | Dutiable Value | Rate | Duty |  |
| A．Widow only．．．．．．．． | \＄ | \＄ | p．c． | \＄ | \＄ | p．c． | \＄ | \＄ |
|  | 20,000 | － | － | － | － | － | － | － |
|  | 25,000 50,000 | 二 | － | 二 | 二 | 二 | － | － |
| B．Only child over 25 years．．．．．．．．． | 60,000 | 40，000 | $10 \cdot 60$ | 4，240 | 60，000 | $4 \cdot 60$ | $3,174{ }^{3}$ | 5，294 |
|  | 100，000 | 80，000 | 14.70 | 11.760 | 100，000 | 7.50 | 8,6253 | 14，505 |
|  | 300，000 | 280,000 | 26.70 | 74，760 | 300,000 | 10.00 | $34,500^{3}$ | 74，760 |
|  | 500，000 | 480，000 | 32.70 | 156，960 | 500，000 | 12.50 | 71，875 ${ }^{3}$ | 156，960 |
|  | 1，000，000 | 980，000 | 38.70 | 379，260 | 1，000，000 | 18.00 | 207，000 ${ }^{3}$ | 396，630 |
|  | 20，000 | － | － | － | － | － | － | － |
|  | 25，000 | － | － | － | － | － | － | － |
|  | 50,000 | － | － | $\overline{7}$ | 50,000 | $2 \cdot 50$ | 1，4383 | 1，438 |
|  | 60，000 | 60，000 | 11.90 | 7，140 | 60,000 | $4 \cdot 60$ | $3,174{ }^{3}$ | 7，140 |
|  | 100，000 | 100，000 | 16．70 | 16，700 | 100，000 | 7.50 | 8，625 ${ }^{3}$ | 16，975 |
|  | 300，000 | 300,000 | 28.70 | 86，100 | 300,000 | 10.00 | $34,500^{3}$ | 86，100 |
|  | 500，000 | 500，000 | 34.70 | 173.500 | 500，000 | 12.50 | 71，875 ${ }^{3}$ | 173，500 |
|  | 1，000，000 | 1，000，000 | 40.70 | 407，000 | 1，000，000 | 18.00 | 207，000 ${ }^{3}$ | 410,500 |
| C．Brother or sister．．． | 20,000 | － | － | － | 20，000 | $8 \cdot 60$ | 2，0644 | 2，064 |
|  | 25，000 | － | － | － | 25，000 | $9 \cdot 15$ | 2，7454 | 2，745 |
|  | 50.000 | － | － | $\bar{\square}$ | 50，000 | 11.90 | 7，1404 | 7，140 |
|  | 60，000 | 60，000 | 13.90 | 8，340 | 60，000 | 13.00 | 9，3604 | 13，530 |
|  | 100.000 | 100.000 | 18.70 | 18，700 | 100.000 | 15.20 | 18，2404 | 27，590 |
|  | 300,000 | 300，000 | $30 \cdot 70$ | 92，100 | 300,000 | 18.00 | 64，8004 | 110.850 |
|  | 500，000 | 500，000 | 36.70 | 183，500 | 500，000 | 20.50 | 123，0004 | 214，750 |
|  | 1，000，000 | 1，000，000 | 42.70 | 427，000 | 1，000，000 | 26.00 | 312，0004 | 525,500 |
| D．Stranger．．．．．．．．．． | 20，000 | － | － | － | 20，000 | $13 \cdot 10$ | 3，275 ${ }^{5}$ | 3，275 |
|  | 25,000 | － | － | － | 25，000 | $13 \cdot 40$ | 4，1885 | 4，188 |
|  | 50,000 | ， | ， | － | 50，000 | 15.00 | $9,375{ }^{5}$ | 9，375 |
|  | 60，000 | 60，000 | 15.90 | 9，540 | 60，000 | 15.50 | 11，625 ${ }^{6}$ | 16，395 |
|  | 100，000 | 100，000 | $20 \cdot 70$ | 20，700 | 100，000 | 17.50 | 21，8755 | 32，225 |
|  | 300，000 | 300,000 | 32.70 | 98，100 | 300，000 | 22.50 | 84，375 ${ }^{5}$ | 133，425 |
|  | 500，000 | 500，000 | 38.70 | 193.500 | 500，000 | 27.50 | 171，8755 | 268，625 |
|  | 1，000，000 | 1，000，000 | $44 \cdot 70$ | 447，000 | 1，000，000 | $35 \cdot 00$ | 437，500 ${ }^{5}$ | 661，000 |

[^373]
## Subsection 4.-Subsidies and Taxation Agreements with the Provinces

Subsidies.-By the provisions of the British North America Act and subsequent arrangements entered into from time to time, the Federal Government makes certain annual payments to the Provinces.

Interest on Debt Allowance.-By the terms of the union of the provinces at Confederation in 1867, the Federal Government assumed all the outstanding debts and liabilities of the provinces and undertook to pay, except to Ontario and Quebec, interest at 5 p.c. per annum on the amounts by which the actual per capita indebtedness of the provinces fell short of a basic debt allowance calculated at approximately $\$ 25$ per capita. On the subsequent entry of additional provinces into Confederation, similar arrangements were effected regarding the assumption of their pre-Confederation indebtedness. From time to time, adjustments have been made in the basis of calculating the debt allowances of provinces; moreover, the Federal Government pays interest at 5 p.c. per annum on the amounts by which the actual debts of the provinces, on their entry into Confederation, fell short of the allowed debts as adjusted.

Allowances for Governments and Legislatures.-Under the terms of the union, annual specific grants were made to the various provinces toward the support of their governments and legislatures. These amounts vary with the population of the provinces, according to the following scale approved in 1907:-

| Where population is- |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Under $150,000 \ldots \ldots \ldots \ldots \ldots \ldots$. |  |  |  | 100,000 |
|  |  |  |  | 150,000 |
| 200,000, | " | " | 400,000 | 180,000 |
| 400,000, | " | " | 800,000 | 190,000 |
| 800,000, " 1,500,000. |  |  |  | 220,000 |
|  |  |  |  | 240,000 |

Allowances per Capita of Population.-Under the British North America Act of 1867, a grant of 80 cents per capita of population was allowed to each province. The British North America Act of 1907 provided that the grant would be paid to each province at the rate of 80 cents per capita up to a population of $2,500,000$, and at the rate of 60 cents per capita for so much of the population as exceeded that number. These allowances were last adjusted in 1951 following the decennial Census.

The Act to approve the Terms of Union of Newfoundland with Canada in 1949 provided for an annual subsidy equal to 80 cents per capita of the population of the Province (being taken at 325,000 until the first decennial Census after the date of union), subject to increase to conform with the scale of grants authorized by the British North America Act, 1907.

Special Grants.-For certain of the provinces, grants have been added to the original scale of subsidies because of special circumstances.

Prince Edward Island.-Various special grants totalling $\$ 155,880$ per annum.
New Brunswick.-An annual grant of $\$ 150,000$ since 1875 in consideration of the repeal of lumber duties reserved to the Province by the British North America Act of 1867.
Manitoba.-A special grant on the basis of population amounting at present to $\$ 562,500$ per annum.

Saskatchewan and Alberta．－An annual sum as compensation for loss of public lands revenue，based on their respective populations and amounting at present to $\$ 750,000$ for Saskatchewan and $\$ 750,000$ for Alberta．
Brytish Columbia．－A special grant in lieu of lands amounting at present to $\$ 100,000$ per annum．

Additional Special Grants．－Additional special grants were voted annually to the Maritime Provinces，Manitoba，Saskatchewan and British Columbia until 1941；they were suspended when the Wartime Tax Agreements，1942，came into force．The grants were paid in 1947 and later years to the three Maritime Provinces，under the provisions of the Maritime Additional Subsidies Act， 1942. The Terms of Union with Newfoundland，1949，provide for an additional annual subsidy of $\$ 1,100,000$ in recognition of the special problems of its geography and its sparse and scattered population．

24．－Subsidy Allowances to Provincial Governments，Years Ended Mar．31，1948－54

| Province | 1948 | 1949 | 1950 | 1951 | $\begin{aligned} & 1952^{2} \\ & 1953 \\ & 1954 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \＄ | \＄ | s | \＄ | \＄ |
| Newfoundland ${ }^{3}$ |  |  | 1，925， 000 | 1，540，000 | 1，569， 133 |
| Prince Edward Island | － $\begin{array}{r}656,932 \\ 2,005,140\end{array}$ | 2，005，140 | 2，005，140 | 1 2，005．， 140 | ${ }_{2,056,838}^{656.932}$ |
| New Brunswick | 1，632，386 | 1，632，386 | 1，632，386 | 1，632，386 | 1，679，022 |
| Quebec． | 2，866，590 | 2，866．590 | 2，866，590 | 2，866，590 | 3，300，869 |
| Ontario． | 3，155，007 | 3，155，007 | 3，155，007 | 3，155，007 | 3，640，940 |
| Manitoba | 1，722，202 | ${ }^{1,715,623}$ | ${ }^{1,767,315}$ | ${ }^{1,750,084}$ | 1，755，317 |
| Saskatchewan | 10，079，6514 | 2，041，525 | 2，071，900 | 2，061，775 | 2，040，757 |
| Alberta | 10，272，7674 | 2，018，039 | 2，086，043 | 2，063，375 | 2，126，976 |
| British Colum | 1，003，440 | 1，003，440 | 1，003，440 | 1，003，440 | 1，281，319 |
| Totals． | 33，394，115 | 17，094，682 | 19，169，753 | 18，734，729 | 20，108，103 |


#### Abstract

${ }^{1}$ Does not include additional payments under the Wartime Tax Agreements or the Tax Rental Agree－ ments．$\quad{ }^{2}$ Subsidies for the years 1953 and 1954 are the same as those shown for 1952 ．${ }^{3} \mathrm{Ex}$－ cludes the transitional grant allowed to this Province under the Terms of Union．${ }^{4}$ Includes a pay－ ment of $\$ 8,031,250$ under authority of the Western Provinces Treasury Bills and Natural Resources Settle－ ment Act．


25．－Individual Subsidy Allowances，by Province，Year Ended Mar．31， 1954
（Thousands of Dollars）

| Subsidy | N＇f＇ld． | P．E．I． | N．S． | N．B． | Que． | Ont． | Man． | Sask． | Alta． | B．C． | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Allowance for government | 180 | 100 | 190 | 190 | 240 | 240 | 190 | 220 | 220 | 220 | 1，990 |
| Allowance on basis of popula－ tion． | 289 | 87 | 4 | 413 | 2，933 | 3，259 | 21 | 666 | 52 | 932 | 10，4 |
| Interest on debt allo | － | 39 | 53 | 26 | 128 | 142 | 382 | 405 | 5 | 29 | 1，609 |
| Special Grants－ Additional Annual Subsidy |  |  |  |  |  |  |  |  |  |  |  |
| Statutes 1949，c． 1. <br> Statutes 1942 ，c． 14 | 1，100 | 275 | 1，300 | ${ }_{900}$ | 二 | － | 二 |  |  |  | 1,100 2,475 |
| Statutes 1887，c． 8 and R．S |  |  |  |  |  |  |  |  |  |  |  |
| 1927，c． 12 | 二 | 100 | 二 | － | － | － | － | － | － | ＝ | 20 100 |
| In lieu of public lands | $\div$ | 6 | － | － | － | － | 56 | 750 | 750 | 100 | 2，168 |
| In settlement of steamship services claims． | － | 30 | － | － | － |  |  |  |  |  | 30 |
| In lieu of export |  |  | － | 150 |  |  |  |  |  |  | 150 |
| Totals | 1，569 | 658 | 2，057 | 1，679： | 3，301 | 3，641 | 1，755 | 2，041 | 2，127 | 1，281 | 20，108 |

Taxation Agreements.-The Wartime Tax Agreements, 1942 are outlined in the 1946 Year Book, pp. $900-901$. The 1947 and 1952 tax rental agreements are outlined in pp. 1087-1090 of the 1954 Year Book.

## Subsection 5.-National Debt

A brief commentary dealing with the national debt of the Government of Canada from 1914 appears at p. 1091 of the 1954 Year Book. The tables which follow summarize the debt position as to interest, currency of payment, outstanding debt and securities issue.

## 26.-Summary of the Public Debt and Interest Payments thereon, Years Ended Mar. 31, 1944-54

Nors.-Statistics for 1867-1913 are given in the 1942 Year Book, p. 775; those for 1914-35 in the 1947 edition, p. 972; and those for 1936-43 in the 1951 edition, p. 1009.

| Year | Gross Debt | Net Active Assets | Net Debt | Net <br> Debt <br> Per <br> Capita ${ }^{1}$ | Increase or Decrease of Net Debt During Year | Interest Paid on Debt | Interest Paid Per Capita |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 1944... | 12,359,123,230 | 3,619,038,337 | 8,740,084,893 | $731 \cdot 63$ | 2,557, 235,792 | 242,681, 180 | 20.57 |
| 1945... | 15,712,181,527 | 4,413,819,509 | 11,298,362,018 | 935.91 | 2,558,277,125 | 318,994,821 | 26.70 |
| 1946... | 18,959, 846, 183 | 5,538,440, 734 | 13,421,405,449 | 1,091-88 | 2,123,043,431 | 409,134,502 | 33.89 |
| 1947... | 17,698, 195,740 | 4,650,439,192 | 13,047,756,548 | 1,039-58 | -373,648,901 | 464,394, $876^{3}$ | 37.78 |
| 1948... | 17,197,348,981 | 4,825, 712,088 | 12,371,636,893 | 964.80 | -676,119,656 | 455,455, 204 | 36.29 |
| 1949... | 16,950,403,795 | 5,174,269,643 | 11,776,134,152 | $875 \cdot 74$ | -595,502,741 | 465,137,958 ${ }^{3}$ | 36.27 |
| 1950... | 16,750,756,246 | 5,106,147,047 | 11,644,609,199 | $849 \cdot 23$ | -131,524,953 | 439,816,335 | 32.71 |
| 1951... | 16,923,307,028 | 5,489,992,080 | 11,433,314,948 | $816 \cdot 14$ | -211,294,251 | 425,217,500 | 31.01 |
| 1952... | 17,257,668,676 | 6,072,387,129 | 11,185, 281,546 | 775-14 | -248,033,402 | 432,423,082 ${ }^{4}$ | 30.87 |
| 1953... | 17,918,490,812 ${ }^{5}$ | 6,756,756,543 ${ }^{6}$ | 11,161,734,269 | $755 \cdot 14$ | -23,547, 277 | 451,339,521 | 31.28 |
| 1954... | 17,923,189,502 ${ }^{\text {s }}$ | 6,807,252,438 ${ }^{5}$ | 11,115,937,064 | $731 \cdot 55$ | -45,797,205 | 476,061,625 | $32 \cdot 21$ |

[^374]Funded Debt Operations.-The funded debt and treasury bills outstanding as at Mar. 31, 1954, are listed in Table 27 and information on the Federal Government securities (payable in Canada) issued during the year ended Mar. 31, 1954, is given in Table 28.

## 27.-Unmatured Funded Debt and Treasury Bills as at Mar. 31, 1954, and Annual Interest Payable Thereon

| $\begin{gathered} \text { Date } \\ \text { of } \\ \text { Maturity } \end{gathered}$ | Description | Rate | Where Payable | Amount of Loan Outstanding | Annual <br> Interest <br> Charge |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | p.c. |  | 8 cts . | \$ cts. |
| 1954-May 1 | Six-Month Treasury Notes. | $2 \frac{1}{4}$ |  |  | 4,500,000 00 |
| July 1 | Loan of 1953 | ${ }_{2}^{27}$ | Canads | 100,000,000 00 | 2,000,000 00 |
| Sept. 1 | Six-Month Treasury Notes | 2 | Canada | 650,090.000 00 | $11,000,00000$ |
| Dec. ${ }^{15}$ | Loan of 1950 | 2 | Canada, | $395,009,000$ <br> 150,000 <br> 1000 | 7,$900 ; 00000$ $3,000,00000$ |

## 27.-Unmatured Funded Debt and Treasury Bills as at Mar. 31, 1954, and Annual Interest Payable Thereon-concluded

| $\begin{gathered} \text { Date } \\ \text { of } \\ \text { Maturity } \end{gathered}$ | Description | Rate | Where Payable | Amount of Loan Outstanding | Annual <br> Interest <br> Charge |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | p.c. |  | 8 cts. | § cts. |
| 1955-July 1 | Loan of 1953. | $2 \frac{1}{8}$ | Canada | 200,000,000 00 | 4,500,000 00 |
| July 1 | Loan of 1953 | $2 \downarrow$ | Canada | 400,000,000 00 | 9,000,000 00 |
| 1956-July 1 | Loan of 1950. | $2 \frac{1}{4}$ | Canada | 400,000,000 00 | 9,000,000 00 |
| Nov. 1 | Third Victory Loan, 1942 | 3 | Canada | 855,607,410 501 | 25,414,081 50 |
| Nov. 1 | Canada Savings Bonds, 1946........ | ${ }^{2}$ \% | Canada | $95,935,50000$ | 2,638,226 25 |
| 1957-May 1 | Fourth Victory Loan, 1943......... | 21 | Canada | 1,111,261,650 00 | 33,337,849 50 |
| Nov. 1 | Canada Savings Bonds, 1947....... | $2 \frac{1}{4}$ | Canada | 50,870,500 00 | 1,398,938 75 |
| 1958-May 1 | Loan of 1953. | 3 | Canada | $300,000,00000$ | $9,000,00000$ |
| June 1 | Loan of 1938-39. | $\stackrel{3}{2}$ | Canada | $88,200,00000$ | 2,646,000 00 |
| Nov. 1 | Canada Savings Bonds, 1948....... | $2 \frac{3}{6}$ | Canada | 46,658,150 00 | 1,283,099 13 |
| 1959-Jan. 1 | Fifth Victory Loan, 1943. | 3 | Canada | 1,197,324,750 00 | 35,919,742 50 |
| Nov. 1 | Canada Savings Bonds, 1949 | $2 \frac{3}{4}$ | Canada | 68,392,650 00 | 1,880,797 87 |
| 1960-June 1 | Sixth Victory Loan, 1944 | , | Canada | 1,165,300,350 00 | 34,959,010 50 |
| Nov. 1 | Canada Savings Bonds, 1950....... | $2 \frac{2}{4}$ | Canada | 63,646,500 00 | 1,750,278 75 |
| 1961-Jan. 15 | Loan of 1936. | $3 \frac{1}{4}$ | New York | 47,040,000 00 | 1,528,800 00 |
| 1962-Feb. 1 | Seventh Victory Loan, 1944 | 3 | Canada | 1,315,639,200 00 | 39,469,176 00 |
| Aug. 1 | Canada Savings Bonds, 1951 | $3 \frac{1}{2}$ | Canada | 167,655,150 00 | 5,867,930 25 |
| 1963-July 1 | Loan of 1933. | , | London | 49,120,039 78 | 1,473,601 20 |
| July 1 | Loan of 1938 . | $3 \frac{1}{4}$ | London | 1,950,100 06 | , 63,378 24 |
| Aug. 1 | Canada Savings Bonds, 1952 | $3{ }^{3}$ | Canada | 200,436,800 00 | 7,516,380 00 |
| Aug. 1 | Loan of 1948. | 3 | New York | 147.000,000 00 | 4,410,000 00 |
| Oct. 1 | Eighth Victory Loan, 1945.......... | , | Canada | 1,295, 819,350 00 | 38,874,580 50 |
| 1965-Nov. 1 | Canada Savings Bonds, 1953....... | $3 \frac{3}{4}$ | Canada | 864,810,450 00 | 32,430,391 87 |
| 1966-June 1 | Loan of 1936 | $3 \frac{1}{4}$ | Canada | 54,703,000 00 | 1,777,847 50 |
| Sept. 1 | Ninth Victory Loan, 1945 | 3 | Canada | 1,691,796,700 00 | 50,753,901 00 |
| 1968-June 15 | Loan of 1950 | $2 \frac{1}{2}$ | Canada | $350,000,00000$ | 9,625,000 00 |
| 1974-Sept. 1 | Loan of 1949 | $2 \frac{1}{6}$ | New York | 98,000,000 $00{ }^{2}$ | 2,695,000 00 |
| 1975-Sept. 15 | Loan of 1950 | 23 | New York | $49,000,000003$ | 1,347,500 00 |
| 1978-Jan. 15 | Loan of 1953 | $3 \frac{3}{4}$ | Canada | 100,000,000 00 | 3,750,000 00 |
| Perpetual | Loan of 1936 | 3 | Canada | $55,000,00000$ | 1,650,000 00 |
| Various | Treasury Bills | Various | Canada | 650,000,000 00 | 12,974,100 00 |
| Totals, Unmatured Funded Debt and 'Treasury Bills. |  |  |  | 14,576,168,250 34 | 417,335,611 31 |
| Payable in Canada. ..................................... |  |  |  | 14,184, 058, 11050 | 405,817,331 87 |
| Payable in New York |  |  |  | $341,040,00000$ | 9,981,300 00 |
| Payable in London (England).......................... |  |  |  | 51,070,139 84 | 1,536,979 44 |

[^375]28.-Federal Government New Security Issues during the Year Ended Mar. 31, 1954
(Payable in Canada)

| Security Issues | Issue Date | $\begin{gathered} \text { Maturity } \\ \text { Date } \end{gathered}$ | Interest Rate | Price to Gov-ernment |  | Total <br> Amount Issued | Renewals or Reconversion included in Amount Issued | Amount Issued for Cash |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | p.c. | \$ | p.c. | \$ | \$ | \$ |
| Issued to Bank of Canada- |  |  |  |  |  |  |  |  |
| Six-month treasury notes. | May 1, 1953 | Nov. 1, 1953 | 2 | 100-00 | 2.00 | 200,000,000 | 200,000,000 | - |
| Six-month treasury notes. | Sept. 1, 1953 | Mar. 1, 1954 | 24 | $100 \cdot 00$ | $2 \cdot 25$ | 550,000,000 | 550,000,000 | - |
| Six-month treasury notes. | Nov. 1, 1953 | May 1, 1954 | $2 \frac{1}{6}$ | $100 \cdot 00$ | 2.25 | 200,000,000 | 200,000,000 | - |
| Six-month treasury notes. | Mar. 1, 1954 | Sept. 1, 1954 | 2 | $100 \cdot 00$ | $2 \cdot 00$ | 550,000,000 | 550,000,000 | - |
| Totals |  |  |  |  |  | 1,500,000,000 | 1,500,000,000 | - |
| Issued to General Public- |  |  |  |  |  |  |  |  |
| One - year - eight month loan. | Nov. 1, 1953 | July 1, 1955 | $2 \frac{1}{6}$ | 98.00 | $3 \cdot 49$ | 400,000,000 | 400,000,000 | - |
| Four - year - six month loan....... | Nov. 1, 1953 | May 1,1958 | 3 | $97 \cdot 15$ | $3 \cdot 69$ | 300,000,000 | 300,000,000 | - |
| Twenty-five-year loan. | Jan. 15, 1953 | Jan. 15, 1978 | 3) | 97-59 | 3.91 | 40,000,000 | - | 40,000,000 |
| Canada Savings Bonds, Series VIII, Net........ | Nov. 1, 1953 | Nov. 1, 1965 | $3 \frac{1}{4}$ | 98.875 | - | 864,810,450 | - | 864, 810,450 |
| Increase in treasury bills. | Various | Various | Various | Various | Various | 50,000,000 | - | 50,000,000 |
| Totals........... |  |  |  |  |  | 1,654,810,450 | 700,000,000 | 954,810,450 |
| Grand Totals... |  |  |  |  |  | 3,154,810,450 | 2,200,000,000 | 954,810,450 |

Guaranteed Debt.-Besides the direct debt of the Federal Government, already dealt with, there are large indirect obligations arising mainly out of the guarantee of securities, by the Federal Government, of the railway lines that now form the Canadian National Railways and the subsequent extensions thereof. Together with these are other small indirect obligations originating in the Government's guarantees of the bonds of the Canadian National Steamship services and of the bonds of the Harbour Commissions issued mainly for harbour improvements. Since 1932, guarantees of certain bank loans have been made under the various Relief Acts. When the Bank of Canada commenced business on Mar. 11, 1935, the guarantee [authorized by Sect. 27 (6) of the Bank of Canada Act] of the deposit required, to be maintained in the Bank of Canada by every chartered bank, came into force. This guarantee must be implemented "in the event of the property and assets of the Bank being insufficient to pay its liabilities and/or if the Bank suspends payment of any of its liabilities'.

## 29.-Guaranteed Debt of the Government of Canada (Amounts held by the Public as at Mar. 31, 1954)

Nore.-These contingent liabilities are expressed in Canadian dollars; stocks and bonds payable optionally or solely in Sterling or United States dollars are converted on the basis of $£ 1=\$ 4.86 \frac{1}{3}$ and $\$ 1$ U.S. $=\$ 1$ Canadian, respectively.

| Item | Amount of Guarantee Authorized | Amount Held by Public at Mar. 31, 1954 |
| :---: | :---: | :---: |
|  | \$ | \$ |
| Canadian National Ry. Co. $4^{\frac{3}{4}}$ p.c. gold bonds due 1955. | 50,000,000 | 48,496,000 |
| Canadian National Ry. Co. $4 \frac{3}{2}$ p.c. gold bonds due 1956. | $70,000,000$ | 67,368,000 |
| Canadian National Ry, Co. 41 p.c. gold bonds due 1957. | 65,000,000 | 64,136,000 |
| Canadian Northern Ry. Co. $3 \frac{1}{3}$ p.c. debenture stock due 1958, £1,622,586/19/9. | 7,896,590 | 5,636,506 |
| Canadian National Ry, Co. 3 p.c. bonds due 1959........................ | 35,000,000 | $35,000,000$ |
| Canadian Northern Alberta Ry. Co. $3 \frac{1}{\mathrm{I}}$ p.c. debenture stock due 1960, £647,260/5/6. | 3,150,000 | 550,727 |
| Canadian Northern Ontario Ry. Co. $3 \frac{1}{\frac{1}{2}}$ p.c. debenture stock due 1961, £7,350,000. | 35,770,000 | 3,597,518 |
| Grand Trunk Pacific Ry. Co. 3 p.e. bonds due 1962, $£ 14,000,000 . . .$. | 68,040,000 | 26,465, 130 |
| Canadian Northern Alberta Ry. Co. 3/ 3 p.c. debenture stock due 1962, $£ 733,561 / 12 / 10$. | 3,570,000 |  |
| Grand Trunk Pacific Ry. Co. 4 p.e. bonds due 1962, £3,280,000 ........... | 15,940,800 | 7,999,074 |
| Canadian National Ry. Co. 3 p.c. bonds due 1966 | 35,000,000 | $35,000,000$ |
| Canadian National Ry. Co. $2 \frac{3}{4}$ p.c. bonds due 1967 | 50,000,000 | $50,000,000$ |
| Canadian National Ry. Co. 21 p.c. bonds due 1969 | 70,000,000 | 70,000,000 |
| Canadian National Ry, Co. $2 \frac{1}{\frac{1}{2}}$ p.c. bonds due 1971 | 40,000,000 | 40,000,000 |
| Canadian National Ry. Co. $3 \frac{3}{4}$ p.c. bonds due 1974 | 200,000,000 | 200,000,000 |
| Canadian National Ry. Co. 2\% p.c. bonds due 1975 | 6,000,000 | 6,000,000 |
| Totals | 755,367,390 | 660,248,955 |
| Railway Securities Guaranteed as to Interest Only- |  |  |
| Grand Trunk Ry. Acquisition Guarantees- |  |  |
| Grand Trunk 5 p.c. perpetual debenture stock, $£ 4,270,375$. | 20,782,492 | 173,871 |
| Great Western 5 p.c. perpetual debenture stock, $£ 2,723,080$ | 13,252,323 | 61,855 |
| Grand Trunk 4 p.c. perpetual debenture stock, $£ 24,624,455$ | 119,839,014 | 952,353 |
| Northern Ry. Co. of Canada 4 p.c. perpetual debenture stock, £308,215.. | 1,499,980 | 5,334 |
| Totals | 155,373,809 | 1,193,413 |
| Other Securities Guaranteed as to Principal and Interest- |  |  |
| Canadian National (West Indies) Steamships Ltd., 5 p.c. bonds due 1955.. | 10,000,000 | 9,400,000 |
| Saint John Harbour Commissioners bonded indebtedness of the City of Saint John assumed by Commission. | 1,467,165 | 3,329 |
| Totals | 11,467,165 | 9,403,329 |
| Other Guarantees- |  |  |
| Bank advances, re Province of Manitoba Savings Office, | 12,442,4001 | 2,540,078 |
| Province of Manitoba Treasury Bill | 2,500,000 | 1,000,000 |
| Deposits maintained by the chartered banks in Bank of Canada......... | Unstated | 660,006,115 |
| Loans made by approved lending institutions under National Housing Act. | Unstated | Indeterminate |
| Loans made by approved lending institutions under The Home Improvement Loans Guarantee Act. | 7,500,000 ${ }^{1}$ | 257 |
| Loans made by approved lending institutions under Part IV of the National Housing Act, 1944, for home extensions or improvements. | 6,250,000 | 7,483 |
| Guarantees to approved lending institutions in respect of land assembly projects under the National Housing Act, 1944. | Unstated | 543,535 |
| Guarantees under Export Credits Insurance Act............... | 12,750,000 | 8,925,000 |
| Loans made by chartered banks under the Farm Improvement Loans Act. | 58,952,089 | 31,762,495 |
| Loans made by chartered banks under the Veterans Business and Professional Loans Act. | Indeterminate | 1,866,602 |
| Loans made by chartered banks under The Prairie Grain Producers' Interim Financing Act, 1951 (as at Feb. 28, 1954) | 5,000,000 | $25,778$ |
| Loans made by chartered banks to the Canadian Wheat Board | 150,000,000 | $73,626,838$ |

${ }^{1}$ This amount represents the original maximum amount guaranteed. As the authority for making additional guaranteed loans or advances had expired prior to Mar. 31, 1953, the amount authorized at that date is the same as the amount outstanding.

## Section 3.-Provincial Public Finance

To prepare comparable provincial finance statistics it is essential that data be presented, to the greatest possible extent, in uniform categories. Activities relating to a specific function are sometimes excluded by provincial governments from their ordinary account. The special or administrative funds of this nature so excluded are, therefore, added to provincial ordinary account and capital account to arrive at revenue and expenditure in the tables of this Section. The figures of revenue and expenditure presented will, therefore, differ considerably from the totals shown in certain provincial public accounts.

Fiscal periods are dealt with to coincide as nearly as possible in view of the variations in provincial fiscal year-ends. Figures for the Province of Newfoundland are included commencing with the year 1949 and those for Yukon Territory with the year 1950 .

## Subsection 1.-Revenue and Expenditure of Provincial Governments

The figures of revenue and expenditure presented in this Subsection do not agree with those shown in Tables 1 and 3, pp. 1126 and 1127-1128, mainly because of differences in the methods used to compute "net" figures.

The classification of revenue by source and of expenditure by function was revised in 1946 and again in 1948. Details of these changes may be found in the 1951 Year Book, p. 1014, and in the 1952-53 Year Book, p. 1064.
"Net general revenue" (see Tables 30 and 31) is the deduction from "gross general revenue" of (a) all institutional revenue, (b) revenue in the form of interest, premium, discount and exchange, (c) grants-in-aid and shared-cost contributions, and (d) all capital revenue. These revenues are then offset against the related functions of expenditure to arrive at "Net general expenditure", as shown in Tables 30 and 32.

The following statement gives some indication of the increase in the revenue collected and services rendered in 1951 by the provincial governments compared with 1946.

| Item | $1946{ }^{1}$ | $1951{ }^{1}$ | Increase |
| :---: | :---: | :---: | :---: |
| Net General Revenue-Taxes- | (Millions of Dollars) |  |  |
|  |  |  |  |
| Corporation income tax | 1 | 163 | 162 |
| Motor fuel and fuel oil tax | 73 | 180 | 109 |
| General sales tax.. | 25 | 88 | 63 |
| Other taxes...... | 73 | 130 | 57 |
| Federal tax-rental agreements. | 84 | 88 | 4 |
| Privileges, Licences and Permits- |  |  |  |
| Motor-vehicles. | 38 | 72 | 34 |
| Natural resources | 42 | 113 | 71 |
| Other.......... | 24 | 42 | 18 |
| Liquor profits. | 100 | 113 | 13 |
| Other revenue and non-revenue and surplus receipts...... | 42 | 61 | 19 |
| Totals, Net General Revenue. | 502 | 1,050 | 550 |
| Net General Expenditure- |  |  |  |
| Transportstion and cornmunications | 135 | 293 | 158 |
| Health and Social Weliare........... | 101 | 253 | 152 |
| Education. | 88 | 191 | 103 |
| Debt charges | 73 | 144 | 71 |
| Other... | 112 | 248 | 136 |
| Totale, Net General Expenditure. | 509 | 1,129 | 620 |

[^376]30.-Net General Revenue and Expenditure of Provincial Governments, Fiscal Years Ended Nearest Dec. 31, 1949-51

| Province or Territory | Revenue |  |  | Expenditure |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 | 1950 | 1951 | 1949 | 1950 | 1951 |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland. . . . . . . . . . | 17,424 | 21,028 | 25,183 | 26,077 | 27,536 | 29,995 |
| Prince Edward Island...... | 5,091 | 5,590 | 6,048 | 6,743 | 7,537 | 8,368 |
| Nova Scotia.............. | 34,249 | 35,685 | 38,794 | 52,703 | 53,988 | 51,855 |
| New Brunswick. . . . . . . . . . | 29,431 | 32,271 | 40,697 | 40,037 | 43,463 | 44,624 |
| Quebec.. | 207,040 | 238,883 | 277,406 | 197,651 | 233,986 | 275,500 |
| Ontario. | 235,421 | 265,705 | 303,842 | 280,550 | 298,779 | 367,726 |
| Manitoba... | 38,042 | 41,643 | 46,073 | 38,831 | 40,912 | 48,717 |
| Saskatchewan | 61,275 | 68,668 | 74,777 | 60,446 | 68,168 | 77,449 |
| Alberta. | 88,363 | 105,276 | 105,751 | 58,729 | 73,702 | 84,840 |
| British Columbia | 124,265 | 138,681 | 157, 102 | 163,267 | 160,169 | 170, 136 |
| Yukon Territory. | .. | 1,023 | 1,187 | .. | 1,001 | 1,163 |
| Totals | 840,601 | 952,453 | 1,076,860 | 925,034 | 1,009,241 | 1,160,373 |

## 31.-Details of Net General Revenue of Provincial Governments, Fiscal Years Ended Nearest Dec. 31, 1950 and 1951

| Source | 1950 | 1951 | Source | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 |  | \$'000 | \$'000 |
| Taxes- <br> Corporations. $\qquad$ | 23,022 | 25,464 | Other GovernmentsGovernment of CanadaShare of income tax on |  |  |
| Income- |  |  | power utilities.. | 4,458 | 3,714 |
| Corporations | 127,217 | 163,006 | Subsidies. | 25,300 | 26,615 |
| Individuals. Property..... | 115 7,299 | 7,854 | Totals, Government of Canada. | 29,758 | 30,329 |
| Sales- <br> Alcoholic beverages. | 1,608 | 1,615 | Municipalities. | 851 | 879 |
| Amusements and admissions. | 19,007 | 19,975 | Totals, Other Governments | 30,609 | 31,208 |
| Motor-fuel and fuel-oil...... | 156,587 | 181,949 |  |  |  |
| Tobacco.. | 10,003 | 9,830 |  |  |  |
| General................. | 75,845 | 90,675 |  |  |  |
| Other commodities and services. | 3,295 | 4,162 | Government Enterprises and Other FundsLiquor profits. Other. | 111,939 3,486 | 115,640 3,459 |
| Succession duties | 31,216 | 34,189 |  |  |  |
| Other. | 23,294 | 27,616 |  |  |  |
| Totals, Taxes. | 478,508 | 566,380 | Other revenue | 700 | 776 |
| Federal Tax-Rental Agree- |  |  | Totals, excluding Non-revenue and Surplus Receipts. | 950,560 | 1,074,466 |
| Privileges, Licences and Per-mits- |  |  | Non - revenue and Surplus Receipts- |  |  |
| Liquor control and regulation | 26,907 67 | 28,370 72645 | Refund of previous years' |  |  |
| Motor-vehicles... | 67,060 99,325 | 72,645 113,307 | expenditure | 717 | 859 |
| Other............ | 13,418 | 13,953 | credited to revenue.... | 1,152 | 1,524 |
| Totals, Privileges, Licences and Permits. | 206,710 | 228,275 | Totals, Non-revenue and | 1,893 | 2,394 |
| Sales and Services | 23,387 | 29,925 |  |  |  |
| Fines and Penalties. | 2,439 | 2,916 | Revenue. | 952,453 | 1,076,860 |

## 32.-Details of Net General Expenditure of Provincial Governments, Fiscal Years Ended Nearest Dec. 31, 1950 and 1951


${ }^{1}$ Includes debt retirement amounting to $\$ 66,937,000$ in 1950.
33.-Gross Ordinary Revenue and Expenditure of Provincial Governments, Fiscal Years Ended Nearest Dec. 31, 1949-51

| Province or Territory | Revenue |  |  | Expenditure |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 | 1950 | 1951 | 1949 | 1950 | 1951 |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland. | 19,944 | 27,744 | 30,359 | 24,542 | 28,099 | 30,038 |
| Prince Edward Island | 6,375 | 7,007 | 7.327 | 6,418 | 6,993 | 7,153 |
| Nova Scotia. | 44,426 | 46,540 | 49,336 | 44,301 | 47,496 | 49,910 |
| New Brunswick | 36,885 | 40,283 | 48,769 | 36,997 | 40,892 | 50,102 |
| Quebec. | 244,514 | 283,846 | 318,821 | 212,605 | 245,853 | 256,911 |
| Ontario. | 280,914 | 313,336 | 348,506 | 291,425 | 310,155 | 364,064 |
| Manitoba. | 48,663 | 65,327 | 57,067 | 43,340 | 61,706 | 53,628 |
| Saskatchewan | 72,690 | 79,192 | 85,804 | 67,961 | 74,819 | 79,081 |
| Alberta. | 98,626 | 118,088 | 118,341 | 52.105 | 61,166 | 70,582 |
| British Columbia | 145,090 | 156,586 | 175,387 | 156, 120 | 162,792 | 170,282 |
| Yukon Territory. |  | 1,077 | 1,532 | .. | 900 | 1,140 |
| Totals | 998,127 | 1,139,026 | 1,241,249 | 935,814 | 1,040,871 | 1,132,891 |

## Subsection 2.-Debt of Provincial Governments

The average coupon rate of gross bonded debt of Provincial Governments in 1952 remained at the 1951 level of $3 \cdot 47$ p.c.

Tables 34 to $\mathbf{3 6}$ deal with the direct and indirect debt of the Provincial Governments and reveal that though total gross bonded debt has steadily increased in the past five years, the average coupon rate has decreased slightly. Table 34 reflects the preponderance of bond issues payable in Canada only. There has been a steady decline in bonded debt payable in London (England).
34.-Gross Bonded Debt (exclusive of Treasury Bills) of ,Provincial Governments, as at Fiscal Year Ends Nearest Dec. 31, 1948-52


[^377]34.-Gross Bonded Debt (exclusive of Treasury Bills) of Provincial Governments, as at Fiscal Year Ends Nearest Dec. 31, 1948-52-concluded

| Year | Bonded Debt | Average Coupon Rate | Average Term of Issue | Bonded | Average <br> Coupon Rate | Average <br> Term of Issue |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ontario |  |  | Manitoba |  |  |
|  | \$'000 | p.c. | yrs. | \$'000 | p.c. | yrs. |
| 1948. | 583,349 | $3 \cdot 64$ | 21.2 | 74,686 | 4.07 | 23.3 |
| 1949. | 654,503 | 3-56 | 21.2 | 91,480 | $3 \cdot 82$ | 21.5 |
| 1950. | 672,6671 | 3-52 | 21.9 | 98,446 | 3-68 | $19 \cdot 6$ |
| 1951. | 794,4991 | 3-54 | $21-1$ | 128,409 | 3-66 | 18.8 |
| 1952......................... | 867,5671 | $3 \cdot 53$ | $22 \cdot 4$ | 154,149 | $3 \cdot 74$ | 18.2 |
|  | Saskatchewan |  |  | Alberta |  |  |
|  | \$'000 | p.e. | yrs. | \$ 000 | p.c. | yrs. |
| 1948........................ | 142,460 | $4 \cdot 20$ | $19 \cdot 4$ | 108,289 | 3-37 | $22 \cdot 3$ |
| 1949.......................... | 130,822 | 4.16 4.02 | $19 \cdot 6$ 19.5 | 168,700 88,765 | - $2 \cdot 16$ | 20.5 $15 \cdot 0$ |
| 1951.......................... | 135,331 | 3.87 | 18.8 | 86,270 | $2 \cdot 87$ | $15 \cdot 2$ |
| 1952......................... | 145,351 | 3-88 | $19 \cdot 8$ | 83,693 | $2 \cdot 87$ | 15.5 |
|  | British Columbia |  |  | Totals |  |  |
|  | \$'000 | p.c. | yrs. | \$'000 | p.c. | yrs. |
| 1948. | 143,984 | $3 \cdot 69$ | 21.7 | 1,766,978 | $3 \cdot 61$ | 19.8 |
| 1949. | 168,763 | $3 \cdot 55$ | 21.2 | 1,955,095 | 3-53 | $19 \cdot 5$ |
| 1950. | 185,820 | 3-36 | 20.0 | 1,944,740 ${ }^{1}$ | $3 \cdot 46$ | $19 \cdot 3$ |
| 1951. | 245,266 | $3 \cdot 38$ | 20.1 | 2,209,3191 | $3 \cdot 47$ | $19 \cdot 1$ |
| 1952.. | 235,528 | $3 \cdot 41$ | 20.7 | 2,371,033 ${ }^{1}$ | $3 \cdot 47$ | 19.5 |

${ }^{1}$ Excludes bonds assumed by the province.
35.-Total Gross Bonded Debt (exclusive of Treasury Bills) of Provincial Governments by Currency of Payments, as at Fiscal Year Ends Nearest Dec. 31, 1948-52

| Payable in- | 1918 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$ ${ }^{\prime} 000$ | \$'000 | \$'000 |
| Canada only. . . . . . . . . . . . . . . . . . . . . . | 1,210,291 | 1,361,933 | 1,421,651 | 1,450,160 | 1,522,623 |
| London (England) only. | 29,958 | 28,670 | 19,359 | 16,643 | 16,643 |
| London and Canada. | 8,721 | 7,582 | 2,974 | 3,499 | 3,499 |
| New York (U.S.A.) only | - | - | 16.875 | 265,025 | 358,255 |
| New York and Canada. | 301,787 | 346,182 | 300,867 | 296,047 | 297,243 |
| London, New York, and Canada. . . . . . . | 216,221 | 210.728 | 183,014 | 177,945 | 172,770 |
| Totals | 1,766,978 | 1,955,095 | 1,94,740 ${ }^{2}$ | 2,209,3191 | 2,371,033 ${ }^{1}$ |

[^378]36.-Provincial Government Net Direct and Indirect Debt (less Sinking Funds), as at Mar. 31, 1953

| Direct and Indirect Debt | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Funded Debt- Direct D |  |  |  |  |  |  |  |  |  |  |  |
| Bonded debt...... Less Sinking Funds. | 15,000 1,374 | 18,9981 2,764 | 190,871 18,475 | $198,816^{2}$ 34,146 | $\begin{aligned} & 461,925^{2} \\ & 106,607 \end{aligned}$ | $\begin{aligned} & 868,467^{2} \\ & 155,985 \end{aligned}$ | 154,149 32,894 | 145,351 12,765 | 83,693 | 235,528 58,244 | $\begin{array}{r} 2,372,798 \\ 423,254 \end{array}$ |
| Net bonded debt......................................... | 13,626 | 16,234 | 172,396 | 164,670 | 355,318 | 712,482 | 121,255 16,758 | 132,586 29,166 | 83,693 11,108 | 177,284 21,581 | $\begin{array}{r} 1,949,544 \\ 78,613 \end{array}$ |
| Net Funded Debt. | 13,626 | 16,234 | 172,396 | 164,670 | 355,318 | 712,482 | 138,013 | 161,752 | 94,801 | 198,865 | 2,028,157 |
| Short-term treasury bills ${ }^{4}$ |  | - | 1,200 | - | - | 25,500 ${ }^{\text {3 }}$ | 10,935 ${ }^{\text {b }}$ | 5,218 | - |  | 42,853 |
| Savings deposits and certificates.................. | 12 | 1,103 ${ }^{7}$ |  | - | - | - | , | 31 | 328 | - | 1,474 |
| Temporary loans and overdrafts.................. | - |  | - | - | - | 9,311 |  | - |  | - | 9,311 |
| Accounts and Other payables- | - |  |  | 343 |  |  |  |  |  |  |  |
| F Others : $\ldots$................... | - 862 | 44 | 1,793 | 2,855 | 16,935 | 61,2719 | 2,493 | 2,700 | 5,764 | 20,763 | 113,050 |
| Accrued interest and other accrued expendi | 206 | 168 | 1,834 | 2,813 | 3,779 | 9,943 | 3,352 | 1,328 | 222 | 2,372 | 26,017 |
| Totals, Net Direct Debt (less Sinking Funds).. | 14,706 | 17,574 | 181,117 | 170,681 | 385,819 | 847,984 | 154,862 | 173,832 | 101,115 | 232,952 | 2,280,642 |
| Indirect Debt |  |  |  |  |  |  |  |  |  |  |  |
| Guaranteed bonds or debentures | 5,160 | 387 | 757 | 8,065 | 286,612 | 715,604 |  | ${ }_{2}^{256}$ | 2 | 31,939 $\mathbf{2} 248$ | 1,049, 107 |
| Guaranteed bank loans | 2,356 | - | 121 2,867 | 2,254 2,455 | 2,200 | 2,19020 3,720 | 二 | 282 | $\overline{4,678}$ |  | 18,558 |
| Municipal improvement assistance act loa | 2,356 |  | 415 | ${ }^{243}$ | 1,261 | , | 68 | 368 | , 336 | 987 | 3,682 |
| Other guarantees. | 26,036 ${ }^{11}$ |  | - |  |  |  |  |  |  | - | 26,078 |
| Totals, Net Indirect Debt (less Sinking Funds). | 33,552 | 391 | 3,918 | 10,509 | 289,828 | 717,134 | 393 | 705 | 5,016 | 30,678 | 1,092,124 |
| Totals, Net Direct and Indirect Debt (less Sinking Funds). | 48,258 | 17,965 | 185,035 | 181,190 | 675,647 | 1,565,118 | 155,255 | 174,537 | 106,131 | 263,630 | 3,372,766 |
| Net direct debt per capita ${ }^{12}$ | 38.40 | $165 \cdot 7$ ! | $273 \cdot 18$ | 318.43 | $90 \cdot 38$ | $173 \cdot 16$ | 191.42 | 201.90 | 100.91 | 189.39 | 154.56 |
| Net indirect debt per capita ${ }^{12}$. | $87 \cdot 60$ | $3 \cdot 69$ | $5 \cdot 91$ | $19 \cdot 61$ | 67.89 | 146.44 | $0 \cdot 49$ | 0.82 | $5 \cdot 01$ | $24 \cdot 94$ | $74 \cdot 01$ |

[^379]
## Section 4.-Municipal Finance

## Subsection 1.-Municipal Assessed Valuations

The revenue resources of municipalities are limited, generally, to direct taxation based on assessed valuations of real and other types of property. In the Provinces of Prince Edward Island, Nova Scotia, New Brunswick, Manitoba and Alberta, municipalities assess and tax personal property. In Alberta municipal districts, the valuations of personal property assessed have risen sharply with the growth of the oil industry. In Manitoba, the personal property tax is used generally by all classes of municipalities except cities. Aside from property, the most important type of valuation for taxation purposes is business assessment, although not all provinces assess for business purposes separately and distinctly from real property valuations. A variation of methods, schedules and rates exists not only between provinces but also between municipalities within the same province. Some municipalities use the rental basis, others the value of floor space occupied and still others the capital value of the premises occupied. Three provinces have other miscellaneous types of assessment, the general nature of which are given in the footnotes to Table 37.

The figures in Table 37 are not entirely comparable, on an interprovincial basis, from the standpoint of relative values of properties taxable for municipal purposes. Each province operates under its own assessment laws, which are not all similar either in application or in effect. For instance, in British Columbia cities and municipal districts, improvements cannot be taxed on a value in excess of 75 p.c. of taxable values or, in most of the villages, in excess of 50 p.c. of taxable values; the values actually taxed in 1952 ranged from nil to 75 p.c. Improvements were assessed generally for tax purposes at 50 p.c. of taxable values, but for all municipalities the total improvements actually taxed represented $52 \cdot 6$ p.c. of total taxable values. In addition, there are other intra-provincial inconsistencies between municipalities which, in turn, further affect interprovincial comparisons. These may be said to be caused by the lack of integrated municipal assessment systems and uniform standards for establishing values on a province-wide basis, under the direction and control of a central authority. However, there has been considerable progress towards uniformity and improved procedure in recent years.

Complete figures for tax-exempt properties are not available for each province, but the information given shows that these properties have assumed relatively high proportions. Most provinces have shown consistent increases in taxable assessed valuations that may be attributed largely to the war-born stimulus to business and industry and the continued buoyancy of the economy in the post-war years.
37.-Municipal Assessed Valuations, by Province, 1948-52

| Province and Year | . Taxable Valuations on which Taxes were Levied |  |  |  |  | Total Exemptions ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Real Property | Personal Property | Business | Other ${ }^{1}$ | Total |  |
| N'P1d | \$ | \$ | \$ | 8 | \$ | \$ |
| 1952... | * | . | . | . | $\cdots$ | . |
| P. E. 1.- |  |  |  |  |  |  |
| 1948. | 12,272,825 | 5,353,199 |  |  | 17,626,024 |  |
| 1949. | 13,714,935 | 5,777,847 | . | . | 19,492,782 | 7,456,500 |
| 1950. | $16,872,045$ $23,539,274$ 2, | $6,085,510$ $9,650,989$ | $\because$ | $\cdots$ | 22,957,555 | 7,788,500 |
| 1951. | $23,539,274$ $25,767,825$ | $9,650,989$ $9,822,300$ | $\because$ | $\cdots$ | $33,190,263$ 35,590 | $9,585,500$ $9,595,500$ |

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37．－Municipal Assessed Valuations，by Province，1948－52－concluded

| Province and Year | Taxable Valuations on which Taxes were Levied |  |  |  |  | Total Exemptions ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Real Property | Personal Property | Business | Other ${ }^{1}$ | Total |  |
|  | \＄ | \＄ | \＄ | \＄ | \＄ | \＄ |
| N．S．－ |  |  |  |  |  |  |
| 1948. | 172，646，093 | 32，901，111 | 10，866，035 | 3，934，300 | 220，347， 539 | 98，190，291 |
| 1949. | 179，425，853 | 35，658，983 | 11，826，635 | $4,039,860$ | 230，951， 331 | 96，594，851 |
| 1950. | 186，588，461 | 36，277，551 | 12，527，060 | $4,212,700$ | 239，605，772 | 100，567，331 |
| 1951. | 223，083，830 | 49，077，698 | 13，704，315 | 4，582，280 | 290，448，123 | 121，862，179 |
| 1952. | 240，575，423 | 55，167，734 | 14，315，320 | 4，745，615 | 314，804，092 | 135，475，897 |
| N．B．－ |  |  |  |  |  |  |
| 1948．． | 216，747，760 | 39，148，968 | 24， $838,762{ }^{5}$ |  | 280，735，490 | $\cdots$ |
| 1949. | 232，968， 026 | 49，867，238 | 20，242，638 | 4，548，246 | 307，626， 148 | ． |
| 1950. | 248，004，509 | 52，053，312 | 20，005，507 | 5，049，356 | 325，112，684 |  |
| 1951. | 277， $823,120^{6}$ | $57,940,014$ | 20，084，431 | 5，549，813 | 361，397，378 | ． |
| 1952．．． | $304,672,416^{6}$ | 66，139，670 | 18，448，868 | 7，792，704 | 397，053， 658 | ．． |
| Que．－ |  |  |  |  |  |  |
| 1948．． | ． | $\ldots$ |  | － | 2，870，933，000 | 844，926，000 |
| 1949．． | ．． | $\ldots$ |  | 二 |  |  |
| 1950. |  | ．．． |  | 二 | $3,250,913,000$ $3,667,164,730$ | $956,491,000$ $1,020,186,968$ |
| 1951. | $3,667,164,730$ $3,868,454,172$ | $\ldots$ |  | 二 | $3,667,164,730$ $3,868,454,172$ | $\begin{aligned} & 1,020,186,968 \\ & 1,110,220,252 \end{aligned}$ |
| Ont．－ |  |  |  |  |  |  |
| 1948. | 3，097，590，198 | $\cdots$ | 337，253， 277 | － | 3，434，843，475 | 672，486，650 |
| 1949. | 3，541，093，264 | ．．． | 439，425，168 | － | 3，980，518，432 | 690，345， 875 |
| 1950. | 3，724，238，000 | ．．． | 475，081，000 | － | 4，199，319，000 | 813，812，000 |
| 1951. | 3，883，874，441 | ．．． | 526，167，093 | － | 4，410，041，534 | 873，847， 077 |
| 1952. | 4，253，111，819 | ．．． | 520，867，384 | － | 4，773，979，203 | 913，310，338 |
| Man．－ |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 1949. | 545，455，305 | 6，765，685 | 20，686，352 | － | 572，907，342 | 150，227， 268 |
| 1950. | 567，470，959 | 6，866，910 | 23，655，349 | － | 597，993，218 | 150，610，692 |
| 1951. | 588，596，298 | 6，841，122 | 25，064，239 | 二 | 620，501，659 | 156，258，385 |
| $1952 . .$. | 615，894，060 | 6，513，999 | 27，614，244 | － | 650，022，303 | 154，354，005 |
|  |  |  |  |  |  |  |
| 1948．． | 856，567，899 | $\cdots$ | 45，138，084 | 224，200 |  | 126，093，885 |
| 1949. | $851,346,814$ | ．．． | 45，358，694 | 74，830 | 896，780， 338 | 125，049，181 |
| 1950. | 866，976，708 | ．．． | 45，874，623 | 72，780 | 912，924，111 | 129，356，385 |
| 1951. | 881，911，929 | ．．． | 46，341，360 | 61，320 | 928，314， 609 | 477，649，877 |
| 1952. | 894，296，222 | ．．． | 46，957，456 | 27，100 | 941，280，778 | 491，314，850 |
| Alta．－$\quad 40$ |  |  |  |  |  |  |
| 1948． | 643，444， 139 | 32，058，972 | 16，859，447 | － | 692，362，558 | $71,396,730$ |
| 1949. | 689，096，752 | 41，259，257 | $19,690,072$ $24,392,850$ | － | $750,046,081$ $800,819,327$ | $76,510,667$ $88,450,368$ |
| 1950．．．． | $736,603,247$ $803,411,739$ | $39,823,230$ $47,376,105$ | $24,392,850$ $29,033,624$ | － | $800,819,327$ $879,821,468$ | $\begin{aligned} & 88,450,368 \\ & 91,290,874 \end{aligned}$ |
| 1951．．．．．．． | $803,411,739$ $895,586,606$ | $47,376,105$ $58,114,430$ | $29,039,624$ $33,790,852$ | 二 | $8797,821,468$ $987,491,888$ | $91,290,874$ $106,461,418$ |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 1949. | $573,460,256$ | $\ldots$ | ． | － | $573,460,256$ | 206，974，496 |
| 1950. | 622，441，721 | ．．． | ．． | － | 622，441，721 | 226，258，620 |
| 1951. | 658，828， 264 | ．．． | ． | － | 658，828，264 | $249,473,826$ $266,362,640$ |
| 1952. | 712，927，512 | ．．． | $\cdots$ | － | 712，927，512 | 266，362，640 |

${ }^{1}$ Includes the following：N．S．－household tax，Halifax；N．B．－occupancy tax，Fredericton，and rentals tax，Moncton；Sask．－special franchise．${ }^{2}$ Total of valuations assessed but exempted from taxation． Excludes exempt property not assessed．${ }^{2}$ Taxes are levied on rental values in some municipalities using a property base．$\quad$ Includes estimated values for some municipalities；total exemptions are incomplete．${ }^{6}$ Includes some other types of valuations not specified．${ }^{6}$ Includes personal property tax for local improvement districts and commissions，not separable．

## Subsection 2.-Municipal Taxation

Table 38 shows, by province, the local taxes levied by municipalities and by some school authorities in the years 1948-52 and the total taxes outstanding at the end of those years.
38.-Municipal Taxation, by Province, 1948-52


For footnotes, see end of table.
92428-74 $\frac{1}{2}$
38.-Municipal Taxation, by Province, 1948-52-concluded

| Province and Year | Tax Levy | Tax Collections, Current and Arrears |  | T'axes Receivable, Current and Arrears | Property Acquired for Taxes | Total Taxes Receivable and Property Acquired for Taxes |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | P.C. of Levy |  |  | Total | P.C. of Levy |
|  | \$ | 8 |  | $\$$ | \$ | \$ |  |
| British Columbia- $1948 . . . . . . . . . . . . ~$ | 31,569,359 | 32,129,247 | $101 \cdot 8$ | 2,547,197 | 6,627,977 | 9,175,174 | 29.1 |
| 1949. | 35,935, 608 | 35,292,415 | 98.2 | $3,024,234$ | 6,160,178 | 9,184,412 | $25 \cdot 6$ |
| 1950. | 38,958,707 | 38,941, 143 | $100 \cdot 0$ | 3,135,089 | 6,003,092 | $9,138,181$ | 23.5 |
| 1951. | 43,190,910 | 42,746.414 | 99.0 | 3,616,090 | 5,679,215 | 9, 295, 305 | 21.5 |
| 1952. | 48,577, 199 | 48,396, 892 | 99.6 | 3,883,621 | 5,314,659 | 9,198,280 | 18.9 |

${ }^{1}$ Does not include schools; information not available.
${ }^{2}$ Excludes certain provincial and other special taxes (see text following this table).

Because of the considerable differences in the division of responsibility for services between the provincial governments and their respective municipalities, extreme caution should be exercised in using the figures in Table 38 as a basis for interprovincial comparisons of the relative burden of municipal taxation. Also, in Saskatchewan, municipalities are required to levy certain taxes for and on behalf of the provincial government and for other special purposes for which there is no comparable situation in other provinces. For Saskatchewan, the amounts of such taxes excluded in the municipal levies in Table 38 are as follows:-

| Province and Tax | 1948 | 1949 | 1950 | 1951 | 1958 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | $\delta$ | \$ |
| Saskatchewan - |  |  |  |  |  |
| Public revenue. | 1,719,041 | 1,751,388 | 1,809,703 | 1,830,314 | 1,845,949 |
| Hail. | 1,433,916 | 1,092,058 | 1,217,658 | 1, 111,465 | 2,069,074 |
| Telephone | 633,287 16,060 | 678,358 14,762 | 718,987 13,101 | 760,610 13,157 | 814,269 11,813 |
| Drainage...... | 16,060 | 14,762 | 13,101 | 13,157 | 11,813 |
| Totals, Saskatche | 3,802,304 | 3,536,566 | 3,759,449 | 3,715,546 | 4,741,105 |

## Subsection 3.-Municipal Debt

The rapid growth experienced by municipalities in Canada, coupled with increased demands and responsibilities for improvements, schools, utilities and other services or facilities, has resulted in the incurring of a heavy burden of debt. Debenture borrowings increased rapidly in the period 1900-12 and again during the 1920's and early 1930's. From 1933 to 1946 the trend was downward but since 1947 it has shown a considerable increase.

Several important factors contributed to the 1933-46 decline-not least important the measure of control exercised by the provincial governments over capital expenditure involving the incurring of debt. In addition, there was a more or less orderly retrenchment during the depression years following periods of what proved to be unwarranted expansion which, along with widespread demands to ease the tax burden on real property, resulted in the severe curtailment of capital undertakings and works requiring debenture financing. Also, the greater part of the municipal long-term debt was represented by serial or instalment-type debentures, which require yearly repayments of principal. During the 1930's, the rehabilitation of existing assets and new works and improvements necessitated by normal expansion and development were sacrificed mainly in the interests of
the taxpayers. After the outbreak of war in 1939, the policy of deferment was continued, or even extended, to free the financial market for the needs of the Federal Government in meeting war-financing requirements. Since the end of the War, however, municipalities have resumed their improvement programs and thus have increased their debenture debts. Table 39 shows figures of municipal indebtedness for 1951 and 1952 and includes temporary loans and other liabilities in addition to debenture debt.

## 39.-Debt of Municipal and School Corporations, by Province, for their Fiscal Years Ended in 1952, and Totals for 1951 and 1952

Note.-Figures shown are compiled from published reports of provincial Departments of Municipal Affairs, auditors reports and financial statements of municipalities, and information secured from other official sources.

| Direct and Indirect Debt | Newfoundland | Prince <br> Edward Island | Nova Scotia | New <br> Brunswick |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| Direet Debt- |  |  |  |  |
|  | 4,135,897 | 4,249,944 | 51,974,493 | 52,396,973 |
|  | 228,119 | 1,056,681 | 11,403,101 | 7,522,094 |
| Net Debenture Debt...................... | 3,907,778 | 3,193,263 | 40,571,392 | 44,874,879 |
| Temporary loans and bank overdrafts..... Accounts payable and other liabilities...... | $\begin{array}{r} 33,582 \\ 566,299 \end{array}$ | $\begin{array}{r} 744,098 \\ 34,177 \end{array}$ | $\begin{aligned} & 8,293,057 \\ & 3.567,650 \end{aligned}$ | $\begin{aligned} & 2,999,506 \\ & 2,652,580 \end{aligned}$ |
| Totals, Direct Liabilities (less Sinking Funds) | 4,507,659 | 3,971,538 | 52,432,099 | 50,526,965 |
| Indirect Debt- <br> Guaranteed bonds, debentures, etc.......... <br> Less Sinking Funds. | . | . | $\begin{aligned} & 921.000 \\ & 194,632 \end{aligned}$ | $3,622,500$ .. |
| Totals, Indirect Liablities (less Sinking Funds). | .. | . | 726,368 | 3,622,500 |
| Grand Totals | 4,507,659 | 3,971,538 | 53,158,467 | 54,149,465 |
|  | Quebec | Ontario | Manitoba | Saskatchewan |
|  | \$ | \$ | \$ | \$ |
| Direct Debt- |  |  |  |  |
| Debenture debt. <br> Less Sinking Funds | $\begin{array}{r} 502,943,757 \\ 17,223,935 \end{array}$ | $\begin{array}{r} 521,991,623 \\ 7,597,651 \end{array}$ | $\begin{aligned} & 71,994,899 \\ & 13,307,750 \end{aligned}$ | $\begin{array}{r} 39,629,132 \\ 5,484,812 \end{array}$ |
| Net Debenture Debt..................... | 485,719,822 | 514,393,972 | 58,687,149 | 34,144,320 |
| Temporary loans and bank overdrafts....... Accounts payable and other liabilities....... | $\begin{aligned} & 25,143,771 \\ & 95,243,289 \end{aligned}$ | $\begin{aligned} & 46,756,8181 \\ & 54,982,851 \end{aligned}$ | $\begin{array}{r} 12,485,614 \\ 5,778,370 \end{array}$ | $\begin{array}{r} 3,537,725 \\ 12,646,103 \end{array}$ |
| Totals, Direct Liabilities (less Sinking Funds). | 606,106,882 | 616,133,641 | 76,951,133 | 50,328,148 |
| Indireet Debt- <br> Guaranteed bonds, debentures, etc. Less Sinking Funds. | $\begin{array}{r} 25,400,000 \\ 3,000,000 \end{array}$ | $\begin{array}{r} 11,659,927 \\ 563,459 \end{array}$ | 1,347,600 | $\cdots$ |
| Totals, Indirect Liabilities (less Sinking Funds). | 22,400,400 | 11,096,468 | 1,347,600 | . |
| Grand Totals. | 628,506,882 | 627,230,109 | 78,298, 733 | 50,328,148 |

For footnote, see end of table.
39.-Debt of Municipal and School Corporations, by Province, for their Fiscal Years Ended in 1952, and Totals for 1951 and 1952-concluded

| Direct and Indirect Debt | Alberta | British Columbia | Totals |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1951 | 1952 |
|  | \$ | \$ | \$ | $\$$ |
| Direct Debt- |  |  |  |  |
| Debenture debt.... | 119,751,193 | 198,786, 089 | 1,392,264,810 | 1,567,854,000 |
| Less Sinking Funds. | 963,297 | 28,081, 278 | 104,093,928 | 92, 868,718 |
| Net Debenture Debt. | 118,787,896 | 170,704,811 | 1,288,170,882 | 1,474,985,282 |
| Temporary loans and bank overdrafts ..... | 4,189,173 | 1,608,104 | 89,691,709 | 105,791,448 |
| Accounts payable and other liabilities...... | 21,591,650 | 14,353,306 | 205,608,454 | 211,416,275 |
| Totals, Direct Liabilities (less Sinking Funds). | 144,568,719 | 186,666,221 | 1,583,471,045 | 1,792,193,005 |
| Indirect Debt- |  |  |  |  |
| Guaranteed bonds, debentures, etc. Less Sinking Funds. | 500,000 | $\underline{13,000}$ | $\begin{array}{r} 23,887,691 \\ 749,477 \end{array}$ | $\begin{array}{r} 43,464,027 \\ 3,758,091 \end{array}$ |
| Totals, Indirect Liabilities (less Sinking Funds). | 500,000 | 13,000 | 23,138,214 | 39,705,936 |
| Grand Totals. | 145,068,719 | 186,679,221 | 1,606,609,259 | 1,831,898,941 |

[^381]
## CHAPTER XXV.-NATIONAL ACCOUNTS AND RELATED STATISTICS

## CONSPECTUS

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Norz.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p$. 1 of this volume.

## Section 1.-National Accounts*

The national accounts constitute a set of accounting summaries for the nation as a whole and portray economic activity in terms of transactions taking place between different sections of the economy. By combining and summarizing these operations into their various classes, information can be obtained on the functioning of the economy which is of particular interest to governments concerned with problems of full employment, taxation and prices, and to businessmen concerned with programs of investment and marketing.

This measurement of the nation's output is in terms of established market prices; hence it is necessary to keep in mind that the value of the nation's production may change because of price variations as well as because of changes in the volume of output.

Data are now available showing volume changes in gross national expenditure, in addition to the value figures. Gross national expenditure is shown in Table 3 in constant dollars (i.e., in terms of average prices prevailing in the period 1935-39). Because the gross national expenditure equals the gross national product, these data also reflect volume changes in the production of goods and services as measured by the gross national product. For all other tables the data are expressed in current dollars so that year-to-year changes must be considered in relation to price changes over the period.

An additional stage in the development of the present accounting framework was the publication, in 1953, of the national accounts on a quarterly basis. $\dagger$ These quarterly estimates are a logical extension of the annual national accounts, but the task of preparing them on a reliable and analytically useful basis is rather more difficult because of the scarcity of quarterly data, special problems arising from the measurement of farm production, and problems in connection with seasonal variation.

The tables in this Section cover the more important aspects of the national income analysis in annual terms. Tables 1 and 2 show the main aggregates of national income, gross national product, gross national expenditure and their

[^382]components and other tables are included to show the source and disposition of personal income, government revenue and expenditure and personal expenditure on consumer goods and services.

National Income.- Net national income at factor cost measures the current earnings of Canadian factors of production (i.e., land, labour, capital) from productive activity. It includes wages and salaries, profits, interest, net rent and net income of farm and non-farm unincorporated business.

Gross National Product.-Gross national product, by totalling all costs arising in production, measures the market value of all final goods and services produced in the current period by Canadian factors of production. It is equal to national income plus net indirect taxes (indirect taxes less subsidies), plus depreciation allowances and similar business costs.

Personal Income.-Personal income is the sum of current receipts of income whether or not these receipts represent earnings from production. It includes transfer payments from government, such as family allowances, unemployment insurance benefits and war service gratuities, in addition to wages and salaries, net income of unincorporated business, interest and dividends and net rental income of persons. It does not include undistributed profits of corporations and other elements of the national income not paid out to persons.

Gross National Expenditure.-Gross national expenditure measures the same aggregate as gross national product, namely, total production of final goods and services at market prices, by tracing the disposition of production through final sales to persons, to governments, to business on capital account (including changes in inventories) and to non-residents (exports). Imports of goods and services, including net payments of interest and dividends to non-residents, are deducted since the purpose is to measure only Canadian production.

Historical Perspective.-Between 1926 and 1953, gross national product increased approximately fivefold in value. Though a substantial part of this apparent growth was the result of rising prices, the growth in physical production was 166 p.c. (Table 3 gives detail, from 1929-53.) The population of Canada in this period increased by 56 p.c. so that the per capita growth in physical product was 70 p.c.-an indication of the growth in living standards and prosperity. This increase is the more remarkable in the light of the disastrous set-back suffered during the depression years and the more recent decline in the average hours worked weekly in industry. In 1933, at the depth of the depression, per capita real production registered a decline of one-third as compared with the relatively prosperous year of 1929 .

The historical series reveal many other interesting features of the economy including, among others: the relative stability of the portion of total income going to labour in the form of wages and salaries as opposed to the instability of farm and investment incomes (Table 4); the increasing significance of government spending in the economy as opposed to the declining importance of exports (Table 2); the relative changes in the proportion of government revenue represented by direct and indirect taxes (Table 7); and changing consumer preferences as revealed by the composition of personal expenditure (Table 6).

Post-War Period to 1952.-The most impressive characteristic of the Canadian economy in the post-war period has been the sustained high rate of industrial expansion and resource development and the accompanying growth in the country's productive capacity. During the years from 1947 to 1952, the physical output of goods and services as measured by the gross national product in constant dollars increased by 26 p.c., or 5 p.c. per year, compounded annually, compared with an average increase of 4 p.c. per year during the period from 1926 to 1952.

Accompanying the expansion in the country's physical volume of output from 1947 to 1952, the population of Canada increased by 15 p.c. This increase in population has provided a wider market for the country's production and made available additional workers for the labour force. Almost without exception, the labour force was fully employed during the period, the proportion of persons without jobs varying annually between 1.5 p.c. and 2.7 p.c. The number of persons with jobs increased by approximately 8 p.c. between 1947 and 1952, substantially below the rise of 26 p.c. in the physical volume of production, and indicating a considerable gain in output per person.

The first stage in Canada's post-war development covered the period of reconversion and transition to a peace economy ending in 1948. It was characterized by powerful consumer demand, the progressive relaxation of controls, and rapidly rising prices, and must be viewed in the light of two fundamental considerations: the large volume of wartime savings accumulated by individuals and by businesses, and the enormous backlog of deferred demand for all types of consumer and investment goods generated by wartime shortages and restrictions. Accordingly, consumer expenditures rose to new high levels in the reconversion period and business embarked on a capital expansion program of large magnitude. The increases in expenditure of the personal and business sectors offset the sharp declines in government expenditure on goods and services which might otherwise have brought about a serious fall in production and employment. The transition to a peacetime economy was accomplished with a minimum of dislocation and only a moderate and short-lived drop in the physical volume of production. The heavy domestic and foreign demands on production, coupled with high and rising prices in export markets and of imported goods and materials, exerted powerful upward pressures on the Canadian price level.

Though inflationary pressures continued throughout most of 1948, there was a pronounced levelling off in prices toward the end of the year. The strong sellers' market which had existed since the end of World War II appeared to have weakened considerably in 1948, reflecting the attainment of a better balance between supply and demand. At the same time, there was an easing off in external pressures on the Canadian price level.

The next stage of Canada's post-war development, 1949 to mid-1950, was, in general, one of comparative price stability accompanied by a high level of production, employment and income. The excessive demands of the previous few years had yielded to a more balanced pattern in relation to the supply of goods and services. A notable feature of the year 1949 was the levelling off in the quarterly rate of expenditure for fixed investment in durable assets and, for the year as a whole, the value and volume gains in investment expenditures were considerably less than in the preceding two years. However, consumer expenditures remained high in 1949 and, in volume terms, showed a very substantial gain over the previous year.

Economic developments in Canada, in 1949, may be contrasted with those in the United States, which was then undergoing a mild recession. Business investment in plant and equipment and in residential construction was falling off in the United States in the first half of the year, but the major setback occurred in the inventory sector which shifted from a position of net accumulation to one of fairly heavy liquidation. However, after eliminating the effect of seasonal influences, consumer spending remained relatively stable throughout the year. In Canada, the build-up of physical stocks of business inventories was considerable throughout the first half of 1949, although the rate was moderate for the year as a whole. Moreover, the value of consumer purchases in Canada, after allowing for seasonal factors, rose very sharply between the first and second quarters and remained at a high level for the remainder of the year. These two Canadian developments provided the main source of strength in the economy at a time when fixed investment expenditure in Canada was levelling off. Labour income continued to rise in Canada, though at a less rapid rate than in 1948, while the number of persons without jobs rose only moderately. Reflecting all these developments, the Canadian economy did not experience the decline in national income which accompanied economic developments in the United States in 1949.

The third stage in Canada's post-war development covers the period from mid-1950 to the end of 1952, during which the influences set in motion by the outbreak of war in Korea were dominant. This period was characterized by adjustment of the economy to meet the greatly expanded requirements for defence and a renewal of inflationary pressures which were of a severe but temporary nature. Three fairly clear-cut phases are discernible in this stage of Canada's post-war development, and overlap the divisions of the annual data. Each phase is characterized by a significant difference in the pattern and strength of final demand with the change occurring within the calendar year.

The first phase, covering the period mid-1950 to about mid-1951, was one of heavy abnormal demands for consumer goods and business inventories, based on fears of shortages and expectations of higher prices. In this period, defence expenditures played a limited, though increasingly important role, with the rearmament program mainly in the preparatory stage. Prices rose rapidly.

The second phase began about the middle of 1951, when a reaction to this heavy forward buying apparently set in and inflated consumer and business demands subsided against a background of anti-inflationary measures enacted by the Federal Government. The volume of housing construction also fell off sharply. The major expansionary elements in the economy in this period were a growing volume of requirements for defence, investment in non-residential construction, machinery and equipment and exports. The strong inflationary influences of the immediate post-Korean period began to subside and, by early 1952, the downward trend of prices had become general.

A third pattern is discernible beginning early in 1952, when a strong revival of consumer purchasing and a sharp increase in housing outlays were superimposed on the growing volume of expenditures in other sectors. By the middle of 1952, the volume of consumer purchasing was once again exerting an important expansionary influence based on the increase in 'real' income which had been achieved since the beginning of the year, while housing outlays were continuing to rise. The trend of prices was downward throughout the year.

Current Perspective.-Gross National Product and National Income.-The market value of the nation's total production, as measured by the gross national product, was $\$ 24,350,000,000$ in 1953 , an increase of 5 p.c. over 1952. As prices remained relatively steady throughout the year, the total volume increase was about 4 p.c. Although the 1953 grain crop was one of the largest on record, it was considerably below the extraordinary 1952 level, so that a decline in production occurred in the agricultural sector of the economy. The gain in non-agricultural production was thus somewhat higher than the total of 4 p.c. noted above, or about 5 p.c. Accompanying the increase of 5 p.c. in the volume of non-farm output, there was a rise of about 2 p.c. in the number of persons with jobs in the nonagricultural sector of the economy. Thus, the figures indicate a gain in over-all output per working person in the non-farm sector.

National income rose by 4.5 p.c. in 1953 , to reach a total of $\$ 19,043,000,000$. Wages, salaries and supplementary labour income, the largest component of national income, amounted to $\$ 11,661,000,000$ in 1953 , an increase of about 8 p.c. over the previous year. Inasmuch as consumers' prices remained relatively unchanged, this increase represented a 'real' gain in income for wage and salary earners. However, the quarter-to-quarter trend in wages and salaries, seasonally adjusted, which had been very strongly upward in the preceding two-year period, showed no significant rise after the second quarter of 1953. Corporation profits before taxes, the largest single item in investment income, showed a drop of about 3 p.c. between 1952 and 1953. Accrued net income of farm operators from farm production amounted to $\$ 1,649,000,000$ in 1953 , a drop of 11 p.c. from the high level of the previous year. Net income of non-farm unincorporated business increased by 8 p.c. in 1953. The largest single gain was in residential construction, reflecting the sharp increase in house building.

## 1.-National Income and Gross National Product, 1929-53

(Millions of dollars)

| Item | 1929 | 1939 | 1944 | 1946 | $1950{ }^{1}$ | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wages, salaries and supplementary labour income. | 2,929 | 2,575 | 4,940 | 5,323 | 8,311 | 9,716 | 10,818 | 11,661 |
| Military pay and allowances | 8 | 32 | 1,068 | 340 | 137 | 201 | 270 | 309 |
| Investment income. | 836 | 917 | 1,829 | 1,975 | 3,155 | 3,642 | 3,723 | 3,744 |
| Net Income of Unincorporated Business- |  |  |  |  |  |  |  |  |
| Accrued net income of farm operators from farm production... | 408 | 385 | 1,185 | 1,112 | 1,503 | 2,072 | 1,858 | 1,649 |
| porated business.................. | 608 | 464 | 804 | 1,071 | 1,444 | 1,507 | 1,552 | 1,680 |
| Net National Income at Factor Cost. | 4,789 | 4,373 | 9,826 | 3,821 | 14,550 | 17,138 | 18,221 | 19,043 |
| Indirect taxes less subsidies | 681 | 733 | 1,111 | 1,269 | 2,018 | 2,478 | 2,744 | 2,908 |
| Depreciation allowances and similar business costs. | 709 | 610 | 957 | 903 | 1,636 | 1.910 | 2,128 | 2,336 |
| Residual error of eatimate | -13 | -9 | 60 | 33 | -1 | -52 | +92 | 63 |
| Gross National Produet at Market Prices. | 6,166 | 5,707 | 11,954 | 12,026 | 18,203 | 21,474 | 23,185 | 24,350 |

[^383]Gross National Expenditure.-Aggregate final demand, together with additions to inventories, increased by approximately $\$ 1,600,000,000$ or 5 p.c. in 1953 , with consumer expenditures accounting for about one-half of the gain. Additional expansionary elements were provided by housing outlays, which rose by $\$ 275,000,000$, government expenditure on goods and services which rose by $\$ 200,000,000$ and investment in new non-residential construction which showed a gain of $\$ 170,000,000$. Additions to business inventories were quite substantial in 1953, particularly in the second and third quarters of the year: for the year as a whole, they showed a net positive change from last year of $\$ 570,000,000$. Exports of goods and services declined, and additions to stocks of grain and farm inventories were also somewhat smaller than in 1952.

The large expansion in total demand referred to above was met mainly out of the increase in the nation's production of goods and services, which rose by about $\$ 1,100,000,000$ in terms of current dollars. The gap not covered by the production increment was met, on balance, from foreign sources of supply, as reflected in the large increase in imports of goods and services which occurred in 1953.

Price influences featured less prominently in the gain in the value of total production in 1953 than in the preceding two years. While the major components of gross national expenditure were variously affected by price changes, over-all price effects were small, reflecting mainly price stability in the important fleld of consumer goods and services.

Personal expenditure on consumer goods and services amounted to $\$ 15,165,000,000$ in 1953 , a gain of 5 p.c. over 1952. Inasmuch as consumer prices were substantially unchanged from the average of the previous year, the volume increase was also about 5 p.c. In the goods category, durable goods showed the largest percentage increase amounting to about 13 p.c., the greater part accounted for by sales of new automobiles which rose by 24 p.c., and by purchases of television sets, factory shipments of which more than doubled. Non-durable goods purchases showed a gain of nearly 3 p.c. in 1953, reflecting largely an increase in retail sales of food. Consumer purchases of services expanded in most categories, with the total increase amounting to about 7 p.c.

Government expenditure on goods and services rose to $\$ 4,408,000,000$ in 1953, a gain of 5 p.c. over the previous year. Defence expenditure rose to $\$ 1,909,000,000$, an increase of 6 p.c.; this compares with a gain of 56 p.c. in 1952 and 135 p.c. in 1951. Defence spending, though at a high level, was of much less importance in the total expansion of demand in 1953 than in the two preceding years.

Gross domestic investment (excluding investment in inventories) increased to $\$ 4,709,000,000$ in 1953 , an advance of 11 p.c. over 1952 . The entire increase is accounted for by a gain in the value of new construction put in place, with new housing showing the most striking gain; investment in new machinery and equipment showed little change.

The value of investment inventories (business inventories, farm inventories and grain in commercial channels) in 1953 amounted to $\$ 572,000,000$-more than double the 1952 value. Additions to stocks of business inventories, in 1953, amounted to $\$ 376,000,000$ in value terms, compared with a net liquidation in 1952 of $\$ 88,000,000$. They represented about 5 p.c. of total book value holdings by all groups, and were in proportion to increases in non-farm output. The increments in 1953 were concentrated mainly in the manufacturing, wholesale and retail trade groups.

Canada incurred a current account deficit in 1953 amounting to $\$ 440,000,000$ on international transactions in goods and services. This contrasted with a surplus of $\$ 173,000,000$ in 1952 . The major factors underlying the change in the current account balance were a substantial increase in merchandise imports and a small decline in merchandise exports. A 9-p.c. gain in imports reflected the higher levels of consumer purchasing, inventory accumulation, and general industrial activity in Canada; there was, moreover, an improvement in world supplies of goods at competitive prices. The moderate decline in exports was associated with lower prices for some goods, import restrictions in overseas countries, increased world supplies of wheat and some contraction in foreign demand for certain other commodities.
2.-Gross National Expenditure, 1929-53
(Millions of dollars)

| Item | 1929 | 1939 | 1944 | 1946 | 19501 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Personal expenditure on consumer goods and services. | 4,393 | 3,904 | 6,187 | 7,977 | 12,029 | 13,273 | 14,403 | 15,165 |
| Government expenditure on goods and services. | 682 | 735 | 5,022 | 1,832 | 2,326 | 3,243 | 4,204 | 4,408 |
| Gross Domestic Investment- | 247 | 185 | 225 | 371 | 801 | 781 | 786 | 1,061 |
| New non-residential construction. | 486 | 166 | 257 | 443 | 1,026 | 1,260 | 1,554 | 1,726 |
| New machinery and equipment. | 597 | 254 | 377 | 584 | 1,389 | 1,769 | 1,916 | 1,922 |
| Change in inventories............ | 61 | 331 | -46 | 519 | 960 | 1,620 | 241 | 572 |
| Exports of goods and services. | 1,632 | 1,451 | 3,561 | 3,210 | 4,183 | 5,089 | 5,573 | 5,420 |
| Deduct: Imports of goods and services. | -1,945 | -1,328 | -3,569 | -2,878 | -4,513 | -5,613 | -5,400 | -5,860 |
| Residual error of estimate. | +13 | +9 | -60 | -32 | +2 | +52 | -92 | -64 |
| Gross National Expenditure at Market Prices. | 6,166 | 5,707 | 11,954 | 12,426 | 18,203 | 21,474 | 23,185 | 24,350 |

${ }^{1}$ Newfoundland included from 1950.
3.-Gross National Expenditure in Constant (1935-39) Dollars, 1929-53
(Millions of dollars)

| Item | 1929 | 1939 | 1944 | 1946 | $1950{ }^{1}$ | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Personal expenditure on consumer goods and services. | 3,685 | 3,820 | 5,030 | 6,189 | 7,022 | 6,978 | 7,405 | 7,809 |
| Government expenditure on goods and services. | 629 | 742 | 4,001 | 1,484 | 1,375 | 1,713 | 2,131 | 2,160 |
| Gross Domestic Investment- New residential construction | 214 | 180 | 150 | 225 | 340 |  |  |  |
| New non-residential construction. | 439 | 164 | 150 | 325 | 554 | 290 606 | 284 | 378 748 |
| New machinery and equipment. . | 575 | 247 | 298 | 467 | 784 | 890 | 959 | 956 |
| Change in inventories....... | 48 | 338 | -77 | 226 | 303 | 453 | 198 | 302 |
| Exports of goods and services | 1,314 | 1,494 | 2,614 | 2,079 | 2,027 | 2,215 | 2.443 | 2,445 |
| Deduct: Imports of goods and services. | -1,578 | -1,330 | -2,450 | $-1,930$ | -2,095 | -2,342 | -2,430 | -2,652 |
| Residual error of estimate and adjusting entries. | +11 | +9 | -49 | -25 | +20 | +132 | -43 | -56 |
| Gross National Expenditure In Constant Dollars. | 5,337 | 5,664 | 9,721 | 9,045 | 10,330 | 10,935 | 11,646 | 12,090 |

${ }^{1}$ Newfoundland included from 1950.

Personal Income, Personal Saving and Spending.-Personal income amounted to $\$ 18,096,000,000$ in 1953, an increase of 6 p.c. over 1952 which, in turn, showed a gain of 9 p.c. over 1951. Wages, salaries and supplementary labour income rose 8 p.c. in 1953, or somewhat more than the increase in the total of personal income. Interest, dividends and net rental income of persons increased by 8 p.c., while the combined total of farm and non-farm net income of unincorporated business dropped by 5 p.c. Government transfer payments (excluding government interest) rose by 7 p.c. to $\$ 1,469,000,000$ in 1953 ; increases in unemployment insurance benefits, old age security payments and family allowances accounted for the greater part of the gain. The increase in the total of government transfer payments in 1953 was much smaller than in the preceding year, when they showed a gain of 32 p.c., as a result of the introduction of Federal Government old age security payments.

Personal direct taxes rose by $\$ 109,000,000$ or by 8 p.c. over 1952 . The increase was almost entirely attributable to the rise in personal income-tax collections by the Federal Government. The major factor in this increase was the advance in personal income, which yielded higher tax collections despite a reduction in the over-all tax rate which became effective at mid-year. As a percentage of personal income, personal direct taxes were $7 \cdot 7$ p.c. in 1952 and $7 \cdot 9$ p.c. in 1953.

Personal disposable income, that is, personal income less personal direct taxes, rose by $\$ 855,000,000$, or 5 p.c. over 1952. Personal expenditure rose by $\$ 762,000,000$ in the same comparison so that personal saving was higher by $\$ 93,000,000$ in 1953.


## 4.-Sources of Personal Income, 1929-53 <br> (Millions of dollars)

| Item | 1929 | 1939 | 1944 | 1946 | 19501 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wages, salaries and supplementary labour income. | 2.929 | 2,575 | 4,940 | 5,323 | 8,311 | 9,716 | 10,818 | 11,661 |
| Deduct: Employer and employee contributions to social insurance and government pension funds.... | -27 | -35 | $-133$ | -149 | -256 | -329 | -357 | -386 |
| Military pay and allowances....... | 8 | 32 | 1,068 | 340 | 137 | 201 | 270 | 309 |
| Net income received by farm operators from farm production...... | 407 | 435 | 1,206 | 1,090 | 1,402 | 2,108 | 1,860 | 1,616 |
| Net income of non-farm unincorporated business.................... | 608 | 464 | 804 | 1,071 | 1,444 | 1,507 | 1,552 | 1,680 |
| Interest, dividends and net rental income of persons. | 616 | 602 | 836 | 957 | 1,295 | 1,406 | 1,566 | 1,689 |
| Transfer payments (excluding in-terest)- |  |  |  |  |  |  |  |  |
| From governments............ | 93 | 229 | 259 | 1,106 | 1,033 | 1,032 | 1,368 | 1,469 |
| Charitable contributions from corporations | 5 | 6 | 11 | 12 | 25 | 27 | 30 | 30 |
| Net bad debt losses of corporations. | 18 | 12 | 11 | 11 | 23 | 25 | 25 | 28 |
| Totals, Personal Income. . | 4,657 | 4,320 | 9,002 | 9,761 | 13,414 | 15,693 | 17,132 | 18,096 |

${ }^{1}$ Newfoundland included from 1950.


## 5.-Disposition of Personal Income, 1929-53

(Millions of dollars)

| Item | 1929 | 1939 | 1944 | 1946 | $1950{ }^{1}$ | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Personal Direct Taxes- |  |  |  |  |  |  |  |  |
| Income taxes. | 34 | 62 | 772 | 711 | 612 | 890 | 1,177 | 1,287 |
| Succession duties. | 16 | 28 | 39 | 54 | 66 | 69 | 72 | 73 |
| Miscellaneous taxes............... | 18 | 22 | 27 | 31 | 62 | 71 | 74 | 72 |
| Purchases of goods and services.... | 4,393 | 3,904 | 6,187 | 7,977 | 12,029 | 13,273 | 14,403 | 15,165 |
| Personal Savings. | 196 | 304 | 1,977 | 988 | 645 | 1,390 | 1,406 | 1,499 |
| Totals, Personal Income. | 4,657 | 4,320 | 9,002 | 9,761 | 13,414 | 15,693 | 17,132 | 18,096 |

${ }^{1}$ Newfoundland included from 1950.

## 6.--Personal Expenditure on Consumer Goods and Services, 1939-53

(Millions of dollars)

| Item | 1939 | 1944 | 1946 | 19501 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food. | 919 | 1,769 | 2,085 | 3,039 | 3,488 | 3,665 | 3,755 |
| Tobacco and alcoholic beverages. | 281 | 624 | 846 | 1,094 | 1,155 | 1,298 | 1,334 |
| Clothing and personal furnishings.......... | 490 | 966 | 1,191 | 1,568 | 1,708 | 1,823 | 1,843 |
| Shelter......................... | 629 | 807 | 866 | 1,376 | 1,560 | 1,717 | 1,891 |
| Household operation | 522 | 660 | 935 | 1,504 | 1,590 | 1.794 | 1,885 |
| Transportation. | 392 | 465 | 771 | 1,475 | 1,559 | 1,697 | 1,885 |
| Personal and medical care and death expenses | 257 | 369 | 478 | $\begin{array}{r}730 \\ \hline\end{array}$ | 813 | 888 | 935 |
| Miscellaneous. | 414 | 527 | 805 | 1,243 | 1,400 | 1,521 | 1,637 |
| Totals. | 3,904 | 6,187 | 7,977 | 12,029 | 13,273 | 14,403 | 15,165 |
| Durable goods. | 292 | 296 | 590 | 1,343 | 1,399 | 1,574 | 1,778 |
| Non-durable goods | 2,210 | 3,928 | 5,073 | 7,241 | 7,969 | 8,475 | 8,725 |
| Services. | 1,402 | 1,963 | 2,314 | 3,445 | 3,905 | 4,354 | 4,662 |

${ }^{1}$ Newfoundland included from 1950.
7.-Federal, Provincial and Municipal Government Revenue and Surplus or Deficit, 1929-53
(Millions of dollars)

| Item | 1929 | 1939 | 1944 | 1946 | $1950^{1}$ | 1951 | 1952 | 1953 |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |  |

For footnote, see end of table.

## 7.-Federal, Provincial and Municipal Government Revenue and Surplus or Deficit, 1929-53-concluded

| Item | 1929 | 1939 | 1944 | 1946 | 19501 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Withholding taxes. | - | 10 | 27 | 29 | 54 | 56 | 55 | 54 |
| Indirect taxes. | 686 | 716 | 1,378 | 1,505 | 2,081 | 2,606 | 2,843 | 3,017 |
| Investment IncomeInterest. $\qquad$ | 74 | 71 | 105 | 120 | 155 | 181 | 216 | 212 |
| Profits of government business enterprises. | 29 | 19 | 222 | 243 | 245 | 275 | 313 | 340 |
| Employer and employee contributions to social insurance and government pension funds........ | 27 | 35 | 133 | 149 | 256 | 329 | 357 | 386 |
| Deficit( + ) or surplus ( - ) (on transactions relating to the national accounts) | -9 | +41 | +2,566 | +133 | -648 | -1,053 | -301 | -136 |
| Totals, Revenue (Plus deficit or minus surplus). | 923 | 1,119 | 5,867 | 3,029 | 3,864 | 4,853 | 6,139 | 6,479 |

${ }^{1}$ Newfoundland included from 1950.
8.-Federal, Provincial and Municipal Government Expenditure, 1929-53
(Millions of dollars)

| Item | 1929 | 1939 | 1944 | 1916 | $1950{ }^{1}$ | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Purchases of goods and services.... | 682 | 735 | 5,022 | 1,832 | 2,326 | 3,243 | 4,204 | 4,408 |
| Transfer Payments- |  |  |  |  |  |  |  |  |
| Interest. | 143 | 172 | 319 | 455 | 442 | 450 | 468 | 493 |
| Other.. | 93 | 229 | 259 | 1,106 | 1,033 | 1,032 | 1,368 | 1,469 |
| Subsidies. | 5 | -17 | 267 | 236 | 63 | 128 | 99 | 109 |
| Totals, Expenditure | 923 | 1,119 | 5,867 | 3,629 | 3,864 | 4,853 | 6,139 | 6,479 |

${ }^{1}$ Newfoundland included from 1950.

## Section 2.-Canada's International Investment Position*

A large balance of Canadian indebtedness to other countries has always been characteristic of Canada's international investment position. Much of the development of Canada has been financed by investments of capital from other countries, particularly in earlier decades. This balance of indebtedness has been reduced from the levels obtaining immediately before World War II which, in turn, were lower than the earlier peak period around 1930. Net indebtedness to other countries at the end of 1953 was $\$ 5,700,000,000$ compared with about $\$ 6,500,000,000$ in 1930.

[^384]Foreign Investments in Canada.-The relative importance of British and United States capital invested in Canada has changed greatly in recent decades. British capital constituted the largest part of the external capital invested in Canada before World War I but United States investments underwent a rapid development during and after that War. By 1926, the first year for which official estimates are available, United States investments in Canada had a value of $\$ 3,196,000,000$ compared with British investments of $\$ 2,636,000,000$. During the 1930 's, reductions occurred in the amount of external capital invested in Canada.

Further growth in United States investments in Canada took place during World War II and, by the end of the War, these investments had reached a new peak, whereas British investments in Canada were sharply reduced by repatriation of securities. As a result of these divergent trends in British and United States investments, total non-resident investments in Canada increased only moderately during World War II.

In the post-war years, there have been substantial increases in the value of United States capital invested in Canada; by the end of 1953, the total reached approximately $\$ 8,600,000,000$, a growth of about $\$ 3,600,000,000$ in the eight years from 1945. The largest increases occurred in the years following 1948, and more particularly since 1950, as a result of substantial net inflows of capital for long-term investment. Direct investments in nearly 3,000 companies in Canada, controlled in the United States, are the most important form of that country's investment in Canada, and were valued at about $\$ 5,000,000,000$ at the end of 1953 . The growth in this group of investments amounted to $\$ 2,700,000,000$ in the eight post-war years, more than 40 p.c. of this representing the retention of earnings. The rate of this growth has been accelerated in recent years by the development of petroleum and other resources. In 1946 to 1953, petroleum development has accounted for about one-half of Canada's net capital import from the United States, so that by the end of 1953, United States investment in the industry in Canada amounted to $\$ 1,144,000,000$, a dramatic increase from the total of $\$ 117,000,000$ at the end of 1945. This investment now represents about one-sixth of United States investment in all Canadian industry.

Holdings of government, municipal, and corporate portfolio securities, which amounted to about $\$ 3,355,000,000$ at the end of 1953 , were the other major form of United States investment in Canada. The growth since 1945 of $\$ 800,000,000$ in these holdings has been relatively much smaller than growth in direct investments: In recent years, the sale abroad of new issues of Canadian securities has been the principal factor contributing to the increase.

By the end of 1953, British long-term investments in Canada were valued at about $\$ 2,000,000,000$, an increase of $\$ 300,000,000$ since 1949. Despite recent increases, however, British investment in Canada is still much smaller than in the pre-war period. The value of investments in Canada of all other overseas countries amounted to almost $\$ 500,000,000$ at the end of 1953 -much lower than the investment from Canada's historic sources of capital, the United States and the United Kingdom.

Canadian capital has been the principal source of financing for Canadian development for many years past. Even in the recent years of current account deficit, the net contribution by non-residents and foreign-controlled companies to the savings used for all types of investment in Canada was only a small fraction of the total. Thus, the ratio of investments of external capital in relation to total
investments of capital in Canada has been declining for some years. Because of the variety of types of investment that must be compared, it is difficult to express this relationship in terms of any simple ratio.

Important changes have taken place in the relative positions of different types of foreign investment in Canada. Non-resident investors now hold about one-tenth of the funded debt of Canadian governments and municipalities; their holdings in 1936 represented about one-quarter of the smaller total then outstanding. In the intervening years this debt has nearly tripled, about 97 p.c. being financed from the savings of Canadians.

Non-resident ownership in the broad field of Canadian industry and commerce has also been declining. By 1951, it represented about 33 p.c. as compared with 38 p.c. before the War. Despite the tremendous in-flows of foreign long-term capital into Canadian enterprises in the post-war years, Canadian capital maintained its proportion of the total. The concentration of post-war investment by foreigners in manufacturing and mining enterprises has increased their share of these fields. Nearly 60 p.c. of the capital of mining, smelting and petroleum exploration and development companies was non-resident-owned at the end of 1951 compared with 40 p.c. in 1939. The share of foreign capital varies widely in different fields of manufacturing. The percentage is comparatively high in some branches such as non-ferrous metals, the automobile industry and petroleum refining, and is comparatively low in other fields such as textiles, and primary iron and steel. In some industries such as newsprint and wood products, non-resident capital plays a very important part but the major share of ownership is Canadian.

There are other important forms of Canadian wealth whose valuation presents serious difficulties, such as farm property and residential real estate. These assets are held mainly in the non-corporate sector of the economy and are owned predominantly by Canadians.

## 9.-Estimate of the Canadian Balance of International Indebtedness, as at Dec. 31, 1939, 1945 and 1949-53

Nore.-Totals are rounded and may not represent the sum of their components. They are exclusive of short-term commercial indebtedness and blocked currencies.
(Billions of dollars)

| Item | 1939 | 1945 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Canadian LlabHilties (Foreign Capital Invested in Canada)- |  |  |  |  |  |  |  |
| Direct investments........ | $2 \cdot 3$ | 2.7 | 3.6 | $4 \cdot 0$ | 4.5 | $5 \cdot 2$ | $5 \cdot 8$ |
| Government and municipal bonds | 1.7 | 1.7 | 1.8 | $2 \cdot 0$ | $2 \cdot 1$ | $2 \cdot 0$ | $2 \cdot 1$ |
| Other portfolio investments | $2 \cdot 6$ | $2 \cdot 4$ | $2 \cdot 3$ | $2 \cdot 4$ | $2 \cdot 5$ | 2.7 | 2.9 |
| Miscellaneous investments.. | $0 \cdot 3$ | 0.3 | 0.3 | $0 \cdot 3$ | $0 \cdot 4$ | 0.51 | $0 \cdot 4$ |
| ment in Canada. | $6 \cdot 9$ | $7 \cdot 1$ | $8 \cdot 0$ | $8 \cdot 7$ | $9 \cdot 5$ | $10 \cdot 4$ | $11 \cdot 2$ |
| Equity of non-residents in Canadian assets abroad. | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | $0 \cdot 4$ | 0.5 |
| Canadian dollar holdings of non-residents Canadian short-term assets of IMF and IBRD | $0 \cdot 3$ | 0.3 | $0 \cdot 4$ | 0.6 | $0 \cdot 4$ | 0.3 | 0.3 |
|  | - | - | $0 \cdot 3$ | 0.3 | $0 \cdot 3$ | 0.3 | $0 \cdot 3$ |
| Gross Liabilities | $7 \cdot 4$ | $7 \cdot 6$ | 8.9 | 9.9 | 10.6 | 11.4 | 12.3 |
| United States. <br> United Kingdom. <br> Other countries, IMF and IBRD | $4 \cdot 5$ | $5 \cdot 4$ | 6.4 | $7 \cdot 1$ | $7 \cdot 9$ | $8 \cdot 6$ | $9 \cdot 2$ |
|  | 2.6 | 1.8 | 1.8 | $2 \cdot 0$ | 1.9 | 2.0 | $2 \cdot 1$ |
|  | 0.3 | 0.4 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 |

[^385]
## 9.-Estimate of the Canadian Balance of International Indebtedness, as at Dec. 31, 1939, 1945 and 1949-53-concluded

| Item | 1939 | 1945 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Canadian Assets (Canadian Capital Invested Abroad)- |  |  |  |  |  |  |  |
| Direct investments. | 0.7 | $0 \cdot 7$ | 0.9 | 1.0 | 1.2 | $1 \cdot 3$ | 1.4 |
| Portfolio investments | $0 \cdot 7$ | 0.6 | $0 \cdot 6$ | $0 \cdot 6$ | $0 \cdot 6$ | $0 \cdot 8^{\text {t }}$ | 0.8 |
| Government of Canada loans and advances Government of Canada subscriptions to IMF and IBRD. |  | $0 \cdot 7$ | $2 \cdot 0$ | $2 \cdot 0$ | $1 \cdot 9$ | 1.9 | 1.8 |
|  | - | - | $0 \cdot 4$ | $0 \cdot 4$ | $0 \cdot 4$ | 0.4 | 0.4 |
| Totals, Canadian Long-term Investments abroad. | $1 \cdot 4$ | $2 \cdot 0$ | $4 \cdot 0$ | $4 \cdot 0$ | $4 \cdot 1$ | $4 \cdot 4$ | 4.4 |
| Government of Canada holdings of goldand foreign exchange................Other Canadian short-term assets abroad. | 0.5 | 1.7 | 1.2 | 1.9 | 1.8 | 1.8 | 1.8 |
|  | - | 0.1 | $0 \cdot 1$ | $0 \cdot 1$ | 0.1 | $0 \cdot 3$ | 0.4 |
| Gross Assets...................... | 1.9 | 3.8 | $5 \cdot 2$ | 5.9 | $6 \cdot 0$ | 6.5 | 6.6 |
| Government of Canada holdings of gold and foreign exchange. | 0.5 | 1.7 | $1 \cdot 2$ | 1.9 | 1.8 | 1.8 | 1.8 |
| United States ${ }^{2}$............................ | 0.9 | 0.9 | $1 \cdot 1$ | $1 \cdot 1$ | 1.4 | 1.8 | $1 \cdot 9$ |
| United Kingdom ${ }^{2}$ | $0 \cdot 1$ | 0.7 | 1.6 | 1.6 | 1.5 | $1 \cdot 6$ | 1.5 |
| Other countries, IMF and IBRD | $0 \cdot 4$ | 0.5 | $1 \cdot 3$ | $1 \cdot 3$ | $1 \cdot 3$ | $1 \cdot 3$ | $1 \cdot 3$ |
| Canadian Net International Indebted-ness-Net Liabilities. | $5 \cdot 5$ | 3.9 | $3 \cdot 7$ | $4 \cdot 0$ | $4 \cdot 6$ | $4 \cdot 9$ | $5 \cdot 7$ |
| Government of Canada holdings of gold and foreign exchange. | -0.5 | $-1.7$ | -1.2 | -1.9 | -1.8 | -1.8 | -1.8 |
|  | $3 \cdot 6$ | $4 \cdot 6$ | $5 \cdot 3$ | 6.0 | 6.5 | 6.8 | 7.3 |
| United States ${ }^{2}$... United Kingdom ${ }^{2}$ | 2.5 -0.1 | 1.1 -0.1 | 0.2 -0.6 | 0.4 -0.5 | 0.4 -0.5 | 0.4 -0.5 | 0.6 -0.4 |
| Other countries, IMF and IBRD | -0.1 | -0.1 | -0.6 | -0.5 | -0.5 | -0.5 | -0.4 |

${ }^{1}$ New series. $\quad{ }^{2}$ Exclusive of Government of Canada holdings oi gold and foreign exchange.

## 10.-Foreign Capital Invested in Canada, by Type of Investment, as at Dec. 31, 1933, 1946 and 1949-52



[^386]
## 11.-Foreign Capital Invested in Canada, by Type of Investment, classified by Estimated Distribution of Ownership, as at Dec. 31, 1952


#### Abstract

Note.-Common and preferred stocks are at book values as shown in the balance sheets of the issuing companies; bonds and debentures are valued at par; and liabilities in foreign currencies are converted into Canadian dollars at par of exchange.



${ }^{1}$ Includes some investments held for residents of other countries. $\quad{ }^{2}$ New series.
Canadian Assets Abroad.-Canada's external assets have changed greatly in size and composition in recent years. The total value, including holdings of gold and foreign currencies, rose from about $\$ 1,900,000,000$ in 1939 to $\$ 6,600,000,000$ at the end of 1953. The principal factor in this increase was the extension by the Federal Government of loans and export credits to the United Kingdom and other countries. At the end of 1953, Canadian Government credits outstanding totalled nearly $\$ 1,800,000,000$. Included in this total was $\$ 150,000,000$ outstanding on the 1942 loan to the United Kingdom, $\$ 1,142,000,000$ on the 1946 loan to the United Kingdom and about $\$ 450,000,000$ of post-war export credits and advances. In addition, at the end of 1953, official holdings of gold and foreign exchange aggregated about $\$ 1,779,000,000$. Other official Canadian assets include Canada's subscriptions to the capital of the International Bank and the International Monetary Fund which, by the end of 1952 , amounted to $\$ 70,900,000$ and $\$ 322,500,000$, respectively. A small part of the subscription to the Bank was in the form of convertible exchange and $\$ 75,000,000$ of the subscription to the Fund was in gold. The remainder of both subscriptions was made in the form of demand notes of the Federal Government or in Canadian funds.

Besides the officially owned assets referred to above, there were the privately owned investments in the form of foreign securities and property owned by Canadian companies and individuals. In 1939, these privately owned assets constituted most of the total value of Canadian assets abroad, whereas, since the end of World War II, they have amounted to only a minor part of the total, chiefly because of the sharp rise in officially owned assets. Canadian assets abroad, at the end of 1953, include privately owned long-term direct and portfolio investments valued at
$\$ 2,200,000,000$. These have grown from $\$ 1,300,000,000$ at the end of 1945 , a rate of increase somewhat higher than for foreign private long-term investment in Canada.

About two-thirds of Canada's direct investments abroad are in the United States. These investments, on a per capita basis, are about twice the value of United States direct investments in Canada and are mainly in the beverage, farm implement and petroleum industries and in railways, though a wide range of other concerns is also involved. Investment in other parts of the world is widely distributed and is to be found particularly in industrial and commercial concerns, mining and utilities. About two-thirds of the portfolio holdings abroad are also in the form of United States securities, but Canada has extensive portfolio investments in other parts of the world, particularly Latin America.

## 12.-Canadian Assets Abroad, 1939, 1948 and 1950-52

Note.-Excludes investments of insurance companies and banks, Canada's subscriptions to international financial institutions and short-term assets, other than official holdings of gold and foreign exchange. Holdings of stocks are at book values as shown in the books of issuing companies; holdings of bonds are shown at par values. Foreign currencies are converted into Canadian dollars at current market rates. The series for portfolio investment was reconstructed in 1952 and is not strictly comparable with preceding years.

| Assets | 1939 | 1948 | 1950 | 1951 | 1952 |
| ---: | ---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |

## 13.-Canadian Assets Abroad, by Location of Investment, as at Dec. 31, 1952

Note.-See headnote to Table 12.

| Location of Investment |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

## Section 3.-Corporation Profits and Income to Shareholders

Estimates of corporation profits presented in this Section cover all Canadian corporations. The figures for the years 1944 to 1952 are based on the reports Taxation Statistics published annually by the Taxation Division, Department of National Revenue, Ottawa. Prior to 1944, corporation financial statistics were made the subject of a comprehensive study in the Department of National Revenue.

Profits, before taxes of Canadian corporations, are shown in Table 14 for selected years 1929-53. From a pre-war peak of $\$ 530,000,000$ in 1929, they dropped to $\$ 17,000,000$ in 1932, and then, with the exception of a decline in 1938, rose steadily from 1932 to 1942, the wartime peak. From 1944 to 1951, they rose fairly steadily, but in 1952 and 1953 there were declines of 6 p.c. and 3 p.c., respectively. In 1953, corporation profits before taxes were $\$ 2,550,000,000$, down $\$ 260,000,000$ from the record $\$ 2,810,000,000$ in 1951.

Corporation profits taxes, which were relatively low during the period 1929 to 1939 , ranged from 40 p.c. to 50 p.c. of profits during the war period. After the War they dropped to 35 p.c. of profits in 1948, but were over 50 p.c. in both 1951 and 1952; in 1953 they declined to 46 p.c. It should be noted that the elective tax on undistributed income amounted to $\$ 54,000,000$ in 1950 , the year in which the tax was initiated, $\$ 48,000,000$ in 1951 , but only $\$ 10,000,000$ in both 1952 and 1953.

Dividends paid by corporations (excluding dividends paid to other Canadian corporations) reached a peak in 1950 of $\$ 681,000,000$ and were $\$ 643,000,000$ in 1953. Undistributed corporation profits also reached a peak in 1950, but declined in both 1951 and 1952. In 1953, however, the decline in income-tax payments from 1952 much more than offset a small increase in dividend payments, and undistributed profits increased from $\$ 634,000,000$ in 1952 to $\$ 643,000,000$ in 1953.

## 14.-Profits, Taxes and Dividends of Canadian Corporations, 1929-53

(Millions of dollars)

| Item | 1929 | 1932 | 1939 | 1942 | 1944 | 1946 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Corporation profits before taxes ${ }^{1}$. | 530 | 17 | 689 | 1,292 | 1,221 | 1,455 | 1,906 | 2,506 | 2,810 | 2,640 | 2,550 |
| Deduct: income and excess profits taxes2. | 48 | 32 | 115 | 629 | 598 | 654 | 731 | 981 | 1,429 | 1,333 | 1,174 |
| Corporation profits after taxes. | 482 | -15 | 574 | 663 | 623 | 801 | 1,175 | 1,525 | 1,381 | 1,307 | 1,376 |
| Deduct: dividends paid and charitable donations. | 271 | 157 | 302 | 308 | 282 | 390 | 568 | 681 | 660 | 634 | 643 |
| Undistributed corporation profits. | 211 | -172 | 272 | 355 | 341 | 411 | 607 | 844 | 721 | 673 | 733 |

${ }^{1}$ Include depletion charges and charitable donations, and are adjusted for corporate losses, renegotiation of war contracts and conversion to a calendar-year basis. ${ }_{2}$ Includes elective tax on undistributed income of $\$ 54,000,000$ in $1950, \$ 48,000,000$ in $1951, \$ 10,000,000$ in 1952, and $\$ 10,000,000$ in 1953.

Analysis by Industries.-Detailed data on profits by industries are available from 1944. Corporation profits as shown in Table 15 do not agree with those in the national accounts since the national accounts figures include depletion charges and charitable donations. National accounts figures are also adjusted for renegotiation of war contracts and for conversion to a calendar-year basis. Provincial taxes and the elective tax on undistributed income are not deducted in arriving at net profits after taxes, since these are not available by industry. It may be noted that the 1952 profits-after-tax figures in Table 15 include tax liabilities of the agreeing provinces since, in that year, they were combined with federal tax liabilities. Profits of Newfoundland corporations are included for 1950 and later years.

In 1952 profits before taxes declined by $\$ 182,000,000$, or by $6 \cdot 8$ p.c. from 1951 totals. Of the 34 sub-groups listed in Table 15, 19 showed declines in profits while 15 showed increases. The largest decline in dollar terms was in the pulp and paper group whose profits dropped from $\$ 376,100,000$ in 1951 to $\$ 259,700,000$ in 1952 , but several groups had larger percentage declines.

Profits after taxes in 1952 declined $13 \cdot 6$ p.c. from 1951, as compared with a 6.8 p.c. decline in profits before taxes. However, only one industry-agricultureshowed a net loss after taxes.

## 15.-Corporation Profits, by Industry, before and after Federal Income Taxes, 1946 and 1950-52

(Millions of dollars)
Nots.-Figures are for the company fiscal years ended within the calendar years. Source: Tazation Statistics published annually by the Taxation Division, Department of National Revenue, Ottawa.

| Industry | Net Income before Federal Income Taxes |  |  |  | Net Income after Federal Income Taxes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1946 | $1950{ }^{1}$ | 1951 | 1952 | 1946 | $1950{ }^{1}$ | 1951 | 1952 |
| Agriculture | $2 \cdot 2$ | 1.7 | 1.8 | $0 \cdot 3$ | 0.8 | 0.9 | 0.8 | -0.6 |
| Fishing. | $1 \cdot 3$ | $1 \cdot 3$ | $0 \cdot 6$ | $0 \cdot 4$ | 0.8 | $0 \cdot 9$ | 0.4 | $0 \cdot 2$ |
| Forestry | $3 \cdot 1$ | $12 \cdot 7$ | $15 \cdot 7$ | $7 \cdot 2$ | 1.2 | $8 \cdot 4$ | $8 \cdot 8$ | 2.8 |
| Gold minin | $16 \cdot 2$ | $13 \cdot 6$ | $12 \cdot 5$ | $5 \cdot 1$ | $8 \cdot 2$ | $8 \cdot 7$ | $7 \cdot 2$ | 1.2 |
| Other metal mining | $54 \cdot 0$ | $125 \cdot 8$ | $165 \cdot 5$ | $115 \cdot 1$ | 28.7 | 82.7 | 90.7 | $59 \cdot 1$ |
| Other mining | $9 \cdot 4$ | $19 \cdot 1$ | 22.8 | 26.0 | $4 \cdot 7$ | $10 \cdot 9$ | 11.0 | $10 \cdot 0$ |
| Animal food product | 14.5 | 23.8 | $24 \cdot 0$ | 21.8 | $8 \cdot 2$ | $15 \cdot 8$ | $14 \cdot 6$ | 11.0 |
| Vegetable food produc | $46 \cdot 9$ | $61 \cdot 4$ | $70 \cdot 4$ | $75 \cdot 9$ | 24.9 | 39.8 | $40 \cdot 1$ | $40 \cdot 5$ |
| Alcoholic beverages. | $69 \cdot 5$ | $64 \cdot 1$ | $69 \cdot 6$ | $68 \cdot 6$ | $32 \cdot 2$ | 42.5 | $39 \cdot 6$ | 36.4 |
| Tobacco. | 11.6 | $15 \cdot 5$ | 19.4 | 29.5 | $6 \cdot 6$ | $10 \cdot 1$ | $10 \cdot 7$ | $16 \cdot 1$ |
| Textile and textile product | 67.8 | 81.2 | $75 \cdot 5$ | 33.5 | $35 \cdot 7$ | 53.4 | 42.4 | 11.0 |
| Wood and wood products. | 37.8 | $85 \cdot 3$ | $92 \cdot 3$ | $55 \cdot 3$ | $19 \cdot 1$ | 57.0 | 52.7 | $27 \cdot 3$ |
| Pulp and paper. ..... . | 138.3 | 271.0 | $376 \cdot 1$ | 259.7 | 71.4 | $178 \cdot 1$ | $208 \cdot 6$ | $137 \cdot 6$ |
| Chemicals, paints and drugs | $57 \cdot 1$ | 97.1 | 108.5 | 97.2 | 29.9 | 57.6 | $60 \cdot 1$ | 52.9 |
| Petroleum products. | 41.5 | $64 \cdot 2$ | $81 \cdot 6$ | 97.5 | 26.5 | $42 \cdot 5$ | $44 \cdot 8$ | $50 \cdot 2$ |
| Rubber. | 12.4 | $20 \cdot 3$ | $26 \cdot 6$ | 19.9 | 6.5 | 13.4 | 14.7 | $10 \cdot 2$ |
| Leather | 12.8 | 6.4 | $2 \cdot 5$ | $3 \cdot 2$ | 6.5 | $4 \cdot 2$ | $0 \cdot 2$ | 0.8 |
| Non-metallic mineral products | 21.5 | $51 \cdot 4$ | 59.9 | $53 \cdot 7$ | 10.9 | 33.8 | $33 \cdot 1$ | 27.9 |
| Iron and steel products. | 37.3 | $66 \cdot 9$ | 88.7 | 79.0 | $19 \cdot 7$ | $44 \cdot 4$ | 49.5 | 41.1 |
| Primary iron and steel. | 18.0 | $60 \cdot 1$ | 76-8 | $58 \cdot 6$ | $10 \cdot 0$ | $39 \cdot 6$ | 42.8 | $30 \cdot 0$ |
| Non-ferrous metal smelting and refining and products. | 27.8 | $70 \cdot 4$ | 72.8 | 66.0 | $15 \cdot 4$ | 46.5 | 40.6 | 35.1 |
| Machinery. . . . . . . . . . . . . . . . . | $61 \cdot 1$ | $160 \cdot 1$ | $176 \cdot 2$ | $182 \cdot 5$ | $30 \cdot 1$ | 105.9 | $98 \cdot 3$ | $94 \cdot 8$ |
| Transportation equipment, except automobiles. | 20.2 | 11.6 | $22 \cdot 6$ | 40.6 | $9 \cdot 0$ | $7 \cdot 3$ | 12.4 | 21.5 |
| Automobiles . | $10 \cdot 2$ | $94 \cdot 0$ | $87 \cdot 9$ | $107 \cdot 8$ | $5 \cdot 3$ | $61 \cdot 6$ | $48 \cdot 2$ | $54 \cdot 2$ |
| Miscellaneous manufactured products. | 15-1 | $16 \cdot 4$ | $20 \cdot 4$ | 18.4 | 7.2 | 11.0 | 11.8 | $9 \cdot 4$ |
| Construction. | 11.4 | $50 \cdot 9$ | $46 \cdot 1$ | $59 \cdot 1$ | $5 \cdot 2$ | $34 \cdot 7$ | 25.8 | $31 \cdot 6$ |
| Heat, light and power | $35 \cdot 7$ | $42 \cdot 7$ | $46 \cdot 6$ | 49.7 | $20 \cdot 2$ | 28.1 | 25.9 | 28.5 |
| Transportation, communication and storage. | $89 \cdot 6$ | $114 \cdot 1$ | 171.1 | 197.6 | 47.8 | 74.8 | 94.8 | 104.5 |
| Other public utilities | $3 \cdot 0$ | $3 \cdot 6$ | 11.9 | 13.4 | 1.6 | $2 \cdot 4$ | 6.8 | $6 \cdot 6$ |
| Wholesale trade. | 119.9 | $203 \cdot 3$ | $254 \cdot 2$ | $237 \cdot 0$ | $60 \cdot 6$ | 137.8 | 147.2 | 126.4 86.7 |
| Retail trade | $148 \cdot 8$ | $176 \cdot 4$ | 171.3 | $157 \cdot 3$ | $66 \cdot 6$ | $120 \cdot 8$ | $105 \cdot 3$ | 86.7 |
| Services. | 38.0 | $41 \cdot 3$ | $45 \cdot 8$ | 57.4 | $19 \cdot 7$ | 28.4 | $27 \cdot 4$ | $32 \cdot 8$ |
| Chartered banks and insurance companies. | 28.8 | 51.9 | 55.2 | 68.4 | $13 \cdot 5$ | 34.0 | $32 \cdot 3$ | 37.4 |
| Other financial institutions. | 51.6 | 86.2 | $99 \cdot 6$ | $127 \cdot 6$ | 31.1 | 59.7 | $60 \cdot 3$ | $71 \cdot 0$ |
| Companies not classified.... ...... | $0 \cdot 3$ | $0 \cdot 1$ | 0.1 |  | $0 \cdot 1$ | - |  |  |
| Total Profits, All Corporations.. | 1,334•7 | 2,255-9 | 2,672-6 | 2,490-3 | 685.9 | 1,497-7 | 1,510-9 | 1,306-2 |
| Adjustments to National Income Estimates ${ }^{2}$. | +120.3 | +250.1 | +137.4 | $+59.7$ | $+115 \cdot 1$ | $+27 \cdot 3$ | -129.9 | +69.8 |
| Total Profits, National Income Estimates. | 1,455-0 | 2,506-0 | 2,510-0 | 2,550-0 | $801 \cdot 0$ | 1,525.0 | 1,381-0 | 1,376.0 |

[^387]
## Section 4.-Federal Incorporation of Companies

During the year ended Mar. 31, 1953, 751 Supplementary Letters Patent were granted for variation of corporate powers, changes of name, confirmation of compromises or arrangements with shareholders and for various other purposes. In addition to the companies with share capital, 24 corporations without share capital were granted Letters Patent under Part II of the Companies Act, 1934 (R.S.C. 1952, c. 53). Supplementary Letters Patent were granted to 440 existing companies and to five existing corporations without share capital.

Compilation of the capitalization of the companies incorporated under the Companies Act is no longer available. Figures for 1943-52 are given at p. 1123 of the 1954 Year Book and those for 1900-1942 in previous issues.

## CHAPTER XXVI.-CURRENGY AND BANKING; MISCELLANEOUS COMMERGIAL FINANCE

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Note.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

## PART I.-GURRENCY AND BANKING

A historical sketch of currency and banking in Canada appears in the 1938 Year Book, pp. 900-905.

## Section 1.-The Bank of Canada

The Bank of Canada was incorporated under the Bank of Canada Act 1934 and commenced operations on Mar. 11, 1935.

The Bank of Canada is Canada's central bank and as such its main function is to regulate the total volume of money and credit. The normal way in which this function is performed is through changes in the cash reserves of the chartered banks. Each chartered bank is required by the Bank Act to maintain, on the average during each calendar month, an amount of cash reserves, in the form of Bank of Canada notes and deposits with the Bank of Canada, equal to not less than 8 p.c. of its Canadian dollar deposit liabilities. (Prior to July 1, 1954, each chartered bank was required to maintain, at all times, cash reserves equal to not less than 5 p.c. of its Canadian dollar deposit liabilities; in practice, the chartered banks normally attempted to maintain a ratio of about 10 p.c.) An increase in cash reserves encourages banks to expand their assets (mainly by purchasing securities and making loans), with a resultant similar increase in their deposit liabilities; a decrease in cash reserves tends to discourage expansion and may result in some contraction. Therefore, by taking steps to alter the volume of cash reserves available to the chartered banks, the Bank of Canada is able to influence the total of chartered bank assets and the total of their Canadian dollar deposit
liabilities. The deposit liabilities of the banks, except for those payable to the Government, are, of course, assets of the general public and, together with currency, comprise their most liquid assets. (See pp. 1194-1196 for discussion of general public holdings of liquid assets.)

Open market operations in Government of Canada securities constitute the chief means by which the Bank of Canada influences the volume of chartered banks' reserves. When the Bank of Canada purchases a security it issues a cheque in settlement which, after it is cashed at, or deposited with, a chartered bank by the recipient, is in turn deposited by that chartered bank in its account with the Bank of Canada, thereby increasing its cash reserves. Conversely, when the Bank of Canada sells a security, the cheque which it receives in payment is charged against the account of the chartered bank on which it is drawn thus decreasing that bank's cash reserves. Increases or decreases in other assets and liabilities of the Bank of Canada also have an effect on the chartered banks' cash reserves. For example, an increase in the amount of Bank of Canada notes held by the general public tends to reduce the banks' cash reserves.

The Bank of Canada Act was revised in 1936, 1938 and 1954. The major amendments in 1954 (see also pp. 1197-98) were the following:-
(1) The Bank of Canada was given the power to vary the minimum cash reserve requirements of the chartered banks between 8 p.c. and 12 p.c. of their Canadian dollar deposit liabilities, provided that the chartered banks are given a minimum period of one month's notice before each increase becomes effective and that any increase is not more than 1 p.c. during any one month. When this legislation became effective on July 1, 1954, the initial requirement was 8 p.c.
(2) Restrictions regarding the maximum amount of Bank of Canada holdings of securities issued or guaranteed by Canada or any province were removed. Prior to July 1, 1954, the Bank's holdings of these securities which did not mature within two years were limited to 50 p.c. of the Bank's outstanding note issue and deposit liabilities and holdings of these securities, which did not mature within 10 years, were limited to an amount equal to five times the paid-up capital and rest fund of the Bank.
(3) Provision was made for one-fifth of the annual profits of the Bank to be appropriated to the rest fund until it reaches $\$ 25,000,000$. At the same time the provision for the Bank to pay from its profits cumulative dividends of $4 \frac{1}{2}$ p.c. per annum on the capital stock was removed. (This means that the Bank's profits, except for allocations to the rest fund, will in future be transferred to the Government in a single payment rather than part in the form of a dividend and the balance in another payment.)

The Bank may make loans or advances for periods not exceeding six months to chartered banks, or to banks to which the Quebec Savings Bank Act applies, on the pledge or hypothecation of certain classes of securities. Loans or advances on the pledge or hypothecation of readily marketable securities issued or guaranteed by Canada or any province may be made to the Government of Canada or the
government of any province for periods not exceeding six months. Other loans may be made to the Government of Canada or the government of any province in amounts not exceeding a fixed proportion of such government's revenue; such loans must be repaid before the end of the first quarter after the end of the fiscal year of the borrower. The Bank of Canada is required to make public at all times the minimum rate at which it is prepared to make loans or advances. This rate, known as the Bank Rate, has been 2 p.c. per annum since Oct. 17, 1950.

The Bank has the sole right to issue paper money for circulation in Canada. Details regarding the note issue are given on pp. 1191-92.

The Bank acts as the fiscal agent for the Government of Canada in the payment of interest and principal and generally in respect of the management of the public debt of Canada.

The Bank may buy and sell securities issued or guaranteed by Canada or any province, short-term securities issued by the United Kingdom, treasury bills or other obligations of the United States, and certain classes of short-term commercial paper. The Bank is authorized by the Industrial Development Bank Act to purchase bonds and debentures issued by the Industrial Development Bank. The Bank may buy and sell gold, silver, nickel and bronze coin, and gold and silver bullion, and may also deal in foreign exchange.

The Bank may accept deposits that do not bear interest from the Government of Canada, the government of any province, any chartered bank or any bank to which the Quebec Savings Bank Act applies.

The Bank does not accept deposits from individuals and does not compete with the chartered banks in commercial banking fields.

Section 23 of the Bank of Canada Act provides that the Bank shall maintain a reserve of gold equal to not less than 25 p.c. of its outstanding notes and deposit liabilities. This requirement was suspended in 1940 when, under the terms of the Exchange Fund Order, the Bank's gold holdings were transferred to the Exchange Fund Account to form part of Canada's official gold and United States dollar reserves. The requirement is still in suspension. The Currency, Mint and Exchange Fund Act, passed in 1952, provides that, notwithstanding Section 23 of the Bank of Canada Act, the Bank of Canada is not required to maintain a minimum or fixed ratio of gold or foreign exchange to its liabilities, unless the Governor in Council otherwise prescribes.

The Bank is under the management of a Board of Directors composed of a Governor, a Deputy Governor and twelve directors. The Governor and Deputy Governor are appointed for terms of seven years each by the directors, with the approval of the Governor General in Council. The directors are appointed by the Minister of Finance, with the approval of the Governor General in Council, for terms of three years each. The Deputy Minister of Finance is a member of the Board but does not have the right to vote. There is an Executive Committee of the Board, composed of the Governor, Deputy Governor, one director and the Deputy Minister of Finance (who is without a vote), which has the same powers as the Board, except that its every decision must be submitted to the Board at its next meeting.

In addition to the Deputy Governor, who is a member of the Board, there may be one or more Deputy Governors who are appointed by the Board of Directors to perform such duties as are assigned to them by the Board.

The Governor is the chief executive officer of the Bank and Chairman of the Board of Directors. The Governor has the power to veto any action or decision of the Board of Directors or of the Executive Committee but such a veto is subject to confirmation or disallowance by the Governor General in Council. In the absence of the Governor, the Deputy Governor, who is a member of the Board, exercises all the powers and functions of the Governor.

The capital of the Bank is $\$ 5,000,000$ and is entirely held by the Minister of Finance. At the end of 1953, the rest fund of the Bank amounted to $\$ 10050,367$. The Bank of Canada Act, as amended in 1954, provides that each year 20 p.c. of the Bank's annual profits (after provision for depreciation in assets, pension funds and such matters) shall be allocated to the rest fund until the rest fund reaches an amount five times the paid-up capital of the Bank and the remainder shall be paid to the Receiver-General and placed to the credit of the Consolidated Revenue Fund.

The head office of the Bank is at Ottawa. It has agencies at Halifax, Saint John, Montreal, Ottawa, Toronto, Winnipeg, Regina, Calgary and Vancouver and is represented in St. John's and Charlottetown. The agencies are chiefly concerned with the functions of the Bank as fiscal agent for the Government of Canada and with the issue and redemption of currency. The Industrial Development Bank, which is described on pp. 1190-91, is a subsidiary of the Bank of Canada.

The Bank of Canada Act requires that statements of the assets and liabilities of the Bank on each Wednesday*and the last day of each month be published in the Canada Gazette. A summary of the statement as at Dec. 31, 1951-53, appears in Table 1.
1.-Assets and Liabilities of the Bank of Canada, as at Dec. 31, 1951-53

| Assets |
| :---: |
| Assets |
|  |

1.-Assets and Liabilities of the Bank of Canada, as at Dec. 31, 1951-53--concluded

| Liabilities |
| :--- |
| Liabilities |

[^388]The President of the Industrial Development Bank is the Governor of the Bank of Canada and the Directors are the Directors of the Bank of Canada. The $\$ 25,000,000$ capital stock of the Bank (completely paid up) was subscribed by the Bank of Canada. The Industrial Development Bank may also raise funds by the issue of bonds and debentures provided that its total direct liabilities and contingent liabilities in the form of guarantees and underwriting agreements do not exceed three times the aggregate of the Bank's paid-up capital and Reserve Fund.

The lending powers of the Bank may be extended only to industrial enterprises or commercial air services in Canada with respect to which it is empowered to:-
(1) lend money or guarantee loans;
(2) enter into underwriting agreements with regard to any issue of stock, bonds or debentures;
(3) acquire stock, bonds or debentures from the issuing corporation or any person with whom the Bank has entered into an underwriting agreement.
The Bank may accept any form of collateral security against its advances, including real property.

The Industrial Development Bank is intended to supplement the activities of other lending agencies, not to compete with them, and the Act of incorporation requires that it should extend credit only when the Board of Directors is of the opinion that similar credit would not be available elsewhere on reasonable terms and conditions. The Bank is specifically prohibited from engaging in the business of deposit banking.

## 2.-Authorized and Outstanding Loans and Investments of the Industrial Develop-

 ment Bank, by Province, Size and Industry, as at Dec. 31, 1953| Province | Authorized | Outstanding | Industry | Authorized | Outstanding |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | $\leqslant$ |
| Newfoundland. . . . . . . . | 66.000 | 49.583 | Food and beverages....... | 5,478,823 | 3,528.396 |
| Prince Edward Island..... | 66.000 | 49,583 | Rubber goods............ | 50.000 | 45,000 |
| Nova Scotia. | 434,829 | 315,580 | Leather products.......... | 727,500 | 342,805 |
| New Brunswic | 1,274, 221 | 915,007 | Textile products (except |  |  |
| Quebec. | 24,285,543 | 18,522,929 | clothing) | 3.774.679 | 2,880,983 |
| Ontario | 14,313,565 | 9,157.561 | Clothing (textiles and fur). | 1,783,250 | 1,151,535 |
| Manitoba | 1,968,445 | 1,101, 833 | Wood products. ........... | 7,850,309 | 5,732,335 |
| Saskatchew | 3,533, 000 | 3,255,002 | Paper products (including |  |  |
| Alberta. | 3,096, 200 | 2,137,199 | pulp). | 4,191,400 | 3,892,983 |
| British Columbia ${ }^{1}$ | 8,933,191 | 6.080,050 | Printing, publishing and |  |  |
| Canada. | 57,904,994 | 41,534,744 | Iron and steel products (including machinery |  |  |
|  |  |  | and equipment) ........ |  |  |
|  |  |  | Transportation equipment Non-ferrous metal products | $\begin{array}{r} 2,687,855 \\ 476,195 \end{array}$ | $\begin{array}{r} 1,788,568 \\ 321,596 \end{array}$ |
| Size of Loan | Authorized | Credits | Electrical apparatus and supplies. | 2,638,100 | 1,968,094 |
|  |  |  | Non - metallic mineral products. | 2,804,881 | 1,962,420 |
|  | \$ | No. | Petroleum and coal prod- | 2,890,000 |  |
| \$5,000 or under | 51,192 | 13 | Chemical products........ | $8,253,500$ | 7,149,065 |
| \$5,001 to $\$ 25,000$. | 3,731,747 | 240 | Miscellaneous manufactur- |  |  |
| \$25,001 to \$50,000. | 5,814,254 | 147 | ing industries. | 1,179,000 | 767,474 |
| \$50,001 to \$100,000. | 9.091,036 | 120 | Refrigeration. . . . . . . . . . . | 3,610,812 | 2,482,132 |
| \$100,001 to $\$ 200,000 \ldots . .$. | 9,744, 365 | 66 | Generating or distributing |  |  |
| \$200,001 or over.......... | 29,472,400 | 48 | electricity | $\begin{aligned} & 315,000 \\ & 939,000 \end{aligned}$ | $\begin{array}{r} 80,000 \\ 611,730 \end{array}$ |
| Totals. | 57,904,994 ${ }^{2}$ | 634 | Totals | 57,904,994 | 41,534,744 |

${ }^{1}$ Includes the Yukon and Northwest Territories. $\quad{ }^{2}$ Because of partial repayments on account of current authorizations, the net suthorizations were $\$ 46,754,639$ of which those in excess of $\$ 200,000$ totalled $\$ 24,832,111$.

## Section 2.-Currency

## Subsection 1.-Notes and Coinage

Note Circulation.-The development by which bank notes became the chief circulating medium in Canada prior to 1935 is described in the 1938 Year Book, pp. 900-905. Those features of the development which then became permanent are outlined in the 1941 Year Book, pp. 809-810.

When the Bank of Canada commenced operations in 1935 it assumed liability for Dominion notes outstanding. These were replaced in public circulation and partly replaced in cash reserves by the Bank's legal tender notes in denominations of $\$ 1, \$ 2, \$ 5, \$ 10, \$ 20, \$ 50$ and $\$ 100$. Deposits of chartered banks at the Bank of Canada completed the replacement of the old Dominion notes of $\$ 1,000$ to $\$ 50,000$ denomination that had previously been used as cash reserves.

The chartered banks were required under the Bank Act of 1934 to reduce gradually the issue of their own bank notes during the years 1935-45 to an amount not in excess of 25 p.c. of their paid-up capital on Mar. 11, 1935. Bank of Canada notes thus replaced chartered bank notes as the issue of the latter was reduced. Further restrictions introduced by the 1944 revisions of the Bank Act cancelled the right of chartered banks to issue or re-issue notes after Jan. 1, 1945, and in January 1950, the chartered banks' liability for such of their notes issued for circulation in Canada as then remained outstanding was transferred to the Bank of Canada in return for payment of a like sum to the Bank of Canada.

The classification of Bank of Canada notes in circulation, by denomination, shown in Table 3 for 1950-53 is not strictly comparable with the classification for earlier years. Dominion notes have been excluded from the denomination classification and the total only is shown. Also, an item has been added showing the outstanding chartered bank notes issued originally for circulation in Canada. The statistics of total notes in the hands of the general public are comparable with earlier years.

## 3.-Bank of Canada Notes, by Denomination, and Other Notes in Circulation, 1950-53

Nore.-Annual averages of month-end figures. The totals outstanding are not always multiples of the denominations of notes because of adjustments made according to scale when parts of mutilated notes are turned in for cancellation.

| Denomination | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| \$1. | 45,910,769 | 48,809,962 | 51,641,466 | 54,900,023 |
| 82. | 34,243,030 | 35,911,842 | 37,927,230 | 39,714,720 |
| 85 | 103,833,274 | 107,085,457 | 110,816,640 | 113,757,244 |
| $\$ 10$. | 404,655,684 | 422,317,512 | 441,728,407 | 456,770,149 |
| \$20. | 323,572,326 | 353,237,484 | 392,511,009 | 424,196,391 |
| \$25. | 46,614 | 46,565 | 46,515 | 46,442 |
| 850 | 104,392,817 | 108,221,783 | 114,672,846 | 121,898,817 |
| $\$ 100$ | 244,904,066 | 258,018,267 | 273,053,869 | 293,553,271 |
| \$500 | 170,875 | 139,583 | 112,038 | 95,375 |
| \$1,000. | 13,735,750 | 10,183,083 | 9,528,692 | 9,947,333 |
| Totals. | 1,275,465, 205 | 1,343,971,538 | 1,432,038,712 | 1,514,879,765 |
| Provincial notes. | 27,568 | 27,568 | 27,568 | 27,568 |
| Dominion notes. | 4,713,347 | 4,696,543 | 4,675,772 | 4,666,763 |
| Defunct bank notes. | 88,429 | 88,380 | 4, 88,364 | 88,362 |
| Chartered bank notes ${ }^{1}$ | 12,944,361 | 11,895,393 | 11,108,797 | 10,439,689 |
| Grand Totals. | 1,293,238,910 | 1,360,679,422 | 1,447,939,213 | 1,530,102,147 |

[^389]| Year | Annual Averages of Month-End Figures |  |  | Annual Averages of Daily Figures |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bank of Canada Notes ${ }^{1}$ | Chartered Bank Notes ${ }^{2}$ | Total | Amount ${ }^{3}$ | $\begin{gathered} \text { Per } \\ \text { Capita4 } \end{gathered}$ |
|  | \$ | \$ | 8 | \$ | 8 |
| 1944. | $821,330,660$ | 37,056,187 | 858,386, 847 | $835,000,000$ | $69 \cdot 90$ |
| 1945 | 940,911,000 | 28,636, 174 | 969,547,174 | 951,000,000 | 78.78 |
| 1946. | 981,727,494 | 23,172,717 | 1,004,900,211 | 992,000,000 | $80 \cdot 70$ |
| 1947. | 1,009,112,506 | 19,675,994 | 1,028,788,500 | 1,013,000,000 | $80 \cdot 71$ |
| 1948. | 1,055,587,720 | 17,109,071 | 1,072,696,791 | 1,053,000,000 | 82-12 |
| 1949. | 1,086,744,068 | 14,731,992 | 1,101,476,060 | 1,087,000,000 | 80.84 |
| 1950. | 1,100, 898,470 | 5 | 1,100,898,470 | 1,085,000,000 | 79-13 |
| 1951. | 1,151, 201,531 | 5 | 1,151,201,531 | 1,132,000,000 | 80.81 |
| 1952. | 1,227,449,385 | 5 | 1,227,449,385 | 1,207,000,000 | $83 \cdot 65$ |
| 1953. | 1,298,894,876 | 5 | 1,298,894,876 | 1,275,000,000 | 86.26 |

${ }^{1}$ Total issue less notes held by chartered banks. $\quad{ }^{2}$ Gross note circulation only; notes held by other chartered banks are not available. Includes, prior to 1950 , a relatively small amount issued for circulation outside Canada. ${ }^{3}$ Figures, to nearest million, supplied by the Bank of Canada. ${ }^{4}$ Figures based on estimates of population as given at p. 137; see headnote to this table.
${ }^{5}$ In January 1950, the chartered banks liability for such of their notes issued for circulation in Canada as then remained outstanding was transferred to the Bank of Canada.

Coinage.-Under the Currency, Mint and Exchange Fund Act (R.S.C. 1952, c. 315), gold coins may be issued in denominations of twenty dollars, ten dollars and five dollars (nine-tenths fine or millesimal fineness, 900). Subsidiary coins include: silver coins in denominations of one dollar, 50 cents, 25 cents and 10 cents (eight-tenths fine or millesimal fineness, 800); pure nickel five-cent coins; and bronze (copper, tin and zinc) one-cent coins. Provision is made for the temporary alteration of composition in event of a shortage of prescribed metals. A tender of payment of money in coins is a legal tender in the case of gold coins for the payment of any amount; in the case of silver coins for the payment of an amount up to $\$ 10$; nickel coins for payment up to $\$ 5$; and bronze coins up to 25 cents.

## 5.-Canadian Coin in Circulation, as at Dec. 31, 1944-53

Nors.-The figures shown are of net issues of coin. Figures for 1901-25 are given in the 1927-28 Year Book, pp. 857-858, and for 1926-43 in the 1916 edition, p. 956.

| Year | Silver | Nickel | Tombac ${ }^{1}$ | Steel | Bronze | Total | Per Capita ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | \$ | $\$$ |
| 1944. | 54,972,812 | 4,825,057 | 1,407,754 | 571,000 | 6,753,329 | 68,529,952 | 5-74 |
| 1945. | 58,327,590 | 4,823,237 | 1,407,462 | 1,521,170 | 7,499,263 | 73, 578,722 | $6 \cdot 09$ |
| 1946. | 59,944,549 | 5,113,103 | 1,155,791 | 1,520,849 | 8,024,547 | 75,758,839 | 6-16 |
| 1947. | 61,049,986 | 5,503,117 | 868,994 | 1,520,647 | 8,382,327 | 77,325,071 | $6 \cdot 16$ |
| 1948. | 63,829,640 | 6,117,555 | 730,064 | 1,520,210 | 9,088,221 | 81,285,690 | 6.34 |
| 1949. | 67,874,750 | 6,753,780 | 661,333 | 1,519,743 | 9,407,325 | 86,216,931 | 6.41 |
| 1950. | 73,473,724 | 7,393,138 | 621,440 | 1,519,419 | 10,012,143 | 93,019.864 | 6.78 |
| 1951. | 78,638,143 | 7,815,103 | 599,655 | 1,701,849 | 10,794, 169 | 99,548,919 | 7.11 |
| 1952. | 83,463,939 | 7,814,398 | 584,882 570,847 | 2,278,329 | 11,476,591 | 105, 618, 139 | $7 \cdot 32$ |
| 1953. | 89,550,236 | 7,813,081 | 570,847 | 3,109,691 | 12,130,181 | 113,174,036 | $7 \cdot 66$ |

${ }^{1}$ Tombac, a copper-zinc alloy, was used to conserve nickel for war purposes.
${ }^{2}$ Per capita figures are based on estimates of population as given at p. 137.

The Royal Canadian Mint.-The Mint at Ottawa was established as a branch of the Royal Mint under the (Imperial) Coinage Act, 1870, and opened on Jan. 2, 1908. In 1931 (21-22 Geo. V, c. 48) it was constituted a branch of the Canadian Department of Finance and has since operated as the Royal Canadian Mint. From 1858 the British North American provinces, and later Canada, obtained their coins from the Royal Mint at London or from The Mint, Birmingham. Before that date, coins were mainly British, United States and Spanish. In its earlier years the operations of the Mint in Canada were confined to the production of gold, silver and bronze coins for domestic circulation and of British sovereigns and small coins struck under contract for Newfoundland and Jamaica.

Before 1914, only small quantities of gold bullion were refined, but during World War I the Mint came to the assistance of the British Government by establishing a refinery in which nearly $20,000,000 \mathrm{oz} . \mathrm{t}$. of South African gold were treated on account of the Bank of England. The subsequent development of the gold-mining industry in Canada has resulted in gold-refining becoming one of the principal activities of the Mint. Fine gold produced from the rough bullion shipments received from the mines is purchased by the Mint and later delivered to the Bank of Canada for account of the Minister of Finance in bars of approximately 400 oz . t. each, or, for those mines authorized to sell gold in the open market, the bullion is shipped to various domestic and foreign processors. The fine silver extracted from the rough gold is generally used for coinage purposes.
6.-Annual Receipts of Gold Bullion at the Royal Canadian Mint, and Bullion and Coinage Issued, 1944-53
Norz.-Figures for 1926-43 are given in the 1946 Year Book, p. 957.

| Year | Gold Received | Gold <br> Bullion <br> Issued | Silver Coin Issued | Nickel Coin Issued | Steel Coin Issued | Tombact Coin Issued | Bronze Coin Issued |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | oz. t. | oz. t. | 8 | \$ | \$ | \$ | 8 |
| 1944. | 2,862,048 | 2,829,755 | 4,006,000 | - | 571,000 | 400 | 454,600 |
| 1945. | 2,503,416 | 2,499,163 | 3,416,300 | - | 950,300 |  | 748,500 |
| 1946 | 2,652,245 | 2,665,964 | 1,710,000 | 291,500 | - | - | 528,500 |
| 1947. | 2,868,469 | 2,859,084 | 1,186,000 | 391,000 | - | - | 360,300 |
| 1948. | 3,401,991 | 3,405,073 | 2,829,956 | 615,500 | - | - | 708,300 |
| 1949. | 3,925,618 | 3,865, 296 | 4,148,842 | 637,500 | - | - | 321,901 |
| 1950. | 4,422,968 | 4,347,961 | 5.641,805 | 640.510 |  | - | 607,003 |
| 1951. | 4,169,480 | 4,167,485 | 5,213,677 | 423,003 | 182,829 | - | 783,329 |
| 1952. | 3,953,158 | 4,031, 063 | 4,869,552 | 597 | 576,965 |  | 683,820 |
| 1953. | 3,684,074 | 3,626,497 | 6,138, 686 | 234 | 831,915 | - | 655,130 |

${ }^{1}$ See footnote 1, Table 5.

## Subsection 2.-General Public Holdings of Certain Liquid Assets

The Bank of Canada's presentation of statistics concerning the volume of money is shown in Table 7. This shows not only currency and active bank deposits (formerly referred to as "money supply"), but also inactive chartered bank deposits and Government of Canada securities which, although not used to make payments, are forms in which the public holds its liquid funds. The series has been carried back to 1944 and provides a good approach to the problem of measuring changes in the volume of money under present-day conditions.
7.-General Public Holdings of Certain Liquid Assets, as at Dec. 31, 1944-53
(Millions of dollars)

| Year | Currency and Active Bank Deposits | Inactive Chartered Bank Notice Deposits ${ }^{1}$ | Government of Canada Securities ${ }^{2}$ | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1944. | 3,153 | 2.060 | 9.131 | 14,344 |
| 1945 | 3,514 | 2,391 | 11,310 | 17.215 |
| 1946. | 3.996 | 2,856 | 11.175 | 18,027 |
| 1947. | 3.944 | 3,143 | 10.763 | 17.850 |
| 1948. | 4,335 | 3,408 | 10,249 | 17,992 |
| 1949. | 4,422 | 3,751 | 9,902 | 18,075 |
| 1950. | 4,851 | 3.861 | 10.066 | 18,778 |
| 1951 | 4,843 | 3,894 | 9,388 | 18.125 |
| 1952. | 5.173 | 4,129 | 9,062 | 18.364 |
| 1953. | 5,134 | 4,211 | 9,284 | 18,629 |

[^390]In measuring currency and active bank deposits, it is necessary to decide which categories of bank deposits should be classed as active and which, by their nature, should be regarded more appropriately as part of the public's other liquid asset holdings. Generally, it has been satisfactory to classify bank deposits as active if cheques may be drawn against them. In other countries this criterion
has seemed to work fairly well because cheques may not be drawn against savings deposits. In Canada, however, cheques are, in practice, drawn freely against savings deposits and this poses an awkward problem. To omit all savings deposits of chartered banks would ignore the obvious fact that, for many people, a savings account is an active chequing account which is very similar to a current deposit. On the other hand it is known from available information that, of the total amount on deposit in savings accounts in Canada, much the larger part is, in practice, inactive. Chartered banks pay interest on the minimum quarterly balances in personal savings accounts, i.e., on the sum that has been left undisturbed for the quarterly period; from the amount of interest that is actually paid on this basis as compared with the nominal rate of interest, it is apparent that the aggregate minimum quarterly balances in personal savings accounts are, at present, about five-sixths of the total of such deposits.

It is felt, therefore, that a more realistic account of monetary developments in Canada-and one more comparable with the usual presentation of similar statistics in other countries-is obtained by omitting the minimum quarterly balances in personal savings deposits and non-personal notice deposits from active money statistics. It has seemed preferable to exclude these deposits on the basis that they are inactive in practice rather than to include them on the grounds that they are potentially active because cheques may be issued against them.

The published returns of Canadian chartered banks include among assets "Cheques on Other Banks" which represents the amount of cheques that have been credited to the deposit account of the payee but not yet cleared against the deposit account of the drawer. To the extent of such items in 'float' there is, therefore, duplication in the figures of bank deposits. In Table 8, "Cheques on Other Banks" has been deducted from the figure of chartered bank deposits in order to eliminate this duplication.

Government deposits are given different treatment in different countries as far as volume-of-money statistics are concerned. In general, the commonly used figure of bank deposits excludes Government deposits and, on the whole, it appears preferable to exclude Government of Canada deposits from the Canadian active money figures.
8.-Summary Statistics of Currency and Active Bank Deposits, as at Dec. 31, 1944-53
(Millions of dollars)

| Year | Currency Outside Banks ${ }^{1}$ |  |  | Active Bank Deposits |  |  | Total Currency and Active Bank Deposits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Notes | Coin | Total Currency | Chartered Bank Net ${ }^{2}$ | Bank of Canada 'Other' Deposits ${ }^{3}$ | Total Active Bank Deposits |  |
| 1944... | 930 | 60 | 990 | 2,135 | 28 | 2,163 | 3,153 |
| 1945. | 992 | 63 | 1,055 | 2,429 | 30 | 2,459 | 3,514 |
| 1946. | 1,031 | 65 | 1,096 | 2,806 | 94 | 2.900 | 3,996 |
| 1947. | 1,046 | 66 | 1,112 | 2,764 | 68 | 2,832 | 3,944 |
| 1948. | 1,115 | 70 | 1,185 | 3,069 | 81 | 3,150 | 4,335 |
|  | 1,110 | 74 | 1,184 | 3,111 | 127 | 3,238 | 4,422 |
| 1950... | 1,136 | 78 | 1,214 | 3,430 | 207 | 3,637 | 4,851 |
| $1951 .$ | 1,191 | 84 | 1,275 | 3,502 | 66 | 3,568 | 4,843 |
| ${ }_{1953} 195$. | 1,289 1,335 | 88 94 | 1,377 1,429 | 3,751 3,675 | 45 | 3,796 | 5,173 |
| 1953. | 1,335 | 94 | 1,429 | 3,675 | 30 | 3,705 | 5,134 |

[^391]

## Section 3.-Commercial Banking

As one of the chief functions of the early banks in Canada was to issue notes to provide a convenient currency or circulating medium, it has been expedient to cover both currency and banking in one historical sketch, which is given in the 1938 Year Book, pp. 900-905. A list of the banks at Confederation appears in the 1940 Year Book, p. 897, and bank absorptions since 1867 are given in the 1941 edition, pp. 812-813. A table in the 1937 Year Book, pp. 894-895, shows the insolvencies from Confederation; the last insolvency occurred in 1923. The more important of the revisions to banking legislation contained in the 1954 Bank Act are outlined in Subsection 1.

## Subsection 1.-Chartered Banks

Canadian commercial banks are chartered or licensed by the Government of Canada and operate under one federal statute - the Bank Act-which is revised every ten years and brought into line with changing economic conditions. In addition to doing a commercial banking business, the chartered banks hold most of the public's savings deposits.

Revisions in Banking Legislation in 1954.-In 1954 there were a number of important changes in legislation affecting the operations of the chartered banks, arising out of the decennial revision of the Bank Act and revisions of the Bank of Canada Act and the National Housing Act.

An amendment to the Bank Act concerned the minimum cash reserves which the chartered banks are required to hold in the form of notes of and deposits with the Bank of Canada. The banks had been required to maintain at all times cash reserves of not less than 5 p.c. of their Canadian dollar deposit liabilities. In practice, they normally attempted to maintain a ratio of about 10 p.c. As a result of the amendment, the banks are now required to maintain cash reserves, on the average during each calendar month, equal to not less than 8 p.c. of their Canadian dollar deposit liabilities. In conjunction with this change, an amendment was made to the Bank of Canada Act which gives the Bank of Canada power to vary the minimum cash reserve requirement between 8 p.c. and 12 p.c. of Canadian dollar deposit liabilities, provided that the chartered banks are given a minimum period of one month's notice before each increase becomes effective and that the increase effective in any one month is not more than 1 p.c.

The National Housing Act 1954 gives the chartered banks authority to lend money for residential construction on the security of mortgages insured by a government agency. Prior to 1954, the Bank Act had prohibited the chartered banks from lending money on the security of mortgages on real or immovable property, except for loans made under the terms of the Farm Improvements Loans Act of 1944 and the Veterans Business and Professional Loans Act of 1946.

Another amendment to the Bank Act allows the banks to lend money to individuals, other than manufacturers or dealers, on the security of motor-vehicles or any other personal or movable household property.

With the development of the Canadian oil industry, a new section has been added to the Bank Act which allows oil loans to be made on various types of security, including oil in the ground.

The amount of capital which a newly-incorporated bank must have before it commences business has been doubled. The requirements are now a minimum subscribed capital of $\$ 1,000,000$ and a minimum paid-up capital of $\$ 500,000$. The previous requirements had been in effect since 1890 .

Another amendment to the Bank Act was related to the problem of raising new capital. Under the provisions of the old Act there were difficulties attached to making a new issue of capital stock if the bank concerned had shareholders resident in countries where considerable detailed information (which banks are not required to make public in Canada) must be filed before the issue of capital stock is approved. The amendment relieves banks of the obligation to make offerings to shareholders resident in such countries.

After 1935, the chartered banks' note circulation in Canada was gradually withdrawn and, in July 1950, the banks paid to the Bank of Canada approximately $\$ 13,500,000$, an amount equal to their outstanding Canadian notes, and, thereafter, the Bank of Canada became liable to redeem the notes on presentation. Some of the banks with foreign branches have continued to maintain a small issue of foreign currency notes but the costs, including taxes, have made it an unprofitable operation. The Bank Act now provides that all note-issuing privileges of the banks shall cease and also provides for methods of retiring the outstanding foreign note circulation

With the above-mentioned payment by the chartered banks to the Bank of Canada, the additional liability, often referred to as the "double liability", which formerly attached to a bank's shares in proportion to its outstanding note issue, was cancelled. When there was additional liability attached to the bank's shares it was essential that the shares could be transferred only by registration on the books of the bank. As this is no longer necessary, an amendment to the Bank Act provides that each bank, if it so wishes, may provide for another method of share transfer.

Branches of Chartered Banks.-Although there are fewer chartered banks now than at the beginning of the century, there has been a great increase in the number of branch banking offices. Owing mainly to amalgamations, the number of banks declined from 34 in 1901 to 10 in 1931, and remained at that figure until the incorporation of a new bank-the Mercantile Bank of Canada-in 1953 brought the total to 11.* The number of chartered bank branches in Canada increased from 747 at Dec. 31, 1902, to 3,932 at the end of 1953.
*The Bank of Toronto and the Dominion Bank amalgamated Feb. 1, 1955, to become the Toronto-
Dominion Bank. Dominion Bank.

## 9.-Branches of Chartered Banks by Province, as at Dec. 31, for Certain Years 1868-1953

Nore.-Figures for 1920 and subsequent years include sub-agencies in Canada receiving deposits for the banks employing them.

| or Territory | 1868 | 1902 | 1905 | 1920 | 1926 | 1930 | 1940 | 1943 | 1946 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland.. <br> P. E. Island | - | 9 | 10 | ${ }_{41}$ | 28 | 28 | 25 | 23 | 23 | 39 23 | 40 23 | 42 23 | 45 23 |
| Nova Scotia. | 5 | 89 | 101 | 169 | 134 | 138 | 134 | 126 | 127 | 144 | 147 | 148 | 149 |
| New Brunswick.. | 4 | 35 | 49 | 121 | 101 | 102 | 97 | 93 | 96 | 100 | 101 | 101 | 107 |
| Quebec. | 12 | 137 | 196 | 1,150 | 1,072 | 1,183 | 1,083 | 1,041 | 1,067 | 1,164 | 1,184 | 1,211 | 1,230 |
| Ontar | 100 | 349 | 549 | 1,586 | 1,326 | 1,409 | 1,208 | 1,092 | 1,117 | 1,257 | 1,304 | 1,315 | 1,350 |
| Manitoba | - | 52 | 95 | 349 | 224 | 239 | 162 | 148 | 151 | 165 | 168 | 174 | 175 |
| Saskatchew |  | 30 | 87 | 591 | 427 | 447 | 233 | 213 | 226 | 238 | 240 | 243 | 247 |
|  |  |  | 87 | 424 | 269 | 304 | 172 | 163 | 190 | 246 | 257 | 264 | 270 |
| British Columbia Yukon and N.W.T | - ${ }^{2}$ | 46 | 55 | 242 3 | 186 3 | 229 | 192 | 180 | 216 6 | 294 9 | 304 8 | 318 9 | 328 |
| Canada | 123 | 747 | 1,145 | 4,676 | 3,770 | 4,083 | 3,311 | 3,084 | 3,219 | 3,679 | 3,776 | 3,848 | 3,932 |

## 10.-Branches of Individual Canadian Chartered Banks, by Province, as at Dec. 31, 1953

Nots.-This table does not include 696 sub-agancies in Canada for receiving deposits.

| Chartered Banks | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Bank of Montreal. | 9 | 1 | 16 | 14 | 115 | 193 |
| Bank of Nova Scotia | 18 | 8 | 41 | 36 | 31 | 145 |
| Bank of Toronto ${ }^{1}$. | - | - | 1 | - | 25 | 138 |
| Provincial Bank of Canada. | - | 1 | - | 11 | 124 | 12 |
| Canadian Bank of Commerce | 4 | 6 | 20 | 9 | 75 | 257 |
| Royal Bank of Canada. | 9 | 4 | 63 | 22 | 93 | 232 |
| Dominion Bank ${ }^{1}$. . . | - | - | 1 | 3 | 16 | 120 |
| Banque Canadienne Nationale | - | - | - | - | 232 | 12 |
| Imperial Bank of Canada | - | - | 1 | 1 | 13 | 129 |
| Barclays Bank (Canada). | 二 | - | - | = | 2 | 1 |
| Totals. | 40 | 20 | 143 | 96 | 727 | 1,239 |

For footnote, see end of table.

## 10.-Branches of Individual Canadian Chartered Banks, by Province, as at Dec. 31, 1953-concluded



[^392]Nors.-This table does not include seven sub-agencies operating outside Canads.


Combined Financial Statistics of Chartered Banks.-In order to afford a clear account of the nature of banking transactions in Canada, bank liabilities have been classified in Table 12 into two main groups: liabilities to shareholders and liabilities to the public. Only the latter group is ordinarily considered when determining the financial position of any such institution. Assets are divided into four groups, 'other assets' being included in the total. The relative rates of increase of capital and reserve funds may be noted in the table, also the great increase in the proportion of liabilities to the public to total liabilities and the gradually increasing percentage of liabilities to the public to total assets. The declining proportion of chartered bank notes in circulation to total liabilities to the public is also characteristic of the evolution of banking in recent times (see p. 1191).

## 12.-Assets and Liabilities of the Chartered Banks, 1944-53

Nore.-These statistics are yearly averages computed from the twelve monthly returns in each year Figures for 1867-1936 will be found in the 1938 Year Book, pp. 918-919, and for 1937-43 in the 1952-53 edition, p. 1105.

| Year | ASSETS |  |  |  |  |  | Public Liabilities Total Assets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gold <br> Reserves, Notes of and Deposits with the Bank of Canada | Government of Canada and Provincial Government Securities | Municipal Securities in Canada and Public Securities Elsewhere | Total Securities | Total Loans | Total Assets ${ }^{1}$ |  |
|  | 8 | \$ | \$ | 8 | \$ | \$ | p.c. |
| 1914. | 538,206,187 | 2,991,047,582 | 283,417,399 | 3,353, 259,736 | 1,343, 938,364 | 5,990,410,887 | 94.98 |
| 1945. | 604, 842,928 | $3,438,830,751$ | 313,061. 291 | 3,857,534, 890 | 1,505,039,333 | 6,743,217, 134 | 95.48 |
| 1946 | 686,368,427 | $3,734,872,237$ | 381,996,554 | 4,287,002,710 | $1,642,519,066$ | 7,429,603,029 | 95.89 |
| 1947. | 679,051,569 | 3,395, 306,552 | 436,075,580 | 4, 108,441, 158 | $2,125,582,441$ | 7,810,913,975 | 95.72 |
| 1948. | 719,499,043 | 3,314,539,556 | 393,841,399 | 4,120,137,032 | 2,388,597,680 | 8,140,145,708 | 95.81 |
| 1949. | 762,901, 802 | 3,573, 294, 569 | 387,844,005 | 4,370,052,504 | 2,618,421,119 | 8,657,764, 277 | $95 \cdot 99$ |
| 1950 | 769,951,696 | $3,563,018,724$ | $402,235,668$ | 4,363,401, 201 | 2,872,411,227 | 9,015, 109,852 | 96.06 |
| 1951 | 799,304, 753 | 3,134,186, 339 | 384,481,994 | 3,930,581,704 | 3,495,723,921 | 9,384, 800, 263 | 96.11 |
| 1952. | 850,995,055 | 3,271, 773,120 | 416,556,385 | 4,070, 324,029 | $3,607,883,433$ | 9,760,480,522 | 96-14 |
| 1953. | 885,714,106 | 3,172,572,295 | 401,852,995 | 3,942,016,950 | 4,215, 121,224 | 10,334, 778, 308 | 96-23 |

## LIABILITIES

| Liabilities to Shareholders |  | Liabilities to the Public |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Capital | Rest or <br> Reserve Fund | Notes in Circulation | Demand Deposits in Canada | Notice Deposits in Canada | $\begin{gathered} \text { Total } \\ \text { on } \\ \text { Deposit }{ }^{2} \end{gathered}$ | Total Public Liabilities ${ }^{3}$ |
| \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 145,500,000 | 136,750,000 | 37,056,187 | 1,863,793,981 | 2,272,573,361 | 5,422,302,978 | 5,689,443,095 |
| 145,500,000 | 136,750,000 | 28, 636, 174 | 1,986,075, 142 | $2,750,358,254$ | 6,159,997,976 | 6,438, 617,676 |
| 145.500.000 | 144, 666,667 | 23,172,717 | 2,155,312,749 | 3,327,057,442 | 6,771,555,153 | 7,123,979, 417 |
| 145,500,000 | 178,000,000 | 19,675,994 | 2,138,771,178 | 3,681, 231,057 | 7,075, 355, 884 | 7,476,627,449 |
| 145,500,000 | 182,416,667 | 17,109,071 | 2,258, 658,693 | 3,972,159,586 | 7,402,776,952 | 7,798,910,335 |
| 145,500,000 | 187,000,000 | 14,731,992 | 2,353,033,907 | 4,333,888,999 | 7,921,694,763 | 8,310,215,001 |
| 145,500,000 | 200,000,000 | $424,043{ }^{4}$ | 2,562,813,591 | 4,547, 880,387 | 8,220,886,332 | 8,660, 173,804 |
| 146,502,115 | 200, 837, 564 | 279,630 ${ }^{4}$ | 2,711,524,845 | 4,592,929,318 | 8,464,510, 837 | 9,019,780,755 |
| 148,522,618 | 211,798,615 | 180,3694 | 2,931,558,298 | 4,811,471,906 | 8,899,236,252 | 9,384, 111,788 |
| 149,954,371 | 228,095, 099 | 141,950 ${ }^{4}$ | 3,081,380,359 | 5,098, 833,001 | 9,482,574,676 | 9,945,599,866 |

1 Includes other assets not specified. and also deposits elsewhere than in Canada.
${ }^{2}$ Includes deposits of Federal and Provincial Governments ${ }^{3}$ Includes other liabilities not specified. ${ }^{4}$ After January 1950, the chartered banks' liability for such notes issued for circulation in Canada as then remained outstanding was transferred to the Bank of Canada; these figures cover notes in circulation outside Canada which were not taken over by the Bank of Canada.

## 13.-Analysis of Assets of Chartered Banks, 1951-53

Note.-The statistics in this table are averages computed from the twelve monthly returns in each year.

| Assets | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
| Cash reservest against Canadian deposits. | 782,564,265 | 833,332,674 | 866,645,535 |
| Subsidiary coin.. | 14,567,622 | ${ }_{5}^{15,994,769}$ | 17,411,039 ${ }^{631,089}$ |
| Notes of other Canadian banks | $471.665,967^{2}$ | 562,336,6042 | 631,089, 806 ${ }^{2}$ |
| Deposits at other Canadian banks | 877,118 | 313,582 | 324,826 |
| Gold and coin abroad. | 2.172,866 | 1,667,612 | 1,657,532 |
| Foreign currencies. | 40,333,387 | 38,764,903 | 40,954,488 $19,845,421$ |
| Deposits at United Kingdom bank | $22,569,857$ $237,614,233$ | $18,301,927$ $259,198,723$ | $19,845,421$ $269,020,984$ |

For footnotes, see end of table.

## 13.-Analysis of Assets of Chartered Banks, 1951-53-concluded

| Assets | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
| Securities- ${ }_{\text {Federal and Provincial Government securitie }}$ | 3, 134, 186,339 | 3,271,073,120 | 3,172,572,295 |
| Federal and Provincial Goverament securities........ | 3, 384,481,994 | 3,216,556,385 | - $404,852,995$ |
| Other bonds, debentures and stocks................... | 411,913,371 | 382,694, 524 | 364,591,660 |
| Call and Short Losns- |  |  |  |
| In Canads. | 98, 103,643 | 128,478,786 | 137,292,002 |
| Elsewhere. | 107,849,379 | 132,534,268 | 191.205,576 |
| Current Loans- |  |  |  |
| Canada- Loans Provincial Governments . | 34,723, 105 | 18,862,541 | 7,053,287 |
| Loans to cities, towns, municipalities and school districts. | 113,707,104 | 112,732, 282 | 111.434,534 |
| Other current loans and discounts. . | 2,867,753,460 | 2,912,485, 180 | 3,503,338, 196 |
| Elsewhere than in Canada. | 272,180,790 | 271,281,371 | 263,320,455 |
| Non-current loans. | 1,406,440 | 1,509,005 | 1,477,174 |
| Other Assets- |  |  |  |
| Real estate, other than bank premises.. | 156,372 | 109,269 | 103,792 |
| Mortgages on real estate sold by the banks | 417,479 | 125.390.850 | 410,963 |
| Bank premises........... | 116,185,897 | 125,138,049 | 124,004,274 |
| Bank circulation redemption fund. ................ |  | - |  |
| Liabilities of customers under letters of credit as per contra. | 255,207,737 | 208,972,300 | 186,300,098 |
| All other assets. | 14,161,838 | 17,751,798 | 19,871,376 |
| Totals, Assets | 3,381,840,263 | 9,768,480,522 | 10,334,778,368 |

${ }^{1}$ Cash reserves include Bank of Canads notes in the possession of the chartered banks together with their deposits with the Bank of Canada, but exclude minor amounts of gold carried in such reservea. ${ }^{2}$ Includes cheques of other banks.

## 14.-Analysis of Liabilities of Chartered Banks, 1951-53

Nors.-The statistics in this table are averages computed from the twelve monthly returns in each year.

| Liabilities | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
| Linamitigs to the Public |  |  |  |
| Notes in circulation. | 279,630 ${ }^{1}$ | 180,369 ${ }^{1}$ | 141,950 ${ }^{1}$ |
| Deposit Liabilities- |  |  |  |
| Government Deposits- |  |  |  |
| Federal. | 229,123,262 | 141,069,925 | 225,664,042 |
| Provincial.......................................... | 170, 266,769 | 191,521,145 | 185,756,182 |
| Demand...... | 2,711,524,845 | 2,931,558,298 | 3,081,380,359 |
| Notice. | 4,592,929,318 | 4,811,471,906 | 5,098,833,001 |
| Other ${ }^{2}$. | 99,007,261 | 133,447, 802 | 164,331,904 |
| Foreign | 661,659.382 | 690,167,176 | 726,609,188 |
| Inter-Bank Deposito- |  |  |  |
| Canadian ...... | 117,943,058 | 119,361,485 | 132,448,241 |
| United Kingdom | 45, 176,237 | 43,345,413 | 34,625.735 |
| Other. | 127,526.578 | 105,212,030 | 101,018, 797 |
| Totals, Deposit Liabilities ${ }^{2}$ | 8,755,156,710 | 9,167,155,180 | 9,750,667,449 |
| Canadian currency (estimated). | 7,851,000,000 | 8.238,000,000 | 8,785,000,000 |
| Foreign currency (eatimated).. | 904,000,000 | 929,000,000 | 968,000,000 |
| Totals, Note and Deposit Lisbilities. . | 8,755,436,340 | 9,167,335,549 | 9,750,809,399 |

[^393]14.-Analysis of Liabilities of Chartered Banks, 1951-53-concluded

| Liabilities | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: |
| Other Liabilities to the Public- | \$ | \$ | \$ |
| Letters of credit outstanding. . | 255.207.737 | 208,972.300 | 186,300.098 |
| Liabilities not included under foregoing headings.. | 9,136,678 | 7,803,939 | 8,490.369 |
| Totals, Lhbilities to tee Public. | 9,019,780,755 | 9,384, 111,788 | 9,945,599,866 |
| Linbilities to Shareholders |  |  |  |
| Capital......... | $\begin{aligned} & 146,502,115 \\ & 200,837,564 \end{aligned}$ | $\begin{aligned} & 148,522,618 \\ & 211,798,615 \end{aligned}$ | $\begin{aligned} & 149,954,371 \\ & 228,095,099 \end{aligned}$ |
| Grand Totals, Liabilities . | 9,367,120,434 | 9,744,433,021 | 10,323,649,336 |

${ }^{1}$ After January 1950, the chartered banks' liability for sucb notes issued for circulation in Canada as then remained outstanding was transferred to the Bank of Canada; these figures cover notes in circulation outside Canada which were not taken over by the Bank of Canada.
${ }^{2}$ Deposits in currencies other than Canadian are expressed in Canadian dollars at current rate of exchange.
${ }^{3}$ Totals do not correspond with those in Table 12 because of the inclusion here of inter-bank deposits.

## 15.-Significant Ratio Comparisons of Assets and Liabilities of Chartered Banks, 1944-53

Nore.-Yearly averages of month-end figures, except where otherwise specified. Figures for the years 1026-43 are given in the 1946 Year Book, p. 966.

| Year | Canadian Cash to Canadian Deposits |  | Securities to Note and Deposit Liabilities | Loans to Note and Deposit Liabilities |
| :---: | :---: | :---: | :---: | :---: |
|  | Daily ${ }^{1}$ | Month-End |  |  |
|  | p.c. | p.c. | p c. | p.c. |
| 1944.. | 11.8 | 11.2 | 60.2 | $24 \cdot 1$ |
| 1945. | 11.4 | 11.0 | $61 \cdot 2$ | 23.9 |
| 1946. | 11.4 | $11 \cdot 2$ | 61.8 | $23 \cdot 7$ |
| 1947. | $10 \cdot 8$ | $10 \cdot 6$ | 56.6 | $29 \cdot 3$ |
| 1948. | $10 \cdot 9$ | $10 \cdot 6$ | $54 \cdot 3$ | $31 \cdot 5$ |
| 1949. | 10.4 | $10 \cdot 3$ | 53.8 | 32.2 |
| 1950... | $10 \cdot 1$ | $9 \cdot 9$ | $51 \cdot 6$ | $34 \cdot 0$ |
| 1951. | $10 \cdot 2$ | $10 \cdot 0$ | 44.9 | 39.9 |
| 1952. | $10 \cdot 4$ | $10 \cdot 3$ | $44 \cdot 4$ | 39.4 |
| 1953. | $10 \cdot 2$ | $10 \cdot 1$ | $40 \cdot 4$ | $43 \cdot 2$ |

${ }^{1}$ Figures supplied by the Bank of Canada.

## 16.-Deposits in Chartered Banks, according to Size and Currency, as at Sept. 30, 1952 and 1953

| Year and Class | Deposit Accounts (Canadian Currency) | Deposits in Canadian Currency | Deposit Accounts (Other than Canadian Currency) | Deposits in Currencies other than Canadian |
| :---: | :---: | :---: | :---: | :---: |
| 1952 | No. | 8 | No. | $\delta$ |
| Deposits Payable on Demand- |  |  |  |  |
| \$1.000 or less. Cl . | 873,472 183,074 | $197,178,682$ $405,335,460$ | 3,543 1,157 | $1,118,995$ $2,753,001$ |
| 85.000 to $\$ 25.000$. | 56.835 | 578,690.094 | 769 | 9,075,987 |
| \$25.000 to \$100,000 | 11,879 | 550.924.973 | 353 | 19,471,251 |
| Over \$100,000.. | 3,979 | 1,470.506.292 | 204 | 108.157,848 |
| Adjustment items ${ }^{1}$. | ... | -176,678,833 | ... | +14.953.548 |
| Totals. | 1,129,239 | 3,025,956,668 | 6,026 | 155.530.630 |

[^394]16.-Deposits in Chartered Banks, according to Size and Currency, as at Sept. 30, 1952 and 1953-concluded

| Year and Class | Deposit Accounts (Canadian Currency) | Deposits in Canadian Currency | Deposit Accounts (Other than Canadian Currency) | Deposits in Currencies other than Canadian |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | No. | \$ |
| 1952-concluded |  |  |  |  |
| Deposits Payable After Notice- |  |  |  |  |
| \$1,000 or less........................... | 6,665,742 | 1,091,495,949 | 90 | 18,804 |
| \$1,000 to $\$ 5.000$. | 880,546 | 1,886, 287,102 | 20 | 45,845 |
| \$5.000 to \$25,000. | 145,925 | 1,223,356,827 | 3 | 38,799 |
| \$25,000 to \$100,000 | 6,911 | 295,333,488 | 3 | 149,063 |
| Over $\$ 100,000 \ldots$. | 1.090 | 414,990,694 | 2 | 457,499 |
| Adjustment items ${ }^{1}$. | ... | +9,416.256 | ... | +54 |
| Totals. | 7,700,214 | 4,900,880,316 | 118 | 710,064 |
| 1953 |  |  |  |  |
| Deposits Payable on Demand- |  |  |  |  |
| \$1,000 or less..... | 910,804 | 208,308,225 | 4,057 | 1,177,479 |
| \$1,000 to \$5,000. | 194,874 | 431, 609,988 | 1,373 | 3,352.030 |
| \$5.000 to \$25, 000. | 60.423 | 608.360 .263 | 859 | 10,212.608 |
| \$25.000 to \$100,000. | 12,632 | 582,997 967 | 391 | 19,241,395 |
| Over \$100,000.. | 4,044 | 1,525,690,544 | 205 | 89,796,974 |
| Adjustment items ${ }^{1}$ | ... | -207,086.786 | ... | +14,926,445 |
| Totals. | 1,182,777 | 3,149,880.201 | 6,885 | 138,706,931 |
| Deposits Payablo After Notice- |  |  |  |  |
| \$1,000 or less | 6,893,696 | 1,139, 857,954 | 121 | 25,938 |
| \$1, 000 to $85,000$. | 956,721 | 2,036,745,417 | 36 | 76.338 |
| 85, 000 to $\$ 25.000$ | 163,508 | 1,369,950,629 | 13 | 122,094 |
| \$25,000 to $\$ 100,000$ | 7,334 | 311,339,974 | 3 | 167,590 |
| Over $\$ 100,000$. | 1,091 | 357.514,378 | 9 | 4,539,199 |
| Adjustment items ${ }^{1}$ | ... | +10,579.494 | ... | 14,533 |
| Totals. | 8,022,350 | 5,225,987,846 | 182 | 4,945,692 |

${ }^{1}$ Represents certified cheques, interest accrued on interest-bearing accounts, items in transit, etc.

## 17.-LLans of Chartered Banks, according to Class, Outstanding at Sept. 30, 1951-53

Norg.-The classification of chartered bank loans was revised in 1950; the figures in this table are, therefore, not comparable with those prior to 1950.

| Class of Loan | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: |
| Government and Other Public Services- | \$'000 | \$'000 | \$'000 |
| Provincial governments... | 24,859 | 6,349 | 10,616 |
| Municipal governments and school districts | 114.531 | 102.399 | 109,389 |
| Religious, educational, health and welfare institutions | 45,912 | 43,284 | 47,094 |
| Totals, Government and Other Public Services | 185,302 | 152,032 | 167,699 |
| Financial- |  |  |  |
| Investment dealers and brokers to the extent payable on call or within thirty days. | 107,091 | 135,173 | 110,138 |
| Trust, loan, mortgage, investment and insurance companies and other financial institutions. | 91,720 | 107,519 | 122,585 |
| Totals, Financial. | 198,811 | 242,692 | 232,723 |
| Personal- |  |  |  |
| Individuals, for other than business purposes, on the security of marketable stocks and bonds. <br> Individuals, for other than business purposes, $n$.... | 255,605 | 274,324 | 300,198 |
| Totals, Personal. | 466,908 | 502,316 | 598,399 |

## 17.-Loans of Chartered Banks, according to Class, Outstanding at Sept. 30, 1951-53

 -concluded| Class of Loan | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: |
| Agricultural, Industrial and Commercial- | \$'000 | \$'000 | \$'000 |
| Farmers............................ | 298,936 | 334,202 | 353,984 |
| Industry- |  |  |  |
| Chemical and rubber products. | 54,257 | 30.322 | 43,421 |
| Electrical apparatus and supplies | 41,388 | 22.886 | 41,924 |
| Food, beverages and tobacco. | 171,968 | 168,366 | 162,793 |
| Forest products... | 115,685 | 136,500 | 139,764 |
| Furniture. | 19,776 | 14.363 | 17,616 |
| Iron and steel products. | 97.509 | 95,641 | 124,545 |
| Mining and mine products | 33,381 | 47,991 | 62,039 |
| Petroleum and products.. | 31,055 | 32,813 | 55,548 |
| Textiles. leather and clothing | 213,377 | 157,963 | 199.485 |
| Transportation equ $\rightarrow$ pment | 46,437 | 52,810 | 52,798 |
| Other products. ............ | 63,118 | 53,156 | 58,859 |
| Public utilities, transportation and communication companies | 87,937 | 67,526 | 61,740 |
| Construction contractors.................................... | 151,774 | 158,643 | 174,990 |
| Grain dealers and exporters. | 98,558 | 186,518 | 310,648 |
| Instalment finance companies | 100, 830 | 149,397 | 249,261 |
| Merchandisers............... | 542,869 | 483,967 | 595,832 |
| Other business. | 133,837 | 139,047 | 179,430 |
| Totals, Agricultural, Industrial and Commercial...... | 2,302,692 | 2,332,111 | 2,884,677 |
| Grand Totals. | 3,153,713 | 3,229,151 | 3,882,898 |

Cheque Payments.-The monthly record of amounts of cheques charged to customers' accounts at all chartered bank offices situated in the clearing-house centres of Canada is available from 1924. The trend indicated by cheques cashed shows the occurrence of three major economic cycles since World War I. The first reached its peak in 1920 with the low point of the succeeding depression in 1922. A high point was next achieved in 1929, owing partly to economic conditions involving heavy stock speculation. A low point was reached in 1932. Except for a minor set-back in 1938, an upward trend has continued to the present.

The amount of cheques cashed in the clearing-house centres of Canada advanced year by year from 1938 to a maximum of $\$ 137,416,846,658$ in 1953; this advance paralleled the upward movement in the payment of salaries and wages and the greater distribution of consumer goods through wholesale and retail outlets. The increase, amounting to 344 p.c. since 1938, was general in Canada's five economic areas, British Columbia showing the highest gain at 509 p.c. The Prairie Provinces came second, followed by the Atlantic Provinces,* Ontario and Quebec. However, of the $\$ 106,500,000,000$ increase, Ontario and Quebec contributed $\$ 73,000,000,000$, or 69 p.c.

Thirty-four of the 35 clearing-house centres showed an advance in 1953 over 1952, although the magnitude of the gains varied. With the exception of Ottawa, a new maximum was established in each centre. Payments at Toronto, the leading centre, increased 16.3 p.c., those at Montreal 7.8 p.c., Winnipeg 4.9 p.c. and Vancouver 6.5 p.c.

[^395]
## 18.-Cheques Cashed at Individual Clearing-House Centres, 1949-53

Norz.-Figures for earlier years will be found in the corresponding table of previous Year Books.

| Clearing-House Centre | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \% | 8 | \$ | \$ |
| Atlantic Provinces- |  |  |  |  |  |
| Halifax............ | 1,065, 168, 877 | 1,186, 545.819 | 1,334,025,774 | 1,374, 609,920 | 1,473,198,649 |
| Moncto | 383,934, 526 | 408.604, 811 | 431,781, 204 | 437, 891,776 | 508,737,477 |
| Saint Joh | 511.975.434 | 521,695, 644 | 568,605, 976 | 632,357.394 | 680,166,727 |
| St. John's ${ }^{1}$ | 356,595,091 | 531, 314,367 | 554,032, 197 | 621,505,645 | 735,433,898 |
| Totals, Atlantic Provinces... | 2,317.673,928 | 2,648,160,641 | 2,888,445,151 | 3,066,364,735 | 3,397,536,751 |
| Quebec- |  |  |  |  |  |
| Montreal | 22,037,124.579 | 26,099, 176.124 | 29,184,504,317 | 31,720, 259, 139 | 34,178,607,458 |
| Quebec | 2,410, 872,120 | 2,695,319.675 | 3,163,124,781 | 3,358,306,012 | 3,535, 148,293 |
| Sherbroo | 284,493,033 | 311,762,513 | 381,090,356 | 415, 994, 071 | 425,670,474 |
| Totals, Quebec. | 24.732,489.732 | 29, 196, 858,312 | 32,728,719,454 | 35,494,559,222 | 38,139,426,225 |
| Ontario- |  |  |  |  |  |
| Brantiord | 435, 843,033 | 422,413,293 | 486,994,671 | 495, 283, 901 | 522,687,516 |
| Chatham | 315,369,271 | 346.208,709 | 407, 321,638 | 404, 889,560 | 433,438,973 |
| Cornwall. |  | 104.523.9182 | 187,013,346 | 196, 278,431 | 200,420,702 |
| Fort Williar | 225, 286,483 | 248,218,046 | 266,631,817 | 282,770,535 | 311,696,268 |
| Hamilton. | 2,124,308,068 | 2,369.329,690 | 2,996,002,993 | 3,085,730,125 | 3,409,585,973 |
| Kingston. | $241.453,150$ | 273,225,082 | 279,208,526 | 316,909,862 | 341,335, 311 |
| Kitchener | 494,710.382 | 536, 279.128 | 623,023,658 | 617,647,692 | 765,740,577 |
| London. | 1,181,502,918 | 1,391,711,953 | $1,528,832,870$ | 1,567, 887,355 | $1,973,402,244$ |
| Ottawa | 4,040, 899,636 | $4,140,136,704$ | 4,459,566,076 | 5,454, 556,571 | 4,588,480,404 |
| Peterborough | 279,739,034 | 308,157,373 | 339,002,949 | 334, 153,813 | 365,075,178 |
| St. Catharines | 379,037, 195 | 444,388.945 | $551,345,610$ | 589.866 .082 | 632,551,049 |
| Sarnia. | 310,461,518 | 339,483, 674 | 425,659,981 | 398, 218.819 | 433,418,719 |
| Sudbury | 267,190,931 | 290,184,475 | 352,304,822 | 384,039, 124 | 434,356,825 |
| Toronto | 24,712,385,631 | 30,276,045,017 | 32,271, 836,720 | 36,606,773,373 | 42,579,170,381 |
| Windsor | 1,460,893,330 | 1,655,860,938 | 1,872,210,810 | 1,982,438,963 | 2,082,419,967 |
| Totals, Ontario. | 36,469,080,580 | 43, 146, 166, 945 | 47,046, 956,487 | 52,717,444,206 | 59,073,780,087 |
| Prairie Provinces- |  |  |  |  |  |
| Brandon. | 145,757,042 | 154,492,112 | 176,870,098 | 181,575,950 | 186,064, 872 |
| Calgary. | 2,507,516,671 | $2,870,683,290$ | 3,349,247, 240 | 4,452,583, 018 | 5,020,505,662 |
| Edmonton | 1,893,296.099 | 2, 371, 405,098 | 2,459, 202, 689 | 2,966,420,466 |  |
| Lethbridge | 246.492 .056 | 284, 387,678 | 209,577,383 | 2, 311,448, 198 | 349,470,995 |
| Medicine H | 102,839,449 | 105, 443,903 | 123,547, 273 | 127,437,085 | 157,084, 209 |
| Moose Jaw | 248,492,488 | 248, 525, 487 | 277,985, 850 | 310,945, 984 | 319,040, 193 |
| Prince Albe | 133,321,676 | 140, 421, 297 | 154,870,799 | 163, 053,807 | 175,349, 193 |
| Regina | 1,565, 139.921 | 1,640,419,630 | 1,759,586,765 | 2,147,982,066 | 2,482,735,680 |
| Saskatoo | 465, 492,857 | 511,781,987. | 590,104, 806 | , 637,830,056 | 12,741,432,468 |
| Winnipeg | 9,186,178,131 | 8,960, 145, 720 | 10,373,940,214 | 11,508,237,900 | 12,072,971,671 |
| Totals, Prairie Provinces | 16,494, 526,390 | 17,287,706,202 | 19,574, 933,117 | 22,807,514, 530 | 25,019,281,050 |
| British Columbia- |  |  |  |  |  |
| New Westminster | 319,810,859 | 401, 102,786 | 479,943,321 | 491,736,985 | 554,708,805 |
| Vancouve | 6,157,070,811 | 6,901,611,242 | 8,212,945,667 | 9,193,882,535 | 9,790,943,286 |
| Vietoria | 1,063,710,543 | 1,143, 852,711 | 1,252,689,860 | 1,425,391,808 | 1,441,170,454 |
| Totals, British Columbia.... | 7,540,592,213 | 8,446,566,739 | 9,945,578,848 | 11,111,011,328 | 11,786,822,545 |
| Grand Totals. | 87,554,362,843 | 100,635,458,839 | 112,184,633,057 | 125,196,894,021 | 137,416,816,658 |
| ${ }^{1}$ Included from April 1949. | ${ }^{2}$ Included from May 1950. |  |  |  |  |

Financial Statistics of Individual Chartered Banks.-The principal assets and liabilities of the individual chartered banks are given for the five latest years in Tables 19 and 20.

## 19.-Principal and Total Assets of Individual Chartered Banks, 1999-53

Nors.-The statistics in this table are averages computed from the twelve monthly returns in each year. Figures for cariier years will be found in the corresponding table of previous Year Books.

| Chartered Bank | Year | Cash Reserve Against Canadian Deposits ${ }^{1}$ | Total Securities | Total Loans | Total Assets |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bank of Montreal.................... |  | \$ | \$ | \$ | \$ |
|  | 1949 | 198,839, 952 | 1,198,396,566 | 506, 570,310 | 2,087,644,326 |
|  | 1950 | 191,016,530 | 1, 174, 589,623 | 552,718,886 | 2,119, 873, 626 |
|  | 1951 | 200.107,510 | 1,107,947,826 | 656,577,531 | 2,211,281,293 |
|  | 1952 | 215,777,959 | 1,100,814,002 | 667,093,782 | 2,240,588,354 |
|  | 1953 | 222, 295,787 | 1,053, 121,771 | 805,861, 103 | 2,340,465,775 |
| Bank of Nova Scotia................ | 1949 | 61,980,211 | 312,681,002 | 307, 239,629 | 783,613,909 |
|  | 1950 | $65,845,694$ | 268,697,300 | 348, 433,490 | 800,761,697 |
|  | 1951 | 67,622,645 | 256, 251, 196 | 409,774,033 | $865.013,063$ |
|  | 1952 | 72,085,522 | $265,323,337$ | 432,765,453 | 904, 879,308 |
|  | 1953 | 73,981,521 | 223, 875,045 | 511,757,622 | 949,891.573 |
| Bank of Toronto..................... | 1949 | 42,979,749 | 231, 027,870 | 138,250,480 | 446,511,338 |
|  | 1950 | 43, 127,671 | 227,601,591 | 152, 578,963 | 463,048,709 |
|  | 1951 | 49,515,953 | 189,427,769 | 192.550,796 | 483, 232, 621 |
|  | 1952 | 47, 723, 871 | 203,608,439 | 197,857,089 | 505,344,564 |
|  | 1953 | 48,334,089 | 215,670,262 | 219,848, 664 | 546,607,627 |
| Provincial Bank of Canada.......... | 1949 | 14,312,526 |  |  |  |
|  | 1950 | 14,692,842 | 82,090,665 | 56, 273,110 | 167,241,272 |
|  | 1951 | 16,321, 625 | 79,722,292 | $63,224,812$ | 174,666,980 |
|  | 1952 | 17,034,410 | 87,184,699 | 66,039,332 | 187,346,432 |
|  | 1953 | 18,192,816 | 83,533,558 | 76,654,336 | 197,165,541 |
| Canadian Bank of Commerce........ | 1949 | 125,794,695 | $821,003,490$ | 486,636,542 | 1,589,480,484 |
|  | 1950 | 134,567,081 | 812, 244, 338 | 542,079,465 | 1,669,015,086 |
|  | 1951 | 136,739,020 | 698,032,511 | 674,461,500 | 1,717,687,434 |
|  | 1952 | 151,473,937 | 708,404,301 | 696, 352,142 | 1,766,535,649 |
|  | 1953 | 157, 185, 023 | 720,255,692 | 790,954,193 | 1,879,817,140 |
| Royal Bank of Canada.............. | 1949 | 175,243,729 | 1,112,548,662 | 634,830, 429 | 2,237,314,965 |
|  | 1950 | 181,864, 282 | 1,182,485, 204 | 685,317,779 | 2,385,999,922 |
|  | 1951 | 188,444, 863 | 1,077,074,515 | 833,241,545 | $2,459,891,410$ |
|  | 1952 | 190,988, 267 | 1,112,957,173 | 888, 679,717 | 2,588, 138,130 |
|  | 1953 | 207,084,528 | 1,091,068,175 | 1,035,983, 280 | 2,768,691,988 |
| Dominion Bank................... | 1949 | 42,144,497 | 163,387,422 | 158,749,545 | 406,787,719 |
|  | 1950 | 39.913,392 | 170,970,431 | 175, 266, 211 | 437,759,966 |
|  | 1951 | 40.515,499 | 123,093,854 | 224, 941, 378 | 454,980,847 |
|  | 1952 | 44,505,290 | 145, 656,549 | 224,745,862 | 489,879,099 |
|  | 1953 | 42,899, 354 | 124,196,023 | 270,628,648 | 511,877,642 |
| , Banque Canadienne Nationale....... | 1949 | 39,823,480 | 207,237,242 | 143,411.373 | 417,057,585 |
|  | 1950 | 38,955,630 | 202,421.326 | 155,556.240 | 423,504,345 |
|  | 1951 | 37,737,765 | 183, 807.508 | 194,948,635 | 447,669, 846 |
|  | 1952 | 41,354,385 | 214, 707, 113 | 185.243,619 | 475, 006,948 |
|  | 1953 | 42,728,151 | 212,492, 225 | 211,967,941 | 501,758, 204 |
| ;Imperial Bank of Canada............. | 1949 | 43,684,979 | 227,963,454 | 183,698,606 | 498,578,396 |
|  | 1950 | $40,328,068$ | 223,294.804 | 198.016, 258 | 513,528,659 |
|  | 1951 | 41,925, 811 | 199,729.358 | 237,027,874 | 535.031,692 |
|  | 1952 | 48,833,403 | 217,973,446 | 239,577,993 | 568,935,009 |
|  | 1953 | 50,411,425 | 203,375,349 | 281,688,095 | 604,769,416 |
| Barclays Bank (Canada)............ | 1949 | 3,621,232 | 16,536,402 | 6,437.069 | 32,588,143 |
|  | 1950 | 3,602,728 | 19, 005, 919 | 6,170,825 | 34,376,570 |
|  | 1951 | 3,633,533 | 15,494, 875 | 8,975,817 | 35,345,077 |
|  | 1952 | $3,555,623$ | 13.694,970 | 9,028,444 | $33,827,029$ |
|  | 1953 | 3,439, 002 | 14,295,754 | 9,776,491 | $33,435,254$ |
| Mercantile Bank of Canada <br> Totals $\qquad$ | $1953^{2}$ | 1,125,979 | 1,597,125 | 10.215 | 3,577,737 |
|  | 1949 | 748, 425,050 | 4,370,052,504 | 2,618,421,119 | 8,657,764,277 |
|  | 1950 | 753,913,918 | 4,363,401,201 | 2,872,411,222 | 9,015, 109,852 |
|  | 1951 | 782,564,224 | 3,930, 581, 704 | 3,495,723,921 | 9,384,800,263 |
|  | 1952 | 833,332,667 | 4,070,324,029 | 3,607,883,433 | 10,760,480.522 |
|  | $1953{ }^{2}$ | 866,645,528 | 3,942,016,950 | 4,215,121,224 | 10,334,778,308 |

[^396]
## 20.-Principal and Total Liabilities of Individual Chartered Banks, 1949-53

Nors.-The statistics in this table are averages computed from the twelve monthly returns in each year. Figures for earlier years will be found in the corresponding table of previous Year Books.

| Chartered Bank | Year | Notes in Circulation | Deposit Liabilities |  |  | Liabilities to Shareholders | Total <br> Liabilities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Government | Public | InterBank |  |  |
|  |  | \$ | \$ | \$ | \$ | \$ | \$ |
| Bank of Montreal.... | 1949 | 3,762,901 | 143,557.605 | 1,775,070,481 | 47,430,907 | $81,000,000$ | 2,085,150,943 |
|  | 1950 |  | 113,188,046 | $1,823,451,538$ | 59,927,419 | 84,000,000 | 2,118,132,091 |
|  | 1951 | $1-$ | 129,684,548 | 1,860,667,574 | 81,557,845 | 84,750,000 | 2,208,273,742 |
|  | 1952 | 1 | 107,611,441 | 1,926,754,279 | 65,041,858 | 87,500,000 | 2,239,262,077 |
|  | 1953 | 1 | 141,794,670 | 2,003,158,579 | 56,300,487 | 90,750,000 | 2,339,762,245 |
| Bank of Nova Scotia. | 1949 | 1,267,888 | 25,405, 279 | 681,721,012 | 13,417,246 | 36,000,000 | 781,151,368 |
|  | 1950 | 53,686 | 18,355,416 | 699,625,336 | 19,454,097 | 36,000,000 | 797,830,286 |
|  | 1951 | 47,669 | 20,907,810 | 749,998,378 | 23,984,242 | 39,006,346 | 861,700,956 |
|  | 1952 | 43.153 | 17,603,545 | 795,682,063 | 22,355,716 | 44,913,105 | 901,237,786 |
|  | 1953 | 36,382 | 27,881,013 | $829,413,305$ | 23,801,877 | 45,750,000 | 946,811,815 |
| Bank of Toronto..... | 1949 | 552,345 | 24,848,030 | 388,741,854 | 8,152,963 | 20.000,000 | 445,343,956 |
|  | 1950 |  | 16,436,186 | 409,860,096 | 11, 137,427 | 20,000,000 | 461,577,056 |
|  | 1951 | 1 | 17,682,531 | 422,591,985 | 15,031,086 | 20,000,000 | 481,528,415 |
|  | 1952 | 1 | 11,886,591 | 451,750,319 | 15,837, 822 | 20,000,000 | 503,476, 293 |
|  | 1953 | 1 | 14,665,169 | 491, 155,819 | 15,349,410 | 20,333,333 | 544, 856,107 |
| Provincial Bank of Canada. | 1949 | 269,588 | 3,406,916 | 144,253,494 | 2,256,683 | 6,000,000 | 157,776,795 |
|  | 1950 |  | 3,491 839 | 154,160.746 | 2,623,962 | 6,000,000 | 166.729.836 |
|  | 1951 | 1 | 5,347.649 | 159, 347, 122 | 2,960,043 | 6,000.000 | 174,104,128 |
|  | 1952 | 1 | 3,291,919 | 172,965, 142 | 4,091,695 | 6,074,795 | 186,753,322 |
|  | 1953 | 1 | 4,951,788 | 179,832,056 | 4,059,411 | 7,307,804 | 196,605,520 |
| Canadian Bank of Commerce. |  | 3,067,362 | 91,752,261 | 1,355,465,678 | $24,151,597$ |  |  |
|  | 1950 | 31,268 | 76,413,172 | $1,435,888,140$ | $34,135,503$ | $60,000,000$ | $1,665,056,260$ |
|  | 1951 | 25,909 | 82,882,336 | 1,459,848,644 | 42,592,363 | 60,000,000 | 1,712,711.379 |
|  | 1952 | 20,430 | 57,997,732 | 1,551,364,034 | 44,875,576 | $61,250.000$ | 1,761,814,574 |
|  | 1953 | 16,935 | 71,573,732 | 1,651,103,790 | 45,017,468 | 66,166,667 | 1,878,365,773 |
| Royal Bank of Canads. $\qquad$ |  | 3,948.699 | 104,372,640 | 1,936.689,313 | 56.516.637 | 79.000.000 | 2,235,394,252 |
|  | 1950 | 339089 | 81,870,705 | 2.093,354,592 | 63.769 .448 | 80.000.000 | 2,382,629,654 |
|  | 1951 | 206.052 | 76.713.987 | 2,143,313,746 | 75,401.653 | 85,333.333. | 2,458,953,685 |
|  | 1952 | 116.786 | 72,503.287 | 2,292,228.477 | 69.405.292 | 87,500.000 | 2,587,152,962 |
|  | 1953 | 88,633 | 90,042,627 | 2,448,831,763 | 77,027,765 | 92,500,000 | 2,767,789,227 |
| Dominion Bank...... | 1949 |  | 24.164,802 |  |  |  | 405,657.911 |
|  | 1950 | 1 | 16.974.562 | $380.924 .138$ | $10,982,024$ | $17,250,000$ | $436.615,341$ |
|  | 1951 | 1 | 15.060.164 | 388,829,356 | 16.577,613 | 18,000,000 | 454.387, 198 |
|  | 1952 | 1 | 11.981 .890 | 426.903,833 | 18.306.790 | 18.000.000 | 488.959,013 |
|  | 1953 | 1 | 13,263, 189 | 452,385,538 | 17,730,813 | 18,250,000 | 510,847,774 |
| Banque Canadienne Nationale. $\qquad$ |  |  |  |  |  |  | 416.560.358 |
|  | 1950 |  | $9,639,856$ | $394.021,804$ | $\begin{aligned} & 1,093.873 \\ & 4, \end{aligned}$ | $14.000 .000$ | 422.940.949 |
|  | 1951 | 1 | 15.959.778 | 409.827537 | 5,130.031 | 14.000 .000 | 447.001,315 |
|  | 1952 | 1 | 10.349 .047 | 442.147.527 | 5,822.107 | 14.083,333 | 474.311,732 |
|  | 1953 | 1 | 13,253,859 | 466,563, 065 | 5,296,056 | 14,583,333 | 501,352,971 |
| Imperial Bank of Cansda. | 1949 | 726.098 | 56,621,027 | 400,899,914 | 12,759,535 | 17,000,000 | 496.993.803 |
|  | 1950 |  | 41.202,187 | 428.550.979 | 15,635.653 | 17.000.000 | 511.693.047 |
|  | 1951 | 1 | 33.376 .885 | 448.779,517 | 20.993.631 | 17,250.000 | 533.285.747 |
|  | 1952 | 1 | 38.557.293 | 485, 294, 673 | 16.205,049 | 18.000.000 | 567,824,514 |
|  | 1953 |  | 33,453,821 | 527,991,681 | 16,939,706 | 18,250,000 | 603,716, 634 |

For footnote, see end of table.
20.-Principal and Total Liabilities of Individual Chartered Banks, 1949-53-concluded

| Chartered Bank | Year | Notes in Circulation | Deposit Liabilities |  |  | Liabilities to Shareholders | Total Liabilities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Government | Public | InterBank |  |  |
| Barclays Bank (Canada)... |  | \$ | 8 | 8 | \$ | \$ | \$ |
|  | 1949 | 55,760 | 2,092.673 | 19,888,763 | 6,549,143 | 2,500,000 | 32,448, 170 |
|  | 1950 |  | 2,040,117 | 21,436, 877 | 6,587,591 | $3,000,000$ | 34,219,294 |
|  | 1951 | 1 | 1,774,343 | 21,916,647 | 6,417,316 | $3,000,000$ | 35,173,869 |
|  | 1952 | 1 | 803,325 | $21,549,835$ | 5,977.023 | $3,000,000$ | 33,640,748 |
|  |  |  | 566,188 | 20,686, 305 | 6,498,733 | 4,000,000 | 33,236,095 |
| Mercantile Bank of Canada............. | 19532 | - | - | 290,615 | 852,566 | 1,900,000 | 3,662,101 |
| Totals.............. | 1949 | 14,731,992 | 490,327,331 | 7,431,367,432 | 183,832,412 | 332,500,000 | $8,642,715,001$ |
|  | 1950 | 424,043 | 379,612,086 | 7,341,274,246 | 223,346,997 | 337, 250,000 | 8,997,423,504 |
|  | 1951 | 279,630 | 399,390,031 | $8,065,120,806$ | 290,645,873 | 347,339,679 | 9,367,120,434 |
|  | 1952 | 180,369 | 332,591, 727 | 8,566,645,182 | 267,918,928 | $360,321,233$ | 9,744,433,021 |
|  | 19532 | 140,950 | 411,420,224 | 9,071,154,452 | 268,092,773 | 378,049,470 | $10,323,649,336$ |

[^397]Net Profits of Individual Chartered Banks.-The chartered banks are, for the most part, nation-wide institutions, doing business in all parts of the country. Their earnings, therefore, reflect with considerable accuracy the fluctuations of general business.
21.-Net Profits of Chartered Banks and Rates of Dividend Paid, for their Business Years Ended 1951-53

| Chartered Bank | 1951 |  | 1952 |  | 1953 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Net Profits | Dividend Rate | Net Profits | Dividend Rate | Net Profits | Dividend Rate |
|  | 8 | p.c. | \$ | p.c. | \$ | p.c. |
| Bank of Montreal. ........ | 5,355,374 | $10^{1}$ | 5,668,778 | 10 | 7,042,677 | 12 |
| Bank of Nova Scotia...... | 2,428, 256 | 16 | 2,538,166 | 16 | 3,011,398 | $16^{2}$ |
| Bank of Toronto............ | 1,116,234 | 141 $6^{2}$ | 1,163,220 | 141 $6{ }^{2}$ | 1,303,401 | 143 61 |
| Provincial Bank of Canada. | $1,306,025$ $4.023,145$ | 6 $6^{2}$ 103 | 332,845 $4,510,641$ | $6{ }^{6}$ 10 | 426,094 $5,789,242$ | $12{ }^{61}$ |
| Canadian Bank of Commerce | $4,023,145$ $6,306,115$ | 103 10 | 4,510,641 $7,129,085$ | $10{ }^{1}$ 10 | $5,789,242$ $8,635,136$ 1, | 12 |
| Dominion Bank. ............ | 1,169,064 | 10 | 1,158,556 | 10 | 1,393,459 | 12 |
| Banque Canadienne Nationale. | 802,612 | 8 | 847,052 | 8 | 1,364,849 | 10 |
| Imperial Bank of Canada... | 1,236,400 | 12 | 1,318,996 | 12 | 1,402,166 | 12 |
| Barclays Bank (Canada).... Mercantile Bank of Canada | 4 | … | 10,333 | $\cdots$ | 17,967 | $\dddot{4}$ |
| Mercantise Bank or Canadar. |  |  |  |  |  |  |
| Totals, Net Profits....... | 22,743,225 | ... | 24,677,672 | ... | 30,386,389 | $\cdots$ |
| ${ }^{1}$ Plus extra of 2 p.c. | ${ }^{2}$ Plus extra of 1 p.c. |  | ${ }^{3}$ Plus extraof $\frac{1}{2}$ of 1 p.c. |  | 4 Not reported. |  |

## Subsection 2.-Government and Other Savings Banks

There are three distinct types of savings banks in Canada in addition to the savings departments of the chartered banks and of trust and loan companies: (1) the Post Office Savings Bank, in which deposits are a direct obligation of the Government of Canada; (2) Provincial Government savings banking institutions in Newfoundland, Ontario and Alberta, where the depositor becomes a direct creditor of the province; and (3) two important savings banks in the Province of

Quebec, the Montreal City and District Savings Bank and La Banque d'Économie de Québec, established under federal legislation and reporting monthly to the Federal Department of Finance. Other agencies for the promotion of thrift, through encouraging regular savings, are the co-operative credit unions.

Post Office Savings Bank.-The Post Office Savings Bank was established, under the Post Office Act of 1867 (31 Vict., c. 10) in order to "enlarge the facilities now available for the deposit of small savings, to make the Post Office available for that purpose, and to give the direct security of the nation to every depositor for repayment of all money deposited by him together with the interest due thereon". Branches of the Government of Canada's Savings Bank under the Department of Finance were gradually amalgamated with this Bank over a period of 50 years and the amalgamation was completed in March 1929.
22.-Financial Business of the Post Office Savings Bank, as at Mar. 31, 1949-54

Norg.-Figures for earlier years will be found in the corresponding table of previous Year Books. Totals back to 1868 are given in the 1926, 1946 and 1951 editions, at pp. 833-834, 978 and 1051, respectively.

| Item | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | 5 | \$ |
| DepositsTotal. | 37,741,389 | 38,754,634 | 37,661,921 | 38,031,232 | 39,322,230 | 37,792,914 |
| Made during year | 12,843,954 | 12,144,889 | 10,368, 266 | 11,011,092 | 11,521,743 | 10,597,046 |
| Intereat on deposits.. | 710,012 | 729,007 | 733,899 | 722,804 | 741,954 | 733,009 |
| Totals, cash and interest... | 13,553,966 | 12,873,896 | 11,102,165 | 11,733,896 | 12,263,697 | 11,330,055 |
| Withdrawals................ | 12,038,638 | 11,860,651 | 12,194,872 | 11,364,584 | 10,972,700 | 12,859,370 |

Provincial Government Savings Banks.-Institutions for the deposit of savings are operated by the Provincial Governments of Newfoundland, Ontario and Alberta.

Newfoundland.-The Newfoundland Savings Bank was established in 1834 and the following is a summary financial statement for the years ended Mar. 31, 1952 and 1953:-


The number of accounts increased from 31,601 at Mar. 31, 1952, to 34,094 at Mar. 31, 1953, and deposits from $\$ 24,875,733$ to $\$ 26,035,571$ in the same comparison. The interest rate on deposits of private individuals, trust accounts and estates is 3 p.c. per annum on accounts of up to $\$ 5,000,2 \frac{1}{2}$ p.c. from $\$ 5,001$ to $\$ 7,500$, and 2 p.c. on accounts of over $\$ 7,500$; on deposits of corporations the rate is 1 p.c. per annum. A general reserve of $\$ 1,185,465$ is held.

Ontario.-The establishment of the Province of Ontario Savings Office was authorized by the Ontario Legislature at the 1921 session and the first branches were opened in March 1922. Interest at the rate of $1 \frac{1}{2}$ and 2 p.c. per annum,
compounded half-yearly, is paid on accounts, and deposits are repayable on demand. Total deposits at Mar. 31, 1954, were $\$ 60,725,000$, and the number of depositors was approximately 95,000 . Twenty-one branches are in operation throughout the Province.

Alberta.-Savings deposits are accepted at 47 Provincial Treasury Branches throughout Alberta. The total of these deposits at Mar. 31, 1954, was $\$ 20,074,646$ payable on demand and bearing interest at from $\frac{1}{2}$ of 1 p.c. to 2 p.c.

The Provincial Treasury has issued demand certificates bearing interest at $1 \frac{1}{2}$ p.c. or term certificates for one, two, three, four or five years, in denominations of $\$ 25$ and upwards, bearing interest at 2 p.e. for one or two years, $2 \frac{1}{4}$ p.c. for three or four years and $2 \frac{1}{2}$ p.c. for five years. The total amount in savings certificates at Mar. 31, 1954, was $\$ 240,078$ made up of $\$ 109,128$ in demand certificates and $\$ 130,950$ in term certificates. Deposits from the public for the purchase of such certificates were discontinued as from April 1951.

Other Savings Banks.-The Montreal City and District Savings Bank, founded in 1846 and now operating under a charter of 1871 had, at Mar. 31, 1954, a paid-up capital and reserve of $\$ 7,000,000$, savings deposits of $\$ 191,169,976$, and total liabilities of $\$ 198,630,237$. Total assets amounted to $\$ 199,010,639$, including over $\$ 156,000,000$ of federal, provincial and municipal securities. La Banque d'Économie de Québec, founded in 1848 (as La Caisse d'Économie de Notre-Dame de Québec) under the auspices of the St. Vincent de Paul Society, incorporated by Act of the Canadian Legislature in 1855 and given a federal charter by 34 Vict., c. 7, had at Mar. 31, 1954, savings deposits of $\$ 28,202,105$ and a paid-up capital and reserve of $\$ 3,000,000$. Liabilities amounted to $\$ 31,432,601$ and total assets to $\$ 31,876,665$.

Table 23 shows the combined savings deposits in the Montreal City and District Savings Bank and La Banque d'Économie de Québec for the years ended Mar. 31, 1940-54.

## 23.-Combined Deposits in the Montreal City and District Savings Bank and La Banque d'Economie de Québec, Years Ended Mar. 31, 1940-54

Nore.-Figures for 1868-1904 are given in the 1926 Year Book, pp. 833-834, and for 1905-39 in the 1946 edition, p. 980 .

| Year | Deposits | Year | Deposits | Year | Deposits |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ |  | \$ |  | \$ |
| 1940. | 79,838,963 | 1945. | 122,574,607 | 1950................ | 192,567, 275 |
| 1941............... | 76,391,775 | 1946. | 140,584,525 | 1951............... | 193,982,871 |
| 1942............... | 74,386,412 | 1947. | 153,137,545 | 1952. | 200,342.385 |
| 1943............... | 84,023,772 | 1948. | 170,103,786 | 1953. | 214, 122,001 |
| 1944............... | 103,276,757 | 1949. | 184,250,615 | 1954. | 219,372,081 |

Credit Unions.*-At the end of 1953, there were 3,607 credit unions in Canada of which 3,413 reported a membership of $1,393,585$ and total assets of $\$ 492,384,022$. These groups are organized on a co-operative basis to pool savings of members and to make loans to members for provident and productive purposes. During 1953, loans in the amount of $\$ 204,863,000$ were made to members.

Credit unions were established first in the Province of Quebec in 1900 and have shown the greatest growth in that Province. About one-third of all credit unions in Canada are in the Province of Quebec. Ontario follows Quebec in credit union development and in recent years has been adding an average of nearly 150 new groups annually.

[^398]Nearly 50 p.c. of the credit unions in Quebec are located in rural areas but growth in other provinces, especially Ontario, British Columbia and Alberta-has been mainly among industrial and urban groups. Reports from provincial inspectors in 1953 indicated that for the first time credit unions among urban dwellers and industrial workers outnumbered those in rural areas.

Members save by buying shares and making deposits in credit unions. The total amount of savings by members at the end of 1953 , was $\$ 457,100,000$. Thus, average savings per member in 1953 were $\$ 328.07$, compared to $\$ 316.53$ in 1952.

In 1953, the Federal Government passed enabling legislation providing for the organization and incorporation of the Canadian Co-operative Credit Society, which will provide deposit and borrowing service on a nation-wide scale to provincial credit societies and commercial co-operatives operating in more than one province.
24.-Growth of Credit Unions in Canada, 1940 and 1945-53

| Year | Provinces in which Unions Exist | Credit Unions | Credit Unions Reporting | Members ${ }^{1}$ | Assets ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | \$ |
| 1940. | 9 | 1,167 | 1,144 | 201,137 | 25,069,685 |
| 1945. | 9 | ${ }_{2}^{2,219}$ | 2,175 | 590,794 | 145,890.889 |
| 1946 | 9 | 2,422 | 2.326 | 688,739 | 187,507,303 |
| 1947. | 9 | 2,516 | 2,367 | 779,199 | 221,116.168 |
| 1948. | 9 | 2,608 | 2,482 | 850,608 | 253,584,282 |
| 19492 | 10 | 2,819 | 2,705 | 940,427 | 282,242,278 |
| 1950. | 10 | 2,965 | 2,801 | 1,036.175 | ${ }^{311,532.143}$ |
| 1951 | 10 | 3,121 | 2,952 | 1,137, 931 | 358,646,767 |
| 1952 | 10 | 3,335 | 3,080 | 1,260,435 | 424,400,375 |
| 1953. | 10 | 3,607 | 3,413 | 1.393,585 | 492,384,022 |

${ }^{1}$ Reporting organizations only. $\quad 2$ Newfoundland included from 1949.
25.-Summary Statistics of Credit Unions, ${ }^{1}$ by Province, 1953

| Province | Credit <br> Unions Chartered | Credit Unions Reporting | Members | Assets | Sharea | Deposits | Loans to Members During Year | Total <br> Loans Since Inception |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | $\delta$ | \$ | \$ | \$ | \$ |
| N'f'ld | 78 | 51 | 3,388 | 310,614 | 269,650 | 8.616 | 156,924 | 2,745.032 |
| P.E.I. | 53 | 53 | 9,625 | 1,137.211 | 884,607 | 142,774 | 928,714 | 5,048,222 |
| N.S. | ${ }_{162}^{221}$ | 185 | 49.831 | 7, 255.455 | 6.575, 345 | 154,919 | 4,824,334 | 34,784,490 |
| N.B | 162 | 161 | 51,823 | 7,422,022 | 6,561,357 | 119,737 | 4,002,856 | 30,070,025 |
| Que.-jardins. | 1,129 | 1,120 | 746, 789 | 315,528,337 | 21,957,145 | 275,777, 246 | 80,602, 938 | 623,606,905 |
| Que. League | 111 | 111 | 33,000 | 5,879,793 | 2,105,088 | 3,376, 479 | 4,500,000 | 14,623, 196 |
| Montreal Fed.. | 12 | 12 | 24,312 | 16,332,487 | 993,283 | 14,334,378 | $2.368,568$ | 27,332,695 |
| Ont. ${ }^{2}$. | 910 | 855 | 237,399 | 63,167,673 | 40,022,687 | 16,626,106 | 51,520,264 | 204,369,427 |
| Man. | 170 | 162 | 46,467 | 11,038,964 | 6,616,588 | 2,869,018 | 9,127,829 | 40,323,579 |
| Sask | 268 | 263 | 68,286 | 28,471,111 | 19,326,460 | 5,768,183 | 20,490,268 | 80,846,297 |
| Alta | 210 | 201 | 34,857 | 7,800,024 | 6,499,944 | -617,084 | 6.266,231 | 32,664, 363 |
| B.C | 283 | 239 | 87,808 | 28,040,331 | 21,502,640 | 4,097,878 | 20,074,074 | 83,318,365 |
| Totals, | 3,607 | 3,413 | 1,393,585 | 492,384,022 | 135,314,794 | 323,892,418 | 204,863,606 | 1,179,233,096 |
| Totals, 1952\%... | 3,285 | 3,050 | 1,260,435 | 424, 400, 375 | 102,485,241 | 292, 853,772 | 153,879,465 | 976,544,051 |

[^399]${ }^{2}$ Estimated.

## Section 4.-Foreign Exchange

Exchange Rates.-The Canadian dollar, adopted as Canada's currency in 1857, was equivalent to $15 / 73$ of the pound sterling; in other words, the pound was equal to $\$ 4.866$ in Canadian currency at par, and remained so, with minor variations between the import and export gold points representing the cost of shipping gold in either direction, until the outbreak of World War I. During the first 11 years after Confederation, the Canadian dollar was at a premium in the United States, as the United States dollar was not, after the Civil War, redeemable in gold until 1878. From the latter date to 1914, the dollar in the two countries was equivalent at par, and variation was only between the import and export gold points or under $\$ 2$ per $\$ 1,000$.

At the outbreak of World War I, the United Kingdom and Canada suspended the gold standard, and their currencies fell to a discount at New York. However, this discount was 'pegged', or kept at a moderate percentage, by sales of United States securities previously held in the United Kingdom, by borrowing in the United States and, after the United States entered the War, by arrangement with the United States Government. After the War, when the exchanges were 'unpegged', the British pound went as low as $\$ 3.18$ and the Canadian dollar as low as 82 cents at New York. In the course of the next year or two, exchange returned practically to par and the United Kingdom resumed gold payments in April 1925 as did Canada on July 1, 1926. Until 1928, the exchanges were within the gold points but in 1929 the Canadian dollar again fell to a moderate discount at New York. The dislocation of exchange persisted, with the exception of a few months in the latter half of 1930, into 1931. Dollar rates were below the gold export points, however, only for a few scattered intervals. Immediately on the outbreak of World War II in September 1939, the United Kingdom and other sterling countries introduced foreign exchange control, involving fixed buying and selling rates which were $\$ 4.02 \frac{1}{2}$ and $\$ 4.03 \frac{1}{2}$, respectively, in terms of the U.S. dollar. Meanwhile, the Canadian dollar declined gradually until Sept. 16, 1939, when the Government established the Foreign Exchange Control Board.* Fixed buying and selling rates were provided for United States funds and sterling at the outset, being $\$ 1.10$ and $\$ 1.11$, and $\$ 4.43$ and $\$ 4.47$, respectively. The former rates fixed the value of the Canadian dollar at 90.09 cents to 90.91 cents in terms of the U.S. dollar; this was approximately the market rate to which the Canadian dollar had fallen just prior to exchange control and, in terms of devaluation, represented a level midway between the U.S. dollar and sterling.

Apart from a minor adjustment on Oct. 15, 1945, when selling rates for U.S. dollars and sterling were lowered to $\$ 1.10 \frac{1}{2}$ and $\$ 1.45$, respectively, the Foreign Exchange Control Board's official rates remained unaltered until July 5, 1946. At this time, the rate on the U.S. dollar was restored to par with buying and selling rates for U.S. dollars at $\$ 1.00$ and $\$ 1.00 \frac{1}{2}$ and sterling, $\$ 4.02$ and $\$ 4.04$. These rates continued in effect until Sept. 19, 1949, when, following a $30 \cdot 5$ p.c. reduction by the United Kingdom in the value of sterling to $\$ 2.80$ U.S. (which action was paralleled in varying degrees by numerous other currencies), Canada returned to the former official rates of $\$ 1.10$ and $\$ 1.10^{\frac{1}{2}}$ for United States funds; sterling was quoted at new rates of $\$ 3.07 \frac{1}{4}$ and $\$ 3.08 \frac{3}{4}$, based on the New York cross rate.

[^400]On Sept. 30, 1950, the Minister of Finance announced that official fixed foreign exchange rates, which had been in effect at varying levels since 1939, would be cancelled effective Oct. 2 and that rates of exchange would be determined by conditions of supply and demand for foreign currencies, i.e., by market trading within the framework of exchange control. Subsequently, the U.S. dollar fell to a level between $\$ 1.04$ and $\$ 1.05$ in terms of Canadian funds in early December 1950. After strengthening in the second quarter of 1951, it declined to between $\$ 1.01$ and $\$ 1.04$ in December 1951.

On Dec. 14, 1951, the Foreign Exchange Control Regulations were revoked by the Governor in Council and new Regulations were passed which exempted all persons and transactions from the various declaration and permit requirements of the Foreign Exchange Control Act, thus terminating exchange control in Canada. During 1952, the U.S. dollar declined gradually to an average of 96 cents in Canadian funds in September and then rose slightly to an average of 97 cents in December.

In 1953 the U.S. dollar strengthened during the first half of the year, averaging 99 cents in Canadian funds in June, then declined to an average of 97 cents in December.
26.-Canada's Holdings of Gold and United States Dollars, as at Dec. 31, 1939-53
(Millions of U.S. Dollars)

| Year | Exchange Fund Account and Bank of Canada |  | Other Government of Canada Accounts | Total | Year | Exchange Fund Account and Bank of Canada |  | Other Government of Canada Accounts | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gold | U.S. Dollars | U.S. <br> Dollars | Gold and U.S. Dollars |  | Gold | U.S. Dollars | U.S. Dollars | $\begin{gathered} \hline \text { Gold } \\ \text { and U.S. } \\ \text { Dollars } \end{gathered}$ |
| 1939. | 218.0 | 54.8 | 33.4 | 404.21 | 1947.... | $286 \cdot 6$ | 171.8 | $43 \cdot 3$ | $501 \cdot 7$ |
| 1940., | 136.5 | 172.8 | $20 \cdot 8$ | $332 \cdot 1{ }^{1}$ | 1948.... | $401 \cdot 3$ | $574 \cdot 5$ | 22.0 | $997 \cdot 8$ |
| 1941. | 135.9 | 28.2 | $23 \cdot 5$ | $187 \cdot 6$ | 1949.... | 486.4 | $594 \cdot 1$ | $36 \cdot 6$ | 1,117.12 |
| 1912. | 154.9 | 88.0 | $75 \cdot 6$ | 318.5 | 1950.... | $580 \cdot 0$ | 1,144.9 | 16.6 | 1,741-5 |
| 1843. | 224.4 | 348.8 | $76 \cdot 4$ | $649 \cdot 6$ | 1951.... | 841.7 | 899.5 | 37.4 | 1,778.6 |
| 1944. | 293-9 | 506.2 | $102 \cdot 1$ | 902-2 | 1952.... | 885.0 | 961.8 | 13.4 | 1,860-2 |
| 1945.... | 353.9 | 922.0 | $232 \cdot 1$ | 1,508.0 | 1953.... | 986.1 | 802.0 | $30 \cdot 4$ | 1,818.5 |
| 1946.. | 536.0 | 686.3 | $22 \cdot 6$ | 1,244.9 |  |  |  |  |  |

${ }^{1}$ Includes private holdings, exclusive of working balances. of $\$ 98,000,000$ at Dec. 31,1939 , and $\$ 2,000,000$ at Der. 31, 1940 . ${ }^{2}$ Excludes $\$ 18,200,000$ borrowed in the United States in August 1949 and set aside for the retirement on Feb. 1, 1950, of a security issue guaranteed by the Federal Government and payable at the holder's option in U.S. dollars.

## PART II.-MISCELLANEOUS COMMERCIAL FINANCE

## Section 1.-Loan and Trust Companies*

An outline of the development of loan and trust companies in Canada from 1844 to 1913 is given in the 1934-35 Year Book, p. 993. The laws relating to loan and trust companies were revised by the Loan and Trust Companies Acts of 1914 (4-5 Geo. V, ec. 40 and 55), with the result that the statistics of provincially

[^401]incorporated loan and trust companies ceased to be collected. However, summary statistics of provincial companies have been supplied by those companies since 1922 and summary figures for the years 1952 and 1953 are included in Table 1 in order to complete the statistics for loan and trust companies throughout Canada. It is estimated that more than 95 p.c. of the business of provincial companies is represented in the figures, so that they may be accepted as fairly inclusive and representative of the volume of business transacted as compared with the federally licensed companies.

The statistics of Tables 2 and 3 refer both to those companies incorporated by the Government of Canada and by the provinces. Included in the statistics of federal companies, beginning with 1925, are data of loan and trust companies incorporated by the Province of Nova Scotia and brought by the laws of that Province under the examination of the Federal Department of Insurance, as well as data for trust companies in New Brunswick since 1934 and in Manitoba since 1938.

The progress of the aggregate of loan company business in Canada is indicated by the increase in the book value of the assets of all loan companies from $\$ 188,637,298$ in 1922 to $\$ 323,591,214$ in 1953. The assets of trust companies (not including estates, trust and agency funds, which cannot be regarded as assets in the same sense as company and guaranteed funds) increased from $\$ 154,202,165$ in 1928 to $\$ 489,740,530$ in 1953 . In the former year, the total of estates, trust and agency funds administered amounted to $\$ 1,077,953,643$ and in 1953 to $\$ 4,102,013,154$.

Functions of Loan Companies.-The principal function of loan companies is the lending of funds on first-mortgage security, the money thus made available for development purposes being secured mainly by the sale of debentures to the investing public and by savings-department deposits. The extent of investments in mortgages by federal and provincial loan companies may be gauged by the following figures: total assets of such companies for the years 1952 and 1953 amounted to $\$ 303,306,362$ and $\$ 323,591,214$, respectively, which amounts include mortgage loans of $\$ 200,428,729$ and $\$ 237,620,270$, respectively, with resulting percentages of mortgages to total assets of approximately 66 p.c. and 73 p.c., respectively.

Functions of Trust Companies.-Trust companies act as executors, trustees and administrators under wills or by appointment, as trustees under marriage or other settlements, as agents or attorneys in the management of the estates of the living, as guardians of minor or incapable persons, as financial agents for municipalities and companies and, where so appointed, as authorized trustees in bankruptcy. Such companies receive deposits for investment, but the investing and lending of such deposits and of actual trust funds are restricted by law.

Statistics of Loan and Trust Companies.-A summary of operations of provincial and federal loan and trust companies is given in Table 1. As a result of the nature of the operations of the latter companies, which are intimately connected with the matter of probate, the larger trust companies usually choose to operate under provincial charters and the provincial figures represent much larger amounts than those of the federal companies.

The figures for federal loan companies include companies chartered by the Government of Nova Scotia which, by arrangement, come under inspection by the Federal Department of Insurance. The data for federal trust companies, likewise, cover companies chartered by the Governments of Nova Scotia, New Brunswick and Manitoba for the same reason.

## 1.-Operations of Provincial and Federal Loan and Trust Companies, as at Dec. 31, 1952 and 1953

| Item | 1952 |  |  | 1953 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Provincial Companies | Federal Companies | Total | Provincial Companies ${ }^{1}$ | Federal Companies | Total |
|  | \$ | \$ | \$ | 8 | 8 | 8 |
| Loan Companies- <br> Assets (book values) | 96,333,209 | 206,973,153 | 303,306,362 | 106,571,244 | 217,019,970 | 323,591,214 |
| Liabilities to the public. | 70,406,200 | 175, 107, 452 | 245,513,652 | 78,117,467 | 184,448, 041 | 262,565,508 |
| Capital Stock- | 22,869,225 | 51, 250,000 | 74,119,225 | 22,688,625 | 51,250,000 | 73,938,625 |
| Subscribed | 13,682,230 | 19,048,700 | 32,730,930 | 13,724,930 | 19,048,700 | 32,773,630 |
| Paid-up. | 10,314,409 | 15,981,759 | 26,296,168 | 10,134,967 | 16,042,383 | 26,177,350 |
| Reserve and contingency funds. | 11,073,642 | 14,894,345 | 25,967,987 | 13,985,035 | 15, 100, 186 | 29,085, 221 |
| Other liabilities to shareholders. | 4,538,959 | 836,243 | 5,375, 202 | 4,333,775 | 1,211,787 | 5,545,562 |
| Total liabilities to shareholders. | 25,927,010 | 31,712,347 | 57,639,357 | 28,453,777 | 32,354,356 | 60,808,133 |
| Net profits realized during year ${ }^{2}$. | 1,049,336 | 2,557,375 | 3,606,711 | 2,196,694 | 3,318,327 | 5,515,021 |
| Trust Companies- |  |  |  |  |  |  |
| Assets (book values)- |  |  |  |  | 29,629,779 | 111,198,868 |
| Guaranteed funds | 265,257, 222 | 107,429,793 | $\begin{aligned} & 103,829,58 \\ & 372,687,015 \end{aligned}$ | 268,175, 625 | 110,366,037 | 378,541,662 |
| Totals, Assets | 340,354,943 | 136,161,459 | 476,516,402 | 349,744,714 | $139,995,816$ | 489,740,530 |
| Estates, trust, and agency funds.. | 3,588,860,088 | 588,550,279 | 3,972,200,567 | 5,470,781,614 | 631,231,540 | 4,102,018,154 |
| Capital StockAuthorized. | 53,155,000 | 33,150,000 | 86,305,000 | 54,575,000 | 33,150,000 | 87,725,000 |
| Subscribed | 29,135,160 | $15,100,850$ | 44,236,010 | 29,789,910 | 15,324,030 | 45,113, 940 |
| Paid-up. | 28,804,860 | 14, 862,123 | 43,666,983 | 29,414,810 | 15,097,718 | 44,512,528 |
| Reserve and contingency funds. . | 27,360,303 | 9,178,309 | 36,538,612 | 29,591,322 | 9,491,256 | 39,082,578 |
| Unappropriated surpluses. | 5,717, 204 | 1,672,975 | 7,390, 179 | 6,139,831 | 1,892,405 | 8,032,236 |
| Net profits realized during year ${ }^{2}$. | 3,279,402 | 2,190, 260 | 5,469,662 | 6,251,772 | 2,442,471 | 8,694,243 |

${ }^{1}$ Excludes one loan company incorporated under the laws of Quebee, the capital stock and debentures of which have been issued largely outside Canada.
${ }_{2}$ Net profits are before income taxes except for provincial companies in 1952 when net profits are after income taxes.

## 2.-Assets and Liabilities of Loan Companies, 1948-53

| Item | Chartered by Government of Canadat |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
|  | 8 | 8 | \$ | \$ | \$ | 8 |
| Assets |  |  |  |  |  |  |
| Real estate ${ }^{2}$. | 4,943,594 | 5,266,696 | 5,604,342 | 6,571,189 | 6,148,146 | 5,949,482 |
| Loans on real estate. | 93,301,864 | 111,574,957 | 124, 199,351 | 136,720,021 | 146,071,337 | 159,833, 300 |
| Loans on securities... | 599, 808 | 103,467 | 107,823 | 116,621 | 107,585 | 164,364 |
| Bonds and debenture | 43,902,301 | 39,797, 131 | 33,877,064 | 33,674,081 | 34,938,078 | 31,929,613 |
| Stocks. | 17,159,691 | 17,059,957 | 18,161,270 | 16,071,135 | 11,353,848 | 10,877.532 |
| Cash. | 4,613,211 | 4,941,023 | 7,624,167 | 8,508,316 | 6,906,488 | 7,022,432 |
| Totals, Assets ${ }^{\text {a }}$. | 165,261,293 | 179,795,977 | 190,733,017 | 203,103,850 | 206,973,153 | 217,019,970 |

For footnotes, see end of table.

## 2.-Assets and Liabilities of Loan Companies, 1948-53-concluded

| Item | Chartered by Government of Canada ${ }^{\text {a }}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| Liabilities | \$ | \$ | \$ | \$ | 8 | \$ |
| Liabilities to ShareholdersCapital paid-up Reserves. | $\begin{aligned} & 17,980,206 \\ & 15,114,978 \end{aligned}$ | $\begin{aligned} & 18,043,255 \\ & 16,344,790 \end{aligned}$ | $\begin{aligned} & 20,606,187 \\ & 15,973,533 \end{aligned}$ | $\begin{aligned} & 18,419,587 \\ & 17,139,072 \end{aligned}$ | $15,981,759$ $14,894,345$ | $16,042,255$ $15,100,186$ |
| Total Liabilities to Shareholders ${ }^{4}$ | 34,543,526 | 35,381,908 | 37,810,634 | 37,199, 813 | 31,712,347 | 32,354,356 |
| Liabilities to the Public- |  |  |  |  |  |  |
| Debentures | $62,008,012$ | 69,075, 197 |  | $86,603,723$ | 91,492,226 | 98,618,936 |
| Deposits. | $67,289,900$ | 73,919,782 | $79,141,868$ | $77,219,272$ | 81,669,175 | 83,382,889 |
| Total Liabilities to the Public ${ }^{5}$ | 130,573, 614 | 144,414,068 | 152,825,545 | 165,768,886 | 175,107,452 | 184,448,041 |
| Totals, Liabillties...... | 165,117,140 | 179,795, 976 | 190,636,179 | 202,968,699 | 206,819,799 | 216,812,397 |

Chartered by Provinces ${ }^{5}$

| Assets | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: |
|  | 8 | \$ | 8 |
| Real estate ${ }^{2}$ | 1,292,186 | 1,268,099 | 1,154,202 |
| Loans on real estate. | 49,788,615 | 54,357,392 | 77,786,970 |
| Loans on securities. | 1,065,738 | 980,247 | 981,122 |
| Bonds and debentures | 31,461,663 | 33,506,617 | 20,597,703 |
| Stocks. | 2,298,699 | 1,981,118 | 2,263,272 |
| Cash. | 2,513,459 | 3,145,805 | 3,198,296 |
| Totals, Assets ${ }^{\text {a }}$ | 88,991,635 | 96,333,209 | 106,571,244 |
| Liabilities |  |  |  |
| Reserves....... | 10,494,902 | 11,073,642 | 13,985,035 |
| Total Liabilities to Shareholders ${ }^{4}$. | 25,291,830 | 25,927,000 | 28,453,777 |
| Liabilities to the Public- |  |  |  |
| Debentures | 21,435,748 | 22,394,714 | 23,751,608 |
| Deposits. | 41,229,595 | 46,505,919 | 52,481,156 |
| Total Liabilities to the Public ${ }^{5}$. | 63,699,805 | 70,406, 200 | 78,117,467 |
| Totals, Liabilities | 88,991,635 | 96,333,209 | 106,571,244 |

${ }^{1}$ Includes companies chartered by the Government of Nova Scotia which by arrangement are inspected by the Federal Department of Insurance.
${ }^{2}$ Book value of real esta
4 Includes other other real estate. ${ }^{3}$ Includes interest due and accrued and other assets.
includes other liabilities to shareholders. ${ }^{5}$ Includes other liabilities to the public. ${ }^{5}$ Exclusive of Nova Scotia.

## 3.-Assets and Liabilities of Trust Companies, 1948-53

| Item | Chartered by Government of Canada ${ }^{1}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
| Assets | \$ | \$ | 8 | \$ | \$ | 8 |
| Company Funds- |  |  |  |  |  |  |
| Real estate ${ }^{2}$............ | 2,291,721 | 2,391,234 | 2,599,598 | 2,597,501 | 2,526,037 | 2,376,927 |
| Loans on real estate....... | 4,581,282 | $5,438,683$ 928,800 | $5,875,800$ 856,911 | $6,005,025$ 864,615 | 5,867,035 | $5,904,007$ 714,659 |
| Bonds and debentures..... | 11,262,394 | 10,435,037 | 11,187,960 | 11,741,048 | 11,675,897 | 12,149,590 |
| Stocks..................... | 3,758,464 | 4,062,907 | 4,054,756 | 4,356,787 | 4,632,875 | 4,544,646 |
| Cash. | 1,743,905 | 1,756,057 | 1,946,129 | 1,710,349 | 2,060,423 | 2,423,362 |
| Totals, Company Funds ${ }^{2}, 4 .$. | 25,788,543 | 26, 244, 735 | 27,988,873 | 28,446,331 | 28,731,666 | 29,629,779 |

[^402]3.-Assets and Liabilities of Trust Companies, 1948-53--concluded

| Item | Chartered by Government of Canada ${ }^{1}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 |
|  | \$ | \$ | \% | \$ | \$ | \$ |
| Guaranteed FundsLoans on real estate. Loans on securities. Bonds and debentures. Stocks. Cash. | 29,211,299 | 32,563,611 | 37,860,933 | 43,401,633 | 44, 504,345 | 49,322,834 |
|  | 5, 805,425 | 6,245,398 | 3,891,278 | 3,719,861 | 4,151,541 | 3,419,930 |
|  | 40,022,366 | 46,332,850 | 44,734,539 | 40,955,188 | 49,928,453 | 50, 258,820 |
|  | 1,860,454 | 1,395,790 | 1,267,316 | 1,078,284 | 1,236,757 | 1,454,318 |
|  | 4,291,127 | 2,972,809 | 4,594,867 | 3,723,589 | 6,760,472 | 5,052,409 |
| Totals, Guaranteed Funds ${ }^{\text {a }}$, | 81,845,528 | 90,111,500 | 93,082,706 | 93,565,917 | 107,429,793 | 110,366,037 |
| Liabilities |  |  |  |  |  |  |
| Company FundsCapital paid-up. Reserves. | 14,459,414 | 14,535,022 | 14,739,987 | 15,132,221 | 14,862,123 | 15,097,718 |
|  | 7,994,585 | 8,483,617 | 9,671,504 | 8,905,180 | 9,178,309 | 9,301,381 |
| Totals, Company Funds ${ }^{5}$... | 25,153,650 | 25,892,736 | 27,568,241 | 26,658,321 | 28,583,274 | 29,048, 202 |
| Guaranteed Funds- <br> Trust deposits and certificates. | 81,845,528 | 90,111,501 | 93,082,707 | 93,565,917 | 107,429,793 | 110,366,037 |
| Totals, Guaranteed Funds... | 81,845,528 | 90,111,501 | 93,082,707 | 93,565,917 | 107,429,793 | 110,366,037 |
|  | Chartered by Provinces ${ }^{6}$ |  |  |  |  |  |
| Assets |  |  |  |  |  |  |
| Company Funds- |  |  |  |  |  |  |
| Real estate ${ }^{2}, 4$. | 6,662,666 | 6,959,057 | 5,372,046 | 5,745,326 | 5,263,529 | 7,199,260 |
| Loans on real estate ${ }^{4}$ | 10,429,273 | 11,707, 231 | 15,086,011 | 16,045,557 | 14,306,251 | 13,743,299 |
| Loans on securities4.... | 5, 112,362 $24,601,837$ | 4, 4 4,010,537 | $5,677,620$ $25,677,269$ | $8,002,620$ $22,768,209$ | $7,754,667$ $24,134,845$ | $6,718,451$ $27,229,386$ |
| Stocks ${ }^{4}$............... | 12,875,927 | 12,725,583 | 13,215,469 | 14,887,436 | 16,273,994 | 19,015,061 |
| Cash. | 2,888,357 | 3,406,003 | 3,788,458 | 3,198, 260 | 3,152,062 | 3,858,071 |
| Totals, Company Funds ${ }^{3}$... | 65,639,018 | 68,188,785 | 72,736,140 | 74,399,404 | 75,097,721 | 81,569,089 |
| Guaranteed Funds- |  |  |  |  |  |  |
| Loans on real estate. | 43, 391,744 | 48,414,936 | 55,235,907 | 63,050,583 | 72,005,308 | 80, 943,551 |
| Loans on securities. | 6,366,905 | 6,660,312 | 8,461,646 | 11,758,989 | 11,332,357 | 10,873, 145 |
| Bonds and debentures | 128,182,839 | 144,713,565 | 166,622,452 | 166,796,191 | 159,557,075 | 159,394,731 |
| Stocks. | 3,483,412 | 3,735,979 | 3,576,030 | 3,324,910 | 2,092,145 | 1,642,565 |
| Cash. | 9,237,682 | 10,142,915 | 13,482,543 | 12,981,945 | 19,916,400 | 14,716,402 |
| Totals, Guaranteed Funds ${ }^{3}$. . | 190,678,903 | 213,671,444 | 251,832,240 | 258,413,136 | 265,257,222 | 268,175,625 |
| Liabilities |  |  |  |  |  |  |
| Company Funds- |  |  |  |  |  |  |
| Reserves... ... | 24,724,995 | 26,177,783 | 24,664,370 | 26,061,982 | 27,360,303 | 29,591,322 |
| Totals, Company Funds ${ }^{\text {c }}$... | 65,639,021 | 68,188.784 | 72,333,416 | 74,399,405 | 75,097,721 | 81,569,089 |
| Guaranteed FundsTrust deposits and certificates. | 190,678,903 | 213,671,444 | 247,480,875 | 258,413,136 | 265,257,222 | 268,175,625 |
| Totals, Guaranteed Funds... | 190,678,903 | 213,671,444 | 247,480,875 | 258,413,136 | 265,257,222 | 268,175, 625 |

[^403]4.-Estates, Trust and Agency Funds of Trust Companies, Chartered by or Supervised by the Federal Government and by Provincial Governments, as at Dec. 31, 1944-53.

| Year | Federal Companies ${ }^{1}$ | Provincial Companies ${ }^{2}$ | Total | Year | Federal Companies ${ }^{1}$ | Provincial Companies ${ }^{2}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | 8 |  | \$ | \$ | \$ |
| 1944. | 338,978,141 | 2,593,730,389 | 2,932,708,530 | 1949. | 560,080,611 | 2,827,988,797 | 3,388,069,408 |
| 1945. | 363,332,677 | 2,754,475,732 | 3,117, 808,409 | 1950 | 494,636,746 | 3,126,058,749 | $3,620,695,495$ |
| 1946. | 392,430,578 | 2,758,442,016 | 3,150,872,594 | 1951. | 543,983,754 | 3 282,558,573 | 3,826,542,327 |
| 1947 | 480,931,822 | 2,735,930,892 | 3,216,862,714 | 1952. | 588,550,279 | 3,383, 650,088 | 3,972, 200,367 |
| 1948. | 520,860,737 | 2,791,584,378 | 3,312,445, 115 | 1953. | 631,231,540 | 3,470,781,614 | 4,102,013,154 |

${ }^{1}$ Includes companies chartered by the Governments of Nova Scotia, New Brunswick and Manitoba which, by arrangement, are inspected by the Federal Department of Insurance.
${ }^{2}$ Excludes provincial companies of Nova Scotia, New Brunswick and Manitoba which are included in federal companies.

## Section 2.-Licensed Small Loans Companies and Licensed Money-Lenders*

Licensed small loans companies and licensed money-lenders are subject to the provisions of the Small Loans Act, R.S.C. 1952, c. 251, an enactment of the Parliament of Canada regulating personal loans not in excess of $\$ 500$ made on the security of promissory notes of borrowers. Most of these notes are additionally secured by endorsements or chattel mortgages. The Act permits maximum rates of cost of loan, including charges of every kind, of 2 p.c. per month to licensed lenders and 12 p.c. per annum to unlicensed lenders. The small loans companiesfour in number-were incorporated by special Acts of the Parliament of Canada, the first such company commencing business in 1928. The money-lenders, of which there are 58, are made up of companies otherwise incorporated and include a few partnerships and individuals. In previous Year Books, Table 5, below, gave figures of licensed small loans companies only, but in this edition the comparable data includes the combined experience of small loans companies and licensed moneylenders for the years 1950 to 1953, inclusive.

[^404]
## 5.-Assets and Liabilities of Small Loans Companies and Money-Lenders, 1958-53

| Assets and Liabilities | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |
| Small loan balances. | 58,606,932 | 69,259.906 | 76,990,337 | 81,840,415 |
| Balances, large loans and other contracts. | 19,091,024 | 29,914,099 | 49,584, 133 | 66,082,405 |
| Cash. | 2.378 524 | $3,028,310$ | 4,336.639 | 3,857,635 |
| Other. | 8,453,078 | 2.348,219 | 2,811,792 | 2,957,428 |
| Totals, Assets. | 88,529,558 | 101,550,534 | 133,722.901 | 154,737,883 |
| Liabilities |  |  |  |  |
| Borrowed money | 68,027,497 | 81.739,427 | 105,425,684 | 109,162,651 |
| Reserves for losses | 2,733,502 | 2,994,470 | 2,389,585 | 3,794,272 |
| Paid-up capital. | 8,135,081 | 8,522,842 | 9,143.619 | 9,456,449 |
| Surplus paid in by shareholders | 365,515 | 322,570 | 14,772,570 | 12,222,570 |
| Other | 9,267,063 | 10,971,225 | 14,901,473 | 20,101,941 |
| Totals, Liabilities. | 88,529,558 | 104,550,534 | 133,722,901 | 154,737,883 |

The combined companies showed a substantial increase in business for 1953 as compared with the previous year. The number of small loans made to the public during the year increased from 755,506 to 770,265 , or by 2 p.c., and the amount of such loans rose from $\$ 167,161,448$ to $\$ 174,503,558$, or by 4 p.c. The average small loan made was approximately $\$ 227$ in 1953 compared with $\$ 221$ in 1952. At the end of 1953 , small loans outstanding numbered 482,966 for an amount of $\$ 81,840,415$ or an average of $\$ 169$ per loan, and for 1952 , small loans outstanding numbered 467,594 for an amount of $\$ 76,990,337$ or an average of $\$ 165$ per loan.

## Section 3.-Sales of Canadian Bonds*

Canadian borrowers, whether governments or corporations, sold through various forms of financing a total of $\$ 2,945,488,665$ in new bond issues during the year 1953. This total represented an increase of $\$ 917,260,525$ over the $\$ 2,028,228,140$ worth sold in 1952 but a decrease of $\$ 207,951,788$ from the post-war record of $\$ 3,153,440,453$ sold in 1950. Comparative totals for such sales can be traced in previous editions of the Year Book through the periods of two world wars. Figures for 1944-53 are given in Table 7, pp. 1222-1223 of this volume.

In relation to these totals, it should be noted that the yearly aggregate includes sales of Canadian Savings Loans for the entire amount sold, i.e., either to the yearend or to the closing dates in subsequent years. For example, the total of $\$ 380,761,100$ for Series VII (1952) includes purchases to the closing date on Aug. 31, 1953, and the total of $\$ 850,548,900$ for Series VIII (1953) includes purchases to the closing date at the end of the same year. (See Table 6, p. 1222.)

One interesting development in the sale of Series VIII was the degree to which buyers converted earlier issues in order to take advantage of the higher interest rate. As a report on all redeemed bonds was not available at time of writing, it is not possible to give the proportion of the total. When available, however, it should still leave the "new" money purchases far ahead of previous campaigns.

For purposes of analysis, the 1953 total of $\$ 2,945,488,665$ may be classified as follows: federal, $\$ 1,950,548,900$; provincial and guaranteed, $\$ 436,616,900$; municipal, $\$ 222,027,065$; corporation, $\$ 336,295,800$. (See Table 7.) Of the provincial and guaranteed total, the amount of $\$ 258,500,000$ represented direct issues and the amount of $\$ 178,116,900$ was for guaranteed financing, such as hydro bonds and municipal issues guaranteed by provincial governments. Of the $\$ 222,027,065$ municipal total, the amount of $\$ 186,784,460$ represented direct issues and the amount of $\$ 35,242,605$ represented parochial and miscellaneous issues, borrowed 'mainly for educational and hospital purposes.

During 1953 there was a noticeable increase in volume of Canadian bond issues placed on the United States market. A total of $\$ 306,599,215$ was sold compared with $\$ 284,650,025$ in 1952 -an increase of $\$ 21,949,190$ over 1952 but $\$ 77,423,785$ short of the $\$ 384,023,000$ figure for 1951. The increase in 1953 over 1952 was caused by the return of several large Canadian borrowers to the American market. These borrowers raised new funds in the United States becausa developments there seemed to suggest that the monetary stringency, produced by the anti-inflationary program, had come to an end.

From a study of Table 7, it will be noted that federal financing in 1953 at $\$ 1,950,548,900$ increased by $\$ 1,119,787,800$ over the previous year. This increase was caused, principally, by the success of Savings Loan Series VIII at \$850,548,900

[^405]and by the sale of. $\$ 1,000,000,000$ of Government of Canada issues. The latter were sold during the year with maturities ranging from 18 months to four and onehalf years. In addition, a federal issue for $\$ 100,000,000$, twenty-five-year, $3^{\frac{3}{4}}$-p.c. bonds was offered, initially to yield 3.85 p.c. These sales, which were all financed in the Canadian market, accounted for the entire amount (exclusive of short-term financing) borrowed by the Federal Government in 1953.

Federal short-term financing of less than one year amounted to $\$ 3,665,000,000$ in 1953 but is not included in Table 7 because of its limited distribution. Such financing included Treasury Bills, Treasury Notes and Deposit Certificates. If the total of short-term financing were added to the total of other federal financing (as is done in some reports of Canadian bond sales) the grand total of federal borrowing in 1953 would amount to $\$ 5,615,548,900$ and the grand total of all Canadian bond financing would amount to $\$ 6,610,488,665$.

In 1953, direct provincial flotations totalled $\$ 258,500,000$, an increase of $\$ 42,400,000$ over the $\$ 216,100,000$ total for the previous year. Provinces which entered the 1953 bond market were, by month:-

| Month | Province | Amount |
| :---: | :---: | :---: |
|  |  | 8 |
| January | New Brunswick. | 7,500,000 |
| January | Nova Scotia. | 12,500,000 |
| January. | Ontario. | 50,000,000 |
| February. | Manitoba. | 12,000,000 |
| March. | Quebec. | 26,000,000 |
| March. | Saskatchewan. | 15,000,000 |
| June. | Nova Scotia. | 10,000,000 |
| July. | New Brunswick. | 7,500,000 |
| September | Manitoba. | 12,000,000 |
| September. | Saskatchewan. | 6,000,000 |
| October. | Ontario. | 50,000,000 |
| December. | Ontario. | $50,000,000$ |
|  | Total. | 258,500,000 |

In contrast to the $\$ 42,400,000$ increase in direct provincial financing, the total of $\$ 178,116,900$ for provincial guaranteed financing in 1953 represented a decrease of $\$ 32,756,100$ from the 1952 total of $\$ 210,873,000$. This decrease was principally attributable to a somewhat smaller amount in three flotations by the Hydro-Electric Power Commission of Ontario. These issues totalled $\$ 100,000,000$ in 1953 compared with four similar issues for $\$ 160,000,000$ in 1952. Other points of interest in guaranteed provincial sales for 1953 included a total of $\$ 54,500,000$ by the Quebec Hydro-Electric Power Commission and a total of over $\$ 11,000,000$ for municipal school financing, guaranteed by the Province of British Columbia.

As distinct from provincial guaranteed municipal issues, direct municipal bond financing in 1953 totalled $\$ 186,784,460$, exclusive of $\$ 35,242,605$ for parochial and miscellaneous purposes. Comparable totals for 1952 in the municipal and parochial classifications were $\$ 147,690,940$ and $\$ 49,264,100$, respectively. Thus, direct municipal issues showed an increase of $\$ 39,093,520$ over 1952 while parochial and miscellaneous issues showed a decline of $\$ 14,021,495$ in the same period.

The largest single amount borrowed by any one municipality during 1953 was represented by a flotation of the City of Toronto for $\$ 18,600,000$ (November) which was sold in the United States. Other municipal borrowers in excess of $\$ 3,000,000$ were: City of Toronto, $\$ 12,000,000$ (January); City of Sherbrooke, $\$ 3,700,000$ (March); Montreal Metropolitan Commission, $\$ 3,651,000$ (May); City of Toronto, $\$ 12,610,000$ (June); City of Vancouver, $\$ 9,350,000$ (September); Greater Vancouver Water District, $\$ 3,500,000$ (October); City of Hamilton, $\$ 4,489,715$ (November); City of Ottawa, $\$ 3,417,000$ (December); and Township of Scarborough, $\$ 3,710,215$ (December).

During 1953, corporate financing totalled $\$ 336,295,800$, a decline of $\$ 237,243,200$ from the $\$ 573,539,000$ total for 1952. Largest single issue (at $\$ 60,000,000$ ) in this classification was sold in the United States for the Interprovincial Pipe Line Company. The money was borrowed to help finance an extension from Lake Superior to Sarnia, Ont.

Other prominent borrowers in the corporate field were: Bathurst Power and Paper Co. Limited, $\$ 6,000,000$; Canadian Canners Limited, $\$ 4,000,000$; Cockshutt Farm Equipment Limited, $\$ 5,000,000$; Credit Foncier Franco-Canadien, $\$ 3,000,000$; Dominion Tar and Chemical Company Limited, $\$ 7,500,000$; The T. Eaton Realty Company Limited, $\$ 17,500,000$; Empire Brass Manufacturing Company Limited, $\$ 4,000,000$; General Motors Acceptance Corporation of Canada, $\$ 25,000,000$; General Steel Wares Limited, \$2,500,000; Industrial Acceptance Corporation Limited, $\$ 15,000,000$; Loblaw Groceterias Company Limited, $\$ 8,000,000$; Phillips Electrical Company Limited, $\$ 9,000,000$; Simpsons-Sears Limited, $\$ 15,000,000$; Steinberg's Limited, $\$ 2,500,000$; Traders Finance Corporation Limited, $\$ 12,000,000$; B.C. Telephone Company, $\$ 7,000,000$; Manicouagan Power Company, $\$ 10,000,000$; North Star Oil Limited, $\$ 5,000,000$; Permian Basin Pipeline Company, $\$ 34,125,000$; Union Gas Company of Canada Limited, $\$ 8,000,000$; and George Weston Limited, $\$ 8,000,000$.

Financing for the Canadian transportation industry in 1953 amounted to $\$ 47,100,000$, an increase of more than $\$ 10,000,000$ over 1952 . The largest issue of any concern in this industry was for $\$ 25,000,000$ in equipment trust certificates of the Canadian Pacific Railway. In addition, however, flotations were made by Montreal Transportation Commission for $\$ 18,000,000$ and by Sun Steamships Limited for $\$ 4,100,000$. Since 1951, the Canadian National Railways has made arrangements to have funds provided by the Government of Canada and has not been a large borrower in the open market.

A directory of all "Security Issues Placed During 1953" has been published in The Monetary Times, Annual National Review, 1954. This list indicates that four federal issues (excluding all short-term financing of less than one year), 23 provincial and guaranteed issues, 557 municipal issues (including parochial and miscellaneous) and 75 corporation issues were placed in 1953. For 1952, the same source, dated 1953, indicates that two federal issues, 25 provincial and guaranteed issues, 589 municipal issues and 77 corporation issues were placed.

Thus, 659 new issues of all classifications were sold in 1953 compared with 693 in 1952. Though the total number declined by 34 , the dollar amount increased by $\$ 917,260,525$ from $\$ 2,028,228,140$ to $\$ 2,945,488,665$. This greater dollar amount, however, was partly explained by an increase from $\$ 380,761,100$ for Savings Loan Series VII (1952) to $\$ 850,548,900$ for Savings Loan Series VIII (1953) or by $\$ 469,787,800$ in this one form of financing alone.

## 6.-Sales of and Applications for Federal Government Bonds, Feb. 1, 1940, to Nov. 1, 1953

(Source: The Monetary Times)



#### Abstract

${ }^{1}$ Department of Finance figures. ${ }^{2}$ Total subscriptions were limited to $\$ 2,000$ for any one individual for the 1946 issue, $\$ 1,000$ for the issues of $1947-50$, inclusive, and $\$ 5,000$ for the issues of 1951,1952 , and 1953. Figures for the issues 1946-53 are for the entire loans, i.e., either to the year-end or to the closing date in subsequent years.


## 7.-Sales of Canadian Bonds, by Class of Bond and Country of Sale, 1944-53

(Source: The Monetary Times)
Nore.-Figures for 1904-25 are given in the 1933 Year Book, p. 921, and for 1926-43 in the 1946 edition, pp. 990-991.

| Year | Class of Bond |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Federal ${ }^{1}$ | Provincial | Municipal | Parochial and Miscellaneous | Corporation | Total |
|  | \$ | \$ | $\$$ | \$ | \$ | \$ |
| 1944. | 3,400,963,900 | 67,153.500 | 113,225,635 | 10,612,100 | 92,063,900 | 3,684,019,035 |
| 1945. | 3,577,691,000 | 162,002,084 | 30,430,210 | 10,952,500 | 153,900,000 | 3,934,975,794 |
| 1946. | 985,285,550 | 114, 296,800 | 140,815,491 | $43.155,800$ | 581,499,188 | 1,865,052,829 |
| 1947. | 293,333,100 | 229,562,000 | 238,887,410 | 14,968,600 | 379,674,500 | 1,156,425,610 |
| 1948. | 445,491, 150 | 312,619,500 | 84,014,291 | 21,010,000 | 310,506,000 | 1,173,640,941 |
| 1949. | 790,200,000 | 449,347,000 | 134,796,184 |  |  |  |
| 1950. | $2,167,600,000$ $594,642,400$ | $373,824,500$ $369,532,000$ | $150,369,281$ $196,438,916$ | $30,466,369$ $37,967,921$ | $431,180,303$ $451,630,000$ | 3,153,440,453 $1,650,211,237$ |
| 1952. | $594,642,400$ $830,761,100$ | 426,973,000 | 147,690,940 | 49,264, 100 | 573,539,000 | 2,028, 228, 140 |
| 1953. | 1,950,548,900 | 436,616,900 | 186,784,480 | 35,242,605 | 336,295,800 | 2,945,488,665 |

[^406]7.-Sales of Canadian Bonds, by Class of Bond and Country of Sale, 1944-53 -concluded

| Year | Country of Sale |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Canada ${ }^{1}$ | United States | United Kingdom | Total |
|  | \$ | \$ | \$ | \$ |
| 1944. | 3,629,004,035 | 55,015,000 | - | 3,684,019,035 |
| 1945 | 3,854,957,794 | 80,018,000 | - | 3,934,975,794 |
| 1946. | 1,801,400,829 | 63,652,000 | 二 | 1,865,052,829 |
| 1947. | 1,068,114,610 | 88,311,000 | - | 1,156, 425, 610 |
| 1948. | 1,023,640,941 | 150,000,000 | - | 1,173,640,941 |
| 1949.. | 1,543, 464, 384 | $140,000,000$ | 二 | 1,683,464,384 |
| 1951. | 2,980,740,453 $1,266,188,237$ | $172,700,000$ $384,023,000$ |  | $3,153,440,453$ $1,650,211,237$ |
| 1952. | 1,743,578,115 | 284,650,025 | - | 2,028,228,140 |
| 1953. | 2,638,889,450 | 306,599,215 | - | 2,945,488,665 |

[^407]
## CHAPTER XXVII.-INSURANGE*

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Note.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing $p .1$ of this volume.

Insurance, for the purpose of statistical analysis, is usually classified as fire, life and casualty. Most companies operate under Federal Government registration although some have provincial licences only. Also, many fraternal orders and societies are engaged in this kind of business. Special articles relating to insurance that have appeared in previous editions of the Year Book are listed in Part II of Chapter XXIX under the heading "Insurance"

## Section 1.-Fire Insurance

In Canada, fire insurance began with the establishment of agencies by British fire insurance companies. These, situated usually at the seaports, were operated by local merchants. The oldest existing agency of such a company commenced business at Montreal in 1804. The first Canadian company dates from 1809 and the first United States company to operate in Canada commenced business in 1821. A short account of the inception of fire insurance in Canada is given in the 1941 Year Book, pp. 846-847.

The report of the Superintendent of Insurance for the year ended Dec. 31, 1953, shows that, at that date, there were 290 fire insurance companies under federal registration; of these, 73 were Canadian, 86 were British and 131 were foreign companies. In 1875, the first year for which authentic records were collected by the Department of Insurance, 27 companies operated in Canada-11 Canadian,

[^408]13 British and 3 United States. The proportionate increase in the number of British and foreign companies from 59 p.c. to 75 p.c. of the total number is a very marked point of difference between the fire and life insurance businesses in Canada, the latter being carried on very largely by Canadian companies.

## Subsection 1.-Total Registered Fire Insurance in Force in Canada

Of the total amount of fire insurance written in Canada during each year, a part is sold by the companies holding provincial licences and permits. Such companies generally confine their operations to the province of incorporation but may be allowed to sell insurance in other provinces. As shown in Table 1, fire insurance companies under Federal registration account for approximately 90 p.c. of the fire insurance in force.
1.-Fire Insurance Transacted in Canada, 1951-53

| Item | Gross <br> Insurance Written | Net in Force at End of Year | Net <br> Premiums Written | Net Claims Incurred |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | $\leqslant$ | \$ |
| Federal Government Registrations. 1951 | 32,903,960,900 | 33,490,653,184 | 134,496, 218 | 52,086,541 |
| 1952 | 35,371,554,787 | 37,317, 499,723 | 139,777,732 | 61,124,918 |
| 1953 | 41,091,691,709 | 41,703,092,570 | 145,971,915 | 66,755,144 |
| Provincial Licensees- <br> (a) Provincial companies within provinces by which they are incorporated. | 1,911,928,015 | 2,638,121,340 | 10,374,025 | 5,501,009 |
|  | $1,908,809,507$ | 2,574,996,679 | 10,782,628 | 5,322,188 |
|  | 2,318,389,997 | 2,977, 148,786 | 12,670,659 | 6,670,976 |
| (b) Provincial companies within provinces other than those by which they are incorporated. 1951 1952 1953 |  |  |  |  |
|  | 206, 607, 835 | 249,443,644 | 1,240,222 | 673,905 |
|  | $268,664,292$ $391,621,441$ | $294,072,031$ $417,257,445$ | 912,623 881,781 | 444,821 370,798 |
| Totals, Provincial Licensees... | 2,118,535, 850 | 2,887,564,984 | 11,614,247 | 6,174,914 |
|  | 2,177,473,799 | 2,869,068,710 | 11,695, 251 | 5,767,009 |
|  | 2,710,011,438 | 3,394,406,231 | 13,552,440 | 7,041,774 |
| Lloyds, London. | 831,670,172 | 904,488,934 | 5,939,298 | 2,791,796 |
|  | 708,046,922 | 908,257,933 | 6,065,759 | 2,986,392 |
|  | 1,086,373,258 | 1,111,987,781 | 7,153,177 | 3,819,776 |
| Grand Totals.............. | 35,854,166,922 | 37,282, 707, 102 | 152,049,763 | 61,053,251 |
|  | 38,257,075,508 | 41,094,826,366 | 157,538,742 | 69,878,319 |
|  | 44,888,076,405 | 46,209,486,582 | 166,677,532 | 77,616,694 |

## Subsection 2.-Operational Statistics of Fire Insurance Companies under Federal Registration

The trend in the average rate payable for fire insurance has been generally downward, although the increased fire losses in certain recent years have had the effect of checking that tendency. Moreover, the increase in value of insurable buildings and their contents tends to increase fire insurance premiums despite the downward trend of the average rate.

92428-78

## 2.-Fire Insurance, by Companies Operating under Federal Government Registration, Decennially 1880-1940 and 1941-53

Note.-Figures for 1869-1900 are given in the 1939 Year Book, p. 973, and for 1901-39 in the 1942 edition, pp. 847-848.


[^409]Premiums Written and Claims Incurred.-The relationship of claims incurred to premiums written is shown in Table $\mathbf{3}$ for Federal Government registered fire insurance companies, by province.

## 3.- Net Premiums Written and Net Claims Incurred in Canada by Canadian, British and Foreign Companies Operating upder Federal Government Registration, by Province, 1952 and 1953.

(Registered reinsurance deducted)

| Year and Province | Canadian Companies |  | British Companies |  | Foreign Companies |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Premiums | Claims | Premiums | Claims | Premiums | Claims |
| 1952 | \$ | \$ | § | \$ | \$ | \$ |
| Newfoundland | 239,084 | 125,246 | 1,110, 177 | 562.530 | 365,723 | 273.113 |
| Prince Edward Island | 165,967 | 68,084 | , 369,319 | 78, 192 | $\begin{array}{r}177,445 \\ \hline 1386875\end{array}$ | 142,515 |
| Nova Scotia... | $1,554,069$ $1,155,555$ | 415,930 415,455 | $2,463,502$ $2,358,220$ | 634,142 $1,016,918$ | $1,386,875$ $1,499,794$ | 485,297 877,345 |
| New Brunswick Quebec........ | $1,155,555$ $10,506,551$ | 415,455 $4,462,218$ | $2,358,220$ $14,823,796$ | $1,016,918$ $6,969,943$ | $1,499,794$ $16,399,959$ | 877,345 $6,820,789$ |
| Ontario. | 14,535, 164 | 8,276,489 | 17,744, 222 | 10,233,831 | 20, 114, 885 | 10,239,868 |
| Manitoba | 3,063,851 | 1,194,840 | 2,171,545 | 875,724 | 2,285,497 | 712,746 |
| Saskatchewan | 2,903, 620 | 1,004,589 | 1,464,729 | 552,852 | 1,862,022 | 621,837 |
| Alberta. | 3,335,144 | 1,010.945 | 3,644,871 | 1,193,910 | 3,801,246 | 1,064,932 |
| British Columbia | 3,188,695 | 1,139,393 | 5,537,962 | 2,182,779 | 6,400,629 | 2,442,231 |
| All other Canada ${ }^{\text {l }}$ | 236.095 | -20,495 | 224,130 | 156.371 | 55,343 | 47,350 |
| Canada, 1952. | 40,883,795 | 16,092,694 | 51,912,473 | 24,457,192 | 54,349,418 | 23,728,023 |

[^410]3.-Net Premiums Written and Net Claims Incurred in Canada by Canadian, British and Foreign Companies Operating under Federal Government Registration, by Province, 1952 and 1953 -concluded.

| Year and Province | Canadian Companies |  | British Companies |  | Foreign Companies |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Premiums | Claims | Premiums | Claims | Premiums | Claims |
| 1953 | \$ | \$ | \$ | 5 | \$ | \$ |
| Newfoundland . P Pro. | 280,089 157,745 | 95,036 23,195 | 1, 152,327 | 424,381 42.822 | 425,810 161,066 | 201,594 |
| Prince Scotiard....... | 1,644,943 | 605,644 | 2,504,532 | 1,266,441 | 1,337,618 | 715,436 |
| New Brunsw | 1.218,919 | 461,919 | 2,224,638 | 987,300 | 1,332,557 | 621,338 |
| Quebec. | 11,924,834 | 5,858,624 | 16,472,192 | 8,398,164 | 16,001,848 | 8,790,622 |
| Ontario | 17,041.598 | 7,306,536 | 18,994,615 | 10,214,979 | 20,685,389 | 9,655,838 |
| Manitobs | 3,174,584 | 1,465,176 | 2,150,468 | 1,501,734 | 2,269,822 | 1,212,376 |
| Saskatchewa | 3,309,364 | 861,317 | 1,477,536 | 325,979 | 1,879,268 | 567,374 |
| Alberta | 3,616,385 | 1,290,143 | 3,729,848 | 1,441,983 | 3,676,899 | 1,325,182 |
| British Columbi | 3,544,802 | 1,038,444 | 5,175,523 | 1,818,883 | 6,045,504 | 1,941,663 |
| All other Cansds | 331,549 | -9,096 | 27,426 | 105,327 | 312,195 | 7,916 |
| Canada, 1953 | 46,244,812 | 18,996,938 | 54,237,199 | 26,527,993 | 54,127,976 | 25,047,038 |

[^411]Classification of Fire Risks.-The Department of Insurance compiles, from information supplied by the fire insurance companies registered to transact business in Canada, tables of experience as to premiums and claims by 21 classes of risks. The experience of 1951 and 1952 is given in Table 4.
4.-Percentage of Claims Incurred to Premiums Written in Canada, by All Companies Operating under Federal Government Registration, by Class of Risk, 1951 and 1952.
(Excluding all reinsurance ceded or assumed)

| Class of Risk | 1951 | 1952 | Class of Risk | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | p.c. | p.c. |  | p.c. | p.c. |
| Dwellings, excluding farms- |  |  | Lumber yards, pulpwood and |  |  |
| Protected brick........ | 50.08 | $40 \cdot 74$ 36.57 | standing timber................. | 17.73 | 26.50 |
| Protected iram | $35 \cdot 00$ 39.47 | $36 \cdot 57$ 42.40 | Wood-working plants. | 40.41 | 43 |
| Farm buildings | 48.26 | 48.73 | hangars..... | 45.83 | $45 \cdot 52$ |
| Churches, public buildings, educa- |  |  | Mining risks | $52 \cdot 69$ | 19.07 |
| tional and social - service institu- |  |  | Railway and public utility risks.... | 33.10 | 37-63 |
| tions.. | 46.00 | 36.83 | Miscellaneous manufacturing risks.. | 48.63 | 54-15 |
| Warehouses. | $33 \cdot 25$ | $39 \cdot 10$ | Miscellaneous non-manufacturing | 43.30 | 42. 69 |
| and hotels............. | 52.23 | 51.46 | Sprinklered risks of whatever | 43.30 | $42 \cdot$ |
| Contents of above item. | 49.14 | $45 \cdot 17$ | nature or occupancy ............. | 23.03 | 42-68 |
| Foods, food and beverage plants..... | 37-28 | 71.56 | Use and occupancy and profits, |  |  |
| Flour and cereal mills, grain elevators | 28.54 34 | 145-86 | excluding rental insurance. | 32.57 | 34.85 |
| Saw and shingle mills | 54.06 | $45 \cdot 12$ | Averages | 40.24 | 45.59 |

## Subsection 3.-Finances of Fire Insurance Companies under Federal Registration

Tables 5 to 7 show the assets, liabilities, income and expenditure of registered companies transacting fire insurance in Canada from 1949 to 1953. The majority of fire insurance companies also transact casualty insurance dealt with in Section 3 of this Chapter. Totals only are given here because it is impossible for such
companies to allocate their assets and liabilities and their general income and expenditure among the various types of business transacted. Table 28, p. 1248, gives similar information for registered companies whose transactions are confined to casualty insurance.

## 5.-Assets of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance, under Federal Government Registration, 1949-53.

| Assets | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | \$ | \$ | \$ | \$ |
| Canadian Companies (In All Countries) |  |  |  |  |  |
| Real estate...................... | 2,010,983 | 2,890,580 | 4,995, 436 | 5,593,805 | 6,255,956 |
| Loans on real estate | 4,342,868 | 4,503,686 | 4,638,405 | 5,246,897 | 5,807,459 |
| Bonds, debentures and stocks | 134,327,602 | 146,468,315 | 156,851,549 | 170,943,515 | 202,535,243 |
| Agents' balances and premiums outstanding. | 13,406,599 | 15,864,962 | 18,047,447 | 20,311,328 | 23,925,966 |
| Cash. | 17,118,676 | 17,768,620 | 20,292,975 | 25,163,593 | 26,096,937 |
| Interest and rent | 924,946 | 1,011,235 | 1,166,123 | 1,307,241 | 1,563,005 |
| Other assets. | 7,728,925 | 9,985,911 | 9,571,384 | 12,567,762 | 13,695,597 |
| Totals, Canadian Companies | 179,860,599 | 198,493,309 | 215,563,319 | 241,134,141 | 279,880,163 |
| British Companies (In Canada) |  |  |  |  |  |
| Real estate | 856,789 | 961,944 | 1,181,210 | 1,194, 861 | 1,926,911 |
| Loans on real estate. | 85,699 | 164,226 | 302,606 | 432,799 | 555,487 |
| Bonds, debentures and stocks | 87,688,448 | 97,514,151 | 104,060,718 | 116,251,691 | 137, 102,887 |
| Agents' balances and premiums outstanding. | 10,776,448 | 12,954,003 | 14,205,780 | 16,505,580 | 18,093,533 |
| Cash.............. | 12,513,078 | 13,221,377 | 15,711,722 | 17,393,338 | 16,390,340 |
| Interest and rents | 347,294 | 392,966 | 455,366 | 578,566 | 813.580 |
| Other assets in Canada | 2,234,250 | 2,372,038 | 2,264,071 | 4,221,756 | 3,393,573 |
| Totals, British Companies. | 114,502,006 | 127,580,705 | 138,181,473 | 156,578,591 | 178,276,311 |
| Foreign Companies <br> (In Canada) |  |  |  |  |  |
| Real estate......... | - | - | - 50 | - | 120,715 |
| Loans on real estate....... |  | $78,612,365$ | 97, $\begin{array}{r}2,500 \\ \hline 10159\end{array}$ | 103, $\begin{array}{r}98,620\end{array}$ | [15, $\begin{array}{r}49,562 \\ \hline 150\end{array}$ |
| Bonds, debentures and stocks............ | 71,122,550 | 78,612,365 | 97,101,459 | 103,138,393 | 115,086,150 |
| Agents balances and premiums out- standing....................................... | 7,513,224 | 8,825,587 | 10,778,167 | 11,939,796 | 13,291,023 |
| Cash......................... | 19, 102,039 | 19, 236, 339 | 20,275,628 | 19,343, 848 | 17,756,320 |
| Interest and rents | 415,671 | 454,347 | 617,072 | 730,838 | 855,602 |
| Other assets in Canads | 854,642 | 1,036,804 | 978,455 | 995,483 | 1,445,365 |
| Totals, Forelgn Countries. | 99,008,126 | 108,165,442 | 129,753,281 | 136,157,978 | 148,604,737 |

6.-Liabilities of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance, under Federal Government Registration, 1949-53.

| Liabilities | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ |
| Canadian Companies (In All Countries) |  |  |  |  |  |
| Reserve for unsettled claims. | 24,392,136 | 28,705,334 |  |  |  |
| Reserve of unearned premiums. | 48,652,678 | 54,957, 195 | $61,181,368$ | 72,835, 541 | $84,143,924$ |
| Sundry items................... | 26,801,982 | 30,700,595 | 34,251,492 | 38,447,531 |  |
| Totals, Canadian Companies | 99,846,796 | 114,363,124 | 129,020,085 | 150,526,116 | 175,516,076 |
| Excess of assets over liabilities. | 80,013,803 | 84,130,185 | 86,543,234 | 90,608,025 | $104,364,087$ |
| Capital stock paid up.......... | 20,334,030 | 20,972,569 | 21,650,941 | 21,821,506 | $26,794,015$ |

6.-Labilities of Canadian, British and Foreign Companies Transacting Fire Insurance or Fire and Casualty Insurance, under Federal Government Registration, 1949-53-concluded.

| Liabilities | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | 8 | \$ | \$ | \$ |
| British Companies (In Canada) |  |  |  |  |  |
| Reserve for unsettled claims.. | 16,366, 220 | 21,032,932 | 23,970,608 | 29,923,183 | 33,487,508 |
| Reserve of unearned premiums | 46,019,748 | 51,689,258 | 58,523,291 | 63,633,033 | 69,458,924 |
| Sundry items.................. | 5,107,582 | 6,084,969 | 7,148,429 | 8,929,705 | 9,530,557 |
| Totals, British Companies | 67,493,550 | 78,857,159 | 89,642,328 | 102,485,921 | 112,476,989 |
| Excess of assets over liabilities. | 47,008,456 | 48,723,546 | 48,539,145 | 54,092,670 | 65,799,322 |
| Foreign Companies (In Canada) |  |  |  |  |  |
| Reserve for unsettled claims. | 8,117,476 | 12,433,787 | 16.611,126 | 19,635,404 | 21,352,080 |
| Reserve of unearned premiums | 39,884,410 | 46,992,438 | 54,736,519 | 57,069,975 | 67,054,303 |
| Sundry items. | 4,511,813 | 4,857,331 | 8,801,763 | 12,031,608 | 8,206,389 |
| Totals, Foreign Companies. | 52,513,699 | 64,283,556 | 80,149,408 | 88,736,987 | 96,612,772 |
| Excess of assets over liabilities, excluding capital. | 46,494,427 | 43,881,886 | 49,603,873 | 47,420,991 | 51,991,965 |

7.-Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance, under Federal Government Registration, 1949-53.

| Income | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | $\delta$ | 8 | \$ | \$ |
| INCOME |  |  |  |  |  |
| Canadian Companies (In All Countries) |  |  |  |  |  |
| Net premiums written, fire and other insurance. | 85,967,103 | 94,957,384 | 108,123,353 | 130,971,373 | 150,232,977 |
| Interest, dividends and rents earned..... | 4,519,974 | 5,064,567 | 5,580,820 | 6,162.349 | 7,257,165 |
| Sundry items........................... | 41,887 | 176,657 | 69,074 | 91.689 | 50,323 |
| Totals, Canadian Companies. | 90,528,964 | 100,198,608 | 113,773,247 | 137,225,411 | 157,540,465 |
| British Companies <br> (In Canada) |  |  |  |  |  |
| Net premiums written.................. | 75,168, 266 | 84,262,573 | 95, 563,249 | 104,718,151 | 114,579,615 |
| Interest, dividends and rents earned..... | 1,152,406 | 1,402,786 | 1,588,046 | 1,879,278 | 2,394,320 |
| Sundry items....................... | 1, 609 | 1,484 | 1,080 | 1,683 | -1,966 |
| Totals, British Companles | 76,321,281 | 85,665,843 | 97,152,375 | 106,598,112 | 116,971,969 |
| Foreign Companies (In Canada) |  |  |  |  |  |
| Net premiums written............ | 55,433,534 | 65,299,390 | 88, 814,365 | 96, 400,962 | 99,870,745 |
| Interest, dividends and rents earned..... | 1,733,103 | 1,897, 135 | 2,390,403 | 2,841,987 | 3,074,211 |
| Sundry items. | -12,727 | 15,541 | 1,858 | 306 | 4,490 |
| Totals, Foreign Companies. | 57,153,910 | 67,212,066 | 91,206,626 | 99,243,255 | 102,949,446 |

## 7.-Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance, under Federal Government Registration, 1949-53-concluded.

| Expenditure | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ |
| EXPENDITURE |  |  |  |  |  |
| Canadian Companies (In All Countries) |  |  |  |  |  |
| Incurred for claims (fire) | 12,981, 810 | 15,862,354 | 15, 234, 667 | 16,838,349 | 19,600,009 |
| General expenses (fire). | 13,105,812 | 14,324,556 | 14,805,015 | 17,326,626 | 19,747, 276 |
| Incurred for claims (casualty | 26,516,804 | 30,978,046 | 39,134, 232 | 46, 145,163 | 52,465,514 |
| General expenses (casualty). | 19,489,615 | 21,840,069 | 26,733,771 | 31,377,886 | 35, 337,754 |
| Dividends or bonuses to shareholders | 1,875,511 | 1,994,347 | 2,163,564 | 1,744,884 | 2,135,132 |
| Premium taxes and fees. | 2,206,998 | 2,402,244 | 2,741,200 | 3,263,691 | 3,633,653 |
| Income tax | 1,621,510 | 1,573,799 | 2,666,768 | 3,023,178 | 4,093,395 |
| Excess profits tax | -19,612 | 1,064 |  |  |  |
| Provincial corporation income tax | 87,374 | 90,506 | 158,832 | 3,539 | 1,840 |
| Dividends to policyholders. | 411,938 | 238,828 | 337,463 | 423,210 | 510,326 |
| British and foreign taxes. | 512,165 | 480,858 | 429,629 | 194,844 | 398,337 |
| Totals, Canadian Companies | 78,789,925 | 89,786,671 | 104,405,141 | 120,341,370 | 137,923,236 |
| Excess of income over expenditure | 11,739,039 | 10,411,937 | 9,368,106 | 16,884,041 | 19,617,229 |
| British Companies (In Canada) |  |  |  |  |  |
| Incurred for claims (fire)................ | 18,484,144 | 24,094, 197 | 21,419,537 | 24,457, 192 | 26,527,993 |
| General expenses (fire).................. | 16,867,513 | 18,796,326 | 20,450,532 | 21,716,054 | 22,970,000 |
| Incurred for claims (casualty | 16,071,566 | 19,016,349 | 24,491,516 | 28,222,840 | 30,316,653 |
| General expenses (casualty) Premium taxes and fees... | $12,874,637$ $1,981,533$ | $14,634,521$ $2,165,783$ | $17,565,922$ $2,456,255$ | $19,924,643$ $2,645,281$ | $21,853,236$ $2,864,731$ |
| Income tax............ | ${ }^{1} 342,216$ | 270,200 | 723,940 | 1,180,203 | 1,494,352 |
| Excess profits ta |  | -787 |  |  |  |
| Provincial corporation income tax | 12,555 | 8,569 | 23,725 | -1,411 | -2,579 |
| Totals, British Companies | 66,634,179 | 78,985,158 | 87,131,427 | 98,144,862 | 106,024,386 |
| Excess of income over expenditure. | 9,687,102 | 6,680,685 | 10,020,948 | 8,453,310 | 10,947,583 |
| Foreign Companies <br> (In Canada) |  |  |  |  |  |
| Incurred for claims (fire) | 17,897,614 | 21,777,434 | 19,050,759 | 23,728,023 | 25,047,048 |
| General expenses (fire). | 13,899,819 | 16,120,209 | 18,385,823 | 19,317,717 | 21,162, 232 |
| Incurred for claims (casualty) | 6,653,022 | 9,498, 697 | 19,270,657 | 23,253,049 | 25,659,436 |
| General expenses (casualty). | 5,731,607 | 7,048,391 | 11,810,013 | 13, 805,059 | 15,260,850 |
| Premium taxes and fees.. | 1,418,647 | 1,708,675 | 2,226,447 | 2,330,267 | 2,466,150 |
| Income tax | 797,193 | 444,131 | 1,184,098 | 1,237,088 | 807,381 |
| Provincial corporation income tax | 50,471 | 41,079 | 39,303 | -1,571 | -197 |
| Dividends or savings credited to subscribers. | 3,527,772 | 3,435,151 | 5,269,798 | 5,264,013 | 1,243,501 |
| Totals, Foreign Companies | 49,976,540 | 60,073,767 | 77,236,898 | 88,933,645 | 91,646,401 |
| Excess of income over expenditure | 7,177,370 | 7,138,299 | 13,969,728 | 10,309,610 | 11,303,045 |

## Subsection 4.-Fire Losses

Fire Losses.-The information in Tables 8 to 11, which deals with the loss of property and life caused by fire, has been summarized from the Statistical Bulletin of the Association of Canadian Fire Marshals and the Dominion Fire Prevention Association, prepared by the Dominion Fire Commissioner.

## 8.-Fire Losses in Canada, 1942-53

Norz.-Figures for 1926-41 are given in the 1947 Year Book, p. 1078. Earlier figures from 1898 may be obtained from the Department of Insurance.

| Year | Fires Reported | Property Loss ${ }^{1}$ | $\begin{gathered} \text { Loss } \\ \text { per } \\ \text { Capita } \end{gathered}$ | Deaths by Fire | Year | Fires Reported | Property Loss ${ }^{1}$ | Loss per Capita | Deaths by Fire |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | \$ | No. |  | No. | \$ | 8 | No. |
| 1942. | 47,596 | 31,182,238 | 2.70 | 304 | 1948. | 53,048 | 67,144,473 | $5 \cdot 21$ | 493 |
| 1943. | 47,594 | 31,464,710 | $2 \cdot 67$ | 319 | 1949 | 54,500 | 65,159,044 | 4.94 | 542 |
| 1944. | 50,719 | 40,562,478 | $3 \cdot 39$ | 307 | $1950{ }^{2}$ | 59,710 | 81,525,298 | $5 \cdot 88$ | 441 |
| 1945. | 52,173 | 41,903,020 | $3 \cdot 46$ | 391 | 1951. | 60,317 | 76,919,357 | 5.64 | 535 |
| 1946. | 55,400 | 49,413,363 | $4 \cdot 01$ | 408 | 1952 | 64,057 | 80,690, 123 | $5 \cdot 74$ | 572 |
| 1947. | 52,931 | 57,050,461 | $4 \cdot 53$ | 390 | 1953. | 67,519 | 84, 270,896 | $5 \cdot 70$ | 477 |

[^412]9.-Fire Losses, by Province, 1948-53

| Province or Territory | 1918 | 1949 | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | S | \$ | \$ | \$ | \$ | \$ |
| Newfoundland. |  |  | 660, 100 |  |  |  |
| Prince Edward I | 301,275 | 588,017 | 422,534 | 725,893 | 475,265 | 231,616 |
| Nova Scotia. | 2,716,983 | 2,441,016 | 3,149,464 | 4,547,955 | 2,097,216 | 2,957,326 |
| New Branswick | 2,819,962 | 2,850,007 | 3,016,191 | 2,865,881 | 3,320,340 | 2,993,167 |
| Quebec. | 25,000,745 | 20,490,505 | 32,962,910 | 25,933,975 | 26,774,705 | 31,676,545 |
| Ontario | 20,557, 149 | 20,237,896 | 22,619,343 | 23,241,177 | 27,615,682 | 25,882,184 |
| Manitobs | 2,693,868 | 2,243,589 | 3,636,631 | 2,377,092 | 2,667,303 | 4,279,618 |
| Saskatchew | 2,105,561 | 2,997,610 | 2,640,021 | 2,776,614 | 3,525,799 | 2,372,885 |
| Alberta | 3,634,160 | 5,299,584 | 5,242,553 | 4,661,963 | 4,545,444 | 5,652,339 |
| British Columb | 7,147,720 | 7,556,229 | 7.052,706 | 8,604,426 | 9,603,231 | 8,080,490 |
| Yukon and N.W. | 167,050 | 454,591 | 122,845 | 1,184,381 | 65,138 | 144,726 |
| Canad | 67,144,473 | 65,159,044 | 81,525,298 | 76,919,357 | 80,690,123 | 84,270,896 |

${ }^{1}$ Excludes federal jurisdiction losses, including forests.
The provincial property losses for 1948-53 given in Table 9 include both insured and uninsured losses. The percentages of the provincial totals uninsured in 1953 were: Prince Edward Island, 44; Nova Scotia, 22; New Brunswick, 33; Quebec, 17; Ontario, 20; Manitoba, 17; Saskatchewan, 26; Alberta, 28; British Columbia, 41; and the Yukon and Northwest Territories, 56. Uninsured losses formed 22 p.c. of total losses for Canada.

## 10.-Fire Losses, by Type of Property, 1951-53

(Exclusive of Newfoundland)

| Type of Property | 1951 |  | 1952 |  | 1953 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fires Reported | Property Loss | Fires Reported | Property Loss | Fires Reported | Property Loss |
|  | No. | \$ | No. | \% | No. | \$ |
| Residential. | 44,673 | 19,892,811 | 47,732 | 18.387,258 | 45,350 | 17,775, 863 |
| Mercantile | 6.217 | 18,907,864 | 6.756 | 23, 969,142 | 6,265 | 20.203,222 |
| Farm........ | 3.563 | 5,571.199 | 1,367 | 13,471,727 | 4,316 | 6,852,856 |
| Manufacturing | 1.818 | 16,538,095 | 3,685 | 6.036,451 | 1,036 | 15.254,972 |
| Institutional and assembl | - 819 | 5,934, 185 | + 715 | 4,197,097 | . 827 | 2,908,444 |
| Miscellaneous. | 3,227 | 10,075,203 | 3,802 | 14,628,448 | 9,725 | 21,275,539 |
| Totals. | 60,317 | 76,919,357 | 64,057 | 80,690,123 | 67,519 | 84,270,896 |

## 11.-Value of Property Loss, by Reported Cause of Fire, 1951-53

(Exclusive of Newfoundland)


## Section 2.-Life Insurance

Life insurance in force in Canada, in companies registered by the Federal Government (exclusive of fraternal societies), was over $\$ 21,227,000,000$ at the end of 1953 , an increase of over $\$ 2,136,000,000$ during the year. There was not only an increase in new business, but also a greater stability in business written compared with earlier years. The effect of these factors is reflected in the ratio of gain in business in force expressed as a percentage of the amount in force at the beginning of the same year.

| Year |  | Net in Force <br> at Bepinning <br> of Year |
| :---: | :---: | :---: | :---: | :---: | :---: |

## Subsection 1.-Total Registered Life Insurance in Force in Canada

In addition to the business transacted by life insurance companies registered by the Federal Government, a considerable volume of business is also transacted by companies licensed by the provinces. Table 12 summarizes the volume of business transacted in Canada by Canadian, British and foreign life insurance companies and fraternal societies, whether registered by the Federal Government or licensed by the provinces.

## 12.-Life Insurance Transacted in Canada, 1953p

| Business Transacted by- | New Policies Effected (net) | Net Insurance in Force, Dee. 31 | Net Premiums Received | $\begin{aligned} & \text { Net } \\ & \text { Claims } \\ & \text { Paid } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | $\delta$ | \$ |
| Federal Government Registrations- <br> Life companies. | 2,554,802,966 | 21,226, 905,619 | 454,786,332 | 136,827,798 |
| Fraternal societies | 48,111,925 | 327, 128,745 | 6,281,822 | 4,110,374 |
| Totals, Federal Government Registrations.. | 2,682,914,891 | 21,554,034,364 | 461,068,154 | 140,938,172 |
| Provincial Registrations- <br> Provincial Companies within Province by which they are Incorporated- |  |  |  |  |
| Life companies........................... | 149,611, 881 | 689,247,371 | 15,111,667 | 3,282,966 |
| Provincial Companies in Provinces other than those by which they are Incor-porated- |  |  |  |  |
| Life companies. | $19,713,180$ $17,027,693$ | $85,482,913$ $102,121,365$ | $2,000,498$ 1 | 341,818 1 |
| Fraternal societ | 17,027,693 | 102,121,365 | 1,778,578 | 1,321,142 |
| Totals, Provincial Registrations | 224,099,447 | 1,093,568,633 | 23,653,050 | 8,146,839 |
| Grand Tot | 2,827,014,338 | 22,547,602,997 | 484,721,204 | 149,085,011 |
| Canadian Life Companies Federal | 1,751,620,418 | 14,526,740,295 | 303,034,117 | 90,833,339 |
| Provincial | 169,325,061 | 774,730,284 | 17,112,165 | 3,624,784 |
| Canadian Fraternal Societies Federal | 32,473,103 | 188,322, 239 | 2,876,154 | 2,444,493 |
| Provincia | 54,774,386 | 318,838,349 | 6,540,885 | 4,522,055 |
| British life companies | 98,437,715 | 519,137, 847 | 12,310,612 | 3,365,532 |
| Foreign life companies. | 701,744,833 | 6,181,027, 477 | 139,441,603 | 42,628,927 |
| Foreign fraternal societies | 15,638,822 | 138,806,506 | 3,405, 668 | 1,665,881 |



## Subsection 2.-Operational Statistics of Life Insurance Companies under Federal Registration

The net life insurance in force in all companies having federal registration was only $\$ 35,680,082$ in 1869 and in 1953 it was $\$ 21,226,905,619$.* The amount per capita of the estimated population of Canada has more than doubled since 1942evidence of the general recognition of the value of life insurance for the adequate protection of dependants against misfortune. British life insurance companies in Canada, the leaders in 1869, have fallen far behind Canadian and foreign companies.

Life insurance business was transacted in Canada, during 1953, by 62 active companies having federal registration, including 31 Canadian, six British and 25 foreign companies. In addition to these active companies, there were seven British and three foreign companies writing little or no new insurance, their business being confined largely to the policies already on their books, and two foreign companies which were registered in 1952 and 1953 but had written no business in Canada.

The operations analysed in the tables of this Subsection, with the exception of Table 17, include only those companies under federal registration and are exclusive of fraternal organizations and provincial licensees. However, as indicated in Table 12, operations of the companies included account for about 97 p.c. of the life insurance in force in Canada.

* This total does not include fraternal insurance.


## 13.-Life Insurance in Force and Effected in Canada by Companies under Federal Government Registration, Decennially 1880-1940 and 1941-53

Note.-Figures for 1869-1900 are given at p. 958 of the 1938 Year Book, and for 1901-39 at p. 855 of the 1942 edition. Statistics of fraternal society insurance, excluded here, are given at pp. 1239-1241.

| Year | Net Amount in Force |  |  |  | Insurance in Force per Capita ${ }^{1}$ | Net Amount of New Insurance Effected during Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Canadian Companies | British Companies | Foreign Companies | Total |  |  |
|  | \$ | 8 | \$ | 8 | \$ | \$ |
| 1880. | 37,838,518 | 19,789, 863 | 33,643,745 | 91, 272, 126 | 21.45 | 13,906, 887 |
| 1890. | 135,218,990 | 31,613,730 | 81,591, 847 | 248,424,567 | 51.98 | 39,802,956 |
| 1900. | 267,151,086 | 39,485,344 | 124,433,416 | 431,069,846 | 81-32 | 67,729,115 |
| 1910. | 565,667,110 | 47,816,775 | 242, 629,174 | 856,113,059 | 122.51 | 150,785,305 |
| 1920. | 1,664,348,605 | 76,883,090 | 915,793,798 | 2,657,025,493 | $310 \cdot 55$ | 630,110,900 |
| 1930. | 4,319,370,209 | 117,410,860 | 2,055,502,125 | 6,492, 283, 194 | $636 \cdot 00$ | 884,749,748 |
| 1940. | 4,609,213,977 | 145, 603, 299 | 2,220,505,184 | 6,975,322,460 | $612 \cdot 89$ | 590, 205,536 |
| 1941. | 4,835,925,659 | 145,597,309 | 2,367,027,774 | 7,348,550,742 | 638.62 | 688,344,283 |
| 1942. | 5,184,568,369 | 152,289,487 | 2,538,897,449 | 7,875,755,305 | $675 \cdot 80$ | 818,558,946 |
| 1943. | 5,586,515,285 | 162,287,617 | 2,785,290,816 | 8,534,093,718 | 723.53 | 887,522,851 |
| 1944. | 6,001,984,634 | 171,997,834 | 2,965,501,763 | $9,139,484,231$ | $765 \cdot 07$ | 900,501,491 |
| 1945. | 6,440,615,383 | 183,779,511 | 3,126,645,941 | 9,751,040,835 | $807 \cdot 74$ | 1,002,576,955 |
| 1946 | 7,201,285,815 | 205, 626, 216 | 3,405,480,833 | 10, 812, 392, 864 | 879.63 | 1,393,522,667 |
| 1947 | 7,964,185,291 | 238,614,767 | 3,697,458, 162 | 11,900,258, 220 | $948 \cdot 15$ | 1,453,255,487 |
| 1948 | 8,830,952,866 | 270,105,626 | 4,004,294,358 | 13, 105,352,850 | 1,022.02 | 1,504,248,947 |
| 1949. | 9,808,084,850 | 306,032,801 | 4,294,644, 199 | 14,408,761,850 | 1,071-52 | 1,636,356,612 |
| 1950. | 10,756,249,942 | 342,878,530 | 4,646,707,595 | 15,745, 836,067 | 1,148.33 | 1,798,864,211 |
| 1951. | 11,807,992,826 | 391,382,883 | 5,036,207,593 | 17,235,583,302 | 1,230.32 | 1,990,926,006 |
| 1952 | 13,085, 349,418 | 443,275,711 | 5,562,003,368 | 19,090,628,497 | 1,322.98 | 2,287, 264,465 |
| 1953 p | 14,526,740,295 | 519,137,847 | 6,181,027,477 | 21,226,905, 619 | 1,436.09 | 2,554, 802,966 |

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# 14.-Life Insurance Transacted in Canada by Companies under Federal Government Registration, 1951-53 

| Year and Nationality of Company | Policies Effected |  | Policies in Force |  | Net Premium Income | NetClaimsPaid $^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Net Amount | No. | Net Amount |  |  |
| 1951 |  |  |  |  |  |  |
| Canadian. | 330,677 | 1,379,400,850 | 4,081,221 | 11,807,992,826 | 263,007, 836 | 83,620,444 |
| British | 13,339 | 65,773,248 | 159,107 | 591,382,883 | 9,205,784 | 2,784,449 |
| Foreign. | 368,400 | 545,751,908 | 4,932,225 | 5,036,207,593 | 121,805, 759 | 42,084,191 |
| Totals, 1951. | 712,416 | 1,990,926,006 | 9,172,553 | 17,235,583,302 | 394,019,379 | 128,489,084 |
| 1952 |  |  |  |  |  |  |
| Canadian. | 339,309 | 1,540,321,407 | 4,213,176 | 13,085, 349,418 | 281,787,521 | 86,601,441 |
| British. | 15,729 | 74,055,180 | 165,664 | 543,275,711 | 10,296, 873 | 2,999,725 |
| Foreign. | 362,194 | 672,887,878 | 4,984,719 | 5,562,003,368 | 130,613,829 | 40,415,685 |
| Totals, 1952. | 717,232 | 2,287,264,465 | 9,363,559 | 19,690,028,497 | 422,698,223 | 130,016,851 |
| 1953D |  |  |  |  |  |  |
| Canadian. | 346,505 | 1,751,620,418 | 4,350,926 | 14,526,740,295 | 303,034, 117 | 90,833,339 |
| British. | 17,741 | 98,437,715 | 173,508 | 519,137,847 | 12,310,612 | 3,365,532 |
| Foreign. | 367,978 | 704,744,833 | 5,046,618 | 6,181,027,477 | 139,441,603 | 42,628,927 |
| Totals, 1953p. | 732,224 | 2,554,802,966 | 9,571,052 | 21,226,905,519 | 451,786,332 | 136,827,798 |

${ }^{1}$ Death claims, matured endowments, disability claims and guaranteed dividends.

## 15.-Progress of Life Insurance Transacted in Canada by Companies under Federal Government Registration, 1951-53

| Item | 1951 | 1952 | 1953p |
| :---: | :---: | :---: | :---: |
| Canadian Companies- |  |  |  |
| Policies effected............................... No. | 330,677 | 339,309 | 346,505 |
| Policies in force at end of each year............. " | 4,081,221 | 4,213,176 | 4,350,926 |
| Policies become claims | 35,594 | 34,216 | 34,189 |
| Net amounts of policies effected.................. \$ | 1,379,400,850 | 1,540,321,407 | 1,751,620,418 |
| Net amounts of policies in force. . . . . . . . . . . . . . | 11,807,992,826 | 13,085, 349,418 | 14,526,740,295 |
| Net amounts of policies become claims.......... \$ | 82,328,160 | 84,608,862 | 89,826,401 |
| Net amounts of premiums..................... \$ | 263,007,836 | 281,787,521 | 303,034,117 |
|  | 83,620,444 | 86,601,441 | $90,833,339$ |
| Net outstanding claims......................... \$ | 20,640,198 | 21,004,718 | 21,975,144 |
| British Companies- |  |  |  |
| Policies effected............................... No. | 13,339 | 15,729 | 17,741 |
| Policies in force st end of | 159,107 | 165,664 | 173,508 |
| Policies become claims. | 2,178 | 2,474 | 2,497 |
| Net amounts of policies effected | 65,773,248 | 74,055,180 | 98,437,715 |
| Net amounts of policies in force. . . . . . . . . . . . . . | 391,382,883 | 443,275,711 | 519,137,847 |
| Net amounts of policies become claims......... \$ | 2,614,524 | 3,075,399 | $3,660,027$ |
| Net amounts of premiums...................... | 9,205,784 | 10,296,873 | 12,310,612 |
| Net claims paid ${ }^{\text {d }}$. | 2,784,449 | 2,999,725 | 3,365,532 |
|  |  |  |  |
| Forelgn Companies- |  |  |  |
| Policies effected. . . . . . . . . . . . . . . . . . . . . . . . No. | 368,400 | 362,194 | 367,978 |
| Policies in force at end of ea | 4,932,225 | 4,984,719 | 5,046,618 |
| Policies become claims. | 77,492 | 59,666 | 59,066 |
| Net amounts of policies effected............... \$ | 545,751,908 | 672,887,878 | 704,744,833 |
| Net amounts of policies in force. . ${ }^{\text {Net amounts }}$ of......... ${ }^{\text {d }}$ | 5,036, 207, 593 | 5,562,003,368 | 6,181,027,477 |
| Net amounts of policies become claims......... ${ }_{\text {N }}$ | $39,473,379$ $121,805,759$ | $37,657,765$ $130,613,829$ | $40,657,096$ $139,441,603$ |
|  | 42,084,191 | $130,613,829$ $40,415,685$ | $139,441,603$ $42,628,927$ |
| Net outatanding claims | 5,047,870 | 4,863,990 | 5,419,341 |

For footnote, see end of table.

## 15.-Progress of Life Insurance Transacted in Canada by Companies under Federal Government Registration, 1951-53-concluded

| Item | 1951 | 1952 | 1953D |
| :---: | :---: | :---: | :---: |
| All Companies- |  |  |  |
| Policies effected.............................. No. | 712,416 | 717,232 | 732,224 |
| Policies in force at end of each year............ " | 9,172,553 | 9,363,559 | 9,571,052 |
| Policies become claims. | 115,264 | 96,356 | 95.752 |
| Net amounts of policies effected................ \$ | 1,990,926,006 | 2,287, 264,465 | 2,554,802,966 |
| Net amounts of policies in force................ $\delta$ | 17,235,583,302 | 19,090,628,497 | 21, 226,905,619 |
| Net amounts of policies become claims......... \$ | 124,416,063 | 125,342,026 | 134, 143,524 |
| Net amounts of premiums..................... $\$_{8}$ | 394, 019,379 | $422,698,223$ | 454,786,332 |
|  | 128,489,084 | 130,016,851 | 136,827,798 |
| Net outstanding claims....................... | 26,583,875 | 26,803,468 | 28,405,584 |

${ }^{1}$ Death claims, matured endowments, disability claims and guaranteed dividends.
16.-Ordinary, Industrial and Group Life Insurance Policies in Force and Effected in Canada by Companies under Federal Government Registration, 1953p

| Type of Policy and Nationality of Company | New Policies Effected |  |  | Policies in Force |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Net Amount | Average <br> Amount of a Policy | No. | Net Amount | Average <br> Amount of a Policy |
|  |  | \$ | \$ |  | \$ | \$ |
| Ordinary Policies |  |  |  |  |  |  |
| Canadian. | 295,915 | 1,372,634,042 | 4,632 | 3,679,485 | 10,944, 628, 112 | 2,974 |
| British. | 17,727 | 90,776,125 | 5,121 | 127,415 | 488,519,785 | 3,834 |
| Foreign. | 156,797 | 457,815,606 | 2,920 | 1,767,578 | 3,401,957,797 | 1,925 |
| Totals, Ordinary Policies. | 470,439 | 1,921,225,773 | 4,084 | 5,574,478 | 14,835,105,694 | 2,661 |
| Industrial Policies |  |  |  |  |  |  |
| Canadian. | 49,376 | 53,925,532 | 1,092 | 663,727 | 549,461,980 | 828 |
| British........................... | - |  |  | 46,026 | 6,864,346 | 149 |
| Foreign........................... | 210,017 | 97,658,805 | 465 | 3,274,021 | 1,111,051,796 | 339 |
| Totals, Industrial Policies... | 259,393 | 151,584,337 | 5,844 | 3,983,774 | 1,667,378,122 | 419 |
| Group Policies |  |  |  |  |  |  |
| Canadian....................... | 1,214 | 325, 060, 814 | 267,760 | 7,714 | 3,032, 650,203 | 393,136 |
| British.......................... |  | 7,661,590 | 517,256 |  | 23,753,716 | 354,533 |
| Foreign........................... | 1,164 | 149,270,422 | 128,239 | 5,019 | 1,668,017,884 | 332,341 |
| Totals, Group Policies | 2,392 | 481,992,856 | 201,502 | 12,800 | 4,724, 421,803 | 369,095 |

17.-Insurance Death Rates in Canada, 1951 and 1952

| Type of Insurer | 1951 |  |  | 1952 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Policies Exposed to Risk | Policies Terminated by Death | $\begin{gathered} \text { Death } \\ \text { Rate } \\ \text { per } 1,000 \end{gathered}$ | Policies Exposed to Risk | Policies Terminated by Death | $\begin{aligned} & \text { Death } \\ & \text { Rate } \\ & \text { per } 1,000 \end{aligned}$ |
|  | No. | No. |  | No. | No. |  |
| All companies, ordinary |  | 26,704 | $5 \cdot 3$ | 5,268,296 | 27.741 | 5-3 |
| All companies, industrial. | 4,040,181 | 29,952 | $7 \cdot 4$ | 4,018,506 | 31,089 | 7.7 |
| Fraternal benefit societies. | 318,539 | 3,772 | 11.8 | 330,735 | 3,805 | 11.5 |
| Totals. | 9,435,493 | 60,428 | 6.4 | 9,617,537 | 62,635 | $6 \cdot 5$ |

## Subsection 3.-Finances of Life Insurance Companies under Federal Registration

The financial statistics of Tables 18, 19 and 20 cover only life insurance companies under federal registration and do not include fraternal organizations and provincial licensees. The figures for British and foreign companies apply to their assets, liabilities and operations in Canada only, but assets and liabilities, income and expenditure of Canadian companies arise, in part, from business abroad.
18.-Total Assets of Canadian Life Insurance Companies under Federal Government Registration and Assets in Canada of British and Forelgn Life Insurance Companies, 1951-53.

| Assets | 1951 | 1952 | 1953p |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
| Canadian Companies ${ }^{1}$ |  |  |  |
| Real estate. | 78,887,302 | 97,665,484 | 109,679,835 |
| Real estate held under agreements of sale. | 6,657,216 | 5,510,182 | 4,686,259 |
| Loans on real estate.. | 995,049,083 | 1,131,090,247 | 1,311,912,475 |
| Loans on collaterals. | 1,187,430 | 781,977 | 6,076 |
| Policy loans. | 231,364,171 | 251,369,119 | 269,922,728 |
| Bonds, debentures and stocks | 3,376,145,802 | 3,513,589,434 | 3,653,785,976 |
| Cash. | 68,727,248 | 64,527, 802 | 60,608,269 |
| Interest and rent due and accrued | 41, 164,995 | 44,911,936 | 49,750,353 |
| Outstanding and deferred premiums | 84, 836,661 | 92.577,687 | 101,082,828 |
| Other assets........... | 4,630,090 | 4,938,537 | 6,826,051 |
| Totals, Canadian Companies ${ }^{2}$. | 4,888,649,988 | 5,206,962,405 | 5,568,260,850 |
| British Companies |  |  |  |
| Real estate. | 2,364,590 | 2,641,780 | 3,020,861 |
| Real estate held under agreements of sale |  |  | 324,014 |
| Loans on real estate. | 14.757,989 | 21,971,458 | 31,767,862 |
| Loans on collaterals. |  |  |  |
| Policy loans. | 3,194,625 | 3,632,317 | 3,942,796 |
| Bonds, debentures and stocks | 131,039,519 | 137,364,572 | 151,936,762 |
| Cash. | 1,918,508 | 2,538,989 | 2,735,285 |
| Interest and rent due and accrued. | 587,291 | 648,691 |  |
| Outstanding and deferred premiums Other assets....................... | $1,110,502$ 35,595 | $1,043,095$ 2,469 | $1,900,276$ 21,266 |
| Totals, British Companies. | 155,008,519 | 169,843,371 | 196,401,876 |
| Foreign Companies |  |  |  |
| Real estate. | 1,430,226 | 1,409,635 | 1,412,754 |
| Real estate held under agreements of sale. | 1,430,226 | 1,400,635 | 1,412,754 |
| Loans on real estate.................... | 92,858,051 | 122,090,945 | 147,567,354 |
| Loans on collsterals. |  |  |  |
| Policy loans............... | 49,083,364 | 51,486,848 | 53,694, 019 |
| Bonds, debentures and stocks | 821,687,427 | 841,154,851 | 884,412,174 |
| Cash. | 20,053,139 | 22,237,839 | 20,334,071 |
| Interest and rent due and accrued. | 10,089,425 | $11,008,518$ | 11,816,018 |
| Outstanding and deferred premium | 19,887,488 | 20,529,924 | 22,257,089 |
| Other assets. | 71,473 | 60.391 | 69,473 |
| Totals, Foreign Companies. | 1,015,160,593 | 1,069,978,951 | 1,141,562,952 |

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## 19.-Total Liabilities of Canadian Life Insurance Companies under Federal Government Registration and Liabilities in Canada of British and Foreign Life Insurance Companies, 1951-53.

| Liabilities | 1951 | 1952 | 1953p |
| :---: | :---: | :---: | :---: |
| Canadian Companies | \$ | 8 | 8 |
| Outstanding claims | 39,069,264 | 37,535,217 | 38,666,462 |
| Reserve under contracts in forco | 3,902,777,768 | 4,163,950,805 | 4,454,878,295 |
| Sundry liabilities. | 712,846,092 | 754,375,955 | 803,263,183 |
| Totals, Canadian Companies ${ }^{1}$. | 4,654,693,124 | 4,955,861,977 | 5,296,807,940 |
| Surpluses of assets excluding capital. Capital stock paid up............ | $\begin{array}{r} 233,956,874 \\ 13,522,230 \end{array}$ | $\begin{array}{r} 251,100,428 \\ 13,624,050 \end{array}$ | $\begin{array}{r} 271,452,910 \\ 13,733,760 \end{array}$ |
| British Companies |  |  |  |
| Outstanding claims. | 895,807 | 934,761 | 1,011,099 |
| Reserve under contracts in force | 127,804,218 | 144,634,097 | 166,483,393 |
| Sundry liabilities. | 1,853,835 | 2,117,872 | 2,186,452 |
| Totals, British Companies | 130,553,860 | 147,686,730 | 169,680,944 |
| Surpluses of assets in Canada | 24,454,759 | 22,156,641 | 26,720,932 |
| Foreign Companies |  |  |  |
| Outstanding claims. | 5,047,872 | 4,863,990 | 5,419,341 |
| Reserve under contracts in force | 859,855, 285 | 909,626,409 | 961,416,146 |
| Sundry liabilities. | 61,228,373 | 66,883,219 | 71,417,304 |
| Totals, Foreign Companies | 926,131,530 | 981,373,618 | 1,038,252,791 |
| Surpluses of assets in Canada | 89,029,063 | 88,605,333 | 103,310,161 |

${ }^{1}$ Excludes capital.
20.-Total Cash Income and Expenditure of Canadian Life Insurance Companies under Federal Government Registration and Cash Income and Expenditure in Canada of British and Foreign Life Insurance Companies, 1951-53.

20.-Total Cash Income and Expenditure of Canadian Life Insurance Companies under Federal Government Registration and Cash Income and Expenditure in Canada of British and Foreign Life Insurance Companies, 1951-53-concluded.

| Principal Items | 1951 | 1952 | 1953p |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
| EXPENDITURE |  |  |  |
| - Canadian Companies |  |  |  |
| Payments to policyholders. | 309,637,914 | 314,702,028 | 335,996, 032 |
| General expenses | 152,528,929 | 145, 007,467 | 157,151,601 |
| Dividends to shareholders | 3,098,473 | 2,333,499 | 2,448,852 |
| Other disbursements. | 84,500,358 | 83,824,109 | 85,901,209 |
| Totals, Canadian Companies. | 549,765,674 | 545,867,103 | 581,497,694 |
| Excess of income over expenditure | 289,685,814 | 319,994,986 | 351,263,211 |
| British Companies |  |  |  |
| Payments to policyholders. | 7,196,181 | 7,620,687 | 9,574,348 |
| General expenses. | 4,103,989 | 4,775, 836 | 5,539,121 |
| Other disbursements | 313,746 | 452,406 | 361,004 |
| Totals, British Companies | 11,613,916 | 12,848,929 | 15,474,473 |
| Excess of income over expenditure | 15,661,710 | 18,585,913 | 21,171,492 |
| Foreign Companies |  |  |  |
| Payments to policyholders. | 77,740,819 | 76,703,368 | 81,874,664 |
| General expenses. | 32,555,983 | 34,785,773 | 36,606,261 |
| Other disbursements. | 7,140,568 | 7,284,656 | 8,065,009 |
| Totals, Foreign Companies. | 117,437,370 | 118,773,797 | 126,545,934 |
| Excess of income over expenditure. | 52,248,114 | 62,782,137 | $66,640,358$ |

Subsection 4.-Life Insurance Effected through Fraternal Benefit Societies
In addition to life insurance, some fraternal benefit societies grant other insurance benefits to members, notably sickness benefits, but these are relatively unimportant. Table 21 gives statistics of life insurance effected through fraternal benefit societies by Canadian members, together with statistics of assets, liabilities, income and expenditure relating to all business of Canadian societies and to the business in Canada of foreign societies. The rates charged by these societies are computed to be sufficient to provide the benefits granted, having regard for actuarial principles. The benefit funds of each society must be valued annually by a qualified actuary (Fellow, by examination, of the Institute of Actuaries of Great Britain, of the Faculty of Actuaries in Scotland, or of the Society of Actuaries) and a readjustment of rates or benefits must be made, unless the actuary certifies to the solvency of each fund. The statistics of the first section of Table 21 relate to the 16 Canadian societies reporting to the Department of Insurance of the Federal Government, of which only one does not grant life insurance benefits.

Under an amendment to the Insurance Act, effective Jan. 1, 1920, all foreign fraternal benefit societies were required to obtain authority from the Federal Government prior to transacting business in Canada. However, any such societies which at that date were transacting business under provincial licences, though forbidden to accept new members, were permitted to continue all necessary transactions in respect of insurance already in force. Most of these societies and some
foreign societies that had not previously been licensed by the provinces have since obtained federal authority to transact business. Of both classes of societies, 32 transacted business in Canada during 1953; two of the societies do not grant life insurance benefits.

## 21.-Life Insurance in Canada of Fraternal Benefit Societies reporting to the Federal Department of Insurance, 1951-53

| Item | 1951 | 1952 | 1953 ${ }^{\text {P }}$ |
| :---: | :---: | :---: | :---: |
|  | No. | No. | No. |
| CANADIAN SOCIETIES |  |  |  |
| Net certificates effected. <br> Net certificates become claims. | 22.414 | 24,241 | 24,079 |
|  | 2,919 | 2,884 | 2,973 |
|  | $\delta$ | \$ | \$ |
| Net premium income. | $2,217,423$ $26,781,072$ | $2,553,716$ $30,484,585$ | $2,876,154$ $32,473,103$ |
| Net amounts of certificates effected. | 26,781,072 | 30,484, 585 | 32,473,103 |
| Net amounts in force.............. | 161,384,596 | 175,416,375 | 188,322,239 |
| Net amounts of certificates become claims | 2,427,850 | 2,412,465 | 2,475, 261 |
| Net benefits paid...... | $2,927,899$ 290,245 | $2,972,682$ 333,057 | $3,126,373$ 292,223 |
| Gross Amounts Terminated by- |  |  |  |
| Death......................... | 1,898,901 | 1,962,283 | 1,986,609 |
| Surrender, expiry, lapse, etc. | 17,906,855 | 19,629,193 | 22,809,977 |
| Totals, Terminated | 19,805,756 | 21,591,476 | 24,796,586 |
| Assets ${ }^{1}$ |  |  |  |
| Real estate........... | 2,049,648 | 2,862,557 | 3,717,680 |
| Real estate held under agreements of sale | 842,537 | 1,316,075 | r 757,249 |
| Poans loans........ | 3,850,314 | 3,876,709 | 3,924,045 |
| Bonds, debentures and stocks | 76,839,620 | 78,340,965 | 80,920,394 |
| Cash. | 1,254,727 | 1,882,348 | 1,894,937 |
| Interest and rent due and accrued | 701,043 | 703,561 | 733,801 |
| Dues from members. | 662,982 217,788 | 724,897 229,856 | 567,299 243,589 |
|  |  |  |  |
| Totals, Assets | 96,805,720 | $99,611,144$ | 102,928,867 |
| Liabilities ${ }^{1}$ |  |  |  |
| Outstanding elaims.......... | 78, 377, 295 | 417,080 80 | $\begin{array}{r} 359,541 \\ 80 \\ 608 \\ \hline 753 \end{array}$ |
| Reserve under contracts in force Other liabilities. | $78,0384,742$ $10,484,943$ | 11,094,787 |  |
| Totals, Liabilities. | 88,500,980 | 91,577,889 | 94,298,355 |
| Income ${ }^{1}$ |  |  |  |
| Premiums (for benefits)... | 4,444,648 | 5,202,228 | 5, 855,419 |
| Fees and dues (for expenses) | 4,121,563 | 4,507,420 | 4,926,460 |
| Interest and rents.... | $3,426,374$ 599,208 | $3,481,179$ 729,274 | $3,705,424$ 511,001 |
| Totals, Income | 12,591,793 | 13,920,101 | 14,998,304 |
| Expenditure ${ }^{1}$ |  |  |  |
| Paid to members.. | 5,975,390 | 5,992,478 | 6,132,886 |
| General expenses... Other disbursemen | $4,209,878$ 116,566 | $4,581,294$ 129,252 | $5,006,141$ 212,568 |
| Totals, Expenditure | 10,301,834 | 10,703,024 | 11,351,595 |
| Excess of income over expenditure. | 2,289,959 | 3,217,077 | 3,646,709 |

[^415]
## 21-LIfe Insurance in Canada of Fraternal Benefit Societies reporting to the Federal Department of Insurance, 1951-53-concluded

| Item | 1951 | 1952 | 1953P |
| :---: | :---: | :---: | :---: |
|  | No. | No. | No. |
| FOREIGN SOCIETIES |  |  |  |
| Net certificates effected. | 9,394 | 8,959 | 9,847 |
| Net certificates become claims.......................... | 1,346 | 1,791 | 1,438 |
|  | \$ | 8 | \$ |
| Net premium income............................... | 3,223,052 | $3,286,649$ $13,019,897$ | 3,405,668 |
| Net amounts of certificates effected..................... | 12,876, 327 | 13,019,897 | 15, 638,822 |
| Net amounts in force. | 128,048,146 | 131,212,535 | 138,806,506 |
| Net amounts of certificates become claims | 1,481,335 | 2,137,651 | 1,597,318 |
| Net benefits paid...... | 2,078,487 | 2,939,245 | 2,359,040 |
| Net outstanding claims................................. | 307,599 | 281,471 | 350,032 |
| Groes Amounts Terminated by- |  |  |  |
| Death...................... | 1,272,246 | 1,269,362 | 1,243,535 |
| Surrender, expiry, lapee, etc........................... | 9,842,881 | 11,219,221 | 10,709,556 |
| Totals, Terminated. | 11,115,127 | 12,488,583 | 11,953,091 |
| Assets |  |  |  |
| Real estate........ | - 14 | $\bar{\square}$ | - |
| Loans on real estate | 244,676 | 334, 183 | 306,625 |
| Policy loans. | 1,712,467 | 1,832,897 | 1,967,868 |
| Bonds, debentures and stocks | 27,687,896 | 29,155,658 | 32,092,867 |
| Cash. | 1,315,554 | 1,179,572 | 1,156,985 |
| Interest and rent due and accrued | 247,227 | 283,545 | 316,600 |
| Dues from members. . | 216,730 | 211,983 | 220,694 |
| Other assets. | 16,273 | 13,730 | - |
| Totals, Assets | 31,440,823 | 33,011,568 | 36,061,639 |
| Liabilities |  |  |  |
| Outstanding claims. <br> Reserve under contracts in force. | 449,059 $26,618,537$ | 468,218 $27,620,769$ | 540,898 $29,021,876$ |
| Other liabilities............... | 1,944,487 | 2,128,858 | 2,323,338 |
| Totals, Labilities | 29,012,083 | 30,217,845 | 31,886,112 |
| Income |  |  |  |
| Premiums (for benefits).. | 4,335,985 | 4,558,659 | 4,801,077 |
| Fees and dues (for expenses) | 1,147,873 | 1,205,120 | 1,325,707 |
| Interest and rents. | 948,359 | 1,024,321 | 1,118,639 |
| Other receipts. | 424,067 | 582,872 | 555,756 |
| Totals, Income. | 6,856,284 | 7,370,972 | 7,801,179 |
| Expendilure |  |  |  |
| Paid to members. | 2,748,024 |  |  |
| General expenses. | 703,486 | 784,917 | -837,746 |
| Other expenditure | 333,078 | 463,958 | 480,281 |
| Totals, Expenditure. | 3,784,588 | 4,932,021 | 4,467,770 |
| Excess of income over expenditure. | 3,071,696 | 2,438, 951 | 3,333,409 |

## Subsection 5.-Life Insurance in Force Outside Canada by Registered Canadian Companies

Tables 22 and 23 give summary statistics of insurance in force as at Dec. 31, 1952, in currencies other than Canadian, classified by companies and by the currencies in which business was written. The data given here are in Canadian dollars, mainly at par rates of exchange for the countries concerned, but there are several exceptions where, for purposes of account, certain companies have converted foreign currencies at rates other than par, particularly where the current rate differs substantially from the par rate. Approximately 65 p.c. of all such business in force was written in United States currency and 19 p.c. in sterling. From another standpoint, approximately 28 p.c. was written in currencies of Commonwealth countries outside Canada, and 72 p.c. in currencies of foreign countries.

Canadian life insurance companies, operating under Federal Government registration, at Dec. 31, 1952 had life insurance in force amounting to $\$ 6,012,282,592$ in countries outside Canada. Insurance in force in currencies other than Canadian amounted to $\$ 5,953,568,118$ and the difference between these figures is, presumably, the net amount of non-Canadian business transacted in Canadian currency. As against the total non-Canadian business, including annuity business, the Commonwealth and foreign investments of Canadian life insurance companies as at Dec. 31, 1952, amounted to $\$ 1,856,498,711$. As the business in force in Canada of these companies at Dec. 31,1952 , amounted to $\$ 13,085,349,418$, the total business on their books, Canadian and non-Canadian, amounted to $\$ 19,097,632,010$. Thus, over 31 p.c. of the total business in force was outside Canada.
22.-Life Insurance Effected and in Force and Liabilities of Canadian Companies (excluding Fraternal Societies) operating under Federal Government Registration, in Currencies other than Canadian, by Company, 1952.

| Company | Insurance Effected |  |  | Insurance in Force |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Commonwealth Currencies | Foreign Currencies | Total | Commonwealth Currencies | Foreign Currencies | Total |
|  | \$ | \$ | \$ | 8 | \$ | \$ |
| Alliance |  |  |  |  | 3,622,015 | 3,622,015 |
| Canada..... | 17,145,910 | 34,757,408 | 51,903,318 | 144,775,007 | 311,712,728 | 456,487,735 |
| Commercial.... |  | 35,628, 256 | 52,009,015 | 140, 231,753 | $\begin{array}{r}\text { 3 } \\ 200,204,000 \\ \hline\end{array}$ | 35,000 $340,435,759$ |
| Confederation.. | 16,380,759 | 35,628,256 | 52,009,015 | 140,291,892 | 200,201,414 | ${ }^{340,4351,759}$ |
| Crown.: | 10,374, 382 | 53,594,738 | 63,969,120 | 71,042,318 | 271,921.453 | 342,963,771 |
| Dominion | 1,090,239 | 15,058,777 | 16,149,016 | 10,339,325 | 87,890,949 | 98,230,274 |
| Dom. of Canada General | 508,370 | - | 508.370 | 3,155,962 | 10,500 | 3,166,462 |
| T. Eaton.. |  |  | - | 12,500 | 3,333 | 15, 833 |
| Equitable | - | 98,898, 274 | 98,898,274 | 91,231 | ${ }_{602,567,461}^{152,487}$ | 602,658,692 |
| Imperial... | 12,787,167 | ${ }_{4,250,371}$ | 17,037,538 | 71,267,963 | 46,932,458 | 118, 200,421 |
| London. | 12,78, 18 | 386,103 | 386,103 | - | 6.596,286 | 6.596, 286 |
| Manufacturers. | 45,530,824 | 69,338,397 | 114,869,221 | 288,059,257 | 474,331,918 | $762,391.175$ |
| Maritime. | 169,750 | 6,500 | 176,250 | 2,160,280 | ${ }^{40,598}$ | 2,200, 785 |
| Montreal. |  | 1,724,952 | 1,724,952 | ${ }_{991,347}^{2391.164}$ | 16,733,834 | 17,725,181 |
| National. | 1,197,527 | 291,114 | 1,488,641 | 6,724,498 | 2,301,488 | 9,028, ¢86 |
| North American | 2,629,596 | 16.178, 259 | $18,807.855$ $1,740,460$ | $10,168,507$ 58,850 | $70,440,813$ 16546.702 |  |
| Northern |  | , 740,460 | 1,740,460 | 58,850 | $\begin{array}{r} 16,546.702 \\ 5.000 \\ 0 \end{array}$ | $\begin{aligned} & 16,605, \text {, } 52 \\ & 5,000 \end{aligned}$ |
| Sun....... | 102,275, 151 | 211,053,746 | 313,328,897 | 944,401,089 | 2,147,023,070 | 3,091,424, 159 |
| Western.. |  |  |  |  | 63,936 | , 936 |
| Totals | 210,089,675 | 542,921,355 | 753,011,030 | 1,693,748,943 | 4,259,819,175 | 5,953,568,118 |

22.- Ife Insurance Effected and in Force and Liabilities of Canadian Companies (excluding Fraternal Societies) operating under Federal Government Registration, in Currencies other than Canadian, by Company, 1952-concluded.

| Compeny | Liabilities |  |  |
| :---: | :---: | :---: | :---: |
|  | Commonwealth Currencies | Foreign Currencies | Total |
|  | \$ | \$ | \$ |
| Alliance Nationale. | - | 1,062,685 | 1,062,685 |
| Canada. | 55,571,404 | 106, 948,809 | 162,520,213 |
| Commercial. |  | 18,482 | 18,482 |
| Confederation. | 48,069,771 | 43,547,230 | 91,617,001 |
| Continental. | 17,436 $20,366,907$ | 43,735 $44,023,277$ | 64, ${ }_{690} \mathbf{6 1 8 1} 181$ |
| Dominion. | 2,287,313 | 21,447,542 | 23,734,855 |
| Dominion of Canada General | 881,683 | 1,538 | 883,221 |
| T, Eaton. | 7,771 | 1,147 | 8,918 |
| Equitable. | - | 44,315 | 44,315 |
| Great-West | 91,237 | 152,564,139 | 152,655,376 |
| Imperial. . | 15,906,084 | 14,457,668 | 30, 363,752 |
| London........ | - ${ }^{-6} 5$ | 497,862 | 497,862 |
| Maritime..... | $90,659,265$ 743,170 | $157,030,325$ 13,651 | 247,689,590 |
| Monarch. . | - | 450,772 | 450,772 |
| Montreal. | 484 | 135,512 | 135,996 |
| Mutual. | 516,465 | 4,634,004 | 5,150,469 |
| National. | 1,246,903 | 438,429 | 1,685,332 |
| North American. | 2,360,682 | 16,219,282 | 18,579,964 |
| Northern... | 20,962 | 2,226, 204 | 2,247,166 |
| Sauvegarde. | - |  | - 895 |
| Sun. | 368,804,642 | 720,790,668 | 1,089,595,310 |
| Western. |  | 23,108 | 23,108 |
| Totals | 607,552,179 | 1,286,621,199 | 1,891,173,378 |

23.-Life Insurance Effected and in Force and Liabilities of Canadian Companies (excluding Fraternal Societies) operating under Federal Government Registration, in Currencies other than Canadian, 1952.


For footnote, see end of table.
23.-Life Insurance Effected and in Force and Liabilities of Canadian Companies (excluding Fraternal Societies) operating under Federal Government Registration, in Currencies other than Canadian, 1952-concluded.

| Currency | Insurance Effected | Insurance in Force | Liabilities |
| :---: | :---: | :---: | :---: |
| Foreign Currencies | \$ | \$ | \$ |
| Bahts (Thailand). | - | 204,796 | 147,848 |
| Bolivares (Venezuela) | 6,928,805 | 36,430,036 | 3,929,199 |
| Cordobas (Nicaragua) |  | 14,684 | 9,852 |
| Dollars (United States of America) | 492,783, 621 | 3,893,750,979 | 1,204,650,694 |
| Francs (France) ................... |  | -19,929 | 1,201,60,575 |
| Francs (Switzerland) | - 008 | 7,280 | 14,503 |
| Guilders (Netherlands Antilles) | 999,825 | 12,675,791 | 4,381,399 |
| Kyats (Burma). | , | 1,164,358 | 1,014,472 |
| Pesos (Argentina) | 743,130 | 16,265,062 | 5,563,920 |
| Pesos (Chile).... |  | 171,818 | 113,866 |
| Pesos (Colombia) | 5,813,874 | 17,530,710 | 2,202,785 |
| Pesos (Cuba). | 21,282,480 | 164,391,089 | 38,473,592 |
| Pesos (Dominican Republic) | 61,500 | 68,500 | 40,899 |
| Pesos (Mexico).. | 1,996,561 | 9,322,773 | 1,770,650 |
| Pesos (Philippines) | 7,506,928 | 53, 175,234 | 9,468,305 |
| Pounds (Egypt) | 691,356 | $33,885,127$ | $9,798,095$ |
| Pounds (Israel). | 4,092,975 | 13,911,884 | 1,942,755 |
| Quetzales (Guatemala) |  |  | - 38,259 |
| Rupiahs (Indonesia). | 20,300 | $6,564,583$ 241,128 | 2,858,829 |
| Yen (Japan). | - | 24,128 23,414 | 151,381 32,321 |
| Totals, Foreign Currencles. | 542,921,355 | 4,259,819,175 | 1,286,621,199 |
| Grand Totals........................ | 753,011,030 | 5,953,568,118 | 1,894,173,378 |

${ }^{1}$ Includes British Guiana which Crown Life and North American Life Insurance Companies did not separate from British West Indies.

## Subsection 6.-- Total Registered Life Insurance in Canada and Business of Canadian Organizations Abroad

Table 24 summarizes the business outside Canada of Canadian life companies and fraternal benefit societies. If to these figures is added the business in Canada of these organizations, as shown in Table 12, p. 1233, total business, internal and external, of all Canadian life insurance companies and fraternal societies may be obtained. Again, adding the business in Canada of British and foreign companies and fraternal societies, a grand total is obtained of all life insurance in Canada and of the life insurance business abroad of Canadian organizations; this total is shown in Table 25.

## 24.-Business of Registered Canadian Life Companies and Fraternal Societies Abroad, $1953^{\text {p }}$

Nore.-Figures for business in Canada will be found in Table 12, p. 1233.

| Item | New Policies Effected (net) | Net Insurance in Force Dec. 31 | $\begin{aligned} & \text { Net } \\ & \text { Premiums } \\ & \text { Received } \end{aligned}$ | $\begin{aligned} & \text { Net } \\ & \text { Claims } \\ & \text { Paid } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | 8 | \$ | \$ |
| Canadian Life Companies Federal Provincial. | $\underset{1}{841,904,741}$ | 6,554,085,400 | $\underset{1}{212,743,397}$ | 75,287,439 |
| Canadian Fraternal Societies Federal Provincial | 17,470,848 | $\underset{1}{126,712,795}$ | 1,729,413 | $\underset{1}{1,897,130}$ |
| Totals. | 859,375,589 | 6,680,798,195 | 214,472,810 | 77,184,569 |

[^416]
## 25.-Total Registered Life Insurance Business in Canada and of Canadian Organizations Abroad, 1953



## Section 3.-Casualty Insurance

Casualty insurance in Canada includes various forms of accident and 25 other classes of insurance transacted by companies having Federal Government registration. In 1953, such insurance was issued by 308 companies, of which 76 were Canadian, 82 British and 150 foreign; of these, 216 companies also transacted fire insurance. In addition, 19 fraternal orders or societies conducted accident and sickness insurance as well as life insurance business and three fraternal orders or societies carried on accident or sickness insurance only.

Table 27 shows the division of business in this field between Federal Government registrations and provincial licensees and indicates that, as for fire and life insurance, the bulk of the business (about 90 p.c. in this case) is transacted by companies having Federal Government registration.

Because, as indicated above, most of the companies carrying on casualty insurance in Canada also transact fire insurance, their assets, liabilities, income and expenditure are included in the financial statistics of fire insurance companies given in Section 1, Subsection 3, of this Chapter. Table 28, p. 1248, gives corresponding figures for total casualty business of Canadian companies, and the casualty business in Canada of British and foreign companies, whose transactions are confined to insurance other than fire and life. In 1953, there were 18 Canadian, 7 British and 67 foreign companies whose operations were limited to the same field.

During the war years, automobile insurance showed a favourable experience at a loss ratio of about 45 p.c. This ratio was slightly lower than for the pre-war years, as a result of lessened traffic but, since the end of the War, the trend has been less favourable; in 1953 the ratio stood at about 52 p.c. Hail insurance in 1952 showed a loss ratio of 54 p.c. but in 1953 this had increased to 95 p.c.

Marine insurance, for which a certificate of registration is not required, showed a very large increase in Canada during the war years and substantial profits resulted. The results for 1941 to 1953 were as follows:-

| Year | Premiums | Claims <br> Incurred | Underwriting Profits |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | $\$$ |
| 1941. | 6,011,922 | 2,781,190 | 1,694,470 |
| 1942. | 14,295,543 | 7,983,963 | 3,855,415 |
| 1943. | 10,061,059 | 4,931,286 | 3,449,873 |
| 1944. | 6,754,361 | 2,172,418 | 3,243,889 |
| 1945. | 5,978, 274 | 2,995,704 | 1,704,367 |
| 1946. | 5,655,392 | 2,232,701 | 2,084,412 |
| 1947. | 7,932,404 | $4,529,161$ | 1,031,313 |
| 1948. | 7,986,658 | 3,468,045 | 2,466,397 |
| 1949. | 7,715,671 | 4,327,555 | 1,342,088 |
| 1950. | 7,592,558 | 3,098,086 | 2,394,336 |
| 1951. | 8,908,639 | 4,670,972 | 1,716,201 |
| 1952. | 9,201,477 | 5,627,211 | 1,130,828 |
| 1953.. | 9,429,278 | 5,413,073 | 1,196,680 |

## 26.-Casualty Insurance Transacted in Canada by Companies under Federal Government Registration, 1953

| Class of Business | Number of Companies |  |  | Years Transacted | Aggregate Experience during Period Transacted |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Canadian | British | Foreign |  | Premiums Written | Claims <br> Incurred |
|  |  |  |  | No. | \$ | 8 |
| Accident. | - | - | - | 50 | 92,299,497 | 43,476,664 |
| Accident- |  |  |  |  |  |  |
| (a) Personal, | 44 | 44 | 34 | 29 | 119,223,349 | 45,734,417 |
| (b) Public Liability ('Other' until 1941) | 47 | 47 | 41 | 29 | 109,206,456 | 42,468,696 |
| (c) Employers' Liability (Employers' Liability and Workmen's Compensation until 1941)... | 40 | 39 | 32 | 29 | 60,578,417 | 31,227,888 |
| Combined accident and sickness.................... | 22 | 11 | 30 | 40 | 387,988.693 | 263,902.339 |
| Aircraft (Aviation until 1941). | 3 | 8 | 19 | 26 | 11,258.313 | 6,425,904 |
| Automobile.. | 51 | 64 | 84 | 44 | 1,087,598,594 | 581,402,227 |
| Boiler- |  |  |  |  |  |  |
| (a) Boiler (Steam Boiler until 1941) | 12 | 7 | 6 | 77 | 30,225,576 | 3,374,731 |
| (b) Machinery (Electrical Machinery until 1941). | 6 | 6 | 6 | 32 | 12,492,449 | $3,180,131$ |
| Credit. | - | - | 4 | 34 | 8,898,627 | 2,137,073 |
| Crop | 17 | - | $\overline{34}$ | 1 | 12,268 | 40.091 |
| Earthqual | 17 | 24 | 34 | 29 | 457,828 | 15,098 |
| Explosion. | 16 | - | $\checkmark$ | 9 | 1,195, 107 | 12,189 |
| Explosion (Riot and C.C. until 1941) | 16 | 15 | 24 | 21 | 1,919,319 | 40,755 |
| Falling aircraft | $\overline{20}$ | $\bigcirc$ | 2 | 22 | , 22,175 | 8.550 |
| Forgery | 20 | 8 | 13 | 35 18 | 1,697,562 | 377,130 99,688 |
| Fraud................... |  | - | - | 18 | 315,992 | 99,688 |
| Guarantee (not separated into Fidelity and Surety prior to 1921) | $\checkmark$ | $\overline{2}$ | $\overline{31}$ | 47 | 13,452,616 | 3,811.867 |
| Fidelity (since 1921) .............................. | 43 | 29 | 31 | 32 | 43, 563,672 | 12,071,684 |
| Surety (since 1921). | 42 | 28 | 27 | 32 | 36,846,605 | 5,169,252 |
| Hail................. | 5 | 3 | 25 | 44 | 115,859,670 | 71,084,324 |
| Impact by vehicles | 42 | 60 | 1 | 5 |  |  |
| Inland transportatio | 42 | 60 | 65 | 57 | 53, 853,803 | 21,213,573 |
| Live stock |  |  |  | 46 24 | $2,908,851$ $141,376,255$ | $1,759,275$ $73,369,692$ |
| Personal property. | 47 43 | 62 43 | 72 32 | 79 | $141,376,255$ $29,384,745$ | $73,369,692$ $13,442,041$ |
| Plate glass. ${ }_{\text {Real property (Property prior to 194i) }}$ | 43 17 | 43 27 | 32 25 | 79 17 | $29,384,745$ $5,625,676$ | $13,442,041$ $1,745,885$ |
| Sickness ............................ | 31 | 25 | 16 | 58 | 113,074,303 | 62,795,540 |
| Sprinkler leakage | - | - | $\overline{-}$ | 14 | 844.301 | 427,673 |
| Sprinkler leakage ${ }^{\text {d }}$ | 9 | 12 | 14 | 30 | 394,825 | 116,584 |
| Theft (Burglary prior to 1941) | 46 | 41 | 39 | 61 | 60,211,803 | 22,299,132 |
| Title (1907-1916). | - | 二 | - | 10 | 11.252 | - |
| Water damage.. | - | - | 2 | 5 | 52,648 | 13,046 |
| Weather |  | $\overline{20}$ | 2 | 39 | 807,539 | 473,191 |
| Windstorm (Tornado prior to 1941) ................ | 23 | 26 | 28 | 46 | 6,553,316 | 3,979.624 |
| Totals | $\cdots$ | ... | ... | $\cdots$ | 2,550,212,165 | 1,317,695,954 |

[^417] been shown separately from their fire business since 1940 when written under a separate policy.

## 27.-Casualty Insurance Premiums and Claims in Canada, by Class of Business, 1853

Nork.-Less all reinsurance for Canadian companies and registered or licensed reinsurance only for British and foreign companies.

| Class of Business | Federal Registered Companies | Provincial Licensees |  |  | Lloyds | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Within Provinces by which they are Incorporated | $\left\|\begin{array}{c}\text { In Provinces } \\ \text { other than } \\ \text { those by } \\ \text { which In- } \\ \text { corporated }\end{array}\right\|$ | Total Provincial Licensees |  |  |
|  | Net Premiums Written |  |  |  |  |  |
|  | \$ | \$ | \$ | \$ | \$ | \$ |
| Aecident-       <br> $\begin{array}{l}\text { Personal }\end{array}$ 7............ 7,546,855 504,019 101 504,120 879,485 $8,930,460$ | 7,546,855 | 504,019 | 101 | 504,120 | 879,485 | 8,930,460 |
| Public liability | 12,997,918 | 310,123 | 10,621 | 320,744 | 883,328 | 14,201,990 |
| Accident and sickness com- |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Aircraft. | 1,436,750 |  |  |  | 1.306,585 | 2,743,335 |
| Automobile. | 161,927, 235 | 7,208,791 | 551,307 | 7,760,098 | 10,726,062 | 180, 413,395 |
| Boiler-(a) Boiler.......... | $\begin{array}{r} 2,588,521 \\ 1,472,493 \end{array}$ | 3,970 | - | 3,970 | 145,500 52,032 | $2,737,991$ $1,524,525$ |
| Credit... | 410,757 |  | - | - |  | 410,757 |
| Earthqua | 39,850 |  | - |  | 15,163 | 55,019 |
| Explosion. | 19,595 |  | - |  | 65,744 | 85,368 |
| Falling aircraft |  | - | - | - |  | , 56 |
| Forgery.... | 74,439 | - | - | - | 2,357 | 76,796 |
| Guarantee fidelity | 2,440,658 | 170,707 | 5,877 | 176,584 | 590.175 | 3,207,417 |
| Hail........ | 4,343,221 | 3,334,609 | 307,500 | 3,642,109 | 8,404 | 7,993,734 |
| Impact by vehicles. | 10 |  |  | - |  | 10 |
| Inland transportation | 4,608,586 | 76,199 | 11,843 | 88,042 | 1,451,201 | 6,147,829 |
| Live stock. | 73,558 | 6,029 |  | 6,029 | 148,872 | 228,459 |
| Personal property | 19,516,792 | 79,817 | 10,017 | 89,834 | 385,904 | 19,992,530 |
| Plate glass. | 1,569,171 | 99,703 | 2,243 | 101,946 | 740 | 1,671,857 |
| Real propert | 656,618 | 3,383 | - | 3,383 | 159,089 | 819,090 |
| Sickness..... | 9,574,758 | 1,153 | - 2 | 1,153 | 184, 114 | 9,760,025 |
| Sprinkler leakag | 5,482 |  |  |  | 4,258 | 9,742 |
| Theft. . | 4,507,392 | 55,464 | 4,433 | 59,897 | 243,253 | 4,810,542 |
| Water damag | 12,870 |  |  |  |  | 12,870 |
| Weather. | 18,787 | 146,380 | - | 146,380 | 775 | 165,942 |
| Windstorm | 269,316 | 450,441 | - | 450,441 | 252 | 720,009 |
| Totals. | 315,908,028 | 13,874,779 | 1,012,605 | 14,886,384 | 17,655,732 | 348,450,144 |
|  | Net Clatms Incurred |  |  |  |  |  |
|  | \$ |  |  | \$ | \$ | \$ |
| $\begin{array}{c}\text { Accident- } \\ \text { Personal.............. }\end{array}$ $2,740,288$ 151,973 46 152,019 272,051 $3,164,358$ |  |  |  |  |  |  |
| Public liability | 6,530,844 | 153,875 | 1,231 | 155,106 | 338,660 | 7,024,610 |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Aircraft. . . . . . . . . . . . . . . . . | 529,300 | 1,037, 637 |  | 1,059,568 | 1,069,650 | 1,598,950 |
| Automobile................. | 84,521,976 | 3,385,619 | 281.748 | 3,667.367 | 5,650.490 | 93,839,833 |
| Boiler-(a) Boiler.......... <br> (b) Machinery. | 377,468 210,369 | 9,640 | - | 9,640 | $\left\{\begin{array}{r}24.388 \\ -236.718\end{array}\right.$ | 211,496 $-26,349$ |
| Credit. ..... | -8,757 | - | - | - |  | -8,757 |
| Earthquak | - | - | - | - | 10.701 | 10,701 |
| Explosion. | 3,777 | 二 | - | - | 1.773 | 5,550 |
| Forgery <br> Guarantee fidelity $\qquad$ | 11,538 723,856 | - | - | - | 36,123 | 47.855 |
| Guarantee surety .............. | 539,552 | 38,117 | - | 38,11 | 543,11C | 1,305,083 |
| Hail. | 4, 105,921 | 2,916,355 | 143,662 | 3,060,017 |  | 529,636 $7,165,938$ |
| Inland transportation | 2,291,801 | 46,482 | 1,450 | -47,932 | 953,591 | 3,293,324 |
| Live stock, | 34,918 | 2,420 |  | 2,420 | 83,459 | 120,797 |
| Personal property | 8,764,362 | 10.201 | 2,936 | 13.137 | 198,528 | 8,976,027 |
| Plate glass... | 759,708 | 44,385 | 192 | 44,577 | 320 | 804,605 |
| Real property | 140,366 | 5,101 | - | 5,101 | 8,587 | 154,054 |
| Sickness. | $5,925,980$ 963 | 244 | - | 244 | 96,725 | 6,022,949 |
| Theft.... | 1,584, ${ }^{963}$ | 29,460 | 5.069 | 34,529 | 30,881 | 1,649, 963 |
| Water damag | 1,206 |  |  |  | $\underline{-}$ | $1,649,452$ 1,206 |
| Weather. | 4,946 | 102.229 | - | 102,229 | - | 107,175 |
| Windstor | 316,454 | 400,099 | - | 400,099 | - | 716,553 |
| Totals. | 175,929,485 | 8,340,594 | 458,365 | 8,798,959 | 9,224,690 | 193,953,134 |

28.-Assets and Liabilities, Income and Expenditure of Canadian, British and Foreign Casualty Insurance Companies, 1952 and 1953

| Companies | Assets | Liabilities | Excess of Assets over Liabilities | Income | $\underset{\text { penditure }}{\text { Ex- }}$ | Excess of Income over Expenditure |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | \$ |
| 1952 |  |  |  |  |  |  |
| Canadian (in all countries).. | 27,064,412 | 17,680,659 | 9,383,753 | 31,234,812 | 29,236, 222 | 1,998,590 |
| British (in Canada)......... | 1,320,309 | 726,834 | 593,475 | 709,855 | 505,451 | 204,404 |
| Foreign (in Canada) | 74,138,073 | 49,933,596 | 24, 204,477 | 77,516,606 | 65,964,990 | 11,551,616 |
| Totals. | 102,522,794 | 68,341,089 | 34,181,765 | 109,461,273 | 95,706,663 | 13,754,610 |
| 1953 |  |  |  |  |  |  |
| Canadian (in all countries).. | 31,603,832 | 21,490,134 | 10,112,698 | 39, 121,975 | 36,719,113 | 2,402,862 |
| British (in Canada). | 3,120,745 | 1,752,221 | 1,368,524 | 2,713,608 | 2,213,721 | 499,887 |
| Foreign (in Canada). | 86,847,828 | 58,131,613 | 28,716,215 | 87,906,335 | 77,160,934 | 10,745,401 |
| Totals. | 121,572,405 | 81,373,968 | 40,197,437 | 129,741,918 | 116,093,768 | 13,648,150 |

## Section 4.-Government Insurance

In addition to the insurance provided by private insurance companies, various types of government insurance schemes have been adopted in recent years by the Federal and Provincial Governments.

Information on unemployment insurance, health insurance, veterans insurance, export credits insurance, etc., will be found in the appropriate Chapters on Labour, Health and Welfare, Foreign Trade, etc.

Provincial Insurance Schemes.-The Saskatchewan Government Insurance Office, a Crown corporation established by the Saskatchewan Government Insurance Act, 1944, commenced business May 1, 1945; it deals in all lines of insurance other than sickness and life.

It administers the Automobile Accident Insurance Act, which provides compensation for the victims of automobile accidents as well as property damage in auto accidents. The Act provides Saskatchewan residents with personal injury coverage without regard to liability and, in addition, all Saskatchewan motorists enjoy public liability, and comprehensive protection, including fire, theft and collision coverages.

The Office, together with the Saskatchewan Department of Natural Resources, administers a trust fund made up of a portion of hunting licence fees and insurance premiums, to compensate farmers for damage done to their crops by certain forms of wildlife, chiefly ducks, geese and deer.

Information regarding the operation of the Saskatchewan Government Insurance Office or the Automobile Accident Insurance Act may be obtained from:-

Public Relations Department,
The Saskatchewan Government Insurance Office, 11th and Cornwall Streets, Regina, Saskatchewan.

In the Province of Alberta, life insurance is provided through the Life Insurance Company of Alberta, a Crown company that is not an emanation from the Proviacial Government. Similarly, another Crown company, the Alberta General Insurance Company, provides all other kinds of insurance except life, accident and sickness. The Alberta Hail Board provides farmers with insurance for their crops against damage by hail. Additional information may be obtained from:-

The Superintendent of Insurance,
Department of the Provincial Secretary for Alberta,
Edmonton, Alberta.

## CHAPTER XXVIII.-DEFENCE OF CANADA

## CONSPECTUS

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Nors.-The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## PART I.-THE ARMED SERVICES AND DEFENCE RESEARCH*

## Section 1.-The Department of National Defence

The Minister of National Defence exercises control over, and management of, the Canadian Armed Forces, the Defence Research Board and other matters relating to national defence. Under his direction, the Armed Forces are commanded by their respective Chiefs of Staff and the Defence Research Board has its Chairman. A Chairman of the Chiefs of Staff Committee, appointed in 1951, is responsible for the co-ordination of the training and operations of the Canadian Armed Forces.

The civilian administrative organization, headed by the Deputy Minister, is constituted on a functional basis. The Deputy Minister maintains a continuing review and control over the financial aspects of operational policy, logistics and personnel, and administration. The Deputy Minister is assisted by two Associate Deputy Ministers, one of whom is stationed in the United Kingdom handling departmental problems arising out of Canada's NATO commitments in Europe. There are also three Assistant Deputy Ministers directing the financial, supply, and administrative and personnel divisions, respectively, of the Deputy Minister's Office. Directly responsible to the Deputy Minister are the Controller General of Inspection Services, the Chief Secretary, the Judge Advocate General and, where staff matters are concerned, the Director of Public Relations.

A number of committees within the Department meet at regular intervals to consider and advise on joint issues. These include:-
(1) Defence Council.-Composed of the Minister of National Defence (Chairman), the Parliamentary Assistant to the Minister, the Deputy Minister, the Chairman, Chiefs of Staff, the three Chiefs of Staff and the Chairman of the Defence Research Board, its purpose is to advise the Minister on administrative matters.

[^418](2) Chiefs of Staff Committee.-Composed of the Chairman, Chiefs of Staff, the three Chiefs of Staff of the Services, the Chairman of the Defence Research Board and the Deputy Minister-the Secretary to the Cabinet and the Under Secretary of State for External Affairs attend when re-quired-its purpose is to maintain a continuous review of all operational problems. Sub-committees consider various aspects of these problems and report to the parent committee.
(3) Personnel Members Committee.-Composed of the Chief of Naval Personnel, Adjutant-General, Air Member for Personnel, Assistant Deputy Minister (Administration and Personnel), Assistant Deputy Minister (Finance) and a representative of the Chairman of the Defence Research Board, its purpose is to examine personnel problems of the three Services with the general aim of achieving uniform personnel policies. Sub-committees consider various aspects of personnel problems and . report to the parent committee.
(4) Principal Supply Officers Committee.-Composed of the Chief of Naval Technical Services, the Quartermaster-General, the Air Member for Technical Services, the Assistant Deputy Minister (Requirements) and a representative of the Chairman of the Defence Research Board, its purpose is to consider all logistical problems. Sub-committees consider various aspects of these problems and report to the parent committee.
(5) Defence Supply Panels.-Twelve panels, composed of a representative from each of the Services as well as representatives of the Deputy Minister, of Inspection Services and of the Department of Defence Production, maintain a continuous review of procurement problems, and consider various aspects of the procurement of equipment, such as ammunition, armament, aircraft, etc., for the Department of National Defence by the Department of Defence Production.

Liaison Abroad.-The Chairman of the Chiefs of Staff, the Canadian military representative in the North Atlantic Treaty Organization, is responsible for coordinating all NATO military matters and acts as a military adviser to Canadian NATO delegations. For purposes of liaison and the furtherance of international co-operation in defence, Canada also maintains (1) Canadian Joint Staff (Washington) representing the three Services and the Defence Research Board; (2) Canadian Joint Staff (London) representing the three Services and the Defence Research Board; (3) Canadian Military Mission, Far East; and (4) Service Attachés in various countries throughout the world. In addition, a number of defence matters of concern to both Canada and the United States are considered by the Permanent Joint Board on Defence which is composed of representatives from the two countries.

Mutual Aid.-As at Mar. 31, 1954, Canada had contributed nearly $\$ 850,000,000$ to NATO countries under Mutual Aid programs for the supply of arms and other equipment and the training of aircrews. Over $\$ 5,000,000$ of this amount had been expended, by the same date, on Infrastructure costs (largely towards airfield and pipe-line construction) and contributions to NATO budgets, in addition to over $\$ 25,000,000$ contributed by Canada under the special Infrastructure vote. Details of Canada's Mutual Aid program expenditures are shown in' the chart and further details on Canada's contributions to NATO on p. 132.


The Regular Officer Training Plan (ROTP).-The object of the Regular Officer Training Plan is to train selected high-school and university students for regular commissions in a branch of the active forces. Students are enrolled as officer cadets and subsidized at one of the Canadian Services Colleges or at a university for a period not exceeding four years. An additional year is provided for students who take the preparatory year at the Collège Royal Militaire de SaintJean. Practical training is given during the summer months.

Total Strength and Rates of Pay and Allowances.-The strengths of the active forces of the three Services have continued to increase to keep pace with defence objectives and commitments. At June 30, 1954, the total active force strength was 113,958 composed of: Navy, 17,251; Army, 49,851; and Air Force, 46,856 . The strength of the reserve elements of the three Services was 56,421 .

The entire pay structure for comparable ranks in the different Services is on a uniform basis. Monthly rates for pay and allowances are given in Table 1.
1.-Monthly Rates of Pay and Allowances for the Armed Forces, Effective Dec. 1, 1953

| Royal CanadianNavy | Canadian Army | Royal CanadianAir Force | $\begin{aligned} & \text { Basic } \\ & P a y \end{aligned}$ | Pro- <br> gressive <br> Pay <br> Years <br> in Rank |  |  | Group Pay <br> for <br> Tradesmen <br> and <br> Specialists <br> Group |  |  |  | Subsistence Allowance |  | Ration Allowance | $\begin{aligned} & \text { Mar- } \\ & \text { riage } \\ & \text { Allow- } \\ & \text { ance } \end{aligned}$ | Separated Family's <br> Allowance <br> (with Children) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Personne! not in Receipt of Marriage Allowance | PersonnelinReceiptofMarriageAllowance | Personnel in Receipt of Subsistenco Allowanee | Personnel not in Receipt of Subsistence Allowance |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | 3 6 9 |  |  |  |  |  |  | 1 | 2 |  |  | 3 | 4 |
| Ordinary Seaman (under 17 years) | Private (under 17 years) | Aircraftman 2 (under 17 years) | $\begin{aligned} & 8 \\ & 46 \end{aligned}$ |  | - | - | - | - | - | - | \$ 61 | \$ | 8 30 | 8 |  |  |
| Ordinary Seaman (entry) | Private (entry) | Aircraftman 2 | 92 | - | - | - | 10 | 25 | 45 | 60 | 61 | 91 | 30 | 30 | 61 | 91 |
| Ordinary Seaman (trained) | Private (trained) | Aircraftman 1 | 06 | - | - | - | 10 | 25 | 45 | 60 | 61 | 91 | 30 | 30 | 61 | 91 |
| Able Seaman | Private | Leading Aircraftman | 107 | 10 | - | - | 10 | 25 | 45 | 60 | 61 | 91 | 30 | 30 | 61 | 91 |
| Leading Seaman | Corporal | Corporal | 127 | 3 | 3 | - | 10 | 25 | 45 | 60 | 81 | 91 | 30 | 30 | 61 | 01 |
| Petty Officer 2 | Sergeant | Sergeant | 144 | 5 | 5 | - | 10 | 25 | 45 | 60 | 72 | 91 | 30 | 30 | 72 | 91 |
| Petty Officer 1 | Staff Sergeant | Flight Sergeant | 165 | 5 | 5 | - | 10 | 25 | 45 | 60 | 81 | 91 | 30 | 30 | 81 | 91 |
| Chiel Petty Officer 2 | Warrant Officer 2 | Warrant Officer 2 | 195 | 5 | 5 | - | 10 | 25 | 45 | 60 | 81 | 91 | 30 | 30 | 81 | 91 |
| Chief Petty Officer 1 | Warrant Officer 1 | Warrant Officer 1 | 224 | 5 | 5 | - | 10 | 25 | 45 | 60 | 92 | 102 | 30 | 30 | 92 | 102 |
| Midshipman | - | - | 117 | - | - | - | - | - | - | - | 61 | 91 | 30 | 40 | 61 | 91 |
| Acting Sub-Lieutenant | Second Lieutenant | Pilot Officer | 185 | - | - | - | - | - | - | - | 65 | 91 | 30 | 40 | 65 | 91 |
| Sub-Lieutenant | Lieutenant | Flight Officer | 230 | 15 | 15 | - | - | - | - | - | 89 | 110 | 30 | 40 | 89 | 110 |
| Commanding Officer | - | - | 288 | 15 | 15 | - | - | - | - | - | 94 | 110 | 30 | 40 | 94 | 110 |
| Lieutenant | Captain | Flight Lieutenant | 290 | 25 | 25 | 25 | - | - | - | - | 94 | 110 | 30 | 40 | 94 | 110 |
| Lieutenant-Commander | Major | Squadron Leader | 370 | 25 | 25 | - | - | - | - | - | 113 | 113 | 30 | 40 | 113 | 113 |
| Commander | Lieutenant-Colonel | Wing Commander | 460 | 35 | 35 | - | - | - | - | - | 126 | 120 | 30 | 40 | 126 | 126 |
| Captain | Colonel | Group Captain | 615 | 35 | 35 | - | - | - | - | - | 139 | 139 | 30 | 40 | 139 | 139 |
| Commodore | Brigadier | Air Commodore | 827 | - | - | - | - | - | - | - | 153 | 153 | 30 | 40 | 153 | 153 |
| Rear-Admiral | Major-General | Air Vice-Marshal | 981 | - | - | - |  |  | - | - | 165 | 165 | 30 | 40 | 165 | 165 |

## Subsection 1.-The Royal Canadian Navy

Organization.-The Chief of Naval Staff at Naval Headquarters at Ottawa exercises central authority over the Royal Canadian Navy; Flag Officers at East and West Coasts exercise operational and administrative command of ships and establishments within the Atlantic and Pacific Coast Commands, respectively. There are also 22 Naval Divisions throughout Canada that are established primarily for the recruiting and training of the Royal Canadian Navy (Reserve); they are administered by the Commanding Officer, Naval Divisions with headquarters at Hamilton, Ont. Naval missions are maintained at London and Washington to maintain liaison with the Royal Navy and the United States Navy. As part of Canada's NATO commitment, officers of the Royal Canadian Navy are now serving on the staffs of the Supreme Allied Commander, Atlantic, and the Commander-in-Chief, Eastern and Western Atlantic Areas.

For the protection of shipping and the defence of Canadian coastal areas and harbours, the Royal Canadian Navy had 58 ships in commission during the fiscal year ended Mar. 31, 1954. In the event of war, 36 of these are available for assignment to NATO for the defence of the Canada-United States area and for the protection of convoys under the control of the Supreme Allied Commander, Atlantic. Ships not earmarked for assignment to NATO are required for harbour defence, for training and for miscellaneous duties.

The strength of the Royal Canadian Navy on June 30, 1954, was 2,391 officers and 14,860 men in the regular force and 1,455 officers and 3,610 men and women in the reserve force.

Operations at Sea 1953-54.--During the year ended Mar. 31, 1954, the Royal Canadian Navy continued to maintain three destroyers in Korean waters.

The Canadian Coronation Squadron, HMC Ships Magnificent, Quebec, Ontario, Sioux, La Hulloise and Swansea participated in the Coronation Review at Spithead. En route to the Coronation, the squadron took part in Exercise "Grand Banks", an RCN-RCAF Maritime Training exercise held during May 1953. The Magnificent, Algonquin, La Hulloise and Swansea also participated in Exercise "Mariner", a large-scale NATO exercise held in September 1953. The First Canadian Escort Squadron, formed in November 1953, in the Atlantic Command, consisting of HMC Ships Algonquin, Lauzon, Prestonian and Toronto, participated in NATO Exercise "New Broom" in conjunction with the United States Navy and RCAF in February 1954. The First Canadian Minesweeping Squadron was formed in September 1953 in the Atlantic Command and a second minesweeping squadron is planned for the Pacific Coast. HMCS Ontario departed in February on a three-month goodwill and training cruise to Australia, New Zealand, Tongatabu, Suva and Pearl Harbour. The cruise was arranged so that the ship's visit to Hobart, Tasmania, would coincide with the arrival there of Her Majesty, Queen Elizabeth, and the 150th anniversary of the founding of Hobart. In addition to participation in the Coronation and in joint exercises with other Canadian and NATO forces, personnel and ships of the RCN undertook cruises to various Canadian and American ports. During the year United States Navy and Royal Navy submarines and ships of the RCN carried out combined anti-submarine exercises on both East and West coasts.

Training Ashore.-HMCS Stadacona at Halifax, N.S., and HMCS Naden at Esquimalt, B.C., are the major shore establishments of the Royal Canadian Navy. Their facilities include schools for general and specialized training besides the drafting
depots, hospitals and accommodation facilities necessary for the maintenance of the ships based on each coast. Formal courses in seamanship, gunnery, navigation direction, communications, diving, damage control and fire-fighting, electricity and electronics, marine engineering, meteorology, medical assistant skills, and supply duties are provided in the schools and centres of these two establishments for officers and men of the regular and reserve forces.

A third major shore establishment is HMCS Shearwater at Dartmouth, N.S., which provides technical training for naval aviation.

During the fiscal year ended Mar. 31, 1954, 3,303 regular force new entries and re-entries received training in the new entry training establishment, HMCS Cornwallis. The method of training new entry ordinary seamen has been revised to afford an economy of training time and inter-ship and establishments training.

In order to standardize the professional knowledge of all lieutenants of the executive branch, 11-month technical and leadership courses for junior officers have been conducted since 1949. To assist in overcoming the shortage of skilled tradesmen, the Royal Canadian Navy commenced a Technical Apprenticeship Training program in August 1952 in HMCS Cape Breton, a 10,000-ton maintenance vessel, equipped and commissioned especially for this purpose.

As part of the naval aviation training program, short service appointment midshipmen specializing in naval aviation undergo a 12 -month basic course before commencing flying training. The first six months are spent in HMCS Cornwallis and the second term is spent aboard a cruiser. Training of pilots, observers, air engineering and maintenance personnel, observers' mates and others connected with naval aviation is carried out at HMCS Shearwater with further training aboard HMCS Magnificent. HMCS Stadacona also provides additional instruction in some technical subjects. As part of the naval aviation program, exercises are carried out in conjunction with the Royal Navy, the RCAF and the United States Navy.

Junior officers of the engineering and executive branches on completion of their initial training in Canada proceed to the United Kingdom to take sub-lieutenants courses in gunnery, torpedo, anti-submarine, navigation direction, and ship construction. Advanced training in certain highly technical fields and in staff duties is undertaken by selected officers in Canada, the United Kingdom, and the United States.

At HMCS D'Iberville, where both the French and English languages are used, the program is designed to give all French-speaking regular force new entries a basic knowledge of English together with preliminary training in seamanship and professional naval subjects. Following these courses, French-speaking new entries join with classes in HMCS Cornwallis at an appropriate stage in their training.

Ship Construction, Refitting, and Modernization.-The program for 14 new destroyer escorts, the most complex and challenging of its kind ever undertaken by Canada, progressed at a slower rate than had been anticipated. Compared to similar construction projects in British and American shipyards, Canadian production has not, however, been unsatisfactory, and the skills and experience being gained are expected to be of great future value. By Mar. 31, 1954, five of the destroyer escorts had been launched and the balance of the launchings scheduled in the following fiscal year. HMCS Labrador, an Arctic patrol vessel launched in December 1951, completed trials and was commissioned on July 8, 1954. Thirteen of the 14 coastal minesweepers being built in Canada had been launched by Mar. 31,

1954, and six of these had been completed; six additional coastal minesweepers will be built to replace new minesweepers allocated as part of Canada's Mutual Aid contribution to her NATO allies. The refitting, conversion and modernization program for destroyers, frigates and minesweepers was well under way. HMCS Bonaventure, a replacement aircraft carrier for HMCS Magnificent, was being completed at Belfast, Northern Ireland.

Royal Canadian Navy (Reserve).-Naval Divisions are established in the following centres:-

St. John's, N'f'ld., HMCS Cabot Cornerbrook, N'f'ld., HMCS Caribou Charlottetown, P.E.I., HMCS Oueen Charlotte Halifax, N.S., HMCS Scotian<br>Saint John, N.B., HMCS Brunswicker<br>Quebec, Que., HMCS Montcalm<br>Montreal, Que , HMCS Donnacona<br>Ottawa, Ont., HMCS Carleton<br>Toronto, Ont., HMCS York<br>Kingston, Ont., HMCS Cataraqui<br>Hamilton, Ont., HMCS Star

Windsor, Ont., HMCS Hunter London, Ont., HMCS Prevost Port Arthur, Ont., HMCS Griffin Winnipeg, Man., HMCS Chippawa Regina, Sask., HMCS Queen Saskatoon, Sask., HMCS Unicorn Calgary, Alta., HMCS Tecumseh Edmonton, Alta., HMCS Nonsuch Vancouver, B.C., HMCS Discovery Victoria, B.C., HMCS Malahat Prince Rupert, B.C., HMCS Chatham

Each division, commanded by a reserve officer, is responsible for specialized training in one of the various phases of naval activity: gunnery, harbour defence, aviation, communications, etc. Royal Canadian Navy officers and men assist with instruction.

Since the spring of 1953 , the 22 Naval Divisions have been grouped in a Reserve Command, headed by the Commanding Officer, Naval Divisions, at Hamilton, Ont. The Great Lakes Training Centre handled new entry reserve training in 1953; two gate vessels operated from Hamilton during this period. Great training value was also derived from the Fairmile motor launches attached to the Great Lakes divisions and from three small minesweepers operated by coastal divisions.

During 1953-54, Naval Air reserve squadrons were formed at Toronto and Kingston, Ont. and at Victoria, B.C.

University Naval Training Divisions (UNTD).-The university naval training program is designed to give instruction to students in attendance at universities across Canada with the object of providing well-trained junior officers for the Royal Canadian Navy and the Royal Canadian Navy (Reserve). Twentythree UNTD's, drawing on students in 37 universities and colleges, have been established, with a total strength of 993 cadets at June 30, 1954. The total training period is three years. Cadets are required to complete three winter training periods, two summer periods and certain specified courses. During the year, 11 UNTD cadets were appointed to regular force commissions in the RCN and 192 obtained commissions in the RCN (Reserve).

The Royal Canadian Sea Cadets.-Sea Cadets organization, as of June 30, 1954, consisted of 115 authorized corps sponsored by the Navy League of Canada and administered, trained and supervised by the Royal Canadian Navy. During the spring of 1953, six senior cadets trained in HMCS Ontario for four months during that ship's Australian cruise. Twelve sea cadets and one officer embarked in HMCS Magnificent for the Coronation and Spithead Review and while in the United Kingdom were guests of the U.K. Navy League. Six sea cadets were also embarked in HMCS Micmac for her spring cruises to Bermuda, and to Great Britain for the RNVR Jubilee. Approximately 136 officers and 3,039 sea cadets
received training in RCN establishments and Royal Canadian Sea Cadet camps during the summer of 1953. In addition, some 236 cadets undertook seven weeks trades training. A total of 425 sea cadets joined the RCN in 1953.

## Subsection 2.-The Canadian Army

Organization.-Army Headquarters at Ottawa, organized as the General Staff Branch, the Adjutant-General Branch and the Quartermaster-General Branch, conducts the planning and policy for the administration and training of the regular and reserve forces of the Canadian Army. Public relations, cadet services, military intelligence, chaplain services, provost and associated activities are directed through Commands by Army Headquarters.

| Commands | Headquarters | Areas and Headquarters |
| :---: | :---: | :---: |
| Eastern Command......... | Halifax, N.s. | (1) New Brunswick Area, Fredericton, N.B. |
|  |  | (2) Newfoundland Area, St. John's, N'f'ld. |
| Quebec Command. | Montreal, Que. | (3) Eastern Quebec Area, Quebec, Que. |
| Central Command. | Oakville, Ont. | (4) Eastern Ontario Area, Kingston, Ont. |
|  |  | (5) Western Ontario Area, London, Ont. |
| Prairie Command... | Winnipeg, Man. | (6) Saskatchewan Area, Regins, Sask. |
| Western Command. . | Edmonton, Alta | (7) British Columbia Area, Vancouver, B.C. |

The two main components of the Canadian Army are the Canadian Army (Regular)* and the reserves. The components of the reserves are the Canadian Army (Militia)*, the regular reserve, the supplementary reserve, the Canadian Officers' Training Corps (COTC), the cadet services and the reserve militia. Additional to, but not an integral part of, the Canadian Army are the Services Colleges (see pp. 1266-1267), officially authorized cadet corps, rifle associations and clubs.

At the end of June 1954, there were 5,369 officers in the Canadian Army (Regular) and 44,482 men; the strength of the Canadian Army (Militia) was 7,514 officers and $38,612 \mathrm{men}$.

During the latter part of 1953, the 1st Canadian Infantry Division was formed and with the exception of a few units not required under present conditions, the Division has been activated. The divisional headquarters and two-thirds of the Division are stationed and trained in Canada. The remaining third, the 1st Canadian Infantry Brigade, proceeded to Germany in the autumn of 1953 and relieved the 27th Canadian Infantry Brigade. Canadian units in the Base Area and Communications Zone in Europe are administered by Headquarters, Canadian Base Units, Europe, located at Stockum, Germany.

[^419]A major change in the Royal Canadian Infantry Corps took place at the same time with the formation of a Regiment of Canadian Guards, consisting of four battalions. Two Guards battalions were formed by renaming two heterogeneous infantry battalions originally raised for service in Europe. The other two Guards battalions replaced the third battalions of the Royal Canadian Regiment and the Princess Patricia's Light Infantry. Other changes in the infantry corps included renaming the two Canadian Rifle Battalions as the 1st and 2nd Battalions The Queen's Own Rifles of Canada, and the two Canadian Highland Battalions as the 1st and 2nd Battalions The Black Watch (Royal Highland Regiment) of Canada. The Militia battalions of the Queen's Own Rifles of Canada and The Black Watch (Royal Highland Regiment) of Canada were made the 3rd Battalions of the respective regiments. In the Artillery Corps, the 79th and 81st Field Regiment, Royal Canadian Artillery were made the 3rd and 4th Regiments, Royal Canadian Horse Artillery, and other changes involved changing the identifying numbers of some formations and units to conform to the order of battle of the 1st Canadian Infantry Division.

Operations, 1953-54. - In Korea, the 3rd Battalion, the Royal Canadian Regiment, was engaged on the night of May 2-3, 1953, in sharp combat with enemy units attempting to overrun its position. Following the truce agreement in July 1953, the 25th Canadian Infantry Brigade remained in Korea as part of the 1st Commonwealth Division participating in guard duties and training. The second rotation program had been largely completed before the truce was signed. On Apr. 21, 1953, Brig. J. V. Allard succeeded Brig. M. P. Bogert as commander of the Brigade.

In connection with Canada's military obligations under the North Atlantic Treaty, the 27th Canadian Infantry Brigade Group continued to serve in Germany until November 1953, when it was replaced by the 1st Canadian Infantry Brigade Group. The 1st Brigade moved into four new camps recently constructed in the Soest area of Western Germany. Canadian troops continued to participate in training Exercises with other NATO forces.

As an important part of the defence of Canada the Mobile Striking Force, consisting of infantry and supporting units and an RCAF component, continued preparations to deal effectively with possible small airborne invasions by an aggressor. The battalions forming the infantry element, the 1st Battalions of the Royal Canadian Regiment, the Princess Patricia's Canadian Light Infantry and the Royal 22nd Regiment, have all had valuable battle experience in Korea. Two major exercises were carried out by units of the Mobile Striking Force during the summer and winter. During January and February Exercise "Hot Dog II", in the western sub-Arctic, provided experience in Arctic winter movement and tactics for troops on a battalion scale. In February, Exercise "Loup Garou", conducted in the eastern sub-Arctic, exercised troops on a battalion group scale and included training in airborne skills and close Army-RCAF co-operation. Before this exercise, the army troops participating underwent a period of northern indoctrination training and a preparatory Exercise called "Prairie Beaver I" in the Fort Churchill area.

Training.-Actual training of regular and militia personnel is under the General Officers Commanding Commands as directed by the appropriate branch of Army Headquarters.

The corps training of officers and men and the basic training of 10,129 recruits was carried out at units and at various corps schools during the 1953-54 fiscal year. New training standards for individual training from recruit to junior NCO rank
were instituted during this period. During the year, 9,604 personnel attended courses at various schools of instruction. Initial instruction in current affairs, consisting of 12 lectures, was given to recruits during their depot and recruit training. This instruction is continued for officers and men of the Canadian Army (Regular) on the basis of one lecture each week. Examinations were held to select regular officers to attend the Canadian Army Staff College and the Royal Military College of Science and to qualify militia officers for command and staff appointments. Airborne Arctic training continued for all Mobile Striking Force units. Junior NCO courses were conducted under command and formation arrangements and senior NCO courses were conducted at corps schools. French-language instruction was given at Army Headquarters, in all commands and at the Canadian Army Training School for English-speaking officers and NCO's. Fifteen members of the armed forces of other North Atlantic Treaty countries attended courses conducted at Canadian Army schools of instruction.

Trades and specialist training was given at corps schools or units. When feasible, the facilities of civilian schools are used to supplement training at Army establishments. Trades training is conducted in accordance with the training standards for the appropriate trades. During the past year, several new trades and specialties were authorized and individual units are now training more tradesmen and specialists, thereby lightening the training load at corps schools while increasing the total training capacity. To recognize skills and proficiency required in the fighting arms, new specialties have been recommended so that a soldier in the fighting arms will have the opportunity of progressing to higher group pay.

In order to develop and maintain a high standard of physical fitness in the Canadian Army (Regular) a Physical Training Cadre was authorized and the development of the Cadre is to be carried out by stages over the next few years.

The Apprentice Training program, instituted in January 1953, and designed to train soldier apprentices as tradesmen and to provide basic military and academic qualification for advancement during their service, continued throughout the period under review. During 1953, a total of 470 apprentices were enrolled. To provide academic instruction for soldier apprentices, 24 civilian teachers were employed under arrangements with the Department of Labour. Examinations provided by the Department of Veterans Affairs will enable the students to obtain educational credits recognized in all provinces. Apprentices are being trained as clerks, carpenters, electricians, wireless operators, bandsmen, line mechanics, radio mechanics, cooks, medical assistants, storemen, telecommunication mechanics, gun mechanics, vehicle mechanics and armourers. Apprentices' sleeping and ablution accommodation is separate from that used by other troops.

Equipment.-The Canadian Army equipment development program continues to concentrate on those fields particularly suited to Canadian capabilities and in which there are special Canadian needs.

Particular attention has been given to the problem of living and operating in the north under the most severe and adverse conditions. The development and evaluation of defence equipment for atomic, biological and chemical warfare continued in close co-operation with the RCN, RCAF and Defence Scientific Service. The standardization program in the United States, United Kingdom, Canada and within NATO continues to promote an exchange of knowledge to the mutual advantage of the armies concerned. Additional agreements were reached affecting
procedures and equipment. Agreement between Belgium, Canada, France, the United Kingdom and the United States to adopt the $7.62-\mathrm{mm}$ ( $\cdot 30$-inch) calibre small arms round was reached in the late autumn of 1953. Subsequently, the Canadian Army sponsored a meeting at Ottawa to settle the technical details involved in producing this ammunition in various countries.

The Reserves.-An additional component of the reserves, known as the Canadian Army Regular Reserve, was authorized in December 1953. The purpose of the regular reserve is to provide a means for rapidly expanding the regular army in an emergency. The regular reserve is open to soldiers with good records who have recently served with the regular army. They are required to train, normally with their former units, for not more than 21 days each year and are subject to recall to full-time service in the event of an emergency.

During 1953-54, training in the reserves was conducted at unit headquarters and summer camps with the emphasis placed on producing within each unit a nucleus of instructional and administrative personnel capable of training and organizing the unit in peace and conducting its expansion in the event of mobilization. A training period not exceeding 60 days was authorized for all ranks of the Canadian Army (Militia) with an additional 15 days training at annual camps. Training at summer camps was given a total of 3,754 officers and 10,814 other ranks.

The Canadian Officers' Training Corps (COTC).-Units of the Canadian Officers' Training Corps are maintained at Canadian universities to produce, from among university undergraduates, officers for both the regular and reserve components of the Army. During the past year, 22 officers who had trained with the COTC were granted commissions in the Canadian Army (Regular). Training consists of military studies, drill and physical training during the academic year; the summer term is devoted to practical training at military establishments.

Army Cadet Services.-The number of Royal Canadian Army Cadets was increased during $1953-54$ to 64,200 , enrolled in 527 corps. Their training was conducted by 2,200 cadet instructors assisted by personnel from the Canadian Army (Regular). During the summer of 1953, a total of 4,557 cadets received trade training at six cadet camps situated at Aldershot, N.S., Valcartier, Que., Ipperwash, Ont., Camp Borden, Ont., Dundurn, Sask., and Vernon, B.C. Cadets qualified in such military trades as driver mechanics, radio-telephone operators, wireless and line operators and basic training instructors. The National Cadet Camp was held during the last two weeks of July and the first week of August 1953, at Banff, Alta. This camp was attended by 156 carefully chosen first class and master cadets. The opportunity to attend this camp was an award for outstanding proficiency in cadet work. During the summer of 1953, courses were held at the summer camps for officers of the Cadet Services of Canada and personnel of the civilian instructional cadre of the Royal Canadian Army Cadets.

## Subsection 3.-The Royal Canadian Air Force

Organization.-Air Force Headquarters at Ottawa conducts the planning and policy for administration and training of the active and reserve forces of the Royal Canadian Air Force. The organization of the RCAF is divided into three categories-personnel, logistics, and plans and operations. This functional division is reflected in the Air Force Headquarters organization.

During the fiscal year ended Mar. 31, 1954, the RCAF completed its share of Canada's contribution to the integrated forces of Supreme Headquarters Allied Powers Europe (SHAPE) with the arrival overseas in August 1953 of No. 4 Wing of the 1st Air Division with permanent headquarters at Metz, France.

The major formations of the RCAF remained unchanged, with location of headquarters, as follows:-

Formation
Headquarters
St. Hubert, Que.
Air Defence Command Vancouver, B.C.
12 Air Defence Group. Metz, France
Air Transport Command Lachine, Que.
Air Materiel Command. Ottawa, Ont.
Maritime Air Command Halifax, N.S.
1 Tactical Air Command. Edmonton, Alta.
Training Command Trenton, Ont.
14 Training Group. Winnipeg, Man.

Canada's home defences were augmented during $1953-54$ by the creation of all-weather jet interceptor squadrons equipped with CF-100's, the opening of new bases, the expansion of the Ground Observer Corps and the near completion of the Pinetree radar chain. In June 1954, as a result of the decreased requirement for air transport support to and from Korea, the RCAF airlift was terminated.

At the end of June 1953, the strength of the RCAF regular force was 8,349 officers and $38,507 \mathrm{men}$; the strength of the auxiliary was 1,805 officers and 3,425 men.

Operations, 1953-54-Air Defence.-Air Defence Command continued its planned build-up. The permanent radar system neared completion. Regular force and auxiliary radar units, along with regular fighter, auxiliary fighter and Ground Observer Corps units, participated in the second joint United StatesCanada air defence exercise held during July 1953, to test the continental defence system. Improvements were made at all major airfields, and additional navigation aids were installed and all-weather instrument procedures developed for air defence operations.

NATO.-The 1st Air Division reached its maximum strength with the arrival in Europe of the 3rd and 4th Fighter Wings thus fulfilling Canada's commitment to the NATO integrated fighter force. No. 3 Wing, consisting of three squadrons, arrived in Zweibrucken, Germany, in April 1953, while No. 4 Wing, with three squadrons, followed in August and was based at Baden-Soellingen, Germany. Replacement of Sabre II aircraft with the more powerful Orenda-powered Sabre V was commenced.

Maritime Operations.-The Joint Maritime Warfare School at HMCS Stadacona, Halifax, N.S. continued to train crews in basic and advanced anti-submarine tactics. Maritime Air Command aircrews took part in joint exercises with the RCN on both coasts and participated in a number of NATO exercises in Atlantic and European exercises.

Air Transport Operations.-The squadrons of Air Transport Command continued to provide air support to the Air Division in Europe and, until June 1954, to the Far East; long-range air support operations were performed by North Star aircraft. The Fairchild C-119 aircraft of the Command were used as cargo and personnel carriers in Canads, as well as for paratroop training. Both types of aircraft were used for supply operations to Arctic weather stations.

Other.-RCAF photographic squadron, No. 408 Squadron, completed camera coverage of additional areas under the air photography and survey program. Large portions of territory north of the Arctic circle were photographed and their geographical locations determined and the height of ground contours calculated.

Two new weather forecast stations were opened by the RCAF, one in Moose Jaw, Sask., and the other in Baden-Soellingen, Germany, bringing to 27 the number of forecast offices that provide meteorological services in Canada and overseas.

Training and Equipment.-During the fiscal year ended Mar. 31, 1954, the RCAF graduated a total of $1,590 \mathrm{RCAF}$ and NATO pilots, navigators and radio officers. In the summer of 1953, 185 pilots, 74 navigators and 5 radio officers from the Canadian Services Colleges and universities underwent aircrew training. Basic trades training courses for non-flying list officers produced 116 graduates. Basic trade schools graduated 6,219 regular force airmen during the period under review.

Officers and flight cadets entering the Service received officer development training at the Officers School, London, Ont. Airmen received initial service training at No. 2 Manning Depot, St. Johns, Que. Basic flying training was conducted at four flying training schools, two of which are located at Centralia, Ont., and Claresholm, Alta.; during the summer of 1953 the flying training schools at Gimli, Man., and Calgary, Alta., were moved to Moose Jaw, Sask., and Penhold, Alta., respectively. Advanced flying training on twin-engine aircraft was given at Saskatoon, Sask. Advanced flying training on single-engine aircraft was given at Portage la Prairie, Man., until the autumn of 1953, when the station began to give advanced flying training on jet aircraft. Another advanced flying school for jet aircraft was opened at Gimli during the past year. The Pilot Weapons School at MacDonald, Man., continued to operate and training on jet aircraft was begun in February 1954. Flying instructor courses were given at the Flying Instructors School at Trenton, Ont.; instrument rating courses were conducted at Centralia and North Bay, Ont., and at Saskatoon, Sask., and pilot attack instructor courses were given at MacDonald, Man. Basic navigation training was conducted at Winnipeg, Man., and at Summerside, P.E.I. Central Navigation School continued to operate at Summerside and conducted instructor and advanced courses. Potential radio officers were trained at the Air Radio Officers School at Clinton, Ont., where advanced courses were also conducted for staff radio officers and instructors.

Formal trade courses for newly commissioned non-flying list officers were conducted at RCAF schools in aeronautical engineering, armament supply, telecommunications and security. Basic courses for unit defence officers were conducted at Camp Borden, Ont. Courses were provided to qualify officers in flying control.

The Department of Labour continued to assist in the basic trades training program. Over 50 civilian instructors were provided by the Department of Labour to assist with Janguage and technical training at RCAF Training Command Schools, as well as a lesser number for instructional duties in the RCAF auxiliary. CF-100, Sabre, Silver Star, and C-119 mobile ground training units were used with great success during the year. Trade advancement training program continued at all units, both regular and auxiliary. To help tradesmen advance more rapidly into the qualified trade group levels, quarterly written trade test boards were continued. Language training programs were conducted where necessary.

Equipment.-Aircraft procurement programs have progressed satisfactorily during the fiscal year ended Mar. 31, 1954. A. V. Roe (Canada) Limited completed delivery of the Canuck CF-100 Mark 3 aircraft and delivery has started of the Mark 4 version. Canadair Limited of Cartierville, near Montreal, Que., made deliveries of the Sabre V (F-86) aircraft with the Orenda 10 engine, according to schedule and continued production according to schedule of the Silver Star (T-33) Jet Trainer. The two DeHavilland Comet jet aircraft delivered to the RCAF are undergoing modification, as recommended by the manufacturer. Arrangements were made to obtain a number of Lockheed Neptune (P-2V7) maritime reconnaissance medium-range aircraft, and steps were also taken to produce, in Canada, the Britannia maritime reconnaissance long-range aircraft to be used by Maritime Reconnaissance Squadrons in lieu of Lancasters. Otter aircraft, produced by DeHavilland in Canada, continued to replace the Norseman for use in search and rescue and for transporting personnel and supplies to destinations not easily accessible to larger transport aircraft. Arrangements were made to procure a small number of T-34 Mentor aircraft for use as elementary pilot trainers.

The program to replace worn out wartime equipment continued during the year and 1,348 new vehicles were procured. Two permanent garages were completed at Trenton and North Bay, Ont., and modifications to other garages improved accommodation. Special types of clothing and equipment, such as flying suits, anti-gravity suits and emergency kits, were procured from Canadian, United States and United Kingdom sources to meet the rapidly changing requirements of aircrews flying high-speed, high-altitude aircraft.

RGAF Reserve.-The sub-components of the RCAF reserves are designated as follows: (1) the Auxiliary; (2) the Primary Reserve; and (3) the Supplementary Reserve.

During the fiscal year ended Mar. 31, 1954, officer development courses were conducted at the Reserve Officers School, Royal Military College, Kingston, Ont., for university flight cadets of the primary reserve participating in their first summer training program. Pilot trainees of the Auxiliary, members of reserve university squadrons and Services Colleges flight cadets received flying training during the year. Potential radio officers from the reserve Air Force, reserve university squadrons and Canadian Services Colleges flight cadets were trained at the Air Radio Officers School at Clinton, Ont.

At the Reserve Officers School at Kingston, initial training for the non-flying list primary reserve flight cadets of Canadian Services Colleges and universities, who were participating in their first summer program, was followed by basic courses in aeronautical engineering, supply, telecommunications, armament and flying control as applicable. Second year cadets were commissioned after successfully completing the final phases of their basic courses. Language and technical training at RCAF Training Command Schools was also given for instruction duties in the RCAF Auxiliary. The reserve tradesman basic training plan, instituted in 1952, was continued and approximately 1,400 recruits, both high school students and air cadets, completed training during 1953-54.

Reserve tradesmen are entitled to take regular force training courses but few are able to do so because of their civilian occupations.

Royal Canadian Air Cadets.-The Royal Canadian Air Cadets are closely associated with the RCAF. Under the sponsorship of the Air Cadet League of Canada, the air cadet movement continued to expand. At the end of the fiscal
year Mar. 31, 1954, air cadet strength stood at over 18,000 in 260 squadrons. During the summer of 1953, camps for air cadets were held at RCAF Stations at Greenwood, N.S., Aylmer, Ont., and Abbotsford, B.C. Total attendance at the camps was 3,907 cadets and 448 officers and instructors. The first Air Cadet Senior Leaders Course conducted by the RCAF was held at Camp Borden during July and August. One hundred carefully selected cadets attended the seven-week course and received $\$ 100$ training bonuses upon graduation. A precision drill team of 40 cadets selected from the Senior Leaders course to represent Canada in the International Drill competition, held at the Canadian National Exhibition at Toronto, won the competition and the Beau International Challenge Trophy for Canada for the fourth time.

The international exchange visits program, sponsored jointly by the RCAF and the Air Cadet League, was again very successful in 1953. Twenty-five cadets were exchanged with the United Kingdom, 25 with the United States, and two each with Denmark, The Netherlands, Norway and Sweden.

Of the 250 senior air cadets who received flying training scholarships awarded by the RCAF, 235 completed the course and were awarded private pilot's licenses and air cadet flying badges. Under the Reserve Tradesmen Training Plan, 387 air cadets received trades training in the nine-week summer courses in addition to their preparatory training at their respective squadrons, during the school year. During 1953, in addition to those who joined the reserve force, 711 air cadets enlisted in the regular force.

## Subsection 4.-The Defence Research Board

The Defence Research Board was established on Apr. 1, 1947, by an amendment to the National Defence Act.

The Board consists of a full-time chairman and vice-chairman, six ex-officio members and seven other appointed members. The ex-officio members are the Chiefs of Staff of the three Armed Services, the Deputy Minister of National Defence, the President of the National Research Council, and a representative of the Department of Defence Production. The remaining members, appointed by the Governor in Council for three-year terms, are selected from universities and industry because of their scientific and technical backgrounds.

The organization consists of Headquarters staff, twelve field research stations and liaison officers at London, England, and Washington, U.S.A., and is known collectively as the Defence Scientific Service. Advisory committees composed of leading Canadian scientists provide invaluable assistance to the Defence Scientific Service by their consideration of a variety of problems.

In planning this organization, the Government considered the vital need for continuity in research and planned the Defence Research Board as a fully integrated and permanent part of the defences of the country. To assist co-ordination at the highest level, the Chairman of the Board has the status of a Chief of Staff and is a member of the Chiefs of Staff Committee and of the Defence Council. Thus, the Defence Research Board has been described as a fourth service. Its fundamental purpose is to correlate the special scientific requirements of the Armed Forces with the general research activities of the scientific community at large.

The Board's policy is to select and concentrate its efforts upon defence problems of particular importance to Canada or for which Canada has unique resources or facilities. Existing research facilities such as the National Research Council, are used, wherever possible, to meet the needs of the Armed Forces. The Board has built up new facilities only in those fields which have little or no civilian interest.

From the policy of specialization it follows that close collaboration must be maintained with Canada's larger partners. Specialization is made possible only through the willingness of the United Kingdom and the United States to exchange the results of their broader programs for the less numerous but, nonetheless, valuable benefits of Canadian research.

During the past year, the Defence Research Board conducted research activities in naval, armament, telecommunications, arctic, medical, operational, materials, aeronautical and special weapons problems. Research on naval problems is carried out at the Naval Research Establishment, Dartmouth, N.S., and at the Pacific Naval Laboratory, Esquimalt, B.C. Both stations are engaged in the study of anti-submarine devices, since anti-submarine warfare will be the prime task of the RCN in time of war. Research and development of weapons for the Armed Services is carried out at the Canadian Armament Research and Development Establishment at Valcartier, Que. This is the largest establishment operated by the Board and has facilities for the study of all phases of armament development. The Board operates two laboratories whose prime interest is in the field of electronics. The Radio Physics Laboratory at Shirley's Bay, Ont., is interested mainly in fundamental research associated with radio communications, particularly in northern latitudes. The Electronics Laboratory, situated within the grounds of the National Research Council's Montreal Road Laboratories, is concerned primarily with the development of electronic devices as aids to navigation. The centre for research into arctic and sub-arctic conditions is the Defence Research Northern Laboratory at Fort Churchill, Man., which is mainly occupied with the application of the results of fundamental research into the effect of cold weather on men and materials.

Medical research is conducted in Canadian universities and medical schools, as practicable, and at the Defence Research Medical Laboratories at Downsview, Ont. (near Toronto). The major emphasis is in the field of aviation medicine, but investigations include such problems as blood substitutes, infection and immunity, burns and wounds, nutrition and other factors likely to hinder a military man's ability to perform his duties effectively. Operational research, which may be defined as the application of techniques of scientific research to problems which arise in the Armed Services in the execution of their operational roles, is conducted by the Operational Research Group consisting of a headquarters section and three research sections; in addition there are three operational research organizations in the Armed Forces, staffed largely by personnel from the Defence Scientific Service. The Board continued to support active programs of research into methods of estimating, recovering and fabricating such useful metals at titanium, etc. The titanium program is a series of integrated research projects conducted by the Mines Branch of the Department of Mines and Technical Surveys and the Universities of Toronto, Laval and Montreal, in co-operation with various industrial firms with long experience in this field. In addition to aeronautical research conducted by the National Aeronautical Establishment, the Defence Research Board supports an extensive program on aeronautical and gas dynamics problems at various Canadian universities. Special weapons research is conducted in the atomic, biological and chemical fields at the Defence Research Chemical Laboratories, Shirley's Bay, Ont., the Suffield Experimental Station, Ralston, Alta., the Defence Research Kingston Laboratories at Barriefield, Ont., and at a Department of Agriculture Isolation Station located on Grosse Ile, an island in the St. Lawrence, near Quebec City.

Pursuing its established policy, the Defence Scientific Service continues to make available to the scientific community at large all results of its work other than those of purely military importance.

Close liaison is maintained between the Defence Research Board and the Department of Defence Production to ensure that research and development activities are closely integrated with production.

## Section 2.-Services Colleges and Staff Training Colleges

Canadian Services Colleges.-The Royal Military College of Canada was founded in 1876 at Kingston, Ont. Royal Roads was established in 1941, near Victoria, B.C., as a school for naval officers. In September 1948, both colleges were constituted as the Canadian Services Colleges under the presidency of the Minister of National Defence to provide a joint educational and training program that would produce officers for the three Armed Services of Canada. To these has been added the Collège Royal Militaire de Saint-Jean, located at St-Jean, Que.; established principally to assist in the training of French-speaking candidates, it was formally opened by the Governor General in the autumn of 1952.

The course for technical officer candidates at the Colleges is of four years duration. Cadets of the Collège Royal Militaire take a preparatory year. The first two years of the course run concurrently at all three colleges. Cadets who have taken the first two years at Royal Roads or cadets who have taken the preparatory and first two years at the Collège Royal Militaire, if they are selected to take the full course, proceed to the Royal Military College for the last two years of the general or engineering courses.

Autumn, winter and summer terms make up the college year of 11 months, with the exception of the fourth year at RMC which has no summer term. From September to May, the autumn and winter terms, 85 p.c. of the instructional time is allotted to academic subjects and the remainder to military subjects including drill and physical training. The summer term, May to mid-August, is devoted to practical service training at Navy, Army or Air Force establishments.

Cadets enter the Canadian Services Colleges as regular force cadets under the terms of the Regular Officer Training Plan introduced during the summer of 1952; a few cadets who have won Dominion Cadetships may enter as reserve cadets. The Regular Officer Training Plan enrols each cadet in the branch of the Armed Services of his choice, and provides a university education, with pay, at one of the Services Colleges or at a Canadian university. On successful completion of his academic and military training, the cadet is granted a commission in the regular force.

Completion of Services College training qualifies a cadet for a commission in a non-technical branch of the three Services. A regular force cadet of a technical branch, upon completion of the four-year Services College course, may be sent to a specified university at public expense for training to science degree standard.

For admission to a Services College a candidate must be a Canadian citizen or other British subject, resident in Canada. A candidate for admission to the Royal Military College, Royal Roads or to the first senior year at Collège Royal Militaire de Saint-Jean must have reached his 16th but not his 21st birthday, on Jan. 1 of the year of entry. A candidate for admission to the preparatory year at College Royal Militaire de Saint-Jean must have reached his 16 th but not his 20th birthday on Jan. 1 of the year of entry. A specified standard of physical fitness
is required of all applicants. The academic requirements for admission to Royal Military College, Royal Roads, and the first senior year at Collège Royal Militaire are:

> University senior matriculation (or equivalent) in the following subjects: English, physics, mathematics (algebra, geometry and trigonometry), chemistry, and either history or a language (French for English-speaking candidates and English for French-speaking candidates).

The academic requirement for preparatory year at the Collège Royal Militaire is junior matriculation (or equivalent) including chemistry and a language (French for English-speaking candidates and English for French-speaking candidates).

Candidates are medically examined and take educational tests at one of the six regional centres. In addition, each candidate appears before a Board composed of a member of the directing staff of one of the Colleges and a representative of each of the three Services.

Of the cadets entered in the Canadian Services Colleges, one-half are selected on provincial quotas determined by population; the other half, in open competition. Academic standing and the recommendations of the Service Boards as to the physical and personal characteristics of the candidates are the bases for selection with the final selection being made by a board of senior officers appointed by the Minister of National Defence.

Fifteen Dominion Cadetships, valued at $\$ 580$ each, are offered by the Federal Government each year to the sons of certain ex-service or service personnel. These cadetships are available to cadets on the basis of five to each of the three Services, and cover the total cost of lodging, uniform clothing, tuition, etc., in the first year. In addition, a number of other scholarships and bursaries, sponsored by private associstions, are available to assist qualified cadets. Cadets attending the Colleges as members of the regular forces are not eligible for cadetships, scholarships and bursaries, as the cost of their education is fully met from public funds.

During the 1953-54 academic year, Royal Military College had 97 cadets in first year, 78 in second, 106 in third and 78 in fourth. Royal Roads had 82 cadets in first year, and 69 in second. The Collège Royal Militaire had 134 cadets in the preparatory year and 78 in first year.

Staff Training Colleges.-The Canadian Army and the Royal Canadian Air Force operate colleges to give staff and command training; the National Defence College provides facilities for advanced study of defence problems.

The National Defence College, Kingston, Ont., which was opened on Jan. 5, 1948, is a senior defence college providing an 11-month course of study designed to cover the economic, political and military aspects of the defence of Canada. Senior officers and civil servants from the Armed Forces and Government departments attend as well as one or two representatives from industry. An extensive lecture course is provided, with lecturers chosen from leaders in various fields in Canada, the United States, the United Kingdom and other countries. In addition, educational tours and visits to parts of Canada, the United States, Europe and the Middle East are made to give students more knowledge of conditions and influences in their own and other countries. The seventh course commenced Sept. 1, 1953, and was completed July 24, 1954, with a total of 27 students attending. Two were chosen from the RCN, four from the Army, four from the RCAF, and one from the Defence Scientific Service. The Department of External Affairs sent two students and the Departments of National Defence, Transport, Trade and Commerce,

Defence Production, and Resources and Development* sent one student each, as did the National Research Council, the Royal Canadian Mounted Police and the Canadian Broadcasting Corporation. The United Kingdom and the United States each sent three representatives.

The Canadian Army Staff College, Kingston, Ont., is a military staff College operating on a permanent basis to train officers for positions of staff and command. The course extends over 10 months. A joint instructional staff includes faculty members from the three Canadian Services, the United States and the British armies. The student body is comprised of members from the three Services and from five different nations. Aside from purely military subjects, the curriculum provides for study of current world affairs and lectures by prominent guest speakers in this field. Graduates are qualified for Grade II Staff appointments of Commands in the Service.

The Royal Canadian Air Force Staff College, Toronto, Ont., is a permanent Air Force staff college providing a training program designed to give officers of Squadron Leader to Group Captain rank the necessary background and knowledge to fit them for staff and command positions. The Directing Staff includes officers from the Royal Canadian Air Force, the Canadian Army, and the Royal Air Force, while the student body consists of officers from the Royal Canadian Navy, the Canadian Army, the Royal Canadian Air Force, the Royal Air Force, and the United States Air Force. Besides the normal organizational and administrative subjects, the curriculum includes an advanced study of the three aspects of air power; air strategy and its relation to ground and sea forces; current world affairs and their effect on the Canadian strategic position. Subjects are presented and discussed under the guidance of the Directing Staff or guest speakers, many of whom are prominent in Canadian and United States diplomatic, military, university and industrial life.

## PART II.-DEFENCE PRODUCTION $\dagger$

Department of Defence Production.-This Department was established on Apr. 1, 1951, to carry out the procurement functions of Canada's expanded defence program following the outbreak of hostilities in Korea. The Department took over the responsibilities for the procurement of most goods and services required by the Canadian Armed Forces, and, by arrangement, acted as agent in connection with the purchases required by the Canadian civil defence program and the buying required by the Canadian Commercial Corporation, a Crown company primarily responsible for the purchase of goods in Canada for foreign governments. Under the Defence Supply Act and the Essential Materials (Defence) Act, the Department also became responsible for the provision of an adequate supply of essential materials to support the defence procurement program.

The Department now has two major types of units relating directly to defence procurement. The first represents six production Branches which deal with

[^420]commodities requiring special facilities for their production. These include aircraft, electronics, ships, ammunition, machine tools, and guns. The second is the General Purchasing Branch which procures commodities either of a standard commercial type or having specifications not greatly different from commercial ones. Examples of these items are clothing, food, fuels and barrack stores. One of the original activities-that relating to the provision of essential materials-is no longer handled by this Department, having been transferred to the Department of Trade and Commerce at the end of 1953. Defence Construction (1951) Limited, a Crown company associated with this Department, is responsible for defence construction activities.

Orders and Expenditures.-In the first three years of the current defence program, the Canadian Government has placed about $\$ 3,882,000,000$ worth of defence orders. Against these, and some orders outstanding when the Department was established on Apr. 1, 1951, a total of $\$ 3,262,000,000$ has been spent. Table 1 shows that the peak of defence orders occurred in the first year of the threeyear program when about $\$ 1,625,000,000$ worth of orders were placed. The value of orders fell off to $\$ 1,263,000,000$ during the following year, and declined further to $\$ 994,000,000$ in the fiscal year 1953-54. The rate of expenditure, shown in Table 2, reached a peak level of $\$ 1,235,000,000$ in the fiscal year 1952-53 from $\$ 904,000,000$ during 1951-52. Canadian Government defence expenditure totalled $\$ 1,123,000,000$ in 1953-54.

## 1.-Canadian Government Defence Orders, by Program, Years Ended Mar. 31, 1952-54

Note.-Figures exclude stockpiling and capital assistance.

| Program | 1951-52 | 1952-53 | 1953-54 |
| :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 |
| Aircraft. | 579,289 | 633,224 | 384,756 |
| Shipbuilding. | 114,898 | 59,565 | 95,194 |
| Tank-automotive. | 65,110 | 102,364 | 53,043 |
| Weapons. | 93,517 | 23,711 | 13,100 |
| Ammunition and explosives. | 104,483 | 75,846 | 69.011 |
| Electronics and communication equipment | 98,954 | 96,419 | 119,068 |
| Fuels and lubricants. | 34,701 | 43,561 | 48,469 |
| Clothing and equipage. | 149,499 | 31,783 | 19,081 |
| Building supplies and equipment. | 29,289 | 3,853 | 3,688 |
| Construction. | 187.011 | 153,919 | 77,548 |
| Other programs. | 99,781 | 83,988 | 59,540 |
| District office orders. | 68,294 | 55,109 | 51,550 |
| Totals. | 1,624,826 | 1,263,342 | 994,048 |

About 39 p.c. of Canadian defence orders, were placed in connection with the aircraft program. The other important programs in terms of the value of orders placed were: defence construction, electronics and communication equipment, shipbuilding, and ammunition and explosives. The aircraft program continues to involve the largest proportion of orders and expenditures because of the importance of air protection in the defence of Canada.

## 2.-Canadian Government Defence Expenditures, by Program, Years Ended Mar. 31, 1952-54

Note.-Figures exclude stockpiling and capital assistance.

| Program | 1951-52 | 1952-53 | 1953-54 |
| :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 |
| Aircraft. | 244,462 | 361,984 | 454,477 |
| Shipbuilding. | 60,917 | 100,555 | 106,345 |
| Tank-automotive. | 40,201 | 97,717 | 48,846 |
| Weapons.. | 28,726 | 25,543 | 26,182 |
| Ammunition and explosives. | 26,157 | 33,352 | 44,323 |
| Electronics and communication equipment | 49,927 | 89,704 | 96,495 |
| Fuels and lubricants. | 28,050 | 37,058 | 43,965 |
| Clothing and equipage. . | 78,835 | 88,723 | 32,634 |
| Building supplies and equipment. | 20,674 | 12,411 | 11,811 |
| Construction. | 133,897 | 209,652 | 130,700 |
| Other programs. | 192,350 | 178,407 | 126,882 |
| Totals. | 904,196 | 1,235,106 | 1,122,660 |

Table 3 shows Canadian Government defence orders according to the countries in which they have been placed. During the three-year period Apr. 1, 1951, to Mar. 31, 1954, 12 p.c. were placed in the United States and 3.5 p.c. in the United Kingdom. The largest value of orders placed in the United States occurred during the first year of the defence program, and the largest value placed in the United Kingdom occurred during the fiscal year 1952-53. Almost two-thirds of the orders placed in the United States have been for complete aircraft or equipment for installation in aircraft. The complete aircraft have included Fairchild C-119 transports, Expediters, Mitchells, Avengers, Neptunes, Banshees, and some types of helicopter. Aircraft equipment has included J-47 jet engines for earlier versions of the F-86 Sabre, and electronic gear, armament and other equipment for the Sabre, the CF-100, and the T-33 aircraft. Various other electronic equipment accounted for a further one-fifth of the defence orders placed in the United States, the more important items being *the M-33 anti-aircraft fire control systems, sonobuoy receivers, sonar equipment, and early-warning airborne radar sets. The remaining orders placed in the United States were accounted for mainly by weapons, ammunition, machine tools, and tank-automotive programs. Those placed in the United Kingdom were for Centurion tanks, Nene jet engines, and the aircraft carrier Bonaventure.

## 3.-Distribution of Canadian Government Defence Orders, by Countries in which Placed, Years Ended Mar. 31, 1952-54

Nors.-Figures exclude stockpiling and capital assistance.

| Country | 1951-52 | 1952-53 | 1953-54 |
| :---: | :---: | :---: | :---: |
|  | Values |  |  |
|  | \$'000 | \$000 | \$'000 |
| Canada. | 1,290.037 | 1,116,424 | 859,880 |
| United States. | 296,761 | 68,852 | 107,388 |
| United Kingdom. . | 37,982 | 71,685 | 25,080 |
| Other countries. | 46 | 6,381 | 1,700 |
| Totals. | 1,624,826 | 1,263,342 | 994,048 |
|  | Percentages |  |  |
|  | p.c. | p.c. | p.c. |
| Canada. | 79.4 | 88.4 | 86.5 |
| United States.. | $18 \cdot 3$ | $5 \cdot 4$ | 10.8 |
| United Kingdom. | $2 \cdot 3$ | $5 \cdot 7$ | $2 \cdot 5$ |
| Other countries. | 1 | 0.5 | 0.2 |
| Totals... | $100 \cdot 0$ | $108 \cdot 0$ | $100 \cdot 0$ |

${ }^{1}$ Less than 0.05 p.c.

Besides buying such defence equipment in other countries, Canada at the same time has exported large quantities of defence items. Such aircraft as the F-86 Sabre jet fighter, the Harvard and the T-34 trainers, the Beaver, and the Otter have been exported to the United States. The 3-inch 50-calibre mounts and guns, the $120-\mathrm{mm}$. gun and the Bren machine-gun have also been produced in Canada for the United States. Other items ordered by the United States Government have included shells and cartridge cases for the most modern U.S.-type ammunition, explosives and propellant powders, and mobile communication equipment. Canada has also produced many items such as Sabre jet-fighters, aircraft-engines, guns, ammunition and electronic equipment for the North Atlantic Treaty Organization, under the Canadian Mutual Aid program.

Aircraft Program.-The production of jet-fighter aircraft continued to be the major factor in the aircraft program during the year 1954. Production efficiency has resulted in an increased rate of output, at decreased costs, of the Canadian designed and developed all-weather jet interceptor fighter, the CF-100. The development of a more powerful armament system has continued with considerable success and with the addition of this increased firepower the CF-100 will be one of the most heavily armed fighters in existence. Production of the F-86 Sabre V jet fighter fitted with the Orenda engine continued on schedule for delivery to the

RCAF in Canada and abroad. An improved version of the F-86, the Sabre VI, came into production and initial deliveries were made late in 1954. The development of an advanced series of Orenda engines for these two Sabre fighter aircraft was completed and went into production following acceptance by the RCAF. Production of the T-33 jet trainer, powered with the Rolls-Royce Nene engine, has continued on schedule. The initial requirements of the RCAF for this aircraft have been met but production is continuing at a reduced rate and the Nene engines, manufactured in the United Kingdom, have been delivered on schedule. Deliveries of this aircraft have been made both to the RCAF and to the United States Air Force. Facilities for the production of the Nene engine have been set up in Canada, the first Canadian-built engine passed its type test and all Nene engines subsequently produced in this country have been accepted by the RCAF. A considerable number of L20A Beaver aircraft have been delivered to the RCAF and the United States Air Force.

During the year 1954, the Harvard production line was shut down following completion of the Harvard trainer program but some of the production capacity thus made available was taken up by the production of the T-34 single engine primary trainer. During 1954 also, engineering and tooling necessary to convert the Bristol-Britannia civilian transport to a maritime reconnaisance aircraft for the RCAF got well under way, as well as tooling for the Grumman S2F carrierborne anti-submarine aircraft. A number of helicopters have been purchased to meet the increased demands of the Armed Services for this type of aircraft.

Canadian facilities for the manufacture of artificial horizons, altimeters, machmeters, airspeed indicators, accelerometers, rate-of-climb indicators, pressure transmitters and indicators, and compasses have been established and are well maintained. The quality of the items manufactured by these Canadian facilities is of a very high standard and all items have fulfilled the exacting requirements of RCAF quality control. One particular design of detachable end fittings for aircraft flexible hose has been standardized and two Canadian companies have met the stringent qualification tests. Canada is now self-supporting in this field. Aircraft tires, which are subject to severe wear because of high-speed landings, are to be produced in Canada, with the exception of some extremely high-speed tires for jet aircraft. In the near future, all such tires may be handled in Canada, utilizing the very latest processes.

The major reconditioning programs, started in 1951-52, have been completed and there has been a general decrease in repair work. This reduction has not yet had any great effect on the repair contractors as the establishment of repair facilities across Canada was planned with a view to creating an industry which could operate economically under normal conditions and yet be capable of quick expansion to meet emergency requirements. A facility for the overhaul of Orenda jet engines has been established in the United Kingdom to handle the requirements of the RCAF Divisions in Europe.

Electronics and Shipbuilding.-The development and production of electronic and ancillary electrical equipment is an important part of the Canadian defence procurement program. During the 1954 period, electronic requirements included a vast range of items from large radio and radar equipments to small complex units and components. The major portion of the electronic equipment required for Canadian defence is now being produced in Canada. These items include fixed airborne and shipboard radar, gunfire control, gunsights, identification
radar, flight simulators, radio navigational aids, radio compasses, radio communication sets, training aids, anti-submarine detection equipment, etc. An increasing amount of the components of electronic end items are also being produced in Canada. An important feature of the electronics program has been the creation of the continental radar defence system in collaboration with the United States. Most of the radar and communication equipment for this project has been manufactured in Canada.

In the shipbuilding program, deliveries continued to be made during the past year of the distinctly Canadian-designed non-magnetic coastal minesweepers and converted World War II frigates. The coastal minesweepers are designed to cope with the latest known developments in enemy mines. The original non-magnetic coastal minesweeper (AMC) program, consisting of 14 new ships, was completed during 1954. Six of these minesweepers were assigned to NATO countries. The converted frigates are completely new except for propulsion and auxiliary machinery and the bare hull up to deck level. These ships are fitted with modern anti-submarine armament. Work has also been progressing on the construction of antisubmarine destroyer escorts. The Arctic patrol vessel, the Labrador, which is the first specifically designed Canadian ship for Arctic duty, was accepted by the Navy in 1954 and successfully completed its first mission through the Arctic. Many types of auxiliary craft, such as 150 -foot seagoing tugs, looplayers, steel crane lighters, inner patrol vessels, 75-foot harbour craft, RCMP vessels, clearance diving vessels, and ammunition lighters are being constructed as part of the shipbuilding program. In addition, many small miscellaneous craft, such as whalers, 27 -foot seaboats, steel crashboats, dinghies, etc., are being produced. The aircraft carrier, Bonaventure, which is to replace the Magnificent on loan from the Royal Navy, is being built in the United Kingdom. Delivery of this light fleet-carrier is expected in 1956.

Weapons and Ammunition.-Progress in the production of weapons has been highlighted by the completion of deliveries during 1954 on four major projects. The $0 \cdot 5$-inch Browning machine-gun for the RCAF, the $120-\mathrm{mm}$. gun for the United States Army, and the 3-inch 50-calibre twin mounts for the Canadian and United States Navies were made in Canada but the $155-\mathrm{mm}$. gun was purchased in the United States because of the limited numbers involved.

Scheduled deliveries were met in the case of five other weapons, viz., a small arms item for the United States Army, an anti-submarine mortar for the Royal Canadian Navy, two calibres of mortars for the Canadian Army, and a trial order of light automatic rifles from Belgium. Early in 1954, an agreement was reached among the principal Western nations to adopt a standard cartridge for small arms. This new ammunition is of slightly smaller calibre than that being used by the Canadian and United Kingdom Forces, and a set of manufacturing drawings for a new rifle is being produced.

Production on a wide variety of complete rounds of artillery, mortar, smallarms, pyrotechnic and underwater ammunition has been an important part of the ammunition program. Production in volume of some items was reached for the first time during the past year. Complete round production in 1954 has included nine basic types of small calibre cartridges, nine general types of artillery and mortar ammunition, three types of rockets, and various types of underwater and pyrotechnic stores. Production has also commenced of small air-to-air rockets. As the program for more versatile explosives manufacture develops in Canada, the need
for foreign purchases of complete rounds of explosives inserts is expected to diminish. A nitroglycerin plant was completed in 1954, and work proceeded toward the manufacture of solventless cordite and double base cast or extruded rocket propellants. Shells and cartridges were produced for the United States Government and new orders received for picrite and hexachlorathene. In addition to metal ammunition components, NATO countries were supplied with flashless cordite, rifle powder, Composition " B ", and picrite.

General Purchasing.-The general purchasing program involves the procurement of a wide range of items required for clothing, equipping, feeding, maintaining and servicing the Canadian Armed Forces. This has involved the procurement of many types of defence supplies and services, including textiles and all types of clothing, footwear and leather goods, military pattern, standard commercial and special commercial vehicles, together with parts, replacements, and the reconditioning of service vehicles, food and catering services, furniture and furnishings, petroleum products and hard fuels, medical and dental supplies, research and development projects, building supplies, and all types of barrack stores and other related items.

Special requirements purchased for other governments, Canadian and international agencies, include wheat and flour for the United Kingdom, West Germany and Ceylon, and mechanical transport equipment for the United States. Purchases were also made for stores and products in connection with the contribution of Canada, under the Colombo Plan, to the governments of India, Pakistan, and Ceylon. These have included the purchase of steam and diesel locomotives, agricultural equipment, electric generators, and supplies for a hydro-electric project to serve a large area of Ceylon.

The District Purchasing Offices of the General Purchasing Branch are responsible for the purchase of food and other defence supplies and services of a local or urgent nature, which are required by the Department of National Defence establishments located in the vicinity of the District Office. The principal purchases include food, hardware, electrical and building supplies, electrical and electronic equipment, and barrack stores. Service contracts are arranged for repairs to buildings and to ships, laundry and dry cleaning, repairs to footwear and clothing, coal hauling, disposal of ashes and refuse, snow removal, transportation, and other related requirements.

New Production Facilities.-Technological developments in military equipment which have taken place since World War II, and the desirability of making a greater variety of component parts in Canada have necessitated the establishment of new production facilities in this country. By building new plants or, more frequently, by the installation of new machinery and equipment, Canada has been able to maintain a higher rate of defence production with less dependence on outside sources of supply. Private industry was encouraged to set up these defence production facilities by being granted additional capital cost allowances (commonly known as "accelerated depreciation") for income tax purposes. Many of the applications for these allowances have been for the expansion of facilities to produce basic materials required for the defence program. More recently, however, there have been an increasing number of applications in connection with facilities for direct defence production.

Where it has not been practical for private industry to invest in the new facilities necessary for defence production, capital assistance for machinery and equipment or, in a few instances, for buildifgs has been provided by the Government. During the three-year period Apr. 1, 1951-Mar. 31, 1954, about $\$ 167,000,000$ was spent in capital assistance, almost one-half of which was spent in the fiscal year 1952-53 but most of the projects requiring capital assistance have now been completed. The greater portion of capital assistance has been in the aircraft field, where opportunities are limited for commercial production. Crown-owned machine tools and equipment have also produced such items in Canada as complete sets of propulsion machinery for escort vessels, proximity fuses, gauges, and other specialized types of equipment. Wherever practical, private industry has been encouraged to take over ownership of these facilities by purchasing them from the Crown. To maintain Canada's industrial mobilization base, contracts covering the sale of Crown-owned defence properties contain a proviso that the facilities will be available to produce defence items when required for a minimum period of ten years.

## PART III.-GIVIL DEFENCE

The accelerating threat of aggression that began shortly after the completion of demobilization following World War II made necessary the reorganization of military strength. It also made apparent the need for the development of a plan of civil defence as part of Canada's program of defence against direct attack. Thus, in October 1948, the Minister of National Defence appointed a Co-ordinator of Civil Defence whose task it was to prepare such a plan. To assist in the co-ordination of the planning, an interdepartmental committee-the Federal Civil Defence Planning Committee-was established, as well as a Federal-Provincial Advisory Committee composed of the Federal Minister responsible for civil defence as Chairman and each Provincial Minister responsible for civil defence as members. In February 1951, the administration of civil defence was transferred from the Department of National Defence to the Department of National Health and Welfare.

The Canadian plan was developed after study of similar organizations in the United Kingdom, Western Europe and the United States. It was agreed that civil defence organization should be incorporated within the framework of civil government at each level-federal, provincial and local-each with its own sphere of responsibility. In general, each province is self contained and is divided into a number of areas, with the fundamental idea of mutual support to any disaster region; some areas are organized on a basis of mobile support and reception only. The channel of communication is from the federal authority to provincial authority and thence to local authority.

The Federal Office of Civil Defence consists of the Civil Defence Co-ordinator and the following services: operations and training; administration and supply; health planning; welfare planning; communications and transportation. A number of other federal departments are involved in planning, such as the Royal Canadian Mounted Police, the Department of Agriculture, Department of Transport and the Defence Research Board.

In co-operation with the Royal Canadian Air Force, an early warning system has been established in the more vulnerable areas where sirens have been provided by the Federal Government. In co-operation with the Departments of National Defence and Veterans Affairs, a program of stockpiling medical supplies and equipment is in progress across Canada.

A Federal Civil Defence Training School was started in January 1951, at which courses were given for organizers, general and rescue instructors, and radiological monitors. In March 1954, this school, renamed the Canadian Civil Defence College, was set up in permanent location at Arnprior, Ont., and courses have been continued and expanded into such fields as tactics, emergency feeding and accommodation, technical reconnaissance, and disaster studies. A number of specialist courses have been conducted across the country by the Health Planning Group.

Up to the end of July 1954, 4,929 persons had received training in one or other of these various fields. First Aid training for civil defence workers is undertaken by the St. John Ambulance Association, under an agreement between the Federal Government and the Association whereby the Government pays a per capita grant. Other agreements for co-operation are in force between the Federal Government and the Canadian Red Cross Society, the Canadian Legion and the Boy Scouts Association.

A Financial Assistance Program is in operation which provides each province with a quota of moneys based on population and vulnerability in which 50 p.c. of the cost is contributed by the Federal Government to approved projects shared between a municipality and a province. A minimum of 25 p.c. is contributed direct to a municipality for a similar project in which the provincial government does not share. Also, the Federal Government has offered to bear one-third of the cost of standardizing fire-hose couplings. To date, the Provinces of Ontario, Alberta and British Columbia have accepted the offer and are proceeding with a standardization program. Large quantities of training equipment including rescue and fire-fighting vehicles have been provided by the Federal Government to the provinces in order to foster their training programs. Draft agreements have also been forwarded to all provinces, on an equal basis, in paying workmen's compensation, where necessary, to a civil defence worker; an agreement to this effect has been signed with the Provinces of Ontario, British Columbia and Alberta.

Up to the end of March 1954, 19 civil defence manuals were published by the Federal Civil Defence authorities to assist in the organization, training and general education of civil defence personnel, and nine others were in preparation. In addition to these a considerable amount of guiding literature was issued to assist provincial and local governments.

Each province has developed its own civil defence organization, patterned on that of the Federal Government. Certain provinces have conducted civil defence training courses, similar to those of the Federal Government, with the object of training local instructors and key personnel.

Many of the main centres of population have made considerable advances in organization and training. An estimated 162,000 civil defence workers for the whole of Canada were reported on strength as at Mar. 31, 1954.

In 1951, an agreement was made between Canada and the United States whereby each country pledged itself to go to the assistance of the other in the event of attack and a United States-Canada Civil Defence Committee was set up. A number of working groups were also formed to carry out specific tasks in the development of ways and means of carrying out this agreement. The Provinces of Canada, too, have discussed with adjoining States of the United States the working out of their mutual problems. Close liaison is maintained with the United Kingdom and other NATO countries.

# CHAPTER XXIX.-SOURCES OF OFFICIAL INFORMATION AND MISCELLANEOUS DATA 

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## PART I.-SOURCES OF OFFICIAL INFORMATION

## Section 1.-Federal Government Information Services

The chief source of statistical information on all phases of the economy of Canada is the Dominion Bureau of Statistics where the ten-year and five-year censuses of Canada are planned and statistical information of all kinds-federal and pro-vincial-is centralized. In regard to information that is not mainly statistical, the individual Department concerned with the particular subject should be contacted as indicated in the Directory at pp. 1282-1309. Certain Government bodies and national agencies, because of the nature of their work and the appeal it has to broad sections of the population, are organized primarily as information or publicity agencies. Among these are: the Information Division, Department of External Affairs, which deals with questions about external affairs originating in Canada and with general requests originating abroad for information on Canada and Canadian affairs; the Information Branch, Department of Trade and Commerce; the Information Services Division, Department of National Health and Welfare; the Canadian Broadcasting Corporation; and the National Film Board. (See Index.) The Departments of Agriculture, Northern Affairs and National Resources, and Mines and Technical Surveys, while not thus classed, are interested in the dissemination of information to a greater extent than most other Government Departments, though several of them have publicity branches or public relations divisions.

Government Departments, with few exceptions, issue their own lists of reports and publications. Departments are required by statute to publish annual reports, which are tabled each year in the House of Commons by their respective Ministers. However, for the purpose of this Section, only the services of the six information agencies mentioned above are described.

Section 2 has been prepared for the purpose of presenting to the reader a directory of all sources of information, federal and provincial, thereby directing him to the proper channels from which he may draw material relating to any párticular subject.

The Dominion Bureau of Statistics.-The Dominion Bureau of Statistics was set up by statute in 1918 as a central statistical department for Canada (8-9 Geo. V, c. 43). In 1948, this statute, which had been consolidated as the Statistics Act (R.S.C. 1927, c. 190), was repealed and replaced by the Statistics Act (R.S.C. 1952, c. 257), subsequently amended in March 1953 (1-2 Eliz. II, c. 18).

The chief aims of the Dominion Bureau of Statistics are: (1) to furnish statistical data, bearing on Canada, for government and administration, whether municipal, provincial, national or international; and (2) to assist in meeting the needs of non-governmental users of statistics, arising from a growing awareness of the value of statistics to business efficiency and social security.

Inquiries.-Hundreds of individual requests for information are received in the Bureau each day, routed through the appropriate divisions and answered as expeditiously as possible. Since the field of effort, from the statistical side, deals with all phases of the national economy, there is scarcely a subject upon which the Bureau is not able to give some information. Nevertheless, only inquiries of a statistical nature should be directed to the Dominion Bureau of Statistics.

Publications.-The Dominion Bureau of Statistics is the principal publication agency of the Federal Government; the subjects of its reports cover all aspects of the national economy.

The policy with regard to the distribution of publications is to extend the service to the public as widely as possible at a minimum cost. A special subscription rate of $\$ 30$ per annum entitles a subscriber to receive, as issued, a copy of each report, including the daily News Bulletin. Statistical information not of general interest is published in the form of Reference Papers or Memoranda for which additional annual subscription rates are charged of $\$ 5$ and $\$ 15$, respectively.

A complete list of DBS publications is available from the Dominion Statistician. Orders for reports should be sent to the Dominion Bureau of Statistics, Ottawa, giving the correct title or titles of the publication or series of reports in which the applicant is interested and should include the necessary remittance in the form of a cheque or money-order made payable to the Receiver General of Canada.

Information Division, Department of External Affairs.-The Information Division has two functions: to promote within Canada interest in and knowledge of international affairs, and to make Canada and Canadian policies better known and understood abroad.

To perform the first function, the Division produces and distributes various documents on external affairs-statements of government policy and reports on related developments abroad and on the work of the Department generally. The Division also answers inquiries from Canadian sources on these subjects (except for inquiries from the press which are handled by the Department's Press Office) as well as requests for information about Canada made by Diplomatic Missions at Ottawa, by Canadian posts abroad, and by individuals and organizations in other countries.

Most of the information work abroad is done, however, by officials at Canadian posts. The Information Division assists by formulating and advising on information policy abroad, in an effort to ensure that this policy is related to the general objectives of Canadian foreign policy, and by producing and procuring material to keep Missions informed of developments within Canada. Journalists and others who
visit Canada to write of Canadian affairs are given assistance from time to time by the Division; its responsibilities also include the co-ordination of the Government's activities in the field of cultural relations.

Information Branch, Department of Trade and Commerce. - For details see p. 1098.

Information Services Division, Department of National Health and Welfare.-The responsibility of this Division, in co-operation with other divisions of the Department of National Health and Welfare and provincial authorities, is the production and distribution of educational material on health, welfare, social security and civil defence, for use throughout the country. This information, issued in the English and French languages, includes books, pamphlets, periodicals, posters, exhibits, displays, radio dramatizations, press and magazine features and releases, as well as films and film-strips prepared in co-operation with the National Film Board. Books, pamphlets, posters and displays are distributed in Canada through provincial authorities. The most important periodicals published by the Division are Canada's Health and Welfare (monthly), Canadian Nutrition Notes (monthly), Occupational Health Bulletin (monthly), Industrial Health Review (semiannually) and Nutrition Bulletin (annually).

Canadian Broadcasting Corporation.*-Radio broadcasting is an important medium of information to the public along with newspapers, films and other means of communication. Radio broadcasting in Canada is a combination of a publicly owned national system and privately owned local community stations, many of which are affiliated with the Canadian Broadcasting Corporation's networks.

Since its establishment in 1936, the Canadian Broadcasting Corporation has become one of the most effective channels through which information, official and unofficial, is broadcast to the people of Canada. Radio is relatively more important in Canada than in most other countries, because of the widely distributed population and the number of sparsely peopled areas, and the CBC has gradually bridged the gaps with high-powered transmitters designed to serve rural as well as urban areas. The CBC has also pioneered in the development of low-powered repeater stations, attached to the network lines, that serve areas unable, because of topographical conditions, to receive an adequate signal from any existing station.

News broadcasts and information programs occupy a considerable proportion of national and regional network time and include news, drama, informative talks, children's programs, school broadcasts, public-service broadcasts, sports, $\mathbf{w}$ men's activities, etc. Listeners have a very wide range of radio fare, since the CEC not only produces its own programs in the various production centres across ( inada, but brings in selected programs from the networks in the United States, the British Broadcasting Corporation, and other national radio systems. The CBC maintains a bureau at London, England, and at United Nations Headquarters, New York, and is credited with having done more to inform listeners of the United Nations' activities than any other broadcasting system.

Through the International Shortwave Service, operated by the CBC on oehalf of the Canadian Government, programs are broadcast in sixteen languager: English, French, German, Dutch, Danish, Norwegian, Swedish, Finnish, Italian, Spanish, Portuguese, Czech, Slovak, Russian, Ukrainian and Polish. Tie CBC International

- See also pp. 931-937.

Service broadcasts information abroad on life and economic conditions in Canada as part of the general information plan for promoting a better understanding of Canada in other countries. The CBC shortwave transmitters at Sackville, N.B., transmit a signal unequalled in Europe by any other transmitted from the North American Continent.

The National Film Board.--The National Film Board provides information on a great variety of subjects in the form of films, film-strips and still photos. In keeping with its terms of reference, the Board's products are both informative and interpretative and are widely distributed, theatrically and non-theatrically. (See also Educational and Cultural Functions of the National Film Board, pp. 350-351.)

As a service to government departments, the Board maintains a film preview library of 4,000 prints where films may be screened with a view to purchase or for informational purposes. Some 500 film-strips are catalogued. The Board also maintains libraries of films on specialized subjects such as health, sociology, medicine and industry.

The Board has over 25,000 motion picture prints on deposit in more than 380 local libraries across the country. Additions to the libraries are circulated in preview blocks to film councils and circuit users before being deposited in a central library. Approximately 20,000 prints have been made available in libraries abroad, both in posts of the Departments of External Affairs and Trade and Commerce and in universities and other loan agencies. Libraries of films and film-strips are maintained in the Board's offices at New York and Chicago, U.S.A., and at London, England.

The Board's library of approximately 100,000 still photos serves government departments, commercial photographers and newspapers and periodicals in Canada and abroad.

## Section 2.-Directory of Sources of Official Information (Federal and Provincial)

To make the best use of the Directory of Sources of Government Official Information, it is necessary that the reader understands the broad differences in function between federal and provincial departments and their separate fields of work.

Certain fields of effort, such as trade and commerce, customs and excise, currency and banking, navigation, transportation, radio, census of population, national defence, etc., are constitutionally federal affairs and, in such fields, the respective Departments at Ottawa are the proper sources with which to communicate. Other fields of effort, such as the administration of lands and natural resources, education, roads and highways, and health and hospitals are the responsibility of the provinces, under the British North America Act, but certain Federal Departments are also concerned with specific aspects of these subjects and, as is the case of the Dominion Bureau of Statistics, in the co-ordination and presentation of the material for Canada as a whole.

As a general guide to the public, it may be pointed out that questions relating to the actual development and administration of resources should be forwarded to the particular provinces concerned. The Federal Government, while not administering the resources within provincial boundaries, co-operates closely with the provinces and is in a position to furnish material for Canada, especially production data, on a national basis, marketing data on international, national and provincial
bases, research work and experimental station data on a national basis, and also on a provincial basis from Federal Government stations located within particular provinces. In agriculture, for instance, data on the breeding of live stock and the improvement of strains, on agricultural marketing and on crop yields are cases in point; in forestry, questions of forest research, forest-fire protection and reforestation offer good examples. Inquiries directed to federal sources for information not of a statistical nature should, as a general rule, be sent to the individual Departments listed in the Directory; in the case of statistical information, inquiries should be addressed to the Dominion Bureau of Statistics, Ottawa.

Under the provisions of the Public Printing and Stationery Act, the Queen's Printer and Controller of Stationery has charge of the sale of all official publications of Parliament and the Government of Canada that are issued for sale, as well as of the free distribution of all public documents and papers to persons and institutions (libraries) entitled by statutory provisions to receive them without payment.

The Queen's Printer and Controller of Stationery issues the Daily Checklist of Government Publications, published mainly for administrative convenience. It records all Federal Government publications immediately upon release, for the information of the public service, libraries, etc. All those who are authorized by law or regulation to receive free copies of government publications receive the Daily Checklist automatically and without charge. Other persons desiring the service may purchase an annual subscription to the Daily Checklist, to be forwarded daily or in weekly batches, as requested.

The Monthly Catalogue of Canadian Government Publications, also issued by the Queen's Printer and Controller of Stationery, is a comprehensive listing of all official publications, public documents and papers, not of a confidential nature, printed or "processed" at government expense.

An Annual Catalogue comprising all publications listed in the Monthly Catalogue was issued Jan. 15, 1955. This is a consolidation by departments of all active titles (older publications still available and not superseded by later editions) issued during 1953 and in previous years. Separate prints of departmental lists of publications included in the Annual Catalogue were also made available at the same time.

The Queen's Printer and Controller of Stationery publishes subject catalogues and special bulletins advertising new government publications. The titles of some publications available for free distribution, and obtainable from the issuing federal department, are listed in the Daily Checklist and Monthly Catalogue. Lists of publications are available from some Government Departments.

Most provincial government printed publications may be obtained from the Queen's Printer of the province concerned. Inquiries should be addressed to the provincial capital cities:-

| Newfoundland. | St. John's | - Ontario. | Toronto |
| :---: | :---: | :---: | :---: |
| Prince Edward | Charlottetown | Manitoba. | Winnipeg |
| Nova Scotia. | Halifax | Saskatchewan. | Regina |
| New Brunswick | Fredericton | Alberta. | Edmonton |
| Quebec. | Quebec | British Columbia | Victoria |

Inquiries about the Yukon and Northwest Territories should be addressed to the Northern Administration and Lands Branch, Department of Northern Affairs and National Resources, Ottawa.

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION 

## Sources for Federal Data

Editorial and Information Division
Dept. of Fisheries, Information and Educational Service
National Film Board (films, filmstrips, photographs on all subjects)
National Research Council Public Relations Branch
Dept. of Transport Information Bureau

Dept. of Agriculture
Information Service
Experimental Farms Service (stations and farms throughout Canada)
Dept. of Northern Affairs and National Resources
(Yukon and Northwest Territories)
Dept. of Citizenship and Immigration Indian Affairs Branch
Dept. of Labour (immigration and movement of farm workers)
Dept. of Veterans Affairs (veterans only)
Dept. of Finance (farm improvement loans)
Canadian Farm Loan Board (longterm mortgage loans)
Central Mortgage and Housing Corporation (long-term mortgage loans)
National Film Board (films, photographs)
Dominion Bureau of Statistic:

## AGRICULTURE

General and Farming


Sources for Provincial Data

For broad general information in regard to particular provinces application should be made to: N'f'ld., Dept. of Provincial Affairs; P.E.I., Tourist and Information Bureau; N.S., Dept. of Trade and Industry; N.B., Dept. of Industry and Development or Dept. of Provincial SecretaryTreasurer or N.B. Travel Bureau; Que., Bureau of Statistics; Ont., Bureau of Statistics and Research or Dept. of Travel and Publicity: Man., Dept. of Industry and Commerce and Dept. of Provincial Secretary: Sask., Provincial Secretary. Bureau of Publications, or Executive Council. Industrial De velopment Office, or Economic Advisory and Planning Board: Alta., Publicity Bureau, Dept. of Economic Affairs; B.C., Bureau of Economics and Statistics.
P.E.I., N.S., N.B., Sask.:-Depts. of Agriculture
N'f'ld.:-Dept. of Mines and Resources
Que.:-Dept. of Agriculture, Information and Researcb Branch
Dept. of Trade and Commerce Bureau of Statistics
Ont.:-Dept. of Agriculture. Statistice and Publication Branch
Man.:-Dept. of Agriculture and Immigration. Publications Branch and Extension Service
Alta.:-Dept. of Agriculture
B.C.:-Dept. of Agriculture, Dept. of Trade and Industry. Bureau of Economics and Statistics
Dominion Bureau of Statisticn (summaries of provincial data)

National Film Board (films, film-strips and photographs)
Dept. of Citizenship and Immigration Indian Affairs Branch
Dept. of Mines and Technical Surveys Editorial and Information Division Geological Survey of Canada Surveys and Mapping Branch Geographical Branch
National Research Council
Division of Building Research (permafrost, buildings in the north, snow and ice)
Dept. of Northern Affairs and National Resources
Editorial and Information Division Arctic Division
Dept. of Transport (Arctic navigation)
Dept. of Fisheries Fisheries Research Board

## Sources for Federal Data

Subject
Sources for Provincial Data

Dept. of Mines and Technical Surveys Astrophysical Observatory. Victoria, B.C.
Domiaion Observatory. Ottawa, Ont
National Research Council
Division of Radio and Electrical Engineering (radio astronomy)

Dept. of Mines and Technical Surveys Survey of Canada Mines Branch
Atomic Energy Control Board (policy, regulations)
Atomic Energy of Canada Limited (research studies, sale of radioisotopes)
Eldorado Mining and Refining Limited
National Film Board (films)

Dept of Transport
Civil Aviation Division (controls, licences and facilities, such as radio aids and licences)
Air Transport Board (licensing of commercial air services and the economic regulation of such air services)
Bureau of Transportation Economics
Trans-Canada Air Lines
Dept. of National Defence Directorate of Public Relationa (Air Force)
Dept. of National Health and Welfare Civil Aviation Medicine Division
Dept. of Defence Production Aircraft Branch
National Film Board (films and photographs)
National Research Council
Diviaion of Mechanical Engineering (aeronautical research)
Dominion Bureau of Statistica

Bank of Canada
Industrial Development Bank
Dept. of Finance
Dept. of Insurance (for trust and loan business. administers also the Small Loans Act)
Central Mortgage and Housing Corporation
Poat Office Department, Savings Branch
Dominion Bureau of Statistics (summary statistics)

AVIATION
Ont.:-Dept. of Lands and Forests. Air Service
Man. :-Manitoba Government Air Services
Sask.:-Saskatchewan Government Airways

BANKING
Trust and Loan Companies

N'f'ld.:-Dept. of Finance
Supreme Court. Registry of Deeds
P.E.I.:-Dept. of Provincial Secretary
N.B.:-Dept. of Provincial Secre-tary-Treasurer
Que.:-Dept. of Finance. Insurance Branch
Dept. of Trade and Commerce Bureau of Statistics
Ont. :--Province of Ontario Savings Office
Attorney-General. Dept. of Insurance
Sask. :-Provincial Secretary, Registrar of Securities
Dept. of Co-operation and Cooperative Development, Credit Union Services
Alta.:-Government of Alberta Treaaury Branches
B.C.:-Dept. of Finance, Inspector of Trust Companies

## Sources for Federal Data

National Library (Public Archives), Ottawa
National Library will give information $r e$ books in libraries of federal departments and branches as well as in other Canadian libraries, also information on current Canadian publications, federal. provincial and trade.
$\underline{\text { Subject }}$


## Sources for Provincial Data

N'f'ld.:-Dept. of Education Public Libraries Board
P.E.I.:-Dept. of Education

Superintendent of Libraries and Director of Adult Education
N.S.:-Dept. of Education
N.B., Man.:-Dept. of Education Provincial Librarian
Que.:-Office of Provincial Secretary Provincial Archives
Ont.:-Dept. of Education Director of Public Library Service
Sask.:-Provincial Library Legislative Library
Alta.:-Dept. of Economic Affairs Library Board *
Public Library Commission


Dept. of National Health and Welfare
Blindness Control Division
Old Age Assistance Division

Dept. of Northern Affairs and National Resources
Director of Old Age Assistance (Northwest Territories)
Director of Old Age Assistance and Blind Persons Allowances (Yukon Territory)

Sources same as for "Old Age Assistance" excepting:
P.E.I.:-Director of Blind Persons Allowances

## BROADCASTING <br> See "Radio"

Dept. of Public Works
Building Construction Branch Chief Architect and Information Services
Dept. of Northern Affairs and National Resources
Engineering and Water Resources Branch
Central Mortgage and Housing Corporation
National Research Council, Division of Bailding Research (materials of construction. building codes. building practice, soil and snow mechanics)
Dept. of National Health and Welfare Hospital Design Division
Dept. of Defence Production
Defence Construction (1951)
Limited
Dominion Bureau of Statistics


## BUILDING CONSTRUCTION

N'f'ld., N,B.:-Dept. of Public Works P.E.I.:-Dept. of Industry and Natural Resources
Ont.:-Dept. of Labour. Factory Inspection Branch
Dept. of Planning and Develop-
ment
Man., Sask.:-Dept. of Labour Alta.:-Dept. of Industries and Labour
Provincial Bureau of Statistics
B.C.:-Dept. of Finance. Public Housing
Dept. of Labour. Factory Inspection Branch
Dept. of Trade and Industry
Bureau of Economics and Statistics

## Sources for Federal Data

Subject

## CITIZENSHIP

See also
"Population"

## CIVIL AVIATION

See "Aviation"

Dept. of National Health and Welfare
Civil Defence Division


N'f'ld:--Dept. of Provincial Affairs P.E.I., Man.:-Office of the Premier N.S. N.B., Alta.:-Depts. of Municipal Affairs
Que.:-Dept. of Social Welfare and Youth
Ont.. Sech.C.:-Depts. of Provincial Sask.:-Dept. of Social Welfare, Director of Civil Defence

Dept. of Transport
Meteorological Division, Toronto
National Research Council Division of Building Research Climatological Atlas of Canada

## CLIMATE

Que.:-Dept. of Lands and Forests Meteorological Bureau
Dept. of Trade and Commerce Bureau of Statistics
B.C.z-Dept. of Agriculture


[^421]$\left.\begin{array}{ccc}\begin{array}{c}\text { Dept. of Justice } \\ \text { Director of } \\ \text { Research } \\ \text { Restrictive } \\ \text { mission }\end{array} & \text { Investigation Practices } & \text { and } \\ & \end{array}\right\}$

## COMBINES

Dept. of Northern Affairs and National Resources
Northern Administration and Lands Branch (wireless communication in the Yukon and Northwest Territories)
National Parks Branch (telephones in National Parks)
Board of Transport Commissioners (regulation of certain telegraph and telephone companies)
Dept. of Transport
Telecommunication Divisionradio communications; aviation radio and marine radio; Government telegraph and telephone services (telegraph and telephone services in remote areas)
Canadian Overseas Telecommunication Corporation
Canadian Broadcasting Corporation (network broadcasting, television, and international shortwave service)
Dominion Bureau of Statistics


N'f'ld:-Dept, of Economic Development
P.E.I.:-Tourist and Information Bureau
N.B.:-N.B. Travel Bureau

Que.:-Public Service Board
Transportation Board
Ont.:-Municipal Board and Bureau of Statistics and Research
Man.:-Menitoba Telephone System
Sask.:-Dept. of Telephones
Saskatchewan Government Telephones
Alta.:-Dept. of Railways and Telephones
B.C.:-Dept. of Railways

RCMP Provincial Headquarter ${ }^{6}$

Sources for Federal Data
Subject

## COMMUNITY PLANNING

Central Mortgage and Housing Corporation
Federal District Commission
National Capital Hlanoing Committee. Information Office (general information on the Plan for the National Capital of Canada)
National Film Board (films, photographs)

Dept. of Northern Affairs and National Resources
National Parks Branch. Canadian Wildlife Service
Northern Administration and Lands Branch
Forestry Branch
Federal District Commission
Dept. of Agnculture
Experimental Farms Service
Economics Division
Prairic Farm Rehabilitation Administration
Maritime Marshlands Rehabilitation Administration
Dept. of Fisheries
Information and Educational Service
National Film Board (films, photographs)

## CONSERVATION

Privy Council Office
Dept. of Secretary of State
Dept. of Justice
Public Archives

## CONSTITUTION

Sources for Provincial Data
N'f'ld.:-Dept. of Municipal Affaire and Supply
P.E.1.:-Dept. of Industry and Natural Resources
Dept. of Education, Physical
Fitness Division
N.S.:-Dept. of Municipal Affairs

Dept. of Education, Physical Fitness Division
N.B.:-Dept. of Education. Physical Education and Recreational Branch
Que., Sask.:-Depts. of Municipal Affairs
Ont.:-Dept. of Planning and Development, Community Planning Branch
Dept. of Education, Community Programs Branch
Man.:-Depts. of Municipal Commissioner and Mines and Natural Resources. Surveys Branch
Dept. of Health and Public Welfare. Physical Fitness and Recreation Division
Sask.:-Dept. of Municipal Affairs, Community Planning Branch
Executive Council, Economic Advisory and Planning Board
Alta.:-Dept. of Municipal Affairs, Town and Rural Planning Branch
Dept. of Education, Health and Recreation Branch
B.C.:-Dept. of Trade and Industry, Bureau of Economics and Statistics
Dept. of Municipal Affairs Regional Planning Division
Dept. of Education. Community Programs Branch

N'f'ld.:-Dept. of Mines and Resources
P.E.I.:-Dept. of Industry and Natural Resources
N.S., Alta.:-Depts. of Lands and Forests
N.B.:-Dept. of Lands and Mines

Que.:-Dept. of Lands and Forests
Dept. of Game and Fisheries
Dept. of Hydraulic Resources
Ont.:-Dept. of Lands and Forests Dept. of Planning, and Development, Conservation Branch
Ontario Agricultural College, Guelph
Man.:-Dept. of Mines and Natural Resources
Sask.:-Dept. of Natural Resources Dept. of Agriculture, Conservation and Development Branch
B.C.:-Dept. of Lands and Forests, Director of Conservation

All Provinces except B.C.:-Depts. of Attorney General
B.C.:-Provincial Secretary

Subject
Sources for Provincial Data
N'f'ld.:-Dept. of Fisheries and Co-operatives
P.E.I.:-Dept. of Agriculture
N.S.:-Dept. of Provincial Secretary
N.B.:-Dept. of Agriculture
Que.:-Dept. of Agriculture
N.B.:-Dept. of Agriculture
Que.:-Dept. of Agriculture

Dept. of Trade and Commerce
Bureau of Statistics
Ont.:-Dept. of Agriculture
Co-operation and Markets Branch
Man.:-Dept. of Agriculture and Immigration, Co-operative Services Branch
Sask.:-Dept. of Co-operation and
Co-operative Development
Sask.:-Dept. of Co-operation
Co-operative Development
Alta.:-Dept. of Industries and Labour
B.C.:-Attorney-General's Dept..

Registrar of Companies

CO-OPERATIVES (including Credit Unions)
nd

Dominion Bureau of Statistice

Dept. of Agriculture
Economics Division
Dept. of Fisheries
Information and Educational Service
Dept. of Insurance
Central Mortgage and Housing
Corporation (mortgage lending activities)
Dept. of Secretary of State (for incorporation)
Dominion Bureau of Statistice $\}$ COST OF LIVING $\left\{\begin{array}{l}\text { N'f'Id.:-Dept. of Municipal Affairs } \\ \text { and Supply } \\ \text { Alta:-Dept. of Industries and } \\ \text { Labour } \\ \text { Provincial Bureau of Statistics } \\ \text { B.C.:-Dept. of Trade and Industry } \\ \text { Bureau of Economics and Statistics }\end{array}\right.$

Dept. of Northern Affairs and National Resources
Northern Administration and Lands Branch
National Parks Branch
National Museum of Canada
Dept. of Citizenship and Immigration Indian Affairs Branch (Indian handicrafts)
Dept. of Trade and Commerce
Commodities Branch
National Gallery of Canada (films, reference library)
National Film Board
strips photographs) (films, film${ }^{\text {strips. }}$, photographs)
Dept. of Veterans Affairs (veterans only)
Public Archives
Dept. of National Health and Welfare
Physical Fitness Division (theatre arte and handicrafts)

## CREATIVE ARTS <br> AND HANDICRAFTS

N'f'ld:-Dept. of Education
P.E.I.:-Tourist and Information Branch
Dept. of Education, Physical Fitness Division
N.S.:-Dept. of Trade and Industry. Handicrafts Division
Nova Scotis College of Art
Dept. of Education, Physical Fitness Division
N.B.:-Dept. of Industry and Development, Handicraft Division
The New Brunswick Museum, Saint John
Dept. of Education. Physical Education and Recreation Branch
Que.:-Dept. of Agriculture (rural handicrafts)
Ont.:-Royal Ontario Museum
Dept. of Education, Community Programs Branch
Man::-Dept. of Agriculture and Immigration (handicrafts)
Dept. of Health and Public Welfare, Physical Fitness and Recreation Division
Sask.:-Dept. of Education, Adult Education Division Fitness and Recreation Division
Saskatchewan Arts Board
Alta.: -Dept. of Economic Affairs (cultural activities)
Dept. of Education. Health and Recreation Branch
B.C.:-Provincial Museum (Indian handicrafts)
Dept. of Education. Community Programs Branch

Subject
Sources for Provincial Data

All Provinces:-Depts. of Attorney General
Additional-
N'f'ld., N.S., Alta.:-Depts. of Public Welfare
P.E.I., B.C.:-Depts. of Health and Welfare
Que.:-Dept. of Social Welfare and Youth
Dept. of Trade and Commerce Bureau of Statistics.
Ont.:-Dept. of Reform Institutions
Man.:-Dept. of Health and Public Welfare
Sask.:-Dept. of Social Welfare

For information with regard to individual Crown Corporations apply as follows:
N'f'ld.:-Dept. of Economic Development
P.E.I.:-Dept. of Industry and Natural Resources
Ont.:-Dept. of Provincial Secretary Man.:-Treasury Dept.
Sask.:-Government Finance Office B.C.:-Attorney-General's Dept.

## Bank of Canada <br> Dept. of Finance <br> Royal Canadian Mint



## CUSTOMS AND EXCISE <br> See "Taxation"

See pp. 98-105 of this volume for a list of Crown corporations giving in each case the Cabinet Minister through which that particular corporation reports to Parliament.


Dept. of Agriculture
Animal Husbandry Division
Dairy Products Division
Dairy Technology Research Unit
National Film Board (films, photographs in co-operation with the Dept. of Agriculture)
Dominion Bureau of Statistica

## DAIRYING

N'f'ld.:-Dept. of Mines and Resources
P.E.I., N.S.:-Depts. of Agriculture
N.B., Ont., Alta., B.C.:-Depts. of Agriculture, Dairy Branches (also Milk Control Board tor Ont. and B.C.)
Que.: - Dept. of Agriculture,
Dairy Commission
Dept. of Trade and Commerce Bureau of Statistics
Man.:-Dept. of Agriculture and Immigration. Milk Control Board, Dairy Branch
Sask.:-Dept. of Agriculture, Animal Industry Branch
Milk Control Board

## Sources for Federal Data

Subject
Sources for Provincial Data
Dept. of National Defence
Director of Public Relations Directorates of Naval Information
Public Relations (Army)
Public Relations (RCAF)
Public Relations (Defence Research Board)
Dept. of Defence Production
Canadian Commercial Corporation
Defence Construction (1951) Limited
Canadian Arsenals Limited
Dept. of National Health and Welfare
Civil Defence Division

Dept. of Defence Production

## DEFENCE PRODUCTION

Bank of Canada
Dept. of Trade and Commerce Economics Branch
Dept. of Labour
Economica and Research Branch Legislation Branch
Dept. of Mines and Technical Surveys
Dept. of Northern Affairs and National Resources
Administration Branch
Engineering and Water Resources Branch
Forestry Branch
Northern Administration and Lands Branch (for Eskimos)
Dept. of National Health and Welfare Research Division
Dept. of Agriculture
Economics Division
Board of Transport Commissioners Bureau of Transportation Economics
Dept. of Fisheries
Fisheries Research Board of Canada
Central Mortgage and Housing Corporation
Dept. of Defence Production Economics and Statistics Branch
Dominion Bureau of Statistics

ECONOMIC
AND SOCIAL RESEARCH

Canadian Broadcasting Corporation (school broadcasts)
Dept. of Northern Affairs and National Resources
Northern Administration and Lands Branch (N.W.T.)
Dept. of National Health and Welfare
Dept. of Citizenship and Immigration Canadian Citizenship Branch Indian Affairs Branch
Dept. of Veterans Affairs (veterans and children of war dead)
Dept. of Labour
Canadian Vocational Training Branch
Dept. of Fisheries
Information and Educational Service
National Gallery of Canada (school broadcasts, lectures on art)
Dominion Bureau of Statistics

N'f'ld.:-Dept. of Economic Development
P.E.I.:-Dept. of Industry and Natural Resources
N.S.:-Dept. of Trade and Industry, Nova Scotia Research Foundation
N.B.:-Dept. of Industry and Development
Que.:-Dept. of Trade and Commerce, Economic Research Bureau
Ont.:-Bureau of Statistics and Research
Man.:-Dept. of Industry and Commerce
Sask.:-Executive Council. Economic and Advisory Planning Board
Executive Council, Industrial Development Office
Government Finance Office
Dept. of Co-operation and Cooperative Development, Research and Statistical Division
Alta.:-Director of Industrial Development and Economic Research
Dept. of Economic Affairs
B.C.:-Dept. of Trade and Industry

Bureau of Economics and Statistics

Sources for Federal Data
Subject
Sources for Provincial Data
N'f'Id.:-Dept. of Provincial Affairs
P.E.I., N.S.:-Depts. of Provincial Secretary
N.B.:-Dept. of Provincial Secre-tary-Treasurer
Que.:-Chief Returning-Officer
Ont.:-Provincial Secretary's Dept., Chief Election Officer
Man., B.C.:-Chief Electoral Offcers
Sask., Alta.:-Clerks of the Executive Councils

N'f'ld.:-Dept. of Economic Development
P.E.I.:-Public Utility Commission
N.S., Alta.:-Power Commissions
N.B.:-New Brunswick Electric Power Commission
Que.:-Hydro-Electric Commission Dept. of Hydraulic Resources
Ont.:-The Hydro-Electric Power Commssion of Ontario
Man.:-Manitoba Hydro Electric Board
Dept. of Public Utilities
Sask.:-Saskatchewan Power Corporation: Saskatchewan Power Commission
B.C.:-Dept. of Lands and Forests British Columbia Power Commission

Dept. of Labour
National Employment Service F.conomics and Research Branch

Civil Service Commission (opportunities for, and conditions of. employment in the Federal Civil Service)
Dominion Bureau of Statistic:

Dept. of Northern Affairs and National Resources
Northern Administration and Lands Branch (education, welfare. handicrafts. livelihood)
Arctic Division (Eskimo problems)
National Museum of Canada (historical and archæological information, handicrafts)
Canadian Wildlife Service (wildlife in Canada's North)
Dept. of National Health and Welfare (health and medical services)
Royal Canadian Mounted Police (field duties)

Dept. of Trade and Commerce
Canadian Government Exhibition Commission
Dept. of Agriculture
Information Service
National Film Board (films, photographs)
National Gallery of Canada (paintings, reproductions, etc.)
Dept. of Northern Affairs and National Resources
Canadian Government Travel Bureau (sportsmen's shows)
Dept. of Fisheries
Information and Educational Service

## EXHIBITIONS

All Provinces:-Depts. of Agriculture (farm labour)
Additional:-N'f'ld., N.S., Man., Sask.:-Depts. of Labour
Que.:-Dept of Labour. Provincial Employment Bureau
Ont.:-Dept. of Labour Bureau of Statistics and Research
Alta.:-Dept. of Industries and Labour
B.C.:-Dept. of Labour

Bureau of Economics and Statistics

## EMPLOYMENT



N'f'ld.:-Dept. of Public Welfare, Division of Northern Labrador Affairs

N'f'Id.:-Dept. of Economic Development
N.B., Sask.:-Dept. of Agriculture Que.t-Dept. of Agriculture

Dept. of Trade and Commerce
Ont.:-Most Ontario Departments organize exhibitions
Man:-Dept. of Agriculture and Immigration, Extension Service
Dept. of Industry and Commerce
Alta.:-Dept. of Economic Affairs B.C.:-Depts. of Agriculture. Trade and Industry


Dept. of Finance
Bank of Canads
Dominion Bureau of Statistics
$\left\{\begin{array}{c}\text { FINANCE } \\ \text { See also "Taxation" }\end{array}\left\{\begin{array}{l}\text { N'flld., B.C.:-Depts. of Finance } \\ \text { P.E.I.,Sask.:-Provincial Treasurer } \\ \text { N.S.:-Dept of Provincial Treasurer } \\ \text { N.B.:-Dept. of Provincial Secretary- } \\ \text { Trreasurer } \\ \text { Que.:-Dept. of Finance } \\ \text { Dept. of Trade and Cornmerce } \\ \text { Bureau of Statistics } \\ \text { Ont.:-Provincial Treasurer's Dept. } \\ \text { Man., Alta.:-Provincial Treasury } \\ \text { Depts. }\end{array}\right.\right.$


| Sources for Federal Data | Subject | Sources for Provincial Data |
| :---: | :---: | :---: |
| Dept. of Fisheries <br> Information and Educational Service <br> Fisheries Research Board of Canada <br> Dept. of Trade and Commerce <br> Agriculture and Fisheries Branch <br> National Film Board (films, photographs) <br> Dominion Bureau of Statistics | FISHERIES | N'f'ld.:-Dept. of Fisheries and Co-operatives Industry and Natural Resources <br> N.S.:-Dept. of Trade and Industry Fisheries Division <br> N.B.:-Dept. of Industry and Development. Fisheries Branch <br> Que.:-Dept. of Game and Fisheries <br> Dept. of Trade and Commerce. <br> Bureau of Statistics <br> Ont.:-Dept. of Lands and Forests <br> Fish and Wildlife Division <br> Man.:-Dept. of Mines and Natural <br> Resources, <br> Game and Fisheries Branch <br> Sask.:-Dept. of Natural Resources. <br> Fisheries Branch <br> Saskatchewan Marketing Service <br> Alta.:-Dept. of Lands and Forests. <br> Fish and Game Branch <br> B.C.:-Dept. of Fisheries <br> Provincial Game Commission |
|  | FOOD AND DRUGS <br> See "Standards" <br> and "Nutrition" |  |
| Bank of Canada $\}$ | $\begin{aligned} & \text { FOREIGN } \\ & \text { EXCHANGE } \end{aligned}$ |  |



Dept. of Agriculture
Marketing Service (fur grading)
Experimental Farms Service (ranch fur production)
National Film Board (photographs)
Dominion Bureau of Statistics (general fur products statistics)


## FUR FARMING

## See also

"Trapping"

N'f'ld.:-Dept. of Mines and Resources
P.E.I.:-Dept. of Industry and Natural Resources
N.S. Que., Ont., Alta., B.C.:Depts. of Lands and Forests
N.B.:-Dept. of Lands and Mines

Man.:-Dept. of Mines and Natural Resources, Forestry Branch
Sask.:-Dept. of Natural Resources, Forestry Branch

N'f'ld.:-Dept. of Mines and Resources
P.E.I., N.B., Alta., B.C.:-Depts. of Agricultare
N.S., Ont.:--Depts. of Lands and Forests
Que.:-Dept. of Agriculture
Dept. of Trade and Commerce Bureau of Statistics
Man.:-Dept. of Mines and Natural Resources, Game and Fisheries Branch
Sask.:-Dept. of Natural Resources Saskatchewan Marketing Service

## Sources for Federal Data

## Subject

## Sources for Provincial Data

Dept. of Mines and Technical Surveys

Geographical Branch
Canadian Board on Geographical Names
Dept. of Agriculture
Field Husbandry Division (soil nurveys)
Public Archives
Dept. of Fisheries
Fisheries Research Board (oceanography)

GEOGRAPHY
g(a)

Dept. of Mines and Technical Surveys
Geological Survey of Canada

## GEOLOGY

GOVERNMENT

For 'Senate of
Canada', 'House of

Commons' and
'Library of

Parliament' See

"Parliament"

N'f'ld.:-Dept. of Mines and Resources
N.B.:-Dept. of Lands and Mines

Man.:-Dept. of Mines and Natural Resources
Sask.:-Dept. of Natural Resources Bureau of Publications
B.C.:-Dept. of Lands and Forests

N'f'ld.:-Dept. of Mines and Resources
N.S., B.C.:-Depts. of Mines
N.B.:-Dept. of Lands and Mines

Que.:-Dept. of Mines
Geological Surveys Branch
Ont.:-Dept. of Mines
Geological Branch
Man.:-Dept of Mines and Natural Resources. Mines Branch
Sask.:-Dept. of Mineral Resources
Alta.:-Dept. of Mines and Minerals

Dept. of Secretary of State (FederalProvincial channel of communication)
Chief Electoral Office (Electoral Act and Voters Lists)
Clerk of the Frivy Council (appointments orders in council. stautory orders ani 1 regilitions)
Dept. of Citizenship and Immigration Canadian Citizenship Branch
Dept. of Northern Affairs and National Resources (for Yukon and Northwest Territories)

N'f'ld.:-Dept. of Provincial Affairs
P.E.I., N.S., Ont., Man., Sask., Alte., B.C.:-Depts. of Provincial Secretary
N.B. :-Dept. of Provincial SecretaryTreasurer
Que.:-Office of Provincial Secretary

Dept. of National Health and Welfare
Health Branch
Dept. of Northern Affairs and National Resources (for N.W.T.)
Dominion Bureau of Statistics (hospital statistics)
National Film Board (films. filmstrips. photographs)

## HEALTH

For 'Health of Veterans' See "Veterans Affairs"

N'f'ld., Que., Ont.:-Depts. of Health
P.E.1.:-Dept. of Health and Welfare
N.S. Sask., Alta.:-Depts. of Public Health
N.B.t-Dept. of Health and Social Services
Man.:-Dept. of Health and Public Welfare
B.C.:-Dept. of Health and Welfare (general)
Dept. of Provincial Secretary (mental hospitals)
British Columbia Hospital Insurance Commission

## HIGHWAYS <br> See <br> "Transportation"

 maries. etc.)
Dept. of Citizenship and Immigration Canadian Citizenship Branch
Dominion Bureau of Statistics

N'f'ld.:-Legislative Library Gosling Memorial Library
N.S.:-Public Archives
N.B.:-Legislative Library

Que.:-The Archives
Ont.:-Legislative Library
Bureau of Statistics and Research
Provincial Archivist
Man.:-Provincial Library and Archives
Sask.:-Legislative Library. Archives Division
Alta.:-Archives Provincial Library B.C.:-Dept. of Education

Provincial Archivist


| Dept. of Citizenship and Immigration Immigration Branch |  | E.I.:-Dept. of Industry and |
| :---: | :---: | :---: |
| Dept. of Labour <br> Special Services Branch |  | Natural Resources <br> Ont.:-Dept of Planning and De- |
| Dept. of National Health and Welfare | IMMIGRATION | velopment <br> Bureau of Statistics and Research |
| Quarantine, Immigration Medical and Sick Mariners Division |  | Man.:-Dept of Agriculture and Immigration |
| National Film Board (films. photographs) |  | Sask.:-Dept. of Social Welfare Alta.:-Dept. of Economic Affairs |
| Dominion Bureau of Statistics |  |  |



> INDUSTRIAL DEVELOPMENT See "Manufacturing"

## Sources for Federal Data

Subject
Sources for Provincial Data
Dept. of Insurance (Dominion, Federal Civil Service insurance)

Dept. of Labour
Annuitien Branch
Dept. of Veterana Affairs
Veterans Insurapce Branch
Dept. of Trade and Commerce Export Credits Insurance poration
Central Mortgage and Housing Corporation (insures loans made under National Housing Act 1954 and other appropriate circumstances)
Dominion Bureau of Statistics (aummary statistica of all typee of insurance)

## INSURANCE-

 LIFE, FIRE, ETC.for 'Unemployment Insurance' See "Labour"

N'f'ld.:-Dept. of Finance
P.E.1., N.S.., N.B., Man., Alta., B.C.:-Superintendents of Insurance
Que.:-Finance Dept., Insurance Branch
Ont.:-Dept. of Insurance
Sask.:-Superintendent of Insurance, Government Insurance Office


Dept. of Justice
Dominion Bureau of Statistica


Dept. of Labour
Information Branch
Government Annuities Branch
Legislation Branch
Unemployment Insurance Commission
Economics and Research Branch
Canada Labour Relations Board
Canadian Vocational Training Branch
Civilian Rehabilitation Branch
Industrial Relations Branch (conciliation of labour disputes. payment of fair wages on government contracts, promotion of labour-management production committees. fair employment practices)
International Labour Organization Branch
LABOUR
See also "Workmen's Compensation"

N'f'Id., N.S., N.B., Man., Sask.:Depts. of Labour
Que., Ont., B.C.z-Depts. of Labour
Provincial Bureaus of Statistics Alta.:-Dept. of Industries and Labour
Provincial Bureau of Statistics

## Sources for Provincial Data

N'f'ld.:-Dept. of Mines and Resources
Dept. of Northern Affairs and National Resources
Northern Administration and Lands Branch (Yukon and Northwest Territories)
Dept. of Mines and Technical Surveys
Surveyor General of Canada
Dept. of Veterans Affairs
Dept. of Citizenship and Immigration Immigration Branch (for land settlement)
Dept. of Transport
Lands Branch

Royal Canadian Mounted Police (Enforces Federal Statutes in all parts of Canada; also curries out. on behalf of Attorneys General and under contract, enforcement of the Criminal Code and Provincial Statutes in all provinces except Quebec and Ontario; is the only law-enforcement body in the Yukon and Northwest Territories and assists in the welfare of Eshimos and Indians in these territories. The Minister in control of the Force is the Minister of Justice.)

Clerk of the Senate of Canada
Clerk of the House of Commons
Dept. of Justice
Dept. of Northern Affairs and National Resources (for Yukon and Northwest Territories)
For Acts administered by individual Federal Depts., see pp. 105-109 of this volume.

## LAW ENFORCEMENT

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LEGISLATION For 'Statutory Orders and Regulations' See "Government"
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All Provinces except Man. and B.C.:-Depts. of Attorney General
Man.:-Legislative Counsel
B.C.:-Dept. of Provincial Secretary

## LIBRARIES <br> See "Bibliography: Books"


P.E.I.:-Commissioner of Public Lands
N.S.:-Dent. of Agriculture, Land Settlement Board
N.B.:-Dept. of Lands and Minea

Que.:-Dept of Lands and Forests Dept. of Colonization
Ont.. Alta.:-Depts. of Lands and Forests
Man.:-Dept. of Mines and Natural Resources, Lands Branch
Sask.:-Dept. of Agriculture. Lands Branch; Attorney General, Land Titles
B.C.:-Dept. of Agriculture. Land Clearing; Dept. of Lands and Forests

All Provinces:-Depts. of the Attorney General

N'f'ld.:-Dept. of Finance
P.E.I.:-Temperance Commission
N.S., Que.:-Liquor Commissions
N.B., Ont., Alta., B.C.:-Liquor Control Boards
Man.:-Liquor Control Commission tistical report covering Canada)
Dept. of Agriculture
Livestock Marketing Division (for marketing data)
Live-stock and Poultry Division (for breeding programs and testing data)
Health of Animals Division (for administration of disease control regulations, meat inspection. etc.)
Animal Husbandry Division (for general information)
Animal Pathology Division (research in animal diseases)
Dept. of Trade and Commerce
Agriculture and Fisheries Branch
National Film Board (films, photographs, in relation to Dept. of Agriculture)
Dominion Bureau of Statistice

Sask.:-Liquor Board
Sask.:-Liquor Board

N'f'ld.:-Dept. of Mines and Re-
P.E.I., N.B., Ont.:-Depts. of Agriculture, Live-stock Branches N.S.:-Dept. of Agriculture, Animal Husbandry Branch
Que.:- Dept. of Agriculture. Animal Husbandry Branch
Provincial Bureau of Statistics
Man.:-Dept. of Agriculture and Immigration, Live Stock Branch
Sask:--Dept. of Agriculture, Animal Industry Branch
Alta., B.C.:-Provincial Bureaus of Statistics
Depts. of Agriculture, Livestock Branches

## Subject

Sources for Provincial Data
N'f'ld.:-Dept. of Mines and Resources
P.E.I.:-Dept. of Industry and Natural Resources
N.S., Que., Ont., Alta.:-Depts. of Lands and Forests
N.B.:-Dept. of Lands and Mines

Man.:-Dept. of Mines and Natural Resourcus, Forestry Branch
Sask.:-Dept. of Natural Resources, Forestry Branch
Industrial Development Office
Saskatchewan Timber Board
B.C.:-Dept of Lands and Forests Dept. of Trade and Industry Bureau of Economics and Statistics

## LUMBERING

Dept. of Secretary of State (for incorporation of companies and Companies Act)
Dept. of Trade and Commerce Commodities Branch
Industrial Development Branch
Dept. of Defence Production (for defence items)
Bank of Canada
Industrial Development Bank
National Research Council
Canadian Patents and Development Limited (utilization of new scientific processes)
National Film Board (films, filmstrips and photographs)
National Gallery of Canada (for industrial designs)
Dominion Bureau of Statistics

N'f'ld.:-Dept. of Economic Development
P.E.I.:-Dept. of Industry and Natural Resources
N.S., B.C.:-Depts. of Trade and Industry
N.B.:-Dept. of Industry and Development
Que.:-Dept. of Trade and Commerce. Bureau of Statistics
Ont.:-Dept. of Planning and Development. Trade and Industry Branch
Bureau of Statistics
Man.:-Dept. of Industry , and Commerce
Sask.:-Executive Council. Economic Advisory and Planning Board
Executive Council, Industrial Development Office
Government Finance Office
Alta.:-Dept. of Economic Affairs
Bureau of Statistics
B.C.:-Bureau of Statistics

Dept. of Mines and Technical Surveys
Geographical Branch
Geological Survey of Canada, Surveys and Mapping Branch (geological, topographical and general maps: aeronautical and marine navigation charts)
Dept. of Agriculture (soil survey and economic survey maps)
Public Archives (maps relating to history and cartography)
Dept. of Fisheries
Information and Educational Service (fisheries maps)
Dept. of Transport (meteorological maps)
National Research Council
Division of Building Research Climatological Atlas of Canada
Dominion Bureau of Statistics (economic and census maps)

## MAPS AND CHARTS

N'f'ld.:-Dept. of Mines and Resources
P.E.I.:-Dept. of Public Works and Highways
N.S.:-Dept. of Mines. Research Foundation
N.B.:-Dept. of Lands and Mines Que., Alta., B.C.:-Depts. of Lands and Forests
Ont.:-Dept. of Lands and Forests Dept. of Mines
Man.t-Dept. of Mines and Natural Resources. Surveys Branch
Sask.:-Dept. of Natural Resources Bureau of Publications
(Federal Dept. of Mines and Technical Surveys, Geographical Branch)

## MARRIAGES <br> See "Vital Statistics"

| Sources for Federal Data | Subject | Sources for Provincial Data |
| :---: | :---: | :---: |
| $\left.\begin{array}{l}\text { Dept. of Agriculture } \\ \begin{array}{c}\text { Economics Division (Co-opera- } \\ \text { tives) } \\ \text { Dominion Bureau of Statistics }\end{array}\end{array}\right\}$ | MERCHANDISING | $\left\{\begin{array}{l} \text { Man.s-Dept. of Industry and Com- } \\ \text { merce } \\ \text { Sask.:-Executive Council, Indus- } \\ \text { trial Development Office } \\ \text { Alta.:-Dept. of Industries and } \\ \text { Labour } \\ \text { B.C.:-Dept. of Trade and Industry } \\ \text { Bureau of Economics and } \\ \text { Statistics } \end{array}\right.$ |
| Dept. of Mines and Technical Surveys <br> Mines Branch <br> Geological Survey <br> Dept. of Trade and Commerce Commodities Branch <br> Dominion Bureau of Statistics (for production data) | METALS <br> (other than Iron and Steel) | (N'f'ld.:-Dept. of Mines and Re sources <br> N.S., Que., Ont.:-Depts. of Mines N.B.:-Dept. of Lands and Mines Man.:-Dept. of Mines and Natural Resources, Mines Branch <br> Sask.:-Dept. of Mineral Resources Alta.:-Dept. of Mines and Minerals B.C.:-Bureau of Economics and Statistics Dept. of Mines |

## METEOROLOGY <br> See "Weather"

Dept., of Mines and Technical Surveys
Dept. of Northern Affairs and National Resources (for Yukon and Northwest Territories)
Dominion Bureau of Statistics (for production data)

## MINING AND MINERALS

N'f'Id.:-Dept. of Mines and Resources
N.S., Que., Ont., B.C.:-Depts. of Mines
N.B.:-Dept. of Lands and Mines

Man.:-Dept. of Mines and Natural Resources. Mines Branch
Sask.:-Dept. of Mineral Resources Alta.:-Dept. of Mines and Minerals
 reels and short subjects for theatrical, non-theatrical and teleoision distribution: film-strips and photographs for informational, educational and archival purposes and other visual materials devoted to the interpretation of the Canadian scene to audiences both at home and abroad; and maintains a large film preview library for the benefit of government departments and other official bodies.)
Dept. of National Health and Welfare Information Services Division Physical Fitness Division
National Gallery of Canada (maintains a library of films on art.)

MOTION

## PICTURES

Dominion Bureau of Statistics
Public Finance and Transportation Division

## MUNICIPAL AFFAIRS

N.S., Que., Alta. and B.C. produce educational or informational films N'f'Id., P.E.I., N.B., Ont. and Man. buy such films but do not produce them
Sask.:-Bureau of Publications
Dept. of Education, Visual Education Branch
Dept. of Labour (film censor)
Alta.:-Dept. of Economic Affairs, Photographic Branch
B.C.:-Dept. of Trade and Industry Photographic Branch
All provinces have Motion Picture Censorship Boards. Details may be obtained by application to the province concerned. Depts. of Education and Travel. Provincial Censorship Boards and Regional National Film Board Offices.

N'f'ld.:-Dept. of Municipal Affairs and Supply
P.E.I.:-Dept. of Industry and Natural Resources
N.S., N.B., Que., Ont., Sask., Alta., B.C.:-Depts. of Municipal Affairs
Man.t-Dept. of Municipal Commissioner

Sources for Federal Data

National Gallery of Canada (paintings, sculpture, etc.)
Public Archives (and Canadian War Museum)
Dept. of Northern Affairs and National Resources
National Parks Branch
National Museum of Canada
Historic Parks Museums

Dominion Bureau of Statistic:

Dept. of Citizenship and Immigration Canadian Citizenship Registration Branch

## NATURALIZATION See also "Population"

Subject

MUSEUMS


Dept. of Public Works (construction and operation of graving docks). Harbours and Rivers Branch, Chief Engineer and Information Services
Dept. of Transport
Marine and Canal Services (aids to marine navigation)
Telecommunication Division (radio sids to navigation)
National Research Council
Division of Radio and Electrical Engineering (applications of radar to navigation)
Dept. of Mines and Technical Surveys
Hydrographic Service
National Harbours Board
Canadian Maritime Commission
Dept. of National Health and

| Welfare |
| :--- |
| Nutrition Division |
| Dept. of Agriculture |
| Dept. of Fisheries |

Dept. of Fisheries
Inspection and Consumer Services

## NAVIGATION

## NUTRITION

## OCCUPATIONAL INFORMATION

See "Employment"

N'f'ld., Que., Ont.:-Depts. of Health
P.E.I., B.C.:-Depts. of Health and Welfare
N.S. Alta.:-Depts. of Public Health
N.B.:-Dept. of Health and Social Services
Man.:-Dept. of Health and Public Welfare
Sask. :-Dept. of Public Health, Nutrition Division

## Subject



OLD AGE ASSISTANCE
Dept. of National Health and
Welfare

| Old Age Assistance Division |
| :--- |
| Dept. of Northern Affairs and |
| National Resources |
| Director of Old Age Assistance |
| (Northwest Territories) |
| Director of Old Age Assistance |
| and Blind Persons Allowances |
| (Yukon Territory) |

N'f'ld., N.S.:-The Old Age Assistance Board
P.E.I., Ont.:-Director of Old Age Assistance
N.B.:-The Old Age and Blind Assistance Board
Que.:-Quebec Social Allowances Commission
Man.:-The Old Age Assistance and Blind Persons' Allowances Board
Sask.:-Dept. of Social Welfare, Public Assistance Division
Alta.:-The Pensions Board
B.C.:-Old-Age Assistance Board

Dept. of National Health and Welfare
Old Age Security Division

OLD AGE
SECURITY PENSIONS
N.S. Ont., Alta., B.C.:-Depts. of Lands and Forests
N.B.:-Dept. of Lands and Mines

PATENTS, COPY. RIGHTS AND TRADE MARKS
Dept. of Secretary of State
Canadian Patents and Development Limited
National Library (handles all copyright books)

Dept of Mines and Technical Surveys
The National Air Photographic Library
National Film Board
Public Archives (historical)
 Que.:-Dept. of Game and Fisherics Man.:-Dept. of Mines and Natural Resources. Forestry Branch
Sask,:-Dept. of Provincial Secretary. Parks Branch


N'f'ld.:-Dept. of Provincial Affairs P.E.I., N.B., Man., Sask., Alta., P.E.I., N.B., Man., Sask., Alta.,

Senate of Canada
House of Commons
Library of Parliament N.S., Ont.:-Houses of Assembly Que.:-Legislative Council Legislative Assembly

Sources for Federal Data

Dominion Bureau of Statistics (for all census population statistics) Dept. of Northern Affairs and National Resources
Northern Administration and Lands Branch (for Eskimos)
Dept. of Citizenship and Immigration Canadian Citizenship Branch
Citizenship Registration Branch
Indian Affairs Branch (for Indians)
Public Archives (early census and settlement records)

## Subject

## POPULATION

## Sources for Provincial Data

N'f'ld.:-Dept. of Health
N.B.:-Dept. of Health and Social Services. Vital Statistics Branch
Que.:-Dept. of Health, Vital Statistics Branch
Dept. of Trade and Commerce Bureau of Statistics
Ont.:-Bureau of Statistics and Research
Man.:-Dept. of Industry and Commerce
Sask.:-Dept. of Public Health, Vital Statistics Branch
Dept. of Municipal Affairs
Alta.:-Dept. of Industries and Labour. Provincial Statistician
B.C.:-Dept. of Health and Welfare Vital Statistica
Dept. of Trade and Industry Bureau of Economics and Statistico

Post Office Department
Administration Branch (general postal information. postage rates, both domestic and foreign, etc.)
Transportation Branch (air. Iand and railway mail services)
Financial Branch (information regarding money orders, savings bank. philatelic services, etc.)
Operations Branch (ivformation regarding postal service to the public and hours of service)
Personnel Branch (personnel, training. employee services)

## POST OFFICE

Dept. of Agriculture
Poultry Research Division, Experimental Farms Service (for general information)
Poultry Marketing Division (marketing information)
Live-stock and Poultry Division (breeding programs, hatchery regulations. etc.)
Animal Pathology Division (for poultry diseases)
National Film Board (films and photographs)
Dominion Bureau of Statistics

## POULTRY

N'f'ld.:-Dept. of Mines and Resources
P.E.I., N.S.:-Depts. of Agriculture N.B., Alta., B.C.:-Depts. of Agriculture, Poultry Branches
Que.:-Dept. of Agriculture, Poultry Division
Dept. of Trade and Commerce Bureau of Statistics
Ont.:--Ontario Agricultural College (Guelph). Poultry Division
Man.:-Dept. of Agriculture and Immigration
Sask.:-Dept. of Agriculture. Animal Industry Branch
Dept. of Agriculture
Marketing Service (prices of farm
products)
Agricultural Prices Support Board
Dept. of Fisheries
Fisheries Prices Support Board
Dominion Bureau of Statistics

Dominion Bureau of Statistic:

Man.:-Dept. of Industry and Commerce
Sask.:-Executive Council. E.conomic Advisory and Planning Board
B.C.:-Bureau of Economics and Statistics

Subject

> PUBLIC HEALTH
> See "Health"

Sources for Provincial Data
路

Dominion Bureau of Statistics

N'f'ld., P.E.I.:-Public Utilities Boards
N.S., N.B.:-Boards of Commissioners of Public Utilities
Que.:-Public Service Board
Ont.:-Ontario Municipal Board
Man.t-Dept. of Public Utilities
Sask.:-Government Finance Office
Saskatchewan Government Telephones
Saskatchewan Power Corporation Alta.:-Board of Public Utilities Commissioners Natural Gas Utilities Board B.C.:-Public Utilities Commission

## PUBLIC WELFARE <br> See "Welfare"

Dept. of Labour
Industrial Relations Branch (fair wages)
Drpt. of Public Works
Information Services
Dept. of Transport
Marine, Canal and Air Services
St. Lawrence Seaway Authority (St. Lawrence Seaway and Power Project)

## PUBLIC WORKS

All Provinces except N.S.:-Depts. of Public Works
N.S.:-Dept. of Highways and Public Works
Ont.:-The Hydro-Electric Power Commission of Ontario (St. Lawrence Power Project)

Dept. of Transport
Telecommunications Division (all matters affecting licences and facilities)
Canadian Broadcasting Corporation (national broadcasting in Canada, including radio and television. regulations for control of programs, international shortwave service)
National Research Council
Division of Radio and Electrical Engineering (radio science and its application to industry)


## RAILWAYS <br> See <br> "Transportation"

Sources for Federal Data

Dept. of Northern Affairs and National Resources
Engineering and Water Resources Branch
Central Mortgage and Housing Corporation

Subject
Sources for Provincial Data

N'f'Id.:-Dept. of Economic Development
P.E.I.:-Dept. of Industry and Natural Resources
N.S.:-Depts. of Agriculture and Marketing, and Trade and Industry
N.B.:-Dept. of Industry and Development
Que.:-Depts. of Lands and Forests. Labour, Roads, Trade and Commerce. Social Welfare and Youth
Ont.:-Dept. of Planning and Development
Man.:-Dept. of Industry and Commerce
Sask.:-Dept. of Social Welfare. Rehabilitation Division
B.C.:-Dept. of Trade and Industry Bureau of Economics and Statistics
Dept. of Finance, Public Housing
P.E.I., N.S., N.B., Ont., Sask., Alta., B.C.:-Depts. of Education
Man.:-Dept. of Health and Public Welfare

Dept. of Veterans Affairs
Dept. of Labour
Civilian Rehabilitation Branch Dept of National Health and Weltare

## REHABILITATION

P.E.I.:-Dept. of Education (Coordinator, Rehabilitation Branch)
N.S.:-Dept. of Public Health (Provincial Rehabilitation Coordinator)
N.B.:-Dept. of Health and Social Services (Provincial Co-ordinator of Rehabilitation)
Man.:-Dept. of Health and Public Welfare (Provincial Co-ordinator of Rehabilitation Services)
Sask.:-Dept. of Social Welfare, Rehabilitation Division
Alta.:-Dept. of Public Welfare (Co-ordinator of Rehabilitation of Disabled Persons)
B.C.:-Dept. of Health and Welfare (Rehabilitation Co-ordinator)

Sources for Federal Data
National Research Council
Laboratory Divisions (for investigations in applied biology, building research, pure and applied chemistry, mechanical engineering, including aeronautics and hydraulics, pure and applied physics, radio and electrical engineering)
Division of Medical Research
(Scholarships and grants-in-aid for graduate research in the universities)

Inquiries for general research information should be addressed to the Technical Information Service.
Dept. of Mines and Technical Surveys
Dept. of Northern Affairs and National Resources
Forestry Branch
National Parks Branch, Canadian Wildlife Services. National Museum of Canada
Dept. of Agriculture
Science Service (for research in animal and plant pathology. bacteriology, chemistry, entomology, etc.)
Experimental Farms Service (for , esearch in agricultural engineering, crop production. breeding and genetics, plant and animal nutrition, etc.)
Dept. of Transport (aviation, radio, meteorology, navigation)
Dept. of National Defence
Defence Research Board. Directorate of Public Relations
Dept. of Fisheries
ept. of Fisheries
Fisheries Research Board of Canada
Dept. of National Health and Welfare

Subject

SCIENTIFC RESEARCH

SENATE
See "Parliament"

| SOCIAL |
| :---: |
| SECURITY |
| See |
| "Family |
| Allowances" |
| "Blindness |
| Allowances" |
| "Old Age |
| Assistance" |
| "Old Age |
| Security" |
| "Workmen's |
| Compensation" |
| "Labour" |
| "Unemployment" |
| "Veterans Affairs" |
| "Economic and |
| Social Research" |

N'f'ld.:-Dept. of Economic Development
N.S.:-Nova Scotia Research Foundation
N.B.:-Dept. of Industry and Development, Research and De velopment Division
Que.:-Dept. of Trade and Commerce. Scientific Research Bureau
Ont.:-Research Council of Ontario Ontario Research Foundation
Man.:-Various Depts., such as Health and Welfare, Mines and Natural Resources. Agriculture and Immigration, Industry and Commerce
Sask.:-Saskatchewan Research Council
Alta.:-Alberta Research Council
B.C.:-Dept. of Trade and Industry Research Council

Subject
Sources for Provincial Data

$$
\begin{gathered}
\text { SOCIAL WEL.FARE } \\
\text { See "Welfare" }
\end{gathered}
$$

Dept. of Trade and Commerce
Standards Branch (for inquiries on electricity and gas inspection, weights and measures, precious metals marking. commodity standards and national trade mark matters)
Dept. of National Health and Welfare (for standards and method of control of quality or potency of food and drugs)
Dept. of Agriculture (for inquiries on standards for meat and canned food. fruit, honey. maple products, vegetables, dairy products, poultry, etc.)
Dept. of Transport (standards in radio frequencies, standards in stearnship inspection)
National Research Council
Applied Physics Branch (fundamental physical and electrical standards)
Division of Building Research, Specifications Section
Dept. of Fisheries (standards of fish products)
Canadian Government Specifications Board (specifications for purchasing)*
Canadian Standards Association
Central Mortgage and Housing Corporation

## STANDARDS AND SPECIFICATIONS

## STEAMSHIPS <br> See <br> "Transportation"

SUCCESSION
DUTIES
See "Taxation"


N'f'ld. Que.:-Depts. of Finance
P.E.I.:-Provincial Treasurer
N.S. t-Dept. of Provincial Secretary
N.B.:-Dept. of Provincial SecretaryTreasurer
Ont.:-Provincial Treasurer's Dept.
Man., Sask.:-Provincial Treasury Depts.
Alta.:-Provincial Treasurer's Dept.
Provincial Secretary
B.C.:-Dept. of Finance, Surveyor of Taxes

TELEGRAPHS
AND

## TELEPHONES

See
"Communications"

[^422]Canadian Broadcasting Corporation
Dept. of Transport
Telecommunications Division
National Research Council

TELEVISION
See also "Radio"

Dept. of Mines and Technical Surveys
Survevs and Mapping Branch
National Research Council
Applied Physics Branch (photogrammetric research)

## TOPOGRAPHY

## TOURIST TRADE

N'f'ld.:-Dept. of Mines and Resources
N.S.:-Dept. of Mines. Nova Scotia Research Foundation
N.B :-Dept. of Lands and Mines

Que.:-Dept, of Lands and Forests Dept. of Trade and Commerce Cartography Service
Ont.:-Dept. of Lands and Forests. Surveys Branch
Man.:-Dept. of Mines and Natural Resources
Sask.:-Dept. of Natural Resources Alta.: B.C.:-Depts. of Lands and Forests

N'f'ld.:-Dept. of Economic Development
P.E.I.:-Tourist and Information Branch
N.S.:-Depl. of Public Health. Publicity Bureau
N.B.:-New Brunswick Travel Bureau
Que.:-Provincial Tourist Bureau
Ont.:-Dept. of Travel and Publicity
Man.:-Dept. of Industry and Commerce
Sask.:-Bureav of Publications, Tourst Branch
Alta.:-Dept. of Economic Affairs. Alberta Travel Bureau
B.C.:-Dept. of Trade and Industry. Government Travel Bureau

For incorporation of companies under provincial law, address Provincial Secretaries except B.C. where Attorney-General's Department is the authority.
N'f'ld::-Dept. of Economic Development
P.E.I.:-Dept. of Industry and Natural Resources
N.S., B.C.:-Depts. of Trade and Industry
N.B.:-Dept. of Industry and Development
Que.:-Dept. of Trade and Commerce
Ont.:-Dept. of Planaing and Development. Trade and Industry Branch
Man.:-Dept. of Industry and Commerce
Sask.:-Dept. of Co-operation and Co-operative Development, Trade and Business Information Services
Saskatchewan Marketing Services
Executive Council, Industrial Development Office
Alta.:-Dept. of Industries and Labour

## Sources for Federal Data

Dept. of Public Works
Development Engineering Branch Trans-Canada Highway Division Information Services
Dept. of Northern Affairs and National Resources
National Parks Branch (for highways in National Parks)
Engineering and Water Resources Branch
Engineering and Architectural Division
Board of Transport Commissioners (regulations re construction and operation of railways; construction and protection of highway crossings; rates of railways. express companies and certain inland water carriers; rates with respect to communications, international bridges and tunnels; issuing of licences to certain inland water carriers; regulations re construction of oil and gas pipe lines; statistics pertaining to transportation)
Air Transport Board (regulation of commercial air services)
Dept. of Transport (railways, civil aviation. marine services. steamshap inspection canals. etc.)
Conadian Maritime Commission
National Harbours Board
St. Lawrence Seaway Authority
Trans-Canada Air Lines
Northern Transportation Company Limited
Dept. of National Health and Welfare
Civil Aviation Medicine Division
National Film Board (films. Filmstnps, photographs)
Dominion Bureau of Statistics (statistice of transportation, including highways, motor-vehicles)

Subject
Sources for Provincial Data

N'f'ld.:-Dept. of Public Works
P.E.I.:-Dept. of Public Works and Highways
N.S.:-Dept. of Highways and Public Works
N.B.:- Dept. of Public Works Highways Branch
Que.:-Dept. of Roads, Transportation Board
Ont.:-Dept. of Highways. Ontario Northland Transportation Commission

## TRANSPORTA. TION

Man.:-Dept. of Public Works Highways Branch
Dept. of Mines and Natural Resources
Dept. of Public Utilities
Dept. of Industry and Commerce
Sask.:-Dept. of Highways and Transportation
Saskatchewan Transportation Company
Alta.:-Dept. of Railways and Telephones
Dedt. of Highways.
Highway Traffic Board
B.C.:-Dept. of Railways

Public Utality Commission
Dept. of Public Works
Bureau of Economics and Statistics

## TRAPPING

See also "Fur Farming"

N'f'ld.:-Dept. of Mines and Ke sources
P.E.I.:-Dept. of Industry and Natural Resources
N.S., Ont., Alta.:-Depts. of Lands and Forests
N.B.:-Dept of Lands and Mines Que.:-Dept. of Game and Fish
Man.:-Dept. of Mines and Natural Resources
Sask.:-Dept. of Natural Resources Fur Marketing Service
B.C.:-Attorney - General's Dept.

Provincial Game Commissioner

## TRUST AND LOAN COMPANIES See "Banking"

UNEM.
PLOYMENT

N'f'ld., Sask.:--Dept. of Labour Ont.:-Dept. of Public Welfare Bureau of Statistics and Research
B.C.:-Bureau of Economics and Statistics

Dept. of Veterans Affairs (general information rehabilitation, veterans' welfare, training. treatment, land settlement, gratuities, re-establishment credit. education of children of war dead, veterans' insurance, business and professional loans, records of service. war graves and medals)
Canadian Pension Commission (The Pension Act)
War Veterans Allowance Board (The War Veterans Allowance Act)
Dept. of Labour (unemployment insurance and war veteran allowances, vocational training)
Dept. of Finance (veterans business and professional loans)
National Film Board (films, photographs)
Dept. of Citizenship and Immigration Indian Affairs Branch (for Indian veterans)

## VETERANS AFFAIRS

P.E.I.:-Provincial Secretary
N.S.:-Dept. of Public Welfare
N.B.:-Dept. of Health and Social Services
Que.:-Dept. of Social Welfare and Youth
Ont.:-Dept. of Public Welfare. Soldiers Aid Commission
Sask.:-Dept. of Social Welfare, Rehabilitation Division
Alta.:-Veterans Welfare Advisory Commission
B.C.:-Dept. of Provincial Secretary


N'f'ld., B.C.:-Depts. of Health
P.E.I.:-Registrar of Births. Deaths and Marriages
N.S., Alta.:-Depts. of Public Health Registrars General
N.B.:-Dept. of Health and Social Service
Que.:-Dept. of Health Vital Statistics Branch
Ont.:-Dept of Municipal Affairs Vital Statistics Branch
Man.:-Dept. of Health and Public Welfare
Sask.:-Dept. of Public Health, Vital Statistics Branch

Dept. of Labour

Industrial Relations Branch (fair wages)
Economics and Research Branch Legislation Branch
Dominion Bureau of Statistics

WAGES
(including Working Conditions)

All Provinces except Alta.:Depts. of Labour
Alta.:-Dept. of Industries and Labour
Additional:-B.C.:-Dept. of Trade and Industry. Bureau of Economics and Statistics


N'f'ld :-Dept. of Mines and Resources
N.S.:-Nova Scotia Power Commission
N.B.:-Dept. of Lands and Mines Que.:-Dept. of Hydraulic Resources Ont.:-Depts. of Planning and Development; Lands and Forests
Man.:-Dept. of Mines and Natural Resources. Water Resources Branch
Sask., Alta.:-Depts. of Agriculture B.C.:-Dept. of Lands and Forests

| Sources for Federal Data | Subject | Sources for Provincial Dat |
| :---: | :---: | :---: |
| Dept. of National Health and Welfare <br> Welfare Branch <br> Research Division <br> Dept. of Labour <br> Unemployment Insurance Commission <br> Annuities Branch <br> National Advisory Committee on the Rehabilitation of Disabled Persons <br> Dept. of Northern Affairs and National Resources <br> Northern Administration and Lands Branch (for Eskimos) <br> Yukon Territorial Council, Dawson (for Y.T.) <br> Northwest Territories Council. Ottaiwa (for N.W.T.) <br> Dept of Citizenship and Immigration Indian Affairs Branch (for Indians) <br> National Film Board (films, photographs) | WELFARE <br> For 'Welfare of Veterans' See "Veterans Affairs" | N'F'Id., N.S., Ont., Alta. :-Depts. of Public Welfare <br> P.E.I., B.C.:-Depts. of Health and Welfare <br> N.B.t-Dept. of Health and Social Services <br> Que.:-Dept. of Social Welfare and Youth <br> Man.z-Dept. of Health and Public Welfare <br> Sask.:-Dept. of Social Welfare |
| Dept. of Northern Affairs and National Resources (also for Northwest Territories) <br> National Parks Branch Canadian Wildlife Service <br> National Museum of Canada <br> Commissioner of Yukon Territory. Whitehorse (for Y.T.) <br> National Film Board (films. photographs) <br> Dept. of Fisheries <br> Information and Educational Service | WILDLIFE | N'f'ld.:-Dept. of Mines and Resources <br> P.E.I.:-Dept. of Industry and Natural Resources <br> N.S., Ont., Alta.:-Depts. of Lands and Forests <br> N.B.:-Dept. of Lands and Mines Que.:-Dept. of Game and Fish <br> Man.:-Dept. of Mines and Natural Resources <br> Sask.:-Dept. of Natural Resources, Game Commissioner <br> B.C. :-Attorney General's Dept. <br> Provincial Game Commissioner |
| Dept. of Labour <br> Government Employees* Compensation Branch Merchant Seamen Compensation Board | WORKMEN'S COMPENSATION | $\left\{\begin{array}{l}\text { Provincial Workmen's Compensation } \\ \text { Boards at: } \\ \text { N'f'ld.:-St. John's } \\ \text { P.E.I.:-Charlottetown } \\ \text { N.S.:-Halifax; N.B.z-Saint John } \\ \text { Ont.:-Tororto; Man.:-Winnipeg } \\ \text { Sask.:-Regina; Alta.:-Edmonton } \\ \text { B.C.z-Vancouver } \\ \text { Que.:-Workmen's Compensation } \\ \text { Commission }\end{array}\right.$ |

## PART II.-SPECIAL MATERIAL PUBLISHED IN FORMER EDITIONS OF THE CANADA YEAR BOOK

It is not possible to include in any single edition of the Year Book all articles and descriptive text of previous editions. Therefore, the following list has been compiled as an index to such miscellaneous material and special articles as are not repeated in the present edition. This list links up the 1955 Year Book with its predecessors in respect of matters that have not been subject to wide change. Those Sections of Chapters, such as "Population", which are automatically revived when later Census material is made available and to which adequate references are made in the text, are not listed unless they are in the nature of special contributions. The latest published article on each subject is shown, except when an earlier article includes material not repeated in the later one. When an article covers more than one subject it is listed under each appropriate heading.

The articles marked with an asterisk (*) are available in reprint form from the Dominion Statistician at the price quoted.

| Subject and Article | Contributor | Edition | Page |
| :---: | :---: | :---: | :---: |
| Agriculture- |  |  |  |
| The Development of Agriculture in Canada | H. Grisdale, D.Sc.A. | 1924 | 186-191 |
| Prairie Farm Rehabilitation Program.... | William Dickson. | 1938 | 223-230 |
| Historical Background of Canadian Agriculture. | $\begin{aligned} & \text { G. S. H. Barton, } \\ & \text { C.M.G., B.S.A., } \end{aligned}$ | 1939 | 187-190 |
| The War and Canadian Agriculture |  | 1945 | 188-191 |
| Agricultural Marketing Legislation, 1939.. |  | 1940 | 181-185 |
| Canadian Agriculture during the War and Post-War Periods. | G. S. H. Barton, C.M.G., B.S.A., | 1946 | 200-211 |
| The 1946-47 National Agricultural Program and Policy. |  | 1947 | 324-328 |
| *Irrigation in Western Canada (10 cts.)... | $\left\{\begin{array}{l} \text { W. J. Jacorson. } \\ \text { J. E. Lane. } \end{array}\right\}$ | 1947 | 375-382 |
| *The Canadian Wheat Board, 1939-46 ( 15 cts .) | $\left\{\begin{array}{l} \text { C. B. Davidson. } \\ \text { T. W. Grinley. } \\ \text { W. G. Malaher. } \\ \text { C. V. Parker. } \end{array}\right.$ | 1947 | 778-813 |
| The Major Soil Zones and Regions of Canada | P. C. Storre. | 1951 | 352-356 |
| Agricultural Irrigation and Land Conservation. | - | 1951 | 367-379 |
| Grain Trade-Marketing Problems and Policies, 1949-52. | - | 1952-53 | 865-869 |
| Major Developments in Organization and Policy of the Federal Department of Agriculture. | - | 1954 | 366-370 |
| Art, Literature and the PressArt in Canada. | - | 1924 | 886-888 |
| The Development of the Fine Arts in Canada. | Newton MacTavish, M.A., D. Litt. | 1931 | 995-1009 |



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| Constitution and Government-concl. Prairie Provinces. | Rev. E. H. Oliver |  |  |
|  | Ph.D., F.R.S.C. | 1922-23 | 110-113 |
| British Columbia | John Hosie. | 1922-23 | 113-115 |
| Canada and the League of Nations. | N. A. Robertson. | 1931 | 115-122 |
| ritory............ | R. A. Gibson. | 1938 | 92-93 |
| The Evolution of the Constitution of Canada down to Confederation. | S. A. Cudmore, B.A. (Tor.), M.A. (Oxon.), F.S.S., F.R. Econ. Soc., and E. H. ColeMan, K.C., LL.D. | 1942 <br>  | 34-40 |
| The British North America A |  | 1942 | $\begin{aligned} & 34-40 \\ & 40-59 \end{aligned}$ |
| Canada's Present Status in the British Commonwealth of Nations. | W. P. J. O'Meara, K.C., B.A. |  |  |
| Canada's Growth in External Status. | B.A. <br> F. H. Soward. | $1943-44$ 1945 | 41-47 $74-79$ |
| *Canada's Part in the Relief and Reha bilitation of the Occupied Territories ( 10 cts ) | - | 1945 | 79-85 |
| *Constitution and Government (15 cts.)... | - | 1948-49 | 78-122 |
| The Constitutional Development of Newfoundland prior to Union with Canada, 1949 | - | 1950 | 85-92 |
| *The Organization of the Government of Canada ( 25 cts.). | - | 1950 | 93-133 |
| Canada and the United Nations, 1948.... | - | 1950 | 134-139 |
| Federal-Provincial Relations. | - | 1951 | 102-105 |
| The Terms of Union of Newfoundland with Canada, 1949. | - | 1951 | 56-57 |
| *Administrative Functions of the Federal Government (25 cts.). |  | 1954 | 74-90 |
| *International Activities. | - | 1954 | 103-117 |
| Construction- |  |  |  |
| The Effects of Government Wartime Expenditures on the Construction Industry. | H. Carl Goldenrerg. | 1941 | 366-368 |
| Crime and Delinquency- |  |  |  |
| A Historical Sketch of Criminal Law and Procedure. | R. E. Watrs. | 1932 | 897-899 |
| *The Influence of the Royal Canadian Mounted Police in the Building of Canada ( 25 cts.). | S. T. Wood, C.M.G. | 1950 | 317-331 |
| Education- |  |  |  |
| Recent Advances in the Field of Education in Canada. | J. E. Rorrins, Ph.D. | 1941 | 876-883 |
| Canada and UNESCO | J. E. Rorrins, Ph.D. | 1947 | 313-315 |
| Royal Commission on National Development in the Arts, Letters and Sciences. . | - | 1951 | 315-316 |
| Report of the Royal Commission on National Development in the Arts, Letters and Sciences. | - | 1952-53 | 342-345 |
| Fauna and Flora- |  |  |  |
| Faunas of Canada. | P. A. Taverner. R. M. Anderson, Ph.d. | $\begin{array}{r} 1922-23 \\ 1937 \end{array}$ | 22-36 <br> 292 |
| Flora of Canada. | John Adams, M.A. (Cantab.) | 1938 | 29-58 |


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| Fauna and Flora-concl. <br> The Canadian Government's Reindeer Experiment: <br> ${ }^{*}$ Migratory Bird Protection in Canada ( 10 cts .). <br> -The Barren-Ground Caribou (10 cts.)...... |  |  |  |
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| The Fish Canning and Curing Industry ... | D. B. Finn, Ph.D. | 1941 | 225-226 |
| The Effects of the War on Canadian Fisheries. | D. B. Finn, Ph.D. | 1943-44 | 277-279 |
| The Fisheries of Canada. |  | 1951 | 472-479 |
| Game Fish in Canada's National Parks... | V.E.F. Solman, Ph.D. | 1952-53 | 34-36 |
| Forestry- |  |  |  |
| A Sketch of the Canadian Lumber Trade. | A. R. M. Lower, M.A. | 1925 | 318-323 |
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| The War and the Demand for Forest |  |  |  |
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| The Influence of the War on Forestry |  | $1943-44$ 1945 | 264-265 |
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| (10 cts.). | J. J. de Grybe. | 1947 | 389-400 |
| Canada's Forest Economy |  | 1951 | 425-437 |
| ${ }^{*}$ The Pulp and Paper Industry in Canada ( 10 cts .) | - | 1952-53 | 467-475 |
| Administration of Crown Forests in Canada. | - | 1954 | 458-465 |
| Fur Trade- |  |  |  |
| Fur Farming. | W. M. Rrichie. | 1942 | 254-259 |
| The Development of Marshlands in Relation to Fur Production and the Rehabilitation of Fur-Bearers. | D. J. Allan. | 1943-44 | 267-269 |
| Geology- |  |  |  |
|  | F.R.S.C. | 1921 | 68-72 |
| Geology and Economic Minerals | Grorge Hanson, Ph.D. | 1942 | 3-14 |
| Harbours - |  |  |  |
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| Health and Welfare- <br> Development of Public Health, Welfare and Social Security in Canada.. The National Health Grant Program.... |  |  |  |
|  | Dr. G. F. Davidson. |  |  |
|  |  | 1954 | 215-223 |
| Insurance |  |  |  |
| The Growth and Development of Life Insurance in Canada. |  |  |  |
| Fire and Casualty Insurance | G. D. Finlayson, | 1942 | 842-846 |
| ${ }^{*}$ Insurance in Canada during the Depression and War Periods ( 10 cts .) | G. D. Finlayson, C.M.G. | 1947 | 1064-1074 |
| Labour- |  |  |  |
| Legislation Respecting Combinations in Restraint of Trade. | F. A. McGregor. |  |  |
| The National Employment Commission. Labour Legislation in Canada. |  | 1938 | 778-779 |
| Labour Legislation in Canada. ............. | $\underset{\text { Miss M. Mackintosh, }}{\text { M. }}$ | 1938 | 787-796 |


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| Changes in Canadian Manufacturing Production from Peace to War, 1939-44. ... | -- | 1945 | 364-381 |
| *The Automobile Industry in Canada (10 cts.) | H. McLeod. | 1947 | 521-525 |
| *The Chemical Industries in Canada (10 cts.) | H. McLeod. | 1948-49 | 532-550 |
| *The Pulp and Paper Industry in Canada ( 10 cts.) | - | 1952-53 | 467-475 |
| Mining - |  |  |  |
| Mining-A Historical Sketch. |  | 1939 | $309-310$ $3-14$ |
| Geology and Economic Minerals.......... | George Hanson, Ph.D. | 1942 | 3-14 |
| Metals and Fuels in Wartime. | - | 1942 | 279-282 |
| The Outlook for the Mineral Industry in Relation to the Economic Development of Canada. | G. H. Murray. | 1946 | 302-314 |
| The Coal Deposits and Coal Resources of Canada. | B. R. MacKay, B.Sc., Ph.D. | 1946 | 337-347 |
| The Iron-Ore Resources of the QuebecLabrador Region. | W. M. Goodwin. | 1950 | 505-512 |
| Titanium-The Basis of a New Industry in Quebec. | W. M. Goodwin. | 1950 | 512-513 |
| *Post-War Expansion in Canada's Mineral Industry ( 25 cts .) | G. H. Murray and Mrs. M. J. Giroux. | 1952-53 | 476-495 |
| *Canadian Crude Petroleum Situation (10 cts.) | Dr. G. S. Hume. \{ | $1952-53$ 1954 | 524-527 |
| Developments in Canada's Mineral In- | G. H. Murray. M. J Giroux. | 1954 | 482-506 |
| *History of Pipeline Construction in Canada | Dr. G. S. Hume. | 1954 | 861-869 |
| National Defence- |  |  |  |
| The Royal Canadian Naval College. | - | 1946 | 1081-1082 |
| The Royal Military College............ | - | 1946 |  |
| The British Commonwealth Air Training Plan - A Summary of the RCAF's Major Role in the War of 1939-45...... | - | 1946 | 1090-1099 |
| Natural Resources- |  |  |  |
| A Sketch of the Canadian Lumber Trade. | A. R. M. Lower, M.A. | 1925 $1934-35$ | 318-323 |
| Fur Trade-A Historical Sketch......... |  | $1934-35$ 1939 | - $309-310$ |
| The Water - Power Resources of Canada and their Utilization. | J. T. Johnston. | 1940 | 353-364 |
| Geology and Economic Minerals. | George Hanson, Ph.D. | 1942 | 3-14 |
| The Development of Marshlands in Relation to Fur Production and the |  |  |  |
| Rehabilitation of Fur-Bearers. ${ }^{\text {a }}$....... | D. J. Allan. |  | 267-36 |
| Game Fish in Canada's National Parks. <br> *The Barren-Ground Caribou (10 cts.)... | V. E. F. Solman, Ph.D. | $1952-53$ 1954 | 33-36 |
| Northwest Territories- |  |  |  |
| The Canadian Government's Reindeer Experiment. | R. A. Gibson. | 1943-44 | 17-23 |


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| Physiography - |  |  |  |
| Physical Geography of the Canadian Eastern Arctic. | R. A. Gibson. | 1945 | 12-19 |
| The Relation of Hydrography to Navigation and the War Record of the Hydrographic and Map Service........ | F. G. Smith. | 1946 | 14-18 |
| *Physical Geography of the Canadian Western Arctic (10 cts.). | R. A. Greson. | 1948-49 | 9-18 |
| Population- |  |  |  |
| Immigration Policy. | R. J. C. Stead. | 1931 | 189-192 |
| Colonization Activities |  | 1936 | 201-202 |
| Occupational Trends in Canada, 1891-1931. | A. H. Leneveu, M.A. | 1939 | 7i4-778 |
| Nuptiality and Fertility in Canada...... | Enid Charles, Ph.D. | 1942 | 100-115 |
| Areas and Populations of Countries of the British Empire, 1941 | - | 1943-44 | 141-142 |
| The Indians of Canada.................... | - | 1951 | 1125-1132 |
| Power Resources- |  |  |  |
| The Water-Power Resources of Canada and Their Utilization. | J. T. Јонаstos. | 1940 | 353-364 |
| *Conversion Program to 60-cycle Power in Southern Ontario (10 cts.)................ | - | 1951 | 540-548 |
| Prices- |  |  |  |
| The Nutrition and Family Living Expenditures Investigation. | H. F. Greenway, M.A. | 1940 | 819-821 |
| The Activities of the Wartime Prices and Trade Board in Controlling Prices, Rents and Supplies. | - | 1943-44 | 776-783 |
| Activities of the Wartime Prices and Trade Board, 1945-46. | - | 1946 | 851-858 |
| Artivities of the Wartime Prices and Trade Board, 1946-47. | - | 1947 | 916-924 |
| Activities of the Wartime Prices and Trade Board, 1947-48. | - | 1948-49 | 945-950 |
| The Royal Commission on Prices. | - | 1950 | 978-982 |
| Activities of the Wartime Prices and Trade Board, 1948-49 | - | 1950 | 983-985 |
| Radio- |  |  |  |
| . Historical Sketch of Radio Communications. | C. P. Edwards, O.B.E. | 1932 | 607-610 |
| The Canadian Radio Broadcasting Commission. | Hector Charlesworth | 1933 | 731-733 |
| *History and Development of the Canadian Broadcasting Corporation ( 10 cts .)...... | Dr. Augustin Frigon, C.M.G. | 1947 | 737-740 |
| Research- |  |  |  |
| Honorary Advisory Council for Scientific Research. |  | 1920 | 53-57 |
| Royal Canadian Institute | $\begin{aligned} & \text { Prov. McMurrich, } \\ & \text { M.i Ph.D., LL.D., } \\ & \text { F.1.S C. } \end{aligned}$ | 1924 | 885 |
| Royal Society of Canada...... The National Research Council | Prof. McMurrich, M.A., Ph.D., LL.D., F.R.S.C. <br> F. E. Lathe, M Sc. | $\begin{aligned} & 1924 \\ & 1932 \end{aligned}$ | $\begin{array}{r} 884 \\ 867-870 \end{array}$ |


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| Research-concluded <br> *Scientific and Industrial Research in Canada ( 25 cts.). <br> *Geophysics ( 10 cts.) <br> *The Contribution to Science made by the Dominion Astrophysical Observatory (10 cts.). |  |  |  |
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|  | 二 | 1954 $1948-49$ | ${ }^{341-356}$ |
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|  | Dr. J. A. Pearce. | 1948-49 | 63-71 |
| SeismologySeismology in Canada |  |  |  |
|  | E. A. Hodgson, Ph.D. | 1938 | 27-30 |
| Time and Time Zones- <br> Standard Time and Time Zones in Canada Times of Sunrise and Sunset. |  |  |  |
|  | C. C. Smirh. | $\begin{array}{r} 1934-35 \\ 1938 \end{array}$ | $\begin{aligned} & 50-53 \\ & 66-68 \end{aligned}$ |
| Trade, Domestic-Co-operation in Canada |  |  |  |
|  | J. E. O'Meara and | 1942 | 543-546 |
| Wartime Controls Affecting Distribution and Trade, 1945-46.. | Luchenne M. Lalonde | 1946 | 574-578 |
| *The Royal Commission on Co-operatives ( 10 ets.) | W. F. Chown. | 1946 | 618-624 |
| *The Canadian Wheat Board, 1939-46 ( 15 cts.) | (C. B. Davidson. T. W. Grindley. W. G. Malaher. C. V. Parker. | 1947 | 778-813 |
| Grain Trade-Marketing Problems and Policies, 1949-52. | - | 1952-53 | 865-869 |
| Trade, Foreign - <br> Advisory Board on Tariff and Taxation. <br> Preferential Tariff and Trade Treaties. |  |  |  |
|  | W. Gilchrist. | $\begin{array}{r} 1930 \\ 1934-35 \end{array}$ | $\begin{array}{r} 1018 \\ 520-526 \end{array}$ |
|  | W. Gizchrot. |  |  |
| Transportation- |  |  |  |
| The Development of Aviation in Canada. | J. A. Wilson. | 1938 | $710-712$ |
| The Trans-Canada Airway.............. | J. A. Wilson. | 1938 | 713-715 |
| Pre-War Civil Aviation and the Defence Program. | J. A. Wilscn. | 1941 | 608-612 |
| Wartime Control of Transportation | - | 1943-44 | 567-575 |
| International Air Conferences.......... | - | 1945 | 642-644 |
| The Wartime Role of the Steam Railways of Canada | C. P. Edwards, O.B.E. | 1945 | 648-651 |
| Canada's Northern Airfields | A. D. Mclean. | 1945 | 705-712 |
| The Trans-Canada Highway |  | 1951 | 631-634 |
| *International Civil Aviation Organization and Canada's Participation Therein ( 10 cts.). | Brig. C. S. Booth. | 1952-53 | 820-827 |
| Canals of the St. Lawrence Waterway | - | 1954 | 830-833 |
| United Nations- |  |  |  |
| Canada and the United Nations... | C. S. A. Ritchie. | 1946 1948 | 82-86 |
| Canada and the United Nations. |  | 1948-49 | 122-125 |
| Canada and the United Nations... | - | 1950 | 134-139 |

## PART III.-REGISTER OF OFFICIAL APPOINTMENTS, 1954

The following list of official appointments continues, up to Dec. 31, 1954, that published in the 1954 Year Book, pp. 1246-1255.

Governor General's Staff.-1954. Jan. 29, Commander Dunn Lantier, D.S.O., C.D., RCN: to be Honorary Aide-de-Camp, effective Jan. 29, 1954. May 12, Acting Commander J. H. Stevenson, RCN(R): to be Honorary Aide-de-Camp, effective May 12, 1954. June 14, Brigadier J. Bibeau, D.S.O., ED: to be Honorary Aide-de-Camp, effective June 14, 1954. July 1, Hon. Patrick Kerwin, Chief Justice of Canada: to be Deputy of His Excellency the Governor General. July 16, Inspector Robert Auburn Stewart MacNeil, O.B.E., of the Royal Canadian Mounted Police, Ottawa: to be Honorary Aide-de-Camp, effective Aug. 1, 1954, vice Superintendent C. N. K. Kirk. Inspector René John Belec, of the Royal Canadian Mounted Police, Fort Smith, N.W.T.: to be Honorary Aide-de-Camp, effective Aug. 1, 1954, vice Inspector W. J. Fitzsimmons. Sept 1, Acting Commodore P. D. Budge, RCN: to be Honorary Aide-de-Camp, effective Sept. 1, 1954. Oct. 26, Acting Lt.-Col. G. M. Brown, C.D.: to be Honorary Aide-de-Camp, effective Oct. 26, 1954.

Privy Councillors.-1954. July 1, Roch Pinard: to be a Member of the Queen's Privy Council for Canada. George Carlyle Marler: to be a Member of the Queen's Privy Council for Canada. Hon. Patrick Kerwin, Chief Justice of Canada: to be a Member of the Queen's Privy Council for Canada.

Cabinet Ministers.-1954. Jan. 12, Hon. William Ross Macdonald, a Member of the Queen's Privy Council for Canada and Leader of the Government in the Senate: to be Solicitor General of Canada, vice Hon. Ralph Osborne Campney, resigned. July 1, Hon. Walter Edward Harris, a Member of the Queen's Privy Council for Canada: to be Minister of Finance and Receiver General. Hon. Ralph O. Campney, a Member of the Queen's Privy Council for Canada: to be Minister of National Defence. Hon. John Whitney Pickersgill, a Member of the Queen's Privy Council for Canada: to be Minister of Citizenship and Immigration. Hon. Roch Pinard, a Member of the Queen's Privy Council for Canada: to be Secretary of State for Canada. Hon. George Carlyle Marler, a Member of the Queen's Privy Council for Canada: to be Minister of Transport.

Deputy Ministers.-1954. July 1, John Russell Baldwin: to be Deputy Minister of Transport. July 6, J. Gear McEntyre, Q.C.: to be Deputy Minister of National Revenue for Taxation. Sept. 17, David Aaron Golden, Assistant Deputy Minister of Defence Production and General Counsel: to be Deputy Minister of Defence Production, effective Oct. 1, 1954. Dec. 8, George Russell Clark, Assistant Deputy Minister of Fisheries: to be Deputy Minister of Fisheries, effective Dec. 8, 1954.

Diplomatic Appointments.-1954. June 10, Hon. Thomas Clayton Davis, Q.C.: as Ambassador of Canada to Japan. George Loranger Magann: as Minister for Canada to Austria. July 9, R. R. Saksena: as High Commissioner for Burma in Canada. July 12, Dr. Mohamed Abdul Rauf: as High Commissioner for India in Canada. Nov. 18, Paul Emile Renaud: as Ambassador for Canada to Chile. H. F. Feaver: as Minister for Canada to Denmark. Harry A. Scott: as Ambassador for Canada to Dominican Republic and Haiti. Kenneth P. Kirkwood: as Ambas-
sador for Canada to Egypt and Lebanon. Terence W. L. MacDermot: as Ambassador for Canada to Israel (also Ambassador to Greece). Douglas Seaman Cole: as Ambassador for Canada to Mexico. S. Morley Scott: as High Commissioner for Canada to Pakistan. Nov. 29, Segio Fenoaltea: as Ambassador to Canada for Italy. Dec. 9, Bedrich Hruska: as Minister to Canada for Czechoslovakia. Dec. 29, Enrique José Guillermo Plate: as Ambassador to Canada for Argentina.

## Judicial Appointments

Higher Courts.-1954. Apr. 8, Charles Lamb, Prothonotary of the Supreme Court and Clerk of the County Court at Halifax, N.S.: to be Registrar of the Exchequer Court of Canada on its Admiralty side for the Admiralty District of the Province of Nova Scotia, vice Bryant Harding Balcom, resigned. July 1, Hon. Patrick Kerwin, one of the Puisne Judges of the Supreme Court of Canada: to be Chief Justice of Canada. Hon. Douglas Charles Abbott: to be a Puisne Judge of the Supreme Court of Canada. Hon. Herbert William Davey, a Judge of the Supreme Court of British Columbia: to be a Justice of Appeal of the Court of Appeal for British Columbia, effective Sept. 1, 1954. Harold W. MeInnes, Penticton, B.C.: to be a Judge of the Supreme Court of British Columbia, effective Sept. 1, 1954. M. M. Porter, Calgary, Alta.: to be a Judge of the Appellate Division of the Supreme Court of Alberta and ex officio a Judge of the Trial Division of the said Court, effective Sept. 1, 1954. Neil Primrose, Edmonton, Alta.: to be a Judge of the Trial Division of the Supreme Court of Alberta and ex officio a Judge of the Appellate Division of the said Court, effective Sept. 1, 1954. Aug. 18, Jean Martineau, Q.C.: to be a Puisne Judge of the Court of Queen's Bench in and for the Province of Quebec, effective Sept. 30, 1954. Dec. 16, H. G. Johnson, Q.C.: to be a Judge of the Appellate Division of the Supreme Court of Alberta. Dec. 22, Albert Racette, Deputy Sheriff of the City of Quebec: to be Registrar of the Exchequer Court on its Admiralty side for the Quebec Registry Division, vice Adj. Lachance, resigned.

County and District Courts.-1954. Dec. 1, Hon. Walter E. Darby, Q.C.: to be Judge of the County Court for the County of Prince, P.E.I. Frank Fingland, Q.C.: to be Judge of the County Court for the County of Huron, Ont., also Local Judge of the High Court of Justice for Ontario.

## Government Appointments to Miscellaneous Boards, Commissions, etc.

Air Transport Board.-1954. July 6, Wilbert Jamieson Matthews: to be a Member for a period of ten years and to be Chairman of the said Board.

Army Benevolent Fund Board.-1954. Apr. 22, Lieutenant-General John Carl Murchie, C.B., C.B.E.: to be a Member and Chairman for a term of four years from May 4, 1954.

Bank of Canada.-1954. Jan. 7, John L. Cavanagh: to be a Director for a term expiring Feb. 28, 1955, the remainder of the term of C. J. Morrow, resigned. Nov. 18, James E. Coyne, to be Governor; J. R. Beattie, to be Deputy Governor; both for a period of seven years effective Jan. 1, 1955.

Canadian Broadcasting Corporation.-1954. Jan. 12, Kenneth G. Montgomery: to be a Governor for a period of three years from Jan. 1, 1954. Nov. 23, Roland Kenneth Gervin, Vice-President of the Trades and Labour Congress of Canada: to be a Governor for a term of three years from Nov. 1, 1954.

Canadian Pension Commission.-1954. Apr. 14, Laurence Wilmott Brown, M.D., C.M.: to be a Member for a period of seven years from July 1, 1954. Nov. 18, John Murray Forman: to be a Member for a period of ten years from Feb. 1, 1955.

Canadian Commercial Corporation.-1954. Apr. 22, Albert Brewer Hunt, Director, Electronics Branch, Department of Defence Production: to be a Director, vice G. M. Grant, resigned. May 27, Thor Eyolfur Stephenson: to be a Director, effective June 1, 1954. Nov. 9, William Henry Huck, Financial Advisor, Department of Defence Production: to be a Director, vice D. A. Golden, resigned.

Central Mortgage and Housing Corporation.-1954. Dec. 1, Stewart Bates: to be President, effective Dec. 6, 1954.

Defence Research Board.-1954. Apr. 14, Randolphe William Diamond and Chalmers Jack Mackenzie: to be Members, from Apr. 1, 1954, to Mar. 31, 1957. Nov. 2S, Reginald McLaren Brophy: to be a Member representative of the Department of Defence Production, effective Jan. 1, 1954.

Export Credits Insurance Corporation.-1954. Jan. 14, Mitchell W. Sharp, Assistant Deputy Minister of Trade and Commerce: to be a Director. Apr. 22, A. F. W. Plumptre: to be a Director. J. J. Deutsch: to be an alternate Director for K. W. Taylor, Deputy Minister of Finance and a Member. J. E. Coyne: to be an alternate Director for G. F. Towers, Governor of the Bank of Canada and a Member. J. H. English: to be an alternate Director for W. F. Bull, Deputy Minister of Trade and Commerce and a Member.

Historic Sites and Monuments Board of Canada.-1954. Oct. 28, Thomas Head Raddall: to be a Member, representing the Province of Nova Scotia, for a period of five years, vice Professor D. C. Harvey, resigned.

Income Tax Appeal Board.-1954. Jan. 14, Cecil L. Snyder, Q.C.: to be a Member and Assistant Chairman and to hold office for a period of 10 years, effective Feb. 1, 1954.

International Supervisory Commission for Cambodia.-1954. Dec. 16, Rudolph Duder: to be Canadian Commissioner.

International Whaling Commission.-1954. June S, G. R. Clark, Assistant Deputy Minister of Fisheries: to be a Member to represent the Government of Canada.

Lake of the Woods Control Board.-1954. Feb. 11, E. V. Gilbert, an engineer of the Department of Public Works: to be a Member, vice Robert Blais, retired.

National Film Board.-1954. July 1s, Jules Léger: to be a Member, effective Aug. 1, 1954. Oct. 28, Bruce Hutchison and Mitchell W. Sharp: to be Members. Charles S. Band: to be again a Member, effective Oct. 14, 1954.

National Library.-1954. Dec. 16, The following persons to be Members of the Advisory Council for a term of four years effective Jan. 1, 1955: Abbé Arthur Maheux, Miss Freda F. Waldon, and George E. Wilson.

National Research C'ouncil.-1954. Apr. 8, The following persons to be Members for a term of three years, expiring Mar. 31, 1957: A. N. Campbell, M.Sc., Ph.D., D.Sc., F.R.S.C., Professor of Chemistry, University of Manitoba, Winnipeg, Man. Gordon G. Cushing, Secretary-Treasurer, Trades and Labour Congress of Canada, 172 MacLaren St., Ottawa, Ont. G. E. Hall, A.F.C., E.D., M.S.A., M.D., D. és Sc., Ph.D., F.R.S.C., President and Vice-Chancellor of the University of Western Ontario, London, Ont. Cyrias Ouellet, D. és Sc., F.R.S.C., Professor of Chemistry, Laval University, Quebec, Que. Henri Gaudefroy, S.B., I.C., Director, Ecole Polytechnique, Montreal, Que. Abel Gauthier, L.Sc., M.A., Vice-Dean, Faculty of Science, University of Montreal, Montreal, Que.

Northwest T'erritories.-1954. July 1, Frank J. G. Cunningham, Director of Northern Administration and Lands Branch, Department of Northern Affairs and National Resources: to be a Member of the Council and Deputy Commissioner of the Northwest Territories. Louis de la Chesnaye Audette, Chairman, Canadian Maritime Commission: to be a Member of the Council. Leonard Hanson Nicholson, Commissioner of the Royal Canadian Mounted Police: to be a Member of the Council. William Isaac Clements, Air Commodore: to be a Member of the Council. Jean Boucher, Assistant to Deputy Minister of Citizenship and Immigration: to be a Member of the Council. Sept. 17, Charles Mills Drury, Deputy Minister of National Defence: to be a Member of the Council, vice William Isaac Clements, resigned.

Port Warden.-1954. June 17, Captain F. S. Slocombe, Supervisor of Nautical Services, Department of Transport, Ottawa: to be Port Warden at and for the harbour of Port Churchill, Man., vice Captain J. W. Kerr, deceased.

St. Lawrence River Joint Board of Engineers.-1954. Oct. 18, The following persons to be representatives of Canada: Hon. G. C. Marler, Minister of Transport, Ottawa, Ont., to be Chairman of the Canadian Section; Hon. Lionel Chevrier, Q.C., President, The St. Lawrence Seaway Authority; alternates, M. V. Sauer and H. W. Lea, Consulting Engineers.

St. Lawrence Seaway Authority.-1954. July 1, Hon. Lionel Chevrier: to be President for a term of 10 years. Charles Gavsie: to be a Member for a term of 10 years, and to exercise and perform all the powers and functions of the President during incapacity or absence for any reason of the President or a vacancy in the office of President. Charles William West: to be a Member for a term of three years.

Superintendent of Bankruptcy.-1954. Dec. 22, Angus Hugh MacDonnell Laidlaw, Senior Advisory Counsel, Department of Justice: to be Superintendent of Bankruptcy, vice Allan Joseph MacLeod, resigned, effective Jan. 1, 1955.

Transport Controller.-1954. June 1, Roy Wilfred Milner: to be Transport Controller, Department of Transport, Ottawa.

Under-Secretary of State for External Affairs.-1954. July 1, Jules Léger: to be Under-Secretary of State for External Affairs, effective Aug. 1, 1954.

Unemployment Insurance Act.-1954. Oct. 28, Marcel Nichols: to be Chairman of the Courts of Referees for the Quebec Regional Division and more particularly for the District of Drummondville, vice Honore N. Garceau, Q.C., deceased. Leo McLaughlin: to be Chairman of the Courts of Referees for the Ontario Region and more particularly for the District of Toronto, vice Frederick W. Rayfield, resigned.

Vocational Training Advisory Council.-1954. Apr. 1, The following persons to be Members for a period of three years expiring Dec. 1, 1956: W. H. C. Seeley, Toronto Transportation Commission, representing the Canadian Manufacturers' Association; N. S. Dowd, Canadian Congress of Labour, representing organized labour; E. K. Ford, Director of Vocational Education, N.S., representing the Province of Nova Scotia; T. D. Anderson, General Secretary, Canadian Legion, representing veterans; J. W. McNutt, Director of Vocational Education, N.B., representing the Province of New Brunswick; J. A. Doyle, Director of Technical Education, Sask., representing the Province of Saskatchewan. Sept. 1, The following persons to be Members: for a period expiring Nov. 30, 1954, R. E. Byron, Director of Vocational Education, representing the Province of Alberta (Member) and W. H. Swift, Deputy Minister of Education, Alta., representing the Province of Alberta (Alternate Member); for a period expiring Nov. 30, 1955, L. W. Shaw, Deputy Minister and Director of Education, P.E.I., representing the Province of Prince Edward Island (Member) and W. S. MeMurtry, Director, Charlottetown Vocational School, representing the Province of Prince Edward Island (Alternate Member); for a period expiring Nov. 30, 1956, Jack Wilton, Canadian Federation of Agriculture, representing Agriculture (Member). Dec. 31, The following persons to be Members and Alternate Members for a period expiring Dec. 1, 1955 : Member-William Leger, President, National Catholic Federation of Building Trades, representing employees, vice Miss Yolande Valois, resigned; Alternate Members-Gilles H. Paquette, Canadian Manufacturers Association, representing employers (Alternate for T. H. Robinson), Andre Landry, Director General, Department of Youth and Social Welfare, Que., representing the Province of Quebec, L. S. Smith, Department of Education, Man., representing the Province of Manitoba, Mrs. L. H. Meng, Corresponding Secretary, The National Council of Women of Canada, representing women; for a period expiring Dec. 1, 1956; Alternate Members-H. A. Chappell, Canadian Brotherhood of Employees and Other Transport Workers, representing employees (Alternate for N. S. Dowd), Dr. F. E. MacDiarmid, Director and Chief Superintendent, Department of Education, N.B., representing the Province of New Brunswick, W. D. Mills, Assistant Director of Vocational Education, N.S., representing the Province of Nova Scotia, W. W. Sharpe, Department of Education, Sask., representing the Province of Saskatchewan, Dr. Robert Westwater, Ottawa, Ont., representing veterans, W. E. Weaver, Canadian Manufacturers' Association, representing employers (Alternate for W. H. C. Seeley), David Kirk, Secretary, Canadian Federation of Agriculture, representing Agriculture; for a period expiring Dec. 1, 1957: Member and ChairmanDr. G. Fred McNally, Edmonton, Alta.; Member-Herbert Cocker, Canadian Construction Association, representing employers, Alternate Member-S. D. C. Chutter, Canadian Construction Association, representing employers; MemberG. G. Cushing, The Trades and Labour Congress of Canada, representing employees, Alternate Member-Thomas B. Ward, The Trades and Labour Congress of Canada, representing employees; Member-Dr. L. S. Beattie, Superintendent of Secondary Education, Ont., representing the Province of Ontario, Alternate Member-A. M.

Moon, Assistant Superintendent of Secondary Education, Ont., representing the Province of Ontario; Member-Dr. G. A. Frecker, Deputy Minister of Education, N'f'ld.; representing the Province of Newfoundland, Alternate Member-Frank Templeman, Director of Vocational Education, N'f'ld., representing the Province of Newfoundland; Member-R. E. Byron, Director of Vocational Education, Alta., representing the Province of Alberta, Alternate Member-Dr. W. H. Swift, Deputy Minister of Education, Alta., representing the Province of Alberta; MemberHarold L. Campbell, Deputy Minister and Superintendent of Education, B.C., representing the Province of British Columbia.

Miscellaneous.-1954. Jan. 7, Robert Broughton Bryce, Clerk of the Queen's Privy Council for Canada and Secretary to the Cabinet: to be a Commissioner to administer oaths and to take and receive declarations and affirmations. Jan. 28, George William Hay, M.Sc., and Patricia Jean Clark, M.Sc., technicians in the Royal Canadian Mounted Police Crime Detection Laboratory, Regina, Sask.: to be duly qualified analysts for the purpose of the Opium and Narcotic Drug Act. Mar. 2, The following persons to be Members of a Commission to inquire into and report upon the question whether the criminal law of Canada relating to the defence of insanity should be amended: Hon. James Chalmers McRuer, Chief Justice of the High Court of Justice of Ontario; Dr. Gustave Desrochers, Assistant Superintendent of St. Michel Hospital at the City of Quebec; Her Honour Judge Helen Kinnear, County Court Judge for the County of Haldimand, Ontario; Dr. Robert O. Jones, Professor of Psychiatry at Dalhousie University, Halifax, N.S.; and Joseph Harris, Winnipeg, Man. Mar. 25, The following persons to be Commissioners, pursuant to Part I of the Inquiries Act, to inquire into and report upon the question whether the criminal law of Canada relating to criminal sexual psychopaths should be amended in any respect and, if so, in what manner and to what extent: Hon. James Chalmers McRuer, Chief Justice of the High Court of Justice of Ontario; Dr. Gustave Desrochers, Assistant Superintendent of St. Michel Hospital at the City of Quebec; Her Honour Judge Helen Kinnear, County Court Judge for the County of Haldimand, Ontario. Apr. 29, Dr. W. G. Henry and R. Ironside, of the Division of Applied Chemistry, National Research Council and R. A. Rogers, of the Mines Branch, Department of Mines and Technical Surveys: to be Assay Commissioners to meet in the year 1954 to examine and test coins of the currency of Canada struck at the Royal Canadian Mint during the year 1953. George Edwards Cole, B.A., B.Sc.: to be a Commissioner to inquire into, review and report on the administration of Quartz Mining and Placer Mining in Yukon Territory, effective Apr. 21, 1954. May 20, Hon. W. F. A. Turgeon, Q.C., LL.D., a Member of the Queen's Privy Council for Canada: to be a Commissioner to inquire into the application and effects of agreed charges as may be authorized by the Board under Part IV of the Transport Act. June 10, James C. Grieve: to be a Member of the St. John's Harbour and Pilotage Commission, vice J. W. Allan, deceased. The Rt. Hon. James Lorimer Ilsley, Q.C., P.C., W. W. Buchanan, Guy Favreau, Q.C.: to be Commissioners under Part I of the Inquiries Act to examine into the operation of the Patent Act, the Industrial Design Act, the Copyright Act and other related legislation, The Rt. Hon. James Lorimer Ilsley, Q.C., P.C., to be Chief Commissioner. July 1, The following persons to be receivers of wrecks for certain districts in Newfoundland established for the purposes of Part VIII (Wrecks, Salvage and Investigations into Shipping Casualties) of the Canada Shipping Act: Victor Eugene Guy, Capt. Thomas Pardy, Dermot J. Lee, and Thomas P. Lawton. Oct. 20, The following persons to be Commissioners under
the Inquiries Act to inquire into the nature and extent of the damage caused by the flood in and adjoining the Humber River Valley in Ontario: John B. Carswell, to be the representative of the Government of Canada; D. Bruce Shaw, to be representative of the Government of Ontario. Oct. 28, The following to be Commissioners dedimus potestatem to administer oaths: Hon. Charles Holland Locke, Hon. John Robert Cartwright, Hon. Joseph Honore Gerald Fauteux, and Hon. Charles Douglas Abbott, Puisne Judges of the Supreme Court of Canada; Hon. John Doherty Kearney, Hon. Alphonse Fournier, and Hon. William Pitt Potter, Puisne Judges of the Exchequer Court of Canada; Hon. Sir Albert Joseph Walsh, Chief Justice of the Supreme Court of Newfoundland; Hon. George Joseph Tweedy, a Judge of the Supreme Court of Judicature of Prince Edward Island; Hon. William Arthur Ives Anglin, Hon. George Frederick Gregory Bridges, and Hon. Clovis Thomas Richard, Judges of the Queen's Bench Division of the Supreme Court of New Brunswick; Hon. Ernest Bertrand, Hon. George Miller Hyde, and Hon. Gabriel Edouard Rinfret, Puisne Judges of the Court of Queen's Bench in and for the Province of Quebec; and Hon. William Bridges Scott, Associate Chief Justice of the Superior Court of the Province of Quebec; and Hon. Hector Joseph Damase Perrier, Hon. Arthur Ives Smith, Hon. Franģois Caron, Hon. Leon Casgrain, Hon. André Demers, Hon. William Mitchell, Hon. George Swan Challies, Hon. Joseph Jean, Hon. Elphege Marier, Hon. Eugène Marquis, Hon. Edouard Tellier, Hon. Harry Batshaw, Hon. Fernand Leopold Choquette, Hon. Louis Joseph Wilfred Heari Drouin, Hon. Edmond Roger Brossard, Hon. Maurice Lalonde, Hon. Charles Edouard Ferland, Hon. Antoni Sylvain Garneau, Hon. Joseph Adrien LouisPhilippe Cliche, Hon. Cyrillé Edmond Gérard Lacroix, Hon. Joseph Hormisdas Paul Ste. Marie, Hon. Joseph Alfred Dion, Hon. Marie Joseph Edouard Leon Lajoie, Hon. Joseph Paul André Montpetit, Hon. Claude Marie Jean Thibaudeau Prevost, Hon. Stuart Bowman Ralston, Hon. Gaston Clement Roger Desmarais, and Hon. Paul Emile Côté, Puisne Judges of the Superior Court of the Province of Quebec; Hon. John Wellington Pickup, Chief Justice of Ontario, and Hon. Colin William George Gibson, Hon. Frederick George MacKay, Hon. Robert I. Ferguson, Hon. Wishart Flett Spence, Hon. James Maurice King, Hon. Henry Aldous Aylen, Hon. Wilfred Judson, Hon. James Laidlaw McLennan, Hon. René Alexander Danis, Hon. Charles Douglas Stewart, and Hon. Eric Gelling Moorhouse, Judges of the Supreme Court of Ontario; Hon. Joseph Thomas Beaubien, a Judge of the Court of Appeal for Manitoba, and Hon. Arnold Munroe Campbell, Hon. Paul Guyot DuVal, Hon. Ralph Maybank, Hon. Samuel Freedman, and Hon. George Eric Tritschler, Judges of Her Majesty's Court of Queen's Bench for Manitoba; Hon. Arthur Thomas Procter and Hon. Edward Milton Culliton, Judges of the Court of Appeal for Saskatchewan; Hon. Stewart McKercher, Hon. Harold Francis Thomson, Hon. Roy T. Graham, and Hon. Clifford Sifton Davis, Judges of Her Majesty's Court of Queen's Bench for Saskatchewan; Hon. William Gordon Egbert, Hon. James Mitchell Cairns, and Hon. Ernest Brown Wiilson, Judges of the Trial Division of the Supreme Court of Alberta; Hon. Norman William Whittaker, Hon. Herbert Spencer Wood, Hon. John Valentine Clyne, and Hon. Herbert William Davey, Judges of the Supreme Court of British Columbia; Hon. John Edward Gibben, Judge of the Territorial Court of the Yukon Territory and a Stipendiary Magistrate for the Northwest Territories. Nov. 23, The following persons to be receivers of wrecks for the following districts: Garland S. Patey for the district of Northern Arm to St. Leonard's, N'f'ld.; Archibald Bursey for the district of Nipper's IIarbour to Cape John, N'fld.; Jeremiah S. Bonia for the district of Dog Head to

Shoal Bay Point, N'f'ld.; Cyril Bowdridge for the district of Grand Bruit inclusive. to Burgeo inclusive, N'f'ld.; Chesley Reid for the district of Western Arm to Little Coney Arm, N'f'ld.; Thomas Young for the district of Cape La Hune exclusive to Mosquito inclusive, N'f'ld. Dec. 8, Arthur S. Brett: to be a Member of the Lewisporte Pilotage Commission, Lewisporte, N'f'ld., vice Guy P. Small, resigned.

## PART IV.-FEDERAL LEGISLATION, 1953-54

This classified list of federal legislation has been compiled from the Statutes. Naturally, in summarizing material of this kind it is not always easy to convey the full implication of the legislation. The reader who is interested in any specific Act is, therefore, referred to the Statutes of Canada at the given volume and chapter.

## Legislation of the First Session of the Twenty-Second Parliament, Nov. 12, 1953, to June 26, 1954

| Subject, Chapter and Date of Assent | Synopsis |
| :---: | :---: |
| 2-3 Eliz. II |  |
| $\underset{33}{\text { Banking June }} 10$ | An Act to amend the Bank of Canada Act makes a number of changes in the administration, business and powers of the Bank of Canada. The major revision raises the minimum cash reserves which the chartered banks are required to maintain with the Bank of Canada from 5 p.c. to 8 p.c. of their total deposit liabilities and empowers the Bank of Canada to vary that reserve up to 12 p.c. provided sufficient notice is given of any increase and provided such increase be not more than 1 p.c. in any one month. |
| 41 June 10 | The Quebec Savings Banks Act renews for another 10 years the charter of the Montreal and District Savings Bank and of the Quebec Savings Bank. |
| 48 June 26 | The Bank Act is the decennial revision of the legislation respecting banks and banking; it renews the charters of the 11 chartered banks for a 10 -year period from July 1, 1954. Among the amendments are those permitting the chartered banks to make loans on the security of insured mortgages and to make small loans on the security of household goods and chattels. |
| Communica-tions- |  |
| ${ }_{20}{ }^{\text {Mar. }} 4$ | An Act to amend the Post Office Act increases the rate of postage on letters posted in Canada for delivery in Canada. |
| 22 Mar. 4 | An Act to amend the Telegraphs Act authorizes the application of that part of the Act relating to marine electric telegraph companies to any company which, before Apr. 1, 1949, was empowered under the laws of Newfoundland to construct or maintain in Newfoundland waters submarine cables extending beyond the limits of Newfoundland. |
| $31 \quad$ May 27 | An Act to amend the Radio Act makes the necessary revisions to permit the employment of United States personnel as radio operators on United States Government radio stations in Canada. |
| 39 June 10 | An Act to amend the Post Office Act permits a publisher to post newspapers or periodicals in postal areas other than the one in which such publications are printed and still take advantage of the low postal rates provided under the Act. |
| Constitution and Government- |  |
| Gow Dec. 16 | An Act respecting the Use of Election Material for By-elections and Northwest Territories Elections authorizes, in order to avoid the unnecessary expense of printing new election material, the use of material already printed as required by the Canada Elections Act of 1938 to be used in any by-elections or Northwest Territories elections held before the next general election. |
| 8 Feb. 16 | An Act to amend the Acts respecting the Northwest Territories, among other revisions increases from three to four the number of elected members to the Council of the Northwest Territories. The Council now comprises nine members-four elected and five appointed by the Governor in Council. |

# Legislation of the First Session of the Twenty-Second Parliament, Nov. 12, 1953, to June 26, 1954-continued 



# Legislation of the First Session of the Twenty-Second Parliament, Nov. 12, 1953, to June 26, 1954-continued 

| Subject, <br> Chapter and <br> Date of Assent | Synopsis |  |
| :---: | :---: | :---: |
| Finance-concl. <br> 56 | June 26 | An Act to amend the Ezcise Act makes certain changes relating to calculation of sale <br> price and duty paid value and gives effect to budget changes in rates of duty. |
| 57 | June 26 | An Act to amend the Income Tax Act gives effect to budget resolutions. |
| 67 | June 26 | Appropriation Act, No. 4, 1954, grants certain sums of money to be paid out of the <br> Consolidated Revenue Fund for defraying stated expenses of the public service <br> for the year ending Mar. 31, 1955. |

Justice-
38

43 June 10

51 June 26
52 June 26

58 June 26

## National Defence and Veterans Affairs

2 Dec. 16

13 Mar. 4
(6) June 10

62 June 26

65 June 26

66 June 26

An Act to amend the Children of War Dead (Education Assistance) Act extends the benefits of the Act to certain children previously excluded.

The Canadian Forces Act, 1954, amends five Acts related directly to national defencethe Defence Services Pension Act, the National Defence Act, the Visiting Forces (North Atlantic Treaty) Act, the Senate and House of Commons Act and the Canadian Forces Act, 1950.
An Act to amend the War Service Grants Act among other changes extends for a further five years the period of time during which veterans may use their re-establishment credits-the period is now 15 years from Jan. 1, 1945, or the date of discharge, whichever is the later.

An Act to amend the Pension Act allows for increased salaries for members of the Pension Commission and makes other revisions mainly concerning pensions to children; in those sections dealing with veterans under medical care, the stipulation "in hospital" is changed to "under treatment or care of the Department"; and certain dates for entitlement are advanced.

The Veterans Benefit Act, 1954, gives the statutory definition of "Canadian Forces" and sets forth the application of the following Acts to members of the Canadian Forces: the War Service Grants Act, the Veterans Rehabilitation Act, the Pension Act, the Veterans' Land Act, the Veterans Insurance Act, the Reinstatement in Civil Employment Act, the Veterans' Business and Professional Loan Act, the Civil Service Act, the Public Service Superannuation Act and the Unemployment Insurance Act.

An Act to amend the Veterans' Land Act extends the provisions of the Act to include financial and technical assistance to veterans who wish to build their own homes. It also provides for additional loans up to $\$ 3,000$ for full-time farmers and $\$ 1,400$ for part-time farmers or commercial fishermen already under contract for the purpose of permanently improving or increasing their holdings.

# Legislation of the First Session of the Twenty-Second Parliament, Nov. 12, 1953, to June 26, 1954-continued 

| Subject, <br> Chapter and Date of Assent |  |  | Synopsis |
| :---: | :---: | :---: | :---: |
| Northern Affairs and National Resources- |  |  |  |
|  | Dec. |  | The Department of Northern Affairs and National Resources Act creates a new department of government with the specific duty of co-ordinating the activities of all government departments in the Yukon and Northwest Territories and of promoting measures for the further economic and political development of those areas as well as the development of knowledge of problems in the north and the means of dealing with them through scientific investigation and technological research. Other duties include jurisdiction over the forest and water resources of Canada; irrigation and water power; national parks and historic sites and monuments; archsology, ethnology and fauna and flora; and tourist services. The Department of Resources and Development Act is repealed. |
| 6 | Dec. |  | An Act to a mend the National Parks Act makes certain changes to improve the administration of Canada's National Parks. |
| 17 | Mar. |  | An Act to amend an Act respecting the National Battlefields at Quebec authorizes the expenditure of $\$ 125,000$ a year for four years for the purposes of the Act. |
| 36 | June |  | An Act to amend the International Rapids Power Development Act replaces a reference to the Power Commission Act of Ontario by the St. Lawrence Development Act, 1952, with respect to the expropriation of property. |
| Trade and Commerce- |  |  |  |
|  |  | 4 | An Act to amend the Exports Credits Insurance Act revises the financial structure of the Corporation by increasing the authorized capital from $\$ 5,000,000$ to $\$ 15,000,000$ and stipulating amounts to be credited to an underwriting reserve account. |
| 19 | Mar. | 4 | An Act to amend the Patent Act authorizes certain increases in statutory fees provided under the Act in order to ensure that services are paid for by those to whom they are rendered rather than by the taxpayers generally. |
| 27 | Mar. |  | The Export and Import Permits Act revises and consolidates the legislation with respect to the exporting and importing of strategic and other goods. |
| 40 | June | 10 | The Public Seroants Inventions Act consolidates legislation formerly included in four different Acts concerning the ownership and management of and the payment of awards for inventions made by public servants of the Government of Canads that are connected with the duties and employment of the inventors. |
| Transportation-1Dec. 16 |  |  | An Act respecting the appointment of Auditors for National Railways appoints independent auditors for 1954 to make a continuous audit of the national railway accounts. |
| 7 | Dec. |  | An Act to amend the Pipe Lines Act brings under the authority of the Act the operation and construction of oil or gas pipe lines extending from one province to another. |
| 30 | May | 27 | An Aet to amend the Department of Transport Act provides for the regulation and control of the bulk transport of such goods as grain, ores and minerals, ferrous metals, iron and steel scrap, pulpwood, sand, stone and gravel, etc., in order to ensure prompt, efficient and orderly movement. |
| 37 | June | 10 | An Act to amend the Navigable Waters Protection Act provides for recovery by the government of any costs incurred in marking, removing or destroying any wrecks or other obstruction to navigation from the owner or person responsible for the obstruction. The Act also authorizes the making of regulations concerning the employment of seamen aboard Canadian ships on the Great Lakes. |
| 49 | June | 26 | An Aet respecting the construction of lines of railway by the Canadian National Railway Company from St. Felicien to Chibougamau and from Chibougamau to Beattyville, all in the Province of Quebec. and from Hillsport on the main line of the Canadian National Railways to Manitouwadge Lake, both in the Province of Ontario. |
| 50 | June | 26 | The Canadian National Railways Financing and Guarantee Act, 1954, provides moneys to meet certain capital expenditures of the CNR during the year 1954, including the building of a hotel at Montreal, and to authorize the guarantee by the Government of certain securities to be issued by the Company. |
| 59 | June | 26 | The Molor Vekicle Transport Act provides for the regulation, in agreement with provincial authorities, of interprovincial and international highway transport by provincial agencies having authority to control highway transport within the several provinces. |

# Legislation of the First Session of the Twenty-Second Parliament, Nov. 12, 1953, to June 26, 1954-concluded 

| Subject, Chapter and Date of Assent |  |  | Synopsis |
| :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Transportation- } \\ & \text { concluded } \\ & 60 \quad \text { June } 26 \end{aligned}$ |  |  |  |
|  |  |  | An Act to amend the National Harbours Board Act makes a number of revisions in the regulations relating to the administration and operation of the national harbours. |
| 63 | June | 26 | An Act to amend the Pipe Lines Act provides that a liquidator or trustee or other personnel appointed in a similar capacity may act for a company authorized to construct or operate pipelines. |
| $\mathrm{Welfare-}_{45}$ June 10 |  |  |  |
|  |  |  | An Act to amend the Vocational Training Co-ordination Act revises the Act of 1942 in the light of present-day requirements for defence and other purposes, including authority to enter into agreements with the provinces to provide assistance for rehabilitation training of disabled persons. |
| 55 | June | 26 | The Disabled Persons Act provides for a nation-wide system of allowances for totally and permanently disabled persons who are in need of assistance. The legislation authorizes the payment of $\$ 40$ a month to such persons who are 18 years of age or over. The passing of enabling legislation is required on the part of each of the participating provinces and each province is given the option of designating by its own law a higher minimum age if desired. |
| 61 | June | 26 | An Act to repeal the National Physical Fitness Act. Although this Act is repealed, agreements already in effect under the Act will be carried out. |
| $\begin{aligned} & \text { Miscellaneous- } \\ & 12 \text { Mar. } 4 \end{aligned}$ |  |  |  |
|  |  |  | An Act to amend the Animal Contagious Diseases Act removes the limits on compensation payable under the Act in respect of swine and sheep and provides for the payment of compensation on the basis of market value. |
| 14 | Mar. | 4 | An Act to amend the Explosives Act makes a number of changes to the Act which provides a measure of control in the manufacture, testing, storage and importation of explosives in the interests of public safety. |
| 18 | Mar. | 4 | The Northwest Atlantic Fisheries Convention Act gives the Government statutory authority to carry out the obligations assumed by Canada under the International Convention for the Northwest Atlantic Fisheries, signed at Washington on Feb. 8, 1949, and ratified on July 3, 1950, following approval by Parliament on Joint resolution of the Senate and the House of Commons. |
| 23 | Mar. |  | The National Housing Act, 1954, makes substantial changes in the financing of residential construction under the National Housing Act. The group of lending institutions is widened to include the chartered banks and the Quebec savings banks, which are empowered to make loans on the security of insured first mortgages on residential property. The former system of joint loans has been replaced by a system of insured mortgage loans. The down-payment is reduced from 20 p.c. to 10 p.c. on the first $\$ 8,000$ of the mortgage value and the down-payment on portions in excess of $\$ 8,000$ is placed at 30 p.c. Monthly payments are reduced by extending the life of the mortgage loans to 25 years from 20 years. |
| 26 | Mar. | 31 | An Act to amend the Emergency Gold Mining Assistance Act extends the application of the Act to the end of 1954 and increases the assigtance with respect to gold produced in 1953 and 1954. |
| 28 | Mar. | 31 | The Fire Losses Replacement Account Act establishes a Fire Losses Replacement Account from which an advance may be made, up to a maximum of $\$ 5,000,000$, for the restoration, rebuilding or repair of any property under the administration or control of a Government department or Crown corporation that has been lost, destroyed or damaged by fire. |
| 34 | June | 10 | An Act to amend the Canadian Citizenship Act enables a person to apply for Canadian citizenship without first giving, as previously required, at least one year's notice of his intention to do so. |
| 42 | June | 10 | An Act to amend the Research Council Act clarifies the position of the Council with respect to its authority to deal with personal property in the course of its operations and makes certain minor adjustments in connection with the powers of the Council. |
| 47 | June | 26 | An Act to amend the Atomic Energy Control Act provides for the incorporation of a holding company to integrate the research and production activities in the atomic energy field, the company to be responsible to Parliament through the Chairman of the Committee of the Privy Council on Scientific and Industrial Research. Obsolete references to the Civil Service Superannuation Act are eliminated. |

## PART V.-GANADIAN GHRONOLOGY, 1497-1954

Events in the General Chronology from 1497 to 1866 are given in the 1951 Year Book, pp. 46-49, and from 1867-1953 in the 1954 Year Book, pp. 1259-1264. References regarding federal or provincial elections or changes in legislatures or ministries are given in Chapter II on Constitution and Government and in Appendices.
1954. Jan. 8-15, The Conference of Commonwealth Finance Ministers was held in Sydney, Australia, to review developments in the economic field; Hon. D. C. Abbott, Minister of Finance, led the Canadian delegation. Jan. 8, The world's longest pipe-line flow of crude oil starting from Alberta reached Sarnia, Ont., a distance of 1,770 miles. Jan. 23, The U.N. Command in Korea freed 22,000 Korean prisoners-of-war who rejected communism. Jan. 25-Feb. 18, Great Britain, France and the Soviet Union met at a Foreign Ministers' Conference in Berlin, Germany, and considered a conference on Korea and Indo-Chins. Peb. 4-Mar. 17, Prime Minister St. Laurent made a round-theworld goodwill tour, visiting 11 countries including the Asian members of the Commonwealth. Feb. 5, Most northern group of Canada's Arctic islands named the Queen Elizabeth Islands. Feb. 26-27, Dag Hammarskjold, United Nations' Secretary-General, made an official visit to Ottaws, Ont., and received an honorary Doctor of Laws degree from Carleton College. Mar. So, Canada's first subway train commenced operation in Toronto, Ont. Apr. 1, Woodside, the early home of former Prime Minister the Rt. Hon. W. L. Mackenzie King, at Kitchener, Ont., became a national historic park. Apr. 8, Worst air disaster in history of Trans-Canada Airlines when aircraft crashed at Moose Jaw, Sask., killing 37 persons. Apr. 22-23, National Conservation Conference of leaders of Canada's forest products industry held at Ottawa, Ont., urged greater co-operation in forestry conservation. Apr. 2s, Meeting of the North Atlantic Council, attended by the foreign ministers of the 14 -member countries of NATO, held in Paris, France. Canada was represented by Hon. L. B. Pearson, Secretary of State for External Affairs. Apr. 26, Hon. L. B. Pearson was leader of the Canadian delegation to the Far Eastern Conference for a peaceful settlement of the Korean question which opened in Geneva, Switzerland. May 15, Queen Elizabeth II and the Duke of Edinburgh arrived in London, England, ending a six-month tour of eastern Commonwealth countries. May s1, The Emergency Powers Act, giving the Parliament of Canada wide powers over the economy of Canada, expired. May 51-June 11, Canadian International Trade Fair, with exhibitors from 26 foreign countries, held at Toronto, Ont. May 31, First Prairie Province television station, CBWT Winnipeg, went on the air. June 2. In London, England, Dr. C. J. Mackenzie, President, Atomic Energy Control Board, received Kelvin Medal for distinguished service in field of scientific engineering and research. Second Canadian to receive this award. June s-7, His Imperial Majesty Haile Selassie I, Emperor of Ethiopia, ac-
companied by his son, Prince Sahle Selassie, and grandaughter, Princess Sebla Desta, visited Canada. June 5-27, Unit tour across Canada made from Ottaws, Ont., by 20 journalists representing NATO countries-inspected defence installations, industrial projects and civic institutions, given opportunity to view Canadian way of life. June 7 , United States Supreme Court handed down final decision to allow the Power Authority of State of New York ${ }^{+}$o co-operate with The Hydro Electric Power Commission of Ontario on construction of the St. Lawrence River power project. June 9, Arrival of last return flight from Korea on Korean Airlift. June $10-11$, Gen. Alfred M . Gruenther, Supreme Commander of the Allied Powers for Europe of the North Atlantic Treaty Organization (NATO), visited Ottawa. June 21, The new railway linking Sept Iles, Que., with the Quebec-Labrador 'iron-ore development began operation. June 29-30, Sir Winston Churchill, British Prime Minister, and Foreign Secretary, Anthony Eden visited Ottswa. July 21, The peace agreement for an Indo-China cease fire was signed in Geneva to end the IndoChina war. July 27, The war ended officially in northern Indo-China. July 28, Canada appointed to serve with India and Poland on Commission supervising Indo-China armistice of July 27. July 29Aug. 17, The Duke of Edinburgh attended the British Empire Games in Vancouver, B.C., "tapped" the first aluminum ingot poured at Kitimat, B.C., toured northern Canada; left from St. John's, N'f'ld, aboard the Royal Yacht Britannia. July SO, Field Marshal Earl Alexander, former Governor General of Canada, opened the 5th British Empire Games in Vancouver, B.C. July 31, Ceremonial opening at Sept Iles, Que., of the new Quebec-Labrador iron-ore development presided over by Hon. Joseph Smallwood, Premier of Newfoundland, and Hon. Maurice L. Duplessis, Premier of Quebec. Aug. 2, First shipload of iron ore mined in the Quebec-Labrador field sbipped from Sept Iles, Que., to Philadelphia, U.S.A. Aug. 10 . First ground broken for the power project of the St. Lawrence River in international ceremonies at Cornwall, Ont., and Massena, N.Y. Aug. 19, The Rt. Hon. C. D. Howe, Minister of Trade and Commerce and Minister of Defence Production, named 1954 winner of the Daniel Guggenheim Medal, for his part in the development of Canadian aviation. Aug. 28-Sept. 14, The Duchess of Kent and her daughter Princess Alexandra arrived in Quebec City. Aug. 30, the Duchess officially opened a new generating station at Niagara Falls, Ont., adding $900,000 \mathrm{kw}$. to Ontario's electric power resources. Sept. 21, Eighth session of The General Assembly of the United Nations closed at New York and ninth session
opened; Mr. Eelco N. Van Kleffens of The Netherlands, elected new President. Sept. 27-28, Mr. Shigeru Yoshida, Prime Minister of Japan, visited Ottawa. Sept. 30 , Hon. Henry D. Hicks sworn in as Liberal Premier of Nova Scotia. Sept. 28-Oct. 3, Conference of nine nations, including Canada, met at London, England, to deal with important issues facing the Western World; Hon. L. B. Pearson represented Canada. The Nine-Power Conference agreed on a plan for West German re-armament. Oct. $4-8$, Delegates from the 17 member nations of the Colombo Plan assembled in Ottawa for the fourth meeting of the Consultative Committee on Co-operative Economic Development in South and Southeast Asia, to review progress and future prospects and to discuss common problems and capital assistance for the under-developed areas of south and southeast Asia; Hon. Walter E. Harris. Canadian Minister of Finance, was Chairman of the Conference. Oct. 15, Eighty-two dead, one missing, damage $\$ 24,000,000$ as aftermath of "Hurricane Hazel" and floods in the Humber River Valley and Holland Marsh, near Toronto, Ont. Oct. 20, Royal Commission, Mr. John B. Carswell, representing the Government of Canada, and Mr. D. Bruce Shaw, representing the Government of Ontario, appointed to inquire into the nature and extent of the damage caused by "Hurricane Hazel". Oct. 2s, Hon. L. B. Pearson, Minister of External

Affairs, signed at Paris on bebalf of Canada, a Protocol to the North Atlantic Treaty, providing for the admission of the German Federal Republic into the western defence alliance. NATO. Oct. 28, RCMP patrol vessel St. Roch arrived at Vancouver on last voyage, was beached and transformed into an RCMP aretic museum. Nov. 12-17, Her Majesty Queen Flizabeth, the Queen Mother, visited Ottawa and Hull. Nov. 14-17, Mr. Pierre Mendes-France, Premier of France, and his wife, visited Quebec City and Ottawa. Nov. 21, HMCS Labrador, the first naval arctic patrol vessel of the Royal Canadian Navy to complete an 18,000 -mile history-making voyage through the Northwest Passage and around North America via Panama Canal, arrived at Halifax. N.S. Dec. 2-5. Sir John Kotelawala, Prime Minister of Ceylon, made an official visit to Canada. Dec. 6-8, Mr. Julius Raab, Chancellor of Austria, made an official visit to Ottawa. Dec. 10, Canso Causeway 4,200 feet long, linking Cape Breton Island to the mainland of Nova Scotia, completed. Dec. 17, Ninth session of the General Assembly of the United Nations at New York ended. Dec. $17-18$, NATO Council session held at Paris, France: Hon. Ralph O. Campney, Minister of Defence and Hon. L. B. Pearson, Minister of External Affairs, represented Canada. Dec. 31, 100 years ago Bytown became the City of Ottawa.

## PART VI.-STATISTICAL SUMMARY OF THE PROGRESS OF GANADA, 1871-1953

In the following summary, the statistics of foreign trade, shipping, the Post Office, the public debt, revenue and expenditure, and the Post Office and Government savings banks relate to the fiscal years ended June 30 up to 1901; subsequently to years ended Mar. 31, except for trade, where calendar-year figures are given for 1931 and later years. Agriculture, dairying, mineral, manufacturing, banking, insurance, loan and trust companies, construction, road-transportation, vital, hospital, and immigration statistics relate to the calendar years, and railway and fisheries statistics to the years ended June 30, 1871-1911, and to the calendar years 1921-53. Canal statistics are those of the navigation seasons. Telegraph statistics relate to the fiscal years for Government lines and to the calendar years for other lines.

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA

Nore.-The interpretation of the symbols used in the tables will be found facing p. 1 of this volume.

${ }^{1}$ The figures for 1949 and 1950 and those for 1952 and 1953 are intercensal estimates adjusted after the 1941 and 1951 Censuses, respectively. ${ }^{2}$ Includes 485 members of the Royal Canadian Navy recorded separately.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued
Nort.-The interpretation of the symbols used in the tables will be found facing p. 1 of this volume.

| 1931 | 1939 | 1941 | 1949 | 1950 | 1951 | 1952 | 1953 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 345,000 | 351,000 | 361,416 | 374,000 | 383,000 |  |
| 88,038 | 94,000 | 95,047 | 94,000 | 96,000 | 98,429 | 103,000 | 106,000 |  |
| 512,846 | 561,000 | 577,962 | 629,000 | 638,000 | 642,584 | 653,000 | 663,000 |  |
| 408,219 | 447,000 | 457,401 | 508,000 | 512,000 | 515,697 | 526,000 | 536,000 |  |
| 2,874,662 | 3,230,000 | 3,331,882 | 3,882,000 | 3,969,000 | 4,055,681 | 4,174,000 | 4,269,000 |  |
| 3,431,683 | 3,708,000 | 3,787,655 | 4,378,000 | 4,471,000 | 4,597,542 | 4,766,000 | 4,897,000 |  |
| 700,139 | 726,000 ${ }^{1}$ | 729,744 | 757,000 | 768,000 | 776,541 | 798,000 | 809,000 |  |
| 921,785 | 906,000 ${ }^{1}$ | 895,992 | 832,000 | 833,000 | 831,728 | 843,000 | 861,000 |  |
| 731,605 | 786,000 ${ }^{1}$ | 796,169 | 885,000 | 913,000 | 939,501 | 970,000 | - 1,002,000 |  |
| 694,263 | 792,000 ${ }^{1}$ | 817,861 | 1,113,000 | 1,137,000 | 1,165,210 | 1,198,000 | 1,230,000 |  |
| 4,230 | 5,000 | 4,914 | 8,000 | 8,000 | 9,096 | 9,000 | 1,9,000 |  |
| 9,316 | 12,000 ${ }^{1}$ | 12,028 | 16,000 | 16,000 | 16,004 | 16,000 | 16,000 |  |
| 10,376,786 | 11,267,000 | 11,506,655 | 13,447,0001 | 13,712,000 ${ }^{5}$ | 14,009,429 | 14,430,000 | 14,781,000 |  |
| 2,275,171 | . | 2,706,089 | . | . | 3,420,822 | 3,561,0004 | 3,675 000 |  |
| 7,678 | 3,011 | 435 | 20,737 | 12,669 | 31,559 | 45,060 | 46,574 | 14 |
| 15,195 | 5,654 | 6,594 | 7,756 | 7,821 | 7,755 | 9,333 | 9,407 |  |
| 4,657 | 8,329 | 2,300 | 66,724 | 53,422 | 155,077 | 110,105 | 112,887 |  |
| 27,530 | 16,994 | 9,329 | 95,217 | 73,912 | 194,391 | 164,498 | 168,868 |  |
| 240,473 | 229,468 | 255,317 | 366,139 | 371,071 | 380,101 | 402,527 | 416,825 | 17 |
| $23 \cdot 2$ | $20 \cdot 4$ | 22.2 | $27 \cdot 1$ | $27 \cdot 1$ | 27.2 | 27.9 | 28.2 |  |
| 104,517 | 108,951 | 114,639 | 124,047 | 123,789 | 125,454 | 125,950 | 127,381 | 18 |
| $10 \cdot 1$ | 9•7 | $10 \cdot 0$ | $9 \cdot 2$ | $9 \cdot 0$ | $9 \cdot 0$ | $8 \cdot 7$ |  |  |
| 66,591 | 103,658 | 121,842 | 123.877 | 124,845 | 128,230 | 128,301 | 130,837 | 19 |
|  | $9 \cdot 2$ | $10 \cdot 6$ | 9-2 | $9 \cdot 1$ | $9 \cdot 2$ | 8.9 | $8 \cdot 9$ |  |
| 700 | 2.068 | 2,461 | 5,934 | 5,373 | 5,263 | 5,634 | 6,055 | 20 |
| $\begin{array}{r} 587^{8} \\ 43,247^{8} \end{array}$ | $\begin{array}{r} 609 \\ 51,628 \end{array}$ | $\begin{array}{r} 613 \\ 53,445 \end{array}$ | $\begin{array}{r} 738^{\circ} \\ 61,676^{\circ} \end{array}$ | $\begin{array}{r} 7639 \\ 65.5299 \end{array}$ | $\begin{array}{r} 7789 \\ 68,6749 \end{array}$ | 68, ${ }^{77739}{ }^{9}$ | 810 ${ }^{10} 0^{10}$ | ${ }_{22}^{21}$ |
| 9,657,5178 | 11,923,695 | 13,393,506 | 17,813,015 ${ }^{9}$ | 18,848,072 ${ }^{6}$ | 19,798,4488 ${ }^{68,674}$ | 20,686,043 ${ }^{68}$ | 23,750, $\begin{array}{r}62,22310\end{array}$ |  |
| $38,309,400^{3}$ | .. | .. | 146,866,796 ${ }^{9}$ | 162,714,2879 | 196,203,373 ${ }^{9}$ | 204,041,224 ${ }^{\text {a }}$ | 235, 512, $500{ }^{10}$ | 24 |
| $\begin{array}{r} 318 \\ 6,044^{8} \end{array}$ | $\begin{array}{r} 47 \\ 9,062 \end{array}$ | 47 9.304 | 12,836 | 62 13,739 |  |  |  | 25 |
| 1,924,2898 | 3,055,910 | 3,227,640 | 4,307,083 | 4,370,008 | 4,640, 1917 | 4, 14,365 | 15,165 $5,160,391$ |  |
| $5,329,393^{8}$ | 6,882,443 | 7,753,229 | 19,166, 132 | 22,893,130 | 26,815,147 | 29,183,919 | 30,882,973 | 28 |
| $\begin{array}{r} 52^{8} \\ 29,283^{8} \end{array}$ | $\begin{array}{r} 53 \\ 38,276 \end{array}$ |  | $\begin{array}{r}59 \\ 42,395 \\ \hline\end{array}$ | 61 42,720 | [ ${ }_{4}^{63}$, 205 | 46,417 ${ }^{66}$ | 49,849 |  |
| 10,662,3438 | 15,478,080 | 16,078,250 | 18,774,505 | 19,223,090 | 19,708,905 | 20,540,200 | 23,540,602 | 11 |
| 13,235,7678 | 15,449, 122 | 14,725,760 | 35,383, 231 | 41, 822,632 | 46,403,522 | 51,651,055 | 57,229,007 | 32 |
|  |  |  | 270,909,779 | 297,514,034 | 309,465, 461 | 320,457,673 | 334,197,685 | 33 |
| 7,050,924 | 28,885,860 | 28,472,475 | $64,232,210^{\circ}$ | 89,652,203 | 99,268,006 | 76,066,835 ${ }^{15}$ | 323, 141, 614 | 34 |
| .. | 859,853 | 1,067,239 | 2,532,0749 | 3,536,730 | 3,901,109 | 721,44915 | 2,985,217 |  |
| $\cdots$ | .. | .. | 49,827,000 ${ }^{\text {r }}$ | 85, 824,000 | 90,013,000 ${ }^{\text {r }}$ | 90,164,000 | 135,822,000 | 36 |
| 31,542 | 48,107 | 42,646 | 41,661 ${ }^{9}$ | 42,6249 | 40,289 | 41,591 | 45,071 | 37 |
| 327,778 | 428,608 | 547,556 | 980,4899 | 1,183,9919 | 1,308,466 | 1,565,707 | 1,763,622 | 38 |

[^423]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued

|  | Item | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Education |  |  |  |  |  |  |
| 1 | Total enrolment ${ }^{1} \ldots \ldots \ldots .$. . No. | 803,000 | 891,000 | 993,000 | 1,092,633 | 1,361,205 | 1,880,805 |
|  | Average daily attendance ${ }^{2} \ldots .$. " ${ }^{\text {Teachers }}{ }^{2}$.............. |  |  |  | 669,000 | 870,532 | 1,349,256 |
| 4 | Public expenditure on......... \& |  | 18,016 | 23,718 | 11,044,925 | 37,971,374 | 56,607 112,976,543 |
| 5 | Survey of Production- <br> Net value ${ }^{3}$. |  |  |  |  |  |  |
|  | Agricuiture-4 |  |  |  |  |  |  |
|  | Area of occupied farms.......sere | 36,046,401 | 45,358,141 | 58,997,995 | 63,422,338 | 108,968,715 | 140,887,903 |
|  | Improved lands............... " | 17,335,818 | 21,899,181 | 27,729,852 | 30,166,033 | 48,733, 823 | 70,769,548 |
|  | Cash income from the sale of farm products................. $\$^{\prime} 000$ | .. | .. | .. | .. | , | , |
|  | Field Crops- |  |  |  |  |  |  |
| 9 | Wheat..................... bu. | 16,723,873 | 32,350, 269 | 42,144,779 | 55,572,368 | 132,077,547 | 226,508,411 |
|  | \$ | 16,993,265 | 38,820,323 | 31,667, 529 | 36, 122,039 | 104,816,825 | 374, 178,601 |
| 10 | Oats.................... bu. | 42,489,453 | 70,493, 131 | 83,428, 202 | 151,497,407 | 245, 393,425 | 364,989,218 |
|  | Barley | 15,966,310 | 23,967,665 | 31,702,717 | 51,509,118 | 86,796,130 | 180,989,587 |
| 11 | Barley...................... bu. | 11,496,038 | 16,844, 868 | 17,222,795 | 22,224,366 | 28,848,310 | 42,956,049 |
|  | Corn ${ }^{\text {s }}$ | 8,170,735 | 11,791,408 | 8,611,397 | 8, 889,746 | 14,653,697 | 33,514,070 |
| 12 | Corn....................... bu. | 3,802,830 | 9,025,142 | 10,711,380 | $25,875,919$ | 14,417,599 | 10,822,278 |
|  | 8 | 2,283,145 | 5,415,085 | 5,034, 348 | 11,902,923 | 5,774,039 | 7,081,140 |
| 13 | Potatoes................... bu. | 47,330,187 | 55,368,790 | $53,490,857$ | 55,362,635 | 55,461,473 | 62,230,052 |
|  | 8 | 15,211,774 | 13,288,510 | 21,396,342 | 13,840,658 | 27,426,765 | 44,635,547 |
| 11 | Hay and clover........... ton | $3,818,641$ | $5,055,810$ | $7,693,733$ | $6,943,715$ | 10,406, 367 | 8,829,915 |
|  | 8 | $38,869,900$ | $40,446,480$ | $69,243,597$ | 85,625,315 | 90,115,531 | 174,110,386 |
|  | Total Areas, Field Crops ${ }^{9}$. . . acre |  |  | 15,662,811 | 19,763,740 | 30,556,168 | 47,553,418 |
|  | Total Values, Field Crops ${ }^{9}$.. \$ | 111,116,606 | $155,277,427$ | 194,766,934 | 237,682,285 | 384,513,795 | 933,045,936 |
|  | Live Stock and Poultry-10 |  |  |  |  |  |  |
| 15 | Horses..................... No. | 836, | 1,059,400 | 1,470,600 | 1,577,500 | 2,599,000 | 3,451,800 |
|  |  |  |  |  | 118,279, ${ }^{1}$, ${ }^{\text {a }}$ | 381,916,000 | 414,808,000 |
| 16 | Milk cows. . . . . . . . . . . . . . . No. | 1,251,200 | 1,595,800 | 1,857,100 | $2,408,700$ $60,238,000$ | $2,645,200$ $111,833,000$ | $3,086,700$ $188,518,000$ |
| 17 | Other cattle................ N No. | 1,373,100 | 1,919,200 | 2,263,500 | 3,167,800 | $111,888,900$ 3,880 | 5,282,800 |
|  |  |  |  |  | 54, 197,000 | 84,021,000 | 146,567,000 |
| 18 | Sheep..................... No. | 3,155,500 | 3,048,700 | 2,563,800 | 2,510,200 | 2,174,300 | 3,200,500 |
|  | 8 |  |  |  | 10,491,000 | 10,702,000 | 20,675,000 |
| 19 | Swine..................... No. | 1,366, 100 | 1,207,600 | 1,733,900 | 2,353,800 | 3,634,800 |  |
|  | All poultry.................. N. No. |  | ... | 14, 105, 100 | $16,446,000$ $17,922,700$ | $26,987,000$ $31,793,300$ | $\begin{aligned} & 35,869,000 \\ & 37,185,800 \end{aligned}$ |
| 20 | All poultry.................. \% | .. |  | 14,105,100 | 5,724,000 | 14,654,000 | 38,015,000 |
|  | Total Values............... \& | . | . | . | 274,375,000 | 630,113,000 | 844,452,000 |
|  |  |  |  |  |  |  |  |
| 21 22 | Total milk production..... 000 lb . | $\cdots$ |  |  | $6,866,834$ $220,833,269$ | $9,806,741$ $199,904,205$ | 111,897,545 |
| 22 | Cheese, factory ${ }^{12} \ldots \ldots \ldots$ lb. | $\cdots$ | $\begin{array}{r} 54,574,856 \\ 5,457,486 \end{array}$ | $\begin{array}{r} 97,418,855 \\ 9,741,886 \end{array}$ | $\begin{array}{r} 220,833,269 \\ 22,221,430 \end{array}$ | $\begin{array}{r} 199,904,205 \\ 21,587,124 \end{array}$ | 162,117,000 |
| 23 | Butter, creamery.......... 1 lb . | . | 1,365,912 | 3, 654,364 | 36,066,739 | 64,489,398 | 128,745,000 |
|  | Butter, creamery........... ${ }_{8}$ |  | 341,478 | 913,591 | 7,240,972 | 15,597,807 | 48,135,000 |
| 24 | Butter, dairy . . . . . . . . . . . . lb. |  | 102,545, 169 | 111,577, 210 | 105,343,076 | $137,110,200$ | 107,379,000 |
|  | 8 |  |  |  | 21,384,644 | 30,269,497 | 35,307,000 |
| 25 | Other dairy products ${ }^{13} \ldots \ldots$. \% |  | .. | . | 15,623,907 | 35,927, 426 | 110,623,000 |
|  | Total Values, Dairy Products \$ | . | 22,743,939 | 30,315,214 | 66,470,953 | 103,381,854 | 222,775,000 |
| Forestry- |  |  |  |  |  |  |  |
| 26 | Primary forest production. |  |  |  |  |  |  |
| 27 | Lumber production....... M ft. b.m. | .. | . | .. | $\cdots$ | $\begin{array}{r} 4,918,202 \\ 75,830,954 \end{array}$ | $\begin{array}{r} 2,869,307 \\ 82,448,585 \end{array}$ |
| 3 | Total sawmill products........ \& | . |  |  | . |  | 116,891,191 |
|  | Pulp and paper products....... \& |  |  |  | . |  | 151,003, 165 |
|  | Exports of wood, wood products and paper ${ }^{14}$. |  | . | 25,351,085 | 33,099,915 | 56,334,695 | 284,561,478 |

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued

| 1931 | 1939 | 19.41 | 1949 | 1950 | 1951 | 1952 | 1953 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2,264,106 | 2,236,342 | 2,131,391 | 2,751,283 ${ }^{\text {r }}$ | 2,840,489 ${ }^{\text {r }}$ | 2,922,931 ${ }^{\text {r }}$ | 3,047,605 | .. | 1 |
| 1,801,955 | 1,870,563 | 1,802,300 | 1,986,349 r | 2,065,585 r | 2,117,457 r | 2,223,005 | . | 2 |
| 1,71,246 | 1,84,549 | 1, 75,308 | 82,085 r | 85,277 r | 90,403r | 93,694 | . | 3 |
| 144, 748,823 | 122,974,590 | 129,817,268 | $429,974,000{ }^{\text {r }}$ | $466,986,000$ r | $513,442,000$ | . |  | 4 |
| . | 3,186,572,182 | 4,565,666,059 | 9,990,397, 793 | 10,757,665,557 | 13,074,797,179 | $13,707,887,441$ | .. | 5 |
| 163,114,034 |  | 173,563,282 | - |  | 174,046,654 ${ }^{\text {b }}$ | - | . | 6 |
| 85,732,172 |  | 91,636,065 | . |  | 96,852,826 ${ }^{5}$ |  |  | 7 |
| 476,101 | 716,062 | $885,257 \mathrm{r}$ | 2,486,598 | 2,213,226 | 2,816,461 ${ }^{\text {r }}$ | $2,849,310^{\text {r }}$ | 2,776,003 | 8 |
| 312,325,000 | 5 | $314,825,000$ | 6 | 6 | 552,657,000 | 687,922,000 | 613,962,000 | 3 |
| 123,550,000 | 8 | 192, 747,000 | 6 | 5 | 855, 137,000 | 1,090,512,000 | 782,521,000 |  |
| 328,278,000 | 6 | $305,575,000$ | ${ }^{6}$ | 6 | 488, 191,000 | 466,805,000 | 406,960,000 | 10 |
| 77,970,000 | 6 | 125,920,000 | ${ }^{6}$ | 8 | 369,296,000 | 309,477, $000{ }^{\text {r }}$ | 253,910, 000 |  |
| 67,382,600 | 6 | 110,566,000 | 6 | 5 | 245,218,000 | 291,379,000 | 262,065,000 | 11 |
| 17,465,000 | 6 | 47,651,000 | ${ }^{6}$ | 6 | 269,951,000 | 307,749,000 | 224,580,000 |  |
| 5, 449,000 | 6 | 13,362,000 | 6 | 6 | 15,915,000 | 19,722,000 | 20,854, 000 | 12 |
| 2,274,000 | 6 | 9,645,000 | 6 | 6 | 28,527,000 | 28,403,000 | 28, 199, 000 |  |
| 52,305,0008 | 6 | 39,052,000 ${ }^{3}$ | 6 | 6 | 48,355,000 | 60,071,000 ${ }^{\text {r }}$ | 67,002,000 | 13 |
| 22,359,000 | 6 | 48,274,000 | - | 6 | 98,077,000 | 100,784, $000{ }^{\text {r }}$ | 52, 717, 000 |  |
| 14,539,600 | 6 | 12,632,000 | 6 | 6 | 19,484,000 | 19,083,000 ${ }^{\text {r }}$ | 19,650,000 | 14 |
| 110,110,000 | 6 | 158,723,000 | 6 | 6 | 297, 238,000 | 271,687,000 | $269,489,000$ |  |
| 58,862,305 | 6 | $56,788,400$ | 6 | 6 | 60,868,000 | 61,745,000 ${ }^{\text {r }}$ | 60,601,000 |  |
| 435,966,400 | 6 | 704,761,000 | 6 | 6 | $2,120,301,000$ | 2,306,397,000 | 1,771,098,000 P |  |
| 3,113,900 | 6 | 2,788,795 | 6 | 6 | 1,303,800 | 1,180,400 | 1,096,200 | 15 |
| 205,087,000 | 6 | 184,549,656 | 6 | 6 | 94,130,000 | 94,998,000 | 87,565,000 |  |
| 3,371,900 | 6 | 3,626,025 | 5 | 8 | 2,903,800 | 2,968,000 | $3,146,200$ | 16 |
| 160,655,000 | 6 | 191,214,008 | ${ }^{8}$ | 6 | 722,589,000 | 624,160,000 | 531,043,000 |  |
| 4,601,100 | 6 | 4,890,982 | 6 | 6 | 5,459,300 | 6,204,700 | 6,616,000 | 17 |
| 94,952,000 | 6 | 138, 196,159 | 8 | 6 | 871,003,000 | 802,284,000 | $686,137,000$ |  |
| 3,627,100 | 6 | 2,839,948 | 6 | 5 | 1,461,200 | 1,588,200 ${ }^{\text {r }}$ | 1,721,300 | 18 |
| 19,680,000 | 6 | 17,038,647 | 5 | 6 | 38,439,000 | $35,314,000$ r | $33,883,000$ |  |
| 4,699,800 | 6 | 6,081,389 | 5 | 6 | 4,914,300 | 5,741,000 | 4,447,000 | 19 |
| $33,288,000$ | 6 | 54,911,751 | 6 | 6 | 185,773,000 | 152,894,000 | 137,246,000 |  |
| $65,468,000$ | 6 | 63,526,202 | 6 | 6 | 67,857,000 | 65,782,000 | 66,451,000 | 20 |
| $45,138,000$ | 6 | 27, 444, 115 | 6 | 6 | 86,943,000 | 80,932,000 | 82,764,000 |  |
| 558,800,000 | 6 | 613,354,336 | 4 | 8 8 | 1,998,877,000 | 1,790,582,000 ${ }^{\text {r }}$ | 1,558,638,000 |  |
| 14,339,686 | 6 | 16,549,902 | ${ }^{5}$ | 15, 322, 350 r | 15,309, 971 r | 15,734,603 ${ }^{\text {r }}$ | 16,424, 800 | 21 |
| 113,956, 639 | 6 | 151,866,000 | 8 | 102,710,000 | $94,314,000$ r | $73,668,000$ - | 81,660,000 | 22 |
| 12,824,695 | 6 | 24,737,037 | 6 | 30,737,000 | $33,527,000$ - | 22,782,000 ${ }^{\text {r }}$ | 25,337, 000 |  |
| 225,955,246 | 6 | 285,848,196 | 6 | 261, 464,000 r | 257, 165,000 | 280,746,000 | 302,606,000 | 23 |
| 50,198,878 | 6 | 93, 199,557 | 6 | 144,358,000r | 162,154,000 | 167,459,000r | 178, 149,000 |  |
| 98,590,000 | 6 | 82,796,000 | 8 | 27,352,000 | 26,830,000r | 23,769,000r | 21,289,000 | 24 |
| 20,098,000 | 6 | 24,373,000 | 5 | 14,714,000 ${ }^{\text {r }}$ | 16,159,000 r | 13,924,000 ${ }^{\text {r }}$ | 12,392,000 |  |
| 109,262,600 | 6 | 159,363,878 | 6 | $357,798,000{ }^{\text {r }}$ | $403,052,000 \mathrm{r}$ | 430,326,000 r | 443,615,000 | 25 |
| 192,384,173 | - | 301,673,472 | 6 | 547,607,000 r | 614,892,000r | $634,491,000 \mathrm{r}$ | 659,493,000 |  |
| 141, 123,930 | 157,747,398 | 213,163,089 | 561,412,062 | 625,734,603 | 782,525,015 | 815,651,194 |  | 26 |
| 2,497,553 | 3,976,882 | 4,941,084 | 5,915,443 | 6,553,898 | 6,948,697 | 6,807,594 | 7,057, 532 p | 27 |
| 45,977, 843 | $78,331,839$ | 129,287,703 | 334,789,873 | 422,480,700 | 507,650,241 | $483,195,323$ | $520,565,860$ p |  |
| 62,769,253 | 100, 132,597 | 163,412,292 | 396,415,201 | 496,948,398 | 591,551,749 | 568,023,148 | 608,875,068p | 28 |
| 174,733,954 | 208,152,295 | 334,726, 175 | 836,148,393 | 954, 137,651 | 1,237,897,470 | $1,157,887,657$ | $1,179,665,443$ | 29 |
| 185,493,491 | 242,541,043 | 387,113,232 | 875,317,680 | 1,112,945,061 | 1,399, 076,131 | 1,366,787,043 | 1,295,395,860 | 30 |

[^424]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued

|  | Item | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |  |
|  | t | 2,174,412 | 1,313,153 | 930,614 | 24,128, 503 | 9,781,077 | 19,148,920 |
| 2 | Silver........................oz. . | , | 355,0832 | 414,523 | 5,539,192 | 32,559,044 | 13,543,198 |
|  | ${ }^{8}$ | . | 347,2712 | 409,549 | 3,265,354 | 17,355, 272 | 8, 485, 355 |
| 3 | Copper...................... lb. | . | 3,260,4242 | 9,529,401 | 37,827,019 | 55,648,011 | 47,620,820 |
| 4 | 8 | .. | 366,7982 | 1,226,703 | 6,096,581 | 6,886,998 | 5,953,555 |
|  | Lead. .......................... lb. | . | 204,800 ${ }^{2}$ | 88,665 | 51,900,958 | 23,784,969 | 66,679,592 |
| 5 |  | . | 9,216 ${ }^{2}$ | 3,857 | 2,249,387 | , 827,717 | 3,828,742 |
|  | Zinc........................... . 1 l . | $\cdots$ |  |  | $788,000^{3}$ | 1,877,479 | 53,089,356 |
| 6 | Nickel.................... ${ }^{\text {l }}$ b. |  | 830,477 |  | 9,189,0113 | 108,105 | 2,471,310 |
|  | , | $\cdots$ | $498,286{ }^{6}$ | 2,421,208 | 4,594,523 | 10, 229, 623 | $19,293,060$ $6,752,571$ |
| 7 | Coal.................... .short ton | 1,063,7425 | 1,537,106 | 3,577,749 | 6,486,325 | 11,323,388 | 15, 057,493 |
| 8 | $\mathrm{Ma}^{\text {8 }}$ | 1,763,423 ${ }^{5}$ | 2,688,621 | 7,019,425 | 12,699,243 | 26, 467,646 | 72,451,656 |
|  | Natural gas............... M cu.ft. | .. |  |  |  |  | 14,077,601 |
|  | Petroleum, crude ${ }^{\text {S }}$ |  |  | 150,0006 | 339,476 | 1,917,678 | 4,594,164 |
|  | Petroleum, crude.............. bbl. |  | 368,987 | 755,298 | 622,392 | 291,092 | 187,541 |
| 10 | Asbestos $\qquad$ short ton |  |  | 1,010,211 | 1,008,275 | 357,073 | 641,533 |
|  | Asbestos.................short ton | .. | . | 999,878 |  | - 127,414 | 92,761 $4,906,230$ |
| 11 | Cement....................... bbl. |  | 69,8432 | 93,479 | 1,450,394 | 5,692,915 | $4,906,230$ $5,752,885$ |
|  | 8 |  | 81,9092 | 108,561 | 660,030 | 7,644,537 | 14,195,143 |
|  | Totals, Mineral Production ${ }^{7}$. \$ |  | 10,221,2558 | 18,976,616 | 65,797,911 | 103,220,994 | 171,923,342 |
| 12 | Turbine installation...........h.p. |  | . | 71,219 | 238,902 | 1,363,134 | 2,754,157 |
|  | Central Electric Stations- |  |  |  |  |  |  |
| 3 | Power houses............... No. | $\cdots$ | . |  |  |  | 510 |
|  | Capital invested. $. \cdots \cdots \cdots, \cdots, 0{ }^{\text {a }}$ | . | .. | 4,113,771 | 11,891,025 | 110,838,746 | 484, 669,451 |
| 15 | Power generated....... 000 kwh . | . | .. |  |  |  | 5,614,132 |
|  | Customers..................... No. | $\cdots$ | . |  |  |  |  |
|  | Fisheries- |  |  |  |  |  |  |
| 17 | Marketed value of all products. \$ | 7,573,199 | 15,817,162 | 18,977, 874 | $25,737,153$ | 34,667, 872 | 34,931,935 |
|  | Furs- |  |  |  |  |  |  |
| 18 | Pelts taken ${ }^{10} \ldots \ldots \ldots \ldots . . .$. No. | . | . | .. | . | . | 2,936,407 |
|  | Value ${ }^{\text {d }}$ | .. | .. |  | . | .. | 10,151,594 |
| 15 | Value of animals on fur farms.. 8 | $\cdots$ |  | . | .. | .. | 5,977,545 |
|  | Manufactures-u |  |  |  |  |  |  |
| 20 | Employees.................. . No. | 187,942 | 254,935 | 369,595 | 339,173 | 515, 203 | 438,555 |
| 21 | Capital..... ....... . . . . . . | 77,964,020 | 165,302,623 | $353,213,000$ | 446, 916,487 | 1,247,583,609 | 2,697,858,073 |
| 22 | Salaries and wages..... .... | 40,851,009 | 59, 429, 002 | 100,415,350 | 113, 249,350 | 241,008,416 | 497,399,761 |
| 23 | Values of materials used in.... \$ | 124,907,846 | 179,918,593 | 250,759,292 | 266,527, 858 | 601,509,018 | 1,365,292,885 |
|  | Products- |  |  |  |  |  |  |
| 24 | Gross..................... \$ | 221,617,773 | 309, 676, 068 | 469,847, 886 | 481,053,375 | $1,165,975,639$ | 2,488,987,148 |
| 25 |  | 96,709,927 | 129,757,475 | 219,088,594 | $214,525,517$ | 564, 466, 621 | 1,123,694,263 |
| 26 | Index of Industrial Production ${ }^{4 /}$. |  | . | . |  |  | .. |
|  | Construction- Values of contracts awarded... \& | . | - |  |  | 345, 425,000 | 240,133,300 |
| 27 | Labour- ${ }_{\text {Gainfully }}$ Occupied-15,17 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 28 29 | Agricultural occupations..... No. | $\cdots$ | $\cdots$ | 735,20718 58.21129 | 716,860 | $\begin{array}{r} 933,735 \\ 139.87721 \end{array}$ | 1, 035,283 |
| 39 | Other primary Manufacturing | .. | - | 237,972 | 299,535 | -372,234 | 406,677 |
| 31 | Construction " $\ldots .$. . |  |  | 86,694 | 89,165 | 150,567 | 162,275 |
| 32 | Transportation ${ }^{23}$ " $\ldots .$. . " |  |  | 61,310 | 82,483 | 158,926 | 199,568 |
| 33 | Trade and finance " ..... " | $\ldots$ |  | 88,064 | 99,552 | 221,805 | 293,334 |
| 34 | Service | .. |  | 203,897 | 236,205 | 322,895 | 420,173 |
| 35 | Clerical " $\ldots .$. . " | 4 |  | 24,121 | 58,789 | 106,351 | 217,937 |
| 36 | Labourers ${ }^{25}$ " |  |  | 116,598 | 127,867 | 317,244 | 306,215 |
| 37 | Not stated " ..... |  |  | 3,534 | 792 | .. | 7,149 |
|  | Totals, Gainfully Occupied ${ }^{17}$. |  | . | 1,615,608 | 1,782,832 | 2,723,634 | 3,164,348 |
| 38 | Wage-earners ${ }^{17}$. . . . . . . . . . . . No. ${ }^{\text {a }}$ | . | .. | .. | .. | 1,628,273 | 1,972,089 |

 61892.
ended Sept. 30. Includes other items not specified. ${ }^{11}$ The statistics of manufactures in 1871 , 1881 and 1891 include all establishments irrespective ended Sept. 30 . 11 The statistics of manufactures in 1871,1881 and 1891 include all establishments irrespective
of the number of employees. From 1901, statistics are for establishments with five hands or over. The figures shown for census years prior to 1921 are for the preceding year. From 1922, statistics are exclusive of construction hand trades, repair and custom work. Figures for $1931-53$ include non-ferrous metal smelting not included in earlier years. ${ }^{12}$ Value of factory shipments. ${ }^{13}$ Since 1924 the net value of production is computed by subtracting the cost of fuel and electricity as well as the cost of materials from the gross value of the products.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued

| 1931 | 1939 | 1941 | 1949 | 1950 | 1951 | 1952 | 1953 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2,693, 892 | 5,094,379 | 5,345,179 | 4,123,518 | 4,441,227 | 4,392,751 | 4,471,725 | 4,055,723 |  |
| 58,093,396 | 184, 115, 951 | 205,789,392 | 148,446, 648 | 168,988,687 | 161,872, 873 | 153,246,016 | 139,597,985 |  |
| 20,562,247 | 23,163,629 | 21,754,408 | 17,641,493 | 23,221,431 | 23, 125, 825 | 25,222,227 | 28,299,335 |  |
| 6,141,943 | 9,378,490 | 8, 8,323,454 | 13,098, 808 | 18,767,561 | 21,865,467 | 21,065,603 | 23,774,271 |  |
| 292,304,390 | 608,825, 575 | 643,316,713 | 526,913, 632 | 528,418, 296 | 539,941,589 | 516,075,097 | 506, 504, 074 |  |
| 24,114,065 | 60, 934, 859 | 64, 407,497 | 104, 719, 151 | 123,211,407 | 149,026, 216 | 146,679,040 | 150,953,742 |  |
| 267,342,482 | 388, 569,550 | 460, 167,005 | 319,549, 865 | 331,394, 128 | 316,462,751 | 337, 683,891 | 387,411,588. |  |
| 7,260, 183 | 12,313,768 | 15, 470,815 | 50,488, 879 | 47,886,452 | 58,229,146 | 54,671,021 | 50,076,822 |  |
| 237, 245,451 | 394, 533,860 | 512,381,636 | 576,524,097 | 626, 454,598 | $682,224,335$ | 743, 604, 155 | 803,523,295 |  |
| 3,059,249 | 12,108,244 | 17,477,337 | 76,372, 147 | 98,040, 145 | 135, 762, 643 | 129, 833, 285 | 96, 101,386 |  |
| 65,666,320 | 226, 105, 856 | 282,258,235 | 257,379,216 | 247,317,867 | $275,806,272$ | 281,117,072 | 287,385,777 |  |
| 15, 267, 453 | 50,920,305 | 68,656,795 | 99, 173,289 | 112,104,685 | 151,269,994 | 151,349,438 | 160,430,098 |  |
| 12,243,211 | 48, 676,990 | 18,225,921 | 19,120,046 | 19,139,112 | 18,586,823 | 17,579,002 | 15,900,673 |  |
| 41,207,682 | 15,692,698 | 58,059,630 | $110,915,121$ | 110,140,399 | 109,038, 835 | 111,026, 149 | 102,721,875 |  |
| 25,874,723 | 35, 185, 146 | 43,495, 353 | $60,457,177$ | 67,822, 230 | 79,460,667 | 88, 686,465 | 100,985,923 | 8 |
| 9,026,754 | 12,507,307 | 12,665, 116 | 11,620,302 | 6,433,041 | 7,158,920 | 9,517,638 | 10,877,017 |  |
| 1,542,573 | 7,826,301 | 10, 133, 838 | 21, 305,348 | 29,043,788 | 47, 615,534 | 61,237,322 | 80,898,897 | 5 |
| 4,211,674 | 9,846,352 | 14,415,096 | 61,118,490 | 84,619,937 | 116,655, 238 | 143,038, 212 | 200,582, 276 |  |
| 164,296 | 364,472 | 477,846 | 574,906 | 875,344 | 973,198 | 929,339 | 911,226 | 10 |
| 4,812,886 | 15,859,212 | 21,468,840 | 39,746,072 | 65, 854, 568 | 81,584,345 | 89, 254,913 | 86, 052,895 |  |
| 10,161,658 | 5,731,264 | 8,368,711 | 15,916,564 | 16,741,826 | 17,007,812 | 18,520,538 | 22,238,335 | 1 |
| 15, 826,243 | 8,511,211 | 13,063,588 | 32,901,936 | 35,894,124 | 40,446,288 | 48,059,470 | 58,842,022 |  |
| 230.434,726 | 474,602,059 | 560,241,290 | 901,110.026 | 1,045,450,073 | 1,245,483,595 | 1,285,342,353 | 1,336,303,503 |  |
| 6,666,337 | 8,289,212 | 8.845,038 | 11,613,333 | 12,562,750 | 13,342,504 | 14,305, 880 | 14,929,074 | 12 |
| 559 | 611 | 607 | 650 | 665 | 647 | 562 | 524 | 3 |
| 229,988,951 | 1,564,603,211 | 41,460,451 |  |  |  |  |  | 14 |
| 16,330,867 | 28,338,030 | 33, 317,663 | 44,418,573 | 48,493,718 | 54, 851,844 | 59, 409,198 | 62,860,927 | 15 |
| 1,632,792 | 1,941,663 | 2,081,270 | 3,076,369 | 3,269, 824 | 3,439,750 | 3,620,595 | $3,817,281$ | 16 |
| 30,517,306 | 40,075,922 | 62,258,997 | 132,306,372 | 152,062,5979 | 175,718,088 ${ }^{\circ}$ | 149,737,361 ${ }^{9}$ | 150,226,738 ${ }^{\circ}$ | 17 |
| 4,060,356 | 6,492,222 | 7,257,337 | 9,902,790 | 7,377,4919 | 7,479,2729 | 7,931,742 | 7,568,865 | 18 |
| 11,803,217 | $14,286,937$ $6,920,464$ | $21,123,161$ $7,928,971$ | $22,899,882$ $8,743,225$ | $23,184,0339$ $10,444,286$ | $31,134,4009$ $10,195,561$ | $24,215,061$ $9,560,702$ | $23,349,680$ $10,835,709$ |  |
| 528,640 | 658,114 | 961,178 | 1,171,207 | 1,183,297 | 1,258,375 | 1,288,382 | 1,327,451 | 28 |
| 3,705,701,893 | 3,647,024,449 | 4,905, 503,966 |  |  |  |  |  | 21 |
| 587,566,990 | 737,811, 153 | 1,264, 862,643 | 2,591,890,657 | 2,771,267,435 | 3,276,280, 917 | 3,637,620, 160 | 3,957,018,348 | 23 |
| 1,221,911,982 1 | 1,836, 159,375 | 3,296, 547,019 | 6,843,231,064 | 7,538, 534,532 | 9,074, 526, 353 | 9,146, 172, 494 | 9,380, 558,682 | 23 |
| $\begin{aligned} & 2,555,128,448 \\ & 1,252,017,248 \end{aligned}$ | $\begin{aligned} & 3,474,783,528 \\ & 1,531,051,901 \end{aligned}$ | $\left\{\begin{array}{l} 6,076,308,124 \\ 2,605,119,788 \end{array}\right.$ | $\begin{aligned} & 12,479,593,300 \\ & 5,330,566,434 \end{aligned}$ | $\begin{aligned} & 13,817,526,381 \\ & 5,942,058,229 \end{aligned}$ | $\begin{aligned} & 16,392,187,132 \\ & 6,340,946,783 \end{aligned}$ | 16,982,687,03512 | $\begin{array}{r} 17,785,416,85412 \\ 7,993,069,351 \\ \hline \end{array}$ | 25 |
| 16 | 109-7 | $164 \cdot 8$ | $199 \cdot 6$ | 211.5 | 226-5 | 232.9 | 48-4 | 26 |
| 315,482,000 | 187,178, 500 | 393,991, 300 | 1,143,547,300 | 1,525,764,700 | 2,295,499,200 | 1,812,177,600 | 2,017,060,700 | 27 |
| 1,127,682 |  | 1,083, 816 |  |  | 826,75919 |  |  |  |
| 150,276 | . | 203,586 |  |  | 196,996 ${ }^{19}$ | .. |  | 29 |
| 495,842 | . | 709,181 |  |  | 973,982 ${ }^{19}$ | .. |  | 30 |
| 203,056 | . | 213,493 |  |  | 319,06519 |  |  | 31 |
| 289,030 | . | 311,645 |  |  | 492,98619 |  |  | 32 |
| 352,414 | * | 370, 617 |  |  | 520,76119 | . |  | 33 |
| 616,953 | .. | 725,45624 |  |  | 919,922 ${ }^{\circ}$ | .. |  | 4 |
| 258,684 | . | 314,051 | . |  | 541,71319 | .. | . | 35 |
| $\begin{array}{r} 426,242 \\ 1,654 \\ \hline \end{array}$ | $\cdots$ | $\begin{array}{r} 252,693 \\ 11,413 \\ \hline \end{array}$ |  |  | $\begin{array}{r} 323,82919 \\ 6360019 \end{array}$ | $\cdots$ | $\cdots$ | 36 37 |
| 3,921,833 |  | 4,195,95124 | . | . | 5,179,61319 |  |  |  |
| 2,570,097 | .. | 2,816.798 ${ }^{\text {m }}$ | .. | .. | 4,006,46619 | .. |  | 8 |

i4 $1935-39=100$. of age or over after 1921

Not comparable with later years. over, whether or not reported with gainful occupation of 106,540 persons ( 78,658 wage-earners). ${ }_{30} 0$ Excludes Indians almost all mine and smelter employees, except clerical workers. cludes "Communication" clusive of labourers in agriculture, fishing, logging and mining. , il laboura ing agiture, fishing, logging and mining.

610 years of age or over prior to 1911; 14 years ${ }^{18}$ Includes all farmers' sons, 14 years and Exclusive of Newfoundland with a labour force ${ }^{2}{ }^{2}$ Includes pulp-mill employees and ${ }^{23}$ Excludes Indians on reserves. ${ }^{23}$ In-

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued

|  | Item | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Transportation- |  |  |  |  |  |  |  |
|  | Steam Railways- |  |  |  |  |  |  |
| 1 | Miles in operation. . . . . . . . . . No. | 2,695 | 7,194 | 13,838 | 18,140 | 25,400 | 39, 191 |
| 2 | Capital liability................ \& | 257,035,1881 | 284, 419, 293 | 632,061,440 | 816, 110,837 | $1,528,689,2012$ | 2,164,687,636 |
| 3. | Passengers................... . No. | 5,190,416 ${ }^{2}$ | 6,943, 671 | 13,222, 568 | 18,385, 722 | 37,097,718 | 46,793,251 |
| 4 | Freight. . . . . . . . . . . . . . . . . . . ton | 5,670,8362 | 12,065, 323 | 21,753, 021 | 36,999,371 | 79,884,282 | 83,730,8291 |
| 5 | Earnings..................... \$ | 19,470,540 ${ }^{2}$ | 27,987,509 | 48,192,099 | 72,898,749 | 188,733,494 | 458,008,891 |
| 6 | Expenses...................... \& | 15,775,532 ${ }^{2}$ | 20,121,418 | 34,960,449 | 50,368,726 | 131,033,785 | 422,581,205 |
| Electric Rallways- |  |  |  |  |  |  |  |
| 7 | Miles in operation.......... No. |  | $\cdots$ | . | 553 | 1,224 | 1,687 |
| 8 | Capital liability............. |  | . | .. |  | 111,532,347 | 177,187, 436 |
| 9 | Passengers................. No. |  | . |  | 120,934, 656 | 426, 296,792 | 781,175,654 |
| 10 | Freight..................... ton |  | . |  | , 287,926 | 2,496,072 | 2,282,292 |
| 11 | Earnings....................... 8 |  |  |  | 5,768,283 | 20,356,952 | 44,536,833 |
| 12 | Expenses..................... § | . | . | .. | 3,435,163 | 12,096, 134 | 35,945,316 |
|  | Road Transportation- |  |  |  |  |  |  |
| 13 | Highways, total milages ${ }^{4}$..... No. | . | $\cdots$ | $\cdots$ |  | $\cdots$ | . |
| 14 | Capital expenditure on ${ }^{4} . . . \cdots .$. | .. | $\cdots$ | . |  |  |  |
| 15 | Motor-vehicles registered. .... No. | .. | .. | .. | . | 21,783 | 484,805 |
| 16 | Total provincial revenue from licences and operation....... \$ | . | . | . | . | .. | .. |
|  | Shipping- |  |  |  |  |  |  |
| 17 | Vessels on the registry....... No. | .. | 7,394 $1,310,896$ | $\begin{array}{r} 7,015 \\ 1,005,475 \end{array}$ | 6,697 666,276 | $\begin{array}{r} 8,088 \\ 770,446 \end{array}$ | $\begin{array}{r} 7,482 \\ 1,223,973 \end{array}$ |
|  | International Sea-borne-6,7 |  |  |  |  |  |  |
| 18 | Entered.................... ton | 6,576,77] | 6,967,449 | 9,372, 369 | 13, 235, 307 | 25, 205,441 | 27,344,957 |
| 19 | Cleared..................... ${ }^{\text {a }}$ | 6,549,257 | 6,834,983 | $9,430,279$ | 12,794,501 | 22, 224, 104 | 27,303,673 |
| 20 | Totals. | 13,126,028 | 13,802,432 | 18,802,648 | 26,029,808 | 47,429,545 | 54,648,630 |
| 21 | Coastwise-6 |  |  |  |  |  |  |
| 22 | Cleared...................... |  | 7,451,903 | 12,150,356 | 16,516,837 | 32,347, 265 | 27,773,668 |
| 23 | Totals.................... " | .. | 15,116,766 | 24,986, 130 | 34,444,796 | 66,627,934 | 56,341,213 |
|  | Canals- |  |  |  |  |  |  |
| 24 | Passengers carried........... No. | 100,377 | 118,136 | 146,336 | 190,428 | 304,904 | 230,129 |
| 25 | Freight...................... ton | $3,955,621$ | 2,853,230 | 2,902,526 | 5,665,259 | $38,030,353$ | 9,407,021 |
|  | Air Transportation-s |  |  |  |  |  |  |
| 26 | Miles flown................... No. | . |  | $\cdots$ | .. | $\cdots$ | 294,443 |
| 28 | Freight carried............... 1 l . | . | . | . | $\cdots$ | $\cdots$ | 79,850 |
| 29 | Mail carried. . . . . . . . . . . . . . . | .. | .. | . | . | . |  |
|  | Communications- |  |  |  |  |  |  |
| 30 | Telegraphs, Govt., miles of lines. $\qquad$ | . | 1,947 | 2,699 | 5,744 | 8,446 | 11,207 |
| 31 | Telegraphs, other, miles of line. " | . | .. | 27,866 | 30,194 | 33,905 | 41,577 |
| 32 | Telephones................. " | .. | .. | . | 63,192 | 302,75910 | 902,090 |
| 33 | Telephones, employees ${ }^{11} \ldots .$. . " | . | .. | .. |  | $10,425^{10}$ | 19,943 |
| 34 | Radio receiving licences......." | . | . | . |  |  | . |
|  | Post Office- |  |  |  |  |  |  |
| 35 | Revenue..................... \$ | 803,637 | 1,344,970 | $2.515,824$ | 3,421,192 | 9,146,952 | 26,331,119 |
| 36 | Expenditure.................. \% | 994,876 | 1,876,658 | 3,161,676 | 3,837,376 | 70,614,862 | r $24,661,262$ |
| 37 | Money orders issued........... \% | 4,546,434 | 7,725,212 | 12,478,178 | 17,956,258 | 70,614,862 | 173,523,322 |
|  | Wholesale and Retail Trade-Wholesale- |  |  |  |  |  |  |
| 38 | Establishments.............. No. | . | . |  | . | . |  |
| 39 | Employees................... " | . | . | . | . | . | . |
| 40 | Net sales................... \% | . | . | . | . | . | . |
| 41 | Retail-Stores............... No. | . | -• | . | . | . | . |
| 42 | Employees, full-time.......... " | .. |  | . | . | . | . |
| 43 | Net ssles..................... . \% | .. | . | $\cdots$ | . | . | . |

[^425]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued


[^426]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued

|  | Item | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wholesale and Retail Trade-concl. |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | mployees, full-time.......... | . | . | . |  |  |  |
|  | Receipts................... .. \$ |  |  |  |  |  | . |
|  | Commercial Failures ${ }^{5} \ldots \ldots . .$. No. |  |  | 1,861 | 1,341 | 1,332 | 2,451 ${ }^{\text {5 }}$ |
|  | Liabilities..... ............... \& |  | . | 16,723,939 | 10,811,671 | 13, 491, 196 | 73,299,1116 |
| 678 | Foreign Trade-7 |  |  |  |  |  |  |
|  | Exports, domestic | 57,630,024 | 83,944, 701 | 88,671,738 | 177, 431,386 | 274,316,553 | 1,189,163,701 |
|  | Re-exports | 9,853,244 | 13,375, 117 | 8,798,631 | 17,077,757 | 15,683,657 | , 21,264,418 |
|  | Imports, for consumption...... § | 84,214,388 | 90,488, 329 | 111,533,954 | 177, 930, 919 | 452,724,603 | 1,240,158,882 |
|  | Totals, Foreign Trade....... \$ | 151,697,656 | 187,808,147 | 209,004,323 | 372,440,062 | 742,724, 813 | 2,450,587,001 |
|  | Total exports to Commonwealth. | 25,346,019 | 45, 980, 062 | 47,137, 203 | 100,748,097 | 148,967,442 | 403,452,219 |
|  | Exports to United Kingdom... | 21,733,556 | 42,637, 219 | 4*, 243,784 | 92,857,525 | 132,156,924 | $312,844,871$ |
|  | Total imports from Commonwealth. | 51,317,045 | 45, 514,323 | 44,337,052 | 46,653,228 | 129, 467,647 | 266,002,688 |
|  | Imports from United Kingdom 8 | 48,498, 202 | 42,885,142 | 42, 018,943 | 42,820,334 | 109,934,753 | 213,973,562 |
|  | Exports to United States...... \$ | $29,164,358$ | 34, 038,431 | 37, 743,430 | 67,983,673 | 104, 115, 823 | 542, 322,967 |
|  | Imports from United States... 8 | 27,185, 586 | $36,338,701$ | 52,033,477 | 107,377,906 | 275, 824, 265 | 856,176,820 |
|  | Exports to other countries..... \$ | 3,119,647 | $3,926,208$ | 3,791,105 | 8,699,616 | 21,233, 288 | 243,388, 515 |
|  | Imports from other countries.. \$ | 5,711,757. | 8,635,305 | 15, 163,425 | 23,899,785, | 47, 432, 691 | 117,979,374 |
|  | Exports, Dompstic, by Chief Items- |  |  |  |  |  |  |
|  | Wheat | 1,748,977 | 2,523,673 | 2,108,216 | 9,739,758 | 45,802,115 | 129,215,157 |
|  | , | 1,981,917 | 2, 593, 820 | 1,583,084 | 6,871, 939 | 45, 521, 134 | 310,952,138 |
|  | Wheat flour................ bbl. | 306,339 | 439,728 | 296,784 | 1,118,700 | 3,049,046 | 6,017,032 |
|  | \$ | 1,609,609 | $2,173,108$ | 1,388,578 | $4,015,226$ | $13,854,790$ | 66,520,490 |
|  | Oats....................... bu. | 542,386 | 2,926,532 | 260,569 | $8,155,063$ | 5,431, 662 | 14,321,048 |
|  | \$ | 231,227 | 1,191,873 | 129,917 | 2,490,521 | $2,144,846$ | 14, 152,033 |
|  | Barley ....................... bu. |  | 8,811,278 | 4,892,327 | 2,386,371 | 1,545,253 | 8,563,553 |
|  | 8 |  | 6,261,383 | 2,929,873 | 1,123, 055 | 831,195 | 11,469,050 |
|  | Bacon, hams, shoulders and ewt. | 103,444 | 103,547 | 75,542 | 1, 055,495 | 598,745 | 982,338 |
|  | sides. ${ }^{\text {s }}$. | 1,018,918 | 758,334 | 628,469 | 11,778,446 | 8,526,432 | 31,492,407 |
|  | Beef and veal............... ewt. | $\begin{gathered} 40,876 \\ 241,366 \end{gathered}$ | $\begin{aligned} & 13,728 \\ & 83,738 \end{aligned}$ | $3,098$ | $\begin{array}{r} 97,105 \\ 813,343 \end{array}$ | 9,744 91,884 | $\begin{array}{r} 519,994 \\ 8,331,298 \end{array}$ |
|  | Cheese................ . . . . . . lb b. | 8, 271,439 | 49,255,523 | 106,202,140 | 195,926,397 | 181, 895,724 | $133,620,340$ |
|  | \% | 1, 109,906 | 5,510,443 | 9,508,800 | 20,696,951 | 20,739,507 | 37, 146,722 |
|  | Planks and boards.......... M ft. | 829,550 | 652,621 | 775,793 | 735, 695 | 1,127,723 | 1,604,463 |
|  |  | $8,355,874$ | 7,101,532 | 8,626,912 | 9,380,505 | 21,509,769 | 71,079,295 |
|  | Wood-pulp........... ...... cwt. |  | .. | 280,619 | 1,937, 207 | $6,588,655$ | 14,363,006 |
|  | Newsprint. . . . . . . . . . . . . . . ewt. | . | . |  |  |  | 15,112,586 |
|  | \$ | .. |  |  |  | 3,092,437 | 78,922, 137 |
|  | Farm implements............ ${ }^{\text {\% }}$ |  | 31,269 | 252,620 | 1,742,946 | 5,911,775 | 12,527,373 |
|  | Copper....................... lb . | 6,246,000 | 39,604,000 | 10,994,498 | 26,345,776 | $55,005,342$ $5,575,033$ | 74, 175,900 $12,748,082$ |
|  | Nickel..................... ${ }^{\text {b }}$. | 120,121 | 150, 412 | 505,196 $5,352,043$ | 2,659,261 | $5,575,033$ $34,767,523$ | 12,748,082 |
|  | \% |  |  | 240,499 | -958,365 | 3,842,332 | 9,405, 291 |
|  | Lead.................... ewt. |  |  |  | 656,023 | 31,980 | 111,108 |
|  |  | 208 |  | 163 | 2,517,084 | 100,933 | 525,656 |
|  | Zinc. ............................ . ewt. |  |  |  | .. |  | 176,975 963,962 |
|  | Asbestos.................... , ton | $\ldots$ |  | 7,022 | 26,715 | 69,829 | 191,299 |
|  | \$ | . |  | 513,909 | 864,573 | 2,076,477 | 12,633,389 |
|  | Exports, Domestic- |  |  |  |  |  |  |
| 3334 | Vegetable products (except chemicals, fibres and wood).. \$ | . | . | 13,742,557 | 25,541,567 | 84,368,425 | 482,140,444 |
|  | Animals and their products (except chemicals and fibres).... |  | .. | 36,399,140 | 68,465,332 | 69,693,263 | 188,359,937 |
| 35 | Fibres, textiles and textile products. |  |  | 872,628 | 1,880,539 | 1,818,931 | 18,783,884 |
|  | Wood, wood products and paper |  | $\cdots$ | 25,351,085 | 33,099,915 | 56,334,695 | 284,561,478 |
|  | Iron and its products........ |  | . | 556,527 | 3,778,897 | 9,884,346 | 76,500,741 |
| 38 | Non-ferrous metals and their products | .. | . | 1,618,955 | 33,395,096 | 34,000,996 | 45,939,377 |
| 39 | Non-metallic minerals and their products (except chemicals). . |  |  | 3,988,584 | 7,356,444 |  |  |
|  | Chemicals and allied products. \$ |  |  | -851,211 | 791,855 | 3,088, 840 | 20,142,826 |
|  | All other commodities. . . . . \% |  |  | 5,291,051 | 3,121,741 | 5,088,564 | 32,389,669 |
|  | Totals, Exports, Domestic.. \$ | 57,630,024 | 83,944,701 | 88,671,738 | 177,431,386 | 274,316,553 | 1,189,163,701 |

Totals, Exports, Domestic.
${ }^{1}$ Census figures for 1930.
${ }^{2}$ Figures include 5,542 hotels with 46,556 average minimum and 64,062 average
with receipts of $\$ 348,401,100$.
3 Average minimum.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued


STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued


1 Unless otherwise stated, figures are for fiscal years ended within years given. $\quad 2$ Not comparable with previous years as excludes refunds applicable to other excise duties. ${ }_{z}$ Active assets only. Fiscal year ended nearest Dec. 31 of the year stated.
${ }^{5}$ In January 1950, the chartered banks' liability for such of

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued


[^427]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-concluded


[^428]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-concluded

| 1931 | 1939 | 1941 | 1949 | 1950 | 1951 | 1952 | 1853 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 827,373 | 5,466,679 | 7,918,926 | 48,921,948 | 61,207,841 | 73,980,068 | 87, 597,097 | 154,737,8831 | 1 |
| - | . | 11,351,467 | 24,002,353 | 27,321,717 | 30,570,466 | 46, 125, 804 | ${ }^{2}$ | 3 |
| 15,459,347 | 20,176,418 | 20,596,781 | 26,244,737 | 27, 988, 873 | 28,446,331 | 28,731,666 | 29,629,779 | 5 |
| 25,718, 219 | 36,001,000 | 38,570,855 | 90,111,500 | 93,082,706 | $93,565,917$ | 107, 429,793 | 110,366,037 | 6 |
| 15,066, 431 | 19,351,839 | 20,086,776 | 25,892,736 | 27,568,241 | 26,658,321 | 28,583,274 | 29,048, 202 | 7 |
| 25,718, 221 | 36,001,000 | 38,570,855 | 90,111,501 | 93,082,707 | $93,565,917$ | 107,429,793 | 110,366,037 | 8 |
| $215,698,469$ | 242,369,850 | 268,596,524 | 560,080,611 | 494, 636,746 | 543,983,754 | 588,550,279 | 631,231,540 | 9 |
| 66,338, 148 | 61,292,364 | 58,165,471 | 68,188,785 | 72,736,140 | 74,399,404 | 75,097,721 | 81,569,089 | 10 |
| 125,829, 165 | 114,606,960 | 108,912, 208 | 213,671,444 | 251,832,240 | 258,413,136 | 265, 257, 221 | $268,175,625$ | 11 |
| 1,961,948,175 | 2,422,219,901 | 2,418,950,841 | 2,827, 988,797 | $3,126,058,749$ | 3,282, 558,573 | 3,383,650,088 | 3,470,781,614 | 12 |
| 9,544,641,293 | 10,200,346,551 | 11,386,819,286 | 25,970,407,358 | 28,957,395,702 | $33,490,653,184$ | 37,317,499,723 | 41,703, 092,570 | 13 |
| $50,342,669$ | 40,984, 276 | 49,305,539 | 103,809,769 | 115,648,449 | 134,496,218 | 139,777, 732 | 145,971,915 | 14 |
| $29,938,409$ | 15,738, 902 | 17,814,322 | $46,548,822$ | 58,524,685 | 52,086,541 | $61,124,918$ | $66,755,144$ | 15 |
| 1,341, 184, 333 | 1,284,998, 454 | 1,120,181,968 | 2,378,050,919 | 2,519,157, 284 | 2,887,564,984 | 2,869,068,710 | 3,394, 406,231 | 16 |
| 7,185,066 | 5,750,302 | 3,992,765 | 10,181,704 | 10,519,555 | 11,614, 247 | 11,695,251 | 12,670,659 | 17 |
| 4,985, 605 | 3,170,597 | 2,237,832 | $5,749,817$ | $6,228,632$ | $6,174,914$ | 5,767,009 | 6,670,976 | 18 |
| 6,622,267,793 | 6,776,262,587 | 7,348,550,742 | 14,408,761,850 | 15,745,836,067 | 17,235,583,302 | 19,090,628,497 | 21,226,905,619p | 19 |
| 225,100,571 | 198,042,144 | 203,459,238 | $349,813,007$ | 370,091, 234 | 394, 019,379 | 422,698, 223 | 454,786,332 P | 20 |
| 56,579,358 | $73,936,661$ | 75,082,008 | 117,933,354 | 122,310,999 | 128,489,084 | $130,016,851$ | 136,827,798p | 21 |
| 202, 094, 301 | 134,554, 434 | 164,451,218 | 600,994, 643 | 709,395, 888 | 708, 733, 573 | 937,333,486 | 1,093, 568, 633 | 22 |
| $5,178,615$ | 3,491,402 | 3,988,952 | 13,970, 109 | 17,241,427 | 16,806.502 | 22,638,816 | 23,653,050 | 23 |
| 2,603, 453 | $3,178,604$ | 2,583,958 | 5,053,498 | 6,860,882 | 6,727,241 | $8,243,401$ | 8,146,839 | 24 |


#### Abstract

\section*{APPENDIX}

Federal and Provincial By-elections.-The information re federal byelections and provincial elections stated as included in Appendix I in the footnote to Table II, p. 68 and in the footnote to p. 73 will be given in the 1956 edition of the Year Book and may be secured in the meantime from the Canada Year Book Section, Information Services Division, Dominion Bureau of Statistics.

The St. Lawrence Seaway Authority.-The St. Lawrence Seaway Authority (cf. pp. 97, 100 and 105) was established by Act of Parliament in 1951 and came into force by proclamation of the Governor in Council on July 1, 1954. It is incorporated for the purposes of constructing, maintaining and operating all such works as may be necessary to provide and maintain, either wholly in Canada or in conjunction with works undertaken by an appropriate authority in the United States, a deep waterway between the Port of Montreal and Lake Erie. The Authority is composed of a President, a Vice-President and a Member and reports to Parliament through the Minister of Transport. (See also St. Lawrence Seaway Authority.-1954. p. 1320.)

The St. Lawrence Seaway Authority is a proprietary Crown corporation and should be included in the list of such corporations given on p. 99 of this Year Book.

Canadian Government Specifications Board.-The Canadian Government Specifications Board is a co-operative body in which Government and industry participate on a voluntary basis. The Board was formed on June 13, 1934, as the Canadian Government Purchasing Standards Committee, under the auspices of the National Research Council. The Board undertakes the preparation of specifications in commodity fields and for materials, processes and equipment in which government departments and agencies may be interested and arranges for testing and research work.


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distances between principal points in canada -




[^0]:    * Prepared in the Research and Development Division, Dominion Bureau of Statistics.
    $\dagger$ It is difficult to compare the extent of the decline in the two countries, not only becsuse of differences in timing but also because of conceptual differences in the measures of total output. An approximate comparison is afforded by the two estimates of Gross National Expenditure (exclusive of accrued net income of farm operators, and in the Canadian data, exclusive of residual error). According to this definition, the decline in the United States from the second quarter of 1953 to the third quarter of 1954, amounted to 4 p.c., and the Canadian data from the third quarter of 1953 to the second quarter of 1954 showed a reduction of 3 p.c.

[^1]:    - Prepared by the Geographical Branch, Department of Mines and Technical Surveys, Ottawa.

[^2]:    - United Nations Statistical Yearbook, 1953.

[^3]:    * See reference, p. 10.

[^4]:    ${ }^{*}$ See region 8, map, p. 3. Axel Heiberg Island, and those parts of Ellesmere Island shown on map as in region 8, are now (Nov. 1954) reclassified in region 7.

[^5]:    ${ }^{1}$ Total includes 463 sq. miles in U.S.A.

[^6]:    ${ }^{1}$ Areas are approximate and are exclusive of those portions of the basins of all rivers that lie in United States territory.

[^7]:    ${ }^{1}$ Approximate. $\quad{ }^{2}$ One of two peaks.

[^8]:    
    ${ }^{2}$ Included also in Forested Land; duplication eliminated in the item Net Productive Land agricultural possibilities in any sense. ${ }^{3}$ Includes forested land in Labrador, area of which is not available.

[^9]:    ${ }^{1}$ Includes the Gatineau Park ( 70 sq . miles) and the Quebec Battlefields Park ( 0.36 sq. miles) which are under federal jurisdiction but are not technically National Parks.
    ${ }^{2}$ Less than one square mile. ${ }^{2}$ Includes $952,849 \mathrm{sq}$. miles set aside by Order in Council as native game preserves in which only Indians and Eskimos may hunt, as game sanctuaries in which hunting and trapping is otherwise forbidden, and as reserves for reindeer grazing, but which are not regarded as National Parks. 4 Includes Wood Buffalo Park ( 13,675 sq. miles) which, although reserved by the Federal Government, is not administered as a National Park. ${ }^{5}$ That portion of Wood Buffalo Park in N.W.T. ${ }^{6}$ Three areas, though not deaignated as Provincial Parks, are used for recreational purposes and are therefore included here (see p. 37)

[^10]:    * Prepared under the direction of R. G. Robertson, Deputy Minister of the Department of Northern Affairs and National Resources, Ottawa.

[^11]:    * Revised by the Federal District Commission, Ottawa.

    The Commission is the federal agency responsible for the implementation of the Plan. See also p. 103.

[^12]:    * Prepared by the Canadian Wildlife Service, Department of Northern Affairs and National Resources, Ottaws.

[^13]:    
    

[^14]:    ${ }^{1}$ Less than 0.005 in .

[^15]:    ${ }^{1}$ The area of Ontario was extended by the Ontario Boundaries Extension Act, 1912 (2 Geo. V, c. 40).
    ${ }^{2}$ Extended by Quebec Boundaries Extension Act, 1912 (2 Geo. V, c. 45), and diminished Mar. 1, 1927, in consequence of the Award of the Judicial Committee of the British Privy Council, whereby approximately 112,000 sq. miles of territory (formerly considered as part of Quebec) was assigned to Newfoundland.
    ${ }^{3}$ Extended by the Extension of Boundaries Act of Manitoba, 1881, and the Manitoba Boundaries Extension Act, 1912 (2 Geo. V, c. 32).
    ${ }^{4}$ Saskatchewan and Alberta created as provinces in 1905 from the area formerly comprised in the provisional Districts of Assiniboia, Athabasca, Alberta and Saskatchewan, established May 17, 1882, by minute of Canadian Privy Council, concurred in by Dominion Parliament and Order in Council, Oct. 2, 1895.
    ${ }^{5}$ By an Imperial Order in Council passed on June 23, 1870, pursuant to the Rupert's Land Act, 1868 (31-32 Vict., c. 105), the former territories of the Hudson's Bay Company known as Rupert's Land and the North-Western Territory were transferred to Canada, effective July 15, 1870. These territories were designated as the North-West Territories by the Act of $32-33$ Vict., c. 3, and as the Northwest Territories by R.S.C. 1906, c. 62 . By Imperial Order in Council of July 31, 1880 (effective Sept. 1, 1880), all British territories and possessions in North America not already included within Canada and all islands adjacent thereto (with the exception of the Colony of Newfoundland and its dependencies) were annexed to Cansda, and these additional territories were formally included in the North-West Territories by 4-5 Edw. VII, c. 27. The Province of Manitoba was formed out of a portion of the territories by the Manitoba Act, 1870 ( 33 Vict., c. 3), and a further portion was added to Manitoba in 1881 by 44 Vict., c. 14. The Provinces of Alberta and Saskatchewan were formed out of portions of the territories in 1905, and in 1912 other portions were added to Manitoba, Ontario and Quebec.
    ${ }^{6}$ By 39 Vict., c. 21, a separate district to be known as the District of Keewatin was established and provision was made for the local government thereof. The Act was expressed to come into force by proclamation. It provided that portions of the District might be re-annexed to the North-West Territories by proclamation; in 1886 a portion of the District of Keewatin was re-annexed, and in 1905 the entire Keewatin District was re-annexed. The Act of 39 Vict. was never proclaimed. By Order in Council of May 8, 1882, the provisional districts of Assiniboia, Saskatchewan, Alberta and Athabasca were created for the convenience of settlers and for postal purposes. By Order in Council of Oct. 2, 1895, the further provisional districts of Ungava, Franklin, Mackenzie and Yukon were created. The boundaries of these provisional districts were re-defined by Order in Council of Dec. 18, 1897. Subsequently the Yukon Territory was formed, the Provinces of Alberta and Saskatchewan were created and other portions of the territories were annexed to Quebec, Ontario and Manitoba. By Order in Council, dated Mar. 16, 1918 (effective Jan. 1, 1920), the remaining portions of the Northwest Territories were divided into three provisional districts known as Mackenzie, Keewatin and Franklin.
    ${ }^{7}$ The provisional district of Yukon, established in 1895, was created a judicial district of the NorthWest Territories by proclamation issued pursuant to Sec. 51 of the North-West Territories Act (R.S.C. 1886, c. 50) on Aug. 16, 1897, and by the Yukon Territory Act ( 61 Vict., c. 6) was declared to be a separate territory.

[^16]:    * Dealt with in greater detail in the 1952-53 Year Book, pp. 101-104.

[^17]:    ${ }^{1}$ Members of Her Majesty's Privy Council for Canada take rank inter se according to the dates of their being sworn in.
    ${ }^{2}$ Ranks as a member of the Cabinet.
    ${ }^{3}$ Ranks as the Prime Minister of Canada.

[^18]:    ${ }_{1}^{1}$ The ordinary legal limit of duration for each Parliament is five years. ${ }^{1}$ The ordinary legal limit of duration for each Parliament is five years. ${ }^{2}{ }^{2}$ Duration of Parlia-
    ment in years, months and days. The life of a Parliament is counted from the date of return of election
    8 writs to the date of dissolution, both days inclusive (B.N.A. Act, Sect. 50). ${ }_{3}$ Date of general election. ${ }^{4}$ Writs returnable. ${ }^{\circ}$ Dissolution of Parliament. ${ }^{6}$ During the war years Parliament was kept in almost continuous session. When prorogation took place it was followed immediately by a new session. During long adjournments provision was made whereby the Speaker could reconvene Parliament before the date previously set for reassembly.

[^19]:    "Sect. 51.-(1) Subject as hereinafter provided, the number of members of the House of Commons shall be two hundred and sixty-three and the representation of the provinces therein shall forthwith upon the coming into force of this section and thereafter on the completion of each decennial census be readjusted by such authority, in such manner, and from such time as the Parliament of Canada from time to time provides, subject and according to the following rules:-

[^20]:    ${ }^{1}$ Accepted an office of emolument under the Crown effective July 1, 1954; seat vacant at July 15, 1954.
    ${ }^{2}$ Accepted an office of emolument under the Crown effective Jan. 1, 1954; see Table 11 for by-election.
    ${ }^{2}$ Died Jan. 19, 1954; see Table 11 for by-election.

[^21]:    ${ }^{1}$ Died Sept. 19, 1953; see Table 11 for by-election. Crown effective July 1, 1954; seat vacant at July 15, 1954.
    ${ }^{2}$ Accepted an office of ernolument under the
    Accepted an office of ernolument under the
    a Died Apr. 8, 1954; seat vacant at July 15,
    1954.

    4 Died May 26, 1954; seat vacant at July 15, 1954.

[^22]:    ${ }^{1}$ By-elections from July 15, 1954, to the date of going to press are included in Appendix I.

[^23]:    ${ }^{1}$ Each voter in the double-member constituency of Queens County, P.E.I., had two votes; in 1953, 25,285 voters on the list cast 40,508 votes. $\quad{ }^{2}$ Each voter in the double-member constituency of Halifax, N.S., had two votes; in 1953, 98,208 voters on the list cast 124,773 votes.

[^24]:    * More detailed information concerning provincial judiciaries is given in the 1954 Year Book, pp. 48-55.

[^25]:    *The information given in Subsections 1 to 10 of this Section is brought up to Mar. 31, 1954. Provincial elections held between that date and the date of going to press are covered in the Appendix.

[^26]:    ${ }^{1}$ Life of Legislature not expired at Mar. 31, 1954.

[^27]:    ${ }^{1}$ The Ministries from $1933-54$ were: 12 th Ministry, sworn in Sept. 5, 1933, under the leadership of Hon. Angus L. Macdonald; 13th Ministry, sworn in July 10, 1940, under the leadership of Hon. A. S. MacMillan; 14th Ministry, sworn in Sept. 8, 1945, under the leadership of Hon. Angus L. Macdonald; 15th Ministry, sworn in Apr. 13, 1954, under the leadership of Hon. Harold Connolly. ${ }^{2}$ Life of Legislature not expired at Mar. 31, 1954.

[^28]:    ${ }^{1}$ The Ministries from 1934-54 were: 6th Ministry, sworn in July 19, 1934, under the leadership of Hon. J. G. Gardiner; 7th Ministry, sworn in Nov. 1, 1935, under the leadership of Hon. W. J. Patterson; 8th Ministry, sworn in July 10, 1944, under the leadership of Hon. T. C. Douglas. ${ }^{2}$ Life of Legislature

[^29]:    ${ }^{1}$ The Ministries from 1935-54 were: 6th Ministry, sworn in July 10, 1934, under the leadership of Hon. R. G. Reid; 7th Ministry, sworn in Sept. 3, 1935, under the leadership of Hon. Wm. Aberhart; 8th Ministry, sworn in May 31, 1943, under the leadership of Hon. Ernest C. Manning.
    ${ }^{2}$ Life of Legislature not expired at Mar. 31, 1954.

[^30]:    * Further information on officials of various Federal Government Departments serving the Yukon Territory may be obtained from the Director, Northern Administration and Lands Branch, Department of Northern Affairs and National Resources, Ottawa.

[^31]:    *Following dissolution of the Council on June 30, 1954, the five appointed members were reappointed on July 1, 1954. General elections for the four elected members were held on Sept. 7, 1954.
    $\dagger$ Prepared in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

[^32]:    - Municipalities are summarized by type of organization on p. 90 .

[^33]:    ${ }^{1}$ This section of the table groups the municipalities according to their official nomenclature which is roughly indicative of size and nature. See footnote ${ }^{4}$.
    ${ }^{2}$ This section of the table groups the municipalities under the classification devised by the Dominion Provincial Conferences on Municipal Statistics, the classification being designed to bring municipalities into comparable groups for statistical presentation. ${ }^{3}$ Includes eight local government communities. $\quad{ }^{4}$ Rural municipalities are designated by different names in the different provinces. ${ }^{5}$ Includes 15 local improvement districts. ${ }^{6}$ Includes five units of self-government known as "suburban municipalities". Does not include local government districts. $\quad 7$ Excludes 20 improvement districts. ${ }^{8} 8$ Includes four county municipalities. Excludes 55 improvement districts. 'Excludes 37 local improvement districts. ${ }^{10}$ Municipalities shown wholly or partly in metropolitan areas by the 1951 Census of Canada.

[^34]:    - Commissions constituted under Part I of the Federal Inquiries Act.

[^35]:    * Not all Crown corporations are subject to the provisions of the Financial Administration Act. For example, the Canadian Wheat Board, the Bank of Canada and its subsidiary, the Industrial Development Bank, because of the special nature of their functions, are excluded from the operations of the Crown Corporations Part of the Act and are governed by their own Acts of incorporation, as are such joint enterprises of the Federal and Provincial Governments as the Eastern Rockies Forest Conservation Board and the Halifax Relief Commission.

[^36]:    Canadian Broadcasting Corporation
    Canadian Farm Loan Board
    Canadian National (West Indies) Steamships Limited
    Canadian Overseas Telecommunication Corporation
    Central Mortgage and Housing Corporation
    Eldorado Mining and Refining Limited
    Export Credits Insurance Corporation
    National Railways, as defined in the Canadian National-Canadian Pacific Act, 1933
    Northern Transportation Company Limited
    Northwest Territories Power Commission
    Polymer Corporation Limited
    Trans-Canada Air Lines.

[^37]:    * Compiled from information supplied by the respective Departments.

[^38]:    ${ }^{\bullet}$ Revised by M. M. Maclean, Secretary of the Civil Service Commission of Canads, Ottawa.

[^39]:    * Prepared in the Public Finance and Transportation Division, Dominion Bureau of Statistics.
    $\dagger$ Special report, available from DBS on request.

[^40]:    ${ }^{1}$ Overtime earnings first reported April 1953.

[^41]:    ${ }^{1}$ Date of assumption of duties.

[^42]:    ${ }^{1}$ Date of assumption of duties.

[^43]:    * Prepared by the Department of External Affairs, Ottawa.
    $\dagger$ Brought up to Mar. 31, 1954. Refer to the 1954 Year Book, pp. 103-107, for activities up to May 31, 1953.

[^44]:    - June 1, 1953, to May 31, 1954.

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[^45]:    * Contributions made in 1952-53 are given in the 1954 Year Book, pp. 115-116.
    $\dagger$ Supreme Allied Commander Europe.
    $\ddagger$ Supreme Allied Commander Atlantic.

[^46]:    - Obtainable from the Queen's Printer, Ottawa.

[^47]:    * This Chapter has been revised in the Census (Demography) Division, Dominion Bureau of Statistics.

[^48]:    ${ }^{1}$ Populations of Newfoundland (which was not part of Canada until 1949) were: 1871, 152,500 (eatimated); 1881, 186,500 (eatimated); 1891, 202,040; 1901, 220,984; 1911, 242,619; 1921, 263,033; 1931, 281,500 (estimated); 1941, 303,300 (estimated); and 1945, 321,819.
    ${ }^{2}$ Includes 485 members of the Royal Canadian Navy recorded separately in 1821.

[^49]:    ${ }^{1}$ Exclusive of the Yukon and Northwest Territories. Newfoundland included from 1949.
    ${ }^{2}$ Subject to adjustment as later data are made available.

[^50]:    ${ }^{1}$ Includes Labrador. area of Newfoundland.
    ${ }^{2}$ Calculated on the basis of $1,970,385 \mathrm{sq}$. miles which excludes the land of Newfoundland. ${ }^{3}$ Includes Newfoundland. Royal Canadian Navy recorded separately in 1921. which excludes the land area of Newfoundland.

[^51]:    ${ }^{1}$ Excludes 84,264 persons living on farms in localities classed as urban.
    ${ }^{2}$ Includea a few
    metropolitan area parts with fewer than 1,000 population.

[^52]:    ${ }^{1}$ Census taken by the Newfoundland Government in 1945; 1941 figures not available.

[^53]:    ${ }^{1}$ Not incorporated in 1941.

[^54]:    ${ }^{1}$ Located partly in Alberta.
    cipality in 1941 .

[^55]:    ${ }^{1}$ Persons whose agee were not stated have been pro-rated over the various age groupa.

[^56]:    ${ }^{1}$ Includes "Hutterite".

[^57]:    ${ }^{1}$ Includes the 26 counties of Ireland in 1931 and 1941. cludes Denmark, Iceland, Norway and Sweden.
    Yugoslavia. Poland and Roumania.
    SIncludes "birthplace not Atatria,
    ${ }^{7}$ Includes Lithuania and Ukraine. ${ }^{1}$ In-

[^58]:    - 1951 Census definitions are briefly as follows: Dwellings.-A Dwelling is defined as a structurally separate set of living premises with private entrance from outside the building, or from a common hallway or stairway inside. A Single Detached Dwelling, commonly called a single house, is a house containing one dwelling unit and completely separated on all sides from any other building or structure. A partments and Flats include dwelling units in apartment blocks, suites in duplexes or triplexes, suites in structurally converted houses, living quarters located in business premises, janitor's quarters in schools, etc. In determining the number of Rooms in a dwelling, only those used or suitable for living purposes, including rooms occupied by servants, lodgers, or members of lodging families, are counted. Housing.-A Household is a person or group of persons occupying one dwelling unit, the number of households thus equalling the number of occupied dwellings. Every person must be a member of some household, whether it consists of a family group with or without servants, lodgers, etc., a group of unrelated persons sharing a dwelling, or one person living alone. A dwelling is classed in need of Major Repair if it possesses any one of the fol lowing defects: sagging or rotting foundations indicated by cracked or leaning walls; faulty roof or chimney unsafe outside steps or stairways; interior badly in need of repair. A Crowded Dwelling (or Household) is defined as one in which the number of persons exceeds the number of rooms occupied.

[^59]:    ${ }^{2}$ For cities of 30,000 or over only.
    free" dwellings.

[^60]:    * For census purposes, a Family consists of husband and wife (with or without children) or a parent with an unmarried child (or children) living together in the same dwelling. Unmarried sons, and daughters under 25 years of age and living with their parents are classed as Children as well as wards and guardianship children under 21 years of age. Unmarried sons and daughters, 25 years of age or over, living with their parents are counted as family members but not as children.

[^61]:    * Prepared in the Indian Affairs Branch, Department of Citizenship and Immigration, Ottawa.

[^62]:    * Prepared in the Editorial and Information Division, Department of Northern Affairs and National Resourcee, Ottawa. See also the special article "The Northland-Canada's Challenge", pp. 22-32.

[^63]:    ${ }^{1}$ Inhabited and cultivated area: $13,442 \mathrm{sq}$. miles. $\quad{ }^{2}$ Eritrea became an autonomous state in federation with Ethiopia on Sept. 11, 1952.
     absent during dry season, unofficially estimated at 82,000 . $\quad$ Excludes civilian citizens outside continental United States for an extended period. ${ }^{1)}$ Area of ice-free portion: 131,931 sq. miles. ${ }^{11} 1946$ Census. ${ }_{12}$ Civilian population only. ${ }^{13}$ Includes United States armed forces stationed in the area. ${ }^{24} 1949$ estimate. IS Excludes tribal Indians estimated at 56,705 in 1950. ${ }^{14}$ Includes islands of Taiwan (Formosa) and Pescadores (total area 13,885 sq. miles, estimated population in 1951, 7,713,000). ${ }^{17}$ Includes Hyderabad (area 82,165 sq. miles, population at 1951 Census $18,700,000$ ) and Kashmir-Jammu (area 92,777 sq. miles, estimated population in 1951, 4,410,000). is Includes Weat Jordan and excludes military personnel and their dependants living on military installations. ${ }^{13} 1944$ estimate. ${ }_{\text {in }} 19521951$ Census. ${ }^{21}$ Excludes nomads and semi-nomads estimated at 288,400 in 1945. $n 1952$ estimates for all Turkey: area $296,185 \mathrm{sq}$. miles, excluding 3,807 sq. miles of swamps and lakes; population 21,983,000. ${ }_{z 2} 1950$ Census. ${ }_{24}$ "Gaza Strip", i.e., that part of Palestine not included in Israel or Jordan, currently under Egyptian administration. ${ }^{2 s}$ Fewer than 500 inhabi${ }_{z}$ tants. ${ }^{23}$ Excludes the Faroe Islands (area 540 sq. miles, estimated de jure population 32,000 ). ${ }^{2}$ Ercludes the Saar (area 991 sq. miles, estimated de jure population 965,000 ) also small border areas ( 273 sq. miles) ceded by Italy in 1947. ${ }^{3}$ Includes allowances of 300,000 for armed forces and 6,000 for merchant seamen outside country at 1946 Census. ${ }^{20}$ Less than 0.5 sq. mile. ${ }^{3)}$ Excludes inland water.
    ${ }^{31}$ Excludes Channel Islands and Isle of Man, shown separately below.
    habited only during winter season. Population, estimated at 1,164 in 1950, included in de jure population of Norway. ${ }_{22}$ Excludes full-blooded aborigines, estimated at 47,000 in $1944 . \quad 341939$ Census figures referring to 1939 territory. The population of territories annexed during $1939-40$ was estimated at $23,000,000$ in 1940 . $2 s 1939$ Census. Included in totals for Union of Soviet Socialist Republics.

[^64]:    *Revised in the Immigration Branch under the direction of Laval Fortier, Deputy Minister, Department of Citizenship and Immigration, Ottawa.

[^65]:    ${ }^{1}$ In both Europe and Asia; includes Estonia, Latvia and Lithuania.
    ${ }^{2}$ Includes U.S.A. citizens on permit but applying for permanent residence.

[^66]:    ${ }^{1}$ In both Europe and Asia.

[^67]:    For footnotes, see end of table.

[^68]:    * Prepared in the Canadian Citizenship Branch under the direction of Laval Fortier, Deputy Minister, Department of Citisenship and Immigration, Ottawa.

[^69]:    ${ }^{1}$ Includes persons reported as "stateless".
    ${ }^{1}$ Includes Danish, Icelandic, Norwegian and Swedish.

[^70]:    - The foreign countries, under the laws of which a woman does not acguire the citizenship of such countries on marriage, are: Argentins, Brazil, Chile, Colombia, Ecuador, Guatemala, Morocco, Israel,
    Panama, Paraguay and Uruguay.

[^71]:    - Includes all aliens granted Certificates in 1953. In addition to those classified under Sect. 10 (1) of the Citizenship Act 1947, as shown in Table 2, they include the totals shown in Sects. 10 (3) and 10 (4), and a number of those in Sects. 10 (5), 11 (2) and 11 (3).

[^72]:    ${ }^{1}$ Mainly children over 14 years of age.

[^73]:    - Revised in the Vital Statistics Section, Health and Welfare Division, Dominion Bureau of Statistics.

[^74]:    ${ }^{1}$ Under one year of age.

[^75]:    ${ }^{1}$ Under one year of age. $\quad{ }^{2}$ Per 1,000 population.
    ${ }^{2}$ Per 1,000 live births.
    ${ }^{4}$ Figures for Newfoundland are included for 1949-52 only.

[^76]:    ${ }^{1}$ As at the 1951 Census. $\quad{ }^{2}$ Not available for the first year of the period.

[^77]:    ${ }^{1}$ Registration ares only. of birth.

[^78]:    ${ }^{2}$ Excludes infants who were born alive but died before registration

[^79]:    *This subject is treated in detail in DBS report, Gross and Net Reproduction Rates, Canada and the Provinces, and is available on request.

[^80]:    ${ }^{1}$ Excludes infants who were born alive but died before registration of birth.
    ${ }^{2}$ Registration area only.

[^81]:    ${ }^{1}$ Excludes the Province of Quebec.

[^82]:    ${ }^{1}$ Exclusive of the Territories. $\quad{ }^{2}$ Less than 0.1 per 100,000 population.

[^83]:    ${ }^{1}$ Exclusive of the Territories.

[^84]:    ${ }^{1}$ Lees than $0 \cdot 1$ per 100,000 population.

[^85]:    ${ }^{1} 1951$. ${ }^{2}$ Excludes infants who were born alive but died before registration of birth. ${ }^{3}$ Registration area only.

[^86]:    ${ }^{1}$ Excludes the Province of Quebec.

[^87]:    ${ }^{2}$ Less than one per 100,000 live births.

[^88]:    ${ }^{1}$ Includes Greek Catholic.
    ${ }^{2}$ Percentage of marriages between contracting parties of the same religious denomination.

[^89]:    ${ }^{-}$Sections 1 and 2 of this Part were prepared by the Research Division, Department of National Health and Wellare, Ottawa.

[^90]:    * A special article on the first five years of the National Health Grant Program is given in the 1954 Year Book, pp. 215-223.
    1.-Amounts Available to the Provinces and Amounts and Percentages Expended under the National Health Grant Program, by Grant, Year Ended Mar. 31, 1954

[^91]:    ${ }^{1}$ Authorized by P.C. 471-1953.
    transfer of unexpended funds from one grant to another.
    ${ }^{2}$ Grant consisted of $\$ 6,856,884$ for new projects before Oct. 1, 1953. before Oct. 1, $1953 . \quad$ These grants were first introduced in the fiscal year 1953-54.

[^92]:    ${ }^{1}$ Reporting not compulsory in Newfoundland and New Brunswick.
    ${ }^{2}$ Reporting not compulsory in Newfoundland. ${ }^{2}$ Reporting not compulsory in Newfoundland and Alberts. ${ }^{4}$ Reporting not compulsory in New Brunswick and Manitoba. ${ }^{5}$ Includes cases of septic sore throat. ${ }^{6}$ Includes 3 cases where type was not specified. ${ }^{7}$ Includes 40 cases where type was not specified. ${ }^{5}$ Type not specified.
    , Reporting not compulsory in Prince Edward Island and New Branswick. ${ }^{10}$ Other renereal diseases include chancroid, granuloma inguinale and lymphogranuloma venereum.
    ${ }^{11}$ Based on official estimates of population (see p. 137).

[^93]:    * Prepared in the Institutions Section of the Health and Welfare Division, Dominion Bureau of Statistics.
    $\dagger$ More detailed information may be found in DBS publications: Annual Report of Hospitals, 1952, Vols. I and II; Mental Institutions, 1965; Tuberculosis Institutions, 1955.

[^94]:    ${ }^{1}$ Includes newborn.

[^95]:    ${ }^{2}$ Includes part-time personnel except part-time salaried doctors.

[^96]:    ${ }^{1}$ Excludes one Veterans Affairs hospital and nine Indian Health Services hospitals primarily or solely operated for the treatment of tuberculosis.

[^97]:    * Except as otherwise indicated, this Part was prepared in the Research Division, Department of National Health and Welfare, Ottawa.

[^98]:    ${ }^{1}$ Based on gross payments for March.

[^99]:    *The Old Age Pensions Act of 1927, under which old age pensions were paid jointly by the Federal and Provincial Governments, ceased to be effective Dec. 31, 1951, at which time all recipients thereunder were automatically transferred to the rolls of the universal pension under the Old Age Security Act, 1951. A description of the provisions of the Old Age Pensions Act of 1927 will be found in the 1951 Year Book, pp. 234-236, and statistics of operation for the years ended Mar. 31, 1950 and 1951, and the nine months ended Dec. 31, 1951, are given in the 1952-53 Year Book, pp. 264-265.

[^100]:    ${ }^{1}$ Program in effect for the last three months only of the fiscal year. ${ }^{2}$ In the Budget Speech of Apr. 6, 1954, it was announced that this sum was being written off against the reserve for possible losses on active assets.

[^101]:    -Revised in the Government Annuities Branch, Department of Labour, Ottawa.

[^102]:    ${ }^{1}$ Program in effect only for the last three months of the fiscal year.
    ${ }^{2}$ Estimated population as at June 1 of each year for the Provinces and 1951 Census data for the Territories.
    ${ }^{2}$ Program became effective on Apr. 1, 1952.

    4 Exclusive of Newfoundland and the Yukon and Northwest Territories.

[^103]:    ${ }^{1}$ Program in effect for the last three months only of the fiscal year. as at June 1 of each year for the Provinces and 1951 Census data for the Territories.

[^104]:    ${ }^{1}$ Year ended Mar. 31, unless otherwise indicated.
    ${ }^{2}$ Because of change in fiscal year, amount shown is for 16-month period, Dec. 1. 1951, to Mar. 31, 1953.
    ${ }^{3}$ Because of change in fiscal year, amount shown is for 17 -month period, Nov. 1, 1951, to Mar 31, 1953. $\$ 150,577$ and $\$ 141,000$ paid as supplementation from social allowance funds in 1952,1953 and 1954 , respectively.
    ${ }^{6}$ Estimated.

[^105]:    * Contributed by the various Branches of the Department of Veterans Affairs.

[^106]:    ${ }^{*}$ Revised by C. F. Black, Superintendent, Veterans Insurance, Department of Veterans Affairs, Ottawa.

[^107]:    ${ }^{-}$Except as otherwise credited, this Chapter has been revised in the Judicial Section, Health and Welfare Division, Dominion Bureau of Statistics.
    $\dagger$ Prepared by the Criminal Law Section, Department of Justice, Ottawa.

[^108]:    - Salmond on Jurisprudence, 7th Edition, p. 496.

[^109]:    For footnote, see end of table, p. 300.

[^110]:    1 Offences against females include: abortion, assault against females or wife, indecent assault, carnal knowledge, incest, procuration, rape, attempted rape and seduction.
    ${ }^{2}$ Offences reported under this classification for the first time in 1952.

[^111]:    ${ }^{1}$ Includes Excise and Income Tax Acta.

[^112]:    - Revised by Commissioner L. H. Nicholson, M.B.E., Royal Canadian Mounted Police, Ottawa.

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[^113]:    * Revised by Geo. A. Shea, O.B.E., Secretary-Treasurer, Chief Constables' Association of Canada, Montreal, Que.

[^114]:    ${ }^{1}$ Not reported.

[^115]:    *Revised by the Commisaioner of Penitentiaries, Department of Justice, Ottawa.

[^116]:    - Except where otherwise indicated, this Part has been prepared in the Education Division, Dominion Bureau of Statistics.
    $\dagger$ The edocation of Indian children on reserves is under the jurisdiction of the Federal Government. See p. 158 and p. 335.

[^117]:    - Prepared in the Department of Northern Affairs and National Resources, Ottawa.

[^118]:    ${ }^{1}$ Schools for the blind and deaf；these are boarding schools and many of the pupils are from provinces other than the one in which the school is situated．
    ${ }^{2}$ Courses ior elementary teachers only；those for secondary teachers are included in university enrolment．
    ${ }^{3}$ Estimated．

[^119]:    ${ }^{1}$ Estimated.

[^120]:    ${ }^{1}$ Net figures, after deduction of sinking funds. ${ }^{2}$ Estimated. ${ }^{3}$ Includes contributions to teachers' salaries and, in New Brunswick, grants made to schools by the Vocational Education Board. 4 Includes amounts raised by counties and township grants for salaries of rural public school teachers.

[^121]:    - Ottawa, Queen's Printer, 1951.
    $\dagger$ Revised under the direction of Dr. H. O. McCurry, Director, National Gallery of Canada, Ottawa.

[^122]:    * A complete list of Canadian art museums, societies and schools is included in the Canadian seetion of the current issue of the American Art Directory (New York, R. R. Bowker Co.).

[^123]:    * Ottawa, Queèn's 'Printer, 1951. See also Royal Commission Studies, a Selection of Essays prepared for the Royal Commission. Ottawa, Queen's Printer, 1951.

[^124]:    * An account of the Canadian Arts Council and a list of its constituent bodies appears in the 1951 Year Book, p. 308.
    $\dagger$ Formed in 1947 with the object of improving the services of museums as educational institutions by promoting co-operation among themselves, by exchange with other countries and by the training and securing of expert staffs.
    $\ddagger$ Prepared under the direction of the Government Film Commissioner, National Film Board. Other aspects of NFB services are outlined in Chapter XXIX. See also Chapter II, p. 104.

[^125]:    * Prepared under the direction of J. Alphonse Ouimet, General Manager, Canadian Broadcasting Corporation, Ottawa. Other aspects of CBC services are outlined in Chapter XX.

[^126]:    ${ }^{1}$ Includes Gosling Memorial Library. ${ }^{2}$ Records lost in fire which destroyed library headquarters.

[^127]:    - Sections 1 and 3 of this Part were prepared under the direction of Dr. E. W. R. Steacie, O.B.E., President, National Research Council, Ottawa.

[^128]:    * Prepared by Clyde Kennedy, Public Relations Officer, Atomic Energy of Canada Limited, Chalk River, Ont.

[^129]:    * Except as otherwise indicated, this material was prepared under the direction of Dr. J. G. Taggart, C.B.E., Deputy Minister of Agriculture, Ottawa.

[^130]:    - Revised by W. A. Reeve, Secretary, Canadian Farm Loan Board, Ottawa.

[^131]:    - Prepared by D. M. McRae, Supervisor, Farm Improvement Loans Act. Department of Finance, Ottawa.

[^132]:    * Information supplied by the agricultural authorities of the various provinces.

[^133]:    - Prepared under the direction of Dr. J. G. Taggart, C.B.E., Deputy Minister of Agriculture, by G. J. Matte, Associate Director of Rehabilitation.

[^134]:    * Prepared under the direction of W. H. Horner, Depaty Minister of Agriculture, Regina, Sask.

[^135]:    - Prepared by J. L. Reid, Secretary, Alberta Power Commission, Edmonton, Alta.

[^136]:    - Prepared by E. H. Tredcroft, Comptroller of Water Rights, Department of Lands and Forests, Victoria, B.C.

[^137]:    * Revised in the Agriculture Division, Dominion Bureau of Statistics.
    $\dagger$ Copies obtainable from the Dominion Statistician or the Queen's Printer, Ottawa, Ont.

[^138]:    ${ }^{1}$ Includes payments made under the Prairie Farm Assistance Act; other government subsidies have been included in cash income from individual commodities.

[^139]:    ${ }^{1} 1953$ values not available at time of going to press; estimates will be published in DBS crop reports and the Quarterly Bulletin of Agricultural Statistics.

[^140]:    ${ }^{1} 1953$ values not available at time of going to press; estimates will be published in DBS crop reports and the Quarterly Bulletin of Agricultural Statistics.

[^141]:    ${ }^{1}$ Cows and heifers, two years or over, kept for milk purposes.

[^142]:    ${ }^{1}$ Factory-made cheese includes cheddar and other cheese made from whole milk. The latter amounted to $5,005,000 \mathrm{lb}$. in $1950,5,477,000 \mathrm{Ib}$. in $1951,5,850,000 \mathrm{lb}$. in 1952 and $6,475,000 \mathrm{lb}$. in 1953 , produced principally in Quebec and Ontario.

[^143]:    ${ }^{1}$ Exclusive of Newfoundland. $\quad{ }^{2}$ Includes malted milk, cream powder and substandard products of a variable fat content, items that do not appear separately in this table. ${ }^{3}$ Since the quantities used for human consumption and live-stock feeding cannot definitely be established, per capita figures cannot be calculated. ${ }^{4}$ Includes milk by-products items not separately listed, i.e., condensed buttermilk, powdered buttermilk, sugar of milk, casein and powdered whey.
    ${ }^{5}$ Includes ice cream in terms of milk.

[^144]:    ${ }^{1}$ Price to growers (to pickers in the case of blueberries) for unpacked fruit. ${ }^{2}$ Excludes Quebec, for which no estimate was made; yield reduced by frost to about one-third 1949 crop.
    ${ }^{2}$ Excludes British Columbia.

[^145]:    ${ }^{1}$ Exclusive of Newfoundland.

[^146]:    ${ }^{1}$ Initial payments plus additional payments to producers. $\quad{ }^{2}$ Based on cash closing prices, Winnipeg Grain Exchange. From Aug. 1, 1944, to Oct. 22, 1947, prices of oats and barley remained at or near the government-imposed ceiling prices. From Oct. 23, 1947, to July 31, 1949, open market trading again prevailed. Equalization payments to producers are included for the crop years 1943-44 to 1947-48, inclusive. ${ }^{\text {a }}$ Average cash closing price, Winnipeg Grain Exchange, except where otherwise noted. ${ }^{4}$ Fixed price to growers. 585 fixed price to growers plus 50 cents participation payment. - Winnipeg Grain Exchange renewed trading in flaxseed cash and futures on Aug. 16, 1948. The Canadian Wheat Board was authorized to buy all flaxseed offered to it during the 1948-49 crop year on the basis of $\$ 4$ per bushel for No. 1 C.W. in store Fort William-Port Arthur, Ont.

[^147]:    ${ }^{1}$ Estimated totals, which in the case of production are rounded to millions, include allowances for any missing data for countries shown and data for producing countries not shown.
    ${ }^{2}$ Includes Albania, Bulgaria, Czechoslovakia, Eastern Germany, Hungary, Poland and Roumania.
    ${ }^{3}$ Figures for the periods shown are not strictly comparable since figures for 1952 and 1953 include allowances for non-reporting areas not included for the earlier period shown, but are included in estimated total for Asia.

[^148]:    ${ }^{1}$ Estimated totals, which are rounded to millions, include allowances for any missing data for countries shown and for other producing countries not shown.
    ${ }^{2}$ Comprises Albania, Bulgaria, Czechoslovakia, Eastern Germany, Hungary, Poland and Roumania.
    ${ }^{3}$ Figures for the periods shown are not strictly comparable since figures for 1952 and 1953 include allowances for non reporting areas not included for the earlier period shown, but included in estimated total for Asia.

[^149]:    * Sections of this Chapter that deal with forestry and forest administration have been revised in the Forest Economics Section, Forestry Branch, Department of Northern Affairs and National Resources. Sections dealing with forest and allied industries, except as otherwise noted, have been revised in the Forestry Section, Industry and Merchandising Division, Dominion Bureau of Statistics.
    $\dagger$ A more detailed discussion of forest regions is given in Bulletin No. 89, A Forest Classification for Canada, by W. E. D. Halliday, obtainable from the Forestry Branch, Department of Northern Affairs and National Resources, Ottawa. Accounts of variations in Canadian physiography, climate, etc., are given in Chapter I of this volume.

[^150]:    * Obtainable from the Queen's Printer, Ottawa, price $\$ 1.50$.

[^151]:    * More detailed information is given in the 1954 Canada Year Book, pp. 458-465.

[^152]:    ${ }^{1}$ Includes federal lands within provincial boundaries.
    ${ }^{2}$ Excludes Newfoundiand. ${ }^{3}$ Wood values are based on prevailing stumpage rates only; damage to soil, site quality, streamflow regulation, wildlife, recreational and similar values, is not included.

[^153]:    - Prepared by J. H. Jenkins, Chief of the Forest Products Laboratories of Canada, a Division of the Forestry Branch, Department of Northern Affairs and National Resources.
    $\dagger$ Pulp and paper research is carried out by the Pulp and Paper Research Institute of Canada, at Montreal. This Institute is a non-profit corporation to which the Canadian Government makes an annual grant. Its management is vested in a Board of Directors composed of representatives of the Canadian Pulp and Paper Association, McGill University and the Canadian Government.

[^154]:    ${ }^{1}$ In estimating the annual drain on Canada's forest resources, certain converting factors have been used, each of which represents in cubic feet the quantity of merchantable wood used to produce one unit of the material in question. The factor for logs and bolts for the British Columbia coastal region is 175 and for the rest of Canada 200. Other factors: pulpwood 85, fuelwood 80, hewn railway ties 5 , poles and piling 15 , fence posts $1 \cdot 2$ and wood for distillation 80.

[^155]:    *A special article on the pulp and paper industry appears in the 1952-53 Year Book, pp. 467-475.

[^156]:    ${ }^{1}$ Newfoundland included from 1949.

[^157]:    ${ }^{1}$ Slightly lower than DBS figures given in Table 21, p. 467, owing to the exclusion of certain paper not classed as newsprint by the Association.

[^158]:    * See Chapter XV for further particulars regarding the pulp and paper and paper-converting industries.
    $\dagger$ For reasons given in Section 1, Part II of the Foreign Trade Chapter, gold is excluded from Canadian trade statistics.
    $\ddagger$ Prepared by the Forest Products Laboratories, Forestry Branch, Department of Northern Affairs and National Resources, Ottawa.

[^159]:    * Furniture; sash, door and planing mills; veneer and plywood; hardwood flooring; boxes, baskets and crates; wood-turning; coffins and caskets; cooperage; woodenware; lasts, trees and wooden shoefindings; beekeepers' and poultrymen's supplies; excelsior; and other wood-using industries.

[^160]:    * Paper boxes and bags; roofing paper; and miscellaneous paper goods.

[^161]:    * Prepared under the direction of Marc Boyer, Deputy Minister, Department of Mines and Technical Surveys, as follows: Introduction, Metals and Coal by G. H. Murray. Chief, Editorial and Information Division, and Mrs. M. J. Giroux of the Editorial Staff; Industrial Minerals by M. F. Goudge, Chief, Industrial Minerals Division; and Petroleum and Natural Gas by Dr. G. S. Hume, Director General of Scientific Services.

[^162]:    * Developments in the Quebec-Labrador iron-ore field on described on p. 482.

[^163]:    * Information on the construction of oil and gas pipelines is given in the Transportation Chapter of this volume.

[^164]:    * Revised under the direction of Marc Boyer, Deputy Minister, in the Editorial and Information Division, Department of Mines and Technical Surveys, Ottawa.

[^165]:    - Prepared under the direction of W. E. Uren, O.B.E., Chairman of the Dominion Coal Board.

[^166]:    * Revised under the direction of Marc Boyer, Deputy Minister, in the Editorial and Information Division, Department of Mines and Technical Surveys, Ottawa.

[^167]:    - Compiled from material supplied by the provincial governments.

[^168]:    * Revised in the Mining, Metallurgical and Chemical Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

[^169]:    ${ }^{1}$ Beginning with 1931, exchange equalization on gold production is included. of Newfoundland production from 1949.

[^170]:    ${ }^{1}$ Not released for publication.
    ${ }^{2}$ Sulphur content of pyrite shipped and estimated sulphur contained in the sulphuric acid made from smelter gases.

[^171]:    *The construction of this index, which is a component of the revised index of industrial production, is described in DBS Reference Paper, Revised Index of Industrial Production, 1935-51.

[^172]:    ${ }^{1}$ Includes 6 tons valued at $\$ 1,428$ produced in N.W.T. in 1944 and 1 ton valued at $\$ 536$ in 1951 . ${ }^{\mathbf{2}} \mathbf{I n}$ cludes 383 tons valued at $\$ 218,663$ produced in Nova Scotia and 3 tons valued at $\$ 1,969$ produced in N.W.T. ${ }^{2}$ Includes 959 tons valued at $\$ 574,441$ produced in Nova Scotia.

[^173]:    ${ }^{1}$ The sum of Canadian coal mines' sales, colliery consumption, coal supplied to employees and coal used in making coke, etc., less the tonnage of coal exported.
    ${ }_{2}$ Includes small tonnages from countries other than the United Kingdom and the United States. Deductions have been made from this column to take account of foreign coal re-exported from Canada and bituminous coal ex-warehoused for ships' stores. ${ }^{3}$ Figures based on estimates of population given at p. 137.

[^174]:    ${ }^{1}$ 'Production' as used bere means quantity and value of sales.

[^175]:    ${ }^{1}$ Includes minor items not specified.

[^176]:    ${ }^{1}$ Includes freight and smelter charges and cost of ores treated. less cost of process supplies, fuel, electricity, freight and smelter charges.

[^177]:    ${ }^{2}$ Gross value of shipments less
    ${ }^{3}$ Includes natural abrasives.

[^178]:    * Revised in the Water Resources Division, Department of Northern Affairs and National Resources, Ottawa.
    $\dagger$ More detailed information on the water-power resources of other countries is given in the 1951Year Book, pp. 531-533.

[^179]:    ${ }^{1}$ Includes only hydro-electric stations that develop power for sale.
    ${ }^{2}$ Includes only water power actually developed by pulp and paper companies. ${ }^{2}$ Includes only water power actually developed by industries other than central electric stations and the pulp and paper industries.

    4 Includes water wheels and hydraulic turbines installed.

[^180]:    - In addition to water-power development, the construction of fuel-electric plants included: a diesel unit of 3,850 h.p. at St. John's by the Newfoundland Light and Power Company; an additional unit of 22,000 kw . in the Halifax steam plant of the Nova Scotia Light and Power Company; and a unit of $18,780 \mathrm{kw}$. in the Grand Lake steam plant of the New Brunswick Electric Power Commission.

[^181]:    *In addition, the two large steam-electric plants at Toronto and Windsor were completed, the Toronto station having a present capacity of $388,000 \mathrm{kw}$. in four units and the Windsor station $264,000 \mathrm{kw}$. in four units.

[^182]:    *The City of Winnipeg had under installation a $25,000-\mathrm{kw}$. steam-electric unit for 1954 operation. The Saskatchewan Power Corporation completed a $20,000-\mathrm{kw}$. single-unit addition to its steam plant at Estevan, and started, for 1954 operation, the installation of a $25,000-\mathrm{kw}$. unit in the Saskatoon plant. A 4,300-kw. gas-engine generator set was installed at Unity. Additions to thermal capacity in Alberta include a steamturbo generator of $30,000 \mathrm{kw}$. by the City of Medicine Hat in collaboration with Calgary Power Limited; City of Edmonton, a gas-fired steam-turbo generator, $30,000 \mathrm{kw}$.; City of Lethbridge, $5,000-\mathrm{kw}$. steam unit; and Canadian Utilities Limited at Grande Prairie, diesel unit of $1,200 \mathrm{kw}$.
    $\dagger$ The Northern British Columbia Power Company Limited installed a diesel unit of $2,750 \mathrm{~h} . \mathrm{p}$. as auxiliary to its hydro-electric installations. The Powell River Company Limited added a $13,125-\mathrm{kw}$. steam turbo-generator to supply additional power to its mill at Stillwater.

[^183]:    - Contributed by The Hydro-Electric Power Commission of Ontario, Toronto, Ont.

[^184]:    "See the special article on "The St. Lawrence Seaway", Chap. XIX.

[^185]:    ${ }^{1}$ Excludes duplications.
    ${ }^{2}$ Newfoundland included from 1949.

[^186]:    - The information included under the provincial headings of this Subsection has been revised by the various provincial commissions or authorities concerned.

[^187]:    * The Commission also purchases $135,000 \mathrm{~h} . \mathrm{p}$. from the Shawinigan Water and Power Company.

[^188]:    ${ }^{1}$ Installed capacity. When all four units are operating at 60 cycles, installed capacity will be 400,000 kw.

    2 Installed capacity.
    ${ }^{3}$ Installed capacity-four more main generating units to be added as required; ultimate capacity, $1,200,000 \mathrm{kw}$.

[^189]:    ${ }^{1}$ Sum of the maximum 20-minute coincident peak loads (primary plus secondary) of each of the systems operated by the Commission, given in terms of net output of the sources of supply to each system for the last month of each fiscal year
    ${ }^{2}$ Owing to the change in the Commission's fiscal year to coincide with the calendar year, figures shown here for 1950 cover the 14 months ended Dec. 31, 1950.

[^190]:    ${ }^{1}$ Inclades power generated by electric railways for their own use.

[^191]:    - Prepared by the Director, Information and Educational Service, Department of Fisheries, Ottawa.
    $\dagger$ Also known as rosefish and ocean perch.

[^192]:    * Revised in the Department of Fisheries, Ottawa.

[^193]:    * Prepared by the respective provincial departments responsible for fisheries administration.

[^194]:    * Revised in the Fisheries Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

[^195]:    * Provincial information received from the respective provincial governments and that for the Yukon Territory and Northwest Territories from the Northern Administration and Lands Branch, Department of Northern Affairs and National Resources, Ottawa.

[^196]:    - Revised in the Agriculture Division, Dominion Bureau of Statistics.

[^197]:    ${ }^{1}$ Included in "Other"

[^198]:    - Prepared in the Animal Products Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

[^199]:    ${ }^{1}$ See footnote 1, Table 1.
    shipments; see text on pp. 633-634.
    ${ }^{2}$ In 1952, gross value of products was replaced by value of factory ${ }^{3}$ See footnote 2, Table 1.

[^200]:    ${ }^{1}$ See footnote 1, Table 1.

[^201]:    ${ }^{1}$ See footnote 1, Table 1.

[^202]:    * A description of the methods used in constructing the index and a description of its scope is given in DBS Reference Paper No. 34, Revised Index of Industrial Production, 1955-1951.

[^203]:    ${ }^{1}$ Compared with gross value of products figures for $1949 . \quad{ }^{2}$ Excludes Newfoundland. ${ }^{2}$ Excludes "Publishing (only) of Periodicals". dustry to another, figures for 1949 are not comparable with those for previous years.

[^204]:    ${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text on p. 633
    ${ }^{2}$ Excludes fish processing in Newfoundland from 1945 to 1949.

[^205]:    ${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text on p. 633.

[^206]:    ${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text on p. 633.

[^207]:    ${ }^{1}$ Includes excise taxes on prime cost of spirits and tobacco products.

[^208]:    ${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text on p. 633.

[^209]:    ${ }^{1}$ Four main categories of ownership only; the non-classifiable group is not included.

[^210]:    ${ }^{1}$ Did not rank among the forty leading industries in 1922.

[^211]:    ${ }^{1}$ In 1952, value of factory shipments replaced gross value of products collected for previous years;

[^212]:    ${ }^{1}$ Based on one week in month of highest employment. and on returns from establishments employing 15 persons or over. and on returns from establishments employing 15 persons or over.

[^213]:    7 Based on last week of November ${ }^{3}$ Based on last week in October

[^214]:    ${ }^{1}$ See footnote, end of table.

[^215]:    ${ }^{1}$ Based on the last week in November.

[^216]:    ${ }^{1}$ Includes central electric stations and dyeing, cleaning and laundry establishments. ${ }^{2}$ Excludes the Yukon and Northwest Territories. ${ }^{3}$ Includes Newfoundland. 4 Includes only those head offices that are not located at a plant. ${ }^{5}$ Includes 763 employees who are not classifiable.

[^217]:    For footnotes, see end of table, p. 699.

[^218]:    ${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text, p. 633. ${ }^{2}$ Includes: biscuits; cordage, rope and twine; dairy products, n.e.s; tobacco, cigars and cigarettes; miscellaneous food preparations, n.e.s.
    ${ }^{\text {s Includes: bagg, cotton and jute; fertilizers; slaughtering and }}$ meat packing.

    4 Includes: breweries; cotton yarn and cloth; machinery, household, office and store; wire and wire goods; petroleum products; coke and gas.

    5 Includes: breweries; sugar refineries; cotton yarn and cloth; synthetic textiles and silk; railway rolling-stock; shipbuilding; brooms, brushes and mops; brass and copper products; gypsum products.
    ${ }^{6}$ Includes: miscellaneous food preparations, n.e.s.; biscuits; dairy products, n.e.s.; cordage, rope and twine; paints, varnishes and lacquers; tobacco, cigars and cigarettes. 7 Includes: slaughtering and meat packing; fertilizers; bags, cotton and jute; shipbuilding; sheet metal products.

    8 Includes: petroleum products; coke and gas products; cotton yarn and cloth; wire and wire goods; breweries; aircraft and parts.

[^219]:    ${ }^{1}$ For footnote, see end of table, p. 704.

[^220]:    ${ }^{1}$ In 1952, gross value of products was replaced by value of factory shipments; see text, p. 633. ${ }^{2}$ Excludes non-ferrous metal smelting and refining, sugar refining, bridge building and structural steel and distilled liquors, which are leading industries but for which figures are confidential and cannot be published. ${ }^{3}$ Excludes non-ferrous metal smelting and refining, sugar refining, and distilled liquors, which are leading industries but for which figures are confidential and cannot be published.

[^221]:    ${ }^{1}$ Net value is derived from gross value by deducting cost of materials, fuel and electricity. In 1952, gross value of products was replaced by value of factory shipments; see text, p. 633.

[^222]:    ${ }^{2}$ See headnote to this table.

[^223]:    ${ }^{2}$ See headnote to this table.

[^224]:    *See also Introduction to this Volume entitled "The Canadian Economy in 1954". Information is given in greater detail in the Department of Trade and Commerce Annual Reports, Private and Public Investment in Canada.

[^225]:    ${ }^{1}$ Includes expenditures of the Federal Government under the Capital Assistance program.

[^226]:    ${ }^{1}$ This industry group now includes natural gas absorption plants. $\quad{ }^{2}$ Capital expenditures made out of Federal Government Capital Assistance funds are not included in these figures.

[^227]:    ${ }^{1}$ The largest part of this item is accounted for by expenditures of real estate companies and companies engaged in the sale of stocks and bonds. Most of the remainder is capital outlay by insurance agents and companies conducting personal and business credit operations.

[^228]:    ${ }^{1}$ Includes estimates for other commercial vehicles not covered, recreation and amusement centres

[^229]:    ${ }^{1}$ Includes Northwest Territories and Yukon,

[^230]:    * Information is given in greater detail in the DBS Annual Report, Construction in Canada.

[^231]:    ${ }^{1}$ Represents work done by the labour forces of utilities, manufacturing, mining and logging firms and government departments, home-owner builders and other persons or firms not primarily engaged in the

[^232]:    For footnote, see end of table.

[^233]:    ${ }^{1}$ Nine months.

[^234]:    * Prepared in the Economic Reseasch Department, Central Mortgage and Housing Corporation, Ottaws.

[^235]:    ${ }^{1}$ Exclusive of a small number of dwellings built by Federal Government Departments as part of their normal operations.

[^236]:    ${ }^{1}$ Exclusive of the Yukon and Northwest Territories.

[^237]:    * Prepared in the Business Statistics Section, Research and Development Division, Dominion Buresu of Statistics.

[^238]:    ${ }^{1}$ Newfoundland data exclude agriculture, fisheries, trapping and fish processing in 1949 and 1950, but includes fisheries and fish processing in 1951 and 1952 and trapping in 1952.
    ${ }^{2}$ Forestry and construction figures for the Yukon and Northwest Territories are included with British Columbia.

[^239]:    ${ }^{1}$ Newfoundland data exclude agriculture, fisheries, trapping and fish processing in 1949 and 1950, but include fisheries and fish processing in 1951 and 1952 and trapping in 1952.
    ${ }^{2}$ Forestry and construction figures for the Yukon and Northwest Territories are included with British Columbia.

[^240]:    ${ }^{*}$ Except as otherwise noted, this Chapter has been revised under the direction of A. H. Brown, Deputy Minister, Department of Labour, Ottawa,

[^241]:    ${ }^{1}$ Males over 18 years of age only. or processing of fish, vegetable or fruit. 6 Females; $\$ 26$ for men over 21 years of age. Females, 826 for men over 21 years of age. Females, 60 cents for men applying to a 48-hour week. offices; 54 hours in laundries, shops, beauty pariours and theatres; 60 hours in hotels. ${ }^{7}$ Hourly rates.

[^242]:    ${ }^{1}$ Exclusive of persons in institutions, remote areas and Indian reserves. ${ }^{2}$ Employers, 'own-account' and unpaid family workers. ${ }^{3}$ Revised since publication of the 1954 Year Book. - Newloundland included from 1950.
    ${ }^{5}$ Coverage increased in 1954, see text on p. 768.

[^243]:    - Newfoundland data have been subtracted from 1954 totals; thus all statements made in this analysis are on the basis of the nine other provinces.

[^244]:    - Prepared in the Employment Section, Labour and Prices Division, Dominion Bureau of Statistics.
    $\dagger$ Employment and Payrolls, Man-Hours and Average Hourly Earnings. The methods used in preparing the current statistics are erplained in these bulletins.
    $\ddagger$ Employment, Payrolls and Weekly Earnings, January 1949 - June 1955, with Historical Series.

[^245]:    ${ }^{1}$ Proportion of employees reported in metropolitan areas to the total reported by all employers making returns in Canada (Average of 12 months, 1953.)

[^246]:    ${ }^{*}$ Monthly eatimates of total wages, salaries and supplementary labour income are given in DBS bulletins, Estimates of Labour Income.

[^247]:    ${ }^{1}$ The durable goods group includes wood products, iron and steel products, transportation equipment, non-ferrous metal products, electrical apparatus and supplies, and non-metalic mineral products; the nondurable goods group includes the remaining manufacturing industries. ${ }^{2}$ Mainly hotels, restaurants,
    laundries, dry-cleaning establishments and business and recreation service.

[^248]:    ${ }^{1}$ Consists mainly of hotels, restaurants, laundries, dry-cleaning establishments and business and recreation service.

[^249]:    * Prepared in the Employment Section, Labour and Prices Division, Dominion Bureau of Statistics. More complete information is published in the DBS annual bulletins, Earnings and Hours in Manufacturing.

[^250]:    ${ }^{1}$ As at Nov. 30.

[^251]:    * More detailed information is given in the Department of Labour annual publication, Wage Rates, Salaries and Hours of Labour in Canada.

[^252]:    ${ }^{1}$ Meal allowances are sometimes reported as given in addition to other types of overtime compensation; in other cases as the sole type of overtime compensation.

    2 Oct. 1, 1952.
    ${ }^{3}$ Less than $0 \cdot 1$ p.c.

[^253]:    ${ }^{1}$ The daily rates of contribution in respect of each class is one-sixth of the weekly rates. ${ }^{2}$ Unemployment insurance stamps combine both employer and employee contributions. ${ }^{3}$ Rates calculated on the average daily contribution for the last 180 days in the two years greceding claim. The daily rate of benefit is one-sixth of the weekly benefit rate.

[^254]:    * Statistics of unemployment insurance are compiled and published by the Unemployment Insurance Section, Labour and Prices Division, Dominion Bureau of Statistica, from material supplied by the Unemployment Insurance Commission. A more detailed analysis of these data, by province and sex, is available in DBS publications, Annual Report on Benefit Years Established and Terminated Under the Unemployment Insurance Act and the monthly Statistical Report on the Operation of the Unemployment Insurance Act.

[^255]:    ${ }^{1}$ These data are obtained from the daily rate of benefit authorized at the time the benefit year is established and the number of benefit days paid during the benefit year.

[^256]:    ${ }^{1}$ The total number of benefit years terminated was actually 770,684 because for 8,126 benefit years the age of claimant was unspecified; 452,950 benefit days were paid on these 8,126 benefit years, so that the total number of benefit days paid on benefit years terminated was 44,660,188.

[^257]:    * More detailed information is given in the Department of Labour publication, Canadian Vocational Training Annual Report 1952-53.

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[^258]:    ${ }^{1}$ Includes unmatched grant of $\$ 10,000$ to each province.

[^259]:    ${ }^{1}$ No training given.

[^260]:    * More detailed information is given in the Department of Labour publication, Workmen's Compensation in Canada, A Comparison of Provincial Laws.

[^261]:    For footnotes, see end of table.

[^262]:    * Information concerning unions is published in the Department of Labour annual publication, Labour Organization in Canada.

[^263]:    * A complete review of strikes and lockouts during 1952 and 1953 will be found in Department of Labour reports.

[^264]:    For footnotes, see end of table.

[^265]:    * Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics. More detailed information is given in the annual reports of the Division. Certain of the financial statistics are compiled in co-operation with the Department of Transport.

[^266]:    ${ }^{1}$ As at June 30 for this and previous years.

[^267]:    ${ }^{2}$ As at Dec. 31 for this and later years.

[^268]:    ${ }^{1}$ Includes for the first time 46 steam and 3 diesel locomotives, 98 passenger cars, and 1,004 freight cars in service in Newfoundland.

[^269]:    * Statistics for individual railways are given in DBS annual report, Statistics of Steam Railways of Canada.

[^270]:    ${ }^{1}$ Includes Newfoundland railways from Apr. 1.

[^271]:    ${ }^{1}$ Includes trespassers walking along tracks, stealing ride3, etc., and persons crossing tracks at level crossings. $\quad{ }^{2}$ Figures for Newfoundiand are included from Apr. 1, 1949.

[^272]:    *The Hudson Bay Railway is a direct responsibility of the Federal Government and has been operated by the CNR for the Government since Apr. 1, 1935; statistics relating to the operation of this line are not included in the data for the CNR.

[^273]:    ${ }^{1}$ Excludes work service.

[^274]:    * Statistics presented in this Section cover the urban and inter-urban operations of the electric railway systems. More detailed information is given in DBS publication, Electric Railways of Canada, 1955.

[^275]:    ${ }^{1}$ Decrease from 1951 accounted for by the re-capitalization of the Winnipeg Electric Company; transit facilities of that Company were transferred to the Greater Winnipeg Transit Company.

[^276]:    ${ }^{1}$ Includes passengers and freight carried on buses and trackless trolley-buses operated by electric railways.

[^277]:    ${ }^{1}$ Over railways, boat lines and motor-carrier and aircraft routes. $\quad{ }^{2}$ Amounts paid by express companies to the carriers, i.e., railways, steamship lines, etc., for transporting express matter.

[^278]:    * Except as otherwise indicated, the material in this Part has been revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.
    $\dagger$ The information in this Section has been revised from material provided by the officials in charge of the administration of motor-vehicle and traffic Acts and Regulations in the individual provinces and territories.

[^279]:    ${ }^{1}$ Year ended Nov. 30, $1949 . \quad{ }^{2}$ Sixteen-month period ended Mar. 31, 1951. ${ }^{3}$ Year ended Oct. 31, 1949. ${ }^{\text {S Seventeen-month period ended Mar. 31, } 1951 . ~}{ }^{5}$ Includes payments from railways and contributions from the Railway Grade Crossing Fund toward elimination of grade crassings, etc., amounting to $\$ 495,486$ in $1950, \$ 529,505$ in 1951 , $\$ 1,443,009$ in 1952, and $\$ 925,580$ in 1953 . The Federal Government also contributed $\$ 121,310$ toward grade separations, etc., on the Trans-Canada Highway during 1951. ${ }^{6}$ Federal administrative costs only. ${ }^{7}$ Includes federal administrative costs $\tau \in$ Trans-Canada Highway amounting to $\$ 175,398$ in 1951, $\$ 282,652$ in 1952 and $\$ 298,230$ in 1953.

[^280]:    ${ }^{1}$ Totals include 4,560 registrations in the Yukon and Northwest Territories.

[^281]:    ${ }^{1}$ Factory shipments since 1952. ${ }^{2}$ Includes Armed Forces vehicles.

[^282]:    ${ }^{1}$ Estimated net sales for Newfoundland, amounting to $7,188,000 \mathrm{gal}$. in $1949,8,842,000 \mathrm{gal}$. in 1950 , and $10,816,000$ gal. in 1951, are included in net totals; gross sales for those years are not available.

[^283]:    * Information and statistics dealing with this subject have been supplied as follows: aids to navigation, canals, harbours, administrative services, and marine services, by the Department of Transport and the National Harbours Board; part of the financial statistics, by the Department of Public Works; shipping subsidies, by the Director of Subsidized Steamship Services, Canadian Maritime Commission; Panama Canal, by the Governor of the Panama Canal Zone: other canal traffic and statistics of shipping, by the Public Finance and Transportation Division, Dominion Bureau of Statistics.

[^284]:    ${ }^{1}$ Exclusive of passenger services.
    ${ }^{2}$ Sea-going and inland international.

[^285]:     ${ }^{2}$ Over keel blocks at H.W. 10 ft ., tide 26.1 ft .

[^286]:    ${ }^{1}$ Navigable depths are occasionally less at times of extremely low water. ${ }^{2}$ Minimum depth between locks 23 ft . 6 in . ${ }^{2} \mathrm{~A}$ 12-hour notice must be given by vessels of more than 6 ft . draught-- Marine railways in this section limit navigation to vessels 50 ft . long, 13.5 ft . beam, 4 ft . draught-weight not over 15 tons. $\quad 5$ Minimum depth of canal with Lake Ontario at elevation 243 ft . above sea level is 8.5 ft . The depth of canal prism is 17 ft .

[^287]:    ${ }^{1}$ Figures for the United States include small amounts of traffic from other foreign countries.

[^288]:    ${ }^{*}$ Prepared by G. Gordon McLeod, Economist, Dept. of Transport, Ottawa, with the approval of the Hon. Lionel Chevrier, President, St. Lawrence Seaway Authority.

[^289]:    ${ }^{1}$ Sales of property, stone, etc.
    ${ }^{2}$ These are works not covered elsewhere in these tables and are shown in the Public Accounts as schedules to the Balance Sheet of the Government of Canada.

[^290]:    ${ }^{1}$ Exclusive of harbours under the National Harbours Board as shown in Table 29.

[^291]:    - Sections 1 and 2 of this Part were revised in the Department of Transport and Section 3, except where otherwise indicated, in the Transportation Section, Public Finance and Transportation Division, Dominion Bureau of Statistics. For military air transportation, see Chapter XXVIII on Defence of Canada.

[^292]:    ${ }^{1}$ Express and excess baggage. $\quad{ }^{2}$ Includes other revenue. ${ }^{2}$ Interest and exchange charges excluded except for 1946, 1947, 1948 and 1949. Includes interest on capital invested.

[^293]:    ${ }^{1}$ Exclusive of charter service, figures for which are not available.
    92428-58

[^294]:    ${ }^{1}$ For footnote, see end of table, p. 910.

[^295]:    * Prepared by Dr. G. S. Hume, Director General of Scientific Services, Department of Mines and Technical Surveys, Ottawa.

[^296]:    * Statistics of oil pipelines are given in greater detail in the DBS monthly report, Pipe Lines (Oil)

[^297]:    ${ }^{1}$ Includes natural gasoline.
    ${ }^{2}$ See text above table.
    ${ }^{2}$ Including deliveries to U.S. pipelines at Gretna, Man., amounting to 949,470 bbl. in 1950, 14,525,755 bbl. in 1951, 21,520,761 bbl. in 1952 and $30,524,131$ bbl. in 1953. 4 Products of refineries.

[^298]:    ${ }^{1}$ Operations of the Imperial Oil Company in Alberta, formerly reported as trunk deliveries, were reported as gathering deliveries as from January 1953; thus, figures given in this table for 1953 are not

[^299]:    * Revised under the direction of G. C. W. Browne, Controller, Telecommunications Division, Department of Transport, Ottawa.

[^300]:    *Except where otherwise noted, this Part has been revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics. The Division issues annual reports dealing with telegraph and telephone statistics.
    $\dagger$ Revised by G. C. W. Browne, Controller of Telecommunications, Telecommunications Division, Department of Transport, Ottawa.

[^301]:    ${ }^{1}$ Excludes commission operators.
    ${ }^{2}$ Includes messages to and from vessels on the Great Lakes and the St. Lawrence River and messages to and from stations. ${ }^{3}$ Excludes messages relayed and includes paid wireless messages to and from ships in the Gulf of St. Lawrence and on the Atlantic Ocean.

[^302]:    - Revised in the Department of Transport, Ottawa.

[^303]:    ${ }^{1}$ The issuance of private receiving radio licences was discontinued as from Apr. 1, 1953.
    ${ }^{2}$ Applied to the operations of the Department of Transport.
    ${ }^{2}$ Section 14 (1) of the Canadian Broadcasting Act, provides that "The Minister of Finance shall deposit, from time to time, in the Bank of Canada, or in a chartered bank to be designated by him, to the credit of the Corporation (a) the gross amount of moneys received in each year from licence fees in respect of private receiving licences and private station broadcasting licences without deducting therefrom any costs of collection or administration"

[^304]:    ${ }^{1}$ Station location (Z) markers are installed at 93 radio range stations. ${ }^{2}$ The station at Port Harrison, Que., also periorms restricted coast station service during the season of navigation, but as it is primarily a weather-reporting station it is shown under this heading only.
    ${ }^{3}$ Includes 51 repeater stations.

    The foregoing classes are numerous and complicated by the fact that many of them perform closely related functions. Descriptions of the services provided by different types of government-operated stations are given in the 1951 Year Book, pp. 804-808.

[^305]:    * Revised by T. J. Allard, Executive Vice-President, Canadian Association of Radio and Television Broadcasters, Ottawa.

[^306]:    ${ }^{1}$ Included in Halifar.

[^307]:    ${ }^{1}$ Less than $\$ 10,000$.

[^308]:    ${ }^{1}$ Less than $\$ 10,000$.

[^309]:    ${ }^{1}$ Less than $\$ 10,000$.

[^310]:    - Includes a very few semi- and tri-weekly newspapers.

[^311]:    ${ }^{1}$ Tri-weekly. 1 Saturday editions.
    ${ }^{2}$ National week-end.
    4 Includes 2 national week-end, 3 bilingual and 1 Saturday editions.
    ${ }^{2}$ Includes 2 national week-end, 2 bilingual and cludes 1 national ${ }^{5}$ Sunday edition.
    ${ }^{7}$ Includes 1 bilingual.

[^312]:    - Prepared in the Decennial Census of Distribution Section, Industry and Merchandising Division of the Dominion Bureau of Statisties.

[^313]:    ${ }^{1}$ Totals for Canada include figures for the Yukon and Northwest Territories, but the individual items under "Canada" are exclusive of the figures for those Territories.

    ## 3.-Wholesale Trade, classified by Major Type of Operation and Kind of Business, 1951

[^314]:    For footnote, see end of table.

[^315]:    ${ }^{1}$ Figures withheld to avoid disclosure of individual operations.

[^316]:    ${ }^{1}$ Excludes refreshment booths and stands, and fish and chip shops.

[^317]:    ${ }^{1}$ Includes kinds of business for which separate figures are not shown.

[^318]:    - Revised in the Merchandising and Servicee Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

[^319]:    ${ }^{1}$ Includes the Yukon and Northwest Territories.

[^320]:    ${ }^{1}$ Included in "Other".

[^321]:    * For more detailed information, see DBS annual, Live Stock and Animal Products Slatistics, and the Department of Agriculture publication, Annual Market Review. Statistics of live stock and poultry are given at DD. 413-415 and 422-423, respectively, of this volume.

[^322]:    - The material in this Section was supplied by various Divisions of the Departments of Agriculture, Fisheries, Mines and Technical Surveys, National Revenue and of the Dominion Bureau of Statistics.

[^323]:    ${ }^{1}$ Excludes Newfoundland.

[^324]:    ${ }^{1}$ Figures are subject to revision.

[^325]:    * Prepared under the direction of Dr. J. G. Taggart, C.B.E., Deputy Minister of Agriculture, by J. E. O'Meara, Economi's Division, Marketing Service, Department of Agriculture.

[^326]:    ${ }^{1}$ Duplication exists in this column as some associations market produce as well as handle supplies. Some associations market more than one product and some handle many of the supplies listed.

[^327]:    ${ }^{*}$ Revised in the Transportation Section, Public Finance and Transportation Division, Dominion Burean of Statigtics.

[^328]:    ${ }^{*}$ Revised by T. D. MacDonald, Q.C., Director of Investigation and Research, Combines Investigation Act, Department of Justice, Ottawa.
    $\dagger$ Formerly Sects. 498 and 498.A.

[^329]:    * Committee to Study Combines Legislation comprising Mr. Justice J. H. MacQuarrie of the Supreme Court of Nova Scotia; Dr. W. A. Mackintosh, Principal of Queen's University; Professor Maurice Lamontagne, then Director of the Department of Economics, Laval University; and Mr. George F. Curtis, Dean of the University of British Columbia Law School. The Committee reported upon resale price maintenance in October 1951 and made its final report in March 1952.

[^330]:    - Prepared by R. W. MacLean, Director, Standards Division, Department of Trade and Commerce, Ottawa.

[^331]:    *The material relating to patents and copyrights was revised by J. W. T. Michel, Commissioner of Patents, and that relating to trade marks by J. P. McCaffrey, Registrar of Trade Marks, Department of the Secretary of State, Ottawa.

[^332]:    * Prepared by H. H. Harris, Administrative Officer, Dominion Coal Board, Ottawa. Additional information on subventions and bounties summarized from the Report of the Royal Commission on Coal, 1946, is given in the 1947 Year Book, pp. 770-771.

[^333]:    ${ }^{1}$ After provision for depreciation on fixed assets or for capital expenditure met out of operating income as follows: N'f'ld., $\$ 967$; P.E.I., $\$ 1,000$; N.S., $\$ 39,187$; N.B., $\$ 150,240$; Que., $\$ 60,276$; Ont., $\$ 1,048,202$; Man., $\mathbf{\$ 2 8 , 4 1 9}$; Sask., $\mathbf{\$ 2 7 , 6 7 0 ;}$ Alta., $\$ 42,585$ and B.C., $\$ 137,784$. Also deducted are expenses incurred by liquor authorities in the collection of other revenue. out of liquor control authority revenue.
    ${ }^{2}$ Before deduction of any payments to municipalities local provincial breweries to public through licensed outlets under controlled price.

[^334]:    ${ }^{1}$ Collections on liquor imported for blending purposes are included with import duty. ${ }^{2}$ Other than malt beer.

    Value of Sales of Alcoholic Beverages.-The figures in Table 8 do not represent the final retail selling price of alcoholic beverages because when sold to licensees, only the selling price to the licensee is known. Furthermore, these sales figures should not be construed as representing the amount spent by individual Canadian consumers because sales to non-residents visiting Canada and sales to businesses, governments and foreign embassies in Canada are included.

[^335]:    * Prepared by the Superintendent of Bankruptcy, Ottawa. Early bankruptcy and insolvency legislation is reviewed in the 1952-53 Year Book, pp. 914-915.

[^336]:    ${ }^{1}$ Includes summary administration provisions of the Bankruptcy Act.
    ${ }^{2}$ Correction of figures published in the 1954 Year Book, p. $955 . \quad$ ? In addition to the amount paid to creditors by the trustee, secured creditors valued their security or realized on it themselves without the intervention a a trustee an amount of approximately $\$ 5,230,106$ in 1952 and of $\$ 5,404,104$ in 1953.

[^337]:    ${ }^{1}$ See text above.

[^338]:    ${ }^{1}$ Newfoundland included from 1950.

[^339]:    ${ }^{1}$ Newfoundland included from Apr. 1, 1949.

[^340]:    * Prepared in the External Trade Section, International Trade Division, Dominjon Bureau of Statistics.

[^341]:    ${ }^{1}$ Excludes China, the Union of Soviet Socialist Republics, and the communist countries of Eastern Europe (except Yugoslavia).

[^342]:    * For a more detailed discussion of this problem see Review of Foreign Trade, First Half Year 1959, DBS 1958.

[^343]:    * Based on statistics taken from reports published by the External Trade Section, International Trade Division, Dominion Bureau of Statistics.

[^344]:    ${ }^{1}$ January to March only. $\quad{ }^{2}$ Included with Leeward and Windward Islands.

[^345]:    ${ }^{1}$ Less than $\$ 500 . \quad{ }^{2}$ Includes all Germany.

[^346]:    ${ }^{1}$ Less than $\$ 500$.

[^347]:    ${ }^{1}$ Included with Leeward and Windward Islands. ${ }^{2}$ Less than $\$ 500$. ${ }^{3}$ Includes Eastern Germany.

[^348]:    ${ }^{1}$ Includes other countries not specified.

[^349]:    ${ }^{1}$ Includes other countries not specified.

[^350]:    ${ }^{1}$ Includes exports of foreign produce.

[^351]:    ${ }^{1}$ Not listed separately.

[^352]:    ${ }^{1}$ Includes other countries not specified.

[^353]:    ${ }^{1}$ Includes other countries not specified.

[^354]:    ${ }^{1}$ Includes other countries not specified.

[^355]:    ${ }^{1}$ Quantity given in number instead of by hundred-weight.
    goat, etc.

[^356]:    ${ }^{2}$ Includes hair of the camel, alpaca,

[^357]:    In this classification the expression "Canadian Farm Products" refers to commodities actually produced, in their original state, on Canadian farms. "Foreign Farm Products" covers msterials or commodities such as Canada does not produce in their original forms, e.g., cane sugar, tea, rubber, cotton, silk, etc.

[^358]:    ${ }^{1}$ Groups, though classified by component material, differ slightly from conventional groups (see text. p. 1079).
    ${ }^{2}$ Excludes imports for the use of the United Kingdom and NATO Governments
    ${ }^{2}$ Excludes exports of foreign produce.

[^359]:    - Prepared in the Balance of Payments Section, International Trade Division, Dominion Bureau of Statistics. More detailed information is given in the publications, The Canadian Balance of Internetional Payments, 195s, International Investment Position, and The Canadian Balance of International Payments in the
    Post-War Years, 1946-68.

[^360]:    ${ }^{1}$ Includes all net exports of non-monetary gold.
    overseas countries and exports of gold. I Includes estimsted value of wheat sold in European countries.

[^361]:    ${ }^{1}$ As these figures are the number of entries and re-entries into Canada, they include substantial amounts of in-transit, commuting and local traffic.
    ${ }^{2}$ Visits of less than 48 hours.

[^362]:    - Prepared in the several branches and divisions concerned and collated in the Informstion Branch, Department of Trade and Commerce, Ottawa.

[^363]:    *The schedules and rates in force at any particular time may be obtained from the Department of National Revenue, Ottawa, which is responsible for administering the Canadian Tariff.

[^364]:    * Revised in the Prices Section, Labour and Prices Division, Dominion Bureau of Statistics.

[^365]:    ${ }^{1}$ The wheat prices used in these indexes are prices currently effective for Manitoba Nos. 1, 2 and 3 Northern at Fort William. Participation payments are included and the series revised whenever such figures are announced. Between August 1945 and July 1950, the price included in the index for No. 1 Manitoba Northern was $\$ 1.83$ per bu. For the crop year Aug. 1, 1950-July 31, 1951, the price included was $\$ 1.85$ per bu. For the crop year Aug. 1, 1951-July 31, 1952, the price was $\$ 1.83$ per bu. For the crop year Aug. 1, 1952-July 31, 1953, the price was $\$ 1.82$ per bu. The initial psyment for the $1953-54$ crop year is $\$ 1.40$ per bu. Final payments for the crop year Aug. 1, 1953-July 31, 1954, were announced on Oct. 12 and Oct. 29, 1954, for barley and oats, respectively. Commencing Aug. 1, 1949, western oats and barley were brought under control of the Canadian Wheat Board. Prices used for Canadian farm products since that time have been initial payments to farmers. Participation payments are included whenever they are announced.

[^366]:    * Except as otherwise noted, this Chapter has been revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

[^367]:    ${ }^{1}$ Included in miscellaneous accountuble advances. steamship companies which are included in miscellaneous.
    ${ }^{2}$ Included in miscellaneous.
    ${ }^{2}$ Excludes or guarantees by the Government of Canada are given on

    4 Direct liabilities only. Indirect liabilities

[^368]:    1 Includes refundable portion of taxes.
    ${ }^{2}$ Refunds arising out of renegotiation of war contracts were in excess of collections. ${ }^{3}$ Includes old age security tax.

[^369]:    ${ }^{1}$ Includes old age security tar.

[^370]:    For footnote, see end of table.

[^371]:    ${ }^{1}$ Under terms of the 1952 Dominion-Provincial Taxation Agreements all provinces, except Ontario and Quebec, refrain from levying succession duties; amounts shown in other provinces are arrears. Provincial figures for 1953 are preliminary; figures for 1954 are estimates only.

[^372]:    ${ }^{1}$ The rates of federal duty shown are those actually applied but a credit may be made to the taxpayer of up to one－half of this amount on account of duty paid to the Province；see p． 1144 of credit on federal duty．

    Ontario．－The current legislation on succession duties is R．S．O．1950，c．378， as amended．Full information may be obtained on application to the Succession Duty Office，Treasury Department，Parliament Buildings，Toronto，Ont．

    Beneficiaries are divided into three classes，as follows：－
    （1）Widow；child；husband；parent；grandparent；grandchild；son－or daughter－in－law．

[^373]:    ${ }^{1}$ The rates of federal duty shown are those actually applied but a credit may be made to the taxpayer of up to one－half of this amount on account of duty paid to the Province；see p． 1144.
    ${ }^{2}$ After deduction of credit on federal duty but inclusive of surtax on provincial duty．
    ${ }^{3}$ Includes a surtax of 15 p．c．
    ${ }^{4}$ Includes a surtax of 20 p．c．
    ${ }^{5}$ Includes a surtax of 25 p．c．

[^374]:    ${ }^{1}$ Based on the official estimates of population for June 1 of the year indicated (see p. 137). $\quad{ }^{2}$ Based on the official estimates of population for June 1 of the year immediately preceding the one indicated (see p. 137).
    ${ }^{2}$ The apparent increase in interest paid results from the accrued interest on refundable taxes having been charged in the year of repayment. $\quad$ Excludes $\$ 87,510,068$ adjustment required to place interest on public debt on accrued basis. previous years, chiefly because of changed methods in accounting for cash.

[^375]:    ${ }^{1}$ Redeemable at 101 p.c. Amount outstanding includes $\$ 8,471,360.50$ redemption bonus. ${ }^{\mathbf{2}}$ Redeemable to Sept. 1, 1953, at 103 p.c.; thereafter to Sept. 1, 1957, at $102 \frac{1}{4}$ p.c.; to Sept. 1, 1961, at 102 p.c.; to Sept. 1, 1965 , at $101 \frac{1}{3}$ p.c.; to Sept. 1, 1968, at 101 p.c.; to Sept. 1, 1971, at $100 \frac{1}{\frac{1}{2}}$ p.c.; and thereafter at 100 p.c. ${ }^{2}$ Redeemable to Sept. 15, 1954, at 1031 $\frac{1}{2}$ p.c.; thereafter to Sept. 15, 1957, at 103 p.c.; to Sept. 15, 1960, at $102 \frac{1}{2}$ p.c.; to Sept. 15,1963 , at 102 p.c.; to Sept. 15,1966 , at $101 \frac{1}{4}$ p.c.; to Sept. 15,1969 , at 101 p.c.; to Sept. 15 , 1972, at 1003 p.c.; and thereafter at 100 p.c.

[^376]:    ${ }^{1}$ Figures exclude Newfoundland and Yukon Territory.

[^377]:    ${ }^{1}$ Excludes bonds assumed by the province.

[^378]:    ${ }^{1}$ Excludes bonds assumed by the Provinces of New Brunswick, Quebec and Ontario.

[^379]:    ${ }^{1}$ Includes $\$ 50,000$ bonds issued by the Provincial Sanatorium Commission.
    ${ }^{2}$ Includes bonds assumed: N.B., $\$ 450,000$; Que., $\$ 415,000$; Ont., $\$ 900,000$.
    ${ }_{3}$ Having
    
    
     Savings Office. 10 Includes $\$ 2,174,000$ sinking funds held by the Hydro Electric Power Commission.
    ${ }^{12}$ Based on population estimated as at June 1, 1953 (see p. 137).

[^380]:    For footnotes, see end of table.

[^381]:    ${ }^{1}$ Excludes current liabilities of schools and liabilities of other local boards and commissions but includes in lieu thereof amounts due by municipalities to such schools and other local authorities; information required to make the necessary eliminations on this account is not available from published reports.

[^382]:    - Prepared in the Research and Development Division, Dominion Bureau of Statistics.
    $\dagger$ DBS publication, National Accounts, Income and Expenditure, by Quarters, 1947-1952, and quarterly reports thereafter.

[^383]:    ${ }^{1}$ Newfoundland included from 1950.

[^384]:    * Prepared in the Balance of Payments Section, International Trade Division, Dominion Bureau of Statistics. A more extended review appears in DBS report, Canada's Internotional Investmen! Position, Selected Years 1986 to 1949; and statistics for more recent years in the reports, The Canadian Balance of International Payments, 1965, and International Investment Position and The Canadian Balance of International Payments in the Post-War $\dot{Y}$ ears (1948-1968).

[^385]:    For footnotes see end of table.

[^386]:    ${ }^{1}$ New series. $\quad 2$ Includes some investments held for residents of other countries.

[^387]:    ${ }^{1}$ Newfoundland included from $1950 . \quad{ }^{2}$ Total profits of all corporations shown here differ from those presented in Table 14 which are used for national income purposes. See text, p. 1183.

[^388]:    1Before the transfer of Bank of Canada profits for the year ending Dec. 31 from "All'other liabilities'* to "Government of Canada deposits".

    The Industrial Development Bank.-The Industrial Development Bank, a subsidiary of the Bank of Canada, was incorporated by Act of Parliament during 1944 and its banking operations commenced on Nov. 1, 1944. Its functions are described in the preamble to the Act as follows:-
    "To promote the economic welfare of Canada by increasing the effectiveness of monetary action through ensuring the availability of credit to industrial enterprises which may reasonably be expected to prove successful if a high level of national income and employment is maintained. by supplementing the activities of other lenders and by providing capital assistance to industry with particular consideration to the financing problems of small enterprises."

[^389]:    ${ }^{1}$ In January 1950, the chartered banks' liability for such of their notes issued for circulation in Canada as then remained outstanding was transferred to the Bank of Canada.

    ## 4.-Annual Averages of Note Circulation in the Hands of the Public, 1944-53

    Norg.-Newfoundland has long used Canadian bank notes so that when that Province united with Canada in 1949 no adjustment was necessary in the circulation figures, but the effect of including the population of Newfoundland from 1949 was to reduce the per capita note circulation by an estimated \$1. Figures for the years 1926-43, comparable to those shown below, are given in the 1946 Year Book, p. 959.

[^390]:    ${ }^{1}$ Estimated aggregate minimum quarterly balances in chartered bank personal savings deposits in Canada plus non-personal notice deposits in Canada.
    ${ }^{2}$ Holdings of all investors, other than the Bank of Canada, chartered banks and Government of Canada accounts. Includes direct and guaranteed securities (including refundable taxes) at par. Direct debt includes both matured and unmatured issues outstanding, exclusive of sinking fund holdings; guaranteed debt is included on the basis of total unmatured issues outstanding; Newfoundland debt assumed by the Government of Canada has been included since June 1949. Foreign pay securities have been valued at official mid-rates of exchange to Sept. 30, 1950, and at market rates thereafter.

[^391]:    ${ }^{1}$ Note circulation excluding notes held by chartered banks together with total coin issued by the Mint, ess coin held by the banks. ${ }^{2}$ Demand and notice deposits, deposits of Provincial Governments, United Kingdom and foreign banks; less 'float' deposits, that is, cheques on banks as shown in month-end returns.

[^392]:    ${ }^{1}$ The Bank of Toronto and the Dominion Bank amalgamated Feb. 1, 1955, to become the TorontoDominion Bank.
    11.-Branches of Individual Canadian Chartered Banks outside Canada, with
    their Locations, as at Dec. 31, 1952 and 1953

[^393]:    For footnotes, see end of table.

[^394]:    ${ }^{1}$ Represents certified cheques, interest accrued on interest-bearing accounts, items in transit, etc.

[^395]:    * Includes St. John's. N'f'ld., in 1953, which was excluded in the 1938 data. Excluding St. John's in 1953, ranking would be: Prairie Provinces, Ontario, Maritime Provinces and Quebec.

[^396]:    1 Total Bank of Canada notes in the possession of the chartered bank together with its deposits with the Bank of Canada, but excluding minor amounts of gold carried in such reserves. ${ }^{2}$ Mercantile Bank of Canada commenced business Dec. 7, 1953; December figures included in computation of totals for the year 1953.

[^397]:    ${ }^{1}$ After January 1950, the chartered banks' liability for such of their notes as then remained outstanding was transferred to the Bank of Canada.
    ${ }^{2}$ Mercantile Bank of Canada commenced business Dec. 7. 1953; December figures included in computation of totals for the year 1953.

[^398]:    - Prepared by J. E. O'Meara, Economics Division, Marketing Service, Department of Agriculture, Ottawa.

[^399]:    ${ }^{1}$ Reporting organizations only.

[^400]:    * The operations of the Foreign Exchange Control Board from the time of its establishment to the termination of exchange control in December 1951 are reviewed in previous editions of the Year Book.

[^401]:    *Revised under the direction of K. R. MacGregor, Superintendent of Insurance, Department of Insurance, Ottawa.

[^402]:    ${ }^{1}$ For footnotes, see end of table.

[^403]:    ${ }^{1}$ Includes companies chartered by the Governments of Nova Scotia, New Brunswick and Manitoba which, by arrangement, are inspected by the Federal Department of Insurance. ${ }^{2}$ Book value of real estate 'for companies' use and other real estate. $\quad$ Includes other assets.

    Sncludes interest due and accrued.
    ${ }^{6}$ Includes other company fund liabilities.
    ${ }^{6}$ For the years $1948-49$ chartered by the Provinces of Ontario and Quebec and for the years 1950-53 chartered by all provinces except Nova Scotia, New Brunswick and Manitoba.

[^404]:    * Further details are given in the Department of Insurance report, Somall Loans Companies and MoneyLenders, for the year ended Dec. 31, 1953.

[^405]:    - Prepared by E. C. Gould, Financial Editor, The Monetar', Times

[^406]:    ${ }^{1}$ Excludes treasury bills, deposit certificates and other financing for a term of less than one year.

[^407]:    ${ }^{1}$ Excludes treasury bills, deposit certificates and other financing for a term of less than one year.

[^408]:    $*$ Material in this Chapter, except as otherwise indicated, has been revised under the direction of K. R. MacGregor, Superintendent of Insurance, Department of Insurance, Ottawa.

[^409]:    ${ }^{1}$ Net premiums received.
    ${ }^{2}$ Net claims paid.
    ${ }^{3}$ Not comparable with 1944 and previous years since this figure indicates "Gross direct written", disregarding all reinsurance, assumed or ceded.

[^410]:    For footnote, see end of table.

[^411]:    ${ }^{1}$ Includes the Yukon and Northwest Territories, also certain 'floater' business that cannot be apportioned to any one province.

[^412]:    ${ }^{1}$ Excludes federal jurisdiction losses, including forests, except for 1942.
    ${ }^{2}$ Includes Newfoundland for 1950 only.

[^413]:    ${ }^{1}$ Based on estimates of population given at p. 137.

[^414]:    ${ }^{1}$ A detailed classification of assets showing investments of Canadian companies and giving the percentage of the total in each group and sub-group will be found in the Report of the Superintendent of Insurance, $V o l$. II. $\quad{ }^{2}$ Book values, any excess of book over market values being covered by a reserve in the liabilities. (Since 1950, the amortised values of certain government securities have been used for this purpose, instead of their market values.)

[^415]:    ${ }^{1}$ Includes business outside Canada

[^416]:    ${ }^{1}$ None reported.

[^417]:    ${ }^{1}$ Sprinkler leakage business of fire companies was grouped with fire business from 1923 to 1940, but has

[^418]:    * Revised under direction of the Deputy Minister, Department of National Defence, Ottawa.

[^419]:    - Following the announcement by the Minister of National Defence on June 21, 1954, concerning the reorganization of the reservee, the Canadian Army Active Force and Reserve Force became known as the Canadian Army (Regular) and the Canadian Army (Militia), respectively.

[^420]:    * Superseded by the Department of Northern Affairs and National Resources in December 1953.
    $\dagger$ Prepared by the Economics and Statistics Branch, Department of Defence Production, Ottawa.

[^421]:    N.S., Que., Ont., B.C.:-Depts. of
    N.B.:-Dept. of Lands and Mines

    Man.:-Dept. of Mines and Natural Resources. Mines Branch
    Sask.:-Dept. of Mineral Resources Alta.:-Dept. of Mines and Minerals

[^422]:    -See Appendix

[^423]:    ${ }^{12}$ Days* stay of newborn excluded.
    ${ }^{13}$ Not all hospitals shown above furnished financial reports. ${ }^{14}$ Federal contribution only. is Three months ended Mar. 31, 1952, under new program. ${ }^{16}$ Includes supplementary benefit payments from 1950 . ${ }^{17}$ Years ended Sept. 30 prior to $1950 ; 1950$ and subsequently, years ended Dec. 31. Statistics for the 3-month period, Oct. 1 to Dec. 31, 1950, are not included in the data shown, the figures being: indictable offences, 7.907; non-indictable offences, 323,441. available.

[^424]:    ${ }^{10}$ On farms only. $\quad{ }^{11}$ Figures for the decennial census years 1881-1921 are for the immediately preceding years. In the Censuses of 1881 and 1891 values only were given of factory butter and cheese; quantities have been calculated by reckoning cheese at 10 cents per lb . and butter at 25 cents per lb .

    12 Data shown for 1949-53 represent cheddar and other cheese made from whole milk; prior to 1942 the figures included other cheese for Quebec only. ${ }^{13}$ Prior to 1921 this item does not include skim milk and buttermilk.
    ${ }^{14}$ Years ended Mar. 31 prior to 1931.

[^425]:    ${ }^{1} 1876 . \quad 21875 . \quad{ }^{2}$ Duplication eliminated.
    of unimproved road allowance not in use in Saskatchewan. sea-going and inland international.
    ${ }^{8}$ Includes Atlantic and Pacific overseas services of Canadian carriers

[^426]:    from 1949. at Jane 30. minimum.

    - Prior to 1941, Temiskaming and Northern Ontario Railway Commission excluded. ${ }^{11}$ Excludes rural lines in Saskatchewan.
    ${ }^{14}$ Average maximum.
    ${ }^{15}$ Estimated on intercensal survey.

[^427]:    their notes as then remained outstanding was transferred to the Bank of Canada.
    6 As at June 30 from 1871 to 1901. Annual averages of month-end figures from 1911. ${ }^{7}$ Includes deposits of Federal and Provincial Governments and also deposits elsewhere than in Canads from 1901.
    81924.

    - 1922. 

[^428]:    ${ }^{1}$ Includes moneylenders.
    2 Included with small loans companies.
    ${ }^{3}$ Compiled from data supplied voluntarily to the Superintendent of Insurance by provincial companies and estimated to cover about 90 p.c. of all provincial business. The figures include all the large and most of the small provincial companies.
    ${ }^{4}$ Excludes
    fraternal insurance.

