## DOMINION BUREAU OF STATISTICS

## DEPARTMENT OF TRADE AND COMMERCE, CANADA

# THE <br> CANADA YEAR BOOK 1952-53 

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


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QUEEN'S PRINTER AND CONTROLLER OF STATIONERY OTTAWA, 1953

## PREFACE

The Canada Year Book, the official annual compendium of information on the economic and social development of the nation, presents extensive statistical material and analytical commentary designed to describe and co-ordinate essential elements in the progress of Canada.

The six-months postponement of the publication of the current edition, resulting in the issue of the Canada Year Book 1952-53 early in 1953, has occasioned considerable revision of the organization of the volume and of its chapter material and permitted the incorporation of certain basic statistics from the 1951 Census. The former chapter on "History and Chronology" has been deleted and the section on "Chronology" transposed to the concluding chapter, while the various subjects formerly dealt with under "Miscellaneous Administration" have been incorporated elsewhere in the volume. For example, "Public Lands" appears in Chapter I and "The Indians and Eskimos" in Chapter III on "Population", while "The Department of the Secretary of State" and "The Civil Service of Canada" are dealt with in Chapter II on "Constitution and Government" This latter chapter has also been augmented by a new feature providing a succinct analysis of the administrative functions of the various Departments of the Federal Government. The chapter, "National Accounts and Related Economic Statistics", has been transposed to the latter part of the volume to consolidate in summary fashion the economic developments depicted in the earlier portion; the "Survey of Production" remains well up in the volume as an introduction to the various chapters portraying Canada's primary and secondary industries. The survey of "Veterans Health and Welfare Services" appears as Part IV of Chapter VI, "Public Health, Welfare and Social Security". Special articles published in former editions of the Canada Year Book are listed in the concluding chapter along with "Sources of Official Information", a "Register of Official Appointments", classified "Federal Legislation, 1951-52" and "Canadian Chronology, 1867-1952"

Basic demographic statistics, compiled from the Ninth Census (1951)—Canada's comprehensive decennial stock-taking, appear in the chapter on "Population", while more detailed analyses of the Census, bearing on population, agriculture and industry, will be developed in the 1954 edition of the Year Book.

Other special features of the current edition include the following articles: "Game Fish in Canada's National Parks" (pp. 34-36); "Canada's External Relations" (pp. 101-124), surveying the nation's growth in international status and its international activities during the years 1950-52; "The Development of Public Health; Welfare and Social Security in Canada" (pp. 224-229); "Report of the Royal Commission on National Development in the Arts, Letters and Sciences" (pp. 342-345); "The National Research Council" (pp. 359-365); "The Pulp and Paper Industry in Canada" (pp. 467-475); "Post-War Expansion in Canada's Mineral Industry" (pp. 476-495); "Canadian Crude Petroleum Situation" (pp. 524-527); "The International Civil Aviation Organization and Canada's Participation Therein" (pp. 820-827); the "Grain Trade-Marketing Problems and Policies, 1949-1952" (pp. 865-869); and "Review of Foreign Trade" (pp. 822-929).

The regular chapter material has been revised considerably and brought up to date, and new statistical data covering two additional years have generally been included. In some caser, new features have been added as, for example, a list of

Canada's Foreign Trade Service representatives abroad (pp. 987-990), a discussion of the new measure of retail prices entitled "The Consumer Price Index" (pp. 10101014) and estimated book value of investments in all petroleum companies (pp. 1088-1089). The statistical detail of Federal Government expenditure, Mar. 31, 1949-1952 (pp. 1033-1034) has been recast; and summaries of current Federal legislation are complete to December 1952: The Appendices at the close of the volume recount legislation pertaining to the Redistribution of Federal Parliamentary Constituencies, 1952, and list the personnel of five Provincial Governments elected to power since mid-summer 1952. The Introduction to the volume serves to highlight the major economic developments of 1951 and 1952.

The co-operation of numerous officials of the various Departments of the Federal and Provincial Governments in the preparation of material for the Year Book is hereby gratefully acknowledged.

The present volume has been produced in the Information Services Division of the Bureau under the Editorship of C. C. Lingard, M.A., Ph.D., assisted by the Year Book Staff. Charts and graphs have been prepared under the direction of J. W. Delisle, Senior Draughtsman of the Bureau.

With a view to the improvement of future editions, the Editor welcomes information bearing on any errors or omissions that may have escaped notice and suggestions respecting methods of treatment.

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Dominion Statistician.
Dominion Bureau of Statistics,
Ottawa, Jan. 29, 1953.

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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.

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


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

## Wheat Flour-

1 barrel equals 196 pounds and approximately 4.5 bushels of wheat are used in the production of a barrel of flour.

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...... .. 1.25
Raspberries " " ......... 1.25
Loganberries " " .......... 1.25

## Relative Weights and Measures, Imperial and United States

The following tables of coefficients may be used to translate amounts expressed in one unit to the other.

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; in all other cases figures are for calendar years.

## INTRODUCTION

## Economic Developments in Canada during 1951 and 1952*

The post-war period up to 1950 was one of sustained activity and continuous growth in the Canadian economy, although toward the end of this period the over-all pressure on productive resources had slackened perceptibly as reflected in general price levels that remained fairly stable.

The even tempo of activity was abruptly interrupted by a chain of international events commencing with the invasion of South Korea in June 1950. The decision of the United Nations to resist this invasion and the policy of the NATO countries to improve their state of military preparedness led to large new demands being placed on the Canadian economy. Adjustment to this new stimulus was the principal influence underlying economic developments in the years 1951 and 1952.

The new demands which emerged were both extensive and varied. There was, first, the greatly expanded direct defence program which, at its height in the ensuing three year period, was expected to absorb close to 10 p.c. of the national product. Increased activity in other Western Nations brought substantially larger requirements for many of Canada's major exports. The changed situation gave new urgency to capital expansion and to the development of natural resources and gave rise, at least temporarily, to an upsurge of consumer purchasing and business inventory accumulation. In other words, the turn of international events had a pronounced stimulating effect throughout the Canadian economy and a major result was the acceleration in the rate of growth in the cconomy, reflected in the levels of capital investment and resource development, immigration and national output.

The sharpest up-turn in output occurred in the period immediately following the outbreak of hostilities in Korea. Within the 12 month period ending in the first quarter of 1951 industrial output increased by 14 p.c. This enhanced level of production was sustained in the ensuing two years. Total physical national output increased by about 5 p.c. in each successive year between 1949 and 1952, compared with an average annual increase of less than one-half this amount for the period 1946-49. It should be noted that in 1951 and again in 1952 the rise in output was, in part, the result of unusually good crops. In 1952, Canada's wheat crop reached $688,000,000$ bushels or $121,000,000$ bushels more than the previous record in 1928.

Increased availability of manpower helped to make possible the growth in national output in recent years. In the two years, 1951 and 1952, a total of 360,000 persons migrated to Canada. This was more than double the average annual rate of inflow from 1946 to 1950. Augmented by a higher net inflow of persons from abroad the Canadian civilian labour force increased by about 73,000 between 1950 and 1951 and by approximately the same number in 1952. Within the civilian sector of the labour force there has been a continuing transfer out of agriculture that accounts in part for the increase in the civilian non-agricultural labour force from $4,116,000$ in 1950 to $4,257,000$ in 1951, and to $4,403,000$ in 1952. With unemployment remaining at low levels, numbers employed have roughly paralleled the changes in the labour force. Numbers on strength in the Armed Services have also been increasing.

[^0]Continuing expansion in capital facilities contributed to the growth in national output. In the last two years, outlays for capital goods accounted for about 22 p.c. of national expenditure. While part of this expenditure was needed to offset the depreciation in the existing stock of capital, a major portion represents a net expansion of productive facilities.

Further examination of the forces operating in the Canadian economy during the past two years is prefaced by a brief review of market trends during the period.

Market Trends in 1951-52.-The acute demand pressures which developed in the latter half of 1950 had reached a peak early in 1951 that can be attributed only to a very limited degree to rearmament and to directly related needs. At this time, programs for expanded defence establishments were still in the preparatory stage and therefore exerted little direct impact on western economies. The boom conditions which developed in this period appear to have reflected the public reactions to new fears of war and to projected rearmament. Consumers and businessmen alike, pre-occupied with sharply rising prices and anticipating shortages, stocked up goods well in excess of current needs. By the first quarter of 1951, retail sales in Canada had reached a level 20 p.c. in value and 10 p.c. in unit volume above the same period a year earlier. Moreover, from mid- 1950 to mid-1951 the value of business inventories increased by about $\$ 1,750,000,000$ or close to 30 p.c. Part of this increase was simply a reflection of higher prices but there was also a substantial rise in the physical volume of goods held. For the year ended mid-1951, higher purchases by consumers and business stock-piling absorbed the major portion of the increase in the supply of goods and services available in the Canadian market, including that originating from higher domestic output and from a larger volume of imports.

During this period, speculative forces were sustained by a continuing deterioration in the international picture. A second wave of precautionary buying had developed late in 1950 following the setback suffered by United Nations Forces in Korea when China entered the conflict. Moreover, as the situation darkened rearmament goals kept rising. It was early in 1951 before the general magnitude of United States rearmament objectives for the next few years became known. In Canada, the defence program of $\$ 1,000,000,000$ annually, contemplated in the autumn of 1950 was raised to $\$ 1,700,000,000$ some months later.

A reaction to these inflated market demands commenced in the second quarter of 1951 . While the change in the market atmosphere was international in character, anti-inflationary measures enacted by the Federal Government contributed to the easing of demand pressures. Some materials and goods remained in tight supply, particularly those needed directly in defence and supporting activity. Nevertheless, it was now becoming apparent that North American defence objectives could be attained without the degree of dislocation in the civilian economy at first envisaged. As a result, public concern over shortages began to disappear and precautionary buying quickly subsided. In so far as many persons had stocked up in anticipation of future needs, particularly in the case of durables and to some extent clothing, there followed a period of slack demand in various consumergoods lines and in some industrial centres of Ontario and Quebec. By the last quarter of 1951 , over-all retail sales in volume terms were running below those of the
previous year. In the case of business inventories, when shortages did not materialize, many firms were caught with excess stocks, a condition which was accentuated by the falling off in consumer demand and, in many lines, building up of stocks gave way quickly to liquidation.

There was, however, no general decline in activity. A growing volume of requirements for defence, for investment and for exports were important supporting factors in the economy. At the beginning of 1952, over-all production and employment levels were about the same as of the previous year. Nevertheless, 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.

The approximately even balance of market forces prevailing at this time continued well into 1952. However, by the middle of the year a considerable strengthening in consumer demand had taken place. The removal, early in 1952, of the special excise taxes on durables and the suspension of consumer credit regulations gave a spurt to hard goods purchasing. In addition, average personal income, in real terms, was rising significantly. Prices having roughly stabilized, consumers appeared to be showing less resistance to prevailing prices 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 pick-up in consumer demand continued throughout the second half of 1952 but was not such as to cause a resurgence of inflationary pressure. However, it did help to eliminate some of the soft spots that had previously existed and it also contributed toward some firming in over-all activity. Thus, in the second half of 1952, national production and employment levels experienced significant gains. Unemployment, throughout most of 1952 had run above the 1951 level.

Price trends throughout the two-year period reflected, in general, the changing pressures in the market but there were wide variations in the movements of prices of particular commodity groups. The inflationary influences of the post-Korean boom period had their greatest effect on internationally traded commodities. The most pronounced increases occurred in the non-dollar commodities such as rubber, tin, wool and various tropical foods, some of which more than doubled in price over the course of a six to 12 month period. The increases seemed attributable more to influences emanating from the acute international uncertainties of the time and the fear of all-out war than to the more modest needs likely to arise in a period of rearmament. Consequently, once the international situation began to stabilize and speculative forces began to subside, prices of these same commodities fell sharply. In some instances prices receded to, or below, levels prevailing in June 1950 and, subsequently, have fluctuated within a range well below the previous high points. On the other hand, prices of commodities important to Canada's export trade such as grain, wood-products, base metals and other minerals, while initially experiencing less spectacular though substantial gains, have subsequently shown less tendency to decline.

The divergence in price movements between prices of commodities important in foreign trade resulted in considerable fluctuation in Canada's terms of trade. For the year ended June 1951, import prices rose by 19 p.c. compared with a 13 p.c. rise for exports. For the subsequent 15 month period, the import index declined by 18 p.c., whereas export prices declined by only 4 p.c. Consequently, for the entire period from mid-1950 to the end of 1952 the change in the terms of trade has been significantly in Canada's favour.

General price levels in the domestic market during this period were strongly influenced by prices of international commodities but, in addition, have reflected influences originating internally. Wholesale prices showed particular sensitivity to the demand pressures of the early post-Korean period and, in the 9 months ending in March 1951, rose by 14 p.c. However, in the second quarter of 1951 the wholesale index levelled off and, after mid-1951, maintained a fairly continuous decline from a peak of 244 in July of 1951 to 221 in October 1952. On the other hand, the cost-of-living index continued upward until near the end of 1951 when it reached a position 14 p.c. above July 1950. During 1952, the consumer price level declined slightly, the index showing a 2 p.c. reduction between the beginning and end of that year.

As previously indicated, market conditions were fairly firm during 1952 and many industrial sectors experienced firm to rising price trends. Influences largely responsible for the declining trend in over-all prices included the pronounced reduction in import prices, the softening in markets for a number of Canada's agricultural products and the appreciation in the foreign-exchange value of the Canadian dollar.

Government Measures in the Defence Economy.-The demand upsurge which followed the War in Korea gave rise to two major problems on the economic front. The first was the necessary assurance of sufficient resources to carry out Canada's new defence objectives. The second was the containing of inflationary pressures and the maintenance of the maximum degree of stability consistent with the achievement of these objectives.

Measures to Assist Directly the Defence Program.-Even as Canada's rearmament objectives were taking shape it became apparent that, at least temporarily, strong competing demands would exist for many of the materials and resources needed for defence production. Thus, for the defence program to proceed without hindrance some form of prior claim on scarce resources became necessary. Legislation was enacted under which it was possible to ensure that the essential requirements of defence and defence-supporting activities would be met.

Direct controls brought into effect measures regulating the distribution of materials essential for defence. They were few in number and were applied mainly at the primary level. In only a few instances were restrictions placed on the final use of materials, the one notable case being the use of steel for less essential forms of construction (places of amusement, stores, hotels, banks, restaurants, etc.) which were subject to regulation from the autumn of 1950 to the end of 1952.

Materials designated as 'essential' and thereby subject to specific control included certain forms of iron and steel, certain forms of non-ferrous metals and non-metallic minerals, wood-pulp and newsprint, and certain chemicals and chemical compounds. With the easing of supply positions, a number of these materials were removed from the 'designated' list during 1952.

In the case of steel supplies the policy has been to effect the diversion of necessary supplies to defence purposes at the mill, warehousing or fabricating levels. Wood-pulp and newsprint were, for a time, subject to control primarily to facilitate the diversion of relatively small quantities to fill urgent European needs. In the case of all other 'essential' materials, control has been exercised through an "order approval system" involving the screening of orders placed by manufacturers with the primary processor.

In addition to procedures affecting the foregoing designated materials, provision was also made for the exercise of control as necessary over all items required in the defence effort. However, to a very large extent the desired objectives have been achieved through informal arrangement with a minimum resort to formal control orders.

Measures designed to facilitate the placement of necessary plants and other defence facilities included provision for capital assistance, special capital cost allowances or accelerated depreciation.

With respect to commodities imported from the United States, in accordance with the "Statement of Economic Principles", Canada has participated fully in both the United States Controlled Materials Plan and the United States priority regulations. Similarly, United States defence requirements in Canada have been dealt with in the same manner as Canada's own defence requirements.

In addition to regulations affecting the internal distribution of specific commodities it was found necessary to apply certain controls in the foreign trade field. Export controls were used in the case of a few commodities to protect essential domestic supplies and also as a means of controlling the destination of strategically important materials. In the case of imports, certain iron and steel items were placed under control to assist in their allocation under the priorities system and sulphur was placed under regulation to facilitate conformity with the International Materials Conference Allocation Scheme.

Measures to Restrain Inflationary Forces.-In the earlier boom phase following the outbreak of the Korean War, one objective of Government policy was the scaling down of excessive demands to a level commensurate with the productive resources available in the country.

The core of this anti-inflationary approach was the Federal Government's strict pay-as-you-go policy for the financing of the defence program. The aim was to insure that each dollar expended on defence would be counter-balanced by the withdrawal of a corresponding amount of purchasing power from private funds that would otherwise have been available for other forms of spending. In this way civilian demand was replaced by defence demand and production for civilian use by production for defence. The Federal Budgets of September 1950 and April 1951 made provision for additional revenue principally through increases in individual and corporation income-tax rates and also through the levy of special commodity taxes on cars, various household durable goods, soft drinks and tobacco products. These special levies were removed subsequently in the Budget of April 1952. In the circumstances of excessive demand which prevailed at the height of the post-Korean boom, further supplementary measures were adopted to help bring about a more even balance between demand and supply.

To assist the necessary transfer of resources to defence and to curb consumer demands, regulation of instalment buying and consumer credit was introduced in October 1950 and these regulations were tightened on subsequent occasions. To ease the pressure of demand for investment goods, a new fiscal measure was introduced in the Budget of April 1951. This measure provided that no depreciation could be charged for a period of four years on capital assets acquired after Apr. 10, 1951, excepting projects considered by the Government as essential to present national needs. Also, as a means to discourage demands for new construction, credit provisions under the National Housing Act were tightened in February

1951, one of the principal changes being to increase the size of down payments required on loans financed under the Act. In January 1951, reduction was made in the period of credit allowed on loans under the Farm Improvements Loans Act. Of more general application as an anti-inflationary measure was the undertaking by the Chartered Banks, in February 1951, to implement proposals of the Bank of Canada designed to prevent further increase in the over-all volume of bank credit. This served to counteract demand pressures at what was probably their focal point by curtailing credit for non-essential purposes and by restricting the volume of funds available for capital expansion and for the building of inventories.

The implementation of anti-inflationary measures in Canada, and like-intended programs in other countries, appeared roughly to coincide with the underlying change in the market atmosphere. Both these sets of influences contributed to the subsequent easing of demand pressures which, as previously indicated, were absent from the economy since the latter part of 1951.

With the achievement of more stable conditions in the economy these supplementary anti-inflationary measures were gradually rescinded. Following the softening in the consumer market and the sharp decline in durable goods' sales in the latter part of 1951, consumer credit regulations were relaxed in January 1952 and were suspended in their entirety in the April Budget. In May 1952, the special policies of bank credit restraint, which had been in effect since February 1951, were suspended except for the requirement of a margin of at least 50 p.e. for bank loans to carry corporate stock. In October 1951, a measure of liberalization in credit provision under the Housing Act was implemented and further measures were made effective in December 1951 and in October 1952. The deferred depreciation measure ceased to be applicable on capital goods acquired after Dec. 31, 1952.

Industry Conditions.-During 1951 and 1952, conditions in Canadian industries reflected the changing pattern of demands which has been described. The general upswing in demand commencing in the last half of 1950 and extending into 1951 was felt in virtually all segments of Canadian industry. During this period production levels in all major industry groups increased.

In the ensuing two year period, requirements for defence, for export and for capital investment kept rising and output in industries primarily dependent on these markets continued to increase. Generally speaking, this included defence industries such as aircraft and shipbuilding, metal mining and processing, wood products, other raw material industries, construction, heavy manufacturing industries and dependent service industries, although even in these groups, periods of softness were experienced in certain segments, as for example, in wood-pulp plants during 1952.

On the other hand, the falling off in the demand for various types of consumer goods commenced in the second quarter of 1951 and brought a pronounced decline in activity in related industries. This decline was accentuated as a result of the extensive accumulation of inventories which had previously taken place in anticipation of future shortages. Thus, by the third and fourth quarters of 1951, output of a number of the major consumer durable items had fallen to less than one-half their early year levels. The clothing and textile industries also underwent a sharp decline in activity. In the case of this industry group, the market recession was world-wide in character. Thus, in addition to a falling off in market demand, Canadian producers were also faced with increased competition from abroad. By
the first quarter of 1952 , production of clothing was 15 p.c. below the level of the same period in 1951. In other textiles a year-to-year comparison in the second quarter showed a 30 p.c. drop.

Throughout 1952, influences contributing to a strengthening of demand for consumer goods included the continuing increase in money incomes, a moderate decline in the consumer price level, the suspension of consumer credit regulations and the removal of the special commodity taxes in the April Budget. As consumer purchasing increased, excessive inventories were gradually adjusted and by the latter part of 1952 production in consumer goods industries had increased substantially above the depressed levels of the previous period. By the last quarter of 1952 , activity appeared to be at a generally high level throughout all segments of Canadian industry except perhaps in logging where the current season's cut was expected to be considerably below that of 1951.

During the 1951-52 period, Canadian agriculture was subject to unusually divergent influences. In 1951, western grain producers obtained much better than average yields but owing to unusually bad weather conditions much of the grain was of low grade and a large portion of the crop was not harvested until the next spring. This was followed by the new record crop of 1952. Throughout these two years overseas demand for Canadian wheat and other grain remained strong owing, in part, to poor crops in other important export countries. In addition, large amounts of feed grain were marketed in the United States. Transportation and handling facilities were not adequate to move the huge export surpluses on hand and this constituted the principal limiting factor to the volume of export sales. As a result there was a substantial increase in grain stocks in Canada.

Meanwhile, Canada's live-stock industry suffered a major setback with the outbreak of foot-and-mouth disease, in Saskatchewan, in February 1952. This brought an automatic closing of the United States border to all Canadian live stock and related products, involving the loss of a market which, in recent years, had absorbed up to 20 p.c. of Canada's cattle and beef production. At the same time, hog marketings increased greatly, resulting in a substantial surplus of meat in Canada during 1952. The beef surplus was, to some extent, alleviated by an arrangement whereby the United Kingdom bought Canadian beef in place of the New Zealand product which, in turn, was sold in the United States market. By the end of 1952 , about $65,000,000 \mathrm{lb}$. of beef had been shipped to the United Kingdom under this arrangement. To assist the Canadian industry over this difficult period, the Agricultural Prices Support Board provided support to both pork and beef by purchasing surplus supplies at designated prices and it was announced that support for beef prices would continue until the United States embargo against Canadian live stock was lifted.

Mainly as a result of the good crops in 1951, Canadian farm income rose by 32 p.c. over that of the previous year. In 1952, the rise in crop production was more than offset by lower prices for agricultural products and increased operating costs and it was estimated that farm income in 1952, though remaining well above the 1950 level, would be a little below that realized in 1951.

The Defence Program.-The building up and equipping of Canada's Armed Services, together with the provision of a considerable volume of equipment for other NATO countries, were among the principal new demands on the country's resources during 1951 and 1952. Actual outlays for direct defence purposes increased from $\$ 493,000,000$ in 1950 to three to four times this amount in 1952. Such outlays
comprised about 2.75 p.c. of the gross national product in 1950 and about 8 p.c. in 1952. Of the total expenditure for the period roughly 33 p.c. was required for military pay and allowances and for administrative and service expenses, the remainder going for procurement of equipment and supplies and for construction.

The build-up of the program, of necessity, took time, for many types of equipment deliveries had to await the perfecting of new designs, tooling up and, in some cases, the erection of new plants. Thus, the year 1951 was primarily one of preparation, of designing and constructing plant and equipment, of determining types of military goods to be produced, of undertaking development work and of placing some of the more important contracts. Government measures enacted to facilitate the creation of the necessary capacity and to ensure availability of required materials have been referred to at pp. xiv-xvi. Meanwhile, the purchasing of various items requiring no special facilities proceeded.

During 1952, many specialized facilities were completed and the production' commenced of various more complicated items. An outstanding example is the plant making Orenda jet engines, which was opened in September 1952. Rapid progress is being made in setting up capacity for producing such Orenda components as fuel systems, combustion chambers, light metal castings, and turbine blading. In shipbuilding, Canada is able to produce the propulsion machinery for its own escort vessels. Under the weapons program, new facilities were created for the manufacture of various U.S.-type equipments. In the electronics field also, Canada is keeping abreast of the rapidly changing situation, and now possesses capacity to turn out such items as walkie-talkies, gunfire control equipment, and subminiature tubes.

The major impact of defence purchasing has been concentrated in but few industries. Of total procurement outlays for 1952, aircraft accounted for 27 p.c., construction 22 p.c., shipbuilding 8 p.c., clothing and other textiles 10 p.c. and electronics, weapons, automotive equipment, ammunition and explosives taken together totalled 22 p.c. As the program progresses, major equipment items such as aircraft, ships, guns, ammunition and electronics will comprise an increasing proportion of total procurement.

The influence exerted by defence purchasing on Canada's balance of payments position altered significantly during the years 1951 and 1952. This, of course, excludes the United States content of orders filled by private contractors. The value of Canadian Government defence orders placed in the United States in 1951 was nearly two and a half times as large as United States orders placed in this country. The position was, however, greatly altered in 1952 and the totals for the two years were not far from being equal. This development took place for several reasons: the United States was becoming increasingly aware of Canadian facilities, while Canada was able to depend more fully upon its own sources of supply and, in some cases, to reduce or cancel orders already placed in the United States. During 1951, in particular, the United States was the only available source for U.S.-type equipment but with Canada's increasing capacity to supply its own needs the decision was made to use the Orenda engine produced by A. V. Roe (Canada) Limited to replace the U.S.-J 47 in the F-86E fighters.

Considering the impact of the defence program on the economy as a whole, it is apparent that expanding defence requirements absorbed a major portion of the increase in national output in the two years under review. Nevertheless,
it is of significance that in 1952 there was an increase in the volume of exports and in capital investment and a slight improvement in per capita consumption. The outstanding feature of the defence program is in its specialized technical aspects rather than in its requirements of manpower, materials and productive capacity in the more general sense.

Foreign Trade.-Events which followed the outbreak of the conflict in Korea had a pronounced stimulating effect on Canada's trade with other countries. A major portion of the new stimulus to activity in the Canadian economy had its origin in the foreign market. Rising production levels in other countries meant larger requirements of many raw and processed materials for which Canada is an important and economic source of supply. The accompanying rise in activity and in the demand for goods in Canada resulted, in turn, in a heavier flow of imports. Nevertheless, the respective trends of exports and imports followed a somewhat different course in the period since 1950.

In response to urgent demands from abroad, Canadian exports rose steadily during 1951 with availability of supply being the main limiting factor to the volume shipped. The value of merchandise exports in 1951 reached $\$ 3,963,000,000,26$ p.c. above the 1950 figure. Higher prices and more unit volume contributed about equally to this rise. In 1952 the general pressure of demand for raw materials slackened somewhat as evidenced by the levelling and, in some instances, decline in prices but the foreign market continued to absorb virtually all the available supply of important export items. Thus, sales abroad continued to mount and for the full year the value of exports showed an increase of 10 p.c. over the same period in 1951. With average prices being unchanged, the physical volume of shipments also rose by 11 p.c. or approximately at the same rate of increase realized in the preceding year.

Throughout the two-year period under review larger shipments of grain, metals and wood products made up nearly all the increase in the total value of exports. Commencing in the latter months of 1951 and continuing through 1952, exports of automotive products increased sharply, particularly to Latin-American countries, and by the end of 1952 , shipments of defence equipment to the United States were of increased importance.

The 1950-51 boom brought a much quicker expansion in imports than in exports. For one thing supply limitations did not exert the same restrictive effects. In the United States, by far the largest source of supply, soaring production levels had in many fields kept pace with market demands. Even in instances where supplies remained tight, as in the case of steel, Canadian purchases increased markedly. The removal of all the remaining emergency exchange import controls on Jan. 1, 1951, also contributed to the overflow of Canadian demand into the United States market. Thus, in the first six months of 1951, Canadian purchases abroad were 45 p.c. above the corresponding period of 1950 . However, in the third quarter of the year the scramble after goods in the foreign market began to subside. For the year 1951 the value of merchandise imports stood at $\$ 4,085,000,000,29$ p.c. above the 1950 level ( 13 p.c. higher in terms of unit volume).

The easing in purchasing from abroad, which commenced in the latter half of 1951, continued well into 1952 and reflected the over-building of inventories during the earlier buying splurge and also the decline in demand pressures in Canada. However, following the firming in the domestic market, import levels again started
to move upward in the latter months of the year. For 1952, the value of imports was 1 p.c. below that of 1951. However, for the same period, average prices of imported goods were 12 p.c. lower so that, in unit volume terms, foreign buying was again significantly higher.

Because of the sharper rise in imports than in exports during the 1950-51 boom period, in the calendar year 1951 a deficit on Canada's merchandise trade account was encountered for the first time in many years. Adding an increased deficit on non-merchandise items there was an over-all deficit on current international account of $\$ 524,000,000$. However, in 1952 , the continued increase in the value of exports and the decline in imports realized a sizable balance on merchandise account sufficient to offset, approximately, the continuing deficit on invisible items. As a result of the rising trend of imports late in 1952 this favourable trend in the current account position appeared to have been reversed at least temporarily.

Meanwhile, the international capital position was also changing. The net inflow of capital into Canada which had reached the record amount of more than $\$ 1,000,000,000$ in 1950 declined to little more than 50 p.c. of this figure in 1951 which was, nevertheless, roughly sufficient to offset the deficit on current account. However, for 1952, the considerable volume of investment funds still moving into Canada were more than counter-balanced by funds moving out.

The foregoing changes in current and capital account were accompanied during most of the period by an appreciation in the foreign exchange value of the Canadian dollar, which rose from a discount of more than 6 p.c. on the American dollar in June 1951 to a premium of more than 4 p.c. in September 1952.

During the two year period under review, Canada's pattern of trade, areawise, gradually moved away from the more evenly balanced position with major trading areas which had existed in 1950. The decline in the over-all merchandise balance in 1951 was associated with an even larger increase in the deficit with the United States (a $\$ 479,000,000$ deficit in 1951 compared with $\$ 80,000,000$ in 1950). On the other hand, the surplus with the Sterling Area rose. British purchases from Canada were considerably higher (particularly lumber and metals), whereas strong competing demands for United Kingdom products, coupled with a softening in the Canadian market for various consumer goods, particularly automobiles, tended to limit British sales to this country. In 1952, Canada's merchandise position with the United States remained about the same as in 1951; however, the surplus in trade continued to grow with the Sterling Area and with other non-dollar countries. In 1952 exports to countries, other than to the United States and the Sterling Area, increased by 33 p.c. over 1951, whereas in the same period imports from these countries decreased by 7 p.c.

The rise in exports to sterling countries in 1951-52 was realized notwithstanding a new exchange crisis encountered by the Sterling Area. The closing months of 1952 saw a major improvement in the foreign balance position of the Sterling Area and the measures taken further to restrict purchasing from dollar areas were beginning to reflect themselves in Canadian export figures. Throughout the period a collective approach to mutual problems of Commonwealth trade was taken by such means as the semi-annual meetings of the United Kingdom-Canada Continuing Committee on Trade and Economic Affairs, the meetings of the Commonwealth Finance Ministers, in January 1952, and the Commonwealth Economic Conference in November of the same year.

Canada took part in the large scale tariff negotiations under the General Agreement on Tariffs and Trade held at Torquay, England from September 1950 to April 1951 and also in the meetings held at Geneva in the autumn of 1951 and again in October 1952. Through its role in this and other international organizations and also in its relations with other countries, Canada's efforts were directed toward the removal of barriers to the free movement of goods and toward the achievement of a sound and dynamic pattern of world trade.

Capital Expenditure and Resources Development.-A notable feature of the post-war Canadian economy has been the large volume of capital expenditure on durable physical assets, such as manufacturing establishments and office buildings, machinery and equipment, schools and roads and residential housing. Private and public investment amounted to $\$ 4,581,000,000$ in 1951 and was estimated at $\$ 5,181,000,000$ for 1952 . Of these totals, capital expenditure by federal, provincial and municipal governments amounted to $\$ 774,000,000$ in 1951 and to $\$ 957,000,000$ in 1952. In physical terms investment rose 9 p.c. in 1951 and 10 p.c. in 1952. Over the two year period, new construction accounted for 58 p.c. of total investment and machinery and equipment accounted for the remainder.

This represented about as large a volume of investment as the economy was capable of supporting under the conditions existing in 1951 and 1952. In physical size it was the largest on record. In terms of percentage of the gross national product which it represented, the investment program of 1929 was larger but the wave of investment which reached its peak in 1929 occurred at a time when there was no large rearmament program in progress and when general demand for goods and services was exerting less strain upon the economy than in recent years.

Investment in capital goods plays a vital role in maintaining and increasing the productive efficiency and capacity of the nation. In recent years about 50 p.c. of all capital expenditure has been required to offset depreciation and obsolescence. Large capital expenditure has been required to maintain employment and efficiency in the face of constantly changing patterns of domestic and international trade. With population rising, heavy capital expenditure has been required to utilize new manpower becoming available and to provide for the growing need for public works, services and housing. An indication of the rate at which Canada's productive potential has been increasing is provided by statistics on the rise in the nation's output of goods and services over a period of years. From 1947 through 1952, Canada's capital expenditure was high, its productive capacity was almost fully employed, and the gross national product, in real terms, rose by an average of about 5 p.c. per annum.

Composition of the Investment Program.-The investment programs of 1951 and 1952 were marked by the very large shifts which took place in their composition. This can be seen by recalling the conditions of 1950 . In that year, while the volume of investment was very high, it was only slightly above the previous year; most of the post-war shortages of labour and materials had been relieved; resources development, as reflected by the rapidly rising capital expenditure on utilities and mining, was assuming greater importance. On the other hand, the post-war wave of expansion in light and in heavy manufacturing was subsiding and investment in these sectors declined for the second successive year. Expansion in housing, trade, finance and commercial services, retarded by the War and by post-war shortages, was proceeding rapidly. Government capital expenditure was rising only moderately and was marked by emphasis upon non-defence projects, such as roads.

This situation was changed radically over the two years following, mainly as a result of the outbreak of hostilities in Korea. Western rearmament created heavy additional demands for many of the raw and processed materials produced in Canada and placed new urgency on the development of resources and expansion of processing facilities. Moreover, Canada's own rearmament program, besides involving the construction of military installations, called for the production of a wide variety of military supplies on a scale which, in some cases, exceeded existing plant capacity, thereby calling for large capital expenditure.

Under these additional stimuli, capital expenditure on resources development continued to rise in 1951 and 1952, while that on light manufacturing continued to fall. The rate of government investment was accelerated and the declining trend of investment in heavy manufacturing was sharply reversed. Investment declined in housing and services not immediately essential for defence. The magnitude of these changes from 1950 to 1952 are reflected in the following figures, all reduced to constant 1950 dollars.

Capital expenditure by the Federal Government departments increased from $\$ 127,000,000$ in 1950 to $\$ 320,000,000$ in 1952, a rise of 152 p.c.; that by heavy manufacturing industries rose 145 p.c. from $\$ 262,000,000$ to $\$ 642,000,000$; that for mining, quarrying and oil wells rose 47 p.c. from $\$ 119,000,000$ to $\$ 175,000,000$; and that by utilities rose 42 p.c. from $\$ 720,000,000$ to $\$ 1,025,000,000$. On the other hand, capital expenditure for trade, finance, commercial services and institutional services fell 16 p.c. from $\$ 605,000,000$ in 1950 to $\$ 505,000,000$ in 1952 ; that of light manufacturing fell 12 p.c. from $\$ 179,000,000$ to $\$ 159,000,000$; and that for housing fell 15 p.c. from $\$ 845,000,000$ to $\$ 710,000,000$.

These shifts in the pattern of investment were facilitated by various measures (referred to at pp.xiv-xvi), designed to discourage less essential work and to ensure the availability of resources for projects of importance in Canada's preparedness program.

Housing.-As indicated before, the volume of residential construction declined considerably during the period under review but was again increasing by the latter half of 1952. Completions dropped from 92,000 dwellings and conversions in 1950 to 85,000 in 1951 and to an estimated 70,000 in 1952. The decline in house building activity first became evident in June 1951, when the rate of housing starts fell below that of the same month of the previous year. The rate of starts remained relatively low until a year later when, in June 1952, it rose to a point only slightly below that of June 1950. While starts in the last half of 1952 were well above the last half of 1951, this increase came too late to be fully reflected in the number of completions in 1952.

Various factors contributed to these changes in the volume of house building including the changing circumstances with respect to the supply of mortgage funds, availability of serviced land, building costs and public attitude concerning the future availability of materials. About two out of every five houses started in recent years have been constructed with financial assistance of some kind from the Federal Government, mainly under the National Housing Act, so that changes in governmental policy had a bearing on the level of house building activity. As a part of the Government's policy to preserve national and manpower resources for essential defence purposes, regulations were introduced early in 1951 which had the effect of increasing down payments on homes financed under the National Housing Act. Beginning in June 1951, it became apparent that the economy could support
a higher level of house building activity and the Government adopted a series of measures to encourage residential construction. The statutory interest rate on mortgages coming under the National Housing Act was raised, additional credit arrangements for the construction of rental projects were provided for, and the maximum size of mortgage permitted on homes for home ownership was increased.

Review of Current Expansion.-The significance of the investment programs of 1951 and 1952 can be further illustrated by a review of how some of the more important projects under way contributed to Canada's productive capacity and to the opening up of hitherto undeveloped areas.

The development of Canada's mineral resources proceeded on a broad front. The petroleum industry continued its rapid development originating in the discovery of new oil fields in Alberta in 1947 and 1948. Daily output of crude petroleum rose from $23,000 \mathrm{bbl}$. in 1945 to $80,000 \mathrm{bbl}$. in 1950 and to $160,000 \mathrm{bbl}$. in 1952. Rapid strides were made in the creation of facilities required to bring Ontario, British Columbia and parts of the United States within marketing range. In December 1950, the first crude oil reached the head of the Great Lakes via the new Interprovincial pipeline and, subsequently, a new fleet of tankers was built to forward the oil to Sarnia, Ont. In 1952, construction was begun on the Transmountain pipeline which will carry Alberta oil to the West Coast. As a result of these and other developments in the marketing and refining of petroleum, about 33 p.c. of Canada's requirements were being met from domestic sources at the end of 1952 compared with 20 p.c. in 1950.

Output of iron ore rose from $3,400,000$ tons in 1950 to $5,500,000$ tons in 1952 owing mainly to expansion projects in Ontario and Newfoundland. Of even greater potential importance are deposits being opened up on the Labrador-Quebec border. This latter project, involving construction of a 360 -mile railroad south to the Gulf of St. Lawrence, is expected to yield $10,000,000$ tons or more of high grade ore a year and to raise Canada to the rank of a major net exporter.

Numerous discoveries of ore bodies and strong markets combined to make 1951 and 1952 years of significant expansion in a wide range of other minerals. The deposit of titanium bearing ilmenite at Allard Lake in the Province of Quebec was opened up and a refinery was erected at Sorel, Que.; this is probably the largest known deposit of ilmenite and its development has made Canada a major producer. Zinc mining and refining projects under way or recently completed in British Columbia, Manitoba, Quebec and Nova Scotia will increase potential output by about 85,000 tons over 1950. A large new nickel-copper-cobalt mine was being opened up at Lynn Lake, Man.; this project involves construction of a 155 -mile railway and erection of a refinery at Fort Saskatchewan, Alta. In addition, a large number of important developments took place which added to productive capacity in asbestos, uranium, tungsten, cobalt and other minerals.

The expansion of the nation's production potential hinges, to some extent, on the availability of large supplies of low cost hydro-electric power. In 1951, installed capacity of electric generating stations was increased by $881,000 \mathrm{~h} . \mathrm{p}$. to a total of $13,343,000 \mathrm{~h} . \mathrm{p}$. New plants and extensions to existing stations under construction in 1952 were expected to bring total installed capacity to over $15,000,000 \mathrm{~h} . \mathrm{p}$. by the end of 1953.

Part of the new power capacity being installed was in direct conjunction with expansion in the refining of aluminum and other base metals. Two major aluminum refining projects were under way. The largest of these is located at Kitimat, a hitherto undeveloped area of British Columbia, and will be capable of an output of 90,000 tons of aluminum when the first stage of the project is completed. This, together with a project under way in the Province of Quebec will add 35 p.c. to Canada's aluminum refining capacity.

One of the most important developments in heavy manufacturing was the major expansion program undertaken by the primary iron and steel making industry which was scheduled for completion by the end of 1953 . Pig iron capacity was being raised by 35 p.c. and steel making capacity by 25 p.c. In conjunction with this program, commensurate additions were being made to Canada's steel rolling mill capacity.

A number of other important developments in heavy manufacturing involved the processing of Canada's forest and mineral resources and the production of goods required for defence. Large plants were under construction in Alberta and Ontario to produce a wide variety of chemicals and synthetic fibres from products of petroleum and wood. Plants were being erected to recover sulphur from natural gas, smelter fumes and iron pyrites. A large new pulp and paper mill was completed in British Columbia during 1952, and a number of existing ones were expanded.

Of the developments in manufacturing directly related to defence, the most notable was the expansion of Canada's aircraft industry to produce jet fighter aircraft and jet engines. This involved not only capital expenditure on aircraft and engine plants but also the construction or adaptation of facilities by numerous concerns to produce a wide range of complex component parts, the manufacture of which called for a high degree of precision. Electronic equipment for the defence program necessitated significant expansion in the heavy electrical industry. Shipyards, gun and explosive plants were also expanded.

The foregoing description gives a broad indication of the new productive capacity being created in the Canadian economy. It depicts forcibly that 1951 and 1952 have been years of exceptional activity and basic industrial growth. International events of this period have placed new emphasis on Canada's importance as a source of supply in the Western world. The growth thus stimulated has been concentrated in the building up of new capacity for the production of raw and processed materials. In addition, however, the production of highly complicated products has been embarked upon. This expansion has contributed to the greater diversification of Canadian industry and will undoubtedly provide renewed impetus to development in secondary and service industries in the years ahead.

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA, 1871-1951

Note.-In the following summary, the statistics of fisheries (1871-1911), 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 1906; subsequently to years ended Mar. 31, except in the case of trade, where, as indicated by footnotes, calendar-year figures are given for certain later years. Agriculture, dairying, fisheries (from 1931), mineral, manufacturing, banking, insurance, loan and trust companies, construction, roadtransportation, vital, hospital, and immigration statistics relate to the calendar years, and railway statistics to the years ended June 30, 1871-1911, and to the calendar years 1921-51. 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

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


[^1]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued
Nors.-The inter pretation of the symbols used in the tables will be found facing $p .1$ of this volume.

| 1921 | 1931 | 1939 | 1941 | 1843 | 1949 | 1950 | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 345,000 ${ }^{1}$ |  |  |  |
| $\cdots 88,615$ | 88,038 | 94,000 | 95,047 | $\cdots 1,000^{1}$ | 94,000 ${ }^{1}$ | 351,0001 | 361,416 98,429 | 1 |
| 523,837 | 512.846 | 561,000 | 577,962 | 606,0001 | 629,0001 | $638,000{ }^{1}$ | 642,584 | 3 |
| 387,876 | 408,219 | 447,000 | 457,401 | $463,000^{1}$ | $508,000^{1}$ | $512,000^{1}$ | 515,697 | 4 |
| 2,360,510 | 2,874.662 | 3,230,000 | 3,331,882 | 3,457,0001 | 3,882,000 ${ }^{1}$ | 3,969,000 ${ }^{1}$ | 4,055,681 | 5 |
| 2,933,662 | 3,431,683 | 3,708.000 | 3,787,655 | 3,915,0001 | 4,378,0001 | 4,471,0001 | 4,597,542 | 6 |
| 610,118 | 700,139 | 726,000 | 729,744 | $723,000{ }^{1}$ | $757,00{ }^{1}$ | $768,000^{1}$ | 776,541 | 7 |
| 757,510 | 921,785 | 906.000 | 895.992 | $838,000{ }^{1}$ | $832,000{ }^{1}$ | $833,00{ }^{1}$ | 831,728 | 8 |
| 588,454 | 731,605 | 786.000 | 796.169 | $785,000^{1}$ | $885,000^{1}$ | $913,000^{1}$ | 939,501 | 9 |
| 524,582 | 694.263 | 792.000 | 817,861 | $900,000^{1}$ | 1,113,000 ${ }^{1}$ | 1,137,000 ${ }^{1}$ | 1,165,210 | 10 |
| 4,157 | 4.230 | 5.000 | $\begin{array}{r}4,914 \\ \hline 12\end{array}$ | 5,000 ${ }^{1}$ | 8,000 ${ }^{1}$ | 8,0001 | 9,096 | 11 |
| 8,143 | 9,316 | 12.000 | 12,028 | 12,000 ${ }^{1}$ | 16,0001 | 16,000 ${ }^{1}$ | 16,004 | 12 |
| 8,787,949 | 10,376,786 | 11,267,000 | 11,506,655 | 11,795,000 ${ }^{1}$ | 13,447,000 ${ }^{1}$ | 13,712,0001 | 14,009,429 |  |
| 1,897,110 | 2,275,171 | . | 2,706, 089 | . |  | . | $3,420,822^{3}$ | 13 |
| 43,772 | 7,678 | 3,011 | 435 | 1,116 | 20,737 | 12,669 | 31,559 | 14 |
| 23,888 | 15,195 | 5,654 | 6,594 | 4,401 | 7,756 | 7,821 | 7,755 | 15 |
| 24,068 | 4,657 | 8,329 | 2,300 | 2,987 | 66,724 | 53,322 | 155,077 | 16 |
| 91,728 | 27,530 | 16,994 | 9,329 | 8,504 | 95,217 | 73,912 | 194,391 |  |
| $\cdots$ | 240,473 | 229,468 | 255, 224 | 283,423 | 366,139 | 371,071 | . | 17 |
| . | 23.2 | 20.4 | $22 \cdot 2$ | $24 \cdot 0$ | 27-1 | $27 \cdot 1$ | .. |  |
| .. | 104,517 | 108,951 | 114,639 | 118,531 | 124,047 | 123,789 | .. | 18 |
| $\cdots$ | 66,591 | 103,658 | 121,842 | 110,937 | 123,877 | 124,845 | $\cdots$ | 19 |
|  | $6 \cdot 4$ | 9-2 | $10 \cdot 6$ | 9.4 | -9.2 | $9 \cdot 1$ | . |  |
| 558 | 700 | 2,068 | 2,461 | 3,263 | 5,373 | 5,163 | . | 20 |
|  | ${ }^{5877}$ | ${ }^{6} 609$ | ${ }^{613}$ | 594 | 71933 | $7^{7411^{3}}$ | 7783 | 21 |
| . | $43,247^{7}$ | 51,628 | 53,445 | 50,544 | 57,885 ${ }^{3}$ | 61,415 ${ }^{3}$ | 68,6742 | 22 |
| . | 9,657,5177 | 11,923,695 | 13,393,506 | 12,803,262 | 16,477,607 ${ }^{3}$ | 17,383,5693 | 19,798, $448^{3}$ | 23 |
|  | 38,309,400 ${ }^{7}$ |  |  | 59,402,798 | $146,866,796^{3}$ | 162,714,2873 | 196, 203, $373^{3}$ | 24 |
|  | $\begin{array}{r} 317 \\ 6,0447 \end{array}$ | 38 8,906 | 47 r $9,304 \mathrm{r}$ | 977 9,602 | 12,857 ${ }_{64}$ | $\begin{array}{r} 743 \\ 15,617^{3} \end{array}$ | 74 16,146 | 25 |
|  | 1,924,2897 | 3,002,606 | 3,227,640 ${ }^{\text {r }}$ | 3,245,099 | 4,321,519 | 4,941,2833 | 5,253, 389 | 27 |
|  | 5,329,393 ${ }^{\text {7 }}$ | 6,882, 443 | 7,753,229 | $8,619,448$ | 19,166, 132 | 22,099,695 | 26,815,147 | 28 |
|  | [ ${ }^{59,3747}{ }^{7}$ |  | [ $\begin{array}{r}54 \mathrm{r} \\ 38,800 \mathrm{r} \\ \hline\end{array}$ | [ $\begin{array}{r}54 \\ 41,092\end{array}$ | 59 42.395 | 61 43.250 | 45, 62 | 29 |
|  | 10,662,3437 | 15,478,080 | 16,205,635r | 16,688,530 | 18,774,505 | 19,223.090 | 21,791,960 | 31 |
|  | 13,235,7677 | 15,449, 122 | 14,725,760 | 16,076,787 | 35,383,231 | 39.963.941 | 44,943, 613 | 32 |
|  |  |  |  |  | 270,909,779 | 297,514,034 | 309,465,461 | 33 |
|  | 7,050,924 | 28,885, 860 | 28,472,475 | 30,496,570 | $64,232,2103$ | 89,652,203 | 99, 268,006 | 34 |
|  | $\cdots$ | 859,853 . | $1,067,239$ $\cdots$ | 1,185, $\mathbf{8 7 5}, 385$ | $2,532,0743$ $52,876,524$ | $3,536,730$ .. | 3,901,108 | 35 36 |
| 16,169 | 31,542 | 53,125 | 42,646 | 41,752 | $41,661{ }^{3}$ | 42,6243 ${ }^{4}$ | . | ${ }_{38}^{37}$ |
| 155,376 | 327,778 | 431,203 | 547,556 | 465,315 | 980,489 ${ }^{\text {a }}$ | 1,183,991 |  |  |

## xxviii

STATISTICAL SUMMARY-OF THE PROGRESS OF CANADA-continued

|  | Item | 1871 | 1881 | 1891 | 1901 | 1911 - |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\left.\begin{aligned} & 1 \\ & 2 \\ & 3 \\ & 4 \end{aligned} \right\rvert\,$ | Education- |  |  |  |  |  |
|  | Total enrolment ${ }^{\text {a }}$............ ${ }^{\text {a }}$. | 803,000 | 891,000 | 993,000 | 1.092.633 | 1,361, 205 |
|  | Teachers ${ }^{2}$..................... " | 13,559 | 18,016 | 23,718 | 析 $\begin{array}{r}669,000 \\ 27.126\end{array}$ | 870,532 40.516 |
|  | Public expenditure on |  |  |  | 11,044,925 | 37,971,374 |
|  | Survey of Production- <br> Net value ${ }^{3}$ | .. |  | . | $\cdots$ |  |
|  | Agriculture-9 |  |  |  |  |  |
| $\begin{aligned} & 6 \\ & 8 \\ & 8 \end{aligned}$ | Area of occupied farms........... acre | 36,046,401 | 45,358,141 | 58.997,995 | 63,422,338 | 108, 968,715 |
|  | Improved lands........... | 17,335,818 | 21,899,181 | 27,729,852 | 30, 166,033 | 48,733,823 |
|  | products. | .. | .. | .. | .. |  |
| ${ }^{9}$ | Firld |  |  |  |  |  |
|  | hu. | 16,723,873 | 32,350,269 | 42,144.779 | 55,572,368 | 132.077,547 |
|  |  | 16.993, 265 | 38,820,323 | 31,667.529 | 36,122.039 | 104.816, 825 |
| 10 | bu. | 42,489, 453 | 70,493,131 | 83,428, 202 | 151,497,407 | 245, 393,425 |
|  |  | 15,966,310 | 23,967,665 | 31,702,717 | 51,509,118 | 86.796,130 |
|  | Barley.. ..................... bu. | 11,496,038 | 16,844,868 | 17,222,795 | 22, 224,366 | 28,848.310 |
| 12 | ${ }_{\text {bus }}^{8}$ | 8, $3,802,830$ | $11,791,408$ $9,025,142$ | - $\begin{array}{r}8,611,397 \\ 10,711,380\end{array}$ | $\begin{array}{r}\text { 8, } \\ 2589,875,7919 \\ \\ \hline\end{array}$ | $14.653,697$ 14.417 .599 |
|  | § | 2,283,145 | 5,415,085 | 5,034,348 | 11, 902,923 | 5.774.039 |
| 13 | bu. | 47,330, 187 | 55,368,790 | 53,490,857 | 55, 362,635 | 55.461.473 |
|  |  | 15,211,774 | 13,288,510 | 21,396, 342 | 13, 840,658 | 27,426.765 |
| 14 | May and clover.............. ${ }_{\text {s }}^{\text {ton }}$ | $3,818,641$ $38,869,900$ | $\begin{array}{r} 5,055,810 \\ 40,446,480 \end{array}$ | $\begin{array}{r} 7,693,733 \\ 69,243,597 \end{array}$ | $\begin{array}{r} 6,943,715 \\ 85,625,315 \end{array}$ | $10,406,367$ $90.115,531$ |
|  | Total Areas, Field Crops ${ }^{\text {s }}$...... acre |  |  |  |  | 88 |
|  | Total Values, Field Crops ${ }^{8}$ | 111, i16,606 | 155,277,427 | $\begin{aligned} & 104,002,11 \\ & 194,934 \end{aligned}$ | $\begin{gathered} 19,60,40 \\ 237,682,285 \end{gathered}$ | 384,513,795 |
|  | Live Stock and Poultry-* |  |  |  |  |  |
| 15 | Horses | 836,700 | 1,059,4 | 1,470,600 |  |  |
| 16 | No | 1,251,200 | 1,595, 800 | 1.857,100 | 2,408,700 | 2,645, 200 |
|  |  |  |  |  | 69,238,000 | 111,833.000 |
| 17 | No. | 1,373,1 | ' 1,919,20 | 2,263,500 | $3,167,800$ | 3,880,900 |
| 18 |  | 3,155,500 | 3,048,700 | 2,563, 800 | 2,510,200 | 2,174,300 |
|  |  |  |  |  | 10,491,000 | 10,702,000 |
| 19 | Swine...................... No. | 1,366,100 | 1,207, | 1,733,900 | 2, $2,353,800$ | 3,634,800 |
| 20 |  | $\because$ | $\because$ | 14,105, 100 | - $17.922,700$ | 31,793,300 |
| 20 |  |  |  |  | 5,724,000 | 14,654,000 |
|  | Total Values................. \& | .. | .. |  | 274,375,00 | 630,113,000 |
|  | Dairying-lv |  |  |  |  |  |
| $\begin{aligned} & 21 \\ & 22 \end{aligned}$ | Total milk production........ ${ }^{\text {0 }} 000 \mathrm{lb}$. | $\because$ |  |  | [ $\begin{array}{r}6,866,834 \\ 22083 \\ \hline 8.269\end{array}$ | $9,806,741$ $199,904,205$ |
|  | Cheese, factory ${ }^{\text {H1}} \ldots \ldots \ldots \ldots .$. | $\because$ | 5,457,486 | 97,741,886 | 22,221,430 | ${ }_{-21,587.124}$ |
| 23 | Butter, creamery ............. lb. | . | 1,365,912 | 3,654,364 | 36,066,739 | 64,489,398 |
|  |  |  | 341,478 | ${ }^{913,591}$ | 7,240,972 | 15.597. 807 |
| 24 | Butter, dairy...... . ......... 1 lb . | .. | 102,545, 169 | 111,577,210 | 105, 343,076 | 137, 110, 200 |
| 25 | er | $\because$ | .. | ... | $21,384,69$ $15,623,907$ |  |
|  | 8 | .. | 22,743,93 | 30,315,214 | 66,470,953 | 103,381,854 |
| restry- |  |  |  |  |  |  |
| $\underset{22}{26}$ |  | $\because$ | $\cdots$ | $\cdots$ |  | 4,918,202 |
|  | Lumber production. ............ ift. b.m. | $\because$ | $\because$ | $\cdots$ | $\because$ | 75,830,954 |
|  | Total sawmill products........... \$ | .. | . | . | . | .. |
| 29 | Pulp and paper products......... | .. | .. | .. | .. |  |
|  | Exports of wood, wood products and paper ${ }^{13}$. |  | . | 25,351,085 | 33,099,915 | 56.334,695 |

[^2]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued

| 1921 | 1931 | 1939 | 1941 | 1943 | 1949 | 1950 | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1,880,805 | 2,264,106 | 2,236,342 | 2,131,391 | 2,062,990 | 2,708,804 | 2,795, 574 | .. | 1 |
| 1.349,256 | 1,801,955 | 1,870,563 | 1,802,300 | 1,697,172 | 1,979,805 | 2,070,712 |  | 2 |
| 56,607 | 71,246 | 74,549 | 75,308 | 74.315 | 82,050 | 85,292 |  | 3 |
| 112,976,543 | $144,748,823$ | 122,974,590 | 129,817,268 | 142,000,000 | 407,406,000 | 448,305, 000 |  | 4 |
| .. |  | 2,997, 278,520 | 4,356, 227,944 6 | 6,113,438,381 | 9,686,046,793 | 10,562,286,812 |  | 5 |
| 140,887,903 | 163,114.034 | . | 173,563,282 | .. | .. |  | 174,046,654 | 4 |
| 70,769,548 | 85,732,172 |  | 91,636,065 |  |  |  |  |  |
| .. | . | . | 896,371 | 1,407,460 | 2,486,598 ${ }^{\text {b }}$ | 2,219,642 ${ }^{\text {s }}$ | 2,825,511 | - |
| 226,508,411 | $321,325,000$ | 520,623,000 | 314, 825,000 | 284,460,000 | $371,406,000^{5}$ | $461,664,000^{6}$ | 562,395,000 |  |
| 374, 178, 601 | 123,550,000 | 282, 151,000 | 171, 875,000 | 288,511,000 | 599,485,000 ${ }^{5}$ | $712,210,000^{5}$ | 754, 847,000 |  |
| 364,989, 218 | 328,278,000 | 384,407,000 | 305,575,000 | 482,022,000 | $317,916,000^{5}$ | $419,930,000^{5}$ | 492,683,000 | 10 |
| 180,989,587 | 77,970,000 | 114,843,000 | 125,920,000 | $255,045,000$ | $251,045.000^{5}$ | $331,015,000{ }^{5}$ | 316,360,000 |  |
| 42, 956,049 | $67,382,600$ | 103,147.000 | 110,566,000 | 215,562,000 | $120,408,000^{5}$ | 171,393,000 ${ }^{5}$ | 252,795,000 |  |
| 33,514,070 | 17,465,000 | 35,424,000 | 47,651,000 | 141,988,000 | 157,124,000 ${ }^{6}$ | 193,658,000 ${ }^{5}$ | 200,462,000 |  |
| 10,822,278 | 5,449,000 | 8,097,000 | 12,036,000 | 7,775,000 | 13,650,000 ${ }^{\text {b }}$ | 13,839,000 ${ }^{5}$ | 15,662,000 | 12 |
| 7,081,140 | 2,274,000 | 4,453,000 | 8,599,000 | 6,733,000 | 17,552,000 ${ }^{5}$ | $22,157,000{ }^{5}$ | 28,084,000 |  |
| 62,230,052 | 52,305,000 ${ }^{7}$ | 36,390,000 ${ }^{7}$ | 39,052,000 ${ }^{7}$ | 43,541,000 ${ }^{7}$ | $89,197,000^{5}$ | 97,045,000 ${ }^{\text {5 }}$ | 66,647,000 | 13 |
| 44,635,547 | 22,359.000 | 41,065,000 | 48.274,000 | 77,784,000 | $83,255,000^{5}$ | $74,970,000{ }^{5}$ | 100,169,000 |  |
| $8.829,915$ | 14,539,600 | 13,377,000 | 12,632.000 | 17, 238,000 | 12,122,000 ${ }^{5}$ | 12,913,0005 | 17,316,000 |  |
| 174, 110.386 | 110.110 .000 | 112.305,000 | 158,723,000 | 190.357.000 | 237,744,000 ${ }^{5}$ | $233,900,000^{5}$ | 247,307,000 |  |
| 47,553,418 | 58,862,305 | 59.224,600 | 56,788,400 | 59,705,500 | 61,863,000 ${ }^{5}$ | $62,297,000{ }^{5}$ | 64,049,000 |  |
| 933.045,936 | 435,966,400 | 685,839,000 | 683,889,000 | 1,134.399.000 | 1,577,385,0005 | $1,85 \pm, 463,000^{5}$ | 1,977,041,000 |  |
| 3,451, 800 | 3,113,900 | 2, 824,340 | 2,788,795 | 2,775,200 | 1,796,2005 | 1,683,000 ${ }^{5}$ | 1,306,634 | 15 |
| 414,808,000 | 205,087,000 | 189,768,000 | 184, 549,656 | 222,985,000 | 135,289,0005 | 116,567,000 ${ }^{5}$ | 94,751,332 |  |
| $3.086,700$ | 3,371,900 | 3,873.500 | 3,626,025 | 3,794,700 | $3,620,200^{5}$ | 3,608,700 ${ }^{5}$ | 2,907,849 | 9 |
| 188,518,000 | 160.655,000 | 179,807,000 | 191,214,000 | 386,227,000 | $562,362,0000^{5}$ | $632,963,000^{5}$ | 725,433,181 |  |
| 5,282,800 | 4.601,100 | 4,601,100 | +,890,982 | 5.870,500 | 5,461,100 ${ }^{5}$ | 5,436,600 ${ }^{5}$ | 5,463,142 | 2 |
| 146,567,090 | 94,952,000 | 151,087,000 | 138,196,000 | 301,525,000 | 466,883,000 ${ }^{6}$ | 568,295,000 ${ }^{6}$ | 870,217,901 |  |
| 3,200,500 | 3,627,100 | $3.365,800$ | 2,839,948 | 3,458,600 | $2,075,400^{5}$ | $2,015,000^{5}$ | 1,478,737 |  |
| 20,675,000 | 19,680,000 | 22,511,000 | 17,038,647 | 37,764,000 | 30,154,000 ${ }^{5}$ | 35,754,000 ${ }^{5}$ | 39,011,538 |  |
| 3,324,300 | 4,699,800 | 4,294,000 | $6.081,389$ | 8,148,500 | $5,162,900{ }^{5}$ | 5,247,1005 | 4,915,987 | 7 |
| 35,869,090 | 33.288 .000 | 59,213.000 | 54,911,751 | 134, 845,000 | $178,362,000^{5}$ | $179,556,000^{5}$ | 185,861,477 |  |
| 37.185,800 | 65,468,000 | $61,139,800$ | 63,526, 202 | 79, 247,000 | $72,659,300{ }^{5}$ | $64,885,800^{5}$ | 67,934,092 |  |
| $38,015,000$ | 45, 138,000 | 46,459,700 | 27,444,115 | 70,802,000 | 89,278,000 | 77,805,000 | 91,460,742 |  |
| 844,452,000 | 558,800,000 | 648,845,700 | 613,354,169 | 1,154,148,000 | 1,462,328,000 | 1,610,940,000 ${ }^{5}$ | 2,006,736,171 |  |
| 11,897,545 | 14,339,686 | 15,781,104 | 16,549,902 | 17,518,973 | 16,843,345 | 16,448,860 | 16,391,998 | 81 |
| 162,117,000 | 113,956, 639 | 125,475,359 | 151,866,000 | 166,274,217 | 121,030,000 ${ }^{5}$ | 102,659,000 ${ }^{\text {s }}$ | 90,615,000 |  |
| 28,710,000 | 12,824,695 | 15, 311,782 | 24.737,037 | 38,902,000 | 39,856,000 ${ }^{5}$ | 32,058,000 ${ }^{5}$ | 33,357,000 |  |
| 128,745, 000 | $225,955,246$ | 267,612,546 | 285, 848, 196 | 311,709,476 | 279,805,0005 | $261,464,000^{5}$ | 257,604,000 | 2 |
| $48,135,000$ | 50, 198,878 | 61,748,399 | 93, 199,557 | 105, 104,000 | 164,988,000 ${ }^{3}$ | 144,358,000 ${ }^{5}$ | 162,507, 000 |  |
| 107.379,000 | 98,590.000 | 87,459,000 | 82,796,000 | 55, 407,000 | 52,852,000 ${ }^{\text {S }}$ | 46,897,000 ${ }^{3}$ | 46,400,000 | 0 |
| 35,307,000 | 20,098,000 | 16,140,000 | 24,373,000 | 19,666,000 | 30,790,000 | $25,261.000^{3}$ | 28.043,000 |  |
| 110.623,000 | 109,262,600 | 123,671,635 | 159,363,878 | 211.731.200 | $354,442,000^{3}$ | $362,698,000^{5}$ | 411,479,000 |  |
| 222,775,000 | 192,384,173 | 216,871,816 | 301,673,472 | 375,403,200 | 590,076,000 | 564,375,000 ${ }^{6}$ | 635,386, 000 |  |
| 168,054,024 | 141,123,930 | 157,747,398 | 213,163,089 | 268,615, 283 | 561,412,062 | 625,734, 603 | .. | ${ }_{27} 6$ |
| 2, 869,307 | 2,497,553 | 3,976,882 | 4,941,084 | 4,363,575 | 5,915,443 | 6,553, 898 |  | 27 |
| 82,448,585 | 45, 977, 843 | 78,331,839 | 129,287,703 | 151,899,684 | 334,789,873 | $422,480,700$ |  |  |
| 116.891.191 | 62, 769,253 | 100, 132,597 | 163,412,292 | 195, 885, 336 | $396,415,201$ | 496, 948, 398 | . | 29 |
| 151.003.165 | 174,733,954 | 208,152.295 | 334,726.175 | 344,411,614 | 836,148.393 | $954,137,651$ | .. | 29 |
| 284,561,478 | 185.493,491 | 242,541,043 | 387,113,232 | 391,069,658 | 875,317.680 | 1.112,945,061 |  | 30 |

[^3]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued


STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued

| 1921 | 1931 | 1939 | 1941 | 1943 | 1949 | 1950 | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 926,329 | 2,693,892 | 5,094,379 | 5,345,179 | 3,651,301 | 4,123,518 | 4,441,227 | 4,392,751 | 1 |
| 19,148,920 | 58,093,396 | 184,115,951 | 205,789,392 | 140,575,088 | 148,446,648 | 168,988,687 | 161,872,873 |  |
| 13,543,198 | 20,562,247 | 23,163,629 | 21,754,408 | 17,344,569 | 17,641,493 | 23,221,431 | $23,125,825$ | 2 |
| 8,485,355 | 6,141,943 | 9,378,490 | 8,323,454 | 7,849,111 | 13, 098, 808 | 18,767,561 | 21,865,467 |  |
| 47,620,820 | 292,304,390 | 608,825,570 | 643,316,713 | 575, 190, 132 | 526,913,632 | $528,418,296$ | 539,941,589 | 3 |
| 5,953,555 | 24,114,065 | 60,934, 859 | 64,407,497 | 67,170,601 | 104,719,151 | 123,211, 407 | 149,026,216 |  |
| 66,679,592 | 267,342,482 | 388,569,550 | 460,167, 005 | 444,060,769 | $319,549,865$ | 331,394, 128 | 316,462,751 | 4 |
| 3,828,742 | 7,260, 183 | 12,313,768 | 15,470,815 | 16,670,041 | 50,488,879 | 47,886, 452 | 58,229,146 |  |
| 53, 089, 356 | 237, 245,451 | $394,533,860$ | 512,381,636 | 610,754,354 | 576,524,097 | 626,454,598 | 682,224,335 | 5 |
| 2,471,310 | 6,059,249 | 12,108, 244 | 17,477,337 | 24,430,174 | 76,372,147 | 98,040,145 | 135,762,643 |  |
| 19,293,060 | 65, 666,320 | $226,105,865$ | 282, 258, 235 | 288,018,615 | 257,379,216 | 247,317,867 | 275,806,272 | 6 |
| 6,752,571 | 15,267, 453 | 50,920,305 | 68,656,795 | 71,675,322 | $99,173,289$ | 112,104,685 | 151,269,994 |  |
| 593,829 | 420,038 | 755,731 | 1,528,0535 | $1,758,269{ }^{6}$ | 2,154,485 | $2,317,121$ | 2,552,696p | 7 |
| 15, 057,493 | 12,243,211 | 48,676,990 | 18,225,921 | 17,859,057 | 19,120,046 | 19,139,112 | 18,586, 823 | 8 |
| 72,451, 656 | 41,207,682 | 15,692,698 | $58,059,630$ | 62,877,549 | 110,915, 121 | 110,140,399 | 109,038,835 |  |
| 14,077,601 | 25,874,723 | $35,185,146$ | $43,495,353$ | $44,276,216$ | $60,457,177$ | 67, 822,230 | 79,460,667 | 9 |
| 4,594,164 | 9,026,754 | 12,507,307 | 12,665, 116 | 13,159, 418 | 11, 620,302 | $6,433,041$ | 7,158,920 |  |
| 187.541 | 1,542,573 | 7,826,301 | 10,133,838 | 10,052,302 | 21,305,348 | 29,043,788 | 47,615,534 | 10 |
| 641,533 | 4,211,674 | 9,846,352 | 14,415,096 | 16,470,417 | $61,118,490$ | $84,619,937$ | 116,655, 238 |  |
| 92,761 | 164,296 | 364,472 | 477,846 | 476,196 | 574,906 | 875,344 | 973,198 | 11 |
| 4,906,230 | 4,812,886 | 15,859.212 | $21,468,840$ | $23,169,505$ | 39,746,072 | 65, 854,568 | 81,584,345 |  |
| 5,752,885 | 10,161,658 | 5,731,264 | 8,368,711 | 7,302,289 | 15,916,564 | 16,741, 826 | 17,007, 812 | 12 |
| $14,195,143$ | 15,826,243 | 8,511,211 | 13,063,588 | 11,599,033 | 32,901,936 | $35,894,124$ | 40,446, 288 |  |
| 171,923,342 | 230,434,726 | 474, 602, 059 | 560,241, 290 | $530,053,966$ | 901,110,026 | 1,045,450,073 | 1,245,483,595 |  |
| 2,754,157 | $6,666,337$ | 8,289,212 | 8,845,038 | $10,214,513$ | 11,613,333 | 12,562,750 | 13,342, 504 | 13 |
| 510 | 559 | 611 | 607 | 622 | 650 | 665 | .. | 14 |
| 484, 669,451 | 1,229,988,951 | 1,564,603,211 | 1,641,460,451 | $1,778,224,640$ |  |  |  | 15 |
| 5,614, 132 | 16,330,867 | 28,338,030 | 33,317,663 | 40,479,593 | 44,418,573 | 48,493,718 |  | 16 |
| 973,212 | 1,632,792 | 1,941,663 | 2,081,270 | $2,169,148$ | 3,076,369 | 3,269,824 | . | 17 |
| 34,931,935 | 30,517,308 | 40,075,922 | $62,258,997$ | $85,594,544$ | $132,306,372$ | 152,062,597 | .. | 18 |
| 2,936,407 | 4,060,356 | 6,492,222 | 7, 257,337 | 7,418,971 | 9,902,790 | 7,377,491 | 7,479,272 | 19 |
| 10,151,594 | $11,803,217$ | 14,286,937 | $21,123,161$ | 28,505, 033 | 22,899, 882 | 23, 184, 033 | 31,134,400 |  |
| 5,977,545 | 8,497,237 | 6,920,464 | 7,928,971 | 10,044,903 | 8,743,225 | 10,444, 286 |  | 20 |
| 438,555 | 528,640 | 658,114 | 961,178 | 1,241,068 | 1,171,207 | 1,183,297 |  | 21 |
| 2,697,858,073 | 3,705,701,893 | $3,647,024,449$ | 4,905,503,966 | 6,317, 166,727 |  |  |  | 22 |
| 497,399,761 | 2,587,566,990 | 737,811,153 | 1,264,862,643 | 1,987, 292,384 | 2,591,890,657 | 2,771,267,435 |  | 23 |
| 1,365,292,885 | 1,221,911,982 | $1,836,159,375$ | $3,296,547,019$ | 4,690,493,083 | 6,843,231,064 | 7,538,534,532 | . | 24 |
| 2,488,987, 148 | $2,555,126,448$ | 3,474,783,528 | $6,076,308,124$ | 8,732, 860,999 | 12,479,593,300 | 13,817,526,381 | . | 25 |
| 1,123,694, 263 | 1, 252,017,248 | 1,531,051,901 | 2,605, 119,788 | 3,816,413,541 | $5,330,566,434$ | $5,942,058,229$ | . | 26 |
| 240, 133, 300 | 315,482,000 | 187,178,500 | 393,991,300 | 206, 103,900 | 1,143,547,300 | $1,525,764,700$ | 2,295, 499,200 | 27 |
| . | 4,105,000 | 4,598,000 | 4,417,000 | 4,522,000 | 5,071,000 | 4,882,000 ${ }^{14}$ | 5,255,000 | 28 |
| 1,041,544 | 1,131,845 | .. | 1,083,816 | . | . | . | $830,441{ }^{17}$ | 29 |
| 115,953 ${ }^{18}$ | 150,491 | . | 203,586 | . |  |  | 217, 207 ${ }^{17}$ | 30 |
| 407,087 | 495,922. | . | 709,181 | . | . |  | 902,986 ${ }^{17}$ | 31 |
| 162,291 | 203,066 | .. | 213,493 | . |  |  | 299,611 ${ }^{17}$ | 32 |
| 199,941 | 289, 191 | . | 311,645 | . | . |  | 413,30717 | 33 |
| 293.555 | 352, 503 | .. | 370,617 | . |  |  | 340,87817 | 34 |
| 421,057 | 617,473 | . | $725,456{ }^{20}$ | . |  |  | 803,462 ${ }^{17}$ | 35 |
| 217, 937 | 258,689 | . | 314,051 | . | . |  | 565,70917 | 36 |
| 306,652 | 426,396 | . | 252,693 | - | . |  | $351,208^{17}$ | 37 |
| 7,152 | 1,654 | . | 11,413 | . |  |  | $64,155^{17}$ | 38 |
| 3,173,169 | 3,927, 230 | . | 4,185,95120 | * | . | . | 5,286,153 ${ }^{17}{ }^{22}$ |  |
| 1,972,089 | 2,570,097 | * | 2,816,79820 | . | $\cdots$ | $\cdots$ |  | 39 |

tricity as well as the cost of materials from the gross value of the products. ${ }^{13}$ Exclusive of persons in institutions, remote areas, Indians on reservations and the Armed Forces. 14 Excludes Manitobs. ${ }^{15}$ Exclusive of the Territoriee. ${ }^{16}$ Includee all farmers' sons, 14 years and over, whether or not reported with gainful occupstion. ${ }^{17}$ Labour force 14 years of age and over as defined in the 1851 Census. nomadic Indians and Indians on reserves. ${ }^{18}$ Includes pulp-mill employees and almost all mine and smelter employees, except clerical workers. $\quad{ }^{25}$ Exclusive of persons on Active Service on June 2, 1941.
${ }^{22}$ Includes 407,191 proprietary and managerial.

## xxxii

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued


[^4]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued


[^5]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued


[^6]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued

| 1921 | 1931 | 1939 | 1941 | 1943 | 1949 | 1950 | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\ldots$ | $\begin{array}{r} 42,223 \\ 55,257 \\ 249,455,900 \end{array}$ | - $\quad \begin{aligned} & \text { - } \\ & \\ & \end{aligned}$ | $\begin{array}{r} 49,271 \\ 62,781 \\ 254,678,000 \end{array}$ | - $\begin{aligned} & \text { - } \\ & \\ & \end{aligned}$ | $\cdots$ | $\cdots$ | $\cdots$ | 2 |
| $\begin{array}{r} 2,451^{2} \\ 73,299,111^{2} \end{array}$ | $\begin{array}{r} 2,563^{2} \\ 52,987,554^{2} \end{array}$ | $\begin{array}{r} 1,299 \\ 11,635,000 \end{array}$ | 6,959, 8800 | $\begin{array}{r} 186 \\ 3,634,0 \oplus 0 \end{array}$ | 17,279,000 | 15,392, 717 | $\begin{array}{r} 797 \\ 19,048,000 \end{array}$ | 4 |
| $\begin{aligned} & 800,149,296 \\ & 799,478,483 \end{aligned}$ | $\begin{aligned} & 587,653,440 \\ & 628,098,386 \end{aligned}$ | $924,926,104$ $751,055,534$ | $1,621,003,175$ $1,448,791,650$ | $2,971,475,277$ $1,735,076,890$ | $2,992,960,978$ $2,761,207,241$ | $3,118,385,551$ $3,174,253,138$ | $\begin{aligned} & 3,914,460,376 \\ & 4,084,856,478 \end{aligned}$ | 7 |
| 1,599,627,779 | 1,215,751,826 | 1,675,981,638 | 3,069, 794, 825 | $4,706,552,167$ | $5,754,168,219$ | 6,292, 638,689 | 7,999,316, 854 |  |
| 403,452,219 | 219,781, 406 | 430, 806,546 | 878,640,907 | 1,401,661,623 | 1,015, 022, 448 | 655, 089,381 | 872,407,020 | 8 |
| 312,844,871 | 170,597, 455 | 328,099, 242 | $658,228,354$ | 1,032,646,964 | 704, 955, 726 | $469,910,011$ | 631,460,954 | 9 |
| 266, 002, 688 | 151, 999,922 | 188, 900,276 | 359,942,070 | 238,631,372 | $494,228,816$ | 645, 624, 296 | 727,088, 882 | 10 |
| 213, 973,562 | 109,468,081 | 114,007,409 | 219,418,957 | 134,965, 117 | 307,449, 800 | 404, 213,449 | 420,984,515 | 11 |
| $542,322,967$ | $240,196,849$ | 380, 392,047 | $599,713,463$ | $1,149,232,444$ | 1, 503, 458,711 | 2,020, 987,630 | 2,297, 674,594 | 12 |
| $856,176,820$ | $393,775,289$ | $496,898,466$ | $1,004,498,152$ | $1,423,672,486$ | $1,951,860,065$ | $2,130,475,929$ | 2,812,927, 298 | 13 |
| 129, 215, 157 | 194,825,612 | 162,904,586 | 196,646, 340 | 219,249,942 | 210,384, 483 | 162,993,750 | 237,060, 505 | 14 |
| 310,952,138 | 117,871, 254 | 109,050,542 | 161,856, 075 | 234, 457, 747 | 435, 158, 365 | $325,613,570$ | 441,042,753 |  |
| 6,017,032 | 5,697,224 | 5, 342, 172 | 11,439,191 | 12,896,995 | 9,698,024 | 10,095, 002 | 12, 078, 671 | 15 |
| $66,520,490$ | 20,207,319 | 16,378,301 | 44, 807, 353 | 66, 273,692 | 97,693,325 | 93,838,590 | 113,854,397 |  |
| 14,321,048 | 11,177,072 | 12,115,598 | 7,691,664 | 74,463, 476 | 22,628, 271 | 18,079,576 | 59, 272, 650 | 16 |
| 14, 152, 033 | 3,767,918 | 4,142,375 | 3,295,148 | 42,294,389 | 18,532,774 | 16,571,166 | 53, 898,508 |  |
| $179.398$ | 89,056 | 94,191 | 33, 412 | 181,568 | 130,110 | 114,081 | 100,429 | 17 |
| 4,210,594 | 839,278 | 773,782 | 391, 605 | 2,527, 231 | 2,895,536 | 2,838,399 | 2,023,856 |  |
| 982,338 | 127,752 | 1,878,251 | - 4,646,140 | 5,629,656 | 670,866 | 785,267 | 61,325 | 18 |
| 31,492,407 | 2,035,382 | $32,656,049$ | 77,494,498 | 116.121,532 | $24,175,917$ | 28,306,976 | 3,649,744 |  |
| $9,739,414$ | 10,680,500 | 12,398,600 | 1,481,800 | $9,408,600$ | 1,068,800 | 1,629,100 | 543,700 | 19 |
| 5,128,831 | 2,329,853 | 2,673,765 | -493,525 | $3,819,800$ | 613,751 | -943,042 | 387,404 |  |
| $133,620,340$ | $84,788,400$ | 90,944,800 | 92,331,000 | 129,741,000 | 52,694,800 | $63,109,600$ | 30,653, 200 | 20 |
| 37, 146,722 | 10,594,917 | 12,248,650 | 13,554, 911 | 26,811, 113 | 16,256,818 | 16,551,508 | 10,231,725 |  |
| 13,331,050 | 18,666,367 | 21,030,580 | 17,235,320 | 11,451,635 | 10,266,526 | 11,849, 290 | 17,794,564 | 21 |
| 11,127,432 | 5,399, 259 | 8,525,173 | 6,585,443 | 5,558, 053 | 7,573,471 | 9,421,106 | 16,479,607 |  |
| $36,167,900$ | 48,761, 200 | 121,500,900 | $95,538,703$, | 72,419,400 | 74,115,700 | 64,598,400 | 73,705,800 | 22 |
| 4,336,972 | 3,891,045 | 8,505, 064 | 6,687, 709 | 5,069,358 | 14, 823, 140 | 12,919,680 | 14,740,460 |  |
| 47,018,300 | 60,420,300 | 229,930,400 | 275, 190,300 | 271,094, 400 | 254, 283,500 | $243,302,300$ | $262,365,600$ | 23 |
| 9,405,291 | 13,188,928 | 56,522, 602 | 67, 679,708 | 68,346,346 | 92, 323, 686 | 105, 299, 743 | 136,689,457 |  |
| 2,277, 202 | -359,853 | 376,203 | 531,449 | 1,110,101 | 432,043 | 394,961 | 435,083 | 24 |
| 16,501,478 | 1,909,922 | 1,666,934 | 2,596,626 | 5,428,362 | 3,563,892 | 3,198,040 | 3,495,664 |  |
| 154, 152 | -70,903 | 186,238 | , 220,255 | , 212,827 | 182,272 | 290,643 | -325,254 | 25 |
| 12,255,793 | 3,929,317 | 12,463,177 | 14,550,435 | 16,533,440 | 23,185,081 | $39,657,296$ | 49,402,972 |  |
| 14,363,006 | 12,450,741 | 14,110,308 | 28,234,485 | 31,129,131 | 30,974, 122 | 36,922,864 | 44,866,161 | 26 |
| 71,552,037 | 30,056,643 | 31,000,602 | 85, 897, 736 | 100,012,775 | 170,675,310 | 208,555,549 | $365,132,884$ |  |
| 15,112,586 | 40,164,815 | 53,174, 453 | 65, 240, 248 | 56,205,769 | 94,093,031 | 98,761,380 | 102,241,224 | 27 |
| 78,922,137 | 107,233,112 | 115,687, 288 | 154,356,543 | 144,707, 065 | 433,881,585 | 485,746,314 | $536,372,498$ |  |
| 482, 140,444 | 209,760,786 | 220,118,056 | 285,708,739 | 483,756, 894 | 773,006,888 | 636, 897,823 | 894, 209,730 | 28 |
| 188,359,937 | 70,938,351 | 131,803,706 | 201,730,555 | 289, 566, 022 | $338,421,481$ | $365,775,038$ | 348,033,470 | 29 |
| $18,783,884$ | $5,394,084$ | 14,427,669 | 30,819,633 | 30,620,390 | 25,217,322 | 29,573,450 | 36,858,344 | 30 |
| 284,561,478 | 185, 493, 491 | 242,541, 043 | 387, 113, 232 | $391,069,658$ | 875, 317,680 | 1,112,945,061 | $1,399,076,131$ | 31 |
| 76,500,741 | 19,086,492 | 63,102,432 | 239,900,848 | 716,644,883 | 292,864, 223 | 251, 108,538 | 342, 298,703 | 32 |
| 45,939, 377 | 56,158,939 | 182,890,103 | 244,012,336 | $332,704,960$ | 426,607,610 | 457, 262,306 | $569,870,193$ | 33 |
| $40,345,345$ | 14,976,873 | 29,332,099 | 45, 172, 085 | $62,191,606$ | 73,710,209 | 103, 654,760 | 131,529,446 | 34 |
| 20,142,826 | 10,848,946 | 24.263,342 | 58,676,338 | 86,390,600 | 70,697,937 | 100,525,482 | 131,689,729 | 35 |
| 32,389,669 | 14,995,478 | 16,447,654 | 127,869,409 | 578,530,264 | 117,117,628 | 60,644,093 | 60,894,630 | 36 |
| 1,189,163,701 | 587,653,440 | 924.926,104 | 1,621,003,175 | 2,971, 475, 277 | $2,992,960,978$ | 3,118,386,551 | $3,914,460,376$ |  |

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued


[^7]STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued

| 1921 | 1931 | 1939 | 1941 | 1943 | 1949 | 1950 | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 259,431, 110 | 134,433,268 | 127,835, 146 | 171,835,408 | 176,446,946 | 377,392,843 | 484,475, 331 | 542,641,169 | 1 |
| $61,722,390$ | 28,629,914 | 32,757,666 | $34,845,584$ | 36,476,082 | 74,096,446 | 86,967,642 | 125,562,023 | 2 |
| 243,608,342 | 90,151,516 | 100,866,078 | 161, 138,512 | 195, 283, 341 | $333,031,836$ | 364,508,831 | 483,520,382 | 3 |
| 57,449,384 | 34, 923,391 | 33,703, 149 | 36,739,071 | 40, 284, 489 | 86,326,584 | 100,365, 624 | 137,046,510 | 4 |
| $245,625,703$ | 116,209,368 | 183,159,650 | 431,622,365 | 420,190,144 | 891,551,452 | 980, 229,068 | 1,332, 251,363 | 5 |
| 55, 651,319 | 38,666,648 | 42,108,374 | 94,758,269 | 115,566,684 | $174,691,723$ | 215,526,566 | 290,848,483 | 6 |
| 206,095, 113 | 106, 087, 909 | 132,823,892 | 189,953,788 | 250,943,166 | $535,328,513$ | 611,741,427 | 684,535,336 | 7 |
| 37,887,449 | 31,336,994 | $43,705,905$ | $65,382,196$ | 70.548, 287 | 130,660,078 | 158, 221,055 | 191,812,947 | 8 |
| 72,688,072 | 47,659,378 | 54, 095,674 | 262,516,457 | 429,337,751 | 158, 127, 766 | 172,217,594 | 296,638,265 | 9 |
| 1,240,158,882 | 628,098,386 | 751, 055, 534 | 1,448,791,650 | 1,735,076,890 | 2,761,207,241 | $3,174,253,138$ | 4,084, 856, 478 |  |
| $143 \cdot 4$ | $94 \cdot 0$ | $99 \cdot 3$ | $116 \cdot 6$ | $128 \cdot 3$ | $198 \cdot 9$ | $211 \cdot 2$ | $240 \cdot 2$ | 10 |
| 80.9 | $67 \cdot 9$ | $63 \cdot 2$ | $69 \cdot 6$ | $74 \cdot 2$ | $100 \cdot 0$ | $102 \cdot 9$ | $113 \cdot 7$ | 11 |
| 163,266,804 | 131,208,955 | 78,751, 111 | 130,757, 011 | 118,962,839 | 222,975, 471 | 225,877,683 | 295, 721,750 | 12 |
| 37,118,367 | 57,746,808 | 51,313,658 | 88,607,559 | 138,720,723 | 204,651,969 | 220,564,504 | 241,046,174 | 13 |
| 46,381,824 | 71,048,022 | 142,026, 138 | $248,143,022$ | 910,188,672 | $1,297,999,404$ | $1,272,650,191$ | $1,513,135,510$ | 14 |
| 38,114,539 | 20,783,944 | 122,139,067 | 179,701, 224 | 250,478, 438 | 377,302,763 | 403,437, 159 | 460, 120,405 | 15 |
| 368,770,498 | 296, 276,396 | 435, 706,794 | $778,175,450$ | 2,066,719,961 | 2,436, 142,276 | 2,323,117,079 | 2,785, 349,899 | 16 |
| $43 \cdot 10$ | 29.02 | $39 \cdot 12$ | $68 \cdot 37$ | 177-34 | 189:98 | $172 \cdot 76$ | $203 \cdot 13$ | 17 |
| 436,292,185 | 356,160,876 | 502, 171,354 | 872,169,645 | $2,249,496,177$ | 2,771,395,075 | 2,580, 140,615 | 3,112,535,948 | 18 |
| 50.99 | $35 \cdot 04$ | 45.03 | 76.63 | 193.02 | 216.13 | 191-87 | 226.99 | 19 |
| 528,302,513 | 440,008, 855 | 553,063,098 | 1,249,601,446 | $4,387,124,117$ | 2,175, 892,334 | 2,448,615,662 | 2,901, 241,698 | 20 |
| 61.75 | $43 \cdot 26$ | $49 \cdot 60$ | 109.80 | 376.45 | $169 \cdot 68$ | 182.09 | 211.58 | 21 |
| 2,902,482, 117 | 2,610,265,699 | $3,638,320,816$ | 5,018,928,037 | 9,228,252,012 | 16,950,403,796 | 16,750,756,246 | 16,923,307,028 | 22 |
| 561,603,1331 | 348,653,7621 | 485,761,502 | $1,370,236,5881$ | 3, 045,402,9111 | 5, 174,269,6441 | 5, 106,147,0471 | 5,489,992,0801 | 23 |
| 2,340,878,984 | $2,261,611,937$ | $3,152,559,314$ | $3,648,691,449$ | 6, 182,849,101 | $11,776,134,152$ | 11,644,609,199 | 11,433,314,948 | 24 |
| $102,030,458$ $102,569,515$ | $179,143,480$ $190,754,202$ | $296,836,927$ $289,467,574$ | $404,791,000^{2}$ $349,818,000^{2}$ | $435,771,000^{2}$ $378,790,000^{2}$ | $998,127,000^{2}$ $935,814,000^{2}$ | - | . | 25 |
| $3,735^{3}$ | 3,261 | 4,373 | 6,594 | . | 13,194 | 14,555 | 17,229 | 27 |
| 194, 621,710 | 128,881,241 | 88,820,636 | 78,761,049 | 49,082, 172 | 14,731,992 |  | . | 28 |
| 271,531,162 | 153,079,362 | 184, 904, 919 | $406,433,409$ | $773,426,716$ | $1,267,520,386$ | 1,293,238,910 | $1,360,679,422$ | 29 |
| 129,096,339 | 144,674, 853 | 145,500,000 | 145,500,000 | 145,500.000 | 145,500,000 | 145,500,000 | 146,502,115 | 30 |
| 2,841,782,079 | $3,066,018,472$ | 3,591,564.586 | 4, 008,381, 256 | $5,148,458,722$ | 8,657, 764, 277 | 9,015, 109,852 | 8,384, 800, 263 | 31 |
| 2,556, 454, 190 | 2,741,554,219 | 3,298, 351,099 | 3,711, 870,680 | 4,849, 222,532 | 8,310,215,001 | 8,660,173, 804 | 9,019,780,755 | 32 |
| 551,914,643 | 578,604,394 | 741, 733, 241 | $1,088,198,370$ | 1,619,407,736 | 2,353, 033, 907 | 2,562,813,591 | 2,711,524,845 | 33 |
| 1,289,347, 063 | $1,437,976,832$ | 1,699, 224, 304 | $1,616,129,007$ | 1, 864, 177, 700 | 4,333,888,999 | 4,547, 880,387 | 4,592,929,318 | 34 |
| 2,264,586,736 | 2, 422,834,828 | $3,060,859,111$ | 3,464,781,844 | $4,592,336,705$ | 7,921,694,763 | 8,220,886,332 | 8,464,510,837 | 35 |
| $27,157,474{ }^{6}$ | 31,586,468 | 31,617,352 | $39,242,957$ | 53,796,715 | 87,554.363 | 100,635,459 | 112,184,633 | 36 |
| $\begin{aligned} & 29,010,619 \\ & 10,150,189 \end{aligned}$ | \} $24,750,227$ | $23,045,576$ | $22,176,633$ | 24,373,991 | 37,741, 389 | 38,754, 634 | 37,661,921 | 37 38 |
| 58,576,775 | 69,820,422 | 81,566,754 | 76,391,775 | 84,023,772 | 184, 250,615 | 192,567, 275 | 193,982, 871 | 39 |
| 96, 698, 810 | 147,094, 183 | 136,358,786 | 130,795,391 | 126,943,566 | 179,795,977 | 190,733, 017 | 203,103, 850 | 40 |
| $95,281,122$ | 146,046, 087 | 136,351,602 | 130,787,116 | 126,918,948 | 144,414,068 | 152,825,544 | 165,768,886 | 41 |
| $86,144,1537$ | 65,728, 238 | 58,526,904 | 58,220,073 | 59,081,710 | 80, 207,903 | 89,504,876 | 88,991,635 | 42 |
| 87,385,807? | 66,387,987 | 58,533,671 | 58,220,073 | 59,081,710 | $51,546,444$ | $59,893,359$ | $63,699,805$ | 43 |

amounts deposited elsewhere than in Canada from 1901
${ }^{6}$ Figures for 1924; first year bank debits are available.
${ }^{7}$ Figures for 1922; first year provincial figures are available.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-continued

${ }^{1}$ Compiled from data supplied voluntarily to the Superintendent of Insurance by provincial companies but estimated to cover about $90 \mathrm{p} . \mathrm{c}$. of all provincial business. The figures include all the large and most of the small provincial companies. $\quad 2$ Not including fraternal insurance.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA-concluded

| 1921 | 1931 | 1939 | 1941 | 1943 | 1949 | 1950 | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\cdots$ | $\begin{aligned} & 827,373 \\ & 823,120 \end{aligned}$ | $\begin{aligned} & 5,466,679 \\ & 5,424,047 \end{aligned}$ | $\begin{array}{r} 7,918,926 \\ 7,918,926 \end{array}$ | $\begin{aligned} & 10,596,366 \\ & 10,596,366 \end{aligned}$ | $\begin{aligned} & 48,921,948 \\ & 48,921,947 \end{aligned}$ | $\begin{aligned} & 61,207,841 \\ & 61,207,840 \end{aligned}$ | . | $\underline{1}$ |
| $\cdots$ | $\because$ | $\ldots$ | $11,351,467$ $11,351,467$ | $\begin{aligned} & 11,372,306 \\ & 11,372,306 \end{aligned}$ | $\begin{aligned} & 24,002,353 \\ & 24,002,354 \end{aligned}$ | $\begin{aligned} & 27,321,717 \\ & 27,321,718 \end{aligned}$ | .. | 3 4 |
| $\begin{array}{r} 10,237,930 \\ 8,774,185 \end{array}$ | $15,459,347$ $25,718,219$ | $20,176,418$ $36,001,000$ | $20,596,781$ $38,570,855$ | $20,569,787$ $41,504,191$ | $26,244,737$ $90,111,500$ | $27,988,873$ $93,082,706$ | $\begin{aligned} & 27,649,090 \\ & 93,852,292 \end{aligned}$ | 5 |
| $\begin{array}{r} -9,907,331 \\ 8,549,642 \end{array}$ | $15,066,431$ $25,718,221$ | $19,351,839$ $36,001,000$ | $20,086,776$ $38,570,855$ | $20,168,350$ $41,504,191$ | $25,892,736$ $90,111,501$ | $27,568,241$ $93,082,707$ | $27,619,247$ $93,852,292$ | 8 |
| 79,252,639 | 215,698,469 | 242,369,850 | 268,596,524 | 313,457,551 | 560,080,611 | 494,636,746 | 543,983,754 | 9 |
| $\begin{aligned} & 31,418,403 \\ & 32,885,302 \end{aligned}$ | $\begin{array}{r} 66,338,148 \\ 125,829,165 \end{array}$ | $\begin{array}{r} 61,292,364 \\ 114,606,960 \end{array}$ | $\begin{array}{r} 58,165,471 \\ 108,912,208 \end{array}$ | $60,385,651$ $112,006,133$ | $\begin{array}{r} 68,188,785 \\ 213,671,444 \end{array}$ | $72,736,140$ $251,832,240$ | $\begin{array}{r} 74,399,404 \\ 258,413,136 \end{array}$ |  |
| $629,953,917$ | 1,961,948,175 | 2,422,219,901 | 2,418,950,841 | $2,528,566,545$ | 2,827,988,797 | 3,126,058,749 | 3,282,558,573 | 12 |
| 6,020,513, 832 | 9,544,641, 293 | 10,200,346,551 | 11,386,819,286 | 13,386,782,873 | 25,970,407,358 | 28,957,395,702 | 33,493,682,527p | 13 |
| 47,312,564 | 50,342,669 | 40,984, 276 | 49,305,539 | 47,153,094 | 103, 809,769 | 115, 648,449 | 134,489,297p |  |
| 27,572,560 | 29,938,409 | 15, 738,902 | 17,814,322 | 22,181,244 | 46,548, 822 | 58,524,685 | 52,062,710 ${ }^{\text {P }}$ |  |
| 1,269,764, 435 | 1,341,184,333 | 1,284,998, 454 | 1,120,181,968 | 1,273,362,246 | 2,378,050,919 | 2,519,157,284 | 2,436,138,680p | 16 |
| $5,545,549$ | 7,185, 066 | 5,750, 302 | 3,992,765 | 4,552,312 | 10, 181, 704 | 10,519,555 | 10,137,388 |  |
| 3,544,820 | 4,985, 605 | $3,170,597$ | 2,237,832 | 2,138, 273 | $5,749,817$ | 6,228,632 | $5,435,836 \mathrm{P}$ |  |
| 2,934, 843, 848 | 6,622,267,793 | 6,776,262,587 | 7,348,550,742 | 8,534,093,718 | 14,408,761,850 | 15,745,836,067 | 17,235,376,811p | 19 |
| 98,864,371 | 225,100,571 | 198,042,144 | 203,459,238 | 228,700,002 | 349,813, 007 | 370,091, 234 | 394,012,852 |  |
| 23,997, 262 | 56,579,358 | $73,936,661$ | 75,082,008 | 81,900,064 | 117,933,354 | 122, 295, 000 | 128,490,359p | 21 |
| 222,871,178 | 202,094,301 | 134,554,434 | 164,451,218 | 226,312,273 | 600,994,643 | 709,395,888 | 708,733,573p | 22 |
| 4,389,008 | 5,178,615 | 3,491,402 | 3,988,952 | 5,481,130 | 13,970, 109 | 17,241,427 | 16,806,502p |  |
| 2,812,077 | 2,603,453 | 3,178, 604 | 2,583,958 | 2,937,710 | $5,053,498$ | 6,860,882 | 6,727,241p | 24 |

## 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.
${ }^{p}$ preliminary figures.
${ }^{r}$ revised figures.


## CHAPTER I.-PHYSIOGRAPHY AND RELATED SCIENCES

## CONSPECTUS

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Nots.-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 whole northern part of the North American Continent, except for the territory of Alaska. The most easterly point is Cape Spear, Newfoundland, at west longitude $52^{\circ} 37^{\prime}$, and the most westerly point is Mount St. Elias, Yukon, at west longitude $141^{\circ}$. The southernmost point is Middle Island in Lake Erie at north latitude $41^{\circ} 41^{\prime}$ and northward Canada extends to the North Pole and includes the Arctic Archipelago between Davis Strait, Baffin Bay and the connecting waters northward to and along the 60th meridian on the east and the 141st meridian on the west. Thus Canada covers in all $48^{\circ}$ of latitude and $88^{\circ}$ of longitude. It is bounded on the west by the Pacific Ocean and the $1,539.8$ linear miles of Alaskan territory, on the south by the United States, a distance of $3,986.8$ miles, and on the east by the Atlantic Ocean, Davis Strait and the dividing waters between Ellesmere Island and the Danish territory of Greenland.

Canada is the second largest country in the world, having an area of 3,845,774 sq. miles. It is superseded in size only by the Union of Soviet Socialist Republics with $8,598,679$ sq. miles. $\dagger$ Other comparisons are: China $3,759,181$ sq. miles, $\dagger$ continental United States and Alaska 3,608,644 sq. miles, $\dagger$ the Continent of Europe (excluding the European part of the Soviet Union) $1,913,126$ sq. miles $\dagger$ and Australia $2,974,463$ sq. miles. $\dagger$

The sea-coast of Canada comprises the following estimated mileages:-
Mainland.-Atlantic 6,111, Pacific 1,579, Hudson Strait 1,245, Hudson Bay 3,157, Arctic 5,771; total 17,863 miles.
Islands. - Atlantic 8,677, Pacific 3,979, Hudson Strait 60, Hudson Bay 2,307, Arctic 26,786; total 41,809 miles.

[^8]Canada's fresh-water area is extensive, constituting over 6 p.c. of the total area of the country. Its inland waterways, particularly with respect to transportation and the development of electric power, are among the most vital influences in the national economy.

## 1.-Approximate Land and Fresh-Water Areas, by Provinces and Territories

Note.-For a classification of land area as agricultural, forested, etc., see p. 19.

| Province or Territory | Land | Fresh Water | Total | Percentage of Total Area |
| :---: | :---: | :---: | :---: | :---: |
|  | sq. miles | sq. miles | sq. miles |  |
| Newfoundland | 147,994 | 7,3701 | 155,364 | $4 \cdot 0$ |
| Island of Newfoundland | 40,659 | 2,175 | 42,784 | 1.1 |
| Coast of Labrador. | 107,485 ${ }^{1}$ | 5,195 ${ }^{1}$ | 112,6801 | 2.9 |
| Prince Edward Island. | 2,184 |  | 2,184 | $0 \cdot 1$ |
| Nova Scotia. | 20,743 | 325 | 21,068 | 0.6 |
| New Brunswick | 27,473 | 512 | 27,985 | 0.7 |
| Quebec. . | 523,860 | 71,000 | 594,860 | 15.5 |
| Ontario. | 363,282 | 49,300 | 412,582 | 10.7 |
| Manitoba | 219,723 | 26,789 | 246,512 | 6.4 |
| Saskatchewan. | 237,975 | 13,725 | 251,700 | $6 \cdot 6$ |
| Alberta. | 248,800 | 6,485 | 255,285 | $6 \cdot 6$ |
| 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. | 541,763 | 7,600 | 549,253 | 14.8 |
| Keewatin. | 218,460 | 9,700 | 228,160 | $5 \cdot 9$ |
| Mackenzie | 493,225 | 34,265 | 687,490 | 18.7 |
| Canada. | 3,610,097 | 235,677 | 3,845,774 | $100 \cdot 0$ |

${ }^{1}$ Based on estimates.

## Section 1.-Physical Geography

Subsection 1.-Physiographic Divisions

Canada divides naturally into four major physiographic regions which are differentiated by geological history and structure. They include the Canadian Shield, the Appalachian Region, the Interior Plains Region and the Cordilleran Region. A fifth division, about which much less is known, includes a belt of folded rocks of Palæozoic and Mesozoic age in the northern part of the Arctic Archipelago. The following is a short description of these regions from the standpoint of topography and geology.

The Canadian Shield.-The Canadian Shield is a vast V-shaped area of approximately $1,800,000$ sq. miles surrounding Hudson Bay and extending from the coast of Labrador west to the Interior Plains Region and south to the International Border. It is an area, for the most part, of low relief rarely rising more than 1,500 to 2,000 feet above sea-level, except in Labrador where altitudes of 5,000 feet occur. Its surface is hummocky, marked by irregular hills and ridges but these, over wide areas, do not rise more than 100 to 200 feet above the adjacent lakes and valleys. The numerous lakes and rivers which are everywhere so characteristic of the Shield-for it is the great lake region of the world, probably containing more lakes than all the rest of the world put together-were formed during the Glacial or Pleistocene period as the result of erosion and deposition by continental glaciers which covered the region during the Pleistocene epoch.


A knowledge of distances in miles between principal points constitutes very useful information in these days of wide travel, but when an attempt is made to compile such data difficulties are at once encountered. Railway distances are the logical choice, even though road distances are of increasing interest to a vast body of travellers by automobile and are a useful alternative. Railway distances represent usually the shortest practicable land distances between two points and even to-day the bulk of freight and passenger traffic is by rail. Again, distances by air (sometimes called 'bee-line' distances) are only useful in practice to those who travel by air. This is a growing phase of transportation, of course, but has not yet assumed such proportions that its tabulation should displace the more usual one. Again, it is not a difficult matter to estimate air-line distances from a map made to convenient scale, whereas the ordinary reader is not able to obtain railway distances easily.

Even though it be decided to adopt railway distances as most useful, it is necessary to decide whether the most travelled route between two places or the shortest railway route should govern. In the tables given below, the distances between points are the shortest distances by railway and not necessarily the most travelled routes or the routes by which main trains travel. They are compiled principally from the railway time tables. The main table includes the capital of each province and some of the main shipping points chosen principally, but not altogether, by population; the subsidiary tables include distances of local importance. Included in the distances from Charlottetown is the distance from Borden to Cape Tormentine, over which the trains are transported by ferry; similarly, the train ferry distance between Mulgrave and Point Tupper is included in the distance from Halifax to Sydney. In the main table all the distances from Victoria include the distance travelled by boat from Victoria to Vancouver. However, wherever possible, railway distances only are used. In certain distances from Three Rivers and from Quebec it is possible, by the use of ferries, to travel by shorter routes than those given in the tables, the rail route only being taken in these cases.

Where boat routes are given, the best approximation of the distance travelled is used.
The air-line distances used are not necessarily the straight-line distances between points, but are the distances over the routes usually travelled by aeroplanes in good weather.


One of these ice sheets gathered west of Hudson Bay, another in the heart of Labrador. From these centres the ice moved out in all directions and in its advance scoured off the residual soil, smoothed down the topography, polished and striated rock surfaces and, by scattering debris irregularly, completely disorganized the drainage. The result was the formation of thousands of lakes of all sizes and shapes. In some of the temporary lakes situated in front of the ice during its retreat, clay and other fine stratified deposits accumulated forming what are known as clay belts.

Geologically, the rocks of the Shield are all very old having been formed in Precambrian time but include sedimentary, volcanic and intrusive varieties of widely different ages. In succeeding eras, the Shield suffered vertical movement at intervals but it has been unaffected by folding or mountain-building deformation. The Canadian Shield is a great storehouse of mineral wealth, particularly of metals. Its gold ores, the copper-zinc-sulphide replacement deposits of Noranda, Flin Flon, etc., and many other ore-occurrences were formed by mineralization given off by intrusive masses during the late stages of their cooling. In eastern Ontario and western Quebec, where granite has intruded limestone and other sediments, there occur deposits of mica, graphite, feldspar, magnesite, fluorite and other minerals.

The Appalachian Region.-This Region includes the Provinces of Nova Scotia, New Brunswick, Prince Edward Island, the Island of Newfoundland and that part of Quebec lying south and east of the St. Lawrence River. It is mountainous or hilly, the highest elevation-4,200 feet-is that of Mount Jacques Cartier on Tabletop Mountain, in the Shickshock Range in central Gaspe.

The rocks of this Region include sediments, volcanics and intrusives chiefly of Palæozoic age with rocks of Precambrian age in local areas on the Island of Newfoundland, New Brunswick, Cape Breton Island and southwestern Quebec. Ordovician strata in Newfoundland contain important deposits of iron. Rocks of Carboniferous age have large coal deposits and also gypsum. Zinc, lead and copper are mined at Red Indian Lake in Newfoundland and other mineral occurrences are known.

The Interior Plains Region.-The Interior Plains are part of the great plains region in the interior of the continent and, in Canada, extend through Manitoba, Saskatchewan, and Alberta northwest to the Arctic Ocean. Other areas, such as the St. Lawrence Lowlands stretching from Lake Huron northeasterly to Anticosti Island and the Hudson Bay Lowland bordering the west side of Hudson Bay, are regarded as outliers of this Region.

The Plains of Western Canada slope gently eastward from an elevation of 4,000 feet in western Alberta to about 500 feet in southern Manitoba; they show a flat surface interrupted by deep-incised valleys and by many flat-topped hills or mesas. Glacial deposits particularly clays laid down in glacial Lake Agassiz, which existed during the late stages of the melting of the Pleistocene ice sheet, are responsible for the soils that produce the wheat crops of Manitoba and Saskatchewan.

The border of the Mesozoic strata in Manitoba and Saskatchewan is a steep rise known as the Manitoba Escarpment. Westward the surface rises from 1,000 to 2,000 feet at the escarpment to 4,000 to 5,000 feet at the border with the mountains of the Cordilleran region. Bituminous coal, lignites, natural gas and bituminous
sands are found in these beds in Alberta and Saskatchewan, and gypsum and salt in Palæozoic strata in Manitoba. Devonian beds produce the important oil fields of Alberta and Norman Wells in the Mackenzie Valley, N.W.T.

The St. Lawrence Lowland falls into three subdivisions, the first and most westerly includes Manitoulin Island and that part of Ontario facing on Lakes Erie and Ontario. It shows a prominent topographical feature, the Niagara Escarpment, an abrupt rise of 250 to 300 feet extending from the Niagara River to Bruce Peninsula. The second subdivision extends from the east side of the. Frontenac axis (a southward projection of the Canadian Shield that crosses the St. Lawrence River between Kingston and Brockville, Ont.) east to Quebec City, and the third subdivision comprises Anticosti Island and the Mingan Islands.

The strata of the entire belt of the St. Lawrence Lowlands are of Palæozoic age. They lie horizontally or with low dips, are mainly of marine origin, and were deposited in seas that swept over a large part of the continent. Vertical movements caused these seas to advance and retreat so that the sediments deposited vary considerably. On Anticosti Island the rocks are of Upper Ordovician and Silurian age. The mineral occurrences in the St. Lawrence Lowlands are petroleum and natural gas, salt, gypsum, limestone, dolomite and also clay which can be used for the manufacture of bricks, tiles and cement.

The Hudson Bay Lowland, the other outlier of the Interior Plains, is underlain by flat-lying rocks mostly of Palæozoic age ranging from Ordovician to Devonian. It rises from sea-level with a very gradual gradient to a height of 400 feet. Lignite occurs in the Moose River Basin in beds of Upper Jurassic or Lower Cretaceous age overlying the Devonian beds.

The Cordilleran Region.-The Cordilleran Region comprises the mountainous country bordering the Pacific Ocean and covers an area of 600,000 sq. miles. It is made up of three zones. On the east is the Rocky Mountain Range, on the west along the coast is the Coast Range, and between the two is a third belt made up of upland and mountainous country.

The Rocky Mountains have a maximum width of 100 miles and peaks and elevations of from 10,000 to 12,000 feet. The Coast Range varies in width from 50 to 100 miles and rises abruptly from the coast to peaks of from 7,000 to 10,000 feet.

The northern part of the interior belt, known as the Yukon plateau, is a gently rolling upland broken into a series of flat-topped ridges by valleys several thousand feet deep; the southern part in British Columbia, rises from 3,000 to 4,000 feet above sea-level. To the east between the upland and the Rocky Mountains are a series of mountain ranges, the Selkirks with peaks of 11,000 feet being the most important.

The geological history of the Cordilleran is complex but may be summarized as follows. In Precambrian time sediments which are now in the form of limestones, gneisses and schists were deposited in the interior belt. In Yukon, these strata are known as the Yukon group and in central British Columbia as the Shuswap group. These have been altered by intrusive rocks and included with them are the
metamorphosed phases of much later rocks. In late Precambrian time argillites and related sediments accumulated on the site of the southern Rockies and in the region now occupied by the Purcell Mountains which are made up dominantly of quartzites of a thickness of over 20,000 feet. Sedimentation progressed during the Palæozoic era from Cambrian to Carboniferous time, and also during that of Mesozoic. Volcanism, the intrusion of granites, and mountain-building took place in the western part of the belt during the Jurassic period giving rise to the Selkirk and Coast Ranges. In late Cretaceous time and continuing over into the Tertiary, pressure from the west folded the rocks in the eastern part of the region giving rise to the Rocky Mountains.


The Cordilleran Region is a producer of gold (both lode and placer), silver, lead and zinc, and contains deposits also of mercury, tungsten and iron. Most of the known mineral occurrences are in the Western Cordilleran Belt and are related to late Mesozoic and early Tertiary granitic intrusions. Coal is widespread in the foothills of Alberta and oil and petroleum are also found in this area. Fluorite, gypsum, magnesite, hydromagnesite phosphate, saline deposits, and limestone form other valuable mineral occurrences.

For further details see Year Book 1947, pp. 19-29, and Year Book 1951, pp. 14-26.

## Subsection 2.-Hydrographic Features

Lakes and Rivers.-Canada's fresh water lakes and rivers cover an area of 235,677 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.-Areas, Elevations, 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......... | 602.23 | 383 | 160 | 1,302 | 31,820 | 11,200 |
| Michigan (U.S.A.) | $580 \cdot 77$ | 321 | 118 | 923 | 22,400 | - 075 |
| Huron. | $580 \cdot 77$ | 247 | 101 | 750 | 23,010 | 13,675 |
| St. Clair | $575 \cdot 30$ | 26 | 24 | 23 | 460 | ${ }_{5} 270$ |
| Erie..... | $572 \cdot 40$ | 241 | 57 | 210 | 9,940 | 5,094 |
| Ontario... | $245 \cdot 88$ | 193 | 53 | 774 | 7,540 | 3,727 |

There are no tides in these Great Lakes although considerable variation in water-levels is occasioned by strong winds or heavy precipitation.

Other large lakes of Canada, ranging in area from 9,000 to 12,000 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 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.-Areas and Elevations of Principal Lakes, by Provinces and Territories

Note.-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.

3.-Areas and Elevations of Principal Lakes, by Provinces and Territories-continued

| Province and Lake | Elevation | Ares | Province and Lake | Elevation | Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | ft. | sq.miles |  | ft. | sq.miles |
| Quebec-concluded |  |  | Manitobs-concluded |  |  |
| Manicouagan. |  | 110 | Cross Nelson River.......... | ${ }_{6} 679$ | 274 |
| Manuan....... | 1,340 | 100 | Dauphin....................... | 853 | 200 |
| Msricourt |  | 110 | Dog. ........................... | 815 | ${ }_{28}^{64}$ |
| Msttagami | 615 | 88 | Etawner. . . . . . . . . . . . . . . . . |  | 28 319 |
| Minto..... | 1,243 | 485 840 | Gods. | ${ }_{935}^{585}$ | 319 53 |
| Mistassini | 1,243 | 840 150 | Granville | 850 | 181 |
| Olga...... | 1,635 | 50 | Island... | 744 | 550 |
| Payne | . | 230 | Kamuchawie (total, 56) part. . | 1,153 | 30 |
| Pipmak |  | 90 | Kipahigan (total, 59) part..... | 763 | 29 |
| Pletipi. |  | 138 | Kiskittogisu. . . . . . . . . . . . . . . | 709 696 | 99 65 |
| Quinze, des | HW ${ }^{\text {H }}$ | 55 | Kississing | 920 | 141 |
| St. Francis, River St. Law- | LW 151 |  | Manitobs | 813 | 1,817 |
| rence (total, 83) part. | N 153 | 63 | Molson. |  | 154 |
| St. John................. | 321 | 375 | Moose. | 838 | 525 |
| St. Louis | LW 65 | 57 | Namew (total, 79) | 3 | ${ }^{8}$ |
|  | LW 11 | 130 | Nurthern (total, 336) part. ........ | 720 | 76 |
| Simard | LW 856 | 139 59 | Oxford.............. | 612 | 155 |
| Timiskaming (total, 110) part | HW 593 |  | Paint...................... | 615 | 54 |
| Two Mount | $\begin{array}{r}\text { N } \\ \hline\end{array}$ | 63 | Pelican, west of Lake Winnipegosis. | 837 | 80 |
| Waswanipi... | 680 | 75 | Playgreen. | 711 | 257 |
|  |  |  | Reed. | 911 | 78 |
| Ontario- |  |  | Red Deer, west of Lake Winnipegosis. | 862 | 86 |
| Abitibi (total, 350) part. | 868 | 295 | Reindeer (total, $\mathbf{2 , 4 4 4}$ ) part.... | 1,150 | 386 |
| Dog | 1,378 | 61 | St. Martin | 798 | 125 |
| Eagle | 1,192 | 137 | Setting | 737 | 49 |
| Erie (total, 9,940) part. | 572 | 5,094 | Sipiwesk | 598 | 201 |
| Huron, including Georgian |  |  | Sisipuk (total. 99) part | 915 | 73 |
| Bay (total, 23,010) part. | 581 | 13,675 | Southern Indian........ | 835 | 1,060 |
|  |  | 90 | Stevenso |  | 75 |
| La Croix (total, 55) part | 1,181 | 25 | Swan | 849 | 100 |
| Long.... ${ }_{\text {Manitou, Kenor }}$ | 1,025 | 75 | Talbot | 845 | 72 |
| Manitou, Kenora | 1,215 | 60 | Todatara (total, 241) part..... |  | 156 |
| Mille Lacs, Lac d | 1.491 | 102 | Walker. | 1,121 | 62 |
| Minnitaki | 1.177 | 72 | Waterhe | 829 | 90 |
| Nipigon. | ${ }^{\circ} 2$ | 1,870 | Wekusko | 840 | 64 |
| Nipissing. ${ }^{\text {Ontario (total }} 7.7 .1 .1 . .$. | 643 246 | 330 | Winnipeg | 713 | 9,094 |
| Ontario (total, 7,540) part..... | HW1 246 | 3,727 | Winnipegos | 831 | 2,086 |
| Rainy (total, 345) part (reser- voir). | HW 1,108 LW 1,103 | 275 | Woods, Lake of the (total, $1,485)^{1}$ part (reservoir). | $\begin{aligned} & \text { HW 1,062 } \\ & \text { LW 1,056 } \end{aligned}$ | 69 |
| Red........................ | 1,157 | 69 |  |  |  |
| St. Clair (total, 460) part...... | . 575 | 270 | Saskatchewan- |  |  |
| St. Francis, River St. Lawrence (total, 83) part. | $\left\lvert\, \begin{array}{ll} \text { LW } & 151 \\ \mathrm{~N} & 153 \end{array}\right.$ | 20 | Amisk. | 964 | 168 |
| St. Joseph | N 1,219 | 187 | Athabaska (total, 3,058 ) part. | 699 | 2,165 |
| Sandy | 1,190 | 270 | Besnard. ....................... | 1.294 | 72 |
|  | HW1,172 |  | Black Birch. . . . . . . . . . . . . . . . | 1,517 | 54 |
| Simeul (rea | LW 1,156 | 530 | Candle........................ | 1.620 | 56 |
| Simcoe......... | 718 | 280 |  | 1,415 | 78 |
| Stout, Berens River ............ | 1,039 | 50 |  | 1,382 | 213 |
| Sturgeon, English River....... | 1,342 | 110 | Cold (total, 136) part. . . . . ${ }^{\text {cher }}$ | 1,756 | 36 350 |
| Superior (total, 31,820) part.... Timagami. | 602 | 11,200 | Cumberland | 1,541 | 350 93 |
|  |  |  | Deschambaul | 1,072 | 209 |
| Timiskaming (total, 110) part | N ${ }^{\text {N }}$ | 55 | Doré. | 1,506 | 248 |
| Trout, English River | 1,294 | 156 | Ile-a-la-Crosse ................. | 1,379 | 165 |
| Trout, Severn River......... |  | 215 | Kamuchawie (total, 56) part. . | 1,153 | 26 |
| Woods, Lake of the (total, 1,485) ${ }^{\text {part (reservoir). }}$ ( | HW1,062 |  | Kipahigan (total 59) part..... <br> La Plonge | 1,963 1,476 | 30 90 |
| 1,485) ${ }^{1}$ part (reservoir). | LW 1,056 | 953 | La Plonge. <br> La Runge. | 1,476 1,250 | 90 450 |
| Manitoba- |  |  | Last Mountain.................. | 1,608 | 89 |
|  |  |  | Loche, la | 1,459 | 70 |
| Athapapuskow. | 951 | 104 | Montreal | 1,608 | 162 |
| Atikam | 855 | 112 | Namew (total, 79) part. | 873 | 71 |
| Ceda | 651 | 70 | Nemeiben | 1,259 | 63 |
| Cormorant | 829 | 537 | Peter Pond | 1,382 | 302 |
| Cormorant | 840 | 134 | Primrose (tota) | 1,964 | 173 |

[^9]3.-Areas and Elevations of Principal Lakes, by Provinces and Territories-concluded

| Province and Lake | Elevation | Area | Province or Territory and Lake | Elevation | Area |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Saskatchewan-concluded | ft . | sq.miles | British Columbia-concluded | ft . | sq.miles |
| Quill | 1,704 | 236 | Teslin (total, 161) part. | 2,250 | 65 |
| Reindeer (total, 2,444) part.... | 1,150 | 2,058 | Upper Arrow. | 1,395 | 88 |
|  | 915 | 75 |  |  |  |
| Sisipuk (total, 99) part........ | ${ }^{915}$ | 26 | Northwest Territories- |  |  |
| Smoothstone................... | 1,572 1,262 | 110 159 | Aberdeen............. | 130 | 475 |
| Tazin | 1,130 | 156 | Artillery | 1,190 | 207 |
| Wollaston. | 1,300 | 768 | Aylmer | 1,230 | 340 |
|  |  |  | Baker. | 30 | 975 |
| Alberta- |  |  | Clinton-Colden | 1,226 | 253 |
| Athabaska (total, 3,058) part.. | 699 | 893 | Dubawnt | 500 | 1,600 |
| Beaverhill..................... | 2,202 | 80 | Faber | 753 | 163 |
| Biche, la.. | 1,784 | 94 | Franklin | . | 175 |
| Buffalo. | 2,566 | 56 | Garry Gras | 1,300 | 980 345 |
| Calling. | 1,947 | 55 | Gras, de... | 1,300 391 | 12,000 |
| Claire. | 699 | 545 | Great Slave | 495 | 12,000 |
| Cold (total, 136) part.......... | 1,756 | 100 | Hardisty.. | 699 | 11,107 |
| Lesser Slave | 1,893 | 461 | Hottah. |  | 377 |
| Peerless. | 2,267 | 75 | Kaminuriak | 320 | 360 |
| Primrose (total, 181) par | 1,964 | 8 | Macdougal. | .. | 265 |
| Sullivan (variable). | 2,652 | 62 | Maguse. | . | 540 685 |
| Utikuma | 2,105 | 85 | Mackay | 1,415 | 685 250 |
| British Columbia- |  |  | Marian. | 495 | 90 |
| Adams. | 1,334 | 52 | Nueltin (total, 336) p | $\cdots$ | 260 |
| Atlin (total, 308) p | 2,200 | 307 | Putly N ... | $\cdots$ | 350 331 |
| Babine. | 2,330 | 194 | Point |  | 295 |
| Chilko. | 3,842 | 75 | Rae. | 748 | 74 |
| Eutsuk | 2,817 | 96 | Schultz | 115 | 110 |
| François. | 2.345 | 91 | Thoalintoa |  | 160 |
| Harrison. |  | 87 | Todatara (total, 241) part |  | 85 |
| Kootenay................... | 1,741 | 168 | Yathkyed. | 300 | 860 |
| Kotcho (unsurveyed and estimated) |  | 90 |  |  |  |
| Lower Arrow.... | 1,379 | 59 | Yukon Territory - |  |  |
| Okanaga | 1,123 | 136 | Aishihik............ |  | 107 |
| Ootsa. | 2,666 | 50 | Atlin (total, 308) part | 2,200 | 1 |
| Quesnel | 2,375 | 100 | Kluane. | 2,500 | 184 |
| Shuswap. | 1,137 | 120 | Kusawa | 2,565 | 56 |
| Stuart. | 2,225 | 139 | Laberge | 2,100 | 87 |
| Tagish (total, 138) part. | 2,148 | 93 | Tagish (total, 138) part | 2,148 | 45 |
| Takla.................. | 2,270 | 102 | 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 Resources and Development.

| Drainage Basin | Area <br> Drained ${ }^{1}$ | Drainage Basin | Area Drained ${ }^{1}$ |
| :---: | :---: | :---: | :---: |
| Atlantic Basin | 8q. miles | Arctic Basin | sq. miles |
| Atlantic Provinces. | 213,885 | Great Slave Lake. <br> Arctic. | $\begin{aligned} & 370,681 \\ & 559,676 \end{aligned}$ |
| Great Lakes and St. Lawrence River... | 359,312 | Total | 930,357 |
| Total. | 573,197 | To |  |
| Hudson Bay Basin |  | Pacific | 273.540 |
|  |  | Yukon Riv | 127.190 |
| Northern Quebec...................... Southwest Hudson Bay............ | 343,259 283,997 | Total | 400,730 |
| Southwest fudson Bay................. | 368,182 | Gulf of Mexico Basin | 10,121 |
| Western Hudson Bay <br> Total | 3883.722 | Area, Canada Less Arctic Archipelago | 3,310,396 |

[^10]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 the head of Lake Superior to the entrance of the Gulf of St. Lawrence, the distance is 2,338 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 in 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 Tributaries

Nore.-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 |  | miles |
| Flowing into the Atlantic Ocean |  | Flowing into the Atlantic Ocean-concl. |  |
| St. Lawrence (to head of St. Louis, Minn.).. | 1,900 | Natashquan.............................. | 241 |
| Ottawa..................................... | 696 | Moisie...................................... | 210 |
| Gatineau | 240 | Hamilton. . . . . . . . . . . . . . . . . . . . . . . . . . . | 208 |
| du Lièvre | 205 | Exploits.................................. | 153 |
| Coulonge. | 135 | Naskaupi. . . . . . . . . . . . . . . . . . . . . . . . . . | 152 |
| Madawaska | 130 | Canairiktok. ............................... | 139 |
| Rouge. | 115 | Eagle. | 138 |
| Mississippi | 105 | Miramichi. | 135 |
| Petawawa | 95 | Marguerite | 130 |
| South Nation Dumoine.... | 90 | Gander. | 102 |
| Dumoine. <br> North. | 80 | Flowing into Hudson Bay |  |
| North Nation. | 60 | Fowing linto Hudson Bay |  |
| Saguenay (to head of Peribonca) | 475 | Nelson (to head of Bow)................ | 1,600 |
| Peribonca. | 280 | Saskatchewan (to head of Bow)......... | 1,205 |
| Mistassini | 185 | South Saskatchewan................. | 865 |
| Ashuapmuchuan | 165 | Red Deer.......................... | 385 |
| St. Maurice.. | 325 | Bow. | 315 |
| Mattawin............................. | 100 |  | 180 |
| Manicouagan (to head of Racine-de- |  | North Saskatchewan................ | 760 |
| Butardes ${ }_{\text {B }}$ (................................ | 310 | Red (to head of Sheyenne)........... | 545 |
| Outardes <br> Bersimis. | 270 240 |  | 590 450 |
| Richelieu................................. | 210 | Qu'Appeille........................... | 270 |
| St. Francis................................. | 165 | Winnipeg (to head of Firesteel) .......... | 475 |
| Chaudière V............................. | 120 | English................................. | 330 |
| Via the Great Lakes- |  | Churchill..................................... | 1,000 |
| French (to head of Sturgeon)......... | 180 | Beaver.............................. | 305 |
| Sturgeon........................ Grand | 110 | Koksoak (to head of Kaniapiskau)......... | 660 |
| Grand <br> Thames | 165 163 |  | 575 610 |
| Spanish................................. | 153 | Albany (to head of Cat)................... | 610 |
| Trent. . . . . . . . . . . . . . . . . . . . . . . . . . | 150 | Dubawnt...................................... | 580 |
| Mississagi........................... | 140 | Eastmain.................................. | 510 |
| Nipigon (to head of Ombabika)...... | 130 | Fort George (to Nichicun Lake)........... | 480 |
| Moira................................ | 60 | Attawapiskat............................ | 465 |
| St. John....... | 40 418 |  | 455 400 |
| Romaine... | 270 | Waswanipi.................................. | 190 |

5.-Lengths of Principal Rivers and Tributaries-concluded

| Drainage Basin and River | Length | Drainage Basin and River | Length |
| :---: | :---: | :---: | :---: |
|  | miles |  | miles |
| Flowing into Hudson Bay-concluded |  | Flowing into the Pacific Ocean-concl. |  |
| Nelson (to head of Lake Winnipeg)......... | 400 | Columbia (in Canada) | 459 |
| Rupert. .............................. | 380 | Kootenay (total)... | 407 |
| Red (to head of Lake Traverse)........... | 355 <br> 345 | Kootenay (in Canada) | 276 |
| George (to Hubbard Lake).................. | 345 340 | Skeena .............. | 360 |
| Moasitibi................................... | 340 | Bulkley (to head of Maxam Creek). | 160 |
| Mattagami | 275 | Stikine.. | 335 |
| Missinabi.. | 265 | Alsek | 260 |
| Hayes. | 300 | N | 236 |
| Winisk | 295 |  |  |
| Whale. | 270 |  |  |
| Harricanaw | 250 | Flowing into the Arctic Ocean |  |
| Great Whale | 230 |  |  |
| Leaf. | 165 | Mackenzie (to head of Finlay). | 2,635 |
| Flowing into the Pacific Ocean |  | Peace (to head of Finlay) Finlay | 1,195 $\mathbf{2 5 0}$ |
| Yukon (mouth to head of Nisutlin). | 1,979 | Smoky | 245 |
| Columbia (total). | 1,150 | Little Smoky | 185 |
| Fraser.. | 850 | Parsnip. | 145 |
| Thompson (to head of North Thomp- |  | Athabaska. | 765 |
| son)......... | 304 | Pembina | 210 |
| North Thompson...................... | 210 | Liard. | 755 |
| South Thompson (to head of Shuswap). | 206 | South Nahanni | 350 |
| Nechako | 2288 | Petitot.... | ${ }_{260} 295$ |
| Chilcotin. | 146 | Hay. | 530 |
| West Road (Blackwater) | 141 | Peel (to head of Ogilvie) | 425 |
| Yukon (Int. Boundary to head of Nisutlin). | 714 | Arctic Red. | 310 |
| Porcupine................................. | 590 | Slave. | 258 |
| Lewes. | 338 | Twitya | 200 |
| Pelly. | 330 | Back. | 605 |
| Stewart. | 320 200 | Coppermin | ${ }_{4} 525$ |
| White. | 185 | Horton. | 275 |

Ocean Areas and Seas.-A comprehensive description of the oceanic 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. For further details, see Year Book 1947, pp. 3-12.

Atlantic.-Incursions of the sea in the Atlantic coast are formed in depressions between crests of the Appalachian Mountain system as it dips to the ocean. 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 abysmal 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 seafloor of the marginal sea appears to be traversed by channels and gulleys and is trenched with deep ravines 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 shore banks washes away enormous masses that are deposited over the surrounding sea-floor. Icebergs carry detritus gouged from the land and brought south by the Labrador Current. 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.

The incursions of the sea-Hudson Bay and Hudson Strait-bite deeply into the continent; the former is an inland sea 250,000 sq. miles in area. Soundings of Hudson Bay show 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 in width 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 and 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 and the Queen Charlotte Islands are the largest and most important but the coast is 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 and 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.

The most important islands of the inland waters are 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.

Table 6 lists the islands of Canada that have an area of over 2,000 sq. miles.

## 6.-Areas of Principal Islands

| Island | Area | Island | Area |
| :---: | :---: | :---: | :---: |
|  | sq. miles | Aretic Ocean-concluded | 8q. miles |
| Arctic Ocean- |  | Ellef Ringnes. | 3,719 |
| Baffin.: | 197,754 | Cornwallis.. | 2,660 |
| Victoria.. | 80,340 | Amund Ringnes. | 2,027 |
| Ellesmere | 77,392 25,675 |  |  |
| Devon. | 21,606 | Atlantic Ocean- |  |
| Melville. | 16,503 | Newfoundland.. | 42,734 |
| Southampton | 16,350 | Cape Breton. | 3,970 |
| Prince of Wales | 13,736 | Anticosti (Gulf of St. Lawrence). | 3,043 |
| Axel-Heiberg. | 13,583 | Prince Edward. | 2,184 |
| Somerset. | 9,594 |  |  |
| Prince Patrick | 7,192 $\mathbf{5 , 1 0 6}$ | Paclfic Ocean- |  |
| Bylot.... | 5,005 | Vancouver. | 12,408 |

## Subsection 4.-Mountains

The predominant orographical feature in Canada is the Great Cordilleran Mountain System. The principal named peaks exceeding 11,000 feet in elevation are given in Table 7.

## 7.-Mountain Peaks 11,000 Feet or Over in Elevation, by Provinces and Mountain Ranges

Note.- The highest elevations of the mainland of Eastern Canada are peaks of the Torngats in Labrador which are about 5,000 feet and Mount Jacques Cartier, a peak of Tabletop Mountain in the Shickshock Range of the Gaspe District, Que., which rises to 4,200 feet.

| Province, Mountain Range, and Peak | Elevation | Province, Mountain Range, and Peak | Elevation |
| :---: | :---: | :---: | :---: |
| Alberta | ft. | Alberta-continued | ft . |
| Rocky Mountains- |  | Rocky Mountains-continued |  |
| Columbial.. | 12,294 12,250 | Kitchener | 11,500 11,495 |
| Brazeau... | 12,250 12,085 |  | 11,495 |
| The Twins......................... \{ | 11,675 | Athabaska............................ | 11,452 |
| Forbes. | 11,902 | King Edward ${ }^{1}$. . . . . . . . . . . . . . . . . . . . | 11,400 |
| Alberta | 11.874 | Victoria ${ }^{1}$. | 11,365 |
| Assiniboine ${ }^{1}$ | 11,870 | Snow Dome ${ }^{1}$ | 11,340 |
| Temple. . . . . . . . . . . . . . . . . . . . . | 11,636 | Stutfield | 11,320 |

# 7.-Mountain Peaks 11,000 Feet or Over in Elevation, by Provinces and Mountain Ranges-concluded 

| Province, Mountain Range, and Peak | Elevation | Territory, Mountain Range, and Peak | Elevation |
| :---: | :---: | :---: | :---: |
|  | ft. |  | ft . |
| Alberta-concluded |  | British Columbia-concluded |  |
| Rocky Mountains-concluded |  | Rocky Mountains-concluded |  |
| Joffrel | 11,316 | Chown | 11.500 |
| Murchison........................... | 11,300 | Resplendent. | 11,240 |
|  | 11, 235 | King George | 11,226 <br> 11 <br> 17 |
|  | 11,230 11,214 | Jumbo...... | 11,217 11,160 |
| Sir Douglas ${ }^{\text {A }}$ | 11,174 | Whitehorn... | 11,101 |
| Woolley..... | 11,170 | Bush..... | 11,000 |
| Lunette ${ }^{1}$. | 11,150 | Sir Alexander. | 11,000 |
| Hector.............................. | 11,135 |  |  |
| Diadem............................ | 11,060 | St. Elias Mountains- |  |
| Edith Cavell | 11,033 | ${ }_{\text {Fairweather }}{ }^{\text {R }}$. | 15,287 12,860 |
| Fryatt. | 11,026 |  |  |
| Coleman | 11,000 |  |  |
| Wilson. | 11,000 | Yukon Territory ${ }^{3}$ |  |
|  |  | St. Elias Mountains- |  |
| British Columbia |  | Logan.... | 19,850 |
| Coast Mountains- |  | St. Elias.. | 18,008 17,150 |
| Waddington........................ | 13,260 | King.. | 17,130 |
| Tiedemann......................... | 12,000 | Steele. | 16,439 |
| Selkirk Mountains- |  | Vancouver. | 15,896 |
| Sir Sandford. | 11.590 | Hubbard. | 14,950 |
| Farnham.... | 11,342 | Alverstone. | 14,500 |
| Hagler. | 11,113 | Walsh. | 14,498 |
| Delphine. | 11,076 | McArthur | 14,400 |
| Huber. | 11,051 | Augusta. | 14,070 |
| Wheeler | 11.023 | Strickland | 13,818 |
| Selwyn. | 11,013 | Newton. | 13,811 |
|  |  | Cook... | 13,760 |
| Rocky Mountains- | 12,972 | Craig.... | 13,250 12,625 |
| Clemenceau. | 12,001 | Malaspina | 12,150 |
| Goodsir | 11,676 | Jeannette | 11,700 |
| Bryce.. | 11,507 | Baird. | 11,375 |

[^11] are on or near the Yukon-Alaska Boundary.

## Section 2.-Economic Geography

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, and as new provinces have been organized they have been granted political status equivalent to that of the original provinces. Yukon and the Northwest Territories with their boundaries of to-day are administered by the Federal Government. The characteristics of each of the provinces and of the territories are reviewed below. Details of resources and their development are given in later chapters.

Newfoundland.-Newfoundland, once the oldest colony of the British Empire, is the newest and most easterly province of Canada. It comprises the Coast of Labrador, an area of 112,630 sq. miles on the mainland, and the Island of Newfoundland which lies across the Gulf of St. Lawrence. Separating the two portions is the Strait of Belle Isle, 11 miles in width at its narrowest point. From Nova Scotia across Cabot Strait the distance is 70 miles. The Island is triangular in shape, the three sides each being about 320 miles long, and it has an area of 42,734 sq. miles.

The climate of the Island is temperate, with cool summers, mild winters and evenly distributed rainfall. In Labrador climatic conditions are more severe.

The Island is a plateau of low, rolling relief, with its highest elevations in the west where summits in the Long Range Mountains exceed 2,500 feet. Much of the surface is barren and rocky with innumerable ponds and swamps, and the land is unsuitable for farming. The river valleys and the west coast are thickly forested and support a thriving wood-pulp industry. The deeply indented coast line has many harbours providing safe anchorage for the fishing vessels that support the important fishing industry. Fishing, mainly for cod, is carried on along the coasts of Newfoundland and Labrador and on the Grand Banks. The Province of Newfoundland has extensive mineral deposits. Iron ore is mined on Bell Island and lead-zinc-copper ore at Buchans in the interior of the Island, while the vast iron-ore and water-power resources of the Coast of Labrador are now in the first stages of development.

Prince Edward Island.-This, the smallest province of Canada, is about 120 miles in length, with an average width of 20 miles and an area of $2,184 \mathrm{sq}$. miles. Prince Edward Island lies 10 to 20 miles off the mainland, east of New Brunswick and north of Nova Scotia, and is separated from these provinces by Northumberland Strait.

The Island attains an altitude of about 450 feet above sea-level and is almost trisected by the deep indentations of Malpeque Bay and by the mouth of the Hillsborough River, which nearly meets Tracadie Bay on the north side. Its rich, red soil and red sandstone formations are distinctive features. The climate is tempered by the surrounding waters of the Gulf of St. Lawrence and, combined with fertile soil and sheltered harbours, offers great inducements to the pursuits of agriculture and fishing. The Province is noted for its production of seed potatoes, its lobster canneries, oyster beds and fur farms.

Nova Scotia.-The Province of Nova Scotia is 381 miles in length by 50 to 105 miles in width and has an area of 21,068 sq. miles almost surrounded by the Bay of Fundy, the Atlantic Ocean and the Gulf of St. Lawrence. The mainland is connected with the Province of New Brunswick by the Isthmus of Chignecto. The Island of Cape Breton, forming the northeast portion of the Province, is separated from the mainland by the narrow Strait of Canso and includes the famous saltwater Bras d'Or Lakes. On the Atlantic side, the mainland is generally rocky and open to the sweep of Atlantic storms, it is deeply indented and has numerous harbours providing safety for the large fishing fleets that support the extensive fishing industry of the Province. The slopes facing the Bay of Fundy and the Gulf of St. Lawrence are sheltered from the Atlantic by low mountainous ridges not exceeding an altitude of 1,500 feet and running through the centre of the Province. In striking contrast to the rocky Atlantic side, they present fertile plains and river valleys especially adapted by climate and situation to the growth of apples, pears and other fruits.

Nova Scotia is one of the leading provinces in the production of good-quality bituminous coal, which is well adapted to the production of coke and excellent for domestic use and for steam-raising purposes. The chief coalfields are at Sydney and Inverness on Cape Breton Island, and at Pictou and Cumberland on the mainland.

New Brunswick.-New Brunswick is nearly rectangular in shape with an area of 27,985 sq. miles. The Bay of Chaleur on the north, the Gulf of St. Lawrence and Northumberland Strait on the east, the Bay of Fundy on the south, and

Passamaquoddy Bay on the southwest, provide the Province with a very extensive sea-coast. It adjoins the State of Maine, U.S.A., on the west and the Province of Quebec on the north and northwest.

The surface of New Brunswick is mostly undulating, but to the east it attains its highest elevation of 2,690 feet in the vicinity of Grand Falls, on the St. John River. In the northeastern half of the Province extensive areas of Crown lands carry valuable stands of merchantable timber and numerous rivers provide access to the extensive lumbering areas. The Province is watered to the west and south by the St. John River, which, in its course of 400 miles, runs through country famed for its distinctive beauty.

Economically, the forest resources are of first importance followed by the fisheries, although large areas of rich agricultural land are found in the numerous river valleys, especially that of the lower St. John, and in the broad plains near the coast. The mineral resources of the Province are limited and include moderate amounts of coal, natural gas and petroleum.

Quebec.-Quebec is the largest province of Canada and occupies the area of North America directly east of Hudson Bay, with the exception of the four other Atlantic Provinces; adjoining it on the south are the United States and New Brunswick, with Ontario on the west. It has an area of 594,860 sq. miles. A large part of the surface is made up of Precambrian rocks of the Canadian Shield, which renders it unsuitable for agriculture. The Gulf of St. Lawrence and the River St. Lawrence penetrate the entire width of Quebec and divide the Eastern Townships and the Gaspe Peninsula to the south from the larger area of the Province to the north. North of the St. Lawrence the land takes the form of a ridge parallel to the river and rises from sea-level to the Height of Land (varying from 1,000 to 3,000 feet) from which it descends gently to sea-level at Hudson Bay and Hudson Strait.

With the exception of the treeless zone, extending north of latitude $58^{\circ}$, most of the Province supports a valuable tree growth varying from the mixed forests in the southwest to the coniferous forests in the east and north. In addition to extensive timber limits, which form the basis of a great pulp and paper industry, Quebec is the foremost of the provinces in the development of hydro-electric power and has available water-power resources, at ordinary minimum flow, almost equal to those of Ontario and Manitoba combined. Asbestos deposits of Quebec have long been known for their quality and extent, and extensive developments of gold and copper have taken place in the western part of the Province. Year by year the mineralized area is being extended and Quebec is now in second place in mineral production among the provinces. The fisheries in the St. Lawrence River and Gulf are important and inland waters abound in game fish. The climate and soil of the upper St. Lawrence Valley and of the Eastern Townships are well suited to general farming operations, including dairying and the production of vegetables and maple products on a commercial basis.

Ontario.-Lying between Quebec on the east and Manitoba on the west, Ontario has an area of 412,582 sq. miles and is usually regarded as an inland province but its southern boundary has a fresh-water shore line of 2,362 miles on the Great Lakes while its northern limits have a salt-water shore line of 680 miles on Hudson and James Bays. There is a tidal port at Moosonee at the southern end of James Bay.

The surface of Ontario is characteristic of the Canadian Shield, except in the southern triangle lying between the lower lakes and the Ottawa River where the surface is low and level. The highest point in Ontario is 2,120 feet, on the promontory at the northeastern corner of Lake Superior. Northwest from the Height of Land, the slope descends very gently to Hudson Bay where a large marginal strip (the Hudson Bay Lowlands) is less than 500 feet above sea-level.

Mining is a very important industry in the wide-spread Precambrian area. Although the Province is lacking in native coal it is rich in other minerals and contributes almost one-half of the total mineral production of Canada. Gold, silver, nickel, copper, zinc, magnesium, dolomite, gypsum, salt and other minerals are mined extensively and petroleum and natural gas are also found in the Ontario Peninsula.

The Great Lakes waterways system permits economic international transportation of iron ore and coal for Ontario's basic iron and steel industries. This advantage, together with an abundance of natural resources has made Ontario the foremost manufacturing province of Canada. Vast forest resources in proximity to hydropower form the basis of a large pulp and paper industry, while the forests of the north are a rich fur preserve.

The lands along the St. Lawrence possess excellent soil and general farming is carried on extensively. In the Niagara Belt, fruit farming has been scientifically developed into a highly specialized industry.

Manitoba.-Manitoba, covering 246,512 sq. miles, is the most central of the provinces. With the Provinces of Saskatchewan and Alberta, it constitutes the Prairie Belt or Interior Plains section of Canada-world-renowned for the quality of its wheat.

Manitoba is a land of wide diversity, combining 400 miles of sea-coast on a rocky belt along its northeastern boundary, bordering Hudson Bay, great areas of northern mixed forests, large lakes and rivers covering an area of 26,789 sq. miles, a belt of treeless prairie extending to the southeastern corner of the Province, and patches of open prairie overlain by very fertile soil of great depth. The surface of the Province as a whole is comparatively level, the average elevation being between 500 and 1,000 feet. The greatest height of 2,727 feet is Duck Mountain northwest of Lake Dauphin.

About three-fifths of the Province, east and north of Lake Winnipeg, is underlain with Precambrian rock in which the presence of rich deposits of base metals has been confirmed. The Province, although regarded basically as agricultural, possesses a wealth of mineral, forest and water-power resources which have brought about an expanding industrial development.

Saskatchewan.-Saskatchewan, 251,700 sq. miles in area, lies in the centre of the Prairie Belt between Manitoba and Alberta and extends, as do those provinces, from the International Boundary on the south to the 60th parallel of latitude on the north.

The Canadian Shield extends over the northern third of the Province; this portion is abundantly watered by lakes and rivers and is generally of low relief. This area is also rich in timber resources and has given evidence of potential richness of mineral wealth. The southerly two-thirds of the Province is, generally, fertile prairie with soil of great depth. In normal years there is sufficient moisture for rapid growth and the abundant sunshine during the long summer season in this northern latitude quickly ripens the crops.

Alberta.-This Province covers 255,285 sq. miles and lies between Saskatchewan and the Rocky Mountains. The southern part of the Province is in the dry, treeless prairie belt, changing to the north into a zone of poplar interspersed with open prairie and giving way to mixed forests. The Canadian Shield extends only into the northeast corner of Alberta so that, excepting the fringe of mountainous country on its western border, practically the whole of the Province is overlain by arable soil of great depth. Alberta has two marked physical features: (1) the great valley of the Peace River where settlement has extended farther north than in any other part of Canada; and (2) the grazing lands in the foothills district which, rising sharply on the west, commence the ascent that continues to the very peaks of the Rocky Mountains. The southern half of the Province, rising towards the west, lies at a general elevation of from 2,000 to 4,000 feet but, in the northern half, the slope descends until elevations of well under 1,000 feet are reached at Lake Athabaska in the northeast corner.

Alberta has the most extensive coal and oil resources of any of the provinces and is the leading producer of petroleum and natural gas. These resources provide the basis of Alberta's industrial development. Lumbering is important in the more mountainous western parts and in the north, and ranching is carried on in the less populous sections. In some southern prairie areas the quantity and distribution of the natural precipitation make permanent agriculture precarious and a number of large irrigation projects have been developed, taking their water supply from rivers rising in the mountains that form the western boundary of the Province. The climate of Alberta is a particularly pleasant one, cooler in summer than the more eastern parts of the country and tempered in winter by the chinook winds.

British Columbia.-British Columbia, 366,255 sq. miles in area, is the third largest and the most westerly province of Canada. It includes many islands of the Pacific, notably Vancouver Island and the Queen Charlotte Islands, the area of the former being about 12,408 sq. miles.

The predominant feature of the Province is the parallel ranges of mountains that cover all except the northeast corner and produce a conformation characterized by high mountain ranges interspaced with valleys, many of which are extremely fertile with climatic conditions well adapted to mixed agriculture or fruit growing. Generally, the agricultural areas of these valleys are relatively small and broken, but there are two large areas in the Peace River Block and the Stuart Lake District that are rich and have great agricultural possibilities. The shore line of the Pacific is deeply indented with many inlets which are ideal for harbourage.

The wealth of the forest resources supports the lumbering and pulp and pa $r$ industries and places British Columbia first among the provinces in the product in of lumber and timber. The Province excels in fishery products, chiefly on acer at of the famous Pacific salmon. The mineral resources are remarkable for their y ety and wealth. Production of gold, copper, silver, lead and zinc has played an important role in the economic life of the Province since its early days, while valuable coal deposits on Vancouver Island and at Crowsnest and Fernie in the interior have been worked for many years. In water-power resources, British Columbia ranks second in Canada.

Yukon and the Northwest Territories.-These vast northern territories extend over an area of $1,511,979$ sq. miles, about 39 p.c. of the surface of Canada, from the 60th parallel of latitude to its northernmost limits.

The Territories are areas of contrast and extremes in physical characteristics, flora and fauna, and climate. The physical characteristics vary from the treeless plains of the far north, the rolling hills of the Canadian Shield in the east, the forested valley of the Mackenzie River, to some of the highest peaks of the Cordilleran Range in the west; from the small streams and lakes to the longest rivers in Canada, the Mackenzie and the Yukon, both of which are approximately 2,000 miles long, and Great Slave and Great Bear Lakes, each of which is over 11,000 sq. miles in area.

The mountains are rich in minerals and many valuable mining properties have been developed for gold, silver, oil and natural gas. The shores of Great Bear Lake have important deposits of high-grade pitchblende ores.

Early maturing varieties of spring wheat are grown on the agricultural land of the Territories lying almost entirely in the extension into the Mackenzie Valley of the central plains of the Prairie Provinces. In the northern regions the flora and fauna have their own peculiar patterns. Immense areas of lichens, which at first sight appear to be stretches of broken greyish rock, are the pastures upon which muskoxen feed. Caribou and muskoxen also feed on crowberries, ground-willow, sedges and mosses in the summer and on the living roots of these plants in winter.

The winters along the Mackenzie River are bitterly cold, averaging $16^{\circ}$ to $25^{\circ}$ below zero, but in Yukon they are surprisingly mild, being modified by Pacific waters, and vary from $2^{\circ}$ below to $21^{\circ}$ below zero.

Hunting of seals, walrus and whales and fishing and trapping form the principal basis of existence for the native Eskimos, providing food and hides for the manufacture of clothing, sleeping bags, etc. The introduction of reindeer by the Federal Government in the Mackenzie District of the Northwest Territories has provided an important industry to serve the people's needs.

## PART II.-LAND RESOURCES AND PUBLIC LANDS

## Section 1.-Land Resources

Table 1 classifies the land resources as agricultural, forested and unproductive. Duplication is unavoidable between the totals of present and potential agricultural land and the totals of forested land to the extent of agricultural lands under forest. The figures of agricultural lands are based on the 1951 Census; those on forested land are obtained from the Department of Resources and Development while those for total land area of Canada and the provinces are supplied by the Surveyor General.
1.-Land Area, classifled as Agricultural, Forested or Unproductive, (circa) 1951

| Description | New-foundland | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | $\begin{array}{r} \text { Yukon } \\ \text { and } \\ \text { a.W } \end{array}$ | $\underset{\text { anata }}{9}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Agricultural Land (Present and Potential)- | sq. miles | $\begin{gathered} \text { sq. } \\ \text { miles } \end{gathered}$ | $\begin{gathered} \text { sq. } \\ \text { miles } \end{gathered}$ | $\begin{aligned} & \text { sq. } \\ & \text { miles } \end{aligned}$ | $\begin{gathered} \text { sq. } \\ \text { miles } \end{gathered}$ | $\begin{gathered} \text { sq. } \\ \text { miles } \end{gathered}$ | $\begin{aligned} & \text { sq. } \\ & \text { miles } \end{aligned}$ | $\begin{gathered} \text { sq. } \\ \text { miles } \end{gathered}$ | $\begin{gathered} \text { sq. } \\ \text { miles } \end{gathered}$ | $\begin{gathered} \text { sq. } \\ \text { miles } \end{gathered}$ | $\begin{gathered} \text { sq. } \\ \text { miles } \end{gathered}$ | $\begin{aligned} & \text { sq. } \\ & \text { miles } \end{aligned}$ |
| Occupied- |  |  |  |  |  |  |  |  |  |  |  |  |
| Improved-Crops and summerfallow.. | 32 9 | 669 309 | 750 242 | 1,123 381 | 9,121 4,196 | 14,030 5,055 | 15,397 914 | 57,126 2,252 | 32,223 1,739 | 1,161 | - | 131,632 15,633 |
| Other.... | 5 | 31 | 42 | 68 | 478 | 748 | 504 | 1,258 | , 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- |  |  |  |  |  |  |  |  | 26,872 |  |  |  |
| Frasested....... | 2 | 80 | 3.000 | 9,500 | 36,893 | 61,990 | 16,000 | 23,000 | 45,000 | 11,450 | 4,000 | 210,913 |
| Totals, Unoccupied. | 2 | 144 | 6.677 | 10,556 | 38,393 | 67,889 | 24,541 | 32,242 | 71,872 | 14,398 | 14,065 | 280,777 |
| Non-forest | 75 | 1,234 | 5,752 | 3,284 | 18,550 | 32,504 | 33,413 | 100,989 | 91,863 | 8,489 | 10,065 | 306,218 |
| Forested | 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. | 7,161 | 90 | 4.600 | 5,000 | 105,745 | 36,900 | 1,835 | 1,500 | 7,700 | 35,400 | 4,200 | 210,131 |
| Young growth | 4,059 | 215 | 3.180 | 3,000 | 29,588 | 29,300 | 9,115 | 6,450 | 24,070 | 50,492 | 22,800 | 182,269 |
| Mixed wood-Merchantable | , | 150 | 825 | 7,000 | 23,041 | 24,100 | 1,100 | 2,000 | 9,360 | - | 1,000 | 68.576 |
| Young growth | - | 130 | 480 | 5,000 | 22,549 | 67,400 | 5,120 | 9,400 | 31,430 |  | 5,000 | 146,509 |
| Hardwood- Merchantable | - | 15 | 1,620 | 1,000 | 3,199 | 5,900 | 1,680 | 2,800 | 3,620 | - | 2,800 | 22,634 |
| Young growth | - | 10 | 850 | 1,000 | 6,543 | 10,200 | 11,650 | 24,000 | 16,880 | - | 11.200 | 82,333 |
| Total Productive Forested Land | 11,220 | 610 | 11,555 | 22,000 | 190,665 | 173,800 | 30,500 | 46,150 | ${ }^{93,060}$ | 85,892 | 47,000 | 712,452 |
| Unproductive Forested Land | 13,699 | - |  | 190 | 165.394 | 63,400 | 62,500 | 40,000 | 37,560 | 128,564 | 76.000 | 587,307 |
| Tenure-Privately owned |  | 608 | 8,465 | 11,140 | 26,905 | 14,240 | 6,963 | 7,347 | 9.038 | 7,920 |  | 96,708 |
| Crown land. | 20,837 | 2 | 3,090 | 11,050 | 329,154 | 222,960 | 86,037 | 78,803 | 121,582 | 206,536 | 123,000 | 1,203,051 |
| Totals, Forested Land | 24,913 | 610 | 11,555 | 22,190 | 356,059 | 237,200 | 98,000 | 86,150 | 130,620 | 214,456 | 123,000 | 1,299,759 |
| Net Productive Land | 24,994 | 1,844 | 17,307 | 25,474 | 374,609 | 269,704 | 126,413 | 187,139 | 222,483 | 222,945 | 133,065 | 1,605,977 |
| Waste and Other Land ${ }^{5}$ | 123,000 | 340 | 3,436 | 1,999 | 149,251 | 93,578 | 93,310 | 50,836 | 26,317 | 136,334 | 1,325,719 | 2,004,120 |
| Totals, Land Area. | 147,994 | 2,184 | 20,743 | 27,473 | 523,860 | 363,282 | 219,723 | 237,975 | 248,800 | 359,279 | 1,458,784 | 3,610,097 |

[^12]Nors.-Totals, Forested Land excludes forested land of Labrador.

Canada's extensive areas of arable and forested land, together with its vast water-power resources, are the basis of its 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, $15 \cdot 3$ 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 36 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.

The above treatment of lands resources is concerned only with those summary phases of the subject that can be regarded as falling under the definition of physiography used in its wider interpretation. Detailed information regarding individual natural resources and their development will be found in later chapters, together with data concerning the efforts directed to conservation of those resources.

## Section 2.-Public Lands

In Table 2, classifying the land 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.-Land Area Classified by Tenure, (circa) 1952

| Tenure | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles | sq. miles |
| 1. Alienated from the Crown or in process of alienation. | 6,680 ${ }^{1}$ | 2,173 | 16,937 | 16,713 | 43,507 | 40,920 |
| 2. Federal lands other than National Parks and Indian Reserves ${ }^{2}$. | 2 | - | 13 | 38 | $2,067{ }^{3}$ | 1,126 |
| 3. National Parks ${ }^{2}$.................. | - | 7 | 391 | 80 |  | 12 |
| 4. Indian Reserves | - | 4 | 30 | 59 | 281 | 2,435 |
| 5. Provincial lands, including leased lands and forest reserves, but not Provincial Parks. <br> 6. Provincial Parks. | 141,270 42 | 二 | 3,372 | 10,583 | 466,005 12,000 | 313,577 5,212 |
| Totals, Land Ar | 147,994 | 2,184 | 20,743 | 27,473 | 523,860 | 363,282 |
|  | Man. | Sask. | Alta. | B.C. | $\begin{aligned} & \text { Yukon } \\ & \text { and } \\ & \text { N.W.T. } \end{aligned}$ | Canada |
|  | sq. miles | sq. miles | sq. miles | sq.miles | sq. miles | sq. miles |
| 1. Alienated from the Crown or in process of alienation. | 44,581 | 104,413 | 78,313 | 19,695 | 66 | 373,998 |
| 2. Federal lands other than National Parks and Indian Reserves ${ }^{2}$ | 2 | 51 | 11,671 | 161 | 1,455,084 ${ }^{5}$ | 1,470,215 |
| 3. National Parks ${ }^{2}$. | 1,149 | 1.496 | 20,7186 | 1,671 | 3,6257 | 29,149 |
| 4. Indian Reserves. | 821 | 1,880 | 2,296 | 1,274 | 9 | 9,089 |
| 5. Provincial lands, including leased lands and forest reserves, but not |  |  |  |  |  |  |
| 6. Provinial Parks............. | 173,170 | $\begin{array}{r} 128,450 \\ 1,6858 \end{array}$ | 135,788 14 | $\begin{array}{r} 322,397 \\ 14,081 \end{array}$ | - | $\begin{array}{r} 1,694,612 \\ 33,034 \end{array}$ |
| Totals, Land Area. | 219,723 | 237,975 | 248,800 | 359,279 | 1,458,784 | 3,610,097 |

[^13]
## 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, while the Territorial Lands Act (14 Geo. VI, c. 22) and the Public Lands Grants Act ( 14 Geo. VI, c. 19) were enacted to replace them and became effective June 1, 1950.

The largest land areas under federal administration are the Northwest Territories and Yukon Territory amounting to about $1,458,784$ sq. miles or 40 p.c. of the land 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 Resources and Development.

Recent Developments in the Northwest Territories.-The value of mineral production in the Northwest Territories in 1950 amounted to $\$ 8,050,899$ made up as follows: gold $\$ 7,635,227$, silver $\$ 50,198$, crude petroleum $\$ 352,656$, and natural gas $\$ 12,818$. During the year ended Mar. 31, 1951, 650 miner's licences and renewals and 1,023 quartz grants were issued, and assignments of mineral claims numbered 808. Record was made of 124 leases, comprising 6,617 acres, issued under the Quartz Mining Regulations. The mining inspection service was maintained under the Mines Safety Ordinance of the Northwest Territories.

X-ray diamond drilling was carried on in the Quyta-Giaque Lake area to evaluate the ore deposits. Prospecting and exploration, including 14,741 feet of diamond drilling, was conducted in the McKay-Courageous Lake region. The 490 -foot shaft of an old property in the Indin Lake area was drained and 1,248 feet of underground development completed. Production of pitchblende concentrates continued in the Great Bear Lake area. Prospecting for uranium was carried on in the Hottah Lake and East Slave Lake areas and a 5,000-foot diamond-drilling program was begun at Stark Lake in the East Slave Lake area. Several claims were staked on the uranium-bearing ore located at Hottah Lake.

In 1951, a mine rescue station was opened at Yellowknife. The building includes a lecture room, storage for first-aid equipment, living quarters for the mine rescue superintendent and a double garage. The Department of Resources and Development provided $\$ 26,500$ for construction and $\$ 8,500$ for equipment and the mines assumed the balance of the construction costs and also maintenance expenses including the superintendent's salary.

During the 1951 season the Geological Survey of Canada, Department of Mines and Technical Surveys, had eight field parties carrying on mapping in the Carp Lake, Christie Bay and Fort Reliance areas, in southern Baffin Island and on Cornwallis Island.

During the year ended Mar. 31, 1951, 816 leases, licences, permissions to occupy, and agreements were in force, and 138 timber permits and 11 commercial timber berth permits were issued. The most important land transaction in 1951 was the transfer of 1,016 surveyed lots at Yellowknife Settlement to the Local Administrative District of Yellowknife, effective Jan. 6.

The Mackenzie District and Western Arctic were served by water transport during the navigation season and the all-weather Mackenzie Highway from Grimshaw, Alta., to Hay River was used extensively. Most settlements were served by aircraft carrying mail, passengers and freight, and radio communication through Government and private stations was maintained between settlements and outside points. The Government vessel, C. D. Howe, carried out its annual Eastern Arctic Patrol, transporting replacement personnel, mail and supplies as well as Government officers engaged in the study of Eskimo economy, food and health conditions, trade, family allowances, relief, old age allowances, education and vital statistics. The Department of Resources and Development provided the Canadian Handicrafts Guild with a grant of $\$ 5,000$ to organize handicraft work among the Eskimos. Carvings in stone, ivory and wood, and articles made of skins and furs are being successfully marketed.

Progress continued in forest conservation and wildlife protection. Regular patrols were conducted and modern fire-fighting equipment was provided from headquarters at Fort Smith. The program of aerial photography was continued by the Royal Canadian Air Force.

Commercial fishing in Great Slave Lake produced a catch of $6,813,706 \mathrm{lb}$. during the summer and winter seasons of $1950-51$ and federal experimental substations carried on field work in agriculture in the Mackenzie District. During the year ended June 30, 1951, fur production amounted to 643,579 pelts valued at $\$ 2,038,339 ; 79$ p.c. of the pelts taken were muskrat. Reindeer herds continued to be maintained in the Mackenzie Delta.

Recent Developments in Yukon Territory.-Yukon gold production in 1950 amounted to 93,339 fine oz. valued at $\$ 3,551,549$, an increase of 11,369 fine oz. over 1949. Silver production amounted to $3,202,779$ fine oz. valued at $\$ 2,588,486$, lead $12,885,518 \mathrm{lb}$. valued at $\$ 1,861,957$, zinc $5,507,173 \mathrm{lb}$. valued at $\$ 861,873$, and cadmium $56,410 \mathrm{lb}$. valued at $\$ 130,871$.

In 1951, five field parties under the Geological Survey of Canada, Department of Mines and Technical Surveys, continued their investigations in connection with the production of a series of standard geological maps, reports on the main geological features, and detailed studies of certain areas. A mining inspection service was maintained under the Yukon Mining Safety Ordinance.

Leases, licences, permissions to occupy and agreements in effect in Yukon on Mar. 31, 1951, numbered 117, and during the fiscal year ended Mar. 31, 1951, 237 timber permits and 35 commercial timber berth permits were issued.

A railway connects Whitehorse with Skagway, Alaska, on the Pacific coast, and steamers ply the Yukon River and its tributaries. Aircraft service connects Yukon settlements with Vancouver and Edmonton, and bus services are provided on the Alaska Highway. A 246 -mile all-weather gravel road was completed by the Federal Government in 1950 to connect the silver-lead mining area of Mayo with the Alaska Highway and railhead at Whitehorse. A similar type of road 58 miles in length was completed in 1950 as a joint project of the Federal and British Columbia Governments to give the gold mining settlement of Atlin, B.C., access to the Alaska Highway at Mile 867, Jake's Corner. These roads, with the exception of that portion of the Atlin Road lying within the Province of British Columbia, are maintained by the Territorial Government with federal financial assistance. Accommodation and roadside facilities are provided by private enterprise.


The program of aerial photography was continued on an enlarged scale by the Royal Canadian Air Force. The experimental substation maintained by the Department of Agriculture 100 miles northwest of Whitehorse on the Alaska Highway continued operations. Experiments with cereals and forage crops have been encouraging while poultry and cattle introduced on the substation in recent years have proved adaptable. During the year ended June 30, 1951, the fur take included 228,616 pelts valued at $\$ 361,969$.

## 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 lands in the Province of Newfoundland, except 6,680 sq. miles of alienated land and 2 sq. miles of Federal land, became provincial public lands under the Terms of Union on Mar. 31, 1949.

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

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

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

## 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 and main characteristics are given in Tables 4 and 5.
3.-Land Areas of National and Provincial Parks, by Provinces and Territories

| Province or Territory | National | Provincial | Total |
| :---: | :---: | :---: | :---: |
|  | sq. miles | sq. miles | sq. miles |
| Newfoundland. | - | 42.00 | 42.00 |
| Prince Edward Island | 7.00 | - | $7 \cdot 00$ |
| Nova Scotia. | $390 \cdot 61$ | - | $390 \cdot 61$ |
| New Brunswick | $79 \cdot 63$ |  | $79 \cdot 63$ |
| Quebec. | 0.331 | 12,000.00 | 12,000.331 |
| Ontario | $11 \cdot 74$ | 5,212-17 | 5, 223.91 |
| Manitoba. | 1,149.00 | - | 1,149.00 |
| Saskatchewan | 1.496.00 | 1,685.132 | 3,181-13 |
| Alberta. | 20,718.00 | 14.00 | 20,732.00 |
| British Columbia | 1,671.00 | 14,081.00 | 15,752.00 |
| Northwest Territories | $3 . \overline{625} \cdot 00$ | 二 | $3 . \overline{625} \cdot 00$ |
| Canada | 29,148-31 ${ }^{1}$ | 33,034-30 | 62,182.61 ${ }^{1}$ |

[^14]National Parks.-From 1885, when the first National Park was established around the mineral hot springs at Banff, Alta., to 1951, 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 beauties 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 Resources and Development, 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 with 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 picture 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 in order to improve angling opportunities in Park waters are carried out extensively and successfully; fish hatcheries are operated in three of the mountain National Parks. Two of the 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 Resources and Development is also responsible for the marking, preservation and restoration of places of great historic interest in Canada. More than 400 such sites have been marked on the recommendation of the Historic Sites and Monuments Board of Canada. Most important recent additions to the list of historic places transferred to National Parks administration are Lower Fort Garry in Manitoba, Fort Battleford in Saskatchewan, and the Citadel at Halifax, Nova Scotia.

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

| Park | Location | Year Established | Area | Characteristics |
| :---: | :---: | :---: | :---: | :---: |
| Scenic and Recreational Parks |  |  | sq. miles |  |
| Banff................. | Western Alberta, on east slope of Rockies. | 1885 | 2,564•0 | Magnificent scenic playground containing noted resorts, Banff and Lake Louise. Mineral hot springs; summer and winter sports. Accessible by rail, highway and air. 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-con. |  |  |  |  |
| Yoho................. | $\begin{gathered} \text { Eastern British Col- } \\ \text { umbia, on west } \\ \text { slope of Rockies. } \end{gathered}$ | 1886 | $507 \cdot 0$ | Loity 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 | $204 \cdot 0$ | Canadian section, Waterton-Glacier International Peace Park. Mountain playground with spectacular peaks and charm ing lakes. Accessible by highway. Hotel and bungalow cabin accommoda tion. Equipped camp-grounds. |
| Jasper............... | $\begin{aligned} & \text { Western Alberta, } \\ & \text { on east slope of } \\ & \text { Rockies. } \end{aligned}$ | 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, highway and air. Hotel and bungalow cabin accommodation. Equipped campgrounds. |
| Mount Revelstoke... | Southeastern British Columbia, 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 | $\begin{gathered} 189.4 \\ \text { (acres) } \end{gathered}$ | Mainland 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 cabin accommodation. Equipped camp-grounds. |
| Kootenay............ | Southeastern British Columbia,on west slope of Rockies. | 1920 | 543.0 | Encloses Vermilion-Sinclair section of Banff-Windermere Highway. Broad valleys, deep canyons, mineral hot springs. Hotel and bungalow cabin accommodation. Equipped campgrounds. |
| 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. <br> Equipped campgrounds. |
| Riding Mountain..... | Southwestern Manitoba, west of Lake Winnipeg. | 1929 | 1,148.0 | Playground and wildlife sanctuary on summit of escarpment. Fine lakes. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds. |
| Georgian Bay Islands | In Georgian Bay, north of Midiand, 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. |

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

| Park | Location | Year Established | Area | Characteristics |
| :---: | :---: | :---: | :---: | :---: |
| Scenic and Recreational Parks-concl. |  |  | sq. miles |  |
| Cape Breton Highlands. | Northern part of Cape Breton Island, N.S. | 1936 | 390.0 | 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 | $80 \cdot 0$ | Delightful recreational area. Forested region, wildlife sanctuary, rugged terrain. Bungalow cabin accommodation. Equipped camp-grounds. |
| Wild Animal Parks |  |  |  |  |
| 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 Athabaska 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 Beauséjour...... | New Brunswick, near Sackville. | 1926 | $81 \cdot 0$ | Site of French fort erected in middle of 18th century. Museum. |
| Fortress of Louisbourg. | Cape Breton Island, N.S., 25 miles from Sydney. | 1941 | $340 \cdot 0$ | Ruins of walled city erected by the French, 1720-40. Interesting excavations. Museum. |
| Port Royal.......... | $\left\lvert\, \begin{gathered} \text { Lower Granville, } \\ \text { N.S., } 8 \text { miles from } \\ \text { Annapolis Royal. } \end{gathered}\right.$ | 1941 | 17.0 | 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.......... | Ile-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 | $50 \cdot 0$ | Ruins of fort built 1733-71 to secure control of Hudson Bay for England. |
| Lower Fort Garry. . | Manitoba, 20 miles north of Winnipeg. | 1950 | 13.0 | Stone-walled fort built by the Hudson's Bay Company between 1831 and 1839. |
| Fort Battleford...... | $\begin{aligned} & \text { Saskatchewan, } 4 \\ & \text { miles south of } \\ & \text { North Battleford. } \end{aligned}$ | 1951 | 36.7 | North West Mounted Police post built in 1876. |

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

Provincial Parks.-In addition to the National Parks already described, 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 present and future generations. The Provincial Parks are administered by the Provincial Governments concerned and in most cases they have not yet reached the degree of development which marks the National Parks. In Prince Edward Island, Nova Scotia, New Brunswick and Manitoba there are no Provincial Parks.
5.-Location, Year Established, Area and Characteristics of Provincial Parks

| Province and Park | Location | Year <br> Estab- <br> lished | Area | Characteristics |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | acres |  |
| NewfoundlandSerpentine. | South of Humber Arm, west coast. west coast. | 1939 | 26,880 | Undeveloped. |
| $\begin{aligned} & \text { Quebee-- } \\ & \text { Laurentides. } \end{aligned}$ | 25 miles north of Quebec city, on both sides of Quebec-Chicoutimi highway. | 1895 | 2,373,120 | Altitude $3,000 \mathrm{ft}$., numerous lakes, tumultuous rivers. Speckled trout, moose, deer, black bears, wolves, 50 fishing camps. |
| Trembling Mountain. | 80 miles north of Montreal, Mont Tremblant Village close to the southern section of Park. | 1895 | 782,720 | Famous resort area, summer and winter. Ski school and lifts, 40 miles of ski trails, 9 ski slopes. Lac Tremblant 750 ft . above sea-level. High est peak Mont Tremblant, $3,100 \mathrm{ft}$. |
| Gaspesian. | Gaspe Peninsula | 1937 | 328,960 | Established to preserve caribou and wildilife on south side of St. Lawrence Accessible from Ste. Anne des Monts, Gaspe. Speckled trout, 5 fishing camps. One hotel at Ste. Anne cas Monts. Includes the highest peaks of the Shickshoek Mountains. Highest peak Mount Jacques-Cartier, $4,200 \mathrm{ft}$. |
| Mount Orford. | On Orford Mountain, 15 miles west of Sherbrooke. | 1938 | 9,970 | Altitude $2,860 \mathrm{ft}$. Skiing and golfing. |
| La Vérendrye | In western part of Province 140 miles northwest of of route Montreal - Abitibi. | 1939 | 2,043,520 | Altitude $1,200 \mathrm{ft}$. Numerous lakes and rivers. Trout, pike, pickerel and bass. Tourist accommodation and stopping place. Twelve fishing camps maintained by Dept. of Fish and Game, |
| Chibougamau Fish and Game Re serve. | 30 miles west of Lake St. John. Strip 80 miles long $\stackrel{\text { on both sides of Lake }}{\text { Chibougamau highway. }}$ Chibougamau highway. | 1946 | 2,176,000 | Altitude $1,300 \mathrm{ft}$. Numerous lakes and rivers. Trout, pike and pickerel. Five fishing camps and one camping ground maintained by Dept. of Fish and Game. |
| Shick Shocks Fish and Game Reserve. | Adjacent to and completing Gaspesian Park. | 1949 | 200,960 | See "Gaspesian" above. |
| Kipawa Lake Fish and Game Re serve. | Approximately 8 miles northeast of Timiskaming. | 1950 | 640,000 | Altitude $1,000 \mathrm{ft}$. Numerous lakes and rivers. Trout, pike and pickerel. |
| Ontario- <br> Algonquin. | In southeastern Ontario in the District of Nipissing and the County of Haliburton, 141 miles north of Toronto, 105 miles west of Ottawa. | 1893 | 1,754,240 | Wilderness area, wildlife preserve. Hotels, summer cottage sites, camping facilities, canoe trips, fishing, bathing. |

5.-Location, Year Established, Area and Characteristics of Provincial Parks-con.

| Province and Park | Location | Year Established | Area | Characteristics |
| :---: | :---: | :---: | :---: | :---: |
| Ontario-concl. Rondeau........... | In southwestern Ontario in the County of Kent, 20 miles southeast of Chatham, 70 miles east of Windsor. | 1894 | acres | Partly cultivated, fine timber stands. Enclosed and wild animals. Fishing, duck - hunting, camping facilities, summer cottage sites, restaurant, store, dance pavilion, other recreational facilities. |
| Quetico........... | In northwestern Ontario in the Rainy River district. Southern boundary adjoins the International Boundary midway between Port Arthur and Fort Frances. | 1913 | 1,190,400 | Wilderness area, wildlife preserve. Camping facilities, canoe trips, fishing. |
| Ipperwash Beach. | In southwestern Ontario in the County of Lambton, on Lake Huron, 100 miles north of Windsor, 50 miles north of Chatham. | 1937 | 109 | Sand beach, woodland area. Fishing, camping facilities, bathing. |
| Lake Superior..... | In northeastern Ontario in the District of Algoma. on Lake Superior, about 70 miles north of Sault Ste. Marie. | 1944 | 345,600 | Wilderness area, wildlife preserve. Fishing. |
| Sibley............ | In northwestern Ontario in the Thunder Bay district. On north shore of Lake Superior, 40 miles northeast of Port Arthur and Fort William. | 1944 | 40,320 | Wilderness area, wildlife preserve. |
| SaskatchewanCypress Hills..... | South of Maple Creek near International Boundary. | 1932 | 10,880 | Forest area. Bungalow, lodge and cabin accommodation, auto camp. |
| Duck Mountain... | 15 miles northeast of Kamsack. | 1932 | 51,840 | Forest and lake area. Beaches. Fish and wild life. |
| Good Spirit Lake. | 20 miles west of Canora... | 1932 | 3,827 | Camp and picnic grounds. Fishing, swimming. |
| Greenwater Lake. | North of Kelvington...... | 1932 | 22,240 | Forest and lake area. Swimming, fishing. |
| Lake Katepwa.... | In Qu'Appelle Valley, 14 miles north of TransCanada Highway from Indian Head. | 1932 | 17 | Lake area, camping, fishing, swimming, playground activities. |
| Little Manito..... | On Manitou Lake......... | 1932 | 238 | Medicinal waters. Chateau, cabin and tourist accommodation. |
| Moose Mountain... | 15 miles north of Carlyle. | 1932 | 98,560 | Lake area. Poplar and white birch stands. Fishing. |
| Nipawin.......... | ${ }^{35}$ miles northwest of | 1934 | 161,280 | Lodgepole pine stands. Camping, trout fishing. |
| Lac La Ronge..... | 190 miles north of Prince Albert. | 1939 | 729,600 | Lake area. Spruce and poplar stands. Tourist accommodation, trout fishing. |
| $\begin{aligned} & \text { Alberta-1 } \\ & \text { Ghost River....... } \end{aligned}$ | On Ghost and Bow Rivers west of Calgary. | 1930 | 536 | Artificial lake. Cottages and pienic ground. |
| Saskatoon Moun tain Reserve. | In Grande Prairie district. | 1930 | 3,000 | Mountain lookout. |

[^15]5.-Location, Year Established, Area and Characteristics of Provincial Parks-con.

| Province and Park | Location | Year Established | Area | Characteristics |
| :---: | :---: | :---: | :---: | :---: |
| Afberta-concl. Writing-on-Stone Reserve. | On Milk River east and north of Coutts. | 1930 | acres | Natural obelisks with undeciphered hieroglyphics. Summer village. |
| Saskatoon Island.. | West of Grande Prairie.... | 1932 | 250 | Pienic ground. |
| Bad Lands Reserve. | North of Drumheller..... | 1934 | 1,800 | Fossilized remains of prehistoric animals. |
| Elkwater Lake.... | On south shore of lake at foot of Cypress Hills. | 1947 | 378 | Cottages, recreation and camp grounds. Limited accommodation for transients. |
| Crimson Lake.... | 9 miles northwest of Rocky Mountain House. | 1948 | 900 | Cottages. Swimming, fishing, picnic and sports ground. |
| Red Lodge........ | 9 miles west of Bowden on Little Red Deer River. | 1948 | 45 | Swimming. Picnic and sports ground. |
| Kinbrook Island. . | Island in Lake Newell, 9 miles south of Brooks. | 1949 | 90 | Island connected by causeway to lake shore. Boating and swimming; recreation and picnic grounds. |
| $\begin{aligned} & \text { British } \\ & \text { Columbia-1 } \\ & \text { Strathcona.......... } \end{aligned}$ | Campbell River, Vancouver Island. | 1911 | 529,920 | Oldest B.C. Provincial Park, situated in the rugged centre of Vancouver Island. Contains many glaciers, alpine meadows and lakes. Della Falls, one of the world's highest falls. Undeveloped and mostly inaccessible. |
| Mt. Robson. . . . . | Mt. Robson, adjacent to Jasper Park. | 1913 | 513,920 | Rocky Mountain park featuring Mt. Robson, highest peak in the Canadian Rockies, Berg Lake and impressive glaciers. Access to Berg Lake Camp by horse trail. |
| John Dean. | Sidney, near Victoria. Vancouver Island. | 1921 | 98 | Mountain viewpoint overlooking the Seanich Peninsula and Gulf Islands. Features primeval forests and wild flowers. Pienic grounds and hiking trails. Accessible by road. |
| Kokanee Glacier.. | Near Nelson. ............ | 1922 | 64,000 | High mountain park featuring Kokanee Glacier and several scenic lakes. Fishing, mountaineering and skiing. Poor road and trail access. |
| Mt. Assiniboine... | South of Banff........... | 1922 | 12,800 | Outstanding area of Rocky Mountain scenery, features Mt. Assiniboine and small lakes. Hiking, riding, fishing, skiing. Access by horse trail. |
| Nakusp Hot Spring. | Nakusp. Arrow Lake. southeast B.C. | 1925 | 127 | Hot springs. Access by eight miles of trail. |
| Salt Lake. . . . . . . | Prince Rupert............ | 1925 | 87 | Community swimming and picnic area. Access by ferry from Prince Rupert. |
| Garibaldi......... | Haney - Squamish, lower mainland, north of Vancouver. | 1927 | 612,615 | Outstanding scenic park with mountain lakes, peaks and glaciers, flower meadows and interesting geological features. Potential winter sports area. Access by trail from several points on the Pacific Great Eastern Railway. |

[^16]5.-Location, Year Established, Area and Characteristics of Provincial Parks-con.

| Province and Park | Location | Year Established | Area | Characteristics |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | acres |  |
| British Columbia-con. Mt. Seymour.... | North Vancouver mainland. | 1936 | 9,156 | Mountain, winter sport park with summer hiking, swimming and berry picking. Highway under construction. |
| Crescent Beach... | Crescent Beach, lower mainland near Interna- tional Boundary. | 1938 | 237 | Ocean beach. Accessible by road. |
| Tweedsmuir.. | Bella Coola, Burns Lake.. | 1938 | 3,456,000 | One of the larger wilderness areas in North America. Scenic boat tours and trail rides. Fishing and hunting. |
| Peace Arch....... | White Rock, B.C., and Blaine, Washington, International Boundary. | 1939 | 16 | Landscaped international park featuring Peace Arch. Picnic grounds. King George VI Highway. |
| Wells Gray....... | North of Kamloops. | 1939 | 1,165,005 | Undeveloped lake and mountain park. Fishing and hunting. Accessible by poor road and trail. |
| Chasm. | Clinton, central B.C....... | 1940 | 315 | Outstanding geological feature - a great chasm in the Interior Plateau adjacent to the Caribou Highway. |
| Elk Falls......... | Campbell River, east coast, Vancouver Island. | 1940 | 2,558 | Series of cascades and falls on Campbell River. Stand of giant firs. |
| Englishman River Falls. | Parksville............... | 1940 | 240 | Forest area, picturesque river containing falls and canyons. Pienicking, swimming, camping and hiking. Accessible by highway. |
| Little Qualicum Falls. | Qualicum Beach, adjacent to Parksville - Alberni Highway. | 1940 | 207 | Forest area, picturesque river containing falls and canyons. Pienicking, swimming, camping and hiking. Accessible by highway. |
| Premier Lake..... | Cranbrook, Canal Flats, southeast B.C. | 1940 | 165 | Mostly local use. Fishing, pienicking, swimming. Poor road access. |
| Silver Star........ | Vernon, Okanagan, south central B.C. | 1940 | 21,888 | Interior mountain park, alpine scenery, berry picking, skiing. Accessible by poor road. |
| Stamp Falls. . . . . | Alberni, Vancouver Island. | 1940 | 424 | Popular forest park with river falls, fish ladder and swimming pool. Picnicking, camping. Road access. |
| Hamber.......... | Big Bend Highway. Park adjoins Jasper and Banff. | 1941 | 2,431,960 | Undeveloped forest and mountain area bordering easterly portion of Big Bend Highway. |
| Manning. . . . . . . . | Hope-Princeton Highway, south central B.C. near International Boundary. | 1941 | 179,313 | Mountain park featuring alpine flower meadows and scenic fishing lakes. Wildlife sanctuary. Accessible by highway. |
| Darke Lake...... | Summerland, south Okanagan. | 1943 | 5,472 | Scenic group of interior mountain lakes. Fishing, hunting and boating. |
| McMillan......... | Cameron Lake, Vancouver Island. | 1944 | 337 | World-famous stand of virgin westcoast forest. Accessible by AlberniParksville Highway. |
| Memory Island... | Shawnigan Lake, south Vancouver Island. | 1945 | 2 | Small undeveloped island in recreational area. Swimming, fishing, adjacent to highway. |
| Petroglyph....... | Nanaimo, east coast, Vancouver Island. | 1948 | 4 | Site of ancient rock carvings of unknown origin. Accessible by road. |

5.-Location, Year Established, Area and Characteristics of Provincial Parks-concl.

| Province and Park | Location | Year Established | Area | Characteristics |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | acres |  |
| Britlsh Columbia-concl. Cultus Lake...... |  |  |  |  |
|  | Chilliwack, Fraser Valley, lower mainland. | 1948 | 950 | Summer park. Swimming, pienicking, fishing. |
| Ivy Green......... | Ladysmith, Vancouver Island. | 1949 | 51 | Community park and picnic ground. |
| Cameron Lake... | Cameron Lake........... | 1950 | 733 | Attractive lakeside area in an unspoiled rugged mountain valley adjacent to Parksville-Alberni Highway. |
| Miracle Beach.... | Oyster River, north Vancouver Island. | 1950 | 142 | Ocean beach with outstanding vista over the Gulf Islands. |

## Subsection 4.-The National Capital Plan*

The Master Plan to guide the long-range development of Ottawa and the National Capital District, and to create a Capital in keeping with Canada's achievements and status as a nation, was completed at the end of 1948. The preliminary report of the National Capital Planning Committee and the Federal District Commission was tabled in the House of Commons on Apr. 30, 1949, and the Final Report of Jacques Greber and his Canadian associates on the Plan was forwarded to the Government by the National Capital Planning Committee and the Federal District Commission $\dagger$ and tabled in the House of Commons by the Prime Minister on May 22, 1951. For further details see Year Book 1950, pp. 18-20.

Considerable progress is reported on the implementation of the Master Plan, both in the detailed planning of new developments and in actual construction work. A high degree of co-operation has been achieved between the municipalities in the District and the Federal planning authorities. Particularly important in this regard was the acceptance by the Ottawa Planning Area Board (the Ontario municipal-provincial planning authority) of the proposed urban and inter-urban road system, and the initiation by Ottawa's Municipal Planning Department of a comprehensive zoning plan conforming to the recommendations of the Master Plan.

Discussions took place in 1951 with the City of Ottawa regarding the Federal District Commission's share of the costs of extending municipal water and sewage services in conformity with the Master Plan; the projects concerned were the Carlington and Alta Vista reservoirs and the west and south Nepean and south Rideau interceptor sewers which, in part, service new Federal Government building areas.

Since 1946, the Federal District Commission must approve the location and external architecture of all new Federal Government buildings, or alterations to existing buildings. This control is exercised, initially, by the Architectural Sub-Committee of the National Capital Planning Committee. During 1951 this Sub-Committee co-ordinated and assisted in the preparation of plans for the large-scale development of the Ottawa Airport jointly by the Royal Canadian Air Force, the Department of Transport and the National Aeronautical Establishment, and approved other

[^17]development and construction plans in the Capital and District for the Defence Research Board, the National Research Council, the Experimental Farms Branch of the Department of Agriculture and the Department of Public Works.

The Commission, on the recommendation of the Sub-Committee, has approved submissions by various departments of the Federal Government for eight major

- site plans and 60 buildings. Construction is well advanced on a number of these projects, the most important including buildings for the Department of Veterans Affairs on Wellington Street, the Dominion Bureau of Statistics and Department of Public Works at Tunney's Pasture in the west end of the city, Central Mortgage and Housing Corporation on the Montreal Road, Eastview, extensions to the Bureau of Mines establishment on Booth Street and the Government Printing Bureau at Hull, Que.

The MacKenzie King Bridge in Confederation Park, built by the Federal District Commission in co-operation with the City of Ottawa, was made usable, temporarily, on Dec. 8, 1951, while approaches and final surfacing, etc., will be completed as soon as possible. This provides another greatly needed east-west route through the centre of the Capital, enabling heavy commercial traffic to by-pass the National War Memorial at Confederation Square and Wellington Street, the main artery for Government buildings, and also relieving serious traffic congestion on other bridges over the Rideau Canal. The eastern section of the span of the bridge over the railway yards, now supported by steel pillars, cannot be finished in conformity with the remainder of the bridge until the Union Station and rail yards are re-located in south Ottawa some years hence.

The Highways and Traffic Sub-Committee of the National Capital Planning Committee examined, and the Commission subsequently approved, road re-locations necessitated by the expansion of the Ottawa Airport and extensions to the Commission's driveway system, and made recommendations regarding a new riverside driveway from the Quebec end of the Champlain Bridges to Aylmer. The Gatineau Power Company et al made a generous gift to the Commission of the abandoned Hull Electric Railway right-of-way from Hull to Aylmer.

Installation of new railway facilities proceeded in accordance with the longrange plans to move the railway lines from central Ottawa and Hull to the outskirts, and subsequently to use the abandoned rights-of-way as the basis of a new arterial road system for the Capital. Land was acquired along the new rail belt for the re-location of industries that require rail services. Grading was completed for the rail belt and yards for the use of the Canadian National Railways along the Walkely Road at the south edge of Ottawa. Two highway overpasses on the Metcalfe and Russell Roads were completed, except for hard-surfacing of the roadways.

Construction was begun of a junction of the two C.N.R. lines near South March, a few miles west of the Capital, to enable traffic to be routed to the new belt line and yards. The installations may be ready for use in about two years, when the C.N.R. will transfer its operations from the crosstown tracks and yards, which bisect the Capital along Catherine Street. The abandoned crosstown right-of-way will be used for the construction of a new east-west traffic artery from Hurdman's Bridge to the west end of the Capital and a junction with Highway 17 beyond Britannia. The crosstown artery will be linked with Highway 17 on the east by an extension northeast of Hurdman's Bridge to the vicinity of Green's Creek. This will result in an entirely new main eastern entrance to the Capital for the Montreal Road, by-passing Eastview and built-up areas. It will also route throughtraffic on Highway 17 away from the congested city centre.

Gatineau Park.-Gatineau Park is situated in the Laurentian Mountains of Quebec, north of the city of Hull and about eight miles from Ottawa. It was established by the Federal District Commission in 1938 for the enjoyment of the public in perpetuity. Known as the summer and winter playground of the National Capital, it is well provided with hiking trails, picnic and camping spots. Swimming, boating and fishing are enjoyed in its many lakes, and in the winter it is the skiing centre of the Capital District. The large country estate bequeathed to the nation by The Rt. Hon. W. L. MacKenzie King, and placed in the care of the Commission, is located on Kingsmere Lake in the southern section of the Park. The area of the Park was increased from about 28,000 to 32,000 acres in 1951 with the acquisition of the Edwards-Herridge property surrounding Mousseau (Harrington) Lake. Plans call for its ultimate development to about 80,000 acres. The Park is administered by a Superintendent and a small force of rangers who also act as game wardens, police constables and fire wardens. Facilities for its use by the public are added each year as funds permit.

## Section 3.-Wildlife Resources and Conservation

The Canadian Wildlife Service.*-The Canadian Wildlife Service of the National Parks Branch, Department of Resources and Development, 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; to use firearms or other equipment for the control of migratory birds causing damage to agricultural, fishing or other interests; and to engage in the business of taxidermy.

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 co-operation with United States authorities conducting parallel studies.

The Service is responsible for establishment and administration of bird sanctuaries under the Migratory Birds Convention Act. On Sept. 30, 1951, there were 80 bird sanctuaries, with a total area of 1,800 sq. miles.

[^18]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 algæ, 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 with relation to the wildlife resources of Canada are being carried in the Year Book. The 1951 edition carried an article on "Migratory Bird Protection in Canada" Game and fish abound in the National and Provincial Parks and although hunting is forbidden in these preserves the age-old art of angling can be enjoyed under the most favourable circumstances. The following article deals with this subject from the sportsman's viewpoint.

## GAME FISH IN CANADA'S NATIONAL PARKS*

The universal appeal of angling, from the boy with the sapling, string and bent pin to the dry-fly "purist" with his imported hand-made rod, tapered line and delicate flies, creates a kinship which goes far deeper than a mere love of fish or even of catching them. Angling is much more than a battle of wits and equipment against the cunning of a fish, for it offers release from the cares of the work-a-day world and a chance to see and enjoy the unspoiled beauties of nature, together with the possible added thrill of capturing a colourful aquatic creature satisfying to the eye and often to the inner man as well.

Many anglers are experts in the mysteries of taking game fish from their native haunts. Experts also are the men whose work it is to replace the game fish and then to maintain their supply against an ever-increasing number of anglers. A few of the problems encountered in this work and the means by which they are overcome are discussed here, so that the angler may know something of the activity which precedes his angling holiday.

Angling in the National Parks is a major attraction for visitors and the sport has been perpetuated through a wise policy of research and management. The maintenance and improvement of angling in waters within National Parks, whether in the mountain parks of British Columbia and Alberta, on the Prairies, or in the Eastern Provinces, involves the solution of many problems. Some of these are basic to successful fish management in any area, others are peculiar to individual locations.

Problems dealing with the basic requirements for fish propagation involve such items as food, shelter, areas suitable for spawning, water temperatures and related factors. Special local problems may be dependent on such factors as rate of water flow, silt, dissolved gases in the water, presence of large numbers of animals or birds which feed on fish, high angling pressure, and competition of fish of several species for a common food supply.

The solution of such difficulties affecting the National Park waters calls for close teamwork by two Federal Government agencies-the Canadian Wildlife Service which acts in an advisory capacity regarding all fish and wildlife matters in the Parks and conducts scientific investigations as and where required, and the National Parks Service whose officers, guided by the results of the Wildlife Service investigations, operate the hatcheries and egg-collecting stations, distribute the fish, collect data from anglers and perform other related duties.

[^19]The Mountain National Parks.-From the Selkirk Mountains in British Columbia to the Maritimes in Eastern Canada, the National Parks present a wide variety of game fish that appeal to the discriminating and to the casual angler. In the western mountains, Jasper and Banff National Parks in Alberta possess no fewer than six species of trout-the rainbow, the cutthroat, the eastern brook or speckled trout, highly prized by most anglers, the lake trout, Dolly Varden and the brown trout varieties which add interest to the group. Waterton Lakes National Park, in the extreme southwest corner of Alberta, offers all of these species except brown trout. Pike also are taken in Jasper and Waterton Lakes Parks.

The cutthroat trout is common to the four National Parks in British ColumbiaYoho, Kootenay, Glacier and Mount Revelstoke. In addition the Dolly Varden is native to the waters of the first three and all except Glacier Park have rainbow trout. Lake trout await the lure in Yoho Park.

All seven western mountain National Parks mentioned have waters inhabited by the Rocky Mountain whitefish. This species, although not a true game fish, provides good sport for anglers on fly or bait at certain seasons and are a welcome addition to the pan.

The Prairie National Parks.-Descending from the mountains to the prairies, the angler finds the lakes of Prince Albert National Park in Saskatchewan and Riding Mountain National Park in Manitoba are the home of large pike, specimens of over 15 lb . in weight having been caught there on occasion. Prince Albert National Park also attracts the fisherman with lake trout and pickerel, trout in the larger lakes often attaining a weight of 35 lb .

Adult and yearling lake trout have been introduced into Clear Lake in Riding Mountain Park and these specimens are showing satisfactory growth. Suitable food organisms and spawning areas are present in the Lake, and a natural increase of the lake trout there will be a source of continuing enjoyment to the angler.

The Eastern National Parks.-Famous among the game fishes of Eastern Canada are the smallmouth and largemouth black bass and the giant maskinonge, all rivalling the mountain trout in popularity among sportsmen. These species provide good fishing in provincial waters adjacent to the Georgian Bay Islands and St. Lawrence Islands National Park in Ontario. The visitor to Point Pelee National Park, also in Ontario, may supply his creel with pike from the inland ponds or with pickerel and smallmouth black bass from the adjacent waters of Lake Erie.

Fundy National Park in New Brunswick, with its several lakes and streams, supports large numbers of eastern brook trout and Atlantic salmon angling facilities are being developed in the Bay: Several of the small lakes and ponds in Prince Edward Island National Park afford opportunities for angling of brook trout and white perch. Deep-sea fishing is also available in coastal waters adjacent to this Park. The Cape Breton Highlands National Park in Nova Scotia provides good angling for Atlantic salmon and eastern brook trout. Visitors to this Park also enjoy opportunities for catching swordfish in offshore waters.

Following is an annotated list of game fish in Canada's National Parks waters.*
American Grayling (Thymallus signifer).-Distinguishable by its long, high dorsal (back) fin, which is brilliantly coloured. Back is purple to brownish in colour and the underside white or greyish, with whitish-blue spots on body. Occurrence of this fish is rare in the Parks.

[^20]Atlantic Salmon (Salmo salar). - The king of Canada's game fish. Back light brown and sides silvery, both sparsely marked with black spots, usually x-shaped. The young, called "parr", show vermilion and dark vertical bars. When they descend to the sea, the "smolts" are a bright silvery colour. The adults return to fresh water to spawn.

Brown Trout (Salmo trutta).-Back and sides decidedly brown; the back is covered with large black spots and the sides with red or dark spots surrounded by light rings.

Cutthroat Trout (Salmo clarkii).-Several sub-species, varying considerably in colour, occur in the mountain National Parks. Back generally dark, greenish to brownish green, profusely covered with black spots, which are usually more numerous toward the tail. Lower half of body yellowish-white to yellowish-brown, with fewer black spots than upper half. The gill cover is usually rosy in colour and this colouring may extend along the sides as in the Rainbow Trout. A red mark on the membrane of the lower jaw gives the fish its name.

Dolly Varden or Bull Trout (Salvelinus malma).-Colour is brownish to olive green, with large pink and sometimes orange spots on back and sides. Lower fins dusky, with pale margins, followed by darker hue; well forked tail.

Eastern Brook Trout or Speckled Trout (Salvelinus fontinalis).-Has a dark back with olive green vermiculations or worm-like markings; blue-ringed, red spots on the sides; back fin mottled black and olive green; pectoral and ventral fins pink with white edge. The colouring of this fish varies greatly with the environment and the season. When, in the eastern National Parks, this species returns to fresh water from the sea, it is silvery in colour; this silvery colour disappears after a time in fresh water.

Lake or Grey Trout (Cristivomer namaycush).-General colour grey to greyish green with paler spots. Dorsal (back) and caudal (tail) fins marked with darker hue. Tail fin forked. Frequently this fish attains a weight of 20 lb . or more.

Pike (Esox lucius) (sometimes called Northern Pike or Jackfish). -Dark olive body, grading to silver or white on lower side, back and sides mottled with white. Long bill-like snout, numerous needle-like teeth. Scales smooth, fins often pink.

Rainbow or Steelhead Trout (Salmo gairdnerii).-Dark greenish back; irregularly covered with black spots or flecks, most of which are above the lateral line. There is a definite rosy band along each side from head to tail. Below the rosy band the colour may vary from silver to cream.

Hybrids-Rainbow-Cutthroat Cross.-These hybrids are rapidly increasing in Banff National Park and may be found in Waterton Lakes National Park and other locations. This species usually favours the Rainbow in colour and markings but shows the red or orange marks under the lower jaw characteristic of the Cutthroat.

Rocky Mountain Whitefish (Prosopium williamsoni).-A small fish, faintly bluish in colour, with silvery sides. All fins tipped with black. Averages about one foot in length and has a small mouth. This species is often confused with the grayling.

Yellow Perch (Perca flavescens).-Back greenish, grading to golden yellow on sides; broad vertical dark green bars crossing each side; belly whitish. Pointed head; body deep with flattened sides. Spine at extreme end of opercule. Numerous small needle-like teeth; scales rough. Two dorsal (back) fins, the forward one with stiff spines.

Yellow Pikeperch or Walleye (Stizostedion vitreum) (sometimes called Pickerel).Ranges from yellow to dark olive brown mottled with brassy flecks. Pointed head, long slender round body, numerous needle-like teeth, scales rough. Two dorsal (back) fins, the forward one with stiff spines.

White Perch or Silver Bass (Morone americana).-Back green or olive colour; sides paler green to silvery, usually with pale longitudinal streaks. Two dorsal fins, the forward one with stiff spines. Ventral fins also with spines. Scales large and rough.

## PART III.-GLIMATE AND TIME ZONES

## Section 1.-Climate

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

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

| Station |  | Lengthof Record yrs. | TEMPERATURES <br> (Fahrenheit) |  |  |  |  |  | Killing Frost Average Dates |  | $\underset{\text { (inches) }}{\text { PRECIPITATION }}$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Annual | Jan. | July | $\left\|\begin{array}{c} \text { Highest } \\ \text { Record } \end{array}\right\|$ | Lowest On Record |  | Last in Spring | First in Autumn | Annual | Annual Snow | Jan. | Apr. | July | Oct. | Number of Days |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Rain | l |
| Gander, N | 482 | 11 | 39.3 | 19.2 | ${ }^{62.3}$ | ${ }_{93}^{91}$ | $-16$ | 9,477 | May 29 | Oct. ${ }^{2}$ | $\begin{aligned} & 38.24 \\ & 58 \cdot 78 \end{aligned}$ | 121.0 | 2.81 | 2.32 | 3.85 | 5.87 | 129 | 199 |
| St. John's, N | 296 <br> 186 <br> 18 | 67 68 | 40.9 41.7 | 23.5 17.8 | 59.6 65.6 | ${ }_{98}^{93}$ | $-21$ | ${ }_{8,263}^{8,876}$ | June ${ }_{\text {May }}{ }^{2}$ | Oct. 10 | 㐌3.78 | 101. 113.0 | 5.31 3.76 | 4.16 2.78 | 3.54 2.98 | 5.27 | 117 | ${ }_{162}^{208}$ |
| Anariotteeown, | 18 10 | ${ }_{25}$ | 4 | 24.4 | ${ }_{64.4}$ | ${ }_{89}^{88}$ | - 13 | ${ }_{7}{ }^{8}, 665$ | May 20 | Oct. ${ }^{2} 6$ | ${ }_{41.41}$ | ${ }_{74}{ }^{1} 8$ | 4.20 | ${ }_{2.77}$ | ${ }_{3.40}$ | 4.19 | 115 | 140 |
| Halifax, N.S | 83 | 75 | 44.0 | 23.6 | 64.7 | 99 | -21 | 7.380 | May 11 | Oct. 14 | 55.74 | 70.8 | $5 \cdot 40$ | 4.54 | 3.79 | $5 \cdot 42$ | 130 | 156 |
| Sydney, N.S | 48 | 69 | 42.3 | 22.1 | 63.6 | 98 | -25 | ${ }_{8}^{7,898}$ | May 29 | Oct. ${ }^{13}$ | 50.24 | 97.9 | 5.16 | 4.03 | 3.37 | 4.70 | 127 | 165 |
| Chatham, N.B | -98 | ${ }_{67} 6$ | 40.2 | +13.2 | 66.6 66.1 | 102 | -43 | ${ }_{8}^{8,863}$ | May 19 | Sept. 29 | $40 \cdot 74$ 42.80 | 107.3 | 3.38 3.87 | 3.02 | 3.91 3.53 3 |  | 107 | ${ }_{149}^{151}$ |
| Fredericton, N.B. | 164 119 | 67 56 | 40.7 41.4 | 13.5 19.3 | 66.1 61.0 | ${ }_{93} 101$ | -21 | ¢, ${ }_{8}^{8,663}$ | May ${ }^{\text {May }}$ | Sept. 16 | 42.26 42 | ${ }_{71.1}^{85.5}$ | 4.28 | 2.22 | 3.03 | 4.01 | 134 | ${ }_{168}^{149}$ |
| Arvida | 335 | 10 | 36.4 | 3.6 | 65.0 | 95 | -42 | 10,585 | May 19 | Sept. 19 | 38.93 | 116.1 | $2 \cdot 90$ | 2.53 | 4.81 | 3.53 | 112 | 176 |
| Fort McK | 250 | 9 | $22 \cdot 4$ | -12.5 | 54.2 | 91 | -60 | 15,695 | July 8 | July 26 | 22.04 | 82.4 | 1.24 | 1.02 | 3.67 | 1.77 | 77 | 167 |
| Lennoxvill | 498 | 24 | 40.3 | 12.8 | 66.2 | 99 | -48 | 8,996 | May 28 | Sept. ${ }^{9}$ | 39.56 | 89.4 | $3 \cdot 46$ | $2 \cdot 60$ | 4.12 | 3.63 | 104 | 150 |
| Montreal, Que | 187 | 55 | 42.8 | 13.8 | 69.8 | 97 | - 29 | 11,284 | Apr. 28 | Oct. 17 |  |  | 3.76 | 2.60 | 3.74 | 3.42 | 112 | 164 |
| Kapuskasing, O | 752 260 | ${ }_{65}^{19}$ | ${ }_{41.5}^{32.4}$ | -1.7 | $62 \cdot 4$ 69.6 | 101 | -35 | ${ }_{8}^{11,674}$ | Mune ${ }^{14}$ | Sept. ${ }^{\text {On }}$ | ${ }_{34.23}^{27.59}$ | 91.0 82.0 | 2.00 | 1.82 | 込 |  | 989 | 182 |
| Port Arthur, 0 | 644 | 62 | 36.2 | 6.7 | 63.0 | 104 | -41 | 10,045 | May 26 | Sept. 20 | 23.66 | 42.9 | 0.91 | 1.49 | 3.56 | 2.45 | 78 | 129 |
| St. Catharines, | 347 | 21 | 47.8 | 26.0 | 71.1 | 104 | -12 | 6,607 | May 7 | Oct. 20 | 27.03 | 37.7 | $2 \cdot 30$ | 2.39 | 2.39 | $2 \cdot 18$ | 99 | 132 |
| Toronto, Ont.. | 379 | 105 | $45 \cdot 1$ | 22.6 | 68.9 | 105 | -26 | 7,236 | May 2 | Oct. 14 | 32.18 | 61.9 | 2.71 | 2.48 | 2.95 | 2.43 | 109 | 145 |
| Churchill, | 43 | 30 | 17.8 | -19.0 | 7 | 96 | -57 | 15,735 |  | Aug. ${ }^{26}$ | 15.96 | 56.9 | 0.48 | 0.89 | 2.19 | 1.43 | 52 | 101 |
| The Pas, Ms | 890 | 27 | 30.6 | -8.7 | 64.6 | 100 | -54 | 12.160 | May 30 | Sept. ${ }^{7}$ | 15.44 | 44.9 | 0.61 | 0.81 | 2.22 | $1 \cdot 16$ | 59 | 102 |
| Prinnipeg, Man | 1786 | ${ }_{54}^{66}$ | 33.0 | -3.1 | 66.9 <br> 63.4 | 108 | - 70 | 11, 331 | May 27 | Sept. ${ }^{\text {S }}$ | ${ }_{18.11}^{219}$ |  | ${ }^{0.92}$ | 1 | 3.18 | 1.49 | 67 | 118 |
| Regina, Sa | 1,884 | 55 | 34.5 | -0.7 | 64.8 | 111 | -56 | 10,891 | June 6 | Sept. 10 | 14.70 | 28.8 | 0.51 | 0.74 | 2.38 | 0.86 | 59 | 109 |
| Beaverlodge, | 2,484 | 31 | 35.3 | ${ }^{5.6}$ | 59.8 | ${ }^{98}$ | -54 | 10,950 | June ${ }^{4}$ | Sent. ${ }^{4}$ | 17.19 | 70.1 | 1.27 | 0.78 | ${ }^{2} 2.21$ | 1.11 | 76 | 127 |
| Calgary. Alta | 3,540 | 55 | 38.4 | 13.1 | 61.5 | 97 | -49 | 9,111 | June 1 | Sept. 6 | $1{ }^{16.65}$ | ${ }^{50.0}$ | 0.51 | 0.99 | 2.51 | 0.69 | ${ }^{57}$ | 101 |
| Edmonton, Alta | 2,219 | 56 | 36.6 | 5.9 | 61.6 | 99 | -57 | 9,826 | May 30 | Sept. ${ }^{6}$ | 17.38 | 46.4 | 0.88 | 0.88 | 3.32 | 0.75 | 73 | ${ }_{138}^{133}$ |
| Medicine Hat, Alta | 2,365 | 55 | 41.9 | 12.0 | 69.3 | 108 | -51 | 8,495 | May 12 | Sept. 19 | 12.81 | 35.6 | $0 \cdot 63$ | 0.77 | 1.68 | 0.62 | 56 | 100 |
| Cranbro | 3,014 | 35 | 40.7 | ${ }_{26}^{16.7}$ | ${ }_{63.2}$ | 102 | $-41$ | 8.760 | June 10 | Aug. 28 | 14.41 | 56.7 | 1.80 | 0.68 | 1.14 | 0.89 | 69 | 106 |
|  | 2, 231 | 39 | 45.2 | ${ }_{26}^{24.4}$ | ${ }_{68.4}^{68 .}$ | 103 | $-17$ | 7,278 | May 13 | Sept. 30 | ${ }^{27.77}$ | 89.3 | 3.47 | 1.57 | 1.62 | 2.35 |  | ${ }^{131}$ |
| Penticton, | 1,121 | 32 | 47.8 | 26.8 | 68.3 | 105 | -16 | 6,346 | May 7 | Oct. ${ }^{3}$ | 10.85 | 24.0 | 0.98 | 0.68 | 0.79 | 0.83 | 83 |  |
| Prince Geer | 2,218 | 27 | 38.5 | 12.9 | 59.6 | 102 | -58 | 8,996 | June 18 | Aug. 22 | 19.98 | ${ }^{62 \cdot 7}$ | 1.81 | 0.84 | 1.63 | 99 | 123 | 162 |
| Victoria, B | 1.228 | ${ }_{41}^{54}$ | 49.5 29 | -38.7 | ${ }^{60 \cdot 0}$ | ${ }^{95}$ | $-^{-2}$ | 4,935 | Mar. 18 | Nov. 27 | 27.13 | 13.4 | 4.48 | 1.18 | 0.44 | . 81 | 141 | ${ }^{144}$ |
| ${ }_{\text {Dawson, }}$ Copermine, | 1,062 | ${ }_{13}^{41}$ | 22.8 11.3 | -21.0 -18.9 | 59.6 .50 .1 | 95 87 | $-73$ | 14,620 | June 6 | Aug. 19 | 12.61 | 56.2 57.0 | 0.87 | ${ }_{0}^{0.51}$ | 1.53 | 1.17 |  | 117 |
| Fort Good Hope, N.W. | 214 | ${ }_{31}^{13}$ | ${ }_{17} 11.3$ | -23.6 | - ${ }_{59 \cdot 3}^{50 \cdot 1}$ | 87 | $-_{79}$ | 17,520 | June June 15 | Aug. ${ }^{\text {A }}$ A | ${ }_{10}$ | 57.0 50.0 | - ${ }_{0}^{0.57}$ | 0.84 0.49 | $\xrightarrow{1.33} 1$ | 1.16 1.09 | 40 46 | 106 |

${ }^{1}$ Day-degrees represent the difference in temperature between the mean temperature of the air and the temperature of $65^{\circ} \mathrm{F}$. multiplied by the number of days during which the outside temperature was lower than that figure, computed for the period Sept. 1 to May 31 . Fuel consumption for heating purposes will be proportional to these totals.


| 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. | $\begin{aligned} & \text { Rain- } \\ & \text { fall } \end{aligned}$ | Snowfall | Total Precipitation |  |
| Gander, N'f'ld | 1.77 | 2.99 | 1.76 | $4 \cdot 67$ | $2 \cdot 60$ | 1.86 | $3 \cdot 28$ | $2 \cdot 33$ | $1 \cdot 14$ | $5 \cdot 29$ | $1 \cdot 82$ | $2 \cdot 61$ | 22.54 | 95.8 | $32 \cdot 12$ | -6.12 |
| St. John's, N'f'ld | 4.13 | 6.29 | 7-16 | $5 \cdot 45$ | 3.05 | 1.58 | $1 \cdot 31$ | $2 \cdot 41$ | $2 \cdot 09$ | $4 \cdot 80$ | 1.70 | $4 \cdot 26$ | 33.56 | $106 \cdot 7$ | 44.23 | $-9.55$ |
| Charlottetown, P.E.I | $3 \cdot 49$ | 3.22 | 1.90 | $2 \cdot 58$ | 1.04 | $2 \cdot 39$ | $3 \cdot 22$ | 6.94 | $1 \cdot 05$ | $2 \cdot 44$ | $3 \cdot 48$ | 3.94 | 26.84 | 88.5 | 35.69 | -3.78 |
| Annapolis Royal, N.S...... | $3 \cdot 41$ | $2 \cdot 36$ | 4.41 | $2 \cdot 56$ | 1.32 | $3 \cdot 15$ | $2 \cdot 50$ | $7 \cdot 45$ | $2 \cdot 69$ | $2 \cdot 00$ | 8.82 | $4 \cdot 71$ | 40.54 | 51.4 | 45.68 | $4 \cdot 27$ |
| Halifax, N.S..... | $4 \cdot 93$ | $3 \cdot 09$ | $4 \cdot 22$ | 4.01 | $2 \cdot 09$ | $2 \cdot 70$ | $1 \cdot 67$ | $3 \cdot 88$ | $3 \cdot 55$ | $1 \cdot 31$ | $4 \cdot 89$ | 8.73 | 35.91 | 91.6 | 45.07 | $-10.67$ |
| Sydney, N.S | $4 \cdot 07$ | $4 \cdot 23$ | $4 \cdot 26$ | 5.51 | $3 \cdot 28$ | $2 \cdot 02$ | 1.38 | $3 \cdot 37$ | $1 \cdot 60$ | $2 \cdot 51$ | $2 \cdot 28$ | $5 \cdot 72$ | 29.29 | 109.4 | $40 \cdot 23$ | -10.01 |
| Chatham, N.B | $3 \cdot 25$ | $3 \cdot 57$ | 1.53 | 3.05 | $0 \cdot 85$ | 4.50 | $2 \cdot 60$ | 6.47 | $0 \cdot 60$ | $4 \cdot 27$ | $8 \cdot 67$ | 4.78 | 35.52 | 86.2 | 44.14 | $3 \cdot 40$ |
| Fredericton, N.B | $4 \cdot 11$ | 4.51 | $3 \cdot 22$ | $5 \cdot 73$ | 1.18 | $6 \cdot 18$ | $2 \cdot 86$ | $5 \cdot 51$ | $0 \cdot 89$ | $3 \cdot 65$ | 9.49 | $7 \cdot 15$ | $43 \cdot 10$ | 113.8 | 54.48 | 11.68 |
| Saint John, N.B. | 6.07 | $3 \cdot 59$ | 4.48 | 3.39 | $1 \cdot 39$ | $3 \cdot 10$ | $3 \cdot 23$ | $7 \cdot 43$ | 0.92 | $3 \cdot 54$ | 11-11 | $7 \cdot 67$ | 44.97 | 112.5 | 56.22 | 13.96 |
| Arvida, Que. | 3.68 | 2.48 | $2 \cdot 34$ | $2 \cdot 76$ | 1.32 | 6.94 | $3 \cdot 99$ | $3 \cdot 36$ | 1.97 | $3 \cdot 39$ | 4.47 | $3 \cdot 15$ | 30.08 | $97 \cdot 7$ | 39.85 | 0.92 |
| Fort McKenzie, Que | 0.49 | 0.14 | ${ }^{1} \cdot 95$ | 0.91 | $1 \cdot 26$ | $2 \cdot 26$ | $3 \cdot 84$ | $2 \cdot 32$ | $2 \cdot 24$ | 1.01 | 1.58 | 0.94 | $12 \cdot 30$ | 66.4 | 18.94 | -3.10 |
| I.ennoxville, Quc. | $4 \cdot 30$ | $3 \cdot 27$ | $3 \cdot 61$ | $2 \cdot 81$ | $1 \cdot 53$ | 3.75 | $2 \cdot 46$ | 6.65 | $2 \cdot 31$ | $3 \cdot 16$ | $4 \cdot 99$ | $3 \cdot 27$ | 31.50 | $106 \cdot 1$ | $42 \cdot 11$ | $2 \cdot 55$ |
| Montreal, Que | $4 \cdot 90$ | $4 \cdot 16$ | $4 \cdot 52$ | $2 \cdot 68$ | $2 \cdot 35$ | $2 \cdot 12$ | $5 \cdot 06$ | $2 \cdot 78$ | $2 \cdot 43$ | $2 \cdot 39$ | $5 \cdot 17$ | $4 \cdot 07$ | 31.16 | 117.7 | $42 \cdot 93$ | $2 \cdot 13$ |
| Kapuskasing, On | 4.03 | $1 \cdot 13$ | $2 \cdot 70$ | $1 \cdot 66$ | $3 \cdot 68$ | 5.94 | $2 \cdot 33$ | 1.26 | $1 \cdot 91$ | $2 \cdot 12$ | 6.10 | $2 \cdot 53$ | 17.39 | $180 \cdot 0$ | 35.39 | $7 \cdot 80$ |
| Ottawa, Ont. | $3 \cdot 83$ | 2.94 | $2 \cdot 56$ | ${ }_{2} \cdot 13$ | $2 \cdot 65$ | $2 \cdot 36$ | $5 \cdot 74$ | 3.99 | $1 \cdot 38$ | $2 \cdot 00$ | $4 \cdot 22$ | $2 \cdot 95$ | 27.64 | 91.1 | 36.75 | $2 \cdot 52$ |
| Fort William, Ont | $3 \cdot 87$ | 1.58 | $2 \cdot 70$ | $3 \cdot 30$ | $4 \cdot 43$ | 4.73 | $4 \cdot 24$ | $2 \cdot 73$ | 3.02 | $4 \cdot 49$ | $4 \cdot 24$ | 1.46 | 24.39 | $164 \cdot 0$ | 40.79 | $9 \cdot 55$ |
| St. Catharines, Ont | $3 \cdot 24$ | $3 \cdot 62$ | $2 \cdot 15$ | 1.73 | 1.49 | 1.88 | $2 \cdot 67$ | 3.98 | 2.29 | $2 \cdot 33$ | $4 \cdot 12$ | 2.07 | 26.01 | 55.6 | 31.57 | $4 \cdot 54$ |
| Toronto, Ont ..... | 4.02 | 3.95 | $2 \cdot 29$ | $2 \cdot 20$ | 1.04 | $2 \cdot 22$ | $4 \cdot 33$ | $3 \cdot 84$ | 0.81 | 3.96 | 3.97 | 1.06 | 25.63 | $80 \cdot 6$ | 33.69 | 1.63 |
| Churchill, Man | 0.03 | $1 \cdot 11$ | 0.40 | 0.71 | $2 \cdot 23$ | 1.01 | $0 \cdot 65$ | $3 \cdot 80$ | 1.55 | $2 \cdot 60$ | 2.09 | 1.44 | 9.51 | $81 \cdot 1$ | 17.62 | $1 \cdot 66$ |
| The Pas, Man. | 0.99 | 1.50 | $0 \cdot 15$ | 1.01 | $1 \cdot 51$ | $3 \cdot 44$ | 1.82 | $3 \cdot 56$ | 0.71 | $2 \cdot 19$ | 1.57 | $0 \cdot 80$ | 13.75 | $54 \cdot 1$ | $19 \cdot 16$ | $3 \cdot 72$ |
| Winnipeg, Man | 1.83 | $0 \cdot 69$ | $0 \cdot 37$ | 1.71 | $4 \cdot 62$ | $3 \cdot 26$ | $2 \cdot 03$ | 1.72 | $3 \cdot 22$ | 0.91 | 0.95 | 1.09 | $15 \cdot 15$ | 72.5 | 22.40 | 1.21 |
| Prince Albert, Sask | 0.76 | 1.00 | 0.08 | $1 \cdot 24$ | 1.41 | $2 \cdot 58$ | 3.98 | $1 \cdot 75$ | $0 \cdot 68$ | 1.82 | 1.84 | 1.49 | 11.92 | $67 \cdot 1$ | 18.63 | $2 \cdot 52$ |
| Regina, Sask. | 0.81 | $0 \cdot 37$ | $1 \cdot 11$ | $1 \cdot 13$ | 1.58 | 4.05 | $2 \cdot 26$ | $2 \cdot 21$ | 1.03 | $0 \cdot 60$ | 1.32 | $0 \cdot 90$ | 11.69 | 56.8 | 17.37 | $2 \cdot 67$ |
| Beaverlodge, Al | 0.44 | $1 \cdot 19$ | 0.19 | 0.96 | $2 \cdot 20$ | 0.55 | $2 \cdot 42$ | ${ }^{2 \cdot 21}$ | 0.91 | $0 \cdot 65$ | $2 \cdot 20$ | 0.91 | 8.44 | 63.9 | 14.83 | -2.36 |
| Calgary, Alta. | $0 \cdot 54$ | 0.58 | 1.54 | 0.94 | 0.83 | $1 \cdot 87$ | $5 \cdot 26$ | $3 \cdot 05$ | 0.53 | $1 \cdot 36$ | $0 \cdot 77$ | $0 \cdot 16$ | 11.90 | 55.3 | 17.43 | 0.78 |
| Edmonton, Alta | 1.20 | 0.35 | $0 \cdot 20$ | 1.01 | 0.75 | $1 \cdot 40$ | $2 \cdot 79$ | $2 \cdot 89$ | 0.96 | $0 \cdot 19$ | $0 \cdot 80$ | $0 \cdot 34$ | 8.59 | $42 \cdot 9$ | 12.88 | -4.50 |
| Medicine Hat, Alta | $0 \cdot 63$ | $0 \cdot 34$ | $0 \cdot 47$ | $0 \cdot 31$ | 0.82 | $1 \cdot 60$ | $2 \cdot 41$ | $2 \cdot 78$ | $0 \cdot 29$ | $2 \cdot 12$ | $0 \cdot 39$ | $0 \cdot 60$ | $9 \cdot 68$ | $30 \cdot 8$ | 12.76 | -0.05 |
| Cranbrook, B | 3.70 | 0.90 | $2 \cdot 60$ | $1 \cdot 20$ | 0.40 | 1.45 | 1.25 | 1.55 | $0 \cdot 30$ | $2 \cdot 70$ | 1.44 | $3 \cdot 15$ | 9.49 | 111.5 | $20 \cdot 64$ | 6.23 |
| Nelson, B.C | $5 \cdot 12$ | $3 \cdot 42$ | $3 \cdot 31$ | 1.44 | $0 \cdot 37$ | 1.81 | 0.93 | 1.55 | $0 \cdot 53$ | 6.72 | $3 \cdot 21$ | $4 \cdot 55$ | 23.85 | 91.2 | 32.97 | 523 |
| Penticton, B.C | $1 \cdot 10$ | $1 \cdot 20$ | $1 \cdot 34$ | $1 \cdot 18$ | 0.29 | 1.06 | 1.75 | 0.73 | 0.43 | 1.48 | 1.78 | $1 \cdot 15$ | 10.08 | $34 \cdot 1$ | 13.49 | $2 \cdot 64$ |
| Prince George, B | $1 \cdot 74$ | $2 \cdot 37$ | 1.04 | $0 \cdot 67$ | 1.88 | $0 \cdot 54$ | $2 \cdot 00$ | $3 \cdot 72$ | $0 \cdot 53$ | 1.51 | $2 \cdot 83$ | 1.93 | 11.74 | 90.2 | 20.76 | 0.78 |
| Victoria, B.C | $4 \cdot 80$ | 2.94 | $4 \cdot 74$ | $1 \cdot 27$ | 0.71 | $0 \cdot 28$ | 1.00 | $1 \cdot 22$ | $0 \cdot 43$ | $5 \cdot 30$ | $3 \cdot 86$ | $3 \cdot 56$ | 25.76 | $43 \cdot 5$ | $30 \cdot 11$ | $2 \cdot 98$ |
| Dawson, Y.T | 1.27 | 0.88 | 0.95 | 0.02 | $1 \cdot 61$ | $0 \cdot 11$ | $2 \cdot 28$ | 0-19 | 1.11 | $0 \cdot 56$ | 1.58 | $1 \cdot 27$ | $5 \cdot 28$ | $65 \cdot 5$ | 11.83 | -0.78 |
| Coppermine, N.W.T...... Fort Good Hope, N.W.T.. | 0.25 1.88 | 0.16 0.61 | 0.52 0.09 | $0 \cdot 33$ $0 \cdot 11$ | 0.22 0.49 | 0.43 1.03 | 2.75 0.77 | 0.48 0.90 | 1.19 0.99 | 0.72 0.63 | 0.39 0.98 | 1.33 0.40 | 4.54 3.72 | $42 \cdot 3$ $51 \cdot 6$ | 8.77 8.88 | -1.95 -1.75 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

## Section 2.-Standard Time and Time Zones

In former times, when transportation was slow, time was based on 'sun time'. The difference in sun time as between communities was, of course, determined by the difference in their longitude. A locality precisely one degree of longitude west of another in the same latitude naturally had sunrise and sunset four minutes later than did the community one degree farther east.

The advent of rapid transportation made these 'local times' extremely inconvenient for travellers. It was almost impossible to work out railway time-tables on the basis of the local times of each community. Consequently, in Great Britain, where the differences of longitude are comparatively small, the problem was solved in 1880 by placing the whole country on the time of Greenwich Observatory, and the time in Ireland was standardized at twenty-five minutes behind Greenwich time, being the time of Dublin.

From 1878, Sir Sanford Fleming advocated standard time and, at a world conference held at Washington, D.C., in 1884, 'standard time' was adopted. Standard time sets the number of times in the world at 24, each time zone to extend over one twenty-fourth of the surface of the earth and to include all the territory between two meridians, $15^{\circ}$ longitude apart. Standard time would be Greenwich time, all other time zones being a definite number of hours either in advance of or behind Greenwich. As the North American Continent extends over such an enormous distance from east to west, it was necessary to establish a number of time zones. Atlantic, Eastern, Central, Mountain, Pacific, Yukon and Alaska time zones have times, respectively, four, five, six, seven, eight, nine and ten hours behind Greenwich. The differences are usually expressed in intervals of so many hours difference from Greenwich; however, some localities of smaller area have times which are not an exact hours difference from Greenwich.

Canada has seven time zones, the most easterly being Newfoundland standard time, three hours and thirty minutes behind Greenwich mean time. Atlantic standard time, which is local time at the 60th meridian running near Sydney, N.S., and is four hours behind Greenwich, is used in the Maritime Provinces and those parts of Quebec and the Northwest Territories east of the 68th meridian of west longitude. Eastern standard time, which is the local time at the 75 th meridian running near Cornwall, Ont., and is thus five hours behind Greenwich, is used in Quebec west of the 68th meridian, in Ontario east of the 90th meridian and in the Northwest Territories between the 68th and 85 th meridians. Central standard time, which is the local time at the 90th meridian, is six hours behind Greenwich and is used in Ontario west of the 90th meridian, in Manitoba and the Northwest Territories between the 85 th and the 102 nd meridians and in the southeasterly part of Saskatchewan. Mountain time, which is the local time at the 105th meridian running near Regina, is seven hours behind Greenwich and is used throughout Saskatchewan except in the southeasterly part, throughout Alberta and in that part of the Northwest Territories between the 102 nd and 120 th meridians. Pacific standard time, which is local time of the 120 th meridian running near Kamloops, B.C., is eight hours behind Greenwich and is used throughout British Columbia and in that part of the Northwest Territories lying west of the 120 th meridian. Yukon standard time, which is the local time at the 135 th meridian, running near Whitehorse, Yukon, is nine hours behind Greenwich and is used throughout Yukon

Territory. Thus, throughout Canada there are seven different standard times roughly corresponding with the 88 degrees of longitude between St. John's, N'f'ld., and the Alaskan boundary.

Some municipalities adopt the time used by the local railways, which in some cases differs from the standard, and 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.


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, both from the economic and 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 ${ }_{2}$ 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

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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. (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, while the major effort in astrophysics has been concentrated at the Dominion Astrophysical Observatory at Victoria, B.C. The David Dunlap Observatory is a newer institution founded in 1935 with very fine astrophysical equipment of a kind similar to that in use at Victoria. It not only performs the function of a privately financed and administrated research institution but is also the nucleus of a university department of astronomy. A special article dealing specifically with the work of the Dominion Astrophysical Observatory at Victoria, B.C., appears in the Year Book, 1948-49, pp. 63-71.

# GHAPTER 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.-THE CANADIAN CONSTITUTION

The Government of Canada is provided for by the British North America Act (30-31 Vict., c. 3) of 1867 and subsequent amendments. These statutes of the United Kingdom Parliament, usually referred to as 'The British North America Acts, 1867-1951', form the written basis of the constitution by which Canada is governed.

The British North America Acts, 1867-1951, do not contain the complete description of Canada's constitution. External restraints upon Canadian autonomy have been removed by the development of conventions and usages which, although not all expressed in laws, are equally binding. In a similar fashion in the domestic field, the machinery of Canadian government, both federal and provincial, operates partly in accordance with the written constitution, as far as it goes, and partly in accordance with conventions and usages which are frequently called the 'unwritten constitution'. One such convention is that only a committee of the Queen's Privy Council for Canada meets to transact business and never the whole membership. Two more sources of the constitution of Canada are the laws of the Federal Parliament itself* and the decisions of the Courts on matters of constitutional law. $\dagger$ Finally, the executive power in respect of Canada is governed only in general terms by statutes. The commissions and instructions of successive Governors General contain a wealth of constitutional source material. $\ddagger$

[^21]The two basic characteristics of the Canadian constitution are that it is federal and that, apart from the federal aspect, it is modelled closely on the British Parliamentary system.

Federation occurred in 1867 with the union of three colonies, Nova Scotia, New Brunswick, and Canada, which was divided into two provinces, Ontario and Quebec. The colony of British Columbia joined in 1871 and Prince Edward Island in 1873. Three other provinces were created out of portions of Rupert's Land and the North-Western Territory held by the Hudson's Bay Company and transferred to Canada, June 23, 1870: Manitoba in 1870, and Saskatchewan and Alberta in 1905. Newfoundland, by a majority vote in a national referendum taken on July 22, 1948, decided to enter Confederation and became a province of Canada on Mar. 31, 1949. (See also p. 64.)

The British North America Act, 1867, and amendments, divides the field of legislative and executive power between national and provincial authorities. It provides also the legal framework for national and provincial political institutions, but leaves the provinces full discretion to amend their own constitutions,* except with respect to the office of Lieutenant-Governor who is appointed by the Governor General in Council and is the formal head of Provincial Government, and except that no provincial legislative authority may invade the field allotted by the Act to the Parliament of Canada.

An outline of federal-provincial relations between the Dominion-Provincial Conference of December 1936 and the conclusion of the post-war tax agreements of 1947 will be found in the 1948-49 Year Book, pp. 116-122. Further developments are outlined in the 1951 edition, pp. 102-105.

See list of Special Articles in Chapter XXVIII for reference to the Evolution and Development of the Canadian Constitution and the Terms of Union of Newfoundland with Canada.

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 Commorrwealth 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

[^22]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*

The Federal Parliament consists of the Governor General and the Privy Council (of which the Cabinet, or Ministry, is an active committee responsible to the Legislature for all matters of policy) at the head of the Executive Branch, the Senate and House of Commons comprising the Legislative Branch, and the Courts representing the Judicial Branch of government. There is no clearly defined separation of powers since those members of the Privy Council who are members of the Cabinet have seats in the Legislature, and within that body, in turn, the Senate exercises some judicial functions. Each of the provinces has a similar system. In both Federal and Provincial Governments there is responsible government whereby the Ministry is answerable for its conduct to the elected representatives of the people in the House of Commons or the Legislative Assemblies. This device is not mentioned in the British North America Act but, except for some modifications to meet local conditions, British practice has been followed. Under the constitution the Courts administer the law as it is drawn up and amended by the Legislature.

## Section 1.-The Federal Government

## Subsection 1.-The Executive

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 such authority as is entrusted to him under the Letters Patent constituting the Office of Governor General. Acting under the recommendations of his responsible advisers, and in accordance with the Letters Patent, he summons, prorogues and dissolves Parliament and assents to bills. New Letters Patent were issued under the Great Seal of Canada, effective Oct. 1, 1947, and under them he is empowered to exercise, on the advice of the Queen's Privy Council for Canada, any of the powers and authorities of the Crown in respect of Canada.

[^23]
## 1.-Governors General of Canada since Confederation

|  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Name |  |

The Cabinet.-Canada's system of responsible government provides for a Cabinet or Ministry composed of members of the House of Commons or the Senate. The Cabinet is a committee of the Queen's Privy Council for Canada. Without enlarging upon the features of the system, it may be sufficient to note that the Cabinet is responsible to the House of Commons, initiates nearly all the legislation 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.

## 2.-Prime Ministers since Confederation

| Ministry | Prime Minister | Length of Administration |
| :---: | :---: | :---: |
| 1 | Rt. Hon. Sir John Alexander Macdonald. | July 1, 1867 - Nov. 5, 1873 |
| 2 | Hon. Alexander Mackenzie............... | Nov. 7, 1873-Oct. 16, 1878 |
| 3 | Rt. Hon. Sir John Alexander Macdonald. | Oct. 17, 1878-June 6, 1891 |
| 4 | Hon. Sir John Joseph Caldwell Abbott., | June 16, 1891 - Nov. 24, 1892 |
| 5 | Rt. Hon. Sir John Sparrow David Thompson | Dec. $5,1892-$ Dec. ${ }^{\text {D }}$ 12, Dec. $21,1894-$ Apr. 27,1896 |
| 7 | Hon. Sir Charles Tupper. | May 1, 1896 - July 8, 1896 |
| 8 | Rt. Hon. Sir Wilfrid Laurier | July 11, 1896-Oct. 6, 1911 |
| 9 | Rt. Hon. Sir Robert Laird Borden | Oct. 10, 1911 - Oct. 12, 1917 (Conservative Administration) |
| 10 | Rt. Hon. Sir Robert Laird Borden | Oct. 12, 1917 - July 10, 1920 |
| 11 | Rt. Hon. Arthur Meighen | July 10, 1920 - Dec. 29, 1921 (Unionist-" National Liberal and Conservative Party") |
| 12 | Rt. Hon. Whliam Lyon Mackenzie King. .......... ..... | Dec. 29, 1921 - June 28, 1926 |
| 13 | Rt. Hon, Arthur Meighen. ........ | June 29, 1926 - Sept. 25, 1926 |
| 14 | Rt. Hon. Wihliam Lyon Mackenze King | Sept. 25, 1926 - Aug. 6, 1930 |
| 15 | Rt. Hon. Richard Bedpord Bennett | Aug. 7, 1930 - Oct. 23, 1935 |
| 16 | Rt. Hon. Whliam Lyon Mackenzie King.......... . . . . . | Oct. 23, 1935 - Nov. 15, 1948 |
| 17 | Rt. Hon. Louts Stephen St. Laurent...................... | Nov. 15, 1948 - |

## 3.-Members of the Seventeenth Ministry as at Mar. 31, 1952

(According to precedence of Ministers)
Nots.-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 | Rt. Hon. Louis Stephen St. |  |  |
| Queen's Privy Council for Canada. |  | Dec. 10, 1941 | Nov. 15, 1948 |
| Minister of Trade and Commerce and Minister of Defence Production.... | Rt. Hon. C. D. Howe | Oct. 23, 1935 | \{Jan. 19,1948 |
|  |  | Oct. 28, 1935 |  |
| Minister of Public Wor | Hon. Alphonse Fournie | Oct. 6, 1942 | Oct. 68,1942 |
| Minister of National Defenc | Hon. Brooke Claxton.. | Oct. 13, 1944 | Dec. 12, 1946 |
| Minister of Transport. . . . . 1 . ${ }^{\text {a }}$. | Hon. Lionel Chevrier. | Apr. 18, 1945 | Apr. 18, 1945 |
| Minister of National Health and Welfare. | Hon. Paul Martin | Apr. 18, 1945 | Dec. 12. 1946 |
| Minister of Finance and Receiver |  |  |  |
| General. ${ }_{\text {Minister of }}$ | Hon. D. C. Abrotr | Apr. 18, 1945 | Dec. 10, 1946 |
| Meader of the Government in the |  | Apr. 18, 1945 | Apr. 18, 1945 |
| Senate.. | Hon. Wrishart McL. Rorertson.. | Aug. 29, 1945 | Aug. 29, 1945 |
| Minister of Labour | Hon. M. F. Gregg. | Jan. 19, 1948 | Aug. 7, 1950 |
| Minister of Fisheries.. | Hon. R. W. Mayezw | June 11, 1948 | June 11, 1948 |
| Secretary of State for External Affairs. | Hon. L. B. Pearson. | Sept. 10, 1948 | Sept. 10, 1948 |
| Minister of Justice and Attorney General. | H | Nov 15, 1948 | Nov. 15, 1948 |
| Minister of Resources and Development. | Hon. R. H. Winters. | Nov. 15, 1948 | $\begin{array}{llll}\text { Jan } & 18,1950\end{array}$ |
| Secretary of State of Canada | Hon. F. Gordon Bradle | Apr. 1, 1949 | Apr. 1, 1949 |
| Minister of Veterans Affairs.......... | Hon. Hugues Lapointe. | Aug. 24, 1949 | Aug. 7, 1950 |
| Minister of Citizenship and Immi gration. | Hon. W. E. Harris. | Jan. 18, 1950 | Jan. 18, 1950 |
| Minister of Mines and Technical Surveys. | Hon. Grorge P | Dec. 13, 1950 | Dec. 13, 1950 |
| Postmaster General | Hon. Alcide Côté | Feb. 13, 1952 | Feb. 13, 1952 |

${ }^{1}$ 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 to include Parliamentary Assistants for 13 Ministers, as listed below:-

| To Minister of Trade and Commerce | G. J. Mcilraith |
| :---: | :---: |
| To Minister of Labour | Paul E. Côté |
| To Minister of Agriculture | Robert McCubbin |
| To Minister of Fisheries. | J. Watson MacNaught |
| To Minister of Veterans Affairs | L. A. M Utch |
| To Minister of National Defenc | J. A. Blanchette |
| To Minister of Finance. | James Sinclair |
| To Minister of Transport. | W. M. Benidiceson |
| To Postmaster General. | L. Lanalors |
| To Secretary of State for External Aff | Jean Lesage |
| To Minister of National Defence. | R. O. Campney |
| To Minister of National Health and Welf | E. A. McCusker |
| To Minister of Defence Production | John H. Diceey |

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 and serve as the Committee of the Queen's Privy Council for Canada.

## 4.-Members of the Queen's Privy Council for Canada, According to Seniority Therein, ${ }^{1}$ as at Mar. 31, 1952

Clerk of the Privy Council and Secretary to the Cabinet.<br>N. A. Robertson<br>Assistant Clerk.<br>A. M. Hill

Nors.-In this list the prefix "The Rt. Hon." indicates membership in the United Kingdom Privy Council. Besides those mentioned in this list, The Rt. Hon. Sir Lyman P. Duff. G.C.M.G.. retired Chief Justice of Canada, and The Rt. Hon. Thibaudeau Rinfret, Chief Justice of Canada, are members of the United Kingdom Privy Council.

| Name | Date When Sworn In | Name | Date When Sworn In |
| :---: | :---: | :---: | :---: |
| T | Oct. 10, 1911 | The Hon. Couin |  |
| The Rt. Hon. Arthur Meiohen.. | Oct. ${ }^{\text {Oct }}$, 1915 | T | July 8, 1940 |
| The Rt. Hon. Whilam Morris |  | The Hon. Angus Lewis Mac- |  |
| Hores | eb. 18, 1916 |  | July 12, 1940 |
| The Hon. Albert Sevign | n. 8, 1917 | he Hon. Leighton Goldie Mc- | Mar. 4, 1941 |
| Calder. | Oct. 12, 1917 | Hon. Josepr Thorarinn |  |
| he Hon |  | Thorson. ${ }_{\text {Whe................. }}$ | 11, 1941 |
| The Howbern. Th | Oct. 12, 1917 | The Hon. William Ferdinand |  |
| Crerar... | Oct. 12, 1917 | The Rt. Hon. Louts Stephen Sr. |  |
| The Hon. Fleming Blanchard |  |  | Dec. 10, 1941 |
| The Hon. ${ }^{\text {a }}$ | July 13, 1920 | The Rt. Hon. Win |  |
| Stevens. | Sept. 21, 1921 | The Hon. Alphonse Fourn | Oct. 7, 1942 |
| The Hon. Jamgs | Feb. 3, 1922 | The Hon. Er | Oct. 7, 1942 |
| The Hon. Edward James Mc- |  | The Hon. Leo Richer LaFle | Oct. 7, 1942 |
| Murrap | Nov. 14, 192 | The Hon. Brooke C | Oct. 13, 1944 |
| The Rt. Hod. Charles Vincent |  | The Hon. Andrew Grorge Latta |  |
| Massey. ${ }^{\text {The Hon. Charless }}$ | Sept. 16, 1925 | McNaUGhton. . .i....... | Nov. ${ }^{2,1944}$ Apr. 18, 1945 |
| Dunding | Mar. 1, 1926 | The Hon. Lionel Chevrier ${ }^{\text {a }}$ | Apr. 18, 1945 |
| The Hon. Wrliam Daum Eule | Sept. 25, 1926 | The Hon. Paul Josepre Ja |  |
| H.H. The Duke or Windsor.. | Aug. 2, 1927 | Mart | Apr. 18, 1945 |
| The Hon. Cyrus macmillan. | June 17, 1930 | The Hon. Douglas Charles |  |
| The Hon. Arthur | July 31, 1930 | The Hon. Jimms Josere M | $\begin{aligned} & \text { Apr. } 18,1945 \\ & \text { Apr. } 18,1945 \end{aligned}$ |
| The Hon. Hugh alexander |  | The Hon. David Laurence Mac- |  |
| Ste Wart. | Aug. 7, 1930 | The Hon. Thomas Vie | $\text { Apr. 18, } 1945$ |
| Sutheriand | Aug. 7, 1930 | The Hon. Wishart M |  |
| The Hon. Troms |  |  | Sept. 4, 1945 |
| MURP | Aug. 7, 1930 | The Hon. Muton Fowler Gregg ${ }^{2}$ | Sept. 2, 1947 |
| The Hon. Wul | June 17, 1931 | $\begin{aligned} & \text { The Hon. Rober } \\ & \text { MayHEw } \end{aligned}$ | June 11, 1948 |
| The Hon. Robzrt |  | The Hon. Lester |  |
| The Hon | Dec. ${ }^{\text {Nov. } 17,1934}$ | Thearson. |  |
| The Hon. George Regi |  |  | Nov. 15, 1948 |
| Gea | Aug. 14, 19 | The Hon. Robert |  |
| The Hon. Samuzl Gobr | Aug. 14, 1935 | The Hon. Frbderick | Nov. 15, 1948 |
| The Hon. LUcten Henri gendron | Aug. Aug. 30,1935 | The hon. Frederick |  |
| The Hon. Onesime Gagnos | Aug. 30, 1935 | The Hon. Charlss Jost Burche | Apr. 1, 1949 |
| The Hon. Charles Gavan Power. | Oct. 23, 1935 | The Hon. Gaspard F |  |
| The Rt. Hon. James Lorimer |  | The Hon. Hogues lapointe ${ }^{\text {a }}$, | Aug. 25, 1949 |
| The Hon | Oct. 23, 1935 | RINFRET. | Aug. 25, 1949 |
| Rt. H |  | The Hon. Walter Edward Harris ${ }^{2}$ | Jan. 18, 1950 |
| HowE | Oct. 23, 1935 | T | Dec. 13, 1950 |
| The Rt. Hon. James | v. | The Hon. Fra | 23, 1951 |
| The Hon. James Angus Mic- |  | Viscount Alex^ | Jan. 29, 1952 |
| Kinnon.. | Jan. 23, 1939 | The Hon. Aicide C | Feb. 13, 1952 |

[^24]
## 5.-Duration and Sessions of Parliaments, 1936-52

Note.-Similar information for the 1st to the 12th Parliaments, covering the period from Confederation to 1917, will be found at p. 46 of the 1940 Year Book; and that for the 13th to 17th Parliaments at p. 53 of the 1945 edition.

| 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, 1935 ${ }^{3}$ |
|  | 3rd | Jan. 27, 1938 | July 1, 1938 | 156 | 102 | Nov. 9, 19354 |
|  | 4th | Jan. 12, 1939 | June 3, 1939 | 143 | 103 | Jan. 25, 19405 |
|  | 5th 6 th | Sept. 7, 7, 1939 Jan. 25,1940 | Sept. 13,1939 Jan. 25,1940 | 7 1 | 6 1 | 4 y., 2 m., 16 d. |
| 19th Parliament ${ }^{\text {c }}$. | 1st | May 16, 1940 | Nov. 5, 1940 | 174 | 61 |  |
|  | 2 nd | Nov. 7, 1940 | Jan. 21, 1942 | 441 | 105 | Mar. 26, $1940{ }^{3}$ |
|  | 3rd | Jan. 22, 1942 | Jan. 27, 1943 | 371 | 124 | Apr. 17, 19404 |
|  | 4th | Jan. 28, 1943 | Jan. 26, 1944 | 364 | 120 | Apr. 16, $1945{ }^{5}$ |
|  | 5th 6th | Jan. 27,1944 Mar. 19,1945 | Jan. Apr. 16, 191945 | 371 29 | 136 19 |  |
| 20th Parliament.. | 1st | Sept. 6, 1945 | Dec. 18, 1945 |  |  |  |
|  | 2nd | Mar. 14, 1946 | Dec. 18,1945 | 171 | 118 | June 11, 19453 |
|  | 3 rd | Jan. 30, 1947 | July 17, 1947 | 169 | 115 | Aug. <br> Apr. <br> 90, <br> 19495 |
|  | 4th | Dec. Jan. 26, 191947 | June 30, 1948 Apr. 30,1949 | 209 95 | 119 59 | $3 \mathrm{y},. 8 \mathrm{~m} ., 22 \mathrm{~d}$. |
| 21st Parliament.. | 1st | Sept. 15, 1949 | Dec. 10, 1949 |  |  |  |
|  | 2nd | Feb. 16, 1950 | June 30, 1950 | 135 | 90 |  |
|  | 3 rd | Aug. 29, 1950 | Jan. 29, 1951 | 154 | 17 | June 27, 19493 |
|  | 4th | Jan. 30, 1951 | Oct. 9, 1951 | 253 | 105 | Aug. 25, 19494 |
|  | 5th | Oct. 9, 1951 | Dec. 29, 1951 | 82 | 56 |  |
|  |  |  |  | - |  |  |


#### Abstract

${ }^{1}$ The ordinary legal limit of duration for each Parliament is five years. $\quad{ }^{2}$ Duration of Parliament in years, months and days. The life of a Parliament is counted from the date of return of election writs to the date of dissolution, both days inclusive (B.N.A. Act, Sect. 50). ${ }^{3}$ Date of general election. 4 Writs returnable. ${ }_{5}$ 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.


## Subsection 2.-The Legislature

The Legislative Branch of government, consisting of the Senate and House of Commons, is responsible for the enactment of all legislation. 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 restricts to the House of Commons the introduction of Bills for the appropriation of any part of the public revenue or the imposition of any tax or impost. Bills must pass both Houses and receive the 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. For some years past, all Private Bills have originated in the Senate.

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 6.

## 6.-Representation in the Senate since Confederation

| Province | 1867 | 1870 | 1871 | 1873 | 1882 | 1887 | 1892 | 1903 | 1905 | $\begin{aligned} & 1915- \\ & 1948 \end{aligned}$ | $\begin{aligned} & 1949- \\ & 1952 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 | 12 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Prince Edward Isla | $\ldots$ | ... | ... | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Newfoundland. | $\ldots$ | ... | ... | $\cdots$ | ... | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 6 |
| Western Provinces. | $\cdots$ | 2 | 5 | 5 |  | 8 | 9 | 11 | 15 | 24 | 24 |
| Manitoba. | $\cdots$ | 2 | 2 | 2 | 8 | 3 | 4 | 4 | 4 | ${ }_{6}^{6}$ | 6 |
| British Columbia | ... | ... | 3 | 3 | 3 | 8 | 8 | 3 | 3 | 6 | 6 |
| Saskatchewan. <br> Alberta. |  | ... | ... | $\ldots$ | $\ldots$ | 2 | 2 | $4\{$ | 4 | ${ }_{6}^{6}$ | ${ }_{6}^{6}$ |
| Totals. | 72 | 74 | 77 | 77 | 78 | 80 | 81 | 83 | 87 | 96 | 102 |

## 7.-Members of the Senate, by Provinces, as at Mar. 31, 1952


(Ranked according to seniority, by provinces. 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- <br> ( 6 Senators) | St. John's <br> St. John's <br> St. John's <br> St. John's <br> St. John's <br> Curling | New Brunswick-concluded Pirie. Frederick Willinm. | Grand Falls <br> South Nelson <br> Dorchester <br> Black's Harbour |
| Baird, Alexander Boyd. |  | Burchill, George Prrcival |  |
| Petton, Ray.. |  | Emmerson. Henry Read. |  |
| Burke, Vincent P |  | Doone, J. J. Hayes.... |  |
| Quinton, Herman W. |  |  |  |
| Pratt, Calvert |  | Quebec |  |
|  |  | (24 Senators-6 vacancies) Raymond, Donat. | Montreal |
| Prince Edward Island- <br> (4 Senators-1 vacancy) | Mount Stewart | Hugessen, Adrlan KnatceBULL. | Montreal |
| McIntyre, James Peter....... |  | Fafard, J. Fernand..... | L'Islet |
| Grant, Thomas Vincent, M.D. | Montague Charlottetown | Howard, Charles Benjamin. | Sherbrooke Montreal |
| Barbour, George H......... |  | David, Athanase. | Montreal |
|  |  | Hushion, Whliam James. | Westmount |
|  |  | Gouin, Líon Mercier.... | Montreal |
| Nova Scotia- |  | Vien, Thomas................. | Montreal |
| (10 Senators) | Halifax | Dutremblay, Pamphils Réal Bouchard, Telesphore |  |
| Dennis, Willinm Henry..... |  |  | St. Hyacinthe Montreal |
| Quinn, Fellx Patrick | Bedford Lunenburg | Damien <br> Daigle, Armand |  |
| Maclennan, Donald | Port Hawkesbury | Vallancourt, Cyrilis........ | Lévis Sherbrooke |
| Robertson, Wishart McLea. | Truro | Nicol, Jacob, ................... |  |
| Kinle y, John James...... |  |  | Sherbrooke <br> Longueuil |
| McDonald, John Alexander. | HalifaxComeauville | Dessureadlet, Jean Marie.... | Quebec <br> Quebec <br> Frelighsburg |
| Comeat, Josepre Willie.. |  |  |  |
| Isnor, Gordon B. | Halifax Milford Station | Godbout, Joseph Adelard.... |  |
| New Brunswick- |  | Ontario- <br> (24 Senators-4 vacancies) |  |
| (10 Senators-4 vacancies) |  | Hardy, Arthur Charles. | Brockville Toronto |
| Veniot, Clarence Joseph...... | Bathurst | McGuire. William Henry | Tecumseh |

7.-Members of the Senate, by Provinces, as at Mar. 31, 1952-concluded

| Province and Name of Senator | P.O. Address | Province and Name of Senator | P.O. Address |
| :---: | :---: | :---: | :---: |
| Ontario-concluded |  | Saskatchewan |  |
| Wison, Cairine Reay....... | Ottawa | (6) Senators) |  |
| Fallis, Iva Campbell....... | Peterborough | Calder, James alexander... | Regina |
| Lambert, Norman Platr. | Toronto | Morcotte, ARTHUR..... | ${ }^{\text {Ponteix }}$ Lake |
| Paterson, Norman Mcleod.. | Fort William | Aseltine, Walter Morley | Rosetown |
| Dufrus, Joseph james ...... | Peterborough | Stevenson. Join James... Wood, Tromas H.mel | Prince Albert |
| Euler, Whliam daum....... | Toronto | Wood, тномая H ......... |  |
| Camprell, Gordon Peter.... | Toronto |  |  |
| Taylor, Wmlink horacz.... | Brantiord | Alberta- |  |
| bishop, Cbarles lammence.: |  | Buchanan, Whliam Ashbury | Lethbridge |
| W0RTH, .... | Toronto | Blasi, Aristide..... | Edmonton |
| HURTUBISE, Josere Raoum | Sudbury | Gershaw, Fred Whil | Medicine Hat |
| Farquiar, Thomas. | Little Current | Ross, Grorge henry. | Calgary |
| Fogo, James Gordon......... | Ottawa | Mackinnon, James Angus. | Edmonton |
| Fraser, Whlinm Alexander.: Goiding, Whinm Henry... | Trenton | Stambaugh, J. Wesle y........ | Bruce |
| Manitoba- ( S Senators- 1 vacancy $)$ |  | British Columbia(6 Senators-1 vacancy) King, James Horace | ver |
| Haig, John Thomas........ | Winnipeg | Farris, John Wallace de |  |
| Beaubien, Arthur lucien... | St. Jean Baptiste | Tibeve........ | Vancouver |
| Crerar, Thomas Alexander. | Worwood Grove | Turgeon, James Gray....... | Vancouver |
| Davis, John Caswell. | St. Boniface | Reid, Thomas............... | New Westminster |

The House of Commons.-In Sect. 37 of the British North America Act of 1867 it was provided that "The House of Commons shall, subject to the provisions of this Act, consist of one hundred and eighty-one members, of whom eighty-two shall be elected for Ontario, sixty-five for Quebec, nineteen for Nova Scotia, and fifteen for New Brunswick" Further, under Sect. 51, it was enacted that, after the completion of the Census of 1871 and of each subsequent decennial census, the representation of the four provinces should be readjusted by such authority, in such manner, and from such time, as the Parliament of Canada provided, subject to and according to certain rules set out in the original Act.

The representation of the provinces in the Federal Parliament as at 1867 and the readjustments that took place with the admission of the newer provinces into Confederation and with each decennial census up to 1931, are outlined in the 1946 Year Book, pp. 57-59. The postponement of redistribution of parliamentary constituencies following the 1941 Census, together with the petition of both Houses of Parliament to the Imperial Parliament requesting the required amendment to Sect. 51 of the British North America Act, the wording of the new Section, and the passage of the Representation Act, 1947 (11 Geo. VI, c. 71), providing for an increase of membership from 245 to 255 effective at the following general election, are described in the Year Book 1951, p. 65.

Under the terms of a Bill, assented to on Feb. 18, 1949, and entitled "An Act to approve the Terms of Union of Newfoundland with Canada", provision was made for the Province of Newfoundland to be represented by seven members in the House of Commons. This increased the number of Members of Parliament to 262 .

The number of representatives of each province elected at each of the 21 general elections since Confederation is given in Table 8.

## 8.-Representation in the House of Commons as at Federal General Elections, 1867-1949

| Province or Territory | 1867 | 1872 | $\begin{aligned} & 1874 \\ & 1878 \end{aligned}$ | 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario.. | 82 | 88 | 88 | 92 | 92 | 92 | 86 | 86 | 82 | 82 | 82 | 83 |
| Quebec. | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 73 |
| Nova Scotia. | 19 | 21 | 21 | 21 | 21 | 20 | 18 | 18 | 16 | 14 | 12 | 13 |
| New Brunswick. | 15 | 16 | 16 | 16 | 16 | 14 | 13 | 13 | 11 | 11 | 10 | 10 |
| Manitoba. | $\cdots$ | 4 | 4 | 5 | 5 | 7 | 10 | 10 | 15 | 17 | 17 | 16 |
| British Columbia. | ... | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 13 | 14 | 16 | 18 |
| Prince Edward Island... | $\cdots$ | $\ldots$ | 6 | 6 | 6 | 5 | 4 | 4 | 4 | 4 | 4 | 4 |
| Saskatchewan.. | $\ldots$ | $\ldots$ | $\cdots$ | $\cdots$ |  |  |  | 10 | 16 | 21 | 21 | 20 |
| Alberta. | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | ${ }^{4}$ | 4 |  | 7 | 12 | 16 | 17 | 17 |
| Yukon-Mackenzie River | $\cdots$ | $\cdots$ | $\ldots$ | ... | ... | $\cdots$ | 1 | 1 | 1 | 1 | 1 | 1 |
| Newfoundland. | $\ldots$ | $\cdots$ | $\cdots$ | ... | ... | ... | ... | ... | $\cdots$ | $\cdots$ | $\cdots$ | 7 |
| Totals. | 181 | 200 | 206 | 211 | 215 | 213 | 214 | 221 | 235 | 245 | 245 | 262 |

The completion of the 1951 Census called for further readjustment of parliamentary representation and draft legislation for amending the British North America Acts, 1867-1951, with respect to the readjustment of representation in the House of Commons was under consideration by the Canadian Parliament in the spring of 1952. An outline of this legislation, if enacted by the time of going to press, will be given in an Appendix to this volume.

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 takes its place with the unwritten customs, tested by time, 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. (See pp. 59-60.)

## 9.-Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949, and Revised to Mar. 31, 1952.

| Speaker. | The Hon. W. Ross Macdonald |
| :---: | :---: |
| Clerk of the House.. | Leon J. Raymond |
| Leader of the Opposition. | George A. Drew |

Nore.-This information, except the population of constituencies, has been supplied by the Chief Electoral Officer, Ottawa. Party affiliations are unofficial. The vote is summarized by provinces in Table 11, p. 61. The leaders of the political parties are indicated by asterisks(*). For Parliamentary Assistants see p. 47.

| Province and Electoral District | Population, Census 1941 | Voters on List | Total <br> Votes <br> Polled | Votes Polled by Mem- ber $^{1}$ | Name of Member ${ }^{1}$ | P.O. Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |  |  |  |
| Newfoundland-z <br> (7 members) |  |  |  |  |  |  |  |
| Bonavista- <br> Twillingate | 43,912 | 24,411 | 11.209 | 9.744 | Hon. F. G. Bradley | Ottaw | Lib. |
| Burin-Burgeo. | 41,395 | 21,870 | 13,691 | 12,590 | C. W. Carter...... | St. John's. | Lib. |
| Grand Falls - White Bay........... | 44,627 | 27,592 | 14,247 | 12,301 | T. G. W.Ashbourne | Twillingate.... | Lib. |
| Humber - St. | 4,627 | 27,502 | 14,247 | 12,301 | 1. G. W.Ashmourne | Twillingate..... | Lib. |
| George's......... | 41,143 <br> 48 | 23,683 | 13,461 | 11,930 | W. R. Kent......... |  | Lib. |
| St. John's East...... | 48,811 49,788 | 27,894 29,531 | 18, 170 | 1.912 10,344 | G. F. Higgins..... | St. John's...... | $\frac{\mathrm{P}}{\mathrm{p} . \mathrm{C}} .$ |
| Trinity-Conception.. | 49,788 52,143 | 27,458 | 20,291 | 10,344 10,929 | W. T. Stick.......... | St. John's. . . . . <br> Bay Roberts. | P.C. |
| P. E. Island(4 members) |  |  |  |  |  |  |  |
| Kings. | 19,415 | 11,078 | - 9,626 | 5,079 | T. J. Kıckнam. . . . | Souris......... | Lib. |
| Prince. | 34,490 | 18,189 | 17,140 | 8,007 | ¢. W. MacNaught. | Summerside.... |  |
| Queens ${ }^{3}$. | 41,142 | 25,505 | 41,627 | $\left\{\begin{array}{l} 10,657 \\ 10,652 \end{array}\right.$ | W. C. S. Mclure.. | Charlottetown.. <br> Charlottetown. |  |

[^25]9.-Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1919, and Revised to Mar. 31, 1952-continued.

| $\begin{gathered} \text { Province } \\ \text { and } \\ \text { Electoral District } \end{gathered}$ | Population, Census 1941 | Voters <br> on <br> List | Total <br> Votes <br> Polled | Votes <br> Polled by Member ${ }^{2}$ | Name of Member ${ }^{1}$ | P.O. Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |  |  |  |
| Nova Scotia( 13 members) |  |  |  |  |  |  |  |
| Annapolis-Kings..... | 46,612 | 30,736 | 26,497 | 13.202 | A. A. Elderkin ${ }^{2}$. . | Wolfville. | Lib. |
| AntigonishGuysborough. | 26,006 | 15,307 | 12,018 | 7,586 | J. R. Kirk. | Antigonish | Lib. |
| Cape Breton North and Victoria. | 37,656 | 22,727 | 16,748 | 9,461 | M. MacLean | Sydney Mines.. |  |
| Cape Breton South.. | 77,637 | 44,508 | 33,374 | 15,057 | C. Gnuls. | Glace Bay ...... |  |
| Colchester-Hants... | 52,158 | 33,036 | 27,722 | 13,550 | F. T. Stanfield | Truro. |  |
| Cumberland | 39,476 | 24.275 | 19,862 | 9,850 | P. C. Black.. | Amherst | P.C. |
| Digby-Yarmouth | 41,887 | 26,112 | 20,716 | 11,084 | T. A. Murray Kirk | Yarmout | Lib. |
| Halifax ${ }^{3}$. | 122,656 | 90,803 | 114,201 | $\left\{\begin{array}{l}33,401 \\ 31,627\end{array}\right.$ | G. B. IsNor ${ }^{4}$ J. J. DICKEY | Halifax <br> Halifax | $\mathrm{Lib}$ |
| Inverness-Richmond | 34,864 | 20,843 | 15,775 | 10,584 | W. F. Carroll | Margaree Forks. | Lib |
| Lunenburg | 32,942 | 22,050 | 17,109 | 8,829 | Hon. R. H. Winters | Ottawa......... | Lib |
| Pictou. | 40,789 | 27,152 | 21,683 | 10,930 | H. B. McCulloch.. | New Glasgow.. | Lib |
| Queens-Shelburne... | 25,279 | 16,036 | 13,223 | 6,501 | D. Smith. | Liverpool...... | Lib. |
| New Brunswick- <br> (10 members) |  |  |  |  |  |  |  |
| Charlotte.......... | 22,728 | 15,361 | 12,441 | 6.197 | A. W. Stuart.. | St. Andrew | b. |
| Glouceste | 49,913 | 26,819 | 21,362 | 14,759 | C. T. Richard | Bathurst....... |  |
| Kent........ | 25,817 38,485 | 13,670 21,356 | 11,854 17,869 | 5,754 9,840 | A. D. Leger....... | Nrandigu | Lib. |
| Restigouche- |  |  |  |  |  |  |  |
| Madawaska. | 61,251 | 33,520 | 24,587 | 15,919 | B. Michauds. | Campbellton... | $\mathrm{Lib}^{\text {Lib. }}$ |
| Royal. | 34,348 | 22,137 | 18,435 | 9.501 | A. J. Brooks. | Sussex.......... | P.C. |
| Saint John-Albert | 77,248 38,382 | 54,124 23,025 | 38,691 19,122 | 18,691 10,429 | D. A. Rhey.... ${ }^{\text {d. }}$ | Saint John...... | Lib. |
| Victoria-Carle | 38,382 64,486 | 23,025 | 19,422 | 10,469 | E. W. George... | Upper Sackville | Lib |
| York-Sunbury | 44,743 | 30,359 | 25,099 | 12,158 | Hon. M. F. Gregg.. | Ottawa. | Lib. |
| Quebec- <br> (73 members) |  |  |  |  |  |  |  |
| Argenteuil - | 39,416 | 25,359 | 20,857 | 10,500 | P. Valois. | Lachute. | Lib. |
| Beauce... | 47,827 | 26,204 | 22,286 | 10,267 | R. Poulin | St.-Martin-deBeauce | Ind. |
| Beauharnois | 35,487 | 24,463 | 16,900 | 11,631 | R. Cauchon. | Valley fie | Lib. |
| Bellechasse. | 29,471 | 15,706 | 12,630 | 7,395 | L.-P. Picard | Quebe | Lib. |
| Berthier- Maskinongé. | 39,559 | 23,956 | 20,210 | 11,770 | J. Langlois | St. Justi | Lib. |
| Bonaventure. | 39,196 | 20,425 | 17,123 | 9,802 | B. Arsenault | Quebec | Lib. |
| Brome-Missisquoi. | 33,927 | 21,552 | 15,926 | 8,831 | H.-A. Gosselin ${ }^{8}$ | Farnham | Lib. |
| Chambly-Rouville.. | 45,698 | 45,348 | 33,955 | 20,946 | R. Pinard. | Montreal | Lib. |
| Champlain.......... | 42,666 | 25,945 | 21,266 | 11,663 | J.-I. Rochefort | Cap - de - la Madeleine... | Lib. |
| Chapleau | 43,570 | 26,593 | 19,593 | 11,304 | D. Gourd. | Amos | Lib. |
| Charlevoix | 38,231 | 21,111 | 16,890 | 9,543 | A. Maltais. | Sillery | Lib. |
| Chateauguay-Hunt-ingdon-Laprairie... | 37,175 | 22,105 | 17,191 | 9,986 | D.-E. Black. | Aubrey. | Lib. |
| Chicoutimi......... | 41,314 | 25,920 | 21,894 | 10,252 | P.-E. Gagnon...... | Bagotville | Ind. |
| Compton-Frontenac. | 40,368 | 21,878 | 17,760 | 10,764 | J.-A. Blanchette. | Chartiervil | Lib. |
| Dorchester. . <br> Drummond- | 32,882 | 17,690 | 14,861 | 6,983 | L.-D. Tremblay.. |  | Lib. |
| Arthabaska | 54,128 | 36,844 | 23,192 | 16,899 | A. Cloutier........ | Drummondville | Lib. |
| Gaspe | 48,628 | 26,515 | 22,368 | 12,567 | J.-G. L. Langlois... | Quebec. | Lib. |
| Gatinea | 32,898 | 19,381 | 15,148 | 9,865 | L.J. Raymond ${ }^{\text {a }}$. ${ }^{\text {d }}$ | Maniwaki | Lib. |
| Hull. | 50,024 | 34,923 | 28,515 | 18,446 | Hon. A. Fournier.. | Ottawa | Lib. |
| Iles-de-la-Madeleine. | 8,940 | 4,690 | 4,394 | 2,203 | C.-A.-D. Cannon. | Quebec. | Lib. |
| Joliette-L'Assomp-tion-Montcalm. Kamouraska | 63,462 32,741 | 40,367 17,756 | 32,936 11,015 | 18,755 7,792 | G.-E. Lapalme ${ }^{10}$. E. Marquis ${ }^{11}$.. | Joliette Quebec | Lib. |

[^26]9.-Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949, and Revised to Mar. 31, 1952-continued.

| $\begin{gathered} \text { Province } \\ \text { and } \\ \text { Electoral District } \end{gathered}$ | Population, Census 1941 | $\begin{aligned} & \text { Voters } \\ & \text { on } \\ & \text { List } \end{aligned}$ | Total Votes Polled | Votes Polled by Member ${ }^{1}$ | Name of Member ${ }^{1}$ | P.O. Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quebec-concluded | No. | No. | No. | No. |  |  |  |
| Labelle............ | 39,083 | 21,969 | 18,117 | 8,701 | H. Courtemanche. . | Montreal.. | P.C. |
| Lac-Saint-Jean...... | 29,131 | 15,017 | 13,173 | 7,084 | A. Gauthier. . . . . . . | St. Joseph d'Alma.. |  |
| Lapointe | 37,567 | 25,238 | 20,920 | 10,275 | J. Gauthier. . . . . . . | Jonquière... | Lib. |
| Levis. | 35,951 | 23,324 | 19,469 | 11,752 | M. BoUrget. . . . . . . | Lauzon. | Lib |
| Lotbinière | 35,452 | 18,210 | 15,764 | 8,849 | Hon. H. Lapointe . . | Ottawa. | Lib. |
| Matapédia-M | 53,054 | 28,129 | 23,112 | 11,546 | A.-P. CôtÉ. . . . . . . | Ottawa. | Lib. |
| Mégantic........... | 50,910 | 27,288 | 22,897 | 13,273 | J. Lafontaine . . . . . . | Thetford Mines. | Lib. |
| Montmagny-L'Islet. | 33,394 | 19,434 | 13,299 | 10,004 | J. Lesage. . . . . . . . . . | Quebec......... | Lib. |
| Nicolet-Yamaska... | 43,892 | 24,462 | 20,073 | 10,208 | M. Boisvert. | Quebec. | Lib. |
| PontiacTémiscamingu | 37,085 | 22,224 | 18,067 | 7,817 | J. H. Proudfoot... | Fort Coulonge. . | Lib. |
| Portneuf. . . . . . | 39.769 | 23,545 | 18,689 | 10,932 | P. Gauthier. . . . . . | Deschambault. | Lib. |
| Quebec East. . . . . . . | 67,559 | 45,311 | 35,389 | 25,832 | Rt. Hon. L九-S. St. Laurent* |  | Lib. |
| Quebec South. | 43,725 | 34,358 | 26,568 | 19,383 | Hon. C. G. Power. . | Quebec. | Lib. |
| Quebec West. | 49,577 | 30,492 | 23,047 | 12,391 | C. Parent........... | Quebec. | Lib. |
| Quebec - Montmorency. | 47,844 | 33,369 | 26,033 | 16,829 | W. LaCrory | Quebec. | Lib. |
| Richelieu-Verchères. | 34,444 | 24,060 | 19,365 | 12,795 | G. Courno yer. . . . | Sorel. | Lib. |
| Richmond-Wolfe... | 46,437 | 26,181 | 20,230 | 13,621 | E,-O. Gingras. | Marbleto | Lib. |
| Rimouski | 51,360 | 30,014 | 24,375 | 11,708 | G. Belzile ${ }^{2}$. | Rimouski | Lib. |
| Roberval. | 35,175 | 19,127 | 16,375 | 8,103 | J.-A. Dion.. | Roberval | Lib. |
| St. Hyacinthe-Bagot St. Jean - Iberville - | 47,899 | 30,491 | 16,953 | 14,702 | J. Fontaine...... . . . | St. Hyacinthe.. | Lib. |
| Napierville...... | 37,360 | 25,241 | 18,323 | 12,823 | A. Côtź | St. Jean | Lib. |
| St. Maurice-Lafleche | 51.804 | 35,326 | 28, 123 | 13,898 | J.-A. Richar | Shawinigan Falls | Lib. |
| Saguenay | 28,856 | 16,262 | 12,782 | 6,113 | L. Brisson. | La Malbaie.... | Lib. |
| Sheffor | 42,844 | 27,845 | 22,074 | 12,993 | M. Borvin. | Granby | Lib. |
| Sherbrook | 42,466 | 31,770 | 24,813 | 12,116 | M. Gingues. | Sherbroo | Lib. |
| Stanstead. | 31,992 | 21,725 | 16,902 | 7,736 | L.-E. Roberg | Rock Island. | Lib. |
| Témiscouat | 49,965 | 26,621 | 16,799 | 11,648 | J.-F. Pouliot. | Rivière-du-Loup | Lib. |
| Terrebonne | 47,454 | 35,741 | 27,702 | 18,304 | L. Bertrand. | Ste. Thérèse... | Lib. |
| Three Rivers....... | 52,061 | 31,633 | 25,883 | 10,015 | L. Balcer. | Three Rivers... | P.C. |
| Vaudreuil-Soulanges. | 22,498 | 14.887 | 11,404 | 7,622 | L.-R. Beaudoin | Hudson | Lib. |
| Villeneuve. . . . . . . . | 49,235 | 33,127 | 26,128 | 13,597 | A. Dumas. | Malartic | Lib. |
| Island of Montreal and Ile JesusCartier. $\qquad$ | 63,167 | 37,182 | 23,213 | 11,993 | M. Hartt ${ }^{3}$ | Montreal | Lib. |
| Hochelaga......... | 66,368 | 40,507 | 26,622 | 17,633 | R. Eudes. | Montreal | Lib. |
| Jacques-Cartier | 41,759 | 34,734 | 25,359 | 15,298 | E. Marier ${ }^{4}$ | Pointe Claire... | Lib. |
| Lafontaine. | 57,515 | 36,886 | 25,162 | 12,883 | J.-G. Ratelle. . | Montreal | Lib. |
| Laurier | 54,142 | 35,316 | 21,348 | 15,578 | Hon. E. Bertrand ${ }^{5}$. | Outremont | Lib. |
| Laval.. | 50,302 | 40,464 | 28,564 | 18,202 | L. Demers. . . . . . . | St. Laurent. | Lib. |
| MaisonneuveRosemont. | 65,714 | 45,525 | 30,941 | 20,512 | S. Fournte | Montreal. | Lib. |
| Mercier. . | 50,735 | 39,930 | 26,735 | 17,041 | Hon. J. Jean ${ }^{6}$. . . . . | Point - aux Trembles. | Lib. |
| Mount Royal <br> Notre - Dame - de - | 48,963 | 50,540 | 34,521 | 21,654 | A. A. Macnaughton | Montreal. | Lib. |
| Grâce............. | 57,485 | 43,291 | 31,445 | 19,469 | F. P. Whitman. | Montreal | Lib. |
| Outremont-St. Jean | 54,492 | 35,555 | 21,615 | 16,215 | Hon. G. E. Rinfret ${ }^{\text {a }}$ | Ottawa. | Lib. |
| Papineau........... | 45,958 | 37,182 | 26,627 | 12,611 | C. Houde. . . . . . . . | Montreal | Ind. |
| St. Ann. . . . . . . . . St. Antoine- | 48,929 | 29,204 | 20,456 | 14,528 | T. P. Healy | Montreal | Lib. |
| Westmount. | 61,291 | 46,570 | 33, 138 | 21,399 | Hon. D. C. Abbotr. . | Ottawa | Lib. |
| St. Denis. | 68,398 | 45,678 | 29,555 | 18.866 | A. Denis........... | Montreal | Lib. |
| St. Henry | 59,679 | 37,583 | 25,504 | 16,313 | J.-A. Bonnter. | Montreal. | Lib. |
| St. James........ | 68,082 | 49,862 | 29,274 | 18,705 | R. Beaudry.. | Montreal. | Lib. |
| George. | 49,015 | 37,545 | 22,445 | 15,104 | Hon. B. Claxton . . . | Ottawa......... | Lib. |
| St. Mary........... | 56,109 | 35,657 | 22,042 | 13,773 | Hon. Gaspard |  |  |
| Verdun-La Salle. | 70,328 | 50,789 | 36,186 | 24,903 | P.-E. Côté | Verdun. | $\frac{\mathrm{Lib}}{\mathrm{Lib} .}$ |

[^27]9.-Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949, and Revised to Mar. 31, 1952-continued.

| ```Province and Electoral District``` | Population, 1941 | Voters <br> on <br> List | Total <br> Votes <br> Polled | Votes Polled by Member ${ }^{1}$ | Name of Member ${ }^{1}$ | P.O. Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |  |  |  |
| $\begin{aligned} & \text { Ontario- } \\ & \text { ( } 83 \text { members }) \end{aligned}$ |  |  |  |  |  |  |  |
| Algoma East... | 27,182 | 16,250 | 11,376 | 6,184 | Hon. L. B. Pearson |  | Lib. |
| Algoma West | 40,777 | 27,028 | 20,094 | 10,127 | G. E. Nixon....... | Sault Ste. Marie | Lib. |
| Brantford............ | 40,071 | 30,467 | 23,651 | 12,565 | Hon. W. R. Macdonald. $\qquad$ | Brantiord. | Lib. |
| Brant-Wentworth. | 28,138 | 20,844 | 15.782 | 6,693 | J. A. Charlion. | Paris. |  |
| Bruce | 29,253 | 18,321 | 15,084 | 7,517 | D. B. Blue. | Ripley |  |
| Carleto | 53,568 | 42,294 | 34,550 | 18,141 | G. A. Drew*. | Ottawa | P.C. |
| Cochran | 33,197 | 18,632 | 13,612 | 6,352 | J. A. Bradette..... | Cochrane | Li |
| Dufferin-Simcoe.... | 28,840 | 20,052 | 13,483 | 7,639 | Hon. W. E. Rowe. . | Newton Robinson | C. |
| Durham | 25,215 | 18,155 | 14,911 | 6,907 | J. M. James. | Bowmanville. | Lib. |
| Elgin | 46,150 | 32,291 | 21,314 | 10,265 | C. D. Corle | Straffordville... | P.C. |
| Essex Eas | 53,457 | 41,393 | 32,086 | 16,709 | Hon. P. Martin | Ottawa | Lib. |
| Essex South | 37,753 | 25,455 | 19,713 | 10,427 | S. M. Clark. | Harrow | Lib. |
| Essex West | 82,146 | 53,986 | 36,007 | 15,620 | D. F. Brown | Windsor | Lib. |
| Fort William | 40,578 | 26,739 | 21,046 | 9,569 | D. McIvor. | Fort William |  |
| Frontenac-Addington | 27,496 | 19,320 | 15,096 | 7,724 | W. R. A ylesworth. | Cataraqui. | P.C. |
| Glengarry......... | 18,732 | 10,586 | 8,748 | 4,809 | W. J. Major........ | Green Valley. |  |
| Grenville-Dundas. | 32,199 | 21,244 | 14,156 | 8,450 | A. C. Caseliman... | Prescott | P.C. |
| Grey-Bruce | 34,830 | 22,691 | 17,810 | 10,528 | Hon. W. E. Harris. | Ottawa.. Meaford | Lib. |
| Grey Nort | 34,757 | 23,711 | 18,982 | 9,949 | C. E. Bennett..... | Meaford. | Lib. |
| Haldiman | 21,854 | 14,401 | 11,621 19 | 5,432 9,546 | A. E. Catherwood. | Hagersville | $\stackrel{\text { Pib. }}{ }$ |
| Halton.... | 28,515 68,779 | 23,953 48,666 | 19,626 | 9,546 14,035 | H. Cleaver. <br> T. H. Ross.. | Burlington <br> Hamilton. | Lib |
| Hamilton West | 59,358 | 40,982 | 28,645 | 12,324 | Hon. C. Gibson | Ottawa | Lib |
| Hastings- | 26,894 | 15,693 | 12,065 | 6,578 | G. S. W | Mad |  |
| Hastings South | 43,580 | 31,109 | 25,489 | 13,099 | F. S. Foll well | Belleville |  |
| Huron North | 25,524 | 17,074 | 14,046 | 6,986 | L. E. Cardify. | Brussels | P.C. |
| Huron-Perth | 25, 636 | 17,241 | 14,355 | 7,000 | A. Y. McLean.... | Seaforth |  |
| Kenora-Rainy River | 47,743 | 27,784 | 20,381 | 11,297 | W. M. Benidickson. | Kenora | Lib.-Lab. |
| Kent. | 53,474 | 35,920 | 28,610 | 14,903 | B. Hupfman........ | Blenheim |  |
| Kingston City | 33,306 | 23,787 | 18,877 | 10.045 | W. J. Henderson... | Kingston |  |
| Lambton-Kent | 34,909 | 22,799 | 18,014 | 9,674 | H. A. Mackenzie. . |  |  |
| Lambton West | 35, 762 | 28,578 | 20,931 | 9,730 | J. W. MURphy | Pamlachie | P.C. |
| Lanark | 33,143 | 22,598 | ${ }_{20,225}^{18,393}$ | 10,921 10,080 | W. G. Blair... | Perth. <br> Brockvil | Pib. |
| Leeds | 36,042 | 24,243 49 | 20,225 38,395 | 10,080 17,407 | G. T. Fulford | Brockville | $\stackrel{\text { Lib. }}{\text { Lib. }}$ |
| Lincoln | 65,066 | 49,952 $50 ; 495$ | 38,395 36,295 | 17,407 | H. P. Cavers. | London | Lib. |
| London....... | 64,833 | $50 ; 495$ 30,041 | 36,295 21.568 | 16,427 9,258 | A. Jefrery... | Glanwort |  |
| Middlesex East | 37,362 | 30,041 16,529 | 21,568 13,290 | 9,258 | R. McCubbis | Strathroy | Lib. |
| Middlesex | 24,971 | 16,529 28,104 | 13,290 21,838 | 71,938 | R. McCubbin. | Strathroy. North Bay | Lib. |
| Nipissing. | 47,042 35,611 | 28,104 | 21,838 | 11,061 | J. R. Garland..... | Waterford | Lib. |
| Norfolk. | 35,611 30,786 | 23,307 21,210 | 17,743 18,019 | 9,280 9,374 | F. G. Robertson... | Cobourg. | Lib. |
| Ontario | 57,425 | 42,198 | 32,813 | 13,412 | W. C. Thomson ${ }^{3}$. | Pickering | Lib. |
| Ottawa Eas | 54,527 | 37,733 | 30.223 | 20,895 | J. T. Richard. | Ottawa. | Lib. |
| Ottawa | 76,607 | 52,630 | 42,517 | 24,295 | G. J. McIlraith | Ottawa | Lib. |
| Oxford | 50,974 | 34,524 | 26,281 | 12,581 | A. C. Murrax. | Woodstoc | Lib |
| Parry Sou Muskoka | 51,052 | 31,674 | 24,182 | 11,636 | W. K. McDonald... | Sundridg | Lib. |
| Peel | 31,539 | 28,993 | 21,576 | 10,570 | G. Graydon..... | Brampto | P.C. |
| Perth | 42,276 | 29,022 | 22,421 | 10,901 | J. N. Corry. | Atwood | Lib |
| Peterborough West. | 40,240 | 31,475 | 24,686 | 10.981 | G. K. Fraser. ..... | Lakefield | P.C. |
| Port Arthur. | 50,833 | 34,716 | 25,065 | 12,646 | Rt. Hon. C. D. <br> Howe | Ottawa | Lib. |
| Prescot | 25,261 | 13,883 | 11,569 | 5,380 | R. Bruneau | Hawkesbury... | Lib. |
| Prince Edward- | 28,134 | 19,183 | 14,362 | 7,435 | G. J. Tustin. | Napanee | P.C. |
| Renfrew North | 29,876 | 20,592 | 16,623 | 8,358 | R. M. Warren | Eganville |  |
| Renfrew South | 26,874 | 17,907 | 14,942 | 7,909 | Hon. J. J. McCann.. | Ottawa |  |
| Russell. | 35,266 | 25,699 | 20,366 | 12,635 | J. O. Gour. | Casselm |  |
| Simcoe East | 41,892 | 26,410 | 20,675 | 10,030 | W. A. Robinson. | Midland. | lib. |
| Simcoe North | 28,573 | 20,634 | 15,408 | 7,658 | Ferg | Collingwood | P.C. |

[^28]9.-Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949, and Revised to Mar. 31, 1952-continued.

| Province and Electoral District | Population, Census 1941 | Voters on List | Total <br> Votes <br> Polled | Votes Polled by Member ${ }^{1}$ | Name of Member ${ }^{1}$ | P.O. Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario-concluded | No. | No. | No. | No. |  |  |  |
| Stormont.. | 40,905 68,548 | 26,377 46,469 | 21, 136 | 12,639 | Hon. L. Chevrier.. | Ottawa......... | Lib. |
| Timiskaming | 50,153 | 26,678 | 21,209 | 15,636 8,528 | $\stackrel{\text { W. Litile. }}{ }$ | Kirkland Lake. |  |
| Timmins.. | 47,928 | 24,961 | 18,868 | 7,949 | K. A. Eyre | Timmins |  |
| Victoria. | 40,922 | 27,753 | 21,934 | 11,061 | C. W. Hodgson. | Haliburton | P.C. |
| Waterloo North | 60,039 | 46,260 | 32,327 | 17,715 | L. O. Breithaupt ${ }^{\text {a }}$. | Kitchener | Lib. |
| Waterloo South | 38,681 | 29,179 | 22,781 | 8,740 | K. Homoth ${ }^{3}$. | Preston. | P.C. |
| Welland. | 93,836 | 68,304 | 50,736 | 23,734 | Hon. H. Mitchell ${ }^{4}$. | Ottawa | Lib. |
| Wellington North | 23,605 | 15,405 | 12,648 | 6,057 | A. Darroch. | Clifiord | Lib. |
| Wellington South. | 38,441 | 27,415 | 21,990 | 10,344 | H. A. Hosking. | Guelph | Lib. |
| Wentworth | 67,070 | 60,988 | 43,470 | 16,443 | F. E. Lennard... | Dundas. |  |
| York East. | 79,567 | 80,689 | 57,732 | 22,364 | R. H. McGregor. | Toronto......il | P.C. |
| York North | 57, 269 | 53,823 | 39,486 | 18,933 | J. E. Smith.......... | Richmond Hill. |  |
| York South | 72,427 74,829 | 59,110 67,470 | 41,852 50,801 | 15,293 19,184 | J. W. Noseworthy. R. Adamson........ | Toronto. Port Cre | C.C.F. |
| City of TorontoBroadview..... | 59,454 | 41,731 | 28.080 | 10,507 | T. L. Church ${ }^{5}$ | Toronto | P.C. |
| Danforth. | 44,212 | 31,991 | 23,774 | 9,960 | J. H. Harris.. | Toronto. | P.C. |
| Davenpor | 58,685 | 42,219 | 29,495 | 11,431 | P. T. Hellyer. | Toronto | Lib |
| Eglinton. | 72,953 | 53,310 | 40.888 | 19,853 | D. M. Fleming | Toronto | P.C. |
| Greenwoo | 58,346 | 40,806 | 29,759 | 10,454 | J. E. McMmiln ${ }^{8}$ | Toronto | P.C. |
| High Park | 55,656 | 41,604 | 30,962 | 12,216 | A. J. P. Cameron | Toronto | Lib. |
| Parkdale | 54, 123 | 41,239 | 29,540 | 12,876 | J. Hunter. | Toronto | Lib. |
| Rosedale | 53,404 | 40,395 | 27,533 | 10,835 | C. Henry | Toronto | Lib. |
| St. Paul' | 62,050 | 52,273 | 34,063 | 14,000 | J. H. Rooney | Toronto | Lib. |
| Spadina. | 86,431 | 59,133 | 39,768 | 23,652 | D. A. Croll. | Toronto | Lib. |
| Trinity. | 62,143 | 41,338 | 30,340 | 10,389 | L. Conacher | Toronto. | Lib. |
| Manitoba(16 members) |  |  |  |  |  |  |  |
| Brandon....... | 41,725 | 27,489 | 20,519 | 11,263 | J. E. Matthews ${ }^{7}$.... | Brandon. | Lib. |
| Churchill | 39,042 | 20,736 | 15,110 | 6,847 | G. D. Weaver...... | Flin Flon. | Lib. |
| Dauphin | 43, 585 | 22,917 | 17,698 | 7,896 | W. J. Ward.......... | Dauphin. | Lib. |
| Lisgar.. | 46, 833 | 24,209 | 16,464 | 9,190 | H. W. Winkler. . . | Morden. . | Lib. |
| Marquett | 40,165 42,445 | 22,517 20,501 | 17,222 14,126 | 10,144 8,430 | Hon. S. S. Garson.. | Ottawa. | Lib. |
| Portage-Neep | 43,286 | 24,592 | 18,400 | 9,192 | W. G. Werr. | Carma |  |
| Provencher | 38,169 | 17,057 | 10,940 | 6,834 | R. Jutras. | Letellie | Lib |
| St. Bonifa | 37,686 | 26,306 | 18,993 | 10,766 | F. Viau.. | St. Bonifa | Lib |
| Selkirk | 45,765 | 30,248 | 21,754 | 7,819 | W. Bryce | Selkirk | C.C. |
| Souris | 27,240 | 16,061 | 12,757 | 6,108 | J. A. Ross. | Melita. | P.C. |
| Springfield | 44,918 | 25,514 | 17,442 | 8,253 | J. S. Sinnott | St. Ouens |  |
| Winnipeg North | 66,239 | 45,114 | 32,175 | 12,432 | A. Stewart. | Winnipeg. | C.C.F. |
| Centre... | 64,210 | 44,078 | 28,977 |  |  |  |  |
| Winnipeg South | 54,734 | 45,163 | 34,230 | 16,235 | L. A. Mutch. . | Winnipeg <br> Winnipeg | $\begin{aligned} & \text { C.C. } \\ & \text { Lib. } \end{aligned}$ |
| Winnipeg South Centre......... | 53,702 | 39,380 | 37,272 | 14,747 | R. Maybank ${ }^{8}$. | Fort Garry | Lib. |
| Saskatchewan( 20 members) Assiniboia |  |  |  |  |  |  |  |
| Assiniboia.. | 44,355 | 22,042 | 18,511 | 8,442 | H. R. Argue....... | Kayville. | C.C.F. |
| Humboldt | 48,066 | 22,389 | 16,546 | 8,123 | J. I. Hetland...... | Naicam. | Lib. |
| Kindersle | 41,068 | 19,980 | 16,775 | 7,872 | F. H. Larson...... | Madison. | Lib. |
| Lake Cent | 42,993 45,797 | 21,471 21,572 | 18,273 16,525 | 8,845 7,564 | J. G. Diepenbater. | Prince Albert. | P.C. |
| Maple Cre | 43,414 | 21,284 | 17,673 | 8,217 | I. W. Studer........ | Lac Pelletier. | Lib. |
| Meadow | 41,458 | 16,867 | 12,957 | 7,078 | J. H. Harrison.... | Medstead. |  |
| Melfort. | 46,438 | 23,619 | 16,620 | 7,208 | P. E. Wright. | Tisdale. | C.C.F. |
| Melville | 42,687 | 22,221 | 19,092 | 11,120 | Rt. Hon. J. G. |  |  |
| Moose Jaw. | 42,439 | 26,302 | 20,911 | 10,026 | W. R. Thatchen | oose Jaw | C.F. |

[^29]9.-Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949, and Revised to Mar. 31, 1952-concluded.

| ```Province and Electoral District``` | Population, Census 1941 | Voters <br> on List | Total <br> Votes <br> Polled | Votes <br> Polled by <br> Member ${ }^{1}$ | Name of Member ${ }^{1}$ | P.O. Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Saskatchewan concluded Moose Mountain | No. 41,414 | No. 24,116 | No. 20,170 | No. 9,277 |  |  |  |
| Prince Albert. .... | 41,969 | 23,797 | 18,614 | 8,916 | $\stackrel{\text { F. }}{\text { H. Helme }}$ | Prince Albert. . . | Lib. |
| Qu'Appelle | 42,706 | 23,430 | 20,270 | 9,017 | A. E. Dewar | Indian Head | Lib |
| Regina City | 58,245 | 41,445 | 33,647 | 14,356 | E. A. McCusker | Regina. | Lib |
| Rosetown-Biggar. | 40,964 | 20,390 | 16,802 | 8,793 | M. J. Cold well ${ }^{\text {* }}$.... | Ottawa | C.C.F. |
| Rosthern. | 42,809 | 18,623 | 12,003 | 7,398 | W. A. Bovcher..... | Hoey |  |
| Saskatoon | 47,609 | 36,171 | 27,844 | 11,749 | R. R. Knight. .... | Saskatoon..... | C.C. |
| Swift Current | 42,601 | 20,492 | 16,218 | 7,595 | H. B. Whiteside.... | Sceptre. | Lib. |
| The Battlefords | 44,382 | 21,565 | 16,784 | 8,034 | A. J. Bater. . . . . . | Baljennie | Lib. |
| Yorkton. | 49,578 | 25,108 | 19,236 | 8,706 | A. C. Stewart. . . . | Yorkton. | Lib. |
| Alberta- <br> ( 17 members) |  |  |  |  |  |  |  |
| Acadia. | 26,308 | 13,409 | 10,142 | 5,897 | V. Quelce. | Morrin. | S.C. |
| Athabaska | 52,689 | 24,703 20,547 | 16,794 14,124 | 7,566 | f. M. Dechene...... | Vermilion. |  |
| Battle Rive | 45,369 | 26,854 | 18,241 | 8,537 | C. E. Johnston. . . | Calgary. | S.C. |
| Calgary East | 47,727 | 39,296 | 27,133 | 9,641 | D. S. Harkness. | Calgary | P.C. |
| Calgary West | 43,744 | 38,231 | 27,054 | 11,457 | A. L. Smith ${ }^{2}$. | Calgary. | P.C. |
| Camrose... | 43,104 | 22,420 | 15,812 | 7,364 | H. H. W. Beyerstein | Camrose. | S.C. |
| Edmonton East | 53,766 | 47,473 | 30,770 | 10,964 | A. F. Macdonald... | Edmonton | Lib. |
| Edmonton West | 48,300 | 46,165 | 31,416 | 14,333 | G. Prudham. | Edmonton | Lib. |
| Jasper-Edson. | 58,947 | 30,183 | 20,182 | 7,288 | J. W. Welbourn. | Edmonton | Lib. |
| Lethbridge. | 47,636 | 27,134 | 19,079 | 8;880 | J. H. Blackmore.... | Cardston. | S.C. |
| Macleod. | 43,059 | 23,330 | 16,648 | 7,411 | E. G. Hanseel. | Vulcan. | S.C. |
| Medicine Hat | 41,673 | 25,063 | 18,619 | 10,086 | W. D. W Ylie | Medicine | S. |
| Peace Rive | 52,427 | 28,550 | 20,121 | 7.727 | S. E. Low*. | Ottawa. | S.C. |
| Red Deer | 46,903 | 28,399 | 19,482 | 10,549 | F. D. Shaw | Innisfail | S.C. |
| Vegreville | 48,546 | 21,045 | 16,096 | 8,859 | J. Decore. | Vegreville | Lib |
| Wetaskiwin. | 55,516 | 29,426 | 19,509 | 6,774 | R. Thomas | Mirror. | S.C. |
| British Columbia(18 members) |  |  |  |  |  |  |  |
| Burnaby-Richmond. | 53,587 | 51,125 | 33,248 | 12,848 | T. H. Goode. | Burnaby | Lib. |
| Coast-Capila | 23,875 37,614 | 19,054 37,434 | 13,298 | 15,294 | G. Minclair. . | Hollyburn. | Lib. |
| Comox-Alberni....... | 37,592 | 29,649 | 19,322 | 11,397 | J. L. Gibson. | Vancouver | Ind. |
| Fraser Valley | 40,533 | 33,341 | 22,854 | 12,587 | G. Cruickshank... | Clayburn. | Lib. |
| Kamloops... | 36,936 | 26,035 | 19,295 | 7,682 | E. D. Fulton. | Kamloops. | P.C. |
| Kootenay East..... | 25,559 | 17,842 | 13,822 | 5.546 | J. Byrne.. | Kimberley |  |
| Kootenay West..... | 40,088 | 24,412 | 18,249 | 9,794 | H. W. Herridge.... | Nakusp. | C. |
| Nanaimo... | 57,689 | 50.620 | 36,689 | 17,507 | G. R. Pearkes..... | Victoria. | P.C. |
| New Westminster... | 48,999 | 46,107 | 33,027 | 13,904 | T. Reid ${ }^{3}$. | New Westminster... | Lib. |
| Skeena | 29,612 | 15, 167 | 10,107 | 5,847 | E. T. Applewhaite. | Prince Rupert. | Lib. |
| Vancouver-Burrard.. | 56,736 | 46,722 | 30,671 | 10,967 | J. L. MacDougall.. | Vancouver. | Lib. |
| Vancouver Centre... | 57,656 | 39,201 | 24,509 | 10,299 | R. O. Campney. | Vancouver. |  |
| Vancouver East..... | 58,238 | 50,146 | 30,238 | 14,056 | A. Macinnis. | Vancouver. | C.C.F. |
| Vancouver-Quadra.. | 55.944 | 49,439 | 33,530 | 16,661 | H. C. Green. | Vancouver | P.C. |
| Vancouver South.... | 47,642 | 48,398 | 33,212 | 13,082 | A. Laing........... | Vancouve |  |
| Victoria. | 57,687 | 47,255 | 34,760 31,522 | 19,324 13,298 | Hon. W. R. Mayew O. L. Jones. |  |  |
| Yale........... | 51,874 | 41,835 | 31,522 | 13,298 | O. L. Jones......... | Kelowna | C.C.F. |
| Yukon and Part of Northwest Terri-tories-(1 member) Yukon-Mackenzie River. $\qquad$ | 12,117 | 9,064 | 6,823 | 3,284 | J. A. Simmons. | Whitehorse | Lib. |

10.-By-elections from the Date of the General Election, June 27, 1949, to Mar. 31, 1952

| Province and Electoral District | Date <br> of <br> By-election | Voters on List | Votes <br> Polled by <br> Member | Total <br> Votes <br> Polled | Name of New Member | P.O. <br> Address | Party Affiliation |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Prince Edward IslandQueens | June 25, 1951 | No. 25,230 | No. 9,540 | No. 18.733 | J. A. Maclean... | Beaton's Mills | P.C. |
| Nova Seotia-Annapolis-Kings. Halifax | June 19, 1950 June 19, 1950 | 31,158 90,913 | 14,255 24,665 | 26,065 43,431 | G. C. Nowlan.... | Wolfville..... Halifax | $\begin{aligned} & \text { P.C. } \\ & \text { Lib. } \end{aligned}$ |
| New Brunswick- <br> Restigouche- <br> Madawaska......... | Oct. 24, 1949 | 33,571 | 10,124 | 17,516 | P. L. Dubé....... | Edmundston:. | Lib. |
| QuebecGatineau..... Kamouraska. | Oct. 24,1949 Oct. 24,1949 | 19,919 17,845 | 5,438 6,033 | 9,340 11,365 | J. C. Nadon...... <br> A. Masse. | Maniwaki.... Kamouraska. | $\left\lvert\, \frac{\mathrm{Lib}}{\mathrm{Lib} .}\right.$ |
| Island of Montreal and Ile Jesus- |  |  |  |  |  |  |  |
| Jacques-Cartier.... | Oct. 24, 1949 | 35,710 | 9,327 | 16,366 | E. Leduc.. | Lachine. | Lib. |
| Laurier............ | Oct. 24, 1949 | 35,933 | 10,164 | 11,113 | J. E. Lefrançors.. | Montreal. . . . | Lib. |
| Mercier............. | Oct. 24, 1949 | 41,584 | 9,389 | 12,658 | M. Monette. . . . | Pointe - aux - |  |
| Cartier........... | June 19, 1950 | 34,549 | 9,701 | 18,220 | L. D. Crestohl. . | Outremont.... | Lib |
| St. Mary Joliette-L'Assomp-tion-Montcalm... | Oct. 16, 1950 Oct. 3, 1950 | 34,167 A | 9,579 clamati | 15,694 | H. Dupuis....... M. Breton....... | Montreal..... Joliette...... | Ind. L. <br> Lib. |
| Rimouski. | Oct. 16, 1950 | 29,844 | 9,976 | 20,685 | J. H. Rousseau. . | Trois-Pistoles | Ind. L. |
| Ontarlo- |  |  |  |  |  |  |  |
| City of Toronto- |  |  |  |  |  |  |  |
| Greenwood. | Oct. 24, 1949 | 40,908 | 9,399 | 23,535 | J. M. Macdonnell | Toronto...... | P.C. |
| Broadview. | May 15, 1950 | 41,571 | 10,399 | 21,766 | G. Hees.......... | Toronto...... | P.C. |
| Hamilton West. | May 15, 1950 | 40,195 | 8,008 | 19,097 | Ellen Farrclovgh | Hamilton..... | P.C. |
| Welland............ | Oct. 16, 1950 | 69,816 | 19,553 | 40,653 | W. H. McMILLAN. | Thorold...... | Lib. |
| Waterloo South..... | June 25, 1951 | 29,866 | 8,950 | 21,356 | H. Meeker....... | New Hamburg........ |  |
| ManitobaBrandon. | June 25, 1951 | 27,956 | 11,124 | 19,613 | W. Dinsdale..... | Brandon. | P.C. |
| Winnipeg South Centre. | June 25, 1951 | 38,044 | 6,009 | 13,984 | G. Churchill... | Winnipeg. . . . | P.C. |
| AlbertaCalgary West....... | Dec. 10, 1951 | 44,895 | 10,686 | 22,761 | C. O. Nickle..... | Calgary...... | P.C. |
| British ColumblaNew Westminster... | Oct. 24, 1949 | 47,759 | 8,727 | 24,871 | W. M. Mort. . . . . | New Westminster..... | Lib. |

Indemnities and Allowances.-Members of the Senate receive a sessional indemnity of $\$ 4,000$. In addition, they receive an annual expense allowance of $\$ 2,000$, paid at the end of each calendar year. Members of the House of Commons are paid a sessional indemnity of $\$ 4,000$. In addition, they receive $\$ 2,000$ as an annual 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
a Cabinet Minister is $\$ 10,000$ a year, the Prime Minister receiving $\$ 15,000$, in addition to the sessional indemnity and expense allowance each receives as a Member of Parliament. The Leader of the Opposition also receives $\$ 10,000$ a year in addition to his sessional indemnity and expense allowance. Cabinet Ministers are 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 indemnity and expense allowance, a salary of $\$ 6,000$ and a motor-car allowance of $\$ 1,000$ and are also entitled to $\$ 3,000$ in lieu of residence. The Deputy Speaker of the House of Commons receives a salary of $\$ 4,000$ and an allowance in lieu of a residence of $\$ 1,500$. Parliamentary Assistants to the Ministers of the Crown, of whom there were 13 at Mar. 31, 1952, receive $\$ 4,000$ sessional indemnity as Members of Parliament, $\$ 4,000$ a year as Parliamentary Assistants and the $\$ 2,000$ allowed to all other Members of Parliament.

The Federal Government Franchise.-Legislation concerning the right to vote at federal elections is outlined in the 1947 Year Book, pp. 72-73.

The present franchise laws are contained in the Canada Elections Act, 1938 ( 2 Geo. VI, c. 46 , as amended by 6 Geo. VI, c. 26 ; 12 Geo. VI, c. 46 ; and 14 Geo. VI, c. 35). 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. Classes of 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 did not serve in World Wars I or II, or who did not execute a waiver of exemption under the Indian Act from taxation on and in request of personal property;
(5) Persons restrained of their liberty or management of their property by reason of mental disease;
(6) Doukhobors, residing in the Province of British Columbia, whether born in Canada or elsewhere, excepting those who have served in the naval, military, or air forces [of Her Majesty] in any war, and their wives and descendants;
(7) Persons disqualified under any law relating to the disqualification of electors for corrupt and illegal practices.

The Act to amend the Canada Elections Act, passed on June 15, 1948, removed the provisions previously in effect which disqualified Japanese or other persons by reason of race from voting at federal elections, also inmates of institutions maintained by any government or municipality for the housing of the poor.

Regulations, known as the Canadian Defence Service Voting Regulations, were drawn up and promulgated in 1948 prescribing voting procedure for personnel of the Permanent Force of the Army, Navy and Air Force. The regulations provide that these voters cast their ballots for candidates in the constituency in which they last resided prior to enlistment.

## 11.-Voters on the Lists and Votes Polled at the Federal General Elections of 1935, 1940, 1945 and 1949

Note.-Corresponding statistics for the general elections of 1911, 1917, 1921 and 1925 will be found at p. 82 of the 1926 Year Book; those for 1926 at p. 66 of the 1945 edition; and those for 1930 at p. 94 of the 1948-49 edition.

| Province or Territory | Voters on the Lists |  |  |  | Votes Polled |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1935 | 1940 | 1945 | 1949 | 1935 | 1940 | 1945 | 1949 |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland.... P. E. Island..... | 53,284 | 55,339 | 54,794 | 182,439 55,772 | 61,6411 | 62,943 ${ }^{1}$ | 63,807 ${ }^{1}$ | 105,190 68,3931 |
| Nova Scotia. | 304,313 | 335,990 | 362,754 | 373,585 | 275,523 2 | 283,428 ${ }^{\text {2 }}$ | 312,954 ${ }^{2}$ | 338,928 ${ }^{2}$ |
| New Brunswick | 229,266 | 251,986 | 262,261 | 286,723 | 177,485 | 174,734 | 204,273 | 225,877 |
| Quebec. | 1,575,159 | 1,799,942 | 1,956,225 | 2,177,152 | 1,162,862 | 1,189,489 | 1,433,591 | 1,610,510 |
| Ontario | 2,174,188 | 2,340,344 | 2,457,937 | 2,718,118 | 1,608,244 | 1,625,439 | 1,831,806 | 2,042,294 |
| Manitoba | 377,733 | 425,066 | 433,921 | 451,882 | 284,589 | 320,860 | 327,794 | 324,079 |
| Saskatchewan | 451,386 | 481,931 | 445,601 | 472,884 | 347,536 | 373,376 | 379,539 | 375,471 |
| Alberta | 368,956 | 423,609 | 430,430 | 492,228 | 241,107 | 272,418 | 315,863 | 341,222 |
| British Columbia.. | 382,117 | 472,584 | 545,077 | 673,782 | 292,423 | 368,103 | 433,402 | 464,785 |
| Yukon Territory.. | 1,805 | 2,097 | 3,445 | 9,064 3 | 1,265 | 1,741 | 2,164 | 6,823 ${ }^{3}$ |
| Totals. | 5,918,207 | 6,588,888 | 6,952,445 | 7,893,629 | 4,452,675 | 4,672,531 | 5,305,193 | 5,903,572 |

[^30]
## 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 the Parliament of Canada 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. 1927, c. 35, as amended in 1949), 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 House of Commons and 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 House of Commons on Private Bills referred to the Court under any rules or orders of the Senate or 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 Sects. 1023 and 1025 of 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.
12.-Chief Justice and Judges of the Supreme Court of Canada as at Mar. 31, 1952
(In order of seniority)


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. 1927, c. 34). 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 House of Commons. They cease to hold office upon attaining the age of 75 years. One of the puisne judges is the Chief Commissioner of the Board of Transport Commissioners. 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. 1927, c. 158). Before proceedings can be taken against the Crown a fiat must be obtained from the Governor General.

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 (24-25 Geo. V, c. 31 ). 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 directly to the Supreme Court of Canada.

Miscellaneous Courts.-Railway Act.-The Railway Act (R.S.C. 1927, c. 170) established the Board of Railway Commissioners for Canada as a court of record; by the Transport Act, 1938 (2 Geo. VI, c. 53), 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, Parliament has exclusive legislative jurisdiction in relation to bankruptcy and insolvency. By the Bankruptcy Act ( 13 Geo. VI, c. 7) 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, 1943 ( 7 and 8 Geo. VI, c. 26), 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 (11-12 Geo. VI, c. 52) an Appeal Board is established, consisting of a chairman and not less 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 may exclusively 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. 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, 1946 ( 10 Geo. VI, c. 56). 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 Sect. 33 of the Judges Act, 1946, as being during good behaviour and their residence within the county or union of counties for which the court is established.

Further details of provincial judiciaries are given in the 1951 Year Book, pp. 76-82.

## 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 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.

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

| 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 - The | 363,282 | 49,300 | 412,582 |
| Quebec ${ }^{2}$ | July 1, 1867 | British North America Act, 1867, | 523.860 | 71,000 | 594,860 |
| Nova Scotia | July 1, 1867 | (30-31 Vict., c. 3), and Imperial | 20,743 | 325 | 21,068 |
| New Brunswick | July 1, 1867 | 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, | 359,279 | 6,976 | 366,255 |
| Prince Edward Island | July 1, 1873 | Imperial Order in Council, June 26, 1873................................................. | 2,184 | -- | 2,184 |
| Saskatchewan ${ }^{4}$. | Sept. 1, 1905 | Saskatchewan Act, 1905 (4-5 Edw. VII, c. 42) | 237,975 | 13,725 | 251,700 |
| Alberta ${ }^{4}$. | Sept. 1, 1905 | Alberta Act, 1905 (4-5 Edw. VII, c. 3).. | 248,800 | 6,485 | 255,285 |
| Newfoundland........ | Mar. 31, 1949 | Act to approve the Terms of Union of Newfoundland with Canada, 1949 ( $13 \mathrm{Geo} . \mathrm{VI}, \mathrm{c} .1$ ). | 147,994 | 7,370 | 155,364 |
| Yukon Territory ${ }^{\text {s }}$... | June 13, 1898 | Yukon Territory Act, 1898 (61 Vict., c. 6). | 205,346 | 1,730 | 207,076 |
| Northwest <br> Territories- <br> Mackenzie ${ }^{7}$ $\qquad$ <br> Keewatin ${ }^{8}$ $\qquad$ <br> Franklin ${ }^{7}$ $\qquad$ |  |  |  |  |  |
|  | $\left\|\begin{array}{ll} \text { Jan. } & 1,1920 \\ \text { Jan. } & 1, \\ 1920 \end{array}\right\|$ | Order in Council, Mar. 16, 1918 | 493,225 218,460 | $\begin{array}{r}34,265 \\ 9,700 \\ \hline\end{array}$ | 527,490 <br> 228 <br> 160 |
|  | Jan. 1, 1920 |  | 541,753 | 7,500 | 549,253 |
|  |  | Canada | ,610,097 | 235,677 | 3,845,774 |

[^31]The source of the powers of the Provincial Governments of Canada 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 may exclusively make laws in relation to the following matters: amendment of the constitution of the province except as regards the office of Lieutenant-Governor; direct taxation within the province; borrowing of money on the sole 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, local 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 those courts;* the imposition of punishment by fine, penalty, or imprisonment for enforcing any law of the province relating to any of the aforesaid subjects; and generally all matters of a merely local or private nature in the province.

Further, in and for each province the Legislature may, under Sect. 93, make laws exclusively in relation to education, subject to certain provisions. The purpose of these provisions was to preserve to a religious minority in any province the same privileges and rights in regard to education which it had at the date of Confederation, but the Provincial Legislature was not debarred from legislating on the subject of separate schools providing it did not thereby prejudicially affect privileges enjoyed before Confederation by such schools in the province. These powers, given to the four original provinces in Confederation, have, with some slight changes, been retained ever since and the more recently admitted provinces have assumed the same rights and responsibilities on their inclusion as units in the federation as were previously enjoyed by the older provinces.

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

Every person, male or female, at the age of 21 years, who is a British subject or a Canadian citizen and was resident in the province of registration 12 months prior to the election date and with two months residence in the electoral district of polling, and who falls under no statutory disqualification, is entitled to be registered as a voter.
The principal exception to the above gives voting privileges to persons in Saskatchewan and Alberta at the age of 18 years and 19 years, respectively.

Residence required in the Province of Quebec for provincial elections is two years and in British Columbia six months. In Manitoba a residence period of three months in the electoral district is necessary for registration. Further details connected with disqualifications, etc., may be found in the Election Act of each of the provinces.

- A description of the provincial courts is given in the 1951 Year Book, pp. 76-82.

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## 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 and was commissioned on Aug. 17, 1949.

The Legislative Assembly has 28 members elected for a term of five years.
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 allowance of $\$ 2,000$ is made to the Leader of the Opposition.

## 14.-Legislatures of Newfoundland, 1949-52, and Ministry as at Mar. 31, 1952

Legislatures, 1949-52

| 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 | 1 | Mar. 12, 1952 | 1 |

${ }^{1}$ Life of Legislature not expired at Mar. 31, 1952.

## First Ministry

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

| Office | Name | Date of First Appointment |
| :---: | :---: | :---: |
| Premier and Minister of Economic Development and Minister of Natural Resources.. | Hon. J. R. Smallwood. | Apr. 1, 1949 |
| Attorney General. | Hon. L. R. Curtis. | Apr. 1, 1949 |
| Minister of Public Welfare. | Hon. H. L. Pottle | Apr. 4, 1949 |
| Minister of Fisheries and Co-operatives.... | Hon. W. J. Keough....................... | July 29, 1949 |
| Minister of Education. | Hon. S. J. Hefferton. . . . . . . . . . . . . . . . . | Apr. 4, 1950 |
| Minister of Public Works. | Hon. E. S. Spencer | July 29, 1949 |
| Minister of Labour........................... | Hon. C. H. Ballam. | Apr. 4, 1950 |
| Minister of Health. | Hon. J. R. Chalker. | July 29, 1950 |
| Minister of Supply. | Hon. P. S. Forsey. | July 29, 1949 |
| Minister of Finance. . . . . . . . . . . . . . . . . . . . | Hon. Gregory J. Power. | Dec. 15, 1951 |
| Minister of Provincial Affairs............... | Hon. M yles P. Murray. | Dec. 15, 1951 |
| Minister without portfolio................... | Hon. P. J. Lewis. | 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 Year Book 1951, p. 86.

The Legislative Assembly has 30 members who serve for a statutory term of five years, 15 of whom are elected on a basis of adult suffrage and the other 15 elected by property holders only.

The salary of the Premier is $\$ 6,000$ and the salaries of the Cabinet Ministers are as follows: Attorney and Advocate General and Provincial Treasurer, \$4,500; 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 a further additional sum of $\$ 400$ and an additional amount of $\$ 200$, tax free, for indemnity incurred, and the Leader of the Opposition is paid a further additional sum of $\$ 800$ and an additional amount of $\$ 200$, tax free, for indemnity incurred by him in relation to his official duties.

## 15.-Legislatures and Premiers of Prince Edward Island, 1935-52, and Ministry as at Mar. 31, 1952

Legislatures, 1935-521

| 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 General 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 ...... | 5 | Feb. 24, 1948. | Mar. 30, 1951 |
| Apr. 26, 1951 | 22nd General Assembly....... | 2 | Oct. 23, 1951 | , |

${ }^{1}$ The Ministries from 1935-52 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.
${ }^{2}$ Life of Legislature not expired at Mar. 31, 1952.

## Twenty-Second Ministry

(Party standing at latest General Election, Apr. 26, 1951: 24 Liberals and 6 Progressive Conservatives.)
Nore.-Ministers who have held office continuously are shown at the date of original appointment, 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, President of the Executive Council and Minister of Education. | Hon. J. Whlter Jones | May 11, 1943 | Feb. 9, 1944 |
| Minister of Health and Welfare...... | Hon. Alexander W. Matheson. . | May 11, 1943 | Mar. 12, 1948 |
| Attorney and Advocate General and Provincial Treasurer. | Hon. Walter E. Darby | Oct. 13, 1949 | Oct. 13, 1949 |
| Minister of Agriculture. | Hon. C. Cleveland Baker. | Apr. 16, 1949 | Oct. 13, 1949 |
| Minister of Industry and Natural Resources. | Hon. Eugene Cullen. | Apr. 16, 1949 | Oct. 13, 1949 |
| Minister of Public Works and Highways | Hon. Dougald MacKinnon. . . . | Sept. 16, 1939 | June 16, 1951 |
| Provincial Secretary | Hon. J. Wilfrid Arsenatur...... | Feb. 12, 1948 | Oct. 13, 1949 |
| Minister without portiol | Hon. Keir Clark..... | June 16, 1951 | June 16, 1951 |
| Minister without portfolio | Hon. J. Brenton St. Joh | June 16, 1951 | June 16, 1951 |

## 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 J. A. D. McCurdy, the present Lieutenant-Governor, was commissioned to office Aug. 12, 1947. Lieutenant-Governors since Confederation are cited in the Year Book 1951, p. 87.

The House of Assembly has 37 members elected for five years, the maximum duration of its existence.

The Premier of the Province receives a salary of $\$ 9,000$ per annum and each Cabinet Minister a salary of $\$ 8,000$ per annum. Each Member of the House of Assembly receives a sessional indemnity of $\$ 1,600$ and an allowance of $\$ 800$ for expenses incidental to the discharge of his duties. The Leader of the Opposition receives an allowance of $\$ 1,000$ in addition to his sessional indemnity.

## 16.-Legislatures and Premiers of Nova Scotia, 1933-52, and Ministry as at Mar. 31, 1952

Legislatures, 1933-521

| Date of Election |  | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Aug. | 22, 1933 | 17th General Assembly. | 4 | Mar. 1, 1934 | May 20, 1937 |
| June | 29, 1937 | 18th General Assembly | 4 | Mar. 1, 1938 | Sept. 19, 1941 |
| Oct. | 28, 1941 | 19th General Assembly | 4 | Feb. 19, 1942 | Sept. 12, 1945 |
| Oct. | 23, 1945 | 20th General Assembly | 4 | Mar. 14, 1946 | April 27, 1949 |
| June | 9, 1949 | 21st General Assembly. | 2 | Mar. 21, 1950 | ${ }^{2}$ |

${ }^{1}$ The Ministries from 1933-52 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.
${ }^{2}$ Life of Legislature not expired at Mar. 31, 1952.

## Fourteenth Ministry

(Party standing at latest General Election, June 9, 1949: 27 Liberals, 8 Progressive Conservatives and 2 Co-operative Commonwealth Federation.)

Nots.-See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier, President of Council and Provincial Treasurer. | Hon. Angus_L. Macdonald | Sept. 3, 1933 | Premier-Sept. 8, 1945 <br> Provincial TreasurerJune 10, 1947 |
| Attorney General | Hon. Malcolm A. Patterson | June 10, 1947 | Nov. 22, 1949 |
| Minister of Highways and Public Works. | Hon. M. D. Rawding....... | July 31, 1947 | July 31, 1947 |
| Minister of Agriculture and Marketing and Minister of Lands and Forests. | Hon. A. W. Mackenzie. ..... | Sept. 8, 1945 | Agriculture and Market-ing-Sept. 8, 1945 <br> Lands and ForestsOct. 3, 1947 |
| Minister of Public Health and Minister of Public Welfare... | Hon. Harold Connolly..... | Feb. 24, 1941 | Aug. 31, 1950 |
| Minister of Mines and Minister of Labour | Hon. A. H. McKinnon...... | Sept. 29, 1949 | $\begin{aligned} & \text { Mines-Dec. 30, } 1949 \\ & \text { Labour-Dec. } 30,1949 \end{aligned}$ |
| Minister of Education | Hon. Henry D. Hicks. | Sept. 29, 1949 | Sept. 29, 1949 |
| Minister of Municipal Affairs.. | Hon. Ronald M. Fielding | Dec. 7, 1949 | Dec. 7, 1949 |
| Minister without portfolio (in charge of administration of Nova Scotia Liquor Control Act). | Hon. Geoffrey Stevens..... | Apr. 4, 1946 | Apr. 4, 1946 |
| Provincial Secretary.......... | Hon. A. B. DeWolfe. . . . . . | Aug. 31, 1950 | July 21, 1951 |
| Minister of Trade and Industry | Hon. W. T. Dauphinee........ | Aug. 31, 1950 | Aug. 31, 1950 |

## 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 Year Book 1951, p. 89.

The Legislative Assembly has 52 members who are elected for a statutory term of five years.

The Premier receives a salary of $\$ 5,000$ 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 $\$ 1,500$, and 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, 1935-52, and Ministry as at Mar. 31, 1952 <br> Ledislatures, 1935-52 ${ }^{1}$

| 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 | 2 | Mar. 8, 1949 | ${ }_{2}$ |

${ }^{1}$ The Ministries from 1935-52 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. ${ }^{2}$ Life of Legislature not expired at Mar. 31, 1952.

## Twenty-First Ministry

(Party standing at latest General Election, June 28, 1948: 47 Liberals and 5 Progressive Conservatives.) Nore.-See headnote to Table 15.


## 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 Year Book 1951, p. 90.

The Legislative Council has 24 members nominated for life by the LieutenantGovernor in Council. The Legislative Assembly has 92 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 the R.S.Q. 1941, c. 4, as amended by 10 Geo. VI, c. 11, as follows: all Members of the Legislative Assembly and Legislative Council receive $\$ 3,000$ per annum as salary and $\$ 1,000$ by way of allowances; in addition, the Premier receives $\$ 10,000$ as salary and $\$ 4,000$ allowances; Ministers with portfolio an additional $\$ 6,000$ as salary and $\$ 2,000$ allowances; Ministers without portfolio an additional $\$ 2,000$ salary and $\$ 2,000$ allowances; the Leader of the Opposition in the Legislative Assembly an additional $\$ 6,000$ salary and $\$ 2,000$ allowances; and the Leader of the Opposition in the Legislative Council an additional $\$ 2,000$ allowances.

## 18.-Legislatures and Premiers of Quebec, 1931-52, the Ministry and Members of the Legislative Council, as at Mar. 31, 1952

Legislatures, 1931-521

| Date of Election | Legislature | Number of Sessions | Date of First Opening | Date of Dissolution |
| :---: | :---: | :---: | :---: | :---: |
| Aug. 24, 1931 | 18th General Assembly | 4 | Nov. 3, 1931 | Oct. 30, 1935 |
| Nov. 25, 1935 | 19th General Assembly. | 1 | Mar. 24, 1936 | June 11, 1936 |
| Aug. 17, 1936 | 20th General 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 | Jan. 19, 1949 |  |

${ }^{1}$ The Ministries from 1931-52 were: 16 th 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, 1952.

Twentieth Ministry
(Party standing at latest General Election, July 28, 1918:82 Union Nationale, 8 Liberals and 2 Independents.) Nore.-See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier and President of Executive Council | Hon. Maurice L. Dus |  | Aug. 30, 1944 |
| Provincial Treas | Hon. Onesime Gagnon. | Oct. 6, 1936 | Aug. 30, 1944 |
| Minister of Lands and | Hon. J. S. Bourque. | Aug. 24, 1936 | Aug 30, 1944 |
| Minister of Health | Hon. J. A. Paquette. | Aug. 24, 1936 | Aug. 30, 1944 |
| Minister of Municipa | Hon. Bona Dussaulu | Aug. 24, 1936 | Aug. 30, 1944 |
| Minister of Roads. | Hon. Antonio Talbo | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Public | Hon. Romb́o Lorrain | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Mines. | Hon. C. Daniel Fre | Dec. 15, 1948 | Dec. 15, 1948 |
| Minister of Coloniz | Hon. Jos. D. Bégim | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Game and | Hon. C. E. Pouliot | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Labour. | Hon. Antonio Barret | Aug. 30, 1914 | Aug 30, 1944 |
| Minister of Trade and Commerce | Hon. Paul Beaulieu, | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister of Agriculture...... | Hon. Laurent Barré | Aug. 30, 1944 | Aug. 30, 1944 |
| Provincial Secretary. | Hon. Omar Côté, | Aug. 30, 1944 | $\text { Aug. 30, } 1944$ |
| Minister of Social Welfare and of Youth | Hon. Paul Sauvé | Sept. 18, 1946 | Sept. 18, 1946 |
| Solicitor General...... | Hon. Antoine Riva | Dec. 15. 1948 Aug. 24, 1936 | Apr. Aug. 30, |
| Minister without portfolio | Hon. Tancrède Labbé | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister without portfolio | Hon. Marc Trudel | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister without portfolio | Hon. Patrice Tardi | Aug. 30, 1944 | Aug. 30, 1944 |
| Minister without portfolio. | Hon. J. H. Delisle. | Aug. 30, 1944 | Aug. 30, 1944 |

## Legislative Council

(According to seniority)

| Name | Division | Date of Appointment |
| :---: | :---: | :---: |
| Grorges-Aimé Simard. | Repentigny | Nov. 12, 1913 |
| P.-R. Du Tremblay. | Sorel. | Jan. 3, 1925 |
| R.-O. Grothé. | De Salaberry | Dec. 23, 1927 |
| Elisée Thériauta | Kennebec. | Apr. 23, 1929 |
| Jacob Nicol..... | Bediord | Sept. 16, 1929 |
| Victor Marchand Gustave Lemieux. | Rigaud. | Apr. 15, 1932 |
| Hector Laferté. . | Stadacona. | July 23, 1934 |
| Emile Moread. | Lauzon. | June 6, 1935 |
| Alphonse Raymond. | De Lorimier | Aug. 28, 1936 |
| J.-L. Baribeau (Speaker). | Shawinigan. | Jan. 14, 1938 |
| Philippe Brais........... | Grandville. | Feb. 16, 1940 |
| Jules Brillant. | Golfe. | Jan. 14, 1942 |
| Frank L. Connors, | Mille Isles. | Jan. 14, 1942 |
| Robert R. Ness. | Inkerman | Jan. 14, 1942 |
| Wilprid Bovey. | Rougemont. | Feb. 12, 1942 |
| Félix Messier.. | De Lanaudière | Feb. 12, 1942 |
| Charles Delagrave | De la Durantaye | June 22, 1944 |
| Edotard Asselin. | Wellington. | Jan. Ang. 22, 22, 1946 |
| Gérald Martineaut | Les Laurentides. | Aug. 22. 1946 |
| J.-Olier Renaud. | Alma. | Aug. 22, 1946 |
| J.-T. Larochelle. | La Salle | Dec. 29, 1948 |

## 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, the present Lieutenant-Governor of the Province, was commissioned to office Jan. 24, 1952. Lieutenant-Governors since Confederation are cited in the Year Book 1951, 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 a Cabinet Minister is $\$ 10,000$.

## 19.-Legislatures and Premiers of Ontario, 1934-52, and Ministry as at Mar. 31, 1952

Legislatures, 1934-521

| 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, 71948 | 23rd General Assembly | ${ }_{2}^{4}$ | Feb. 10, 1949 | Oct. ${ }_{2}^{6,1951}$ |
| Nov. 22, 1951 | 24th General Assembly | 2 | Feb. 21, 1952 |  |

${ }^{1}$ The Ministries from 1934-52 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, 1913, 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.
${ }^{2}$ Life of Legislature not expired at Mar. 31, 1952.

## Sixteenth 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. Leslie M. F | Aug. 17, 1943 | May 4, 1949 |
| Minister of Agriculture... | Hon. Thomas L. Kenned | Sept. 16, 1930 | Aug. 17, 1943 |
| Minister of Highway | Hon. George H. Doucett | 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. Grorge 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. Whllam A. Goodfellow. | Jan. 7, 1945 | Jan. 7, 1945 |
| Minister of Planning and Development. | Hon. Whlliam Griesinger. | Apr. 15, 1946 | May 4, 1949 |
| Minister of Lands and Forests. | Hon. Harold R. Scott | Nov. 28, 1946 | Nov. 28, 1946 |
| Minister of Travel and Publicity | Hon. Louis P. Ceche. | Oct. 19, 1948 | Oct. 19, 1948 |
| Minister of Mines. | Hon. Welland S. Gemmeld | May 4, 1949 | May 4, 1949 |
| Minister without portfolio | Hon. Whliam E. Hamiton | July 15, 1949 | Nov. 16, 1950 |
| Minister of Health. <br> Minister of Reform Instit | Hon. Mackinnon Pe Hon. John W. Foote | Aug. 8, <br> Nov. 16, <br> 1950 | Aug. <br> Nov, 16, <br> 1950 |
| Minister of Education.... | Hon. Whliam J. Dun | Oct. 2, 1951 | Oct. 2, 1951 |
| Minister of Public Wor | Hon. Fletcher S. Thomas | Oct. 2, 1951 | Oct. 2, 1951 |

## 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 Roland Fairbairn McWilliams, the present Lieutenant-Governor of the Province, was commissioned to office Nov. 1, 1940. Lieutenant-Governors since Confederation are cited in the Year Book 1951, p. 94.

The Premier of the Province is paid a salary of $\$ 8,000$ per annum and each of the other Members of the Cabinet $\$ 6,000$. Members of the Legislature are each paid an indemnity of $\$ 1,670$ and an expense allowance of $\$ 830$. The Leader of the Opposition is paid an additional amount of $\$ 2,000$ and the Speaker of the Legislature an additional amount of $\$ 2,500$.

# 20.-Legislatures and Premiers of Manitoba, 1932-52, and Ministry as at Mar. 31, 1952 

Legislatures, 1932-52 ${ }^{1}$

| Date of <br> Election | Legislature |  | Number <br> of Sessions | Date of <br> First Opening | Date of <br> Dissolution |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |

${ }^{1}$ The Ministries from $1932-52$ 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, K.C.; 14th Ministry, sworn in Nov. 13, 1948, under the leadership of Hon. D. L. Campbell. ${ }_{2}$ Life of Legislature not expired at Mar. 31, 1952.

## Fourteenth Ministry

(Party standing at latest General Election, Nov. 10, 1949: 43 Coalition [30 Liberal-Progressive, 9 Progressive Conservative, 4 Independent], 14 Anti-Coalition [7 Co-operative Commonwealth Federation, 6 Independent, 1 Labour-Progressive].)

Norz.-See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier, President of the Council, Minister of Dominion - Provincial Relations. | Hon. Douglas L. Campbell..... | Sept. 21, 1936 | Nov. 13, 1948 |
| Minister of Agriculture and Immi- |  |  |  |
| gration......................... | Hon. Francis C. Bell | Dec. 14, 1948 | Dec. 14, 1918 |
| Minister of Labour and Provincial Secretary | Hon. Chas. E. Greenlay. | Feb. 15, 1946 | Dec. 14, 1948 |
|  | Hon. Edmond Prepontaine..... | Dec. 1, 1951 | Dec. 1, 1951 |
| Minister of Mines and Natural Resources | Hon. John S McDiarmid........ | May 27, 1932 | May 27, 1932 |
| Attorney General | Hon. C. Rhodes Smith........... | Nov. 4, 1940 | Aug. 16, 1950 |
| Minister of Public Utilitie | Hon. William Morton. | Nov. 22, 1939 | Dec. 14. 1948 |
| Minister of Public Works........... | Hon. Whllam Morton. | Nov. 22, 1939 | Aug. 19, 1950 |
| Minister of Health and Public Welfare. | Hon. Ivan Schuluz | Sept. 21, 1936 | Feb. 5, 1944 |
| Minister of Education | Hon. Wallace C. Miller | Feb. 15, 1946 | Aug. 16, 1950 |
| Provincial Treasurer | Hon. Ronald David Turner. | Dec. 1, 1951 | Dec. 1, 1951 |

## 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 Year Book 1951, p. 95.

The statutory number of members of the Legislative Assembly is 52, elected for a maximum term of five years.

The Premier receives $\$ 6,500$ and each Cabinet Minister $\$ 5,000$ annually in addition to the sessional indemnity, while the Leader of the Opposition, the Speaker and the Deputy Speaker receive an additional $\$ 2,500, \$ 1,500$ and $\$ 600$, respectively. The annual salary of a Member of the Legislature is $\$ 2,000$ together with an expense allowance of $\$ 1,000$.

## 21.-Legislatures and Premiers of Saskatchewan, 1934-52, and Ministry as at Mar. 31, 1952

Legislatures, 1934-52

| 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 |
| June 24, 1948 | 11th General Assembly. | 2 | Feb. 10, 1949 | 2 |

${ }^{1}$ The Ministries from 1934-52 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 not expired at Mar. 31, 1952.

## Eighth Ministry

(Party standing at latest General Election, June 24. 1948: 31 Co-operative Commonwealth Federation, 19 Liberals, 1 Independent and 1 Liberal Progressive-Conservative.)

Note.-See headnote to Table 15.


## 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 Year Book 1951, p. 96.

There are 57 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 $\$ 9,000$ and of a Cabinet Minister $\$ 7,000$. Since no party is recognized as the Official Opposition, a special allowance of $\$ 1,000$ is paid to the Leader of the Liberal Party and $\$ 500$ to the Leader
of the Co-operative Commonwealth Federation Party. The sessional indemnity for each Member of the Legislative Assembly is $\$ 2,000$ plus an expense allowance of $\$ 1,000$.
22.-Legislatures and Premiers of Alberta, 1935-52, and Ministry as at Mar. 31, 1952

Legislatures, 1935-52 ${ }^{1}$

| Date of Election | Legislature | Number of Sessions | Date of <br> 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. 88, 1944 | 10th General Assembly | 5 | Feb. 22, 1945 | July 16, 1948 |
| Aug. 17, 1948 | 11th General Assembly. | 2 | Feb. 17, 1949 | 2 |

${ }^{1}$ The Ministries from 1935-52 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, 1952.

## Eighth Ministry

(Party standing at latest General Election, Aug. 17, 1948: 51 Social Credit, 2 Co-operative Commonwealth Federation, 2 Liberals, 1 Independent Social Credit, 1 Independent.)

Note.-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 |
| Attorney General. | Hon. Lucien Maynard. | May 12, 1936 | June 1, 1943 |
| Minister of Education............... | Hon. Ivan Casey. | Feb. 21, 1948 | Feb. 21, 1948 |
| Minister of Mines and Minerals, and Lands and Forests. | Hon. Nathan E. Tanner. | Jan. 5, 1937 | Jan. 5, 1937 |
| Minister of Public Works | Hon. D. B. MacMillan. | Dec. 3, 1940 | May 8, 1948 |
| Minister of Heaith and Minister of Public Welfare. | Hon. W. W. Cross. | Sept. 3, 1935 | Sept. 3, 1935 |
| Minister of Economic Affairs...... | Hon. Alpred J. Hooke | Apr. 20, 1945 | Apr. 20, 1945 |
| Minister of Municipal Affairs and Provincial Secretary. | Hon. C. E. Grrhart. | June 1, 1943 | May 8, 1948 |
| Minister of Agriculture.. | Hon. D. A. Ure..... | May 8, 1948 | May 8, 1948 |
| Minister of Industries and Labour... | Hon. J. L. Robinson | May 8, 1948 | May 8, 1948 |
| Minister of Railways and Telephones | Hon. G. E. Taylor. | May 1, 1951 | Dec. 27, 1951 |
| Minister of Highways............... | Hon, G. E. Taylor. | May 1, 1951 | May 1, 1951 |

## Subsection ${ }^{\boldsymbol{*}} 10$. -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 Year Book 1951, 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 sessional allowances 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, 1933-52, and Ministry as at Mar. 31, 195 2 <br> Legislatures, 1933-52 ${ }^{1}$

| 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. | 3 | Feb. 14, 1950 | Apr. 16, |

${ }^{1}$ The Ministries from 1933-52 were: 22nd Ministry, sworn in Nov. 15, 1933, under the leadership of Hon. T. D. Pattullo; 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. ${ }^{2}$ 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. $\quad$ Life of Legislature not expired at Mar. 31, 1952.

Twenty-Fourth Ministry
(Party standing at latest General Election, June 15, 1949: 39 Coalition, 7 Co-operative Commonwealth Federation, 1 Independent and 1 Labour.)

Notr.-See headnote to Table 15.

| Office | Name | Date of First Appointment | Date of Present Appointment |
| :---: | :---: | :---: | :---: |
| Premier and President of the |  |  |  |
| Council and Minister of Finance... |  |  |  |
| Provincial Secretary. | Hon. Willam Thomas Straith... | Dec. 29, 1947 | May 3, 1950 |
| Attorney General.................. | Hon. Gordon Sylvester Wismer | July 5, 1937 | Apr. 4, 1946 |
| Minister of Lands and Forests and Minister of Public Works. | Hon. Edward Tourtellotte Kennex. | Nov. 8, 1944 | Apr. 5, 1945 |
| Minister of Agriculture, Minister of Railways and Minister of Fisheries | Hon. Henry Robson Bowman. | July 21, 1949 | July 21, 1949 |
| Minister of Labour and Minister of Mines. | Hon. John Henry Cates | July 21, 1949 | July 21, 1949 |
| Minister of Education | Hon. William Thomas Stratth. | Dec. 29, 1947 | Dec. 29, 1947 |
| Minister of Health and Welfare, Minister of Municipal Affairs and Minister of Trade and Industry. | Hon. Alexander Douglas Turnbull......................... | May 3, 1950 | May 3, 1950 |

## Subsection 11.-Yukon and the Northwest Territories

Yukon Territory.-The Yukon Act provides for a local government composed of a Chief Executive, styled Commissioner, who is appointed by the Governor in Council, and an elective Territorial Council of three members having a three-year tenure of office.* The Yukon Territorial Council performs much the same functions as do the Provincial Governments. The Commissioner is the counterpart of a Provincial Cabinet and the three members of the Territorial Council are the counterpart of a Provincial Legislature. The seat of local government is at Dawson, but the Commissioner acts under instructions from the Governor in Council or the Minister of Resources and Development at Ottawa.

## COMMISSIONER

Fred Fraser.
TERRITORIAL COUNCIL
(Members elected 1949, for three years)


[^32]Northwest Territories.-The Government of the Northwest Territories is vested in a Commissioner, assisted by a Council composed of eight members one of whom is Deputy Commissioner. Five of the members are appointed by the Governor in Council and three are elected to represent electoral districts in the Mackenzie District. The administration of the various Acts, Ordinances and Regulations pertaining to the Northwest Territories is supervised by the Director of the Northern Administration and Lands Branch of the Department of Resources and Development. The seat of government is at Ottawa. The Council meets once a year at Ottawa and once a year at a point within the Territories. The First Session of this partially elected eight-member Council of the Northwest Territories was held at Yellowknife on Dec. 10, 1951.

TERRITORIAL COUNCIL (as at Mar. 31, 1952)

| Commissioner. | Major-General Hugh A. Young |
| :---: | :---: |
| Members of the CouncilAppointed | Frane J. G. Cunningham (Deputy Commissioner) Louis C. Audette, Whliam I. Clements, Donald M. MacKay, and Leonard H: Nicholson |
| Elected. | James Brodie, Frank Carmicharl, and Mervin Hardie |
| Officers of the CouncilSecretary | Robert Bouchard |
| Legal Adviser......... | Wm. Nason |

## Section 3.-Municipal Government*

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. However, the syndics fell into disuse, and such powers were delegated by the Governor to officials. The City of Quebec was incorporated in 1832, and a system of local government for the Province, decreed in 1840, was 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 and the meetings had no law-making powers. Brockville, in 1832, gained some local powers from the Governor in Council which 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

[^33]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.

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 1951 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 mostly dispersed in small settlements along the coast, and only since 1937 have a few of the larger of these been set up individually with local councils as towns or, where two or three are close together, as rural districts (30 in 1951). 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.

Prince Edward Island.-The City of Charlottetown and seven towns, all incorporated by special Acts, comprise the total municipal organization in Prince Edward Island. They include less than one-half of one percent of its total area and only one-quarter of its population. The remainder of the population is not organized municipally, as the three counties are purely provincial administrative units.

Nova Scotia.-Municipal organization in Nova Scotia covers the whole of the Province. Halifax and Sydney are the only cities and they operate under special charters, the latter also governed by some special legislation. Towns, which number 40, operate under the Town Incorporation Act. 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, 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 three cities of Saint John, Fredericton and Moncton have special charters, and the 19 towns operate under the Towns Incorporation Act. There are also four villages and 37 local improvement districts.

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 munici-

[^34]palities, 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 331 villages and 1,109 townships and parishes. A small number of these are independent of the counties in which they are located. Of the 34 cities, a few have special charters. The remainder, along with the 132 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 incorporated municipalities, each county is comprised of the towns, villages and townships situated within.its borders, which provide its revenues. There are 29 cities, 149 towns, 155 villages, 572 townships and 16 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, 37 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 territory.

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, 90 towns, 388 villages and 299 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.

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 69 towns, 140 villages and 54 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.

British Columbia.-British Columbia has less than 0.5 p.c. of its area organized into municipalities. Additional small areas have sufficient population to require administration of local activities by the Provincial Government. There are 35 cities, 41 villages and 28 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 any other province.
24.-Municipalities, by Type of Organization and by Provinces, as at Dec. 31, 1951

| Province | Cities | Towns | Villages | Total Urban | Rural Municipalities | $\begin{aligned} & \text { Total } \\ & \text { Local } \\ & \text { Munici- } \\ & \text { palities } \end{aligned}$ | Counties | Total Incorported Municipalities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland.... | 1 | $30^{1}$ | - | 31 | - | 31 | - | 31 |
| P.E. Island. ...... | 1 | 7 | - | 8 | - | 8 | - | 8 |
| Nova Scotia...... | 2 | 40 | - | 42 | 24 | 66 | - | 66 |
| New Brunswick... | 3 | 19 | 4 | 26 | $15^{2}$ | 41 | - | 41 |
| Quebec............. | 34 | 132 | 331 | 497 | 1,109 | 1,606 | 76 | 1,682 |
| Ontario........... | 29 | 149 | 155 | 333 | 5883 | 921 | 38 | 959 |
| Manitoba.......... | 4 | 33 | 37 | 74 | 1144 | 188 | - | 188 |
| Saskatchewan..... | 8 | 90 | 388 | 486 | 2995 | 785 | - | 785 |
| Alberta.......... | 75 | 69 | 140 | 216 | 548 | 270 | 3 | 273 |
| British Columbia. | 35 | - | 41 | 76 | 28 | 104 | - | 104 |
| Totals. | 124 | 569 | 1,096 | 1,789 | 2,231 | 4,020 | 117 | 4,137 |

${ }^{1}$ Includes 26 towns and 4 rural districts. ${ }^{3}$ Includes 16 incorporated local improvement districts. known as suburban municipalitie
21 local improvement districts. ${ }^{2}$ Does not include 37 local improvement districts.
4
4

## Section 4.-Federal and Provincial Royal Commissions

Federal Royal Commissions.*-Royal Commissions established in 1951 are reported here, this list being in continuance of those in previous Year Books beginning with the 1940 edition, pp. 1108-1110:-

Royal Commission appointed to inquire into and report upon claims arising out of World War II, constituted by Order in Council of July 31, 1951 (P.C. 3951). Commissioner: The Right Honourable J. L. Ilsley.

Royal Commission appointed to inquire into and report upon the proposed South Saskatchewan River project, constituted by Order in Council of Aug. 24, 1951 (P.C. 4435). Commissioners: Dr. T. H. Hogg, Mr. G. A. Gaherty and Dr. John A. Widtsoe.

Provincial Royal Commissions.-Only those Royal Commissions established in 1951 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 prices paid or offered to fishermen and the returns received by merchants and exporters for fish production in 1950 and as to whether prices paid or offered to fishermen were fair and just in relation to the returns received by merchants and exporters in respect of such fish. Feb. 17, 1951. Commissioner: Bruce Bolton Feather.

[^35]

British Columbia.-Royal Commission appointed to inquire into the circumstances of the non-admission of Mrs. Donald Ritchie into hospital and the subsequent loss of her unborn child. Also to inquire into the activating motives of persons and publicity surrounding these circumstances. Apr. 19, 1951. Commissioner: The Honourable H. S. Wood.

Royal Commission to inquire into all circumstances surrounding the incarceration at time of arrest and transportation from Victoria to Oakalla Farm of Daniel LeRoy Sanger. Oct. 23, 1951. Commissioner: His Honour Judge Herbert Howard Shandley.

## PART III.-ADMINISTRATIVE FUNGTIONS 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.

While it is not possible, owing to the limitations of space in the Year Book, to enumerate 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.

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 producta 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. For further details and statistics, see Chapter X.

The Canadian Broadcasting Corporation.-The Canadian Broadcasting Act, 1936, provides that there shall be a Corporation, to be known as the Canadian Broadcasting Corporation, which shall consist of a Board of nine Governors appointed by the Governor in Council and chosen to give representation to the principal geographical 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. Under the General Manager 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, 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 under consideration in Parliament. For further details, see Chapters VIII and XIX.

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 Immigration Branch, the Indian Affairs Branch, the Canadian Citizenship Branch and the Canadian Citizenship Registration Branch.

The Canadian Citizenship Branch works closely with provincial departments of education, national organizations and societies in the co-ordination of citizenship training programs and in preparation and distribution of material on Canadian subjects to the foreign-language press in Canada.

The Registration Branch administers the Canadian Citizenship Act.

The Immigration Branch encourages immigration and has established a Settlement Service and Field and Inspection Services overseas to screen immigrants before arrival in Canada. The Department has boards of inquiry in Atlantic and Pacific districts for deportation of undesirables, also Field and Inspection Services for examination of ships' crews.

The activities of the Indian Affairs Branch include management of Indian land and reserves, trust funds, welfare projects, relief, family allowances, education, descent of property, rehabilitation of Indian veterans on reserves, Indian treaty obligations, enfranchisement of Indians, and other Indian affairs. Its organization consists of a headquarters office at Ottawa, a regional supervisory staff, and 91 local agencies in the field, each agency being responsible for one or more reserves and bands.

The National Gallery of Canada is also under the jurisdiction of the Minister of Citizenship and Immigration. It was transferred from the administration of the Minister of Public Works in September 1951, and will work toward the building of Canadian citizenship through the encouragement of cultural activities among young persons and immigrants. See also Chapter IV.

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, however, of Crown corporations or such agencies as the Bank of Canada, the National Film Board, the National Harbours Board and the National Research Council. See Part IV of this Chapter, pp. 93-101, for further details and statistics.

The Civil Service Commission 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 head. The Commission has a staff of approximately 530 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, 1951, which gave the Department a statutory life of five years. Under the Defence Production Act the powers, duties and functions that were vested in the Minister of Trade and Commerce pursuant to the Department of Munitions and Supply Act, 1939, and the Defence Supplies Act, 1950, were transferred to the Minister of Defence Production. The Defence Production Act repealed the Essential Materials (Defence) Act, 1950-51.

Briefly, its task is to co-ordinate the effort required of the Canadian economy in producing armaments necessary to implement the terms of the North Atlantic Treaty and to co-ordinate the production and purchasing of the requirements of the Armed Forces. The three main branches are the Production Branch, the Materials Branch and the General Purchasing Branch. Supporting them are various administrative and service units such as the Economics and Statistics, Legal, Administration, and Comptrollers' Branches, Financial Adviser, etc.

The Defence Production Act, Sect. 9, transfers the duties previously performed by the Minister of Trade and Commerce, in relation to the following Crown companies, to the Minister of Defence Production: Canadian Arsenals Limited, Crown Assets Disposal Corporation, Defence Construction (1951) Limited, Polymer Corporation Limited, Eldorado Mining and Refining (1944) Limited, Northern Transportation Company (i947), and Canadian Commercial Corporation.

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, e. 190), was repealed and replaced by the Statistics Act (11-12 Geo. VI, c. 45).

The policy of the Dominion Bureau of Statistics is to compile, analyze 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 reports to Parliament through the Minister of Trade and Commerce.

Further details of the work of the Dominion Bureau of Statistics are given in Chapter XXVIII.

The Department of External Affairs.-The main function of this Department is the protection and advancement of Canadian interests abroad.

The Department is headed.by the Secretary of State for External Affairs. At the head of the staff is the Under-Secretary of State for External Affairs, with a Deputy UnderSecretary and three Assistant Under-Secretaries. They are assisted by Foreign Service Officers, formally designated Counsellors and First, Second and Third Secretaries.

The work of the Department at Ottawa is carried on through 13 divisions. The three geographical divisions are the Commonwealth, the European and the American and Far Eastern. The seven functional Divisions are: Consular, Defence Liaison, Economic, Information, Legal, Protocol, and United Nations. The three "housekeeping" divisions are Establishments and Organization, Finance, and Personnel. There are two related special sections, Supplies and Properties, and International Conferences. The archives and departmental library are incorporated in a Historical Research and Reports Section and a Press Office arranges press conferences and issues press releases.

The 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 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 F.D.C. 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 area 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. See Chapter I, pp. 31-33, for a brief account of the Commission's work on the National Capital Plan.

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. It is responsible for the raising of 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 Department has an International Economic Relations Division, an Economic Policy Division, Superannuation Branch, Farm Improvement Loans Division, Consumer Credit Division and a Municipal Grants Division. The Royal Canadian Mint is a branch of the Department. The Inspector General of Banks is an officer of the Department.

The Tariff Board and the Canadian Farm Loan Board are responsible to 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 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 are now 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 also represented on the International Pacific Salmon Fisheries Commission, the International Fisheries (Halibut) Commission and the International Northwest Atlantic Fisheries Commission.

For further details and statistics of the fisheries, see Chapter XIV.

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 Service insurance.

Under the relevant provincial statutes the Department's examiners examine provincial crust 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. See also Chapter XXVI.

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 administration 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.; the regulation of fair wages and hours of labour; government annuities; government employee compensation; merchant seamen compensation; vocational training; publication of the Latour Gazette, as well as bulletins of information on industrial and related subjects.

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

Further details and statistics of the Department of Labour will be found in Chapter XVIII.

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 topographic, geodetic and other surveys. The Department is under the Minister of Mines and Technical Surveys and is divided into five branches, namely: 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 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; Dominion Coal Board; Board of Examiners for Dominion Land Surveyors; International Boundary Commission.

For further details and statistics see Chapter XII.
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.

For further details and statistics see Chapter XXVII.

The National Film Board.-The National Film Act, 1950, provides for a Board of Goveraors 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 Resources and Development). 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"

For further details see Chapters VIII and XXVIII.
The National Gallery.-The National Gallery was founded in 1880. By Act of Parliament (3-4 Geo. V, c. 33) 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 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. See also Chapter VIII.

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 the Deputy Ministers of National Health and National Welfare.

The Health Branch is divided into four directorates-Health Services, Health Insurance Studies, Food and Drugs, and Indian Health Services. The Welfare Branch is made up of the Directorate of Family Allowances and Old Age Security, the Old Age Pensions Division and the Physical Fitness Division. 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.

For further details and statistics, see Chapter VI.
The Department of National Revenue.-From Confederation until May 1918, Customs and Inland Revenue Acts were administered by separate departments, and after that date 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.

Besides the assessment and collection of customs and excise duty, taxes and revenues and other services by ports and outports, the Department is responsible for 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.

The 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 which was founded in 1842 but was separated in 1920, and is now part of the Department of Resources and Development. 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. See also Chapter VIII.

The National Research Council.-In 1924 the Research Council Act was passed and, in 1928, laboratories for scientific research were established at Ottawa. The National Research Council now has laboratories for divisions of chemistry, building research, mechanical engineering, radio and electrical engineering, physics, applied biology and medical research, and also has workshop services. Until April 1952, the Council operated the atomic energy project at Chalk River, and its President was head of the Atomic Energy Control Board.

Processes and improvements developed by the Council are made available under licence to industry through a Crown company, Canadian Patents and Development, Limited, and any profits derived 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. See also Chapter VIII.

Post Office Department. - Operations of the Post Office Department under a Postmaster General include: air, land, steamboat and railway mail services; international and domestic mail; postage stamps, money orders and parcel post business. The Post Office also is responsible for the Post Office Savings Bank.

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

The Department is responsible for supplying all requirements of printing and stationery to and the audit of all accounts for advertising of 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.

Public Archives.-The Public Archives was founded in 1872 and is administered by the Secretary of State. 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, an historical library, and many prints, paintings and photographs.

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. The Department maintains architectural and engineering staffs in each province in addition to the Administrative, Architectural, Engineering and Purchasing and Stores Branches at Ottawa.

Department of Resources and Development.-The Department of Resources and Development was established in January 1950, and comprises sections of the former Departments of Mines and Resources and Reconstruction and Supply. The Department is divided into five branches besides Administration Services: the National Parks Branch administers the National Parks of Canada, historic sites and federal interests in the conservation and protection of wildlife (see also Chapter I, pp. 23-36) and has charge of the National Museum of Canada (see Chapter VIII); the Engineering and Water Resources Branch has charge of federal interests in the trans-Canada highway, construction works for all other branches, the measure and record of stream flow, and the investigation of water-power resources; the Northern Administration and Lands Branch deals with business from the local government of the Northwest Territories and of Yukon Territory and administers lands, timber, minerals and other resources of the Territories; 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 (see also Chapter XI); the Canadian Government Travel Bureau promotes the tourist industry by encouraging tourist travel from abroad and interprovincial travel in Canada.

The Minister of Resources and Development is also responsible to Parliament for the National Film Board, the Central Mortgage and Housing Corporation (see Chapter XVII), 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.

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 this 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 Acts administered wholly or in part by this Department will be found at p. 91 . The Secretary of State also deals with the organization and administration of the Office of the Custodian of Enemy Property. The Civil Service Commission (see p. 82), the Depart-
ment of Public Printing and Stationery (see p. 86), the Public Archives (see p. 86), and the Chief Electoral Office are under the jurisdiction of the Secretary of State, but the Chairman of the Civil Service Commission, the Queen's Printer, the Public Archivist and the Chief Electoral Officer each have the rank of a 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.

Department of Trade and Commerce.-The Department of Trade and Commerce although authorized by Act of Parliament on June 23, 1887, did not come into operation until Dec. 5, 1892, by Order in Council. Prior to its creation assistance in the development of foreign trade was provided through the appointment of five Canadian Commercial Agents, serving on a part-time basis and responsible to the Minister of Finance. On Jan. 1, 1895, a Canadian Commercial Agent was appointed at Sydney, Australia, on a salary basis, and therefore 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. Fifty-one offices were maintained in 41 countries at the beginning of 1952, the majority of which were operated jointly by the Departments of Trade and Commerce and of External Affairs. In such instances, trade commissioners 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, consisting of an Export Division, Import Division, Export and Import Permit Division and a Transportation and Communications Division; Agricultural Commodities Branch; Standards Branch; Capital Cost Allowance Division; Economics Division; Industrial Development Division; Information Division; International Trade Relations Division; Wheat and Grain Division; and the International Economic and Technical Co-operation Division; Canadian Government Exhibition Commission. The functions of these branches and divisions are set forth in Chapter XXI.

The following boards, bureaus, commissions and corporations are also responsible to the Minister of Trade and Commerce: National Research Council; Board of Grain Commissioners; Canarian Wheat Board; Dominion Bureau of Statistics; Export Credits Insurance Corporation; Trans-Canada Air Lines. Consult the Index for reference to these agencies.

The Department of Transport.-The Department of Transport was created on Nov. 2, 1936, from the former Departments of Marine, Railways and Canals and the Civil Aviation Branch 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 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 radio marine and radio aeronautical aids to navigation and communication by wire and by the Government telegraph and telephone. Canal Services 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, the Prince Edward Island Ferry and Terminals, Trans-Canada Air Lines, and the Trans-Canada (Atlantic) Air Lines. See also Chapter XIX.

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; and the National Harbours Board. The Minister is also responsible to Parliament for the Canadian Overseas Telecommunication Corporation, a Crown company created by Act of Parliament to operate all external telecommunication assets in Canada. For reference to these boards and commissions consult the Index.

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. See also Chapter VI.

## Section 2.-Acts Administered by Federal Departments*

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

Note.-Two sessions of Parliament were held in each of the years 1959, 1949, 1950 and 1951. The Acts passed at the first session are indicated by $\left({ }^{*}\right)$ and those at the second session by ( $\dagger$ ). Copies of individual Acts of Parliament and amendments may be obtained from the Oueen'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.

| Department, Year and Chapter |  | Name of Act | ¿Department Year and Chapte |  | Name of Act |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { Agriculture- } \\ & \text { R.S.C. } 1927 \end{aligned}$ |  |  | External Affairs-R.S.C. 1927 65Finance- |  | Department of External Affairs as amended. |
|  | $\begin{aligned} & 4 \\ & 5 \end{aligned}$ | Department of Agriculture. Pest Control Products as amended. |  |  |  |
|  | 6 | Animal Contagious Diseases as amended. |  |  | Canadian National Railways |
|  | 25 | Cold Storage as amended. |  |  | Financing and Guarantee |
|  | 36 | Criminal Code, Sect. 235, Race - Track Betting as |  |  | (Annual). <br> Appropriation (Annual). |
|  |  | amended. | R.S.C. 1927 | 14 | Quebec Savings Banks as |
|  | 45 | Dairy Industry as amended. Destructive Insect and Pest |  | 16 | amended. <br> Bills of Exchange as amended. |
|  |  | as amended. |  | 24 | Civil Service Superannuation |
|  | 61 | Experimental Farm Stations as amended. |  | 40 | as amended. <br> Currency as amended. |
|  | 69 77 | Fertilizers as amended. |  | 66 | Canadian Farm Loan as amended. |
|  | 77 | Meat and Canned Foods as |  | 71 | Department of Finance and |
|  | 100 | Inspection and Sale as amended. |  | 102 | Treasury Board as amended. Interest. |
| 1933 | 26 | Hay and Straw Inspection. |  | 152 | Pawnbrokers (not regularly ad- |
| 1935 | 23 | Prairie Farm Rehabilitation as amended. |  |  | ministered by Department but under jurisdiction of |
|  | 62 | Fruits, Vegetables and Honey. |  |  | Minister of Finance). |
| 1937 | 30 | Feeding Stuffs as amended. |  | 183 | Savings Deposits Returns |
| 1939 | 40 | Seeds as amended. |  | 184 | Satisfied Secuities (not regu- |
|  | 13* | Cheese and Cheese Factory Improvement as amended. |  |  | larly administered by Department but under jurisdic- |
|  | $28^{*}$ |  |  |  | tion of Minister of Finance). |
|  |  | ative Marketing as amended. |  | 192 | Provincial Subsidies. |
|  | 34* | Wheat Co-operative Marketing as amended. |  | 213 | Winding-up (Insolvent Com panies) as amended. |
|  | 47* | Live Stock and Live Stock Products. | $\begin{aligned} & 1931 \\ & 1932 \end{aligned}$ | 55 33 | Tariff Board as amended. Gold Export as amended. |
|  | $50^{*}$ | Prairie Farm TAssistance- as | 1934 | 43 | Bank of Canada as amended. |
|  |  | amended. | 1935 | 52 | Canadian Fisherman's Loan. |
| 1944 | 29 | Agricultural Prices Support as amended. | 1938 | 33 | Municipal Improvements As- sistance as amended. |
| 1945 | 24 | Maple Products Industry. | 1943 | 26 | Farmers' Creditors Arrange- |
| 1947 | 10 | Agricultural Products (Annual) |  |  | ment. |
| 1948 | 61 | Maritime Marshland Rehabili- | 1944 | 41 | Farm. Improvement Loans |
|  |  | tation. |  |  | as amended. |
| 1949 | $28 \dagger$ | Live Stock Pedigree. |  | 44 | Industrial Development Bank as amended. |
| $\begin{aligned} & \text { Auditor General- } \\ & 1931 \end{aligned}$ |  |  | 1946 | 53 | Foreign Exchange Control as |
|  | 27 | Consolidated Revenue and |  |  | amended. ${ }_{\text {a }}$ Dominion - Provincial Tax |
|  |  | $\pm$ Audit as amended. | 1947 | 58 | Dominion - Provincial Tax Rental amended. Agreements as |
|  |  |  | 1950 |  | Consumer Credit (Temporary |
| Citizenship and Immigration- |  |  |  |  | Provisions) as amended. |
|  |  |  | 1951 |  | Financial Administration. |
| 1927 | 37 | St. Regis Indian Reservation. |  | 46 | Canadian National Railways |
| R.S.C. 1927 | 93 94 | Immigration as amended. |  |  | Refunding. |
|  | 94 98 | Immigration Aid Societies. <br> Indian as amended. |  |  |  |
| 1934 | 29 | Caughnawaga Indian Reserve. | $\begin{aligned} & \text { Fisheries }- \\ & \text { R.S.C. } 1927 \end{aligned}$ |  |  |
| 1943 | 19 | British Columbia Indian Reserves Mineral Resources. |  | 43 | Customs and Fisheries Protection (as far as it relates |
| 1946 | 15 | Canadian Citizenship as |  |  | to fisheries) |
| 1949 |  | amended. <br> Department of Citizenship and Immigration. |  | 75 | Northern Pacific Halibut Fishery Protection. |

[^36]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

| Department Year and Chapter |  | Name of Act | Departmen Year and Chapte |  | Name of Act |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mines and Technical Surveys- |  | Explosives as amended. <br> Emergency Gold Mining Assistance as amended. <br> Department of Mines and Technical Surveys. Canada Lands Surveys. | National Revenueconcl. <br> 19402 <br> 14 <br> 32 |  |  |
| Hical 1946 | 7 |  |  |  | War Exchange Conservation |
| 1948 | 15 |  |  |  | as amended. <br> Dominion Succession Duty as |
| 1949 | $17 \dagger$ |  |  |  | amended. |
| 1951 | $4 \dagger$ |  |  |  | Excess Profits Tax as amended. |
|  |  |  | 1943 | 21 | United States Tax Convention as amended. |
| National Defence-R.S.C. 1927133 |  |  | 1946 | 7 | Explosives. |
|  |  | Militia Pensions as amended. Visiting Forces (British Commonwealth). |  | 26 | Precious Metals Marking (in |
| 1933 | 21 |  |  | 38 | part). <br> Canada-United Kingdom In- |
| 1947 | 47 | Visiting Forces (United States of America). |  |  | come Tax Agreement as amended. |
| 1950 |  | National Defence. Canadian Forces. |  | 39 | Succession Duty Agreement as amended. |
|  |  |  | 1947 | 17 | Export and Import Permits |
| National Health and Welfare1944 |  |  | 1948 | 34 | as amended. Canada-New Zealand Income |
|  |  | Department of $\begin{gathered}\text { National } \\ \text { Health and }\end{gathered}$ Welfare as amended. | 1948 | 34 52 42 | Tax Agreement as amended. <br> Income Tax as amended. |
| National Health- |  |  | 195 |  | Agreement. |
|  |  | Food and Drugs as amended. <br> Public Works Health as amended. <br> Leprosy as amended. | $\begin{aligned} & \text { Post Office- } \\ & \text { R.S.C. } 1927 \end{aligned}$ |  |  |
|  | 91 |  |  | 179 | Special War Revenue (in part) |
|  | 119 |  |  |  | as amended (name changed |
|  | 151 | Leprosy as amended. <br> Proprietary or Patent Medicine as amended. |  | $57^{*}$ | to Excise Tax, c. 60, 1947). Post Office. |
|  | 168 | Quarantine as amended. <br> Opium and Narcotic Drug as amended. |  |  |  |
| 1929 | 49 |  | Public Archives- |  |  |
| 1934 | 44 | Canada Shipping (Part V, Sick Mariners and Marine Hospitals) as amended. | R.S.C. 1927 | 8 | Public Archives. |
| $\begin{aligned} & \text { Welfare- } \\ & \text { R.S.C. }{ }_{1943}{ }_{1927} \end{aligned}$ |  | Old Age Pensions as amended. | Puhlic Printing and Stationery - |  |  |
|  | 156 |  |  |  |  |
|  | 29 | National Physical Fitness as amended. |  | 2 | Publication of Statutes as amended. |
| 1944 | 40 | Family Allowances as amended. |  | 162 | Public Printing and Stationery as amended. |
| 1951 | $38 *$ | Blind Persons. |  |  |  |
|  | $55^{*}$ | Old Age Assistance. | Public Works- |  |  |
|  | $18 \dagger$ | Old Age Security. | R.S.C. 1927 |  | Expropriation. Ferries. |
| $\begin{aligned} & \text { National Revenue- } \\ & \text { R.S.C. } 1927 \end{aligned}$ |  |  |  | 89 | Government Harbours and Piers (Sect. 5). |
| R.S.C. 1927 | 42 43 | Customs as amended. <br> Customs and Fisheries Pro- <br> tection (in part). |  | 140 | Piers (Sect. 5). <br> Navigable Waters Protection, Part I. |
| 44 |  | Customs Tariff as amended. |  | 166 | Public Works. |
|  | 63 | Export as amended. |  | 167 170 | Government Works Tolls. Railways (Sect. 248). |
| 68 |  | Ferries. Food and Drugs (in part) as |  | 191 | Dry Docks Subsidies. |
|  |  | Food and Drugs (in part) as amended. | 1930 | 191 47 | Act Respecting Vehicular Traf- |
| 97 |  | Income War Tax as amended (name changed to Income Tax). | $\begin{aligned} & 1934 \\ & 1950 \end{aligned}$ | 59 48 | fic on Dominion Property. Public Works Construction. Prime Minister's Residence. |
| 137 |  | Department of National Revenue as amended. | Resources and |  |  |
| 179 |  | Special War Revenue ( in part) as amended (name changed to Excise Tax, c. 60, 1947) | $\begin{aligned} & \text { Development-1 } \\ & \text { R.S.C. } 1908-57-58^{2} \end{aligned}$ |  | National Battlefields at Quebec as amended. |
| 1928 | 31 | Importation of Intoxicating Liquors. | R.S.C. 1927 | 87 88 | Seed Grain. <br> Seed Grain Sureties. |
| 1932 | $\begin{aligned} & 33 \\ & 52 \end{aligned}$ | Gold Export (in part). Excise as amended. |  | 116 | Railway Belt (in part) as amended. |

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



[^38]
## List of the Principal Acts of Parliament Administered by Departments of the Government of Canada-concluded



[^39]
## PART IV.-THE CIVIL SERVICE OF CANADA*

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, bureaus 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 either or both Houses of Parliament directly, a 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 remainderby far the majority-are 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 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.

Statutory preference applicable to veterans of World War I and World War II has been extended to persons who have served in the Korean theatre of operations. Since 1918, upwards of 100,000 veterans have been appointed to the public service, of whom approximately 65,000 have been appointed within the past seven years. The 100,000 figure includes 10,000 disabled veterans who were accorded an additional preference in appointment.

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.

[^40]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 object 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. The classification structure has been simplified in the past few years by a substantial reduction in the number of classes of positions.

Organization and Methods.-Under the terms of the Civil Service Act, the Commission is made responsible for investigating and reporting to the Governor in Council on all matters affecting the organization of departments. In this respect the Commission acts as agent for the executive arm of the Government which maintains a constant check on the growth of establishments. In addition to the annual scrutiny of estimates by Parliament, departments are required to submit for approval all projected staff increases before engaging additional personnel.

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.

Civil Service Statistics. - Monthly returns of personnel and salaries are made by each department of the Federal Government to the Dominion Bureau of Statistics, according to a plan that ensures comparability between departments and continuity in point of time.

From 1914 to 1920, the number of employees increased very rapidly as a result of the extension of the functions of government and of the imposition of new taxes which necessitated additional officials as collectors. New services, such as the Department of Pensions and National Health and the Soldier Settlement Board, were also created during this period. In January 1920, 47,133 persons were employed; this number was the highest reached prior to January 1940, when employees numbered 49,739.

Between March 1939 and March 1951, there was an increase of 78,474 in the total number of permanent and temporary employees. This increase was mainly accounted for as follows: Department of National Defence, 20.8 p.c.; Department of National Revenue, 9.6 p.c.; Post Office Department, 8.9 p.c.; Comptroller of Treasury, 3.8 p.c.; Department of Transport, 4.6 p.c.; Department of Agriculture, $5 \cdot 0$ p.c.; Public Works Department, $3 \cdot 9$ p.c.; Unemployment Insurance Commission, 8.9 p.c.; and Veterans Affairs, including the Soldier Settlement Board, $15 \cdot 0$ p.c.

In March 1951, the number of permanent employees represented 40.6 p.c. of the total number of civil servants as compared with 69.7 p.c. of the total in March 1939, and 66 p.c. of the total in March 1925.

## 1.--Numbers and Percentages of Permanent and Temporary Civil Service Employees, Months of March, 1938-51

Note.-Figures for the years 1925-37 will be found at p. 1141 of the 1946 Year Book.

| $\begin{aligned} & \text { Month } \\ & \text { of } \\ & \text { March- } \end{aligned}$ | Permanent |  | Temporary |  | Grand Total | Month of March- | Permanent |  | Temporary |  | $\begin{aligned} & \text { Grand } \\ & \text { Total } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | $\left\lvert\, \begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}\right.$ | Total | \| $\begin{gathered}\text { P.C. } \\ \text { of } \\ \text { Total }\end{gathered}$ |  |  | Total | $\begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}$ | Total | $\begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}$ |  |
|  | No. |  | No. |  | No. |  | No. |  | No. |  | No. |
| 1938. | 32,308 | $73 \cdot 2$ | 11.835 | 26.8 | 44.143 | 1945. | 30,240 | $26 \cdot 1$ | 85.668 | $73 \cdot 9$ | 115,908 |
| 1939. | 32.132 | 69.7 | 13,974 | $30 \cdot 3$ | 46,106 | 1946. | 31,088 | $25 \cdot 8$ | 89,469 | $74 \cdot 2$ | 120,557 |
| 1940. | 30,948 | 62.2 | 18.791 | 37.8 | 49,739 | 1947. | 29,787 | $23 \cdot 8$ | 95,550 | 76.2 | 125,337 |
| 1941. | 30,149 | $45 \cdot 0$ | 36,777 | 55.0 | 66,926 | 1948. | 33.662 | 28.4 | 84,708 | $71 \cdot 6$ | 118.370 |
| 1942. | 29,524 | 35.2 | 54,257 | 64.8 | 83.781 | 1949. | 37,909 | $30 \cdot 6$ | 86,015 | 69.4 | 123,924 |
| 1943. | 28.708 | $27 \cdot 6$ | 75,347 | 72.4 | 104,055 | 1950 | 45,259 | $35 \cdot 6$ | 81.937 | $64 \cdot 4$ | 127,196 |
| 1944 | 29,343 | 26.0 | 83,315 | $74 \cdot 0$ | 112.658 | 1951 | 50,551 | $40 \cdot 6$ | 74,029 | $59 \cdot 4$ | 124,580 |

## 2.-Salaries and Wages and Percentages Paid to Permanent and Temporary Civil Service Employees, Years Ended Mar. 31, 1938-51

Note.-Figures for the years 1925-37 will be found at p. 1141 of the 1946 Year Book.

| Year <br> Ended <br> Mar. 31- | Permanent |  | Temporary |  | Grand Total | Year Ended Mar. 31 | Permanent |  | Temporary |  | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | $\left\lvert\, \begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}\right.$ | Total | $\begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}$ |  |  | Total | $\left\lvert\, \begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}\right.$ | Total | $\begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}$ |  |
|  | \$'000 |  | \$'000 |  | 8'000 |  | 8'000 |  | \%'000 |  | 8'000 |
| 1938. | 55, 292 | 82.7 | 11,588 | 17.3 | 66,880 | 1945.... | 64,189 | 35.6 | 115,959 | 64.4 | 180,148 |
| 1939. | 56.264 | 80.8 | 13,357 | $19 \cdot 2$ | 69,621 | 1946.... | 66,440 | 34.8 | 124,388 | 65.2 | 190,828 |
| 1940. | 57,154 | 78.1 | 16.044 | 21.9 | 73.198 | 1947.... |  | 31.7 | 152,792 | 68.3 | 223,777 |
| 1941. | 56,108 | 66.0 | 28,857 | 34.0 | 84.965 | 1948. | 78,495 | $34 \cdot 6$ | 148,295 | 65.4 | 226,790 |
| 1942. | 57,609 | 53.1 | 50,815 | $46 \cdot 9$ | 108,424 | 1949. | 99,671 | 37.9 | 163,309 | 62.1 | 262.980 |
| 1943. | 58,747 | 41.5 | 82,955 | 58.5 | 141,702 | 1950. | 119,840 | $42 \cdot 2$ | 163,816 | 57.8 | 283,656 |
| 1944. | 60,358 | 35.8 | 107,614 | $64 \cdot 1$ | 167,972 | 1951. | 141,069 | $47 \cdot 2$ | 157,908 | 52.8 | 298,977 |

3.-Numbers and Percentages of Permanent and Temporary Civil Service Employees at Departmental Headquarters, Ottawa, Months of March, 1938-51

Note.-Figures for the years $1925-37$ will be found at p. 1142 of the 1946 Year Book.

| Month of March- | Permanent |  |  |  | Temporary |  |  |  | Grand <br> Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | P.C. of Total H.Q. | P.C. of Total Perm | P.C. of Total Perm. and Temp. | Total | P.C. of Total H.Q. | P.C. of <br> Total <br> Temp. | P.C. of Total Perm. and Temp. |  |
|  | No. |  |  |  | No. |  |  |  | No. |
| 1938. | 7,731 | $66 \cdot 2$ | 23.9 | 17.5 | 3,941 | 33.8 | $33 \cdot 3$ | 8.9 | 11,672 |
| 1939. | 7,564 | $63 \cdot 8$ | $23 \cdot 5$ | 16.4 | 4,284 | 36.2 | $30 \cdot 7$ | $9 \cdot 3$ | 11,848 |
| 1940. | 7,507 | 53.5 | $24 \cdot 3$ | $15 \cdot 1$ | 6,513 | $46 \cdot 5$ | $34 \cdot 7$ | $13 \cdot 1$ | 14,020 |
| 1941. | 7.419 | $37 \cdot 9$ | $24 \cdot 6$ | $11 \cdot 1$ | 12,174 | $62 \cdot 1$ | $33 \cdot 1$ | 18.2 | 19,593 |
| 1942................ | 7,221 | 26.9 | $24 \cdot 5$ | $8 \cdot 6$ | 19,614 | $73 \cdot 1$ | $36 \cdot 2$ | 23.4 | 26,835 |
| 1943................ | 6,829 | 21.4 | 23.8 | $6 \cdot 6$ | 25,108 | $78 \cdot 6$ | $33 \cdot 3$ | $24 \cdot 1$ | 31,937 |
| 1944. | 6,765 | $20 \cdot 3$ | $23 \cdot 1$ | $6 \cdot 0$ | 26.564 | $79 \cdot 7$ | 31.9 | $23 \cdot 6$ | 33,329 |
| 1945................. | 6,777 | 19.5 | 22.4 | $5 \cdot 8$ | 27,963 | 80.5 | $32 \cdot 6$ | $24 \cdot 1$ | 34,740 |
| 1946 | 6,772 | $20 \cdot 2$ | 21.8 | $5 \cdot 6$ | 26,835 | $79 \cdot 8$ | $30 \cdot 0$ | $22 \cdot 3$ | 33,607 |
| 1947. | 6,582 | 22.0 | $22 \cdot 1$ | $5 \cdot 3$ | 23,276 | 78.0 | $24 \cdot 4$ | $18 \cdot 6$ | 29,858 |
| 1948. | 6,835 | 24.8 | $20 \cdot 3$ | $5 \cdot 8$ | 20.772 | 75.2 | $24 \cdot 5$ | 17.5 | 27,607 |
| 1949. | 7,738 | 26.5 | $20 \cdot 4$ | $6 \cdot 2$ | 21,434 | 73.5 | $24 \cdot 9$ | $17 \cdot 3$ | 29.172 |
| 1950.................. | 8,935 | $30 \cdot 0$ | $19 \cdot 7$ | $7 \cdot 0$ | 20,836 | $70 \cdot 0$ | $25 \cdot 4$ | 16.4 | 29,771 |
| 1951. | 10,799 | 35.9 | 21.4 | $8 \cdot 7$ | 19,270 | $64 \cdot 1$ | $26 \cdot 0$ | $15 \cdot 5$ | 30,069 |

4.-Salaries and Wages and Percentages Paid to Permanent and Temporary Civil Service Employees at Departmental Headquarters, Ottawa, Years Ended Mar. 31, 1938-51.

Note.-Figures for the years 1925-37 will be found at p. 1142 of the 1946 Year Book.

| Year Ended Mar. 31- | Permanent |  |  |  | Temporary |  |  |  | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | P.C. of Total H.Q. | P.C. of Total Perm. | P.C. of Total Perm. and Temp. | Total | P.C. of Total H.Q. | P.C. of Total Temp. | P.C. of Total Perm. and Temp. |  |
|  | \$'000 |  |  |  | \$ 000 |  |  |  | \$'000 |
| 1938. | 15,008 | $79 \cdot 4$ | ${ }^{*} 27.1$ | -22.4 | 3,890 | $20 \cdot 6$ | $33 \cdot 6$ | $5 \cdot 8$ | 18,898 |
| 1939. | 15,175 | $77 \cdot 7$ | $27 \cdot 0$ | 21.8 | 4,347 | $22 \cdot 3$ | 32.5 | $6 \cdot 2$ | 19,522 |
| 1940. | 15,227 | $73 \cdot 5$ | $26 \cdot 6$ | \$ 20.8 | 5,492 | 23.5 | $34 \cdot 2$ | $7 \cdot 5$ | 20,719 |
| 1941. | 15,318 | $58 \cdot 6$ | $27 \cdot 3$ | $18 \cdot 0$ | 10,843 | 41.4 | $37 \cdot 6$ | 12.8 | 26,161 |
| 1942. | 15,589 | $46 \cdot 6$ | $27 \cdot 1$ | 14.4 | 17,882 | $53 \cdot 4$ | $35 \cdot 2$ | 16.5 | 33,471 |
| 1943. | 15,724 | 34.9 | 26.8 | $11 \cdot 1$ | 29,292 | $65 \cdot 1$ | $35 \cdot 3$ | 20.7 | 45.016 |
| 1944. | 15,910 | 31.0 | 26.4 | . $9 \cdot 5$ | 35,368 | $69 \cdot 0$ | $32 \cdot 9$ | 21.1 | 51,278 |
| 1945 | 16.036 | $29 \cdot 5$ | 25.0 | 8.9 | 38,320 | $70 \cdot 5$ | $33 \cdot 0$ | 21.3 | 54,356 |
| 1946. | 16,333 | $29 \cdot 3$ | $24 \cdot 6$ | $8 \cdot 6$ | 39,366 | $70 \cdot 7$ | $31 \cdot 6$ | $20 \cdot 6$ | 55.699 |
| 1947. | 17,180 | $30 \cdot 2$ | $24 \cdot 2$ | $7 \cdot 7$ | 39,703 | $69 \cdot 8$ | 26.0 | 17.8 | 56,883 |
| 1948. | 18.893 | 34.5 | $24 \cdot 1$ | $8 \cdot 3$ | 35.814 | 65.5 | $24 \cdot 2$ | 15.8 | 54,707 |
| 1949. | 22,699 | 36.1 | 22.8 | $8 \cdot 6$ | 40.202 | $63 \cdot 9$ | $24 \cdot 6$ | $15 \cdot 3$ | 62,901 |
| 1950 | 26,850 | $39 \cdot 1$ | 22.4 | $9 \cdot 5$ | 41.748 | $60 \cdot 9$ | 25.5 | 14.7 13.7 | 68,598 72,900 |
| 1951. | 31,832 | $43 \cdot 7$ | 22.6 | 10.7 | 41,068 | $56 \cdot 3$ | 26.0 | 13.7 | 72,900 |

## 5.-Index Numbers of Permanent and Temporary Civil Service Employees, Months of March, 1938-51

Note.-Figures for the years $1925-37$ will be found at p. 1143 of the 1946 Year Book.
(March $1925=100$ )

| Month of March- | Employed at Departmental Headquarters |  |  | Employed other than at Departmental Headquarters |  |  | Total Employed |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Perm. | Temp. | Total | Perm. | Temp. | Total | Perm. | Temp. |
| 1938. | 116 | 119 | 109 | 113 | 129 | 80 | 113 | 127 | 88 |
| 1939. | 117 | 117 | 119 | 119 | 129 | 99 | 118 | 126 | 104 |
| 1940. | 139 | 116 | 180 | 124 | 123 | 125 | 128 | 121 | 140 |
| 1941. | 194 | 115 | 337 | 164 | 119 | 251 | 172 | 118 | 274 |
| 1942. | 266 | 111 | 543 | 197 | 117 | 353 | 215 | 116 | 404 |
| 1943. | 316 | 105 | 695 | 250 | 115 | 512 | 267 | 112 | 561 |
| 1944. | 330 | 104 | 735 | 275 | 119 | 579 | 289 | 115 | 621 |
| 1945. | 344 | 105 | 774 | 281 | 123 | 588 | 298 | 118 | 638 |
| 1946. | 333 | 105 | 743 | 301 | 128 | 639 | 310 | 122 | 667 |
| 1947. | 296 | 102 | 644 | 331 | 122 | 737 | 322 | 117 | 712 |
| 1948. | 274 | 106 | 575 | 315 | 141 | 652 | 304 | 132 | 631 |
| 1949. | 289 | 119 | 593 | 328 | 158 | 658 | 318 | 149 | 641 |
| 1950. | 295 | 138 | 577 | 338 | 191 | 623 | 327 | 177 | 610 |
| 1951. | 298 | 167 | 533 | 328 | 209 | 558 | 320 | 198 | 552 |

6.-Index Numbers of Salaries and Wages Paid to Permanent and Temporary Civil Service Employees, Years Ended Mar. 31, 1938-51
Nore.-Figures for the years 1925-37 will be found at p. 1143 of the 1946 Year Book.
(Year ended Mar. 31, 1925=100)

| Year Ended Mar. 31- | Employed at Departmental Headquarters |  |  | Employed other than at Departmental Headquarters |  |  | Total Employed |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Perm. | Temp. | Total | Perm. | Temp. | Total | Perm. | Temp. |
| 1938. | 120 | 126 | 100 | 117 | 139 | 64 | 118 | 135 | 73 |
| 1939. | 123 | 127 | 112 | 122 | 142 | 75 | 123 | 138 | 84 |
| 1940. | 131 | 128 | 141 | 128 | 145 | 87 | 129 | 140 | 101 |
| 1941: | 165 | 128 | 279 | 143 | 141 | 149 | 150 | 137 | 181 |
| 1942. | 212 | 131 | 460 | 183 | 145 | 273 | 191 | 141 | 318 |
| 1943..................... | 285 | 132 | 754 | 236 | 149 | 444 | 249 | 144 | 520 |
| 1944. | 324 | 133 | 910 | 285 | 154 | 598 | 296 | 148 | 674 |
| 1945. | 343 | 134 | ${ }^{986}$ | 307 | 166 | 643 | 317 | 157 | 726 |
| 1946. | 352 | 137 | 1,013 | 330 | 173 | 704 | 336 | 163 | 779 |
| 1947. | 360 | 144 | 1,022 | 407 | 186 | 936 | 394 | 174 | 957 |
| 1948. | 346 | 158 | 922 | 420 | 206 | 931 | 399 | 192 | 929 |
| 1949. | 398 | 190 | 1,035 | 488 | 266 | 1,019 | 463 | 244 | 1,023 |
| 1950. | 434 | 225 | 1,075 | 525 | 321 | 1,011 | 499 | 293 | 1,026 |
| 1951..................... | 461 | 267 | 1,057 | 551 | 378 | 967 | 526 | 345 | 989 |

## 7.-Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March 1950 and March 1951

Nore.- The number of persons in the "non-enumerated classes" is not included in this table, but their compensation is included under "Salaries and Wages".

| Department and Branch | March 1950 |  | March 1951 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Employees | Salaries and Wages | Employees | Salaries and Wages |
|  | No. | \$ | No. | \$ |
| Agriculture- |  |  |  |  |
| Departmental Administration. | 148 | 31,423 | 164 | 48,636 |
| Marketing Service. | 943 | 201,927 | ${ }^{912}$ | 308,506 |
| Production Service | 1,628 | 349,679 | 1,531 | 559,648 |
| Experimental Farms | 1,563 | 293,153 | 1,722 | 423,124 |
| Science Service. | 1,242 | 264,368 | 1,376 | 434,724 |
| Prairie Farm Rehabilitation | 977 | 136,650 | 1,204 | 198, 107 |
| Prairie Farm Assistance Act | 114 | 15,484 | 88 | 19,283 |
| Agricultural Prices Support | 11 | 1,858 | 14 | 5,086 |
| Maritime Marshlands Act. | 41 | 6,078 | 67 | 14,956 |
| Totals, Agriculture | 6,667 | 1,300,620 | 7,078 | 2,012,070 |
| Atomic Energy Control Boa | \% | 2,167 | 7 | 2,917 |
| Auditor General. | 169 | 42,399 | 163 | 58,676 |
| Chief Electoral Officer | 13 | 3,463 | 14 | 4,621 |
| Citizenship and Immigration- |  |  |  |  |
| Administrative Branch... | 48 | 9,959 | 39 | 13,182 |
| Canadian Citizenship Branc | 24 | 5,368 | 29 | 9,583 |
| Canadian Citizenship Registration Branc | 82 | 12,525 | 81 | 19,063 |
| Immigration.. | 1,468 | 287,278 | 1,659 | 464,799 |
| Indian Affairs | 1,035 | 209,694 | 1,109 | 273,499 |
| Totals, Citizenship and Immigration. | 2,657 | 524,824 | 2,917 | 780,126 |
| Civil Service Commission | 580 | 112,574 | 536 | 154,342 |
| Commissioner of Penitentiaries | 1,364 | 277,875 | 1,509 | 457,503 |
| External Affairs- |  |  |  |  |
| Administration. | 531 | 107,019 | 542 | 164,195 |
| Passport Offices | 62 | 9,587 | 57 | 13,493 |
| International Civil Aviation Organization, Montreal. | 2 | ${ }_{345}$ | - |  |
| High Commissioner's Office, London, England... | 89 | 21,2201 | 91 | 26,4751 |
| High Commissioner's Office, Canberra, Australia. | 15 | 3,7781 | 14 | 3.8861 |
| High Commissioner's Office, Wellington, N.Z....... | 11 | 2,964 ${ }^{1}$ | 14 | 4,035 ${ }^{1}$ |
| High Commissioner's Office, Dublin, Ireland. | 14 | 4,6431 |  |  |
| High Commissioner's Office, Pretoria, South Africa. | 10 | 2,4661 | 9 | 2,6591 |
| High Commissioner's Office, Delhi, India......... | 24 | 5,6581 | 24 | 6,900 ${ }^{1}$ |
| High Commissioner's Office, Karachi, Pakistan | 10 | 3,0461 | 15 | $3.596^{1}$ |
| Canadian Embassy, Rio de Janeiro, Brazil. ........ | 17 | 6.6371 | 18 | 7,3101 |
| Canadian Embassy, Washington, U.S.A........... | 70 | 26,5291 | 68 | 29,1351 |
| Canadian Embassy, Mexico City, Mexico........... | 15 | 6,2931 | 18 | 6,0851 |
| Canadian Embassy, Moscow, U.S.S.R. | 19 | 5.5561 | 17 | 7,122 ${ }^{1}$ |
| Canadian Embassy, Santiago, Chile. | 8 | 3,966 ${ }^{1}$ | 11 | 5.4431 |
| Canadian Embassy, Paris, France.. | 52 | 20,815 ${ }^{1}$ | 52 | 21,3231 |
| Canadian Embassy, Nanking, China. | 23 | 4,7281 | 8 | 1,2811 |
| Canadian Embassy, Lima, Peru..... | 6 | 2,2451 | 8 | 4,7251 |
| Canadian Embassy, Brussels, Belgium | 22 | 7,4901 | 19 | 7,4071 |
| Canadian Embassy, Buenos Aires, Argentina | 15 | 5, $606^{1}$ | 16 | 7,8871 |
| Canadian Embassy, Athens, Greece......... | 19 | 5,6721 | 21 15 | 5,9231 4,6961 |
| Canadian Embassy, Ankara, Turkey | 16 16 | 4.5921 ${ }_{4}$ | 15 17 | 4,6961 |
| Canadian Embassy, Rome, Italy. | 19 | 6,2321 | 24 | 8,1551 |
| Canadian Embassy, Dublin, Ireland. | - | - | 13 | 3,2421 |
| Canadian Embassy, Havana, Cuba.. | - | - 002 | 11 | 4,3171 |
| Canadian Legation, Havana, Cuba. | 11 | 4,0621 |  |  |
| Canadian Legation, Oslo, Norway. | 13 | 3,3391 | 13 | 3,9491 |
| Canadian Legation, Prague, Czechoslovakia | 13 | ${ }_{3}^{2,9521}$ | 14 | 4,2601 4,1451 |
| Canadian Legation, Stockholm, Sweden. | 11 9 | 3,6771 $3,470{ }^{1}$ 3 | 11 | 4, $4,637^{1}$ |
| Canadian Legation, Berne, Switzerland... | 8 | 3,4701 3,2991 | 12 | 4,6341 |
| Canadian Legation, Copenhagen, Denmark... | 14 | 3,7721 | 10 | 2,1841 |
| Canadian Legation, Warsaw, Poland. . . . . . . | 8 | 1,798 ${ }^{1}$ | 8 | 3,800 ${ }^{1}$ |
| Canadian Delegation to the United Nations, New York, U.S.A. | 12 | 5,961 ${ }^{1}$ | 12 | 8,242 ${ }^{1}$ |
| ${ }^{1}$ Includes living allowances. "Canadian Embassy, Havana, Cuba". | dian | assy, Dubl | Irelan | ${ }^{3} \mathrm{Se}$ |

## 7.-Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March 1950 and March 1951-continued

| Department and Branch | March 1950 |  | March 1951 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Employees | Salaries and Wages | Employees | Salaries and Wages |
|  | No. | \$ | No. | \$ |
| External Affairs-concluded <br> Canadian Delegation to the United Nations, Geneva, |  |  |  |  |
|  |  |  |  |  |
| Consular Services, New York, U.S.A................ | 26 | 10,992 ${ }^{1}$ | 28 | 13,7081 |
| Consular Services, Portland, U.S.A. | 1 | , 220 | 1 | 209 |
| Consular Services, Boston, U.S.A. | 8 | 3,8311 | 7 | 3,8441 |
| Consular Services, Chicago, U.S.A................... | 10 | 4,6701 | 10 | 5,3411 |
| Consular Services, Detroit, U.S.A................ | ${ }^{6}$ | 2, 4621 | 6 | 2,9112 |
| Consular Services, San Francisco, U.S.A............. | 10 | 4.7131 | 11 | 5,2351 |
| Consular Services, Frankfurt, Germany. | 8 | 1,7671 | 12 | 3,872 |
| Consular Services, Shanghai, China................ | - | - | 6 | 2,1841 |
| Consular Services, Caracas, Venezuela.............. | - | - 0171 | 5 | 4,382 ${ }^{\text {² }}$ |
| Canadian Military Mission, Berlin, Germany ....... | 27 | 1,0171 | 2 | 575 |
| Canadian Liaison Mission, Japan.............. | 27 | 3,4211 | 24 | 5,1761 |
| Canadian Mission, Bonn, Germany ................ | 6 | 2,990 ${ }^{1}$ | 18 | 6,571 ${ }^{1}$ |
| tion, Paris, France | - | 1,4231 | 8 | 6,325 |
| Special Messengers................................ . | 6 | 1,4231 | 6 | 1,210 ${ }^{1}$ |
| Totals, External Affairs. | 1,301 | 343,5391 | 1,342 | 455,260 |
| Finance- |  |  |  |  |
| Main Department. | 645 | 119,596 | 602 | 172,393 |
| Comptroller of Treasury | 4,300 | 775,184 | 4,034 | 1,098,326 |
| Royal Canadian Mint | 222 | 46,629 | 222 | 71,000 |
| Tariff Board. | 17 | 6,454 | 17 | 6,896 |
| Wartime Prices and Trade Board | 690 | 157,301 | 260 | 108,308 |
| Totals, Finance | 5,874 | 1,105,164 | 5,135 | 1,456,923 |
| Fisheries................... | 883 | 277,332 | 962 . | 420,553 |
| Governor General's Secretary ${ }^{2}$ | 10 | 3,432 | 10 | 4,380 |
| House of Commons. | 656 | 117,679 | 662 | 138,138 |
| Insurance........... | 72 | 19,295 | 82 | 30,001 |
| International Joint Commission. | 10 | 3,489 | 11 | 4,694 |
| Justice- |  |  |  |  |
| Main Department | 71 | 17,945 | 74 | 25,730 |
| Remission Service | 23 | 5,485 | 24 | 7,945 |
| Supreme Court. | 29 | 7,262 | 33 | 10,715 |
| Exchequer Court....... | 15 | 3,706 | 17 | 5,662 |
| Combines Investigation | 32 | 8,420 | 31 | 11,491 |
| Bankruptey ............................ | 8 | 2,155 | 10 | 3,600 |
| Commission under Revision of Criminal Code. | 2 |  | 4 | 1,808 |
| Commission under Revision of Public Statutes | 10 | 3,317 | 9 | 3,039 |
| Yukon Territorial Court. | 2 | 599 | 2 | 759 |
| Totals, Justice. | 192 | 46,7314 | 204 | 70,749 |
| Labour- |  |  |  |  |
| Main Department... | 645 | 190,629 | 635 | 240, 187 |
| Unemployment Insurance | 7,148 | 1,557,293 ${ }^{1}$ | 7,051 | 1,994,388 ${ }^{1}$ |
| Totals, Labour | 7.793 | 1,747,922 | 7,686 | 2,234,575 |
| Library of Parliament........ |  |  |  |  |
| Mines and Technical Surveys | $1,661$ | $393,062$ | $\begin{aligned} & 30 \\ & 1,720 \end{aligned}$ | $\begin{array}{r} 12,100 \\ 570,521 \end{array}$ |
| National Defence- |  |  |  |  |
| General Defence Administration. | 736 | 158,108 | 1,057 | 265,531 |
| Army Services. | 7,280 | 1,953, 674 | 7,119 | 2,510,652 |
| Naval Services | 4.022 | 1,277,875 | 4,119 | 1,702.645 |
| Air Services. | 3,707 | 880.893 | 4,121 | 1,197,907 |
| Defence Research Board | 1,102 | 282,750 | 1,341 | 440,514 |
| Totals, National Defence. | 16,847 | 4,553,300 | 17,757 | 6,117,249 |
| National Film Board. | 596 | 136, 189 | 565 | 180,166 |

[^41]
## 7.-Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March 1950 and March 1951-continued

| Department and Branch | March 1950 |  | March 1951 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Employees | Salaries and Wages | Employees | Salaries and Wages |
|  | No. | \$ | No. | § |
| National Health and Welfare- |  |  |  |  |
| Departmental Administration. | 268 | 48,093 | 257 | 68,751 |
| Health. | 847 | 207,064 | 880 | 290,794 |
| Welfare. | 755 | 132,601 | -733 | 189,034 |
| Indian Health Services | 931 | 143,223 | 1,084 | 205,004 |
| Totals, National Health and Welfare | 2,801 | 530,981 | 2,954 | 753,583 |
| National Research Council. | 1,694 | 400,167 | 1,891 | 624,563 |
| National Revenue- |  |  |  |  |
| Customs and Excise Division. | 6,086 | 1,381,617 | 6,194 | 2,087,859 |
| Income Tax Division.......... | 10,629 | 1,994,705 | 7,011 | 2,229,992 |
| Totals, National Revenue. | 16,715 | 3,376,322 | 13,205 | 4,317,851 |
| Post Office-1 |  |  |  |  |
| Civil Government. | 1,046 18,050 | 205,391 $10,253,745$ | 1,003 18,475 | $\begin{array}{r} 291,047 \\ 12,008,285 \end{array}$ |
| Totals, Post Office. | 19,096 | 10,459,136 | 19,478 | 12,299,332 |
| Prime Minister's Office. | 34 | 8,411 | 37 | 12,502 |
| Privy Council. | 53 | 12,823 | 48 | 16.532 |
| Public Archives. | 61 | 14,333 | 59 | 19,456 |
| Bibliographic Centre (National library) | - |  |  | 1,679 |
| Public Printing and Stationery. | 991 | 303,375 | 1,041 | 335,186 |
| Public Works- |  |  |  |  |
| Civil Government Outside Service... | $\begin{array}{r} 385 \\ 6,569 \end{array}$ | 86,239 901,054 | 413 6,818 | $\begin{array}{r} 128,507 \\ 1,157,355 \end{array}$ |
| Totals, Public Works. | 6,954 | 987,293 | 7.231 | 1,285, 862 |
| Resources and Development-z |  |  |  |  |
| Main Department................. | ... | ... | 1,296 | 417,553 |
| Engineering and Water Resources Branch........... | ... | ... | 65 | 26,440 |
| Water Resources Division and Engineering and Architectural Division. | ... | ... | 328 | 98,216 |
| Totals, Resources and Development......... | 1,570 | 391,753 | 1,689 | 542,209 |
| Royal Canadian Mounted Police | 568 | 612,440 | 622 | 2,332,058 |
| Secretary of State. | 481 | 107,405 | 491 | 160,256 |
| Office of the Custodian ${ }^{3}$ | 127 | 31,852 | 97 | 25,711 |
| Senate.................. | 156 | 28,217 | 159 | 45,099 |
| Trade and Commerce- |  |  |  |  |
| Headquarters and Miscellaneous Branches.......... | 1,385 | 313,964 | 1,374 | 433.728 |
| Board of Grain Commissioners....................... | . 813 | 170,471 | 779 | 167,963 |
| Dominion Bureau of Statistics.. | 1,413 | 217, 213 | 1,398 | 381,822 |
| Canadian Government Elevators | 137 | 26,827 | 169 | 46,475 |
| Totals, Trade and Commerce. | 3,748 | 758,475 | 3,720 | 1,029,988 |

[^42]
## 7.-Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March 19450 and March 1951-concluded

| Department and Branch | March 1950 |  | March 1951 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Employees | Salaries and Wages | Employees | Salaries and Wages |
|  | No. | \$ | No. | \$ |
| Transport- |  |  |  |  |
| Main Department. | 9,435 | 2,091,684 | 9,056 | 2,861,531 |
| Transport Commissioners. | 155 | 40,775 | 158 | 59,781 |
| Air Transport Board............................. | 48 | 12,504 | 54 | 19,056 |
| Canadian Maritime Commission.................... | 34 | 10,239 | 32 | 12,979 |
| Royal Commission on Transportation | 10 | 1,605 | 1 | 654 |
| Totals, Transport. | 9.682 | 2,156,807 | 9,301 | 2,954, 001 |
| Veterans Affairs- |  |  |  |  |
| Main Department.................... | 13,748 | 2,421,363 | 12,931 | 3,336,615 |
| Soldier Settlement and Veterans' Land Act. | 1,334 | 280,954 | 1,224 | 409,778 |
| Totals, Veterans Affairs. | 15,082 | 2,702,317 | 14,155 | 3,746.393 |
| Grand Totals. | 127,196 | 33,900,863 | 124,580 | 45,668,4851 |

${ }^{1}$ Includes $\$ 8,469,000$ salary adjustments retroactive to Dec. 1, 1950.

## PART V.—GANADA'S EXTERNAL RELATIONS

## Section 1.-Canada's Growth in International Status*

The development of the Department of External Affairs is an excellent illustration of the growth of Canada in external status. It was not until forty years after Confederation that a veteran civil servant, Joseph Pope, then Under-Secretary of State, appeared before the Royal Commission on the Civil Service to testify in support of his memorandum on the urgency and desirability "of establishing a more systematic mode of dealing with what I may term for want of a better phrase, the external affairs of the Dominion" Two years later (1909) Prime Minister Sir Wilfred Laurier sponsored a bill for the creation of the Department of External Affairs which stipulated that its head should "have the conduct of all official communications between the Government of Canada and the Government of any other country in connection with the external affairs of Canada". The term "external affairs" was used in order that the new Department should have responsibility for communications of an intra-imperial as well as of an international character. Initially the Secretary of State was placed in charge of the Department but in 1912 Sir Robert Borden secured legislation to vest the office in the Prime Minister with whom it remained until 1946. In that year it was separated from the Prime Minister's Office and headed by a full-time Secretary of State for External Affairs.

When war came in 1914 the Department was still on a very modest basis with only two officers. The chief reason for this unobtrusiveness was the fact that Canada possessed at that time no effective control of its external relations. Its representation abroad was confined to a High Commissioner in London (since 1880), whose office did not come under the jurisdiction of the new Department until 1921, and a Commissioner-General in France (since 1882), neither of whom possessed diplomatic status. Other Canadians were serving abroad as trade commissioners

[^43]or emigration agents but they represented individual departments and not the Government as a whole. Negotiations on such questions as trade and boundaries were conducted through the medium of the British Foreign Office, although Canadian Ministers and civil servants might, on occasion, take the major part in negotiations, as when the Minister of Labour went to Tokyo in 1907 to discuss the vexed question of Japanese emigration to Canada. It was not until the Imperial Conference of 1911 that Canada and the other Dominions were given a glimpse of the workings of British diplomacy in Europe, when it was made clear by Prime Minister Asquith that authority in that field could not be shared.

The great watershed in Canadian policy was World War I. In France and Flanders, Canadian soldiers bought with their blood the title deeds to Canadian external autonomy. By virtue of their achievements from Ypres to Mons, Prime Minister Sir Robert Borden could claim for Canada at the Imperial Conference of 1917 an "adequate voice in foreign policy" and could secure separate representation from the United Kingdom at the Peace Conference, separate signature of the Peace Treaties, and separate membership in the League of Nations.* In 1926 the Balfour Report formally described the new relationship of the Dominions and of India to the United Kingdom as being that of "autonomous communities equal in status and in no way subordinate one to the other in any respect of their domestic or external affairs " In the meantime Canada had signed (1923) its first international treaty (on the regulation of halibut fishing on the Pacific coast) with the United States without the usual counter-signature of the British Ambassador resident in the country with which the treaty had been negotiated. An office at Geneva had been established in 1925 under Dr. W. R. Riddell for the conduct of Canadian affairs with the League of Nations. Both the United Kingdom and the United States had agreed to the creation of a separate Canadian Mission at Washington which originally was to have been combined with the British Embassy.

The need for such an office had long been felt because of the number and complexity of questions which inevitably arose in Canadian-American relations. In 1918 a Canadian War Mission was established at Washington and its secretary Merchant Mahoney remained, when the Mission ended, as Agent of the Department of External Affairs but without diplomatic status. Although the right to establish a Canadian Mission had been conceded in 1920, it was not until February 1927 that the first Canadian Minister, the Hon. Vincent Massey, formally presented his credentials to the President of the United States. Shortly afterwards the Hon. William Phillips became the first Minister from the United States to Canada. The new Legation at Washington was entirely separate from the British Embassy.

After July 1, 1927, as a result of the decision of the Imperial Conference of 1926 that in future the Governor General in each Dominion should represent the King alone, correspondence between the Governments of the United Kingdom and Canada was addressed directly to the Secretary of State for External Affairs. To represent the United Kingdom Government at Ottawa, a High Commissioner was appointed in 1928. Sir William Clark was the first to fill that post. No other Commonwealth country established an office in Canada before the outbreak of World War II except South Africa which sent an Accredited Representative, David deWaal Meyer, in 1938.

[^44]The first Canadian Legation in Europe was opened at Paris in 1928. This was to be expected since almost 30 p.c. of the Canadian people were descendants of the little group of French settlers who had struggled to build up New France in the Western Hemisphere. The first appointee was the Hon. Philippe Roy who had served at Paris during the previous seventeen years as Commissioner General. The first Canadian diplomatic Legation in Asia was established at Tokyo in 1929 with the Hon. Herbert Marler as the first Minister. Exchange of Missions with Japan was based on the expectation of rapidly increasing trade with the Orient, on the role of Japan as the major power in the Far East, and on the advisability of having a diplomat available in the Japanese capital for discussions, when necessary, of immigration matters.

At the close of the 1920's, Canada was gradually securing recognition abroad of its expanding international status. Election to the League of Nations Council in 1927, the first occasion on which the Assembly had chosen a British Dominion to serve on that body, and an individual invitation from the United States to sign the Pact of Paris in 1928, were indications that the world was beginning to appreciate the implications of the evolution of the British Commonwealth of Nations. At London, it was becoming apparent that the possibility of maintaining a single imperial foreign policy, as had been claimed by Lloyd George in 1921, was disappearing, and the most that could be hoped for was the preservation of a harmony of opinion on major questions of foreign policy. At Ottawa, the Department of External Affairs was slowly expanding its personnel and broadening its influence in government circles under the leadership of Dr. O. D. Skelton, a distinguished scholar who left Queen's University to become Under Secretary of State for External Affairs in 1925.

The depression years of the 1930's were a factor in retarding the expansion of the Department of External Affairs and prevented the creation of more Missions, except in Belgium and the Netherlands which had initiated proposals for an exchange. In 1937 Baron Silvercruyṣ established Belgium's Legation at Ottawa, but it was not until 1939 that Mr. Jean Désy was accredited as Canada's Minister to both of the Low Countries. During that period, as the shadow of war fell across Asia, Africa and Europe in turn, the Canadian Government made clear at Geneva its rejection of automatic advance commitments to economic or military sanctions against an aggressor, but privately at Berlin (1937) and publicly Prime Minister King declared that "If there was a war of aggression nothing in the world would keep the Canadian people from being at the side of Britain" Similarly, in 1938, President Roosevelt pledged American support if domination of Canadian soil were threatened by an overseas empire and the two countries began to concert their defence arrangements. In 1939, only after Parliamentary approval had been received did the Government of Canada forward to London, for the King's signature, a separate declaration of war upon Germany from that previously made by the United Kingdom. The action of the United States Government in not applying the neutrality legislation to Canada until this step had been taken was a significant recognition of Canada's advance in status.

The war years gave Canada greater stature in international affairs. The substantial contribution which the country was able to make to the Allied cause in both its military and economic aspects and the relative decline in strength of many European countries made it necessary for her to assume new and greater responsibilities. At the close of the War, Canada ranked third among the Allies in naval strength and fourth in air power. Alone among the Allies, Canada had not required Lend-Lease Aid from the United States but had contributed almost
$\$ 2,250,000,000$ of Mutual Aid. During and after the War, to further reconstruction, almost $\$ 600,000,000$ was advanced as Export Credits to a number of countries and a loan of $\$ 1,250,000,000$ was extended to the United Kingdom. In the operations of UNRRA, Canada was the third largest contributor and one of the major sources of supply.* Because of these achievements and the constructive policies of its representatives at the numerous international conferences at the close of the War and thereafter, Canada came to be regarded as a "Middle Power"

The rapid expansion of Canadian representation abroad has reflected these changed conditions. Immediately after war was declared it was decided to send High Commissioners to Australia, New Zealand, South Africa and Ireland. In the post-war period similar arrangements were made with India and Pakistan. Exchanges were made with Canada's allies, initially by accrediting a single Minister, Major-General George P. Vanier, to the Allied Governments established at London and by sending Ministers to the wartime capitals of China and the U.S.S.R. During the War, neutral countries such as Sweden and Turkey also sent Ministers to Ottawa with the understanding that Canada would reciprocate in the post-war period. To emphasize hemispheric solidarity against the Axis powers and with a view to furthering commercial opportunities in Latin America, Missions were opened during the War in Argentina, Brazil, Chile, Cuba, Mexico and Peru. No new Missions have been opened there since the War but a Consulate-General was created in Venezuela. Uruguay has had a Legation at Ottawa since 1947. In 1943 the first Canadian Mission was elevated to the rank of Embassy in the United States and since that time the majority of Canadian Missions abroad have achieved a similar rank. Although for various special reasons Consulates were established during the War in Greenland and St. Pierre and Miquelon and a Consulate-General at New York, it was not until 1947 that a Consular Division was established in the Department. Since that time, in addition to the six consular offices in the United States, the new Division has been concerned with offices in Brazil, China, Germany, the Philippines and Venezuela. At the end of 1951, Canada had Embassies in eighteen countries, Legations in eight countries, High Commissioner's offices in six countries, and Missions of a special character at Tokyo and Berlin, or accredited to the United Nations Organization at New York and Geneva, and to the Organization for European Economic Co-operation at Paris. The Canadian diplomatic representatives in Belgium, Norway and Sweden are also accredited to Luxembourg, Iceland and Finland where, at present, Legations are not maintained. In January 1952, Canada and Portugal agreed to establish diplomatic relations-a step facilitated by their common membership in the North Atlantic Treaty Organization. To staff these offices as well as headquarters at Ottawa, over 250 foreign-service officers, including heads of Missions, are required.

But it is not only diplomats, consuls and trade commissioners who represent Canada abroad in almost fifty countries. The presence of Canadian soldiers, sailors and airmen in Korea, Germany, France and the United Kingdom is proof positive that the Canadian people are prepared to play their part in combating or deterring aggression in Asia or Europe. The despatch of Canadian technical experts to under-developed countries either at the request of the United Nations or in accordance with the Colombo Plan, and the appropriation of funds to further economic recovery overseas are a demonstration of Canadian willingness to help build a happier world with higher living standards.
*Cf. "Canada's Part in the Relief and Rehabilitation of the Occupied Territories", Canada Year Book 1945, pp. 79-85.

# Section 2.-Diplomatic Representation ${ }^{1}$ 

1.-Canadian Representation Abroad

|  | Present Status of Representative | Address | Present Representative | Date Letter of Credence Presented |
| :---: | :---: | :---: | :---: | :---: |
| Argentina........ 1941 | Ambassador | Bartolome Mitre, 478, Buenos Aires. | Major - General The Hon. L. R. LaFlèche, D.S.O. | (nominated) |
| Australia. . . . . . 1939 | High Commissioner | State Circle, Canberra. . | Mr. C. F. Elliott, C.M.G., Q.C. | June 9, 1951 ${ }^{7}$ |
| Belgium......... 1939 | Ambassador | 35, rue de la Science, Brussels. | Lieutenant - General Maurice Pope, C.B., M.C. | $\underset{1950}{\text { Aug. } 3 \text {, }}$ |
| Brazil. .......... 1941 | Ambassador. | Avenida President Wil son, 165, 7th Floor, Rio de Janeiro. | Dr. E. H. Coleman, C.M.G., Q.C. | $\begin{gathered} \text { Dec. } 4 \text {, } \\ 1951 \end{gathered}$ |
| Chile............ 1942 | Ambassador. | Bank of London and South America Bldg., Santiago. | Mr. Leon Mayrand.... | $\underset{1951}{\text { May }} 17$ |
| Cuba............ 1945 | Ambassador | Avenida de las Misiones No. 17, Havana. | Mr. H. A. Scotr........ | $\begin{gathered} \text { Jan. } 15 \\ 1952 \end{gathered}$ |
| Czechoslovakia. . 1942 | Chargé d'Affaires ad interim. | Krakowska 22, Prague, 2 | Mr. J. M. Teakles..... |  |
| Denmark........ 1946 | Minister | Osterbrogade 26, Copenhagen. | Mr. E. D. McGreer. . . |  |
| Finland.......... 1949 | Minister | Borgmästarbrinken 3-C.32, Helsinki. | Mr. W. D. Matthews. . | (nominated) |
| France........... 1928 | Ambassador | 72 avenue Foch, Paris XVI. | Major-General George P. Vanier, D.S.O., M.C. | $\begin{gathered} \text { Dec. } 20, \\ 1944 \end{gathered}$ |
| Germany........ 1951 | Ambassador | Zittelmann Strasse 22, Bonn. | Hon. T. C. Davis, Q.C. | $\underset{1951}{\text { Aug. }^{16},}$ |
| Greece.......... 1943 | Ambassador. | 31 Queen Sofia Boulevard, Athens. | Mr. George L. Magann | $\begin{aligned} & \text { Nov. 23, } \\ & 1949 . \end{aligned}$ |
| Iceland......... 1949 | Minister | c/o Canadian Legation, Fridtjof Nansens Plass 5, Oslo, Norway. | Mr. E. J. Garland..... | $\begin{gathered} \text { Aug. 11, } \\ 1949 \end{gathered}$ |
| India............ 1946 | High Commissioner | 4 Aurangzeb Road, New | Mr. E. Reid. | (nominated) |
| 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.. | $\begin{gathered} \text { June } 13, \\ 1952 \end{gathered}$ |
| Japan............ 1952 | Chargé d'Affaires ad interim. | 16 Omote - Machi, 3 Chrome, Minato - Ku, Tokyo. | Mr. A. R. Menzies..... | $\begin{gathered} \text { Apr. } 28, \\ 1952 \end{gathered}$ |
| Luxembourg..... 1945 | Minister | c/o Canadian Embassy, 46, rue Montoyer, Brussels, Belgium. | $\begin{aligned} & \text { Lieutenant - General } \\ & \text { Maurice Pope, C.B., } \\ & \text { M.C. } \end{aligned}$ | $\underset{1950}{\text { July }^{28},}$ |
| Mexico........... 1944 | Ambassador. | Edificio Internacional, Paseo de la Reforma, No. 1, Mexico City. | Mr. C. P. Hébert...... | $\underset{1949}{\text { Feb. } 24,}$ |
| Netherlands..... 1939 | Ambassador........ | Sophialaan 1A, The Hague. | Mr. T. A. Stone...... | (nominated) |

[^45]
## 1.-Canadian Representation Abroad-continued

| Country and Year Representation Established | Present Status of Representative | Address | Present Representative | Date <br> Letter of Credence Presented |
| :---: | :---: | :---: | :---: | :---: |
| New Zealand.... 1940 | High Commissioner | Government Life Insurance Bldg., Customs Quay, Wellington. | Mr. A. Rive. . . . . . . . . | $\underset{19461}{\text { Aug. }}$ |
| Norway. . . . . . . 1943 | Minister | Fridtjof Nansens Plass 5, Oslo. | Mr. E. J. Garland..... | $\begin{gathered} \text { Oct. } 21, \\ 1947 \end{gathered}$ |
| Pakistan........ 1949 | High Commissioner | Metropole Hotel, Victoria Road, Karachi. | Mr. K. P. Kirkwood. . | $\begin{aligned} & \text { Jan. 10, } \\ & 1952^{1} \end{aligned}$ |
| Peru............ . 1944 | Ambassador. | Edificio Boza, Plaza San Martin, Lima. | Mr. E. Vaillancourt... | $\begin{gathered} \text { Sept. } 27 \text {, } \\ 1950 \end{gathered}$ |
| Poland. . . . . . . . 1942 | Chargé d'Affaires ad interim. | 31 Ulica Katowicka, Saska Kepa, Warsaw. | Mr. T. Lem. Carter... | $\underset{1952!}{\text { Apr. } 17,}$ |
| Portugal......... 1952 | Minister | Rua Rodrigo da Fonseca 103-4, Lisbon. | Hon. W. F. A. Turgeon, Q.C. | $\begin{gathered} \text { Feb. 6, } \\ 1952 \end{gathered}$ |
| Sẇeden.......... 1947 | Minister | Strandvagen 7-C, Stockholm. | Mr. W. D. Matthews.. | (nominated) |
| Switzerland...... 1947 | Minister............ | Thunstrasse 95, Berne... | Mr. V. Dore, C.M.G... | $\begin{gathered} \text { June } 20, \\ 1950 \end{gathered}$ |
| Turkey.......... 1947 | Ambassador | 211, Ayranci Baglari Kavaklidere, Ankara. | Mr. H. O. Moran. . . . | (nominated) |
| Union of South 1940 Africa. | High Commissioner | 24 Barclays Bank Bldg., Church Square, Pretoria. | Mr. T. W. L. MacDermot. | Oct. 6, |
| Union of Soviet 1942 Socialist Republics | Chargé d'Affaires ad interim. | 23 Starokonyushny Pereulok, Moscow. | Mr. R. A. D. Ford..... |  |
| United Kingdom. 1880 | High Commissioner | Canada House, Trafalgar Square, London, S.W.1. | Mr. N. A. Robertson.. | $\begin{aligned} & \text { June } 1, \\ & 1952^{1} \end{aligned}$ |
| United States 1927 of America. | Ambassador | 1746 Massachusetts Avenue, Washington, D.C. | Mr. H. H. Wrong. . . . | $\begin{gathered} \text { Nov. } 8, \\ 1946 \end{gathered}$ |
| Yugoslavia...... 1943 | Ambassador........ | Proliterskin brigada 69, Belgrade. | Mr. J. S. Macdonald... | $\begin{gathered} \text { Oct. } \\ 1951 \end{gathered}$ |

military and liaison missions

| Germany ........ $1945 \mid$ Head of Mission...... | Lancaster House, Fehr <br> bellinen Platz, Wilmers- <br> dorf, Berlin. | Hon. T. C. Davis, Q.C. | June 22, <br> 1950 |
| :---: | :---: | :---: | :---: | :---: |

CONSULATES

| Brazil........... 1947 | Consul | Rua 7 de Abril 252 Sã̃ Paulo. | Mr. J. C. Van Tighem. |
| :---: | :---: | :---: | :---: |
| Turkey.......... 1951 | Consul | Istiklal Caddesi, Lion Magazasi Yaninda, Kismet Han No. 3/4, Beyoglu, Istanbul. | Mr. G. F. G. Hughes. |
| United States of 1948 America. | Acting Consul General. | $\left\|\begin{array}{ccc} 532 \text { Little } & \text { Bldg., } 80 \\ \text { Boylston } & \text { St., Boston } \\ \text { 16, Mass. } \end{array}\right\|$ | Mr. J. L. Delisle. |

${ }^{1}$ For High Commissioners and Chargé d'Affaires ad interim, this date is the date of assumption of duties.
1.-Canadian Representation Abroad-concluded

| Country |
| :---: | :---: | :---: | :---: |
| snd Year |
| Representation |
| Established |$\quad$| Present Status of |
| :---: |
| Representative |$\quad$ Address $\quad$| Date |
| :---: |

CONSULATES-concluded

| United States of America. | 1947 | Consul General..... | Suite 800, Daily News BIdg., 400 W. Madison St., Chicago 6, Ill. | Mr. D. S. Cole. |
| :---: | :---: | :---: | :---: | :---: |
| " | 1948 | Consul | 1035 Penobscot Bldg., Detroit 26, Mich. | Mr. B. C. Butler. |
| " | 1952 | Consul. | 201 International Trade Mart Bldg., New Orleans, La. | Mr. G. A. Newman. |
| " | 1943 | Consul General. | 620 Fifth Ave., New York, N.Y. | Mr. K. A. Greene, O.B.E. |
| " | 1945 | Honorary Vice Consul. | 443 Congress St., Portland, Maine. | Mr. A. Lafleur. |
| " | 1948 | Acting Consul General. | 400 Montgomery Street, San Francisco 4, Cal. | Mr. C. N. Senior. |
| Venezuela....... | 1946 | Consul General | Edificio Pan-American, Puente Urapal, Candelaria, Caracas. | Mr. E. Turcotte. |
| Republic of the Philippines. | 1949 | Consul General..... | 12 Escolta, Manila...... | Mr. F. H. Palmer, M.C. |

## 2.-Representation of Other Countries in Canada

| Country and Year Representation Established | Present Status of Representative | Address | Present Representative |
| :---: | :---: | :---: | :---: |
| Argentina........ 1941 | Chargé d'Affaires ad interim. | 193 Sparks Street, Ottawa.... | Mr. Gullermo P. Maceintosh Derqui. |
| Australia......... 1940 | High Commissioner | 100 Sparks Street, Ottawa | His Excellency The Rt. Hon. Francis M. Forde, P.C. |
| Belgium.......... 1937 | Ambassador | 170 Laurier Avenue East, Ottawa. | His Excellency Vicomte du Parc, C.V.O. |
| Brazil. . . . . . . . . 1941 | Ambassador | 111 Sparks Street, Ottawa. | His Excellency Heitor Lyra. |
| Chile............ 1942 | Ambassador. | Suite 215, 56 Sparks Street, Ottawa. | His Excellency General Arnaldo Carrasco. |
| China............ 1942 | Ambassador. | 201 Wurtemburg Street, Ottawa. | His Excellency Liv Chief. |
| Cuba............. 1945 | Ambassador. | Chateau Laurier Hotel, Ottawa. | His Excellency Delfin H. Pupo Y Proenza. |
| Czechoslovakia... 1942 | Chargé d'Áffaires ad interim. | 171 Clemow A venue, Ottawa. . | Mr. Zidenêk Rosiot. |
| Denmark........ 1946 | Chargé d'Affaires ad interim. | 451 Daly Avenue, Ottawa..... | Mr. Anker Svart. |
| Finland........... 1948 | Chargé d'Affaires.. | 140 Wellington Street, Ottawa. | Mr. H. R. Martola. |
| France. . . . . . . . . 1928 | Ambassador. | 42 Sussex Street, Ottawa...... | His Excellency Hubert Guerin. |

2.-Representation of Other Countries in Canada-concluded

| Country and Year Representation Established | Present Status of Representative | Address | Present Representative |
| :---: | :---: | :---: | :---: |
| Germany........ 1951 | Ambassador | 580-582 Chapel Street, Ottawa. | His Excellency Dr. Werner Dankwort. |
| Greece........... 1942 | Ambassado | Chateau Laurier Hotel, Ottawa. | His Excellency Raoul Bibica-Rosetti. |
| Iceland........... 1948 | Minister | Chateau Laurier Hotel, Ottawa. | His Excellency Thor Thors. |
| India.............. 1947 | High Commissioner | 200 McLaren Street, Ottawa... | His Excellency R. R. Saksena. |
| Ireland. . . . . . . . . 1939 | Ambassador | 140 Wellington Street, Ottawa. | His Excellency Sean Murphy |
| Italy............. 1947 | Ambassador | 384 Laurier Avenue East, Ottawa. | His Excrleency Corrado Baldonl. |
| Japan............. 1952 | Ambassador | 88 Metcalfe Street, Ottawa.. | His Excellency Sadao Igucei |
| Luxembourg. ..... 1949 | Minister | Chateau Laurier Hotel, Ottawa. | His Excellency Hugues Le Gallats. |
| Mexico.......... 1944 | Ambassador | 88 Metcalfe Street, Ottawa.... | His Excellency Dr. Juan Manuel Alvarez del Castillo. |
| Netherlands...... 1939 | Ambassador | 168 Laurier Avenue East, Ottawa. | His Excellency A. H. J. Lovink. |
| New Zealand..... 1943 | High Commissioner | 107 Wurtemburg Street, Ottawa. | His Excellency T. C. A. Hislop, C.M.G. |
| Norway.......... 1942 | Minister | 140 Wellington Street, Ottawa. | His Excellency Daniel Steen |
| Pakistan.......... 1949 | High Commissioner | 499 Wilbrod Street, Ottawa... | His Excellency Mobammed Ikramullah. |
| Peru.............. 1944 | Ambassador | 539 Island Park Drive, Ottawa | His Excellency German Fernandez-Concha. |
| Poland........... 1942 | Chargé d'Affaires... | 183 Carling Avenue, Ottawa... | Mr. E. Markowski. |
| Portugal.......... 1952 | Minister | Chateau Laurier Hotel, Ottawa. | His Excellency Dr. Luis Esteves Fernandes. |
| Sweden........... 1943 | Minister | 720 Manor Road, Rockeliffe Park. | His Excellency Dr. Klas Bööк. |
| Switzerland...... 1946 | Minist | 5 Marlborough Avenue, Ottawa. | His Excellency Dr. Victor Nef. |
| Turkey........... 1944 | Ambassador | Chateau Laurier Hotel, Ottawa. | Hrs Excellency Numan Tahir Seymen. |
| Union of South 1938 Africa. | High Commissioner | 15 Sussex Street, Ottawa. | His Excellency Alfred Adrian Roberts, Q.C. |
| Union of Soviet 1942 Socialist Republics | Chargé d'Affaires ad interim. | 285 Charlotte Street, Ottawa.. | Mr. Leonid F. Teplov. |
| United Kingdom. 1928 | High Commissioner | Earnscliffe, Ottawa | His Excellency Lieut.-General 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 The Hon. Stanley Woodward. |
| Uruguay.......... 1948 | Chargé d'Affaires ad interim. | 36 Marlborough Avenue, Ottawa. Ottawa. | Mr. Luns A. Soto. |
| Yugoslavia....... 1942 | Ambassador........ | 17 Blackburn Avenue, Ottawa. | His Excellency Dr. Rajko Djermanovic. |

## Section 3.-International Activities *

## Subsection 1.-Canada and Commonwealth Relations, 1950-52

Developments in Commonwealth relations from the end of the year 1949 to mid-1952 were unspectacular in comparison with the period immediately preceding, which saw such remarkable events as the acceptance of the Republic of India as a continuing member of the Commonwealth, the withdrawal of the Republic of Ireland from the measure of association with the Commonwealth which it had maintained up to that time, and the union of Newfoundland with Canada. During the period 1950-52 the members of the Commonwealth maintained their existing system of consultation and co-operation and were chiefly concerned with developments in the outside world.

The tense international situation resulting from the attitude taken by the Soviet Union and its satellites and from the behaviour of the communist régime in China during the past three years was one of the principal subjects of discussion, both by correspondence and at formal or informal meetings, among the Commonwealth group of nations. Both the Commonwealth Meeting on Foreign Affairs held at Colombo, Ceylon, in January 1950, and the Meeting of Commonwealth Prime Ministers held at London, England, in January 1951, devoted much time and attention to the above situation and the problems arising from it. In particular, developments in Asia, where the smaller non-communist countries have been exposed to communist infiltration or open invasion, called for the most careful consideration not only by the Commonwealth countries in that area but also by all members of the Commonwealth, whose ideals of freedom and democracy might be endangered by successful aggression.

It was clear that the backward agricultural and industrial condition of many countries of south and southeast Asia, along with the destruction and impoverishment in that area which had resulted from operations during World War II, would, if ignored, undermine any hope that these countries would have a healthy and continuous development along democratic lines. The 1950 Colombo Conference was greatly concerned with this situation and for this reason among others, urged the necessity of assistance to the nations of south and southeast Asia from the more industrially advanced countries in the Commonwealth and elsewhere. The Colombo Plan (see pp. 122-124) which was fashioned at this meeting and in which Canada is participating, is one of the most promising contributions towards building up the free world and enabling it to stand against totalitarianism.

Another subject which engaged the attention of both the 1950 Commonwealth Meeting of Foreign Ministers and the 1951 Commonwealth Meeting of Prime Ministers was the question of peace settlements, particularly with Japan, and the allied question of security in the Pacific area. While the discussions were helpful in smoothing over some differences of opinion on the Japanese settlement, they did not result in all Commonwealth members reaching a common decision in this matter. The Government of India eventually decided to negotiate a separate treaty with Japan, while the other Commonwealth governments, including Canada, joined the United States and other interested countries in signing a Japanese Peace Treaty at San Francisco on Sept. 8, 1951. At the same time the position of the more exposed Commonwealth countries in the Pacific area was safeguarded by the signature of a Security Treaty by the United States, Australia and New Zealand.

[^46]Developments in China also were among the matters discussed at both Meetings. In regard to recognition of the Chinese communist government, as in all matters of concern to Commonwealth nations, it was understood that each government must take the responsibility of making its own decision. Until mid-1952, the Chinese communist government had been recognized by the three Asian members of the Commonwealth and by the United Kingdom, while the other members of the Commonwealth, including Canada, continued to refrain from recognition.

A new and very serious problem in northeast Asia was created by the invasion of South Korea on June 25, 1950, by North Korean communists. Canada and the other countries of the Commonwealth which were also members of the United Nations supported the action taken by the Security Council to assist South Korean resistance. Most of them, including Canada, contributed armed forces for this purpose. A Commonwealth Division, consisting of United Kingdom, Canadian, Australian and New Zealand combat forces and a medical unit from India, was organized as part of the United Nations forces, and has acquitted itself with distinction. The nations of the Commonwealth, like many other members of the United Nations, have been gravely concerned over the destruction to life and property in Korea, and are contributing to relief and rehabilitation.

The 1951 Meeting of Prime Ministers gave careful attention to the discussions on the Korean problem in particular, and on a Far East settlement in general, which were simultaneously being carried on at the General Assembly of the United Nations at New York, and exchanged views on the means by which their representatives at New York could best assist in these discussions. Close liaison was maintained with the United Nations Assembly.

In a declaration issued at the close of the 1951 Meeting, the Prime Ministers, in addition to urging speedy settlements with Germany and Japan, stated they would welcome any feasible arrangement for a frank exchange of views with Stalin or with Mao Tse-tung, and insisted that they did not seek to interfere in the affairs of the Soviet Union, China or any other country. The Commonwealth countries, it was declared, did not regard themselves as an exclusive body, but welcomed cooperation with other nations. It was recognized, however, that so long as the fear of aggression existed the Commonwealth countries would have to strengthen their defences. Continued support of the United Nations and of the Colombo Plan was affirmed.

Both the 1950 Meeting of Foreign Ministers and the 1951 Meeting of Prime Ministers recognized the influence of economic problems upon the international situation, and gave consideration to these important questions.

One economic problem which was becoming acute in 1951 was the shortage of raw materials, and the consequent maldistribution of manufactured and semimanufactured goods. The Meeting of Prime Ministers felt that in these circumstances it would be desirable to have closer and more regular consultation among Commonwealth countries on all questions of supply and production. One result of their examination of this problem was the calling of a meeting of Commonwealth Ministers concerned with supply matters, which opened at London on Sept. 24, 1951, and made arrangements to increase the exchange of information both on raw materials and on finished goods, and to facilitate deliveries of manufactured articles to countries of the Commonwealth which might require them.

The deterioration in the United Kingdom's financial situation that took place in the autumn of 1951, and the continuing difficulties of the Sterling Area in general, raised urgent problems for all members of the Commonwealth, not excepting Canada, the only non-sterling member. A meeting of Commonwealth Finance Ministers accordingly took place at London in January 1952, and discussed measures that might be taken to meet the situation. Some of the countries concerned, particularly the United .Kingdom and Australia, later took drastic steps to arrest further deterioration in their own position. While some such measures may have been unavoidable in the immediate emergency, discussions on an official level continued with a view to planning for the eventual expansion of trade which appears to be the only satisfactory solution for the whole problem.

International tension, besides adversely affecting the world's economic development during the past three years, also made it necessary to devote to strengthening the defences of Commonwealth countries resources that would normally have been used to increase trade and prcsperity. In general, the distribution of the Commonwealth countries through all parts of the world has made it essential to organize their defences on a regional basis providing for full co-operation with friendly foreign countries. As regards North Atlantic defence, for example, Canada and the United Kingdom, as members of the North Atlantic Treaty Organization, have worked together in co-operation with the other members of NATO, while the United Kingdom, the Union of South Africa, and Southern Rhodesia have consulted with other countries interested in the defence of Africa. A Conference of the Defence Ministers of the United Kingdom, Australia, New Zealand, the Union of South Africa and Southern Rhodesia, at which Canada was represented by observers, was held at London in June 1951 to consider defence problems arising in the Middle East and other regions of common concern.

A number of conferences were held to discuss special problems of an economic, scientific or technical character. These included a conference to review the work of the Commonwealth Agricultural Bureaux; meetings on air transport and aeronautical research; gatherings of survey officers, statisticians, auditorsgeneral, and scientists in various special fields; and a British Commonwealth Scientific Conference.

In addition, Canada is represented on such standing bodies 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 Aeronautical Research Council; the Commonwealth Liaison Committee; the Commonwealth Committee on Mineral Resources and Geology; and the Imperial War Graves Commission.

The Commonwealth Agricultural Bureaux are, for the most part, bodies which collect and distribute information on agricultural research. All of them which are engaged exclusively in this work are located in the United Kingdom. The work of the one in Canada, known as the Commonwealth Bureau of Biological Control, is of a somewhat different nature; it undertakes to control the spread of noxious insects and plants by such means as the collection and distribution of parasites. The work of these Bureaux was reviewed by the Commonwealth Agricultural Bureaux Review Conference, which met at London in June 1950, and made various recommendations for increasing the usefulness of the Bureaux and ensuring cooperation with United Nations organizations and with interested foreign governments. The Canadian Government is represented on the Executive Council of
the Commonwealth Agricultural Bureaux by Dr. H. J. Atkinson and Dr. M. I. Timonin of the Department of Agriculture and Mr. J. G. Robertson of the Office of the High Commissioner for Canada in the United Kingdom.

The Commonwealth Economic Committee issues annual statistics on world production and trade in certain commodities, including dairy produce, meat, fruit and grain crops, and monthly intelligence bulletins on some of these. It has also, from time to time, undertaken special studies on economic questions of interest to Commonwealth governments. The Canadian representative is Mr. F. Hudd of the High Commissioner's Office at London.

The Commonwealth Shipping Committee was established in 1920 for the purpose of making special investigations relating to the co-ordination and improvement of ocean-shipping facilities. It includes representatives of industry as well as of governments. The High Commissioner for Canada in the United Kingdom represents the Canadian Government.

The Commonwealth Telecommunications Board, which operates under the Commonwealth Telegraphs Agreement of 1948, is charged with the duty of making recommendations to Commonwealth governments on joint telecommunications policy, co-ordination of cable and wireless systems, and other telecommunications questions. Canada is represented by Mr. J. H. Tudhope of the High Commissioner's Office at London.

The Commonwealth Air Transport Council is a consultative body for the discussion of civil aviation questions. It issues a quarterly news-letter and holds occasional meetings as required, the latest of which took place at Montreal, Que., in 1950. Mr. J. H. Tudhope is the Canadian member. Canada also participates in an auxiliary regional association, the South Pacific Air Transport Council, which includes the United Kingdom, Australia, New Zealand and Fiji. A meeting of this body was held at Wellington in October, 1951; Canada was represented by the High Commissioner in New Zealand.

The Commonwealth Advisory Aeronautical Research Council is an organization for the promotion of aeronautical research and for discussion and exchange of information on questions of aeronautics. Canadian representatives are Air ViceMarshal D. M. Smith of the Department of National Defence, and Mr. R. J. Brearley of the High Commissioner's Office, London. A meeting of this body took place at Ottawa, Ont., in September 1950.

The Commonwealth Liaison Committee originated very informally as a means by which United Kingdom government departments could keep the London missions of other Commonwealth countries in touch with developments under the European Recovery Program. Its scope has since been extended to cover other economic matters of mutual interest, in particular the supply and production of raw materials and manufactured goods.

The Commonwealth Committee on Mineral Resources and Geology was set up as a result of a recommendation by the Royal Society Empire Scientific Conference of 1946, which was endorsed by the British Commonwealth Scientific Official Conference of that year, and further developed by the Specialist Conference on Geology and Mineral Resources held in 1948. Its purpose is to promote collaboration and exchange of information on the investigation of geology and mineral resources throughout the Commonwealth. Dr. G. S. Hume of the Department of Mines and Technical Surveys represents the Canadian Government.

The Imperial War Graves Commission was founded in 1917 for the purpose of permanently commemorating those members of His Majesty's forces who lost their lives in World War I. Its powers were later extended to cover World War II. Its chief duty is the establishment and maintenance of cemeteries and memorials. There is a Canadian Agency of the Commission at Ottawa; Colonel D. C. UnwinSimson of the Canadian Embassy at Paris is the Canadian representative on the Commission.

Bodies such as these form a 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.

Two controversies between Commonwealth governments, both of which arose before 1950, have continued unsolved: the dispute between India and Pakistan over Kashmir and other matters, and the dispute between India and Pakistan on the one hand and the Union of South Africa on the other respecting the treatment in South Africa of persons of Indian origin. Both disputes are before the United Nations, and the Canadian Government and other Commonwealth governments which are members of the United Nations have continued to endeavour, in cooperation with other members of that body, to bring about some solution. In addition, an opportunity was taken during the Meeting of Prime Ministers in 1951 to have informal talks on the Kashmir question by the Prime Ministers of Pakistan and India along with some of the other Prime Ministers, including the Prime Minister of Canada. While these talks had no decisive effect, they did assist in clarifying the position and suggesting possible lines that might be explored in working towards a settlement.

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 early history of the United Nations and of Canada's part therein is given in the 1946 Year Book, pp. 82-86. Additional material appeared in the 1948-49 edition, pp. 122-125, and in the 1950 edition, pp. 134-139. The following material brings the record of Canada and the United Nations up to Feb. 5, 1952, the date of the adjournment of the Sixth Regular Session of the General Assembly.

In political and security questions, the General Assembly became relatively more important in the United Nations, during the period under review, as effective action in the Security Council was more and more frustrated by the Soviet Union veto. The Interim Committee of the General Assembly did not play the important role that had been anticipated. It met in 1949 and in 1950 without making any major recommendations. It did not meet in 1951, for the procedural reason that the Fifth Session of the Assembly remained technically in session until the day before the convening of the Sixth Session. No new subjects were assigned to the Interim Committee by the Sixth Session of the Assembly.

Canada has continued to take an active part in United Nations deliberations both in the General Assembly and in important subsidiary bodies and, as a member, its contribution has been important in the social, economic and humanitarian activities. Canada completed a two-year term on the Security Council at the end
of 1949 and a term of membership on the Economic and Social Council at the end of 1948; after a year's absence, Canada was elected to a further three-year term on the latter Council commencing Jan. 1, 1950. Canada is a member of all specialized agencies of the United Nations and of the following functional commissions of the Economic and Social Council: the Commission on Narcotic Drugs, the Social Commission, the Fiscal Commission and the Statistical Commission.

Canadian delegations attended all sessions of the General Assembly during the period 1949-51-the second part of the Third Session in April and May 1949, and the Fourth, Fifth and Sixth Regular Sessions in 1949, 1950 and 1951. The Secretary of State for External Affairs acted as chairman of the delegation at each of these Sessions; at the Sixth Session, the Minister of Justice assumed the chairmanship after Jan. 2, 1952.

During the period 1949-51, only two new members were admitted to the United Nations-Israel on May 11, 1949, and the Republic of Indonesia on Sept. 28, 1950. The applications of such states as Ceylon, Ireland, Italy and Portugal were vetoed by the Soviet Union Representative in the Security Council.

The Korean Conflict.-The Soviet Union, which since the previous January had been boycotting the Security Council over the question of Chinese representation, was absent from the Council on June 25, 1950, when North Korean forces attacked across the 38th parallel. With no Soviet veto to frustrate its actions, the Security Council was able to take quick and decisive measures. It convened, on United States initiative, on the day of the attack and adopted a resolution calling for the cessation of hostilities and the withdrawal of North Korean forces to the 38th parallel. When this resolution was ignored by North Korea, other Council resolutions followed quickly, recommending that member states furnish the Republic of Korea with such assistance as might be necessary to repel the armed attack, and setting up a Unified Command. The United States took the initiative throughout the crisis, committing first sea and air forces and then ground forces to the area. An overwhelming majority of the United Nations, including Canada, subsequently approved the Security Council's actions, and a smaller but still substantial number (including Canada) contributed armed forces to the United Nations Command.

Throughout the summer of 1950, United Nations troops fell back before the initial strength of the North Korean attack. However, the tide turned with the Inchon landing of Sept. 15, and the rapid advance of United Nations troops up the peninsula raised new and urgent problems. Meanwhile the Soviet Union had returned to the Security Council on Aug. 1 and had, as expected, prevented further constructive action by that body. This was the situation that faced the Fifth Session of the General Assembly when it convened at New York on Sept. 19, 1950.

On Oct. 7, the Assembly adopted a resolution establishing a seven-member United Nations Commission for the Unification and Rehabilitation of Korea. As plans for the implementation of the resolution were being worked out, however, Chinese communist troops intervened in force in Korea, in the guise of "volunteers" This led to renewed debate in the Security Council and the vetoing by the U.S.S.R. on Nov. 30 of a resolution calling for the withdrawal of Chinese communist troops from Korea. The General Assembly, on Dec. 14, 1950, set up a "Cease-fire Group" to explore the possibilities of a cease-fire, meanwhile refraining from condemning the Chinese communist aggression.

The Cease-fire Group, of which the Canadian Secretary of State for External Affairs was a member, submitted a statement of principles, early in January 1951, to serve as a basis for settlement of the Korean dispute and other Far Eastern problems. These were transmitted to the Chinese communist authorities. The reply of the Communist Chinese Foreign Minister was not regarded as satisfactory and on Feb. 1, 1951, a resolution condemning the Peking Government's aggression was adopted by a large majority of the members of the General Assembly, including Canada.

Military operations continued and it became apparent that a military stalemate might come about, with the United Nations forces in control up to approximately the 38th parallel. Following an indication by the Soviet representative to the United Nations that cease-fire discussions might now be usefully initiated, messages were exchanged between the military commanders in Korea, and representatives of the opposing forces met on July 10, 1951. Cease-fire negotiations continued until Aug. 22. They were renewed on Oct. 25, and agreement was reached Nov. 27, 1951, on the principles which should govern the definition of a cease-fire line, but on other issues, especially the exchange of prisoners of war, the negotiators remained deadlocked. The Sixth Session of the General Assembly, before its adjournment of Feb. 5, 1952, authorized the Secretary-General to convene a special session of the Assembly on the conclusion of an armistice or in the event of other developments in Korea.

The United Nations took early action for the relief of the suffering caused by the Korean conflict and for the reconstruction of the country when circumstances might permit. In the autumn of 1950 the General Assembly, and the Economic and Social Council which was meeting concurrently in special session, established the United Nations Korean Reconstruction Agency (UNKRA). A five-member committee, on which Canada was represented, was set up to advise UNKRA's Agent-General. Canada was among the first and most substantial contributors to UNKRA.

Collective Measures.-On Nov. 3, 1950, the General Assembly adopted a resolution on "Uniting for Peace". This resolution provided that if the Security Council, because of lack of unanimity among the permanent members, failed to act in a situation that endangered peace, the General Assembly, if not in session, might be convened on 24 hours notice (a) by request of the Security Council (on the vote of any seven Council members), or (b) by request of a majority of the members of the United Nations. The Assembly at the same time established a Peace Observation Commission to observe and report in areas of international tension, and a Collective Measures Committee to study and report on the measures, including political, economic and military measures, which the United Nations might use to maintain and strengthen international peace and security, taking account of collective self-defence and regional arrangements. Canada became a member of the Collective Measures Committee.

In January 1952, the General Assembly, taking note of the report of the Collective Measures Committee, directed the Committee to continue its studies for another year. Member states were also asked to include within their armed forces units available for service with the United Nations.

Disarmament.-The deadlock in both the Atomic Energy Commission and the Commission for Conventional Armaments continued to the end of 1951. This deadlock was due to the persistent Soviet demands for an immediate prohibition
of atomic weapons and for a one-third reduction in the armed forces of the Great Powers. Western governments opposed both demands, the first because no proposals for adequate atomic inspection, verification and control had been accepted by the U.S.S.R., and the second because the existing disparity between the armed forces of the communist world and those of the free world made it impossible for the democracies to accept a formula which would perpetuate the present dangerous unbalance.

On Dec. 13, 1950, the Assembly created a committee to study the advisability of merging the Atomic Energy and the Conventional Armaments Commissions. Canada, which had been one of the sponsors of the proposal, was made a member of this committee. In accordance with the recommendations of the committee the Assembly on Jan. 11, 1952, established a Disarmament Commission, under the Security Council, to replace the two previous Commissions. The new Commission, given the same membership as the former Atomic Energy Commission (that is, the eleven members of the Security Council, plus Canada), was directed to prepare proposals for inclusion in a draft treaty or treaties, respecting the regulation, limitation and balanced reduction of all armed forces and armaments, and the effective international control of atomic energy.

Palestine.-During the period 1949-51, the Palestine Conciliation Commission had little success in its efforts to bring about agreement on the differences between Israel and its neighbours. In 1950, the Assembly noted with concern that progress was not being made and the Sixth Session of the Assembly, in January 1952, adopted a resolution asking the Conciliation Commission to continue its work. This resolution was supported by the Canadian delegation, which had succeeded in formulating amendments making it acceptable to both Israel and the Arab states. It was felt that, with both sides concurring, the resolution had some hope of success.

Another important problem which occupied the Assembly in this connection was that of Palestine refugees. In the autumn of 1948, a fund was established under the name of United Nations Relief for Palestine Refugees. At the end of 1949 a more permanent relief agency was established, entitled the United Nations Relief Works Agency for Palestine Refugees in the Near East (UNRWAPR). This Agency was continued by the General Assembly in 1950 and, in January 1952, the Sixth Session endorsed a program envisaging the expenditure of large sums of money for relief and reintegration during a three-year period ending June 30, 1954. Canada has supported United Nations action to assist Palestine refugees and has made substantial contributions to UNRWAPR.

Indonesia.-The year 1949 saw the settlement of the Indonesian problem, despite the fact that an early solution appeared unlikely. In January 1949, the Security Council called for an immediate end of hostilities and the release of political prisoners, and replaced its Committee of Good Offices by a United Nations Commission for Indonesia with broad powers to act as the Council's representative. A Security Council directive of Mar. 23, 1949, sponsored by Canada, resulted in a meeting of representatives of the opposing forces, and substantial agreement was reached by early May. In the following weeks, Netherlands forces were withdrawn from the Indonesian capital, political prisoners were released and a general ceasefire was proclaimed on Aug. 28. A Round Table Conference, including the Netherlands and Indonesian representatives and the United Nations Commission, met at The Hague from Aug. 23 to Nov. 2. As a result of the agreement
reached, full sovereignty was transferred to the Government of the Republic of the United States of Indonesia at the end of December 1949, and the two countries became partners in the Netherlands-Indonesian Union. Indonesia became a member of the United Nations in September 1950, its application being sponsored by the Netherlands.

Berlin.-The Berlin blockade was still on the agenda of the Security Council at the end of 1948, but the subject was not formally discussed in the United Nations in 1949. The blockade was lifted on May 12, 1949, not directly because of United Nations action but as a result of long negotiations between the Western Powers and the U.S.S.R. which, however, began with an informal exchange of views between the United States and Soviet representatives at the United Nations.

Other Political Questions.-Other questions that occupied the United Nations in the period 1949-51 included Greece and the repatriation of Greek children, the dispute between India and Pakistan over Kashmir, the treatment of people of Indian origin in the Union of South Africa, the problem of South-West Africa, various questions regarding trust and non-self-governing territories (chiefly in Africa), the complaint by Yugoslavia of "hostile activities" by the cominform states, the violation of human rights in Bulgaria, Hungary and Roumania, and the disposal of the former Italian colonies. (Libya achieved independence on Dec. 24, 1951, and was immediately recognized by Canada.)

The Economic and Social Council.-The most notable achievement of the Economic and Social Council in 1949 was its elaboration of an expanded United Nations program for technical assistance to under-developed countries, unanimously approved by the General Assembly at its Fourth Session. Canada has contributed generously to the expanded program. The Council was given continuing responsibility for the co-ordination of the related programs of the various specialized agencies. The whole question of helping the economically under-developed countries of the world to help themselves continued to command a large share of the Council's attention in 1950 and 1951. In 1951, the Council considered the possibility of establishing an international development authority to be concerned with the distribution of grants and loans to under-developed countries. The subject came before the Sixth Session of the General Assembly and will be further studied by the Economic and Social Council.

In the social field, methods for furthering international recognition and observance of human rights and fundamental freedoms have occupied a great deal of the time, not only of the Economic and Social Council's Commission on Human Rights, but also of the Council itself and of the General Assembly. There have been two phases to this question. First, the General Assembly adopted, in December 1948, a Declaration of Human Rights, which carries great moral weight but is not an enforceable instrument. In the second place, work has been proceeding on the preparation of a covenant or covenants on human rights which would be legally binding on governments acceding to them. The Fifth Session of the General Assembly in 1950, examining a draft covenant submitted by the Human Rights Commission through the Economic and Social Council, concluded that the covenant should be broadened to contain economic, social and cultural rights, as well as basic political rights. The question of whether these economic, social and cultural rights should be included in the same covenant as traditional civil liberties, or in a second covenant, was considered by the Economic and Social Council at its Thirteenth

Session in 1951. The majority of the Council members, including Canada, decided that two fundamentally different types of "rights" were involved, requiring different methods of implementation, and requested the General Assembly to reconsider its decision to include them in the same instrument. After long debate, the Assembly decided that the Commission on Human Rights should be asked to draft two covenants. The Canadian delegation supported this decision but, believing that much of the material suggested for inclusion in the second covenant amounted to statements of governmental responsibility or of long-term policy objectives, doubted. whether these objectives, however desirable, should be written into a legally binding international convention. The Sixth Session of the Assembly requested the Economic and Social Council to hold a special session for the purpose of transmitting its directives to the Human Rights Commission so that the two draft covenants might be available for consideration at the Seventh Session.

Among the subjects that occupied the Economic and Social Council during this period were the world economic situation in general, various regional economic questions, full employment, freedom of information, forced labour and refugees.

Specialized Agencies.-An eleventh specialized agency of the United Nations, the World Meteorological Organization, started functioning in 1951. At the same time, arrangements were made to terminate the International Refugee Organization early in 1952. Continuing problems in connection with refugees will be the concern of the office of the United Nations High Commissioner for Refugees, which was established by the General Assembly in December 1950. The proposed International Trade Organization and the Inter-governmental Maritime Consultative Organization have not yet come into existence.

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

Within less than two years of the signing at San Francisco of the Charter of the United Nations in 1945, the hopes of people everywhere for universal peace had given place to growing anxiety. The Security Council, which had been given primary responsibility for the maintenance of security, was already ham-strung by the deliberate tactics of the Soviet representatives. The encouragement of communist régimes in countries under control of the Red Army, and activities in other countries, particularly in Western Europe, provided ample evidence of the imperialistic designs of the Soviet Union. Under these circumstances nations that found themselves in common danger of aggression were driven to seek security by special co-operation in defensive measures.

A major step in the search for security by Western nations was taken in the spring of 1948 when the United Kingdom, France, The Netherlands, Belgium and Luxembourg signed at Brussels a treaty providing for their collective self-defence. In the months that followed there were many signs that determined efforts by Western European nations to co-operate for defence would find a ready response in North America. Beginning with the summer of 1948, the Ambassadors of the Brussels Treaty Powers and Canada began holding informatory and exploratory talks at Washington with representatives of the United States. Representatives of other North Atlantic countries were invited to the discussions at a later stage and, on Apr. 4, 1949, the North Atlantic Treaty was signed by twelve nations-Belgium, Canada, Denmark, France, The Netherlands, Iceland, Italy, Luxembourg, Norway,

Portugal, the United States and the United Kingdom. The Treaty was accepted by all major groups of opinion in Canada, and it was passed without a single dissenting vote in Parliament.

In 1952 two important steps were taken to extend the coverage of the Treaty. Greece and Turkey were admitted to membership and their territories were thereby included in the area guaranteed by the Treaty. Various agreements bringing the Republic of Western Germany into defence arrangements with the West were also required, but these will not become effective until ratified. Under these agreements a European Defence Community with a European Army is to be established. Germany will be a member of the EDC along with France, Italy, Belgium, The Netherlands and Luxembourg, and the armed forces in Europe of each of these countries will be part of a European Army which will be under NATO command. Germany will not be a member of the North Atlantic Treaty, although its territory and independence will be guaranteed by all NATO powers.

The Treaty.-The North Atlantic Treaty in its preamble reaffirms the faith of the Parties in the purposes and principles of the Charter of the United Nations, and declares that the Parties "are determined to safeguard the freedom, common heritage and civilization of their people, founded on the principle of democracy, individual liberty and the rule of law"; that "they seek to promote the stability and wellbeing of the North Atlantic area"; and that "they are resolved to unite their efforts for collective defence and for the preservation of peace and security".*

The defence aspects of the Treaty are covered mainly by Articles 3, 4 and 5. Article 3 provides in part that "The Parties, separately and jointly, by means of continuous and effective self-help and mutual aid, will maintain and develop their individual and collective capacity to resist armed attack". Article 3 provides also that "wherever in the opinion of any of them, the territorial integrity, political independence or security of any of the Parties is threatened", they will consult with one another. By Article 5, the Parties agree that an armed attack against any of them shall be deemed an attack against all, and that in the event of such an attack, each will assist the Party or Parties so attacked by taking, individually and in concert with the others, "such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area"

A fourth basic article is Article 2. This Article, which was largely promoted by Canada, declares:
"The Parties will contribute toward the further development of peaceful and friendly international relations by strengthening their free institutions, by bringing about a better understanding of the principles, upon which these institutions are founded, and by promoting conditions of stability and wellbeing. They will seek to eliminate conflict in their international economic policies and will encourage economic collaboration between any or all of them." The course of events since the Treaty was signed has compelled members to give priority to defence and security; nevertheless Article 2 is important, as the affirmation of a long-term objective.

The Treaty Organization (NATO).-Unlike the United Nations Charter, the North Atlantic Treaty has little to say about organization. Article 9 of the Treaty provides merely for the establishment of a Council "to consider matters

[^47]concerning the implementation of this Treaty", and empowers the Council to set up such subsidiary bodies, including a defence committee, as may be necessary to achieve the purposes of the Treaty. This very general provision left the Council free to adapt the organization to meet the needs as they arise.

The Council is the supreme governing body of NATO. The chairmanship rotates annually in alphabetical order of member countries. At the seventh meeting of the Council at Ottawa in September 1951, the Hon. L. B. Pearson, Canadian Secretary of State for External Affairs, became Chairman for the following year.

At an early stage, the Council, which consisted of all the Foreign Ministers of the Parties to the Treaty, established a committee of Defence Ministers, a committee of Finance Ministers, a Military Production Board of high officials representing each government, as well as other subordinate civil bodies and an elaborate structure of military bodies. The Council met as occasion required in various national capitals. These arrangements were found to be rather unwieldy and, at the Lisbon meeting of the Council in February 1952, it was agreed that the civil organization be located permanently at Paris, that the Council operate as a permanent body, and that the members be represented at the seat of the Council by a permanent delegation. It was further agreed that all NATO activities be brought under the control of the Council, and that a strong secretariat be established under a Secretary General who would be Vice-Chairman of the Council and could serve in the absence of the Chairman. These measures were implemented shortly thereafter.

Military Organization.-The Military Committee, on which each member country is represented by one of its Chiefs of Staff, is the senior military organ of the Alliance and comes directly under the Council. It is responsible for providing that body with military advice and receives from it political guidance which is passed on to Supreme Commanders by the Standing Group. As in the case of the Council, the chairmanship of the Military Committee rotates annually in the alphabetical order of NATO countries.

The Standing Group, as its name implies, is a permanent body. It is composed of the Chiefs of Staff of the three major contributors to NATO-the United States, United Kingdom and France-and is responsible for the continuing work in the military sphere. It is located at Washington and gives strategic and political guidance to the Supreme Commanders who come under its orders. The eleven other members of NATO are associated with Standing Group work through a Committee of Military Representatives at Washington consisting of representatives of the Chiefs of Staff of the other member countries. This makes it possible for all to be kept in constant touch with developments.

Direct military command in NATO is exercised by Supreme Commanders. In 1950, General Dwight D. Eisenhower was appointed the first Supreme Allied Commander, Europe, responsible for the defence of Western Europe. He remained in office a little over a year when he resigned and was succeeded by General Matthew Ridgway. Early in 1952 Admiral L. D. McCormick, USN, was appointed Supreme Commander, Atlantic, responsible for the defence of the lines of communication across the Atlantic Ocean. His headquarters are at Norfolk, Va.

The third major strategic division within the area covered by the North Atlantic Treaty is the Canada-United States region. As yet it has no organized command nor is one contemplated for the time being, but defence plans for this area are continuously under study by the Canada-U.S. Regional Planning Group.

Each of the Supreme Commands has an integrated staff to which Canadian officers have been appointed.

Canada's Contributions to NATO.-NATO planning follows to a considerable degree the principle of division of responsibility among member nations. European members, for example, whose territory would be exposed to early attack in the event of war, are expected to concentrate largely on ground forces, including reserves which can be made ready quickly for battle; the United States is responsible for strategic air forces; the principal naval members-the United States, the United Kingdom, and France-provide by far the major portion of naval forces. NATO planning also takes into account that some members have heavy responsibilities outside the NATO area and therefore cannot commit all their forces to NATO commands, at least in peacetime. France, for example, has been conducting major military operations in Indo-China; the United Kingdom has heavy responsibilities in the Middle East, in Malaya and elsewhere; and the United States has extensive commitments in the Pacific area and other regions.

Under agreed NATO plans, Canada contributes to the standing NATO forces in all three armed services. The 27 th Infantry Brigade, which was specially organized for NATO purposes, was stationed in Western Germany in the late autumn of 1951. During 1952, Canada plans to station four fighter squadrons of the RCAF in Western Europe, assuming airfields will be available, and to increase these forces to twelve squadrons by 1954. By the end of 1952, twenty-four ships of the Royal Canadian Navy will form part of the forces available to the Supreme Allied Commander, Atlantic (SACLANT), and fifty-two ships by 1954. Canada's prime responsibility is, however, the direct defence of Canadian territory. As already pointed out, no NATO command has been established for the North American region. Consequently, Canadian forces allocated for the direct defence of Canada have not been allocated to a NATO command, although in fact they are defending territory expressly included under the North Atlantic Treaty. Moreover, Canada, as a member of the United Nations, has a Brigade Group participating in halting aggression in Korea, and Canadian forces engaged in those operations could not properly be withdrawn and made available to NATO as long as United Nations operations continue in Korea.

Mutual Aid.-Canada has also made substantial contributions to NATO in the form of Mutual Aid. As pointed out previously, by Article 3 of the Treaty the member nations have undertaken to maintain and develop their individual and collective capacity to resist armed attack "by means of continuous and effective self-help and mutual aid". They have undertaken to build up their own forces and to assist one another to do so in order to resist armed attack. At an early stage, the United States Congress passed large appropriations to assist the re-arming of other countries and much larger appropriations have since been made. At the special session of the Canadian Parliament in September 1950, an appropriation of $\$ 300,000,000$ was passed for similar purposes, and a second appropriation of $\$ 325,000,000$ was made in 1952. By means of this appropriation it was possible to transfer, free of charge, to other members of NATO considerable quantities of
existing stocks of armament and ancillary equipment which the Canadian Army had been keeping as mobilization reserves. The Canadian Army will be re-equipped by production of new equipment in Canada or purchase from the United States. Armament and equipment for approximately one infantry division was thus given away during 1950-51 to each of Belgium, Holland and Italy following recommendations of the NATO Standing Group, and later.considerable quantities of ammunition and armament, such as field and anti-aircraft guns, were given away to various NATO countries. In addition, contracts were let for the production for other NATO countries of such equipment as fighter aircraft, guns, mine-sweepers, and walkie-talkies and other electronic supplies.

Under the Mutual Aid vote, provision was made for the training of aircrew for other NATO countries. This involved the re-opening of many airfields in Canada, the acquisition of large quantities of training equipment and the establishment of a large training staff. By the spring of 1952 about 1,000 aircrew were being trained for other NATO countries while training facilities for the following year were planned to accommodate about 1,400 trainees.

## 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, Jan. 9-14, 1950. Further meetings were held during the same year and in October a report on the Colombo Plan was published which gave a comprehensive picture of the economic requirements and potential resources of the region and the need for external assistance.

Although the Colombo Plan was initiated 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, Laos, New Zealand, Pakistan, the United Kingdom and Viet-Nam, as well as the United States which is also engaged in a substantial program of economic aid in the same region.

The Canadian Parliament approved a contribution of $\$ 25,000,000$ for capital assistance to governments in south and southeast Asia during 1951-52 and it was subsequently decided that, for this first year of operation of the Colombo Plan, Canadian aid would be divided between India and Pakistan.

At the request of the Government of India, the Canadian Government agreed to allot $\$ 10,000,000$ for the provision of wheat to India under the Colombo Plan. The wheat was shipped from Canadian west coast ports during the winter and early spring of 1952. The Indian Government undertook to establish a special counterpart fund equivalent in rupees to the $\$ 10,000,000$ expenditure by the

Canadian Government in respect of the wheat, the counterpart funds to be used for the internal financing of economic development projects approved by both Governments. It was agreed that the counterpart funds for the wheat should be used to help finance the Mayurakshi irrigation and hydro-electric project in West Bengal and it was estimated that this work when completed would increase the arable land by 600,000 acres and produce some $4,000 \mathrm{kw}$. of electric energy. Most of the remaining funds available to India under the 1951-52 program were earmarked for the provision of vehicles to the Bombay State Transport Corporation.

The main project in the Canadian program for Pakistan is a cement plant to be built in the Thal area of the Punjab where a large-scale colonization project is being undertaken by the Pakistan Government. Except for local labour and material, Canada is providing all the equipment, materials and technical personnel necessary for the construction of the plant.

The Canadian, Australian and New Zealand Governments together have agreed to establish and equip an experimental live-stock farm at Thal, the Canadian contribution to this joint project being agricultural machinery and related equipment. The Canadian program for Pakistan also includes such items as a large quantity of wooden railway-ties to be supplied from British Columbia for the urgently needed rehabilitation and development of the Pakistan railway system, and a geological survey, including an aerial photographic unit, which should be of farreaching benefit to Pakistan in the development of its natural resources.

Another important aspect of the Colombo Plan is the provision of technical assistance to governments in the area. To develop this side of the program, 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.

For each of the years ended Mar. 31, 1951 and 1952, Parliament authorized appropriations of $\$ 400,000$ for technical co-operation under the Colombo Plan. Because of the inevitable delays in the early stages of a program of this kind, these amounts were not fully used. However, the program has been steadily increasing its pace and it is expected that the appropriation of $\$ 400,000$, which Parliament made for 1952-53, will be completely taken up.

Up to Mar. 31, 1952, 58 Fellows and scholars from India, Pakistan and Ceylon, had come to Canada for training in such widely varied fields as road and bridge construction, hydro-electric development, public administration, public health and welfare, and agriculture. During the same period, three technical missions, each composed of senior government officials from India and Pakistan, were conducted on observation tours across Canada to study Canadian methods in highway and bridge construction, agriculture, and hydro-electric power installation and development. The greatest difficulty in providing technical assistance has been encountered in locating Canadian experts for service abroad. However, a fisheries consultant from British Columbia has been in Ceylon for some time, assisting the government
in the development of the fishing industry, and a refrigeration engineer is also working in Ceylon in the same field. In addition, the Canadian Government is paying the expenses of a survey being undertaken in Pakistan by the Commonwealth Biological Control Service with a view to setting up a biological control station in that country.

The Consultative Committee on the Colombo Plan held its fourth meeting at Karachi, Pakistan, in March 1952, which was attended by a Canadian delegation led by Mr. George J. Mcrlraith, M.P. Its main task was to prepare a report on the achievements of the Plan during 1951-52. This Report* outlines the progress made and the plans for 1952-53, and it contains separate sections describing the activities of each member of the Colombo Plan, whether a contributing or a receiving country.

Satisfied that the Plan is operating on a sound basis, Parliament approved a further contribution of $\$ 25,000,000$ to provide Canadian economic aid under the Colombo Plan during the fiscal year 1952-53.

[^48]
## CHAPTER III.-POPULATION*

## 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 records accumulated at the decennial censuses of Canada since Confederation in 1867 to the latest census, 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 Year Book 1947, 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. 51-52). The payment of provincial subsidies on a per capita basis is adjusted annually on population estimated from census data. 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 and rehabilitation programs, etc.

At the time of the preparation of this Chapter (July 1952), only the basic figures from the 1951 Census were available and these have been summarized under the respective headings so far as possible. More detailed information and extended analyses will be published from time to time and can be obtained from census publications.

[^49]
## Section 1.-Growth of the Population

A brief résumé of the population history of Canada from the first census in 1666, when 3,215 persons were enumerated, to the Census of 1951, when the figure was $14,009,429$, places Canada among the leading countries of the Commonwealth in the rate of population growth. The total population of Canada at the end of the nineteenth century was approximately $5,400,000$; it had about doubled this figure by 1931. The general increase in the population of European countries during the entire nineteenth century was approximately three-fold; Canada equalled this rate of progress during the 60 years from 1871 to 1931.

In the decade 1901-11 immigration alone totalled $1,800,000$. This figure was the main factor in the gain of $34 \cdot 2$ p.c. registered by the total population of Canada in that decade, which was relatively larger than the growth of any modern country during the same period.

The next decade started out with an intensification of this immigration movement, but a recession set in with the outbreak of World War I. The effects of that War upon the Canadian population were both direct and indirect. Nearly 60,000 members of the Canadian forces died overseas and approximately 20,000 others took their discharge in the United Kingdom. To these may be added 50,000 deaths from the war plague, influenza. In addition, large numbers of British Isles residents, most of them recent immigrants, left Canada to join the armed forces of the United Kingdom and did not return; the same is true of enemy nationals who passed in considerable numbers into the United States immediately before and after the declaration of hostilities. The fluidity of the Canadian population accordingly rendered the War costly in personnel far beyond actual casualties. However, the net result over the ten years was a population increase of 21.9 p.c. or the largest increase for any modern country in that decade with the exception of Australia where an increase of $22 \cdot 0$ p.c. was recorded.

The Census of 1931 showed a further population increase of 18 p.c. over 1921. Natural increase and immigration contributed $1,325,256$ and $1,509,136$, respectively, although the net gain was only $1,588,837$ since estimated emigration was $1,245,555$ for the ten years. Census returns of Great Britain for 1921-31 showed an increase of 4 p.c. as compared with 5 p.c. for the previous decade. New Zealand in the tenyear interval 1911-21 showed an increase of 21 p.c. and in the period 1921-36, 23 p.c. A census of Australia was not taken in 1931, but the official estimate of population based on the Census of 1933 gave an increase of 20 p.c. as against 22 p.c. for the period 1911-21. Census figures for the United States showed an increase in population of 15 p.c. for $1910-20,16$ p.c. for $1920-30$ and 7 p.c. for 1930-40.

The Eighth Census of Canada taken June 2, 1941, gave the population as $11,506,655$ as compared with $10,376,786$ as at June 1, 1931, an increase of $1,129,869$ or 11 p.c. in the decade. During the greater part of this decade, Canada, along with all other countries, was faced with a prolonged and severe economic depression; immigration was still further restricted by government regulations as well as by economic necessity. The figures for immigrant arrivals were actually reduced from $1,166,004$ in the ten-year period 1921-31 to 140,361 in 1931-41. The natural increase for this period showed a reduction of about 11 p.c. and, since immigration was reduced more than 88 p.c. over the decade, the net increase in population was due almost entirely to the favourable birth and death rates of the established population.

## GROWTH IN CANADA'S POPULATION, I85। - 195।

millions


The Ninth Census of June 1, 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 is the largest on record and the percentage increase has been exceeded only twice since the turn of the century. In 1921 it was 21.9 p.c. and in 1911, $34 \cdot 2$ p.c. The population increase in this decade is all the more remarkable when consideration is given to the fact that immigration was heavily restricted during the war years. With the resumption of immigration in the post-war years, however, Canada gained some 548,000 in population through immigrant arrivals over the decade. The period 1941-51 was characterized also by high birth rates, and the natural increase was just under $2,000,000$ for the ten-year period.

Since 1867, decennial censuses have been taken as at Apr. 2, 1871, Apr. 4, 1881, Apr. 5, 1891, Apr. 1, 1901, June 1, 1911, 1921, 1931, June 2, 1941, and June 1, 1951. Population totals by provinces and territories are given in Table 1, together with figures showing the percentage distribution of population and the numerical and percentage increases in population by decades.

## 1.-Numerical and Percentage Distribution and Numerical and Percentage Increase of Population, by Provinces and Territories, Decennial Census Years 1871-1951

Note.-The populations of the Prairie Provinces in 1906, 1916, 1926, 1936 and 1946 are shown at p. 131 of the 1951 Year Book. Intercensal estimated populations from 1867-1904 will be found at p. 141 of the 1936 Year Book; from 1905-30 at p. 127 of the 1946 edition; and from 1931-52 in Table 9, p. 143, of the present edition.

| Province or Territory | 1871 | 1881 | 1891 | 1901 | 1911 | 1921 | 1931 | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Numerical. Distribution |  |  |  |  |  |  |  |  |
| N'f'ld. | ${ }^{1}$ | ${ }^{1}$ | ${ }^{1}$ | $1{ }^{1}$ | ${ }^{1}$ | ${ }^{1}$ | 18 | 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 |
| Que | 1,191,516 | 1,359,027 | 1,488,535 | 1,648,899 | 2,005,776 | 2,360,510 | 2,874,662 | 3,331,882 | 4,055,681 |
| Ont | 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 |
| B.C | 36,247 | 49,459 | 98,173 | 178,657 | 392,480 | 524,582 | 694,263 | 817,861 | $1,165,210$ 9,096 |
| N.W.T | 48,000 | 56\%,446 | 98,967 | 20,129 | 6.507 | 8,143 | 9,316 | 12,028 | 16,004 |
| Canada... | 3,689,257 | 4,324,810 | 4,833,239 | 5,371,315 | 7,206,643 | 8,787,949 ${ }^{2}$ | 0,376,786 | 11,506,655 | 4,009,429 |
|  | Percentage Distribution |  |  |  |  |  |  |  |  |
| N'f'ld. |  |  |  |  |  |  |  |  | 2.58 |
| P.E.I. | 2.55 | $2 \cdot 52$ | $2 \cdot 25$ | 1.92 | $1 \cdot 30$ | 1.01 | 0.85 | 0.83 | 0.70 |
| N.S. | 10.51 | 10-19 | $9 \cdot 32$ | $8 \cdot 56$ | 6.83 | 5.96 | 4.94 | $5 \cdot 02$ | $4 \cdot 59$ |
| N.B. | $7 \cdot 74$ | $7 \cdot 43$ | $6 \cdot 65$ | 6.16 | 4.88 | $4 \cdot 41$ | 3.94 | $3 \cdot 97$ | $3 \cdot 68$ |
| Que. | $32 \cdot 30$ | 31.42 | $30 \cdot 80$ | $30 \cdot 70$ | 27.83 | 26.86 | $27 \cdot 70$ | $28 \cdot 96$ | 28.95 |
| Ont. | 43.94 | $44 \cdot 56$ | 43-74 | $40 \cdot 64$ | $35 \cdot 07$ | 33.39 | 33.07 | $32 \cdot 92$ | $32 \cdot 82$ |
| Man. | $0 \cdot 68$ | 1.44 | $3 \cdot 16$ | 4.75 <br> 1.70 | 6.40 6.84 | 6.94 8.62 | 6.75 8.88 | $6 \cdot 34$ 7.79 | $5 \cdot 54$ 5.94 |
| Sask. | ... | $\cdots$ | ... | 1.70 1.36 | 6.84 5.19 | 8.62 6.70 | 8.88 7.05 | 7.79 6.92 | 5.94 6.71 |
| A C C | -0.98 | 1.14 | 2.03 | $1 \cdot 36$ 3.33 | 5.19 5.45 | 6.70 5.97 | 7.05 6.69 | 6.92 | 6.71 8.32 |
| Yukon |  |  |  | $0 \cdot 51$ | $0 \cdot 12$ | $0 \cdot 05$ | 0.04 | 0.04 | 0.06 |
| N.W.T | $1 \cdot 30$ | 1.30 | $2 \cdot 05$ | $0 \cdot 37$ | 0.09 | 0.09 | 0.09 | $0 \cdot 10$ | $0 \cdot 11$ |
| Canada. | 100.00 | 103.00. | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | $100 \cdot 00$ |

For footnotes, see end of table.

1.-Numerical and Percentage Distribution and Numerical and Percentage Increase of Population, by Provinces and Territories, Decennial Census Years 1871-1951concluded.

${ }^{1}$ Populations of Newfoundland (which was not part of Canads until 1948) were: 1871, 152,500 (estimated); 1881, 186,500 (estimated); 1891, 202,040; 1901, 222,984; 1911, 242.619; 1921, 263,033; 1931, 281,500 (estimated); 1941, 303,300 (estimated); and 1945, 321,819. $\quad 2$ Includes 485 members of the Royal Canadian Navy recorded separately in 1921.

The land area and density of the population per square mile is given by provinces in Table 2 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.

## 2.-Land Area and Density of Population, by Provinces and Territories, Census Years 1921-51

| Province or Territory | Land Area in Sq. Miles | Population, 1921 |  | Population, 1931 |  | Population, 1941 |  | Population, 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Per Sq. Mile | Total | Per Sa. Mile Mile | Total | Per Sq. Mile | Total | Per Sq. Mile |
| Newfoundland | $147,994^{1}$ |  | ... | ... |  |  |  | 361,416 | 2.44 |
| Island........ | $\begin{aligned} & 40,569 \\ & 10 y, 1951 \end{aligned}$ |  |  |  |  |  |  | S53, 626 | 8.78 |
| Labrador.......... | 107,4351 | 88.615 | 40.57 |  | 40 |  | 5 | 7,890 | 0.07 |
| Prince Edward Island.. | 2,184 | 88,615 | $40 \cdot 57$ | 88,038 | $40 \cdot 31$ | 95,047 | 43.52 | 98,429 | 45.07 |
| Nova Scotia........... | 20.743 | 523,837 | $25 \cdot 25$ <br> 14 | 512,846 | 24.72 | 577,962 | 27.86 | 642,584 | 30.98 |
| New Brun | 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 | 5.49 | 3,331,882 | 6.36 | 4,055,681 | $7 \cdot 74$ |
| Ontari | 363,282 | $2,933,662$ | 8.08 | 3,431.683 | 9.45 | $3,787,655$ | $10 \cdot 43$ | 4,597,542 | $12 \cdot 66$ |
| Manito | 219,723 | 610,118 | $2 \cdot 78$ | 700,139 | $3 \cdot 19$ | 729, 744 | $3 \cdot 32$ | 776.541 | $3 \cdot 53$ |
| Saskatch | 237,975 | 757,510 | 3.18 | 921,785 | $3 \cdot 87$ | 895,992 | $3 \cdot 77$ | 831,728 | $3 \cdot 50$ |
| Alberta | 248,800 | 588,454 | $2 \cdot 37$ | 731,605 | $2 \cdot 94$ | 796,169 | $3 \cdot 20$ | 939,501 | 3.78 |
| British Colu | 359,279 | 524.582 | 1.46 | 694,263 | 1.93 | 817,861 | $2 \cdot 28$ | 1,165,210 | $3 \cdot 24$ |
| Canada (Exclusive of the Territories)...... | 2,151,313 | 8,775,164 | 4-382 | 10,363,240 | $5 \cdot 17^{2}$ | 11,489,713 | 5.742 | 13,984,329 | $6.50{ }^{3}$ |
| Yukon Territory | 205,346 | 4,157 | 0.02 | 4,230 | 0.02 | 4,814 | 0.02 | 9,096 | 0.04 |
| Northwest Territories.. | 1,253,438 | 8.143 | 0.01 | 9,316 | 0.01 | 12,028 | 0.01 | 16,004 | 0.01 |
| Canada | 3,610,097 | 8,787,949 | 2.54 | 76 | 3.005 | 506,655 | -329 | 9,429 | 885 |

[^50]The growth of Canadian cities with populations of over 30,000 in 1951, together with the dates of incorporation as cities, is shown in Table 3. All incorporated cities, towns and villages having populations of 1,000 or over in 1951 are listed in Table 6.

## 3.-Incorporated Cities with Populations of Over $\mathbf{3 0 , 0 0 0}$ 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 | Populations |  | City and Province | YearofIncor-porationas City | Populations |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1941 | 1951 |  |  | 1941 | 1951 |
|  |  | No. | No. |  |  | No. | No. |
| *Brantford, On | 1877 | 31,948 | 36,727 | *Regina, Sask | 1903 | 58,245 | 71,319 |
| *Calgary, Alta. | 1893 | 88,904 | 129,060 | $\dagger$ St. Catharines, Ont | 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, O | 1907 | 30,585 | 34,947 | *St. John's, N'f'ld | 1888 | 44,6031 | 52,873 |
| -Halifax, N.S. | 1841 | 70,488 | 85,589 | Sarnia, Ont.... | 1914 | 18,734 | 34,697 |
| $\dagger$ Hamilton, Ont tHull, Que | 1846 | 166,337 32,947 | 208,321 43,483 | *Saskatoon, Sask..... | 1906 | 43,027 | 53,268 |
| tHull, Que | 1875 | 32,947 30,126 | 43,483 33,459 | $\dagger$ Sault Ste. Marie, Ont | 1912 | 25,794 35,965 | 32,452 |
| ${ }^{*}$ Kitchener, On | 1912 | 35,657 | 44,867 | *Sudbury, Ont | 1930 | 32,203 | 42,410 |
| $\dagger$ London, Ont. | 1855 | 78,134 | 95, 343 | *Sydney, N.S. | 1904 | 28,305 | 31,317 |
| * Montreal, Que | 1832 | 903,007 | 1,021,520 | $\dagger$ Three Rivers, $Q$ | 1857 | 42,007 | 46,074 |
| †Oshawa, Ont | 1924 | 26,813 | 41,545 | *Toronto, Ont | 1834 | 667,457 | 675,754 |
| *Ottawa, Ont. | 1854 | 154,951 | 202,045 | *Vancouver, B. | 1886 | 275,353 | 344,833 |
| Outremont, Que | 1915 | 30,751 | 30,057 | $\dagger$ Verdun, Que | 1912 | 67,349 | 77,391 |
| $\dagger$ Peterborough, On | 1905 | 25,350 | 38,272 | VVictoria, B.C | 1862 | 44,068 | 51,331 |
| $\dagger$ Port Arthur, Ont | 1907 | 24,426 | 31,161 | $\dagger$ Windsor, Ont | 1892 | 105,311 | 120,049 |
| *Quebec, Que... | 1832 | 150,757 | 164,016 | *Winnipeg, Man | 1873 | 221,960 | 235,710 |

${ }^{1}$ Census taken by Newfoundland Government in 1945; 1941 figure not available.

Many of the larger cities of Canada have in their neighbourhoods growing 'satellite' towns or other urbanized areas in close economic and social relationship with the central city. For census purposes, metropolitan areas have been established for these centres to include the cities proper and their satellite communities. 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 4.

## 4.-Populations of Census Metropolitan Areas, 1951, compared with Populations of Same Areas in 1941

| Metropolitan Area | Populations |  | Metropolitan Area | Populations |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 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 | 173.075 | St. John's, N'f'ld |  | 67,749 |
| Halifax, N.S.... | 98,636 | 133,931 | Toronto, Ont.... | 909,928 | 1,117,470 |
| Hamilton, Ont. | 197,732 | 259,685 | Vancouver, B.C | 377,447 | 5304728 |
| London, Ont...... | 91,024 | 121,516 | Victoria, B.C. | 75,560 | 104,303 |
| Montreal, Que | 1,145,282 | $\begin{array}{r}1,395,400 \\ 281 \\ \hline\end{array}$ | Windsor, Ont... | 123,973 299,937 | 157,672 354,069 |
| 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 5 for the census years 1931, 1941 and 1951.

## 5.-Populations of Incorporated Cities, Towns and Villages, by Size, Census Years 1931, 1941 and 1951

| Group | $1931{ }^{1}$ |  |  | $1941{ }^{1}$ |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Num- } \\ & \text { ber } \\ & \text { of } \\ & \text { Places } \end{aligned}$ | Population | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \\ & \text { Pop. } \end{aligned}$ | $\begin{aligned} & \text { Num- } \\ & \text { ber } \\ & \text { of } \\ & \text { Places } \end{aligned}$ | Population | P.C. of Total Pop. | $\begin{aligned} & \text { Num- } \\ & \text { ber } \\ & \text { of } \\ & \text { Places } \end{aligned}$ | Population | P.C. of Total Pop. |
| Over 500,000...... | 2 | 1,449,784 | 13.97 | 2 | 1,570,464 | 13.65 | 2 | 1,697,274 | $12 \cdot 11$ |
| Between- 500,000 | - | - | - | - | - | - | - | - | - |
| 300,000 and 400,000 | - | - | - | - | - | - | 1 | 344,833 | $2 \cdot 46$ |
| 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 |  | 470,443 | $4 \cdot 53$ | 7 | 508,808 | 4.42 | 9 | 588,436 | 4.20 |
| 25,000 and 50.000 | 10 | 339,521 | $3 \cdot 27$ | 19 | 605,805 | $5 \cdot 26$ | 24 | 802,380 | $5 \cdot 73$ |
| 15,000 and 25,000 | 23 | 457,292 | $4 \cdot 41$ | 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 | $4 \cdot 42$ | 74 | 510,429 | 4.44 | 100 | 720,077 | $5 \cdot 14$ |
| 3,000 and 5,000 | 71 | 273,276 | $2 \cdot 63$ | 91 | 348,709 | $3 \cdot 03$ | 119 | 457,492 | $3 \cdot 27$ |
| 1,000 and 3,000 | 324 | 557,466 | 5-37 | 337 | 561,019 | $4 \cdot 88$ | 409 | 698,092 | 4.98 |
| Under 1,000. | 1,072 | 411,157 | 3.96 | 1,060 | 398,813 | $3 \cdot 47$ | 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 |

[^51]Of the 1,783 incorporated urban centres in Canada at the date of the latest Census, June 1, 1951, 734 had a population of over 1,000 . These are listed alphabetically by provinces in Table 6, with their 1951 populations and comparative figures for 1941.

## 6.-Incorporated Cities, Towns and Villages having Populations of Over 1,000, by Provinces, Census 1951 compared with 1941

| Province and Incorporated Centre | $1945{ }^{1}$ | 1951 | Province and Incorporated Centre | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland- | No. | No. | Nova Scotia- | No. | No. |
| Bay Roberts. | . | 1,222 | Amherst. | 8,620 | 9,870 |
| Carbonear | . | 3,351 | Antigonish | 2,157 | 3,196 |
| Channel-Port aux Basqu |  | 2,634 | Berwick. | 962 | 1,045 |
| Corner Brook East. |  | 3,445 | Bridgetown. | 1,020 | 1,038 |
| Corner Brook West | 5,464 | 6,831 | Bridgewater | 3,445 | 4,010 |
| Curling. | .. | 3,559 | Canso, | 1,418 | 1,313 |
| Deer Lake | . | 2,655 | Clark's Harbour | 887 | 1,020 |
| Fogo. | , | 1,078 | Dartmouth. | 10,847 | 15,037 |
| Grand Bank... | 2,329 | 2,148 | Digby.. | 1,657 | 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 | 908 | 6,460 | Kentville. | 3,928 | 4,240 |
| Wesleyville | 968 | 1,304 | Liverpool. | 3,170 | 3,535 |
| Windsor................ | 2,772 | 3,674 | Lockeport | 1,084 | 1,225 |
|  |  |  | Louisburg. | 1,012 | 1,120 |
|  | 1941 | 1951 | Lunenburg | 2,856 | 2,816 |
| Prince Edward Istand-Charlottetown......... |  |  | Mahone Bay | 1,025 1,172 | 1,019 1,506 |
|  | 14,821 | 15,887 | Mulgrave. | 1,057 | 1,212 |
| Montague | 769 | 1,068 | New Glasgow | 9,210 | 9,933 |
| Souris...... | 1,114 | 1,183 | New Wateriord | 9,302 | 10,423 |
| Summerside | 5,034 | 6,547 | North Sydney. | 6,836 | 7,354 |

[^52]
## 6.-Incorporated Cities, Towns and Villages having Populations of Over $\mathbf{1 , 0 0 0}$, by Provinces, 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 |
| Parrsb | 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 |
| Shelburne | 1,605 | 2,040 | Cabano..... | 2,031 | 2,594 |
| Springhill | 7,170 | 7,138 | Cadillac | 989 | 1,514 |
| Stellarton | 5,351 | 5,575 | Cap Chat | 1,329 | 1,642 |
| Stewiack | 961 | 1,018 | Cap de la Madeleine. | 11,961 | 18,667 |
| Sydney | 28,305 | 31,317 | Causapscal. ....... | 1,545 | 2,609 |
| Sydney M | 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 |
| Wolf ville | 1,944 | 2,313 | Charlesbourg | 2,789 | 5,734 |
| Yarmouth | 7,790 | 8,106 | Charny. | 2,831 | 3,300 |
|  |  |  | Châteauguay | 1,425 | 2,240 |
| $\underset{\text { Bathurst }}{\text { New Brunswick- }}$ |  |  | Chicoutimi. | 16,040 | 23,216 |
| Bathurst... | 3,554 6,748 | 4,453 | Clermont. | 1,318 4,414 | 2,027 6,341 |
| Chatham... | 4,082 | 5,223 | Contrecoeur | 1,043 | 1,435 |
| Dalhousie | 4,508 | 4,939 | Cookshire. | 877 | 1,209 |
| Dieppe. |  | 3,402 | Côte-St-Luc | 776 | 1,083 |
| Edmundston | 7,096 | 10,753 | Courville. | 2,011 | 3,138 |
| Fredericton | 10,062 | 16,018 | Cowansvill | 3,486 | 4,431 |
| Grand Fall | 1,806 | 2,365 | Danville. | 1,332 | 2,092 |
| Hartland. | 847 | 1,000 | DeLery | 816 | 1,194 |
| Marysville | 1,651 | 2,152 | Deschaillons-sur-St. La | 1,078 | 1,185 |
| Milltown. | 1,876 | 2,267 | Deschenes. | 284 | 1,169 |
| Moncton | 22,763 | 27,334 | Disraéli. | 1,338 | 2,145 |
| Newcastle | 3,781 | 4,248 | Dolbeau. | 2,847 | 4,307 |
| St. Andrew | 1,167 | 1,458 | Donnacona | 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. Stephen. | 3,306 | 3,769 | Drummondville | 10,555 | 14,341 |
| Sackville. | 2,489 | 2,873 | Drummondville |  | 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 |  | 1,181 | Farnham. | 4,055 | 4,926 |
| Sunny Bra | 1,368 | 2,048 | Ferme-Neuve | 811 | 1,660 |
| Sussex.. | 3,027 | 3,224 | Fort Coulonge | 1,072 | 1,431 |
| Woodstock | 3,593 | 3,996 | Gaspe.. | 924 | 1,692 |
|  |  |  | Gatinea | 2,822 | 5,771 |
| Quebec- |  |  | Giffard. | 4,909 | 8,097 |
| Acton Vale | 2,366 | 3,367 | Granby | 14,197 | 21,989 |
| Amos. | 2,862 | 4,265 | Grand'Mère | 8,608 | 11,089 |
| Amqui ${ }^{\text {2 }}$. | 1,593 | 2,599 | Greenfield Park | 1,819 | 3,379 |
| Arthabask | 1,883 | 2,321 | Grenville. | 737 | 1,069 |
| Arvida. | 4,581 | 11,078 ${ }^{3}$ | Hampstead | 1,974 | 3,260 |
| Asbestos | 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 Comeau. | 1,548 | 3,972 | Huntingdon. | 1,952 | 2,806 |
| Baie de Shawinigan. | 1,255 | 1,223 | Iberville. | ${ }_{1} 19$ | - 22.185 |
| Baie St. Paul. | 3,500 | 3,716 1 | Jacques-Cart |  |  |
| Beaconsfield. | 706 899 | 1,888 1,149 | Joliette... | 12,749 13,769 | 16,064 21,618 |
| Beauceville. | 899 1,251 | 1,149 1,573 | Jonquières | 12,769 6,579 | 21,618 9,895 |
| Beauceville E. | 1,251 3,550 | 1,573 5,694 | Kenogami | 6,579 | 1,094 |
| Beauharnois. | 3,550 3,725 | 5,390 | Labelle.. | 709 | 1,003 |
| Beauport E | 587 | 1,096 | L'Abord-a-Plouffe | 1,773 | 4,604 |
| Bedford... | 1.697 | 2,073 | Lac-au-Saumon | 1.703 | 1,622 |
| Beebe Plain | 1,024 | 1.352 | Lachine. | 20.051 | 27,773 |
| Belleterre. |  | 1.011 | Lachute. | 5,310 | 6.179 |
| Beloeil. . | 2,008 | 2,992 | Lacolle. | 874 819 | 1,055 |
| Bernierville | 1,638 | 1,959 | Lac St. Louis... | 819 | 1.300 |
| Berthierville | 2,634 | 3,325 1,086 | La Guadeloupe ${ }^{5}$ | - 2.324 | 2,466 |
| Bic. | 1,117 | 1,086 2,800 | La Malrade. | 2,324 1,014 | 1,111 |
| Black Lake | 2,276 1,047 | 2,800 1,583 | Laprairie.. | 2,936 | 4,058 |

${ }^{1}$ Not incorporated in 1941.
of Arvida.

## 6.-Incorporated Cities, Towns and Villages having Populations of Over 1,000, by Provinces, Census 1951 compared with 1941-continued

| Province and Incorporated Centre | 1941 | 1951 | Province and Incorporated Centre | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Quebec-continued | No. | No. | Quebec-continued | No. | No. |
| La Providence | 1,924 | 2,693 | Rivière-du-Moulin. | 1,561 | 2,580 |
| Lasalle. | 4,651 | 11,633 | Roberval. | 3,220 | 4,897 |
| La Sarre | 2,167 | 2,744 | Rock Island | 1,395 | 1,646 |
| L'Assompti | 1,829 | 2,688 | Rouyn. | 8,808 | 14,633 |
| La Tuque.. | 7,919 | 9,538 | Ste. Agathe-des-Monts...... | 3,308 | 5,169 |
| Laurentide | 1,342 | 1,465 | St. Alexis - de - la - Grande - |  |  |
| Lauzon. | 7,877 | 9,643 | Baie. | 2,230 | 2,974 |
| Laval-des-Rapi | 3,242 | 4,998 1,935 | St. Ambroise............... | $\begin{array}{r}458 \\ 1,783 \\ \hline\end{array}$ | 1,032 |
| Laval W. | ${ }_{2} 542$ | 1,935 4,078 | Ste. Anne-de-Beaupré. ....... | 1,783 <br> 3,006 | 1,827 3,342 |
| Lennoxvill | 2,150 | 2,895 | Ste. Anne-de-Chico | 1,540 | 3,966 |
| L'Epiphan | 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. Cceur-de-M | 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 |
| Mackayvil |  | 6,494 | St. Eustach | 1,564 | 2,615 |
| Magog. | 9,034 | 12,423 | St. Eustache | 1,472 | 3,211 |
| Malartic | 2,895 | 5,983 | St. Félicien. | 1,603 | 2,656 |
| Maniwaki. | 2,320 | 3,835 | St. Felix-de-Val | 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- |  |  |
| McMasterv | 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.) .... | 1,945 | 2,657 |
| Montebe | 1,266 | 1,397 | St. Georges W.(Beauce Co.) ${ }^{3}$ | 1,945 | 2,691 |
| Mont Joli. | 3,533 | 4,938 | St. Hilaire. | 686 | 1,436 |
| Mont Laurie | 2,661 | 4,701 | St. Hyacinth | 17,798 | 20,236 |
| Montmagny | 4,585 | 5,844 | St. Jacques | 1,634 | 1,729 |
| Montmorency | 5,393 | 5,817 | St. Jean. | 13,646 | 19,305 |
| Montreal. | 903,007 | 1,021,520 | St. Jean-de-Boischatel |  | 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 |
| Montreal W | 3,474 | 3,721 | St. Joseph (St. Hyacinthe |  |  |
| Mont Royal | 4,888 | 11,352 | Co.).. | 1,021 | 2,122 |
| Napierville | 990 | 1,356 | St. Joseph-d'Alma. | 6,449 | 7,975 |
| Naudville |  | 1,430 | St. Joseph (Drummond Co.) | 5,556 | 6,576 |
| Nicolet. | 3,751 | 4,084 | St. Joseph-de-la-Rivière- |  |  |
| Noranda | 4,576 | 9,672 | Bleue. | 1,082 | 1,334 |
| Normandin | 1,029 | 1,678 | St. Joseph-de-So | 2,207 | 3,349 |
| Notre-Dame-d'Hébert | 1,025 | 1,285 | St. Jovite. | 1,059 | 1,453 |
| Notre-Dame-de-Loret |  | 2,516 | St. Lambert | 6,417 | 8,615 |
| Notre-Dame-de-Po | 1,015 | 1,144 | St. Laurent. | 6,242 | 20,426 |
| Notre-Dame-du-L |  | 1,364 | St. Marc-des | 2,118 | 2,351 |
| Ormstown | 887 | 1,233 | Ste. Marie. | 1,736 | 2,431 |
| Outremon | 30,751 | 30,057 | St. Michel (Montreal Island) | 2,956 | 10,539 |
| Papineauvill | 1,023 | 1,024 | St. Pacôme.................. | 1,254 | 1,197 |
| Parent. |  | 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 |
| Pointe-a-Gati | 2,230 | 3,874 | St. Raymond................ | 2,157 | 3,139 |
| Pointe-au-Pic | 1,083 | 1,105 | St. Remi. | 1,431 | 1,845 |
| Pointe-aux-T | 4,314 | 8,241 | Ste. Rosalie |  | 1,038 |
| Pointe Clair | 4,536 | 8,753 | Ste. Rose | 2,292 | 3,660 |
| Pont Rouge | 1,865 | 2,413 | St. Sauveur-des- | 595 | 1,066 |
| Pont Viau | 1,342 | 5,129 | St. Siméon. | 858 | 1,103 |
| Port Alfre | 3,243 | 3,937 | Ste. Thècle | 904 | 1,468 |
| Price. | 2,321 | 2,810 | Ste. Thérés | 4,659 | 7,038 |
| Princevil | 1,145 | 1,967 | St. Tite.. | 2,385 | 2,856 |
| Quebec | 150,757 | 164,016 | Sayabec. | 2,115 | 2,220 |
| Quebec | 3,619 | 7,295 | Scotstown | 1,273 | 1,350 |
| Rawdon. | 1,236 773 | 1,912 1,129 | Senneterre | 1 | 1,686 1,866 |
| Richmon | 3,082 | 3,471 | Shawinigan Fails | 20,325 | 26,903 |
| Rigaud. | 1,222 | 1,579 | Shawinigan-Sout |  | 6,637 |
| Rimouski. | 7,009 | 11,565 | Shawville.. | 892 | 1,159 |
| Riviere-du-Lou | 8,713 | 9,425 | Sherbrook | 35,965 | 50,543 |

${ }^{2}$ Not incorporated in 1941. in 1941.

## 6.-Incorporated Cities, Towns and Villages having Populations of Over 1,000, by Provinces, 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... | $1{ }^{1}$ | 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 Cli | 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 Pistoles | 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 |
| Verchèr | 906 | 1,201 | Eganville | 1,088 | 1,326 |
| Verdun. | 67.349 | 77,391 | Elmira | 2,012 | 2,589 |
| Victoriavi | 8,516 | 13,124 | Elora. | 1,247 | 1,348 |
| Ville-Mari | 1,001 | 1.316 | Engleha | 1,262 | 1,585 |
| Warwick | 1,504 | 2,094 | Essex. | 1,935 | 2,741 |
| Waterlo | 3,173 | 4,054 | Exeter | 1,589 | 2,547 |
| Waterville | 844 | 1,205 | Fenelon Falls. | 1,158 | 1,304 |
| Weedon Cen | 599 | 1,066 | Fergus. | 2,832 | 3,387 |
| Westmount | 26,047 | 25,222 | Fonthill | 1,000 | 1,412 |
| Windsor. | 3,368 | 4,714 | Forest. | 1,570 | 1,790 |
|  |  |  | Forest Hill | 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 William | 30,585 | 34,947 |
| Alliston. | 1,733 | 1,987 | Frankford. | 1,144 | 1,393 |
| Almonte | 2,543 | ${ }_{3}^{2,672}$ | Galt. | 15,346 | 19,207 |
| Amherstbur | 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 | Gravenhurst | 2,122 | 3,005 |
| Bancrof | 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 | Harristo | 1,305 | 1,494 |
| Blenheim. | 1,952 | 2,459 | Harrow. | 1,166 | 1,519 |
| Blind Riv | 2,619 | 2,512 | Havelock | 1.113 | 1,132 |
| Bobcayge | 1,002 | 1,207 | Hawkesbury | 6,263 | 7,194 |
| Bowmanville. | 4,113 | 5,430 | Hearst... | 995 | 1,723 |
| Bracebridge | 2,341 | 2,684 | Hespeler | 3.058 | 3,882 |
| Bradford. | 1,033 | 1,483 | Humberston | 2,963 | 3,895 |
| Brampton | 6,020 | 8,389 | Huntsville | 2,800 | 3,286 |
| Brantíord | 31,948 | 36,727 | Ingersoll. | 5,782 | 6.524 |
| Bridgeport |  | 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. | 7,745 |  |
| Campenialiford | 1,401 3,018 | 1,681 3,235 | Kenora..... | \%,507 | 2,672 |
| Capreol..... | 1,641 | 2,002 | Kingston.. | 30,126 | 33,459 |
| Cardinal | 1,645 | 1,782 | Kingsville. | 2,317 | 2,631 |
| Carleton Place | 4,305 | 4,725 | Kitchener | 35,657 | 44.867 |
| Casselman | 1,021 | 1,158 | Lakefield | 1,349 | 1,710 |
| Chatham. | 17,369 | 21,218 | La Salle. | 951 | 1.854 |
| Chelmsford | 905 | 1,210 | Leamingto | 5,858 | 6,950 |
| Chesley. | 1,701 | 1,672 | Leaside. | 6,183 | 16.233 |
| Chesterville | 1,067 | 1,094 | Levack. | 895 | 1.833 |
| Chippewa. | 1,385 | 1,762 | Lindsay | 8,403 | 9,603 |
| Clinton.... | 1,896 | 2.547 | Listowel. | 3,013 |  |
| Cobalt | 2,376 | 2,230 | Little Current | 1.088 78.134 | 1,397 |
| Cobourg | 5,973 | 7,470 | London. | 78,134 | 95,343 |

1941. 

## 6.-Incorporated Cities, Towns and Villages Having Populations of Over $\mathbf{1 , 0 0 0}$, by Provinces, Census 1951 compared with 1941-continued

| Province and Incorporated Centre | 1941 | 1951 | Province and Incorporated Centre | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario-continued |  | 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 | Stouff ville... | 1,253 | 1,695 |
| Markham | 1,204 | 1,606 | Stratford.. | 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 Falls | 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 |
| Mitchell | 1,777 | 1,979 | Thessalon. | 1,316 | 1,595 |
| Morrisburg | 1,575 | 1,858 | Thorold. | 5,305 | 6,397 |
| 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 |
| Newmarket | 4,026 | 5,356 | Trenton. | 8.323 | 10.085 |
| New Toront | 9.504 | 11, 194 | Tweed. | 1,343 | 1,562 |
| Niagara. | 1,541 | 2,108 | Uxbridge. | 1,406 | 1,785 |
| Niagara Fall | 20,589 | 22,874 | Vankleek Hill | 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 |
| Orangevil | 2,718 | 3,249 | Waterford | 1,342 | 1,745 |
| Orillia. | 9,798 | 12,110 | Waterloo | 9,025 | 11,991 |
| Oshawa | 26,813 | 41,545 | Watford | 1,076 | 1,201 |
| Ottawa | 154,951 | 202,045 | Welland | 12,500 | 15,382 |
| Owen Soun | 14.002 | 16,423 | West Lor | 728 | 1,031 |
| Palmersto | 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 |
| Penetanguis | 4,521 | 4,949 | Wincheste | 1,049 | 1,201 |
| Perth. | 4,458 | 5,034 | Windsor. | 105,311 | 120,049 |
| Peterborous | 25,350 | 38,272 | Wingham. | 2,030 | 2,642 |
| Petrolia. | 2,801 | 3,105 | Woodbridg | 1,044 | 1,699 |
| Picton.... | 3,901 | 4,287 | Woodstock | 12,461 | 15,544 |
| Point Edwa | 1,363 | 1,838 |  |  |  |
| Port Arthur | 24,426 | 31,161 | Manitoba- |  |  |
| Port Colbor | 6,993 | 8,275 | Altona.... |  | 1,438 |
| Port Credit | 2,160 | 3,643 | Beauséjour. | 1,161 | 1,376 |
| Port Dalhous | 1,723 | 2,616 | Boissevain | 817 | 1,015 |
| Port Dover | 1,968 | 2.440 | Brandon. | 17,383 | 20,598 |
| Port Elgin. | 1.395 | 1,558 | Brookland | 2,240 | 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 Riv | 1,205 | 1,348 | Morden.. | 1,427 | 1,862 |
| Renirew. | 5,511 | 7,360 | Morris. | 953 | 1,193 |
| Richmond | 1,345 | 2,164 | Neepawa | 2,292 | 2,895 |
| Ridgetow | 1,944 | 2.365 | Portage la Prairie | 7,187 | 8,511 |
| $\xrightarrow{\text { Riverside. }}$ Rockcliffe P | 4,878 1,480 | 9,214 | Powerview |  | 1,075 |
| Rockland. | 2,040 | 2,348 | Rivers | 802 | 1,209 |
| St. Cathar | 30,275 | 37,984 | Russell | 783 | 1,100 |
| St. Mary's | 3.635 | 3,995 | St. Boniface | 18,157 | 26,342 |
| St. Thom | 17,132 | 18,173 | Selkirk. | 4,915 | 6,218 |
| Sarnia | 18.734 | 34,697 | Souris. | 1,346 | 1,584 |
| Sault Ste. | 25,794 | 32,452 | Steinbach |  | 2,155 |
| Shelburne | 1,668 1,005 | 2,118 1,184 | Stonewall. | 1,020 | 1,040 |
| Simcoe. | 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 F | 953 | 1,102 | Virden. | 1,619 | 1,746 |
| Southampton. | 1,600 | 1,700 | Winkler | 957 | 1,331 |
| Stayner. | 1,085 | 1,280 | Winnip | 221,960 | 235,710 |

6.-Incorporated Cities, Towns and Villages having Populations of Over $\mathbf{1 , 0 0 0}$, by Provinces, Census 1951 compared with 1941-concluded

| Province and Incorporated Centre | 1941 | 1951 | Province and Incorporated Centre | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Saskatchewan- | 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 Rive | 873 | 1,672 |
| Estevan | 2,774 | 3,935 | Pincher Creek | 994 | 1,456 |
| Eston | 726 | 1,301 | Ponoka. | 1.306 | 2,574 |
| Gravelbourg | 1,130 | 1,197 | Raymond | 2,089 | 2,279 |
| Grenfell. | 857 | 1,007 | Redeliff. | 1,111 | 1,538 |
| Hudson Ba | 547 | 1,115 | Red Dee | 2,924 | 7,575 |
| Humboldt. | 1,767 | 2,435 | Redwater. |  | 1,306 |
| Indian Head | 1,349 | 1,569 | Rocky Mountain Ho | 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 Lak | 971 | 1,956 | Three Hills | 706 | 1,026 |
| Melfort. | 2,005 | 2,919 | Vegreville. | 1,696 | 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 | Wainwright | 980 | 1,996 |
| Nipawin. | 1,344 | 3,050 | Westlock. | 590 | 1,111 |
| North Battlefo | 4,745 | 7,473 | Wetaskiwi | 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 |
| Saskatoon | 43,027 | 53,268 | Campbell River |  | 1,986 |
| Shaunavon | 1,603 | 1,625 | Castlegar.. | 2 | 1,329 |
| Sutherland | 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 |  | 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 Cre | 518 | 3,589 |
| Weyburn | 6,179 | 7,148 | Duncan. | 2,189 | 2,784 |
| Wilkie. | 1,232 | 1,580 | Fernie. | 2,545 | 2,551 |
| Wynyard | 1,080 | 1,326 | Grand F | 1,259 | 1,646 |
| Yorkton. | 5,577 | 7,074 | Hope... Kamloo | 1,515 5,959 | 1,668 8,099 |
| Alberta- |  |  | Kelowna. | 5,118 | 8,517 |
| Athabaska. | 578 | 1,068 | Kimberley |  | 5,933 |
| Barrhead | 399 | 1,243 | Ladysmith | 1,706 | 2,094 |
| Beverly. | 981 | 2,159 | Lake Cowichan |  | 1,628 |
| Black Diamond | 890 | 1,154 | Merritt. | 940 | 1,251 |
| Blairmore...... | 1,731 | 1,933 | Mission City | 1,957 | 2,668 |
| Bonnyvill | 603 | 1,139 | Nanaimo. | 6,635 | 7,196 6,772 |
| Bowness. |  | 2,922 1,648 | Nelson. Westminst |  | - 28,763 |
| Brooks.. | -8888 | 1,648 129,060 | New Westminster |  | 28,699 1,979 |
| Calgary. Camrose | 88,904 2,598 | 129,060 4,131 | North Vamcouver | 8,914 | 15,687 |
| Cardston. | 1,864 | 2,487 | Oliver. |  | 1,000 |
| Claresholm | 1,265 | 1,608 | Penticton | 2 | 10,548 |
| Coleman... | 1,870 | 1,961 | Port Alberni. | 4,584 | 7,845 |
| Didsbury. | 892 | 1,180 | Port Coquitlam | 1,539 1,512 | 3,232 2,246 |
| Drumheller | 2,748 | 2,601 | Port Moody. | 1,512 | $\begin{array}{r}2,246 \\ 4 \\ \hline\end{array}$ |
| Edmonton. | 93,817 | 159,631 | Prince George | 1,027 6,714 | 4,703 8,546 |
| Edson. | 1,499 899 | 1,956 1,079 | Prince Rupert |  | 8,546 1,587 |
| Forest Lawn.... | 899 903 | 1,079 1,076 | Quesnel. | 2,106 | 1,987 2,904 |
| Grande Prairie. . | 1,724 | 2,664 | Rossland. | 3,657 | 4,604 |
| Hanna... | 1,622 | 2,027 | Salmon Arm | 836 | 1,201 |
| High Prairie | 2 | 1,141 | Smithers. | 759 | 11,204 |
| High River. | 1,430 | 1,888 | Trail.... | $\begin{array}{r}9,392 \\ 275 \\ \hline\end{array}$ | 11,430 344.833 |
| Innisfail. | 1,223 | 1,417 9.139 | Vancouver | 275,353 5,209 | 344,833 7,822 |
| Jasper Place. . . . . |  | 9,139 2,277 | Victoria. | 44,068 | 51,331 |
| Lacombe..... | 1,603 | 1,842 | Westview |  | 3,507 |
| Lethbridge | 14.612 | 22,947 |  |  |  |
| Macleod. | 1,912 1,207 | 1,860 1,320 | Whitehorse...... | 754 | 2,594 |
| Magrath............. | 1,207 | 1,320 |  | 754 | 2,594 |

Table 7 shows the populations of counties and census divisions for the census years 1901 to 1951. In Prince Edward Island, New Brunswick and Ontario census counties correspond closely with the municipal counties of these Provinces. In Quebec, census counties have been subdivided to correspond as far as possible with the additional municipal counties created in this Province. For example, Charlevoix County is divided into Charlevoix East and Charlevoix West and separate figures are shown for each. The Provinces of Newfoundland, Manitoba, Saskatchewan, Alberta and British Columbia have been divided for statistical purposes into census divisions since they have no fixed political divisions corresponding to the counties in other provinces.
7.-Populations of the Provinces and Territories, by Counties or Census Divisions,

| Province and County or Division | 1901 | 1911 | 1921 | 1931 | - 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Canada. | 5,371,315 | 7,206,643 | 8,787,9491 | 10,376,786 | 11,506,655 ${ }^{2}$ | 14,009,429 |
| Newfoundland. | $\cdots$ | . | . | . | 321,819 ${ }^{3}$ | 361,416 |
| Division No. 1. | .. | .. |  | . | 138,194 | 149,543 |
| Division No. 2. | .. | .. |  | .. | 21,958 | 22,366 |
| Division No. 3. | $\cdots$ | .. |  | . | 19,177 | 20,434 |
| Division No. 4. | . | . |  | . | 13,074 | 15,982 |
| Division No. 5 |  |  |  |  | 20,720 | 28,089 |
| Division No. 6. | .. |  |  | . | 19,894 | 27,968 |
| Division No. 7 | .. | .. | . | $\cdots$ | 35,419 | 35,294 |
| Division No. 8. | . | . | .. | .. | 33,019 | 36,799 |
| Division No. 10. | . | . | $\cdots$ | $\cdots$ | 14,89 5,525 | 17,051 7,890 |
| P. E. Island. | 103,259 | 93,728 | 88,615 | 88,038 | 95,047 | 98,429 |
| Kings. | 24,725 | 22,636 | 20,445 | 19,147 | 19,415 | 17,943 |
| Prince. | 35,400 | 32,779 | 31,520 | 31,500 | 34,490 | 37,735 |
| Queens. | 43,134 | 38,313 | 36,650 | 37,391 | 41,142 | 42,751 |
| Nova Scotia. | 459,574 | 492,338 | 523,837 | 512,846 | 577,962 | 642,584 |
| Annapolis. | 18,842 | 18,581 | 18,153 | 16,297 | 17,692 | 21,747 |
| Antigonish. | 13,617 | 11,962 | 11,580 | 10,073 | 10,545 | 11,971 |
| Cape Breton | 49.166 | 73,330 | 86,319 | 92,502 | 110,703 | 120,306 |
| Colchester. | 24,900 | 23,664 | 25,196 | 25,051 | 30,124 | 31,536 |
| Cumberland | 36,168 | 40,543 | 41,191 | 36,366 | 39,476 | 39,655 |
| Digby... | 20,322 | 20,167 | 19,612 | 18,353 | 19,472 | 19,989 |
| Guysboroug | 18,320 | 17,048 | 15,518 | 15,443 | 15,461 | 14,245 |
| Halifax. | 74,662 | 80,257 | 97,228 | 100,204 | 122.656 | 162,217 |
| Hants. | 20,056 | 19,703 | 19,739 | 19,393 | 22,034 | 23,357 |
| Invernes | 24,353 | 25,571 | 23,808 | 21,055 | 20,573 | 18,390 |
| Kings. | 21,937 | 21,780 | 23,723 | 24,357 | 28,920 | 33,183 |
| Lunenburg | 32,389 | 33,260 | 33,742 | 31,674 | 32,942 | 33,256 |
| Pictou. | 33,459 | 35, 858 | 40,851 | 39,018 | 40,789 | 44,002 |
| Queens. | 10,226 | 10,106 | 9,944 | 10,612 | 12,028 | 12,544 |
| Richmond | 13,515 | 13,273 | 12,464 | 11,098 | 10,853 | 10,783 |
| Shelburne | 14,202 | 14,105 | 13,491 | 12,485 | 13,251 | 14,392 |
| Victoria. | 10,571 | 9,910 | 8,904 | 7,926 | 8,028 | 8,217 |
| Yarmouth | 22,869 | 23,220 | 22,374 | 20,939 | 22,415 | 22,794 |
| New Brunswick. | 331,120 | 351,889 | 387,876 | 408,219 | 457,401 | 515,697 |
| Albert. | 10,925 | 9,691 | 8,607 | 7,679 | 8,421 | 9,910 |
| Carleton. | 21,621 | 21,446 | 21,100 | 20,796 | 21,711 | 22,269 |
| Charlotte | 22,415 | 21,147 | 21,435 | 21,337 | 22,728 | 25,136 |
| Glouceste | 27,936 | 32,662 | 38,684 | 41,914 | 49.913 | 57,489 |
| Kent. | 23,958 | 24,376 | 23,916 | 23,478 | 25,817 | 26,767 |
| Kings... | 21,655 | 20,594 | 20,399 | 19,807 | 21,573 | 22,467 |
| Madawas | 12,311 | 16,678 | 20,138 | 24,527 | 28.176 | 34,329 |
| Northumberl | 28,543 | 31,194 | 33,985 | 34,124 | 38,485 | 42,994 |
| Restigouch | 11,177 10,586 | 10.897 15,687 | 11,679 22,839 | 11,219 29,859 | 12,775 33,075 | 13,206 36,212 |
| St. John | 51,759 | 53,572 | 60,486 | 61,613 | 68,827 | 74,497 |

[^53]7.-Populations of the Provinces and Territories, by Counties or Census Divisions, Census Years 1901-51-continued

| Province and County | 1901 | 1911 | 1921 | 1931 | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New Brunswick-concl. | No. | No. | No. | No. | No. | No. |
| Sunbury........... | 5,729 | 6,219 | 6,162 | 6,999 | 8,296 | 9,322 |
| Victoria. | 8,825 | 11,544 | 12,800 | 14,907 | 16,671 | 18,541 |
| Westmorland | 42,060 | 44,621 | 53,387 | 57,506 | 64,486 | 80,012 |
| York.. | 31,620 | 31,561 | 32,259 | 32,454 | 36,447 | 42,546 |
| Quebec. | 1,648,898 | 2,005,776 | 2,360,510 | 2,874, 662 | 3,331,882 | 4,055,681 |
| Abitibi | 2,405 | 2,063 | 14,807 | 23,692 | 67,689 | 86,356 |
| Argenteuil | 16,407 | 16,766 | 17,165 | 18,976 | 22,670 | 25,872 |
| Arthabask | 22,958 | 24,441 | 24,848 | 27,159 | 30,039 | 36,957 |
| Bagot. | 18,181 | 18,206 | 18,035 | 16,914 | 17,642 | 19,224 |
| Beauce | 33,198 | 38,161 | 40,308 | 44,793 | 48,073 | 54,973 |
| Beauharnois | 21,732 | 20,802 | 19,888 | 25,163 | 30,269 | 38,748 |
| Bellechasse | 18,706 | 21,141 | 21,813 | 22,006 | 23,676 | 25,332 |
| Berthier | 20,710 | 20,606 | 20,509 | 19,506 | 21,233 | 24,717 |
| Bonaventu | 24,495 | 28,110 | 29,092 | 32,432 | 39,196 | 41,121 |
| Brome | 13,303 | 13,216 | 13,381 | 12,433 | 12,485 | 13,393 |
| Chambly | 12,779 | 16,711 | 21,924 | 26,801 | 32,454 | 77,931 |
| Champlain | 32,015 | 43,866 | 54,034 | 59,862 | 68,057 | 85,745 |
| Charlevoix. | 19,334 | 20,637 | 20,708 10,235 | 22,940 11,751 | 25,602 | 28,259 14.511 |
| Charlevoix West | 10,462 | 10,582 | 10,478 | 11,189 | 12,585 | 15,748 |
| Châteauguay | 13,583 | 13,322 | 13,557 | 13,125 | 14,443 | 17,857 |
| Chicoutimi. | 16,872 | 23,375 | 37,578 | 55,724 | 78,881 | 115,904 |
| Compton. | 19,343 | 21,235 | 23, 271 | 21,917 | 22,957 | 23,856 |
| Deux-Montagn | 14,438 | 13,868 | 14,309 | 14,284 | 16,746 | 21,048 |
| Dorchester. | 20,697 | 24,457 | 26,788 | 27,994 | 29,869 | 33,313 |
| Drummond | 16,041 | 17,149 | 19,975 | 26,179 | 36,683 | 53,426 30 |
| Frontenac. | 17,358 | 22,272 | 24,090 | 25,681 45,617 | 28,596 55 | 30,733 62,530 |
| Gaspe. | 30,683 | 35,001 | 40,375 85,891 | - 28,6183 | 55,208 38,871 | 87,442 |
| Gaspe East. | 19,767 | 22,642 5,696 | 26,891 7,357 | 28,433 9,842 | 12,397 | 15,089 |
| Gaspe West. ${ }^{\text {Madeleine Islands }}$ | 4,890 6,026 | 6,696 6,663 | 7,197 | 7,942 | 8,940 | 15,999 |
| Hochelaga (included in Montreal Island). | 6,026 |  |  |  |  |  |
| Hull. | 42,830 | 48,332 | 54,682 | 63,870 28,985 | 71,188 | 92,582 36,264 |
| Gatineau | .. | . | . | - 36,945 | 41,434 | 57, 318 |
| Hunting don | 13,979 | 13,240 | 13,174 | 12,345 | 12,394 | 13,457 |
| Ibverville. | 9,673 | 9,493 | 9,299 | 9,402 | 10,273 | 13,507 |
| Jacques Cartier (included in Montreal Island). |  |  |  |  |  |  |
| Joliette. | 22,255 | 23,911 | 25,913 | 27, 585 | ${ }_{25} \mathbf{2 1 , 5 3 5}$ | -36,672 |
| Kamourask | 19,099 | 20,888 | 22,014 19,734 | 23,954 20,140 | 22,974 | 27,197 |
| Labelle. | 7,175 | 13,691 | 35,539 | 50,253 | 64,306 | 82,006 |
| Lac St. Jean............... | 20,156 9,305 | 11, 4163 | 13,358 | 80, 217 | 25,245 | 31,188 |
| Lac St. Jean East....... | 9,305 10,851 | 11,468 15,648 | 15,318 28,181 | 30,036 | 39,061 | 50,878 |
| Lae St. Jean West | 10,851 11,057 | 15,648 11,623 | 12,071 | 13,491 | 13,730 | 18,639 |
| L'Assomption | 13,995 | 15,164 | 14,331 | 15,323 | 17,543 | 23,205 |
| Laval (included in Jesus Island). | , |  |  |  |  |  |
| Lévis. | 26,210 | 28,913 | 33,323 | 35,656 | 38,119 | 43,625 |
| L'Islet | 14,439 | 16,435 | 17,859 | 19,404 | 20,589 | 22,996 |
| Lotbinière | 20,039 | 22,158 | 21,837 | 23,034 | 20,604 | 19,478 |
| Maskinongé. | 15,083 | 15,775 | 16,253 | 15,272 | 55,414 | 64,182 |
| Matane.. | 20,456 | 27,539 | 36,303 | 80, 886 | 25,488 | 80,843 |
| Matane. | .. | . | $\cdots$ | 24,886 | 29,986 | 33,989 |
| Matapédia............... | 23,878 | 31,314 | 33,633 | 35,492 | 40,357 | 45,325 |
| Missisquo. | 17,339 | 17,466 | 17,709 | 19,636 | 21,442 | 24,689 |
| Montcalm | 13,001 | 13,342 | 13,987 | 13,865 | 15,208 | 17.520 |
| Montmagny. | 14,757 | 17,356 | 21,997 | 20,239 | 22,049 | 24,5189 |
| Montmorency........... | 12,311 | 13,215 9 | 14,008 10,460 | 16,955 | 14,309 | 17,040 |
| Montmorency No. 1.... | 8,315 3,996 | 9,487 3,778 | 10,460 3,548 | 18,805 3,805 | 4,299 | 4,349 |
| Montmorency No. ${ }_{\text {Montresl and Jesus Islands }}$ | 371,086 | 566,168 | 738,210 | 1,020,018 | 1,138,431 | 1,358,075 |
| Jesus Island | 10,248 | 11, 407 | 14,005 | 16,150 | 21,681 | 37,843 |
| Montreal Island......... | 360,838 | 554, 761 | 724,205 | 1,003,868 | 1,116,800 | 1,380,238 |
| Napierville.............. | 8.576 | 7,712 | 7,994 | 7,600 | 8,329 | ${ }^{9,203}$ |
| Nicolet. | 27,209 | 30,055 | 29.695 | 28,673 | 30,085 | 30,335 |

## 7.-Populations of the Provinces and Territories, by Counties or Census Divisions, Census Years 1901-51-continued

| Province and County | 1901 | 1911 | 1921 | 1931 | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quebec-concl. | No. | No. | No. | No. | No. | No. |
| Papineau. | 25,726 | 27,180 | 26,558 | 29,246 | 27,551 | 29,381 |
| Pontiac. | 21,442 | 21,123 | 20,271 | 21,241 | 19,852 | 20,696 |
| Portneuf | 27,159 | 30,529 | 32,811 | 35,963 | 38,996 | 43,453 |
| Quebec | 90,941 | 104,554 | 124,776 | 170,915 | 202,882 | 252,890 |
| Richelieu | 19,518 | 20,686 | 19,548 | 21,483 | 23,691 | 30,801 |
| Richmond | 17,821 | 21,282 | 24,067 | 24,956 | 27,493 | 34,102 |
| Rimouski | 19,701 | 23,951 | 27,520 | 33,151 | 44,233 | 53,220 |
| Rouville. | 13,407 | 13,131 | 13,656 | 13,776 | 15,842 | 19,506 |
| Saguenay ${ }^{1}$. | 11,263 | 15,402 | 16,663 | 22,161 | 29,419 | 42,664 |
| Shefford. | 23,722 | 23,976 | 25,734 | 28,262 | 33,387 | 43,722 |
| Sherbrook | 18.426 | 23,211 | 30,786 | 37,386 | 46,574 | 62,166 |
| Soulanges. | 9,928 | 9,400 | 10,065 | 9,099 | 9,328 | 9,233 |
| Stanstead | 18,998 | 20,765 | 23,380 | 25,118 | 27,972 | 34,642 |
| St. Hyacinthe | 21,543 | 22,342 | 23,098 | 25,854 | 31,645 | 38,101 |
| St. Jean. | 11,006 | 12,389 | 14,219 | 17,649 | 20,584 | 28,702 |
| St. Maurice. | 29,311 | 35,045 | 50,845 | 69,095 | 80,352 | 93,855 |
| Témiscamingue. | 4,280 | 8,293 | 11,764 | 20,609 | 40,471 | 55,102 |
| Témiscouata.... | 29,185 | 36,430 | 44,310 | 50,294 | 57,675 | 65, 550 |
| Rivière-du-Loup | .. | .. | .. | 35,271 | 34,498 | \$7,375 |
| Terrebonne... |  |  |  | 17,083 | 23,182 | 28,175 |
| Vaudreuil.. | 10,445 | 29,018 | 33,908 | 38,611 | 46,864 | 67,437 |
| Verchères | 11,539 | 12,004 | 12,719 | 12,015 12,603 | 13,170 14,214 | 17,378 17,729 |
| Wolfe. | 16,316 | 18,209 | 18,181 | 16,911 | 17,492 | 18,153 |
| Yamaska | 20,564 | 19,511 | 18,056 | 16,820 | 16,516 | 16,071 |
| Ontario. | 2,182,947 | 2,527,292 | 2,933,662 | 3,431,683 | 3,787,655 | 4,597,542 |
| Algoma | 25,273 | 40,962 | 43,695 | 46,44 | -52,002 | 64,496 |
| Brant. | 38,140 | 45,876 | 53,377 | 53,476 | 56,695 | 72,857 |
| Bruce. | 59,020 | 50,032 | 44,285 | 42,286 | 41,680 | 41,311 |
| Carleton | 96,904 | 119,384 | 148,705 | 170,040 | 202,520 | 242,247 |
| Cochrane |  | 12,236 | 26,293 | 58,033 | 80,730 | 83,850 |
| Dufferin. | 21,036 | 17,740 | 15,415 | 14,892 | 14,075 | 14,566 |
| Dundas. | 19,757 | 18,165 | 17,309 | 16,098 | 16,210 | 15, 818 |
| Durham | 27,570 | 26,411 | 24,629 | 25,782 | 25,215 | 30,115 |
| Elgin. | 43,586 | 44,312 | 44,984 | 43,436 | 46,150 | 55,518 |
| Essex. | 58,744 | 67.547 | 102,575 | 159,780 | 174,230 | 217,150 |
| Frontenac | 44,534 | 42,604 | 44,494 | 45,756 | 53,717 | 66,099 |
| Glengarry | 22,131 | 21, 259 | 20,518 | 18,666 | 18,732 | 17,702 |
| Gren ville | 21,021 | 17,545 | 16,644 | 16,327 | 15,989 | 17,045 |
| Grey. | 69,590 | 65,891 | 59,051 | 57,699 | 57,160 | 58,960 |
| Haldimand | 21,233 | 21,562 | 21,287 | 21,428 | 21,854 | 24,138 |
| Haliburto | 6,559 | 6,320 | 6,209 | 5,997 | 6,695 | 7,670 |
| Halton. | 19,545 | 22,208 | 24,899 | 26,558 | 28,515 | 44,003 |
| Hastings | 59,291 | 55,803 | 57,523 | 58,846 | 63,322 | 74,298 |
| Huron. | 61,820 | 52,983 | 47,088 | 45, 180 | 43,742 | 49,280 |
| Kenora | 10,369 | 19,507 | 19,139 | 25,919 | 33,372 | 39,212 |
| Kent.... | 57, 194 | 55,995 | 57,949 | 62,865 | 66,346 | 79,128 |
| Lambton | 56,642 | 51,332 | 52,879 | 54,674 | 56,925 | 74,960 |
| Lanark | 37, 232 | 34,375 | 32,993 | 32,856 | 33,143 | 35,601 |
| Leeds. | 37,975 | 36,753 | 34,909 | 35,157 | 36,042 | 38,831 |
| Lennox and Addin | 23,346 | 20,386 | 18,994 | 18,883 | 18,469 | 19,544 |
| Lincoln. | 30,552 | 35,429 | 48,625 | 54, 199 | 65,066 | 89,366 |
| Manitoulin | 11,828 | 11,324 | 10,468 | 10,734 | 10,841 | 11,214 |
| Middlesex | 92,702 | ${ }^{97,065}$ | 106,865 | 118,241 | 127,166 | 162,139 |
| Muskoka | 20,971 | 21,233 | 19,601 | 20,985 | 21,835 | 24,713 |
| Nipissing | 17,306 | 28,066 | 34,541 | 41,207 | 43,315 | 50,517 |
| Norfolk......... | 29,147 | 27,110 | 26,366 | 31,359 | 35,611 | 42,708 |
| Northumberiand | 34,479 | 33,759 | 31,285 | 31,452 | 30,786 | 33,482 |
| Ontario | 40,408 48 | 41,006 | 46,494 | 59,667 | 65,718 | 87.088 |
| Parry Sound | 48,404 24,936 | 47,371 26,547 | 46,762 26,860 | 47,825 25,900 | 50,974 30,083 | 58,818 |
| Peel. | 21,475 | 22,102 | 23,896 | 28.156 | 31,539 | 55,673 |
| Perth. | 49,871 | 49,182 | 50,843 | 51,392 | 49,694 | 52,584 |
| Peterboroug | 36.066 | 40,783 | 42,261 | 43,958 | 47,392 | 60,789 |
| ${ }^{\text {Prescott.,.... }}$ Prince Edward | 27,035 | 26,968 | 26,478 | 24,596 | 25,261 | 25,576 |
| Prince Edward | 17, 864 | 17,150 | 16,806 | 16,693 | 16,750 | 18,559 |
| Rainy River | 6,568 | 10,429 | 13,518 | 17,359 | 19, 132 | 22,132 |
| Renfrew | 52,715 | 51,856 | 51, 505 | 52,227 | 54,720 | 66,717 |
| Simcoe. | 20,282 82,315 | 21,649 85,053 | 21,121 84,032 | 18,487 83,667 | 17,448 87,057 | 17,666 106,482 |

${ }^{1}$ Includes New Quebec district

## 98452-10 $\frac{1}{2}$

7.-Populations of the Provinces and Territories, by Counties or Census Divisions, Census Years 1901-51-continued

| Province and County or Division | 1901 | 1911 | 1921 | 1931 | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Ontario-concl. |  |  |  |  |  |  |
| Stormont. | 27,042 | 24,775 | 25,134 | 32,524 | 40,905 | 48,458 |
| Sudbury | 16,103 | 29,778 | 43,029 | 58,251 | 80,815 | 109,590 |
| Thunder Bay | 11,219 | 39,496 | 49,560 | 65,118 | 85,200 | 105,367 |
| Timiskaming | 1,252 | 26,592 | 26,657 | 37,043 | 50,604 | 50,016 |
| Victoria. | 31,952 | 30,179 | 27,786 | 25,844 | 25,934 | 27,127 |
| Waterloo | 52,594 | 62,607 | 75,266 | 89,852 | 98,720 | 126,123 |
| Welland | 31,588 | 42,163 | 66,668 | 82,731 | 93,836 | 123,233 |
| Wellington | 55,646 | 54,492 | 54,160 | 58,164 | 59,453 | 66,930 |
| Wentworth | 79,452 | 111,706 | 153,567 | 190,019 | 206,721 | 266,083 |
| York. | 272,663 | 444,234 | 647,665 | 856,955 | 951,549 | 1,176,622 |
| Manitoba | 255,211 | 461,394 | 610,118 | 700,139 | 229,744 | 776,541 |
| Division No. 1 | 8,693 | 15,401 | 19,897 | 22,817 | 27,813 | 23,861 |
| Division No. 2 | 29,948 | 31,954 | 37,413 | 38,810 | 41,426 | 38,971 |
| Division No. 3 | 20,193 | 23,218 | 24,042 | 26,753 | 24,781 | 22,870 |
| Division No. 4 | 14,258 | 17,764 | 17,241 | 18,253 | 15,699 | 15.036 |
| Division No. 5 | 9,748 | 20,120 | 33,789 | 46,228 | 48,424 | 52,453 |
| Division No. 6 | 65,346 | 171,326 | 229,190 | 284,285 | 295, 342 | 330,130 |
| Division No. 7 | 24,652 | 33,904 | 35,810 | 36,912 | 36,669 | 40,791 |
| Division No. 8. | 14,063 | 20,394 | 19,663 | 19,846 | 17,803 | 19,565 |
| Division No. 9 | 12,520 | 23,929 | 39,528 | 44,957 | 47,277 | 58,875 |
| Division No. 10 | 12,402 | 16,655 | 19,802 | 17,916 | 19,562 | 19,311 |
| Division No. 11. | 15,580 | 22,305 | 27,059 | 28,100 | 25, 387 | 25,101 |
| Division No. 12. | 5,629 | 15,581 | 27,70 |  | $2{ }^{6}$, | 23,537 |
| Division No. 13 | 9,254 | 16,374 | 25,941 | 24, 263 | 26,033 | 24,537 |
| Division No. 14 | 8,425 | 17,251 | 23,735 | 25,978 10.008 | 26,613 12,059 | 12,492 |
| Division No. ${ }^{\text {Division No. }}$ | 1,849 2,651 | 14,682 10,536 | 20,402 | 10,669 | 12,219 | 45,692 |
| Saskatchewan. | 91,279 | 492,432 | 757,510 | 921,785 | 895,992 | 831,728 |
| Division No. 1 | 9,657 | 32,301 | 35,297 | 41,544 | 34,171 | 35,481 |
| Division No. 2 | 837 | 29,386 | 36,414 | 42,831 | 36,140 | 34,714 |
| Division No. 3. | 467 | 14,363 | 38,900 | 46,881 | 38,648 | 29,477 |
| Division No. 4 | 1,324 | 10,497 | 23,198 | 28,126 | 22,300 | 16,691 |
| Division No. 5 | 17,502 | 40,505 | 50,543 | 53,948 | 51,022 | 48,877 |
| Division No. 6 | 15,843 | 75,686 | 89,207 | 109,906 | 108,816 | 113,614 |
| Division No. 7 | 3,417 | 39,896 17 | 60,433 45 | 63,230 49,361 | 42,845 | 50,211 |
| Division No. 8. | 13, 3781 | 17,569 38,870 | 45,667 57 | 49,539 60,53 | 42,834 62, | 54,939 |
| Division No. 9 | 13,481 | 23,184 | -36,026 | 41, 890 | 43,207 | 37,633 |
| Division No. 10. | 1,320 | 41,007 | 68,023 | 87,976 | 80,012 | 84,365 |
| Division No. 11 | 1,670 | 22,586 | 35,885 | 40,612 | 34,673 | 27,896 |
| Division No. 13 | 141 | 19,611 | 35,483 | 42,632 | 36,346 | 30.721 |
| Division No. 14 | 952 | 9,687 | 24,262 | 46,222 | 65.166 | 61,615 |
| Division No. 15 | 13,174 | 44,120 | 65,284 | 83,703 | 89,036 | 81,160 |
| Division No. 16 | 2,279 | 18,991 | 33,267 | 48,613 | 53,212 | 45,211 |
| Division No. 17. | 1,057 | 9,279 | 17,911 | 27,315 | 33,173 | 29,048 |
| Division No. 18. | 7,085 | 4,894 | 4,445 | 6,456 | 11,039 | 14,654 |
|  | 73,022 | 374,295 | 588,454 | 731,605 | 796,169 | 939,501 |
| Atberta........ | 3,144 | 24,738 | 30,664 | 28,849 | 29,595 | 35,879 |
| Division No. 2 | 11,357 | 38,779 | 46,823 | 57,186 | 58,563 | 71,480 |
| Division No. 3 | 278 | 9,330 | 17,404 | 15,066 | 15,518 | 17,132 |
| Division No. 4. | 2,536 | 18,375 | 23,302 | 29,067 | 29,383 | 28,984 |
| Division No. 5. | 75 | 13,170 | 31,220 | 26,651 | 18,926 | 16,129 |
| Division No. 6. | 11,358 | 75,364 | 112,689 | 140,200 | 146,990 | 195,352 |
| Division No. 7. | 59 | 22,107 | 37,143 | 38,106 | 67, 630 | 73,997 |
| Division No. 8. | 11,904 | 42,976 | 56,820 17889 | 61,016 24,538 | 67,632 32,232 | 31,627 |
| Division No. 9. | 1,747 5,607 | 12,629 29,226 | 17,889 | 58,049 | 58,807 | 50,016 |
| Division No. 10. | 5,607 18,578 | 29,226 58,855 | 95,334 | 127,256 | 149,193 | 226,199 |
| Division No. 11 |  | 4,258 | 8,589 | 13,730 | 17,431 | 17,740 |
| Division No. ${ }^{\text {Dision }}$ | i, 490 | 7,300 | 16,288 | 24,936 | 33,172 | 30.152 |
| Division No. 14 | 1,012 | 9,998 | 25,299 | 39,508 | 47,899 | 46,791 |
| Division No. 15. | . | 2,097 1,263 | 12,181 | 13, 27.196 | 17,349 | 32,435 |
| Division No. 16 | 3,877 | 1,283 3,830 | 4,872 | 6,537 | 9,712 | 11,581 |

## 7.-Populations of the Provinces and Territories, by Counties or Census Divisions, Census Years 1901-51-concluded

| Province andDivision | 1901 | 1911 | 1921 | 1931 | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| British Columbia. | 178,657 | 392,480 | 524,582 | 694,263 | 817,861 | 1,165,210 |
| Division No. 1. | 8,446 | 22,466 | 19,137 | 22,566 | 21,345 | 27,628 |
| Division No. 2............ | 23,516 | 28,373 | 31.075 | 40,455 | 48.266 | 60,060 |
| Division No. 3............ | 12,085 | 28.066 | 35,522 | 40,523 | 51,605 | 77,686 |
| Division No. 4. | 53,641 | 183,108 | 256.579 | 379,858 | 449,376 | 649,238 |
| Division No. 5............ | 50,886 | 81,241 | 108,792 | 120.933 | 150,407 | 215,003 |
| Division No. 6............ | 11,563 | 19,031 | 24,484 | 30,025 | 30.710 | 41.823 |
| Division No. 7............ | 3.743 | 3,545 | 10.232 | 12,658 | 14.344 | 18,247 |
| Division No. 8............ | 4,523 | 8.411 | 17.631 | 21,534 | 25,276 | 40,276 |
| Division No. 9. | 9,270 | 16.595 | 18.986 | 18,698 | 18.051 | 20,854 |
| Division No. 10. | 984 | 1.644 | 2,144 | 7,013 | 8,481 | 14,395 |
| Yukon Territory. | 27,219 | 8,512 | 4,157 | 4,230 | 4,914 | 9,096 |
| Northwest Territories.. .. | 20,129 | 6,507 | -8,143 | 9,316 | 12,028 | 16,004 |

## Section 2.-Movement of Population

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 British 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.
8.-Numerical Changes in the Populations of the Provinces, 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 |
| Quebec. | -3,000 | -4,000 |
| Ontario. | +78,000 | +305,000 |
| Manitoba. | -48,000 | -60,000 |
| Saskatchewan.. | $-158,000$ | -200,000 |
| Alberta. | -42,000 | -7,000 |
| British Columbia. | +82,000 | $+231,000$ |

## Section 3.-Intercensal Estimates of Population

Intercensal estimates of the population serve 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 characteristies 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 which can be made available only when the last item of subsequent information has been secured. This last item is the succeeding decennial census and with the release of the 1951 Census totals the estimates for the decade 1941-51 were revised; the tables of this Section present the revised figures.

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, which gives all available data on that point, is included.

|  | Calendar-Year Datal |  |  |  | Estimated Population as at June $1^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Births | Deaths | Natural <br> Increase | Immigration |  |
| 1941. | 255,224 | 114,500 | 140,724 | 9,325 | 11,490,000 |
| 1942. | 272,184 | 112,848 | 159,336 | 7,576 | 11,637,000 |
| 1943. | 283,423 | 118,531 | 164,892 | 8,502 | 11,778,000 |
| 1944. | 284,220 | 116,052 | 168,168 | 12,793 | 11,929,000 |
| 1945. | 288,730 | 113,414 | 175,316 | 22,711 | 12,055,000 |
| 1946. | 330,732 | 114,931 | 215,801 | 71,691 | 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 |
| 19493. | 366,139 | 124,047 | 242,092 | 95,217 | 13,423,000 |
| $1950{ }^{3}$. | 370,5782 | 123,6492 | 246, $929{ }^{2}$ | 73,912 | 13,688,000 |
| $1951{ }^{3}$. | 379,412 ${ }^{2}$ | 125,901 ${ }^{2}$ | 253,511 ${ }^{2}$ | 194,391 | 13,984,000 |

[^54]
## 9.-Estimates of Population, by Provinces and Territories, Intercensal Years 1931-52

Norg.-At every census the previous post-censal estimates, made at June 1 each year, are adjusted to the newly recorded population figures. Figures for $1867-1904$ will be found at p. 141 of the 1936 Year Book and for $1905-30 \mathrm{at}$ p. 127 of the 1946 edition. Figures for all provinces for 1931, 1941 and 1951 are census figures while those for the Prairie Provinces are for the 1936 and 1946 Censuses.

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon | $\begin{aligned} & \mathrm{N} . \\ & \text { W. } \\ & \text { T. } \end{aligned}$ | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 | '000 |
| 1931. | .. | 88 | 513 | 408 | 2,874 | 3,432 | 700 | 922 | 732 | 694 | 4 | 9 | 10,376 |
| 1932. | .. | 89 | 519 | 414 | 2,925 | 3,473 | 705 | 924 | 740 | 707 | 4 | 10 | 10,510 |
| 1933. | .. | 90 | 525 | 419 | 2,972 | 3,512 | 708 | 926 | 750 | 717 | 4 | 10 | 10,633 |
| 1934. | .. | 91 | 531 | 423 | 3,016 | 3,544 | 709 | 928 | 758 | 727 | 4 | 10 | 10,741 |
| 1935. | .. | 92 | 536 | 428 | 3,057 | 3,575 | 710 | 930 | 765 | 736 | 5 | 11 | 10,845 |
| 1936. | . | 93 | 543 | 433 | 3,099 | 3,606 | 711 | 931 | 773 | 745 | 5 | 11 | 10,950 |
| 1937. | $\cdots$ | 93 | 549 | 437 | 3,141 | 3,637 | 715 | 922 | 776 | 759 | 5 | 11 | 11,045 |
| 1938. | $\cdots$ | 94 | 555 | 442 | 3,183 | 3,672 | 720 | 914 | 781 | 775 | 5 | 11 | 11,152 |
| 1939. | .. | 94 | 561 | 447 | 3,230 | 3,708 | 726 | 906 | 786 | 792 | 5 | 12 | 11,267 |
| 1940. | .. | 95 | 569 | 452 | 3,278 | 3,747 | 728 | 900 | 790 | 805 | 5 | 12 | 11,381 |
| 1941. | .. | 95 | 578 | 457 | 3,332 | 3,788 | 730 | 896 | 796 | 818 | 5 | 12 | 11,507 |
| 1942. | .. | 90 | 591 | 464 | 3,390 | 3,884 | 724 | 848 | 776 | 870 | 5 | 12 | 11,654 |
| 1943. | $\cdots$ | 91 | 606 | 463 | 3,457 | 3,915 | 723 | 838 | 785 | 900 | 5 | 12 | 11,795 |
| 1944. | $\cdots$ | 91 | 611 | 461 | 3.500 | 3,963 | 727 | 836 | 808 | 932 | 5 | 12 | 11,946 |
| 1945. | . | 92 | 619 | 467 | 3,560 | 4,000 | 727 | 833 | 808 | 949 | 5 | 12 | 12,072 |
| 1946. | .. | 94 | 608 | 478 | 3,629 | 4,093 | 727 | 833 | 803 | 1,003 | 8 | 16 | 12,292 |
| 1947. | . | 94 | 615 | 488 | 3,710 | 4,176 | 739 | 836 | 825 | 1,044 | 8 | 16 | 12,551 |
| 1948. |  | 93 | 625 | 498 | 3,788 | 4,275 | 746 | 838 | 854 | 1,082 | 8 | 16 | 12,823 |
| 1949. | 345 | 94 | 629 | 508 | 3,882 | 4,378 | 757 | 832 | 885 | 1,113 | 8 | 16 | 13,447 |
| 1950. | 351 | 96 | 638 | 512 | 3,969 | 4,471 | 768 | 833 | 913 | 1,137 | 8 | 16 | 13,712 |
| 1951. | 361 | 98 | 643 | 516 | 4,056 | 4,598 | 776 | 832 | 939 | 1,165 | 9 | 16 | 14,009 |
| 1952. | 374 | 103 | 653 | 526 | 4,174 | 4,766 | 798 | 843 | 970 | 1,198 | 9 | 16 | 14,430 |

${ }^{1}$ Estimates for Newfoundland prior to union with Canada, which took place on Mar. 31, 1949, are not included in Canada totals.

## Section 4.-Rural and Urban Population

Prior to 1951, the population residing within the boundaries of all incorporated cities, towns and villages of a province was classified as urban and the remainder as rural. Since the laws governing incorporation vary among provinces there was no uniform line of demareation 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 is the main criterion for the rural-urban 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 has been defined as urban and that outside such localities as rural.

Table 10 presents the rural and urban population by provinces and territories for the years 1941 and 1951. For comparative purposes the rural and urban population has been tabulated by both the 1941 and 1951 rural-urban definitions. The rural is further classified by farm and non-farm residence and the urban by size of locality in Table 11.
10.-Rural and Urban Populations, by Provinces or Territories, 1941 and 1951

| Province Territory | 1941 Definition ${ }^{1}$ |  |  |  | 1951 Definition ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rural |  | Urban |  | Rural |  | Urba |  |
|  | 1941 | 1951 | 1941 | 1951 | 1941 | 1951 | 1941 | 1951 |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland | 262, 509 | 257,039 | 59,310 | 104,377 | 202,820 | 206.621 | 118,999 | 154,795 |
| P. E. Island. | 70,707 | 70,807 | 24,344 | 27, 622 | 74,078 | 73, 744 | 20,969 | 24,685 |
|  | 310,422 | 344, ${ }^{3465}$ | ${ }^{267}$ 14,540 | 297,719 | 288,900 | 297,753 | 289,062 | ${ }^{344,831}$ |
| Quebec. | 1,222,198 | 1,326,883 | 2,109, 684 | 2,728,798 | 1,274,935 | 1,358,363 | 2,056, 947 | 2,697,318 |
| Ontario. | 1,449,022 | 1,844,316 | 2,338,633 | 2,753,226 | 1,196,161 | 1,346,443 | 2,591,494 | 3,251,099 |
| Manitoba. | 407, 871 | 392,112 | 321,873 | 384,429 | 370,066 | 336,961 | 359,678 | 439,580 |
| Saskatchewan. | 600, 846 | 461,047 | 295,146 | 370,681 | 703,710 | 579,258 | 192, 282 | 252,470 |
| Alberta. | 489,583 | 451,313 | 306,586 | 488,188 | 530,640 | 489,826 | 265,529 | 449,675 |
| British Columbia.. | 374,467 | 550, 158 | 443,394 | 615,052 | 268,607 | 371,739 | 549,254 | 793,471 |
| Yukon Territory.... | 3,117 12,028 | 5,478 16,004 | 1,797 | 3,618 | 3,871 10,618 | 6,502 13,280 | 1,043 1,410 | 2,594 2,724 |
| Canada | 5,254,2392 | 6,068,207 | 6,252,416 ${ }^{2}$ | 7,941,222 | 5,003,876 ${ }^{2}$ | 5,381,176 | 6,502,7792 | 8,628,253 |

${ }^{1}$ For differences in the definition of "rural" and "urban" as used in the 1941 and 1951 Censuses, see text p. 143. $\quad 2$ Totals for Canada do not include Newfoundland; figures shown for that Province are from the 1945 Census of Newfoundland.

## 11.-Rural Populations classified by Farm and Non-Farm and Urban Populations classified by Size Groups, by Provinces or Territories, 1951

| Province Territory | Rural |  |  | Urban |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Farm ${ }^{\text {l }}$ | $\begin{aligned} & \text { Non- } \\ & \text { Farm } \end{aligned}$ | Total | $\begin{aligned} & 1,000 \\ & \text { to } \\ & 9,999 \end{aligned}$ | $\begin{gathered} 10,000 \\ t, \\ \text { to } \end{gathered}$ | $\begin{gathered} 30,000 \\ \text { to } \\ 99,999 \end{gathered}$ | $\begin{gathered} 100,000 \\ \text { or } \\ \text { Over } \end{gathered}$ | Total ${ }^{\text {a }}$ |
|  | No. | No | No. | No | No. | No. | No. | No. |
| Newfoundland.... | 15,456 | 191,165 | 206,621 | 100,375 |  | 52,873 |  | 154,795 |
| P. E. Island....... | 46,757 | 26,987 | 73, 744 | 8,798 | 15,887 |  |  | 24, 6885 |
| Nova Scotia. | 112, 135 | ${ }^{185,618}$ | 297,753 | 166,121 | 61,802 | 116,906 50,779 |  | 344,831 |
| New Brunswick | 145,771 766,910 | 154,915 | 1,358,363 | 750,436 | 504,523 | 247,548 | 1,185,536 | 2,697,318 |
| Ontario... | 678,043 | 668,400 | 1,346,443 | 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. | 398,279 | 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.. | 109,919 4 | $\begin{array}{r}261,820 \\ 6,458 \\ \hline\end{array}$ | 371,739 6,502 | 157,333 2,594 2, | 180,240 | $\underline{109,707}$ | 344,833 | 793,471 2,594 |
| N.W.T.......... | 28 | 13,252 | 13,280 | 2,724 |  |  |  | 2,724 |
| Canad | 2,827,732 | 2,553,444 | 5,381,176 | 2,290,674 | 1,492,137 | 1,466,848 | 3,362,521 | 8,628,253 |

${ }^{1}$ Exclusive of 84,264 persons living on farms in localities classed as "urban" ${ }^{2}$ Includes a few metropolitan area parts with less than 1,000 population.

## Section 5.-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, $63 \cdot 3$ 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 440,294 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.

## 12.-Sex Distribution of the Population, by Provinces or Territories, Census Years 1921-51

Note.-Figures for the Censuses o: 1871, 1881, 1891, 1901 and 1911 are given at p. 150 of the 1948-49 Year Book.

| Province or Territory | 1921 |  | 1931 |  | 1941 |  | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Male | Female | Male | Female | Male | Female |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| Newfoundland..... |  |  |  |  |  |  | 185.143 | 176,273 |
| P. E. Island....... | 44,887 | 43,728 | 45,392 | 42,646 | 49,228 | 45,819 | 50.218 | 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 | 2033,554 |
| 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 |
| Saskatchewa | 413,700 | 343,810 | 499,935 | 421,850 | 477,563 | 418,429 | 434,568 | 397160 |
| Alberta. | 324, 208 | 264,246 | 400,199 | 331,406 | 426,458 | 369,711 | 492,192 | 447.309 |
| British Columbia.. | 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 ${ }^{1}$ | 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 in 1921.
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 $131 \cdot 3$ 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 $142 \cdot 8$ 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 owing to practically non-existent migration 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 $183 \cdot 1$; 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 $203 \cdot 19$ persons per 1,000 of total population between 40 and 59 years of age and $113 \cdot 66$ 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 13 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 14.
13.-Male and Female Populations by Age Groups, Census Years 1931-51

| Age Group | 19311 |  | 1941 |  | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Male | Female | Male | Female |
|  | No. | No. | No. | No. | No. | No. |
| 0-4 years | 543, 299 | 531,293 | 533,903 | 517,951 | 879,063 | 843,046 |
| $5-9$ $10-14$ | ${ }_{543,648}$ | 560,296 | 529,092 | 516,728 | 713,873 | 683,952 |
| 15-19 | 543,067 525,536 | 531,173 | 556,304 | 544,573 | 575,122 | 555,661 |
| 20-24 | 463,978 | 447,584 | 517.956 | 514,470 | 537.535 | 525,792 |
| 25-29 | 410,220 | 376,407 | 488,340 | 478,650 | 552,812 | 551,106 |
| 30-34 | 368,346 | 340,792 | 431,591 | 412,255 | 512,557 | 530,177 |
| 35-39 | 359,318 | 329,474 | 396,453 | 363,101 | 503,571 | 495, 562 |
| 40-44 | 347,989 | 298,416 | 348,616 | 327,929 | 445, 800 | 422,767 |
| 45-49 | 321,749 | 263,770 | 332,503 | 302,643 | 387,708 | 356,971 |
| 50-54 | 267,526 | 221,408 | 315,866 | 275,838 | 340,461 | 322,195 |
| 55-59 | 199,296 | 167,910 | 275,234 | 231,658 | 292,564 | 278,126 |
| 60-64 | 157,019 | 137,722 | 218,557 | 188,594 | 264,324 | 241,828 |
| 65-69 | 120,770 | 110,467 | 162,517 | 145, 207 | 228,076 | 205,421 |
| 70-74 | 88,630 | 83,040 | 111,152 | 105,949 | 160,398 | 154,674 |
| 75-79 | 50,046 | 48,624 | 67.200 | 68,495 | 94, 130 | 94,261 |
| 80-84 | 23,891 | 25,300 | 34,083 | 37,431 | 45,963 | 50,828 |
| 85-89 | 8,670 | 10,469 | 12,621 | 15,015 | 17,539 | 22.060 |
| 90 or ove | 2,543 | 3,626 | 3,336 | 4,809 | 5,197 | 7,726 |
| Tota | 5,374,541 | 5,002,245 | 5,900,536 | 5,606,119 | 7,088,873 | 6,920,556 |

${ }^{2}$ Persons whose ages were not stated have been pro-rated over the various age groups.
14.-Age Distribution of the Population, by Provinces or Territories, 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 Brunsw | 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 |
| Saskatchewan | 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 | 526 | 435 | 934 | 2,115 |
| Northwest Territories | 2,527 | 1,838 | 1,461 | 1,428 | 1,620 | 2,771 |
| Cana | 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. |
| Newfoundland....... | 41,417 | 27,883 | 21,244 | 9,071 | 14,419 |  |
| Prince Edward Island | 11,641 | 87,985 | 7,639 46,354 | 3,268 19,440 | 6,439 35,485 | 98,429 642,584 |
| Nova Scotia.... | 82,912 61,576 | 57,822 44,147 | 46,354 35,451 | 19,440 14,286 | 35,485 24,747 | 642,584 515,697 |
| New Brunswick. | 61,576 518,290 | 44,147 375,657 | 35,451 255,816 | 14,286 93,161 | $\begin{array}{r}24,747 \\ 138,936 \\ \hline\end{array}$ | 515,697 $4,055,681$ |
| 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 |
| Canada. | 1,867,700 | 1,407,335 | 1,076,842 | 433,497 | 652,776 | 14,009,429 |

## Section 6.-Marital Status

Next to sex and age distribution of a population, that of marital status is probably the most fundamental. Its incidence is twofold: 'vital' and 'economic and social'.

The vital basis lies in the influence of the marriage state on the fertility of a population and, from this angle, close analyses of marital status, by age, are important. The ages of females between 15 and 45 years have more significance than those of males; if the proportion of females in this group is small, the expected proportion of births will also be small. It has been shown that for the Canadian population the combined influences of age of the population, age of the married females, and proportion of females married have become steadily more favourable to the birth rate from 1871 to 1921 but that, since the latter date, the trend has been less favourable.

## 15.-Marital Status of the Population, 15 Years of Age or Over, by Sex, Census Years 1911-51

Nore.-Persons whose marital status was not stated have been pro-rated and assigned to the various categories shown in this table.

| Census Year and Sex | Single |  | Married |  | Widowed |  | Divorced |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. |  |
| 1911............ ${ }^{\text {M. }}$ | 1,182,167 | $45 \cdot 12$ | 1,345,386 | 51.35 | 90,121 | $3 \cdot 44$ | 2,143 ${ }^{1}$ | 0.08 | 2,619,817 |
| F. | 770,174 | 34.85 | 1,256,909 | 56.87 | 180,910 | $8 \cdot 18$ | 2,283 ${ }^{1}$ | $0 \cdot 10$ | 2,210,276 |
| 1921........... M. | 1,177,952 | 39.21 | 1,702,526 | 56.67 | 120,020 | 4.00 | 3,675 ${ }^{1}$ | $0 \cdot 12$ | 3,004,173 |
| F. | 884,568 | 32.04 | 1,635,009 | 59.23 | $237,112$ | 8.59 | 3,7361 | $0 \cdot 14$ | 2,760,425 |
| 1931........... ${ }^{\text {m. }}$ | 1,522,491 | 40.98 | 2,039,918 | 54.90 | 149, 063 | $4 \cdot 01$ | 4,055 | $0 \cdot 11$ | 3,715,527 |
| F. | 1,149,329 | 34.01 | 1,938,094 | 57-35 | 288,668 | $8 \cdot 54$ | 3,392 | $0 \cdot 10$ | 3,379,483 |
| 1941........... M. | 1,703,795 | 39.80 | 2,400,100 | 56.06 | 170,773 | 3.99 | 6,569 | $0 \cdot 15$ | 4,281,237 |
| F. | 1,328,529 | 32.99 | 2,336,485 | 58.02 | 354,390 | 8.80 | 7,463 | $0 \cdot 19$ | 4,026,867 |
| 1951...........M. | 1,579,351 | $32 \cdot 1$ | 3,141,754 | 63.8 | 186,595 | 03.8 | 13,115 | $00 \cdot 3$ | 4,920,815 |
| F. | 1,242,437 | 25.7 | 3,119.824 | 64-5 | 456,753 | 09.4 | 18,883 | 00.4 | 4,837,897 |

${ }^{1}$ Includes legally separated.

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 128.0 p.c. The entry of Newfoundland into Confederation accounted for 3.3 p.c. of the increase in single persons, 2.9 p.c. in married and widowed persons and 0.5 percent in divorced persons. Other striking statistics of marital status are the excess of married males over married females, the great preponderance of widows compared with widowers and the large and increasing number of divorced persons.
16.-Marital Status of the Population, by Age Groups and Sex, 1951


## Section 7.-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 foreign 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 Census of 1921 , has 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.

Table 17 shows the population of Canada for the census years 1931, 1941 and 1951 classified by detailed origins, while Table 18 presents the 1951 provincial distribution based on a classification of the numerically largest origins in Canada.

## 17.-Origins of the Population, Census Years 1931-51

Nore.-Figures for the Censuses of 1871, 1881, 1901, 1911 and 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 | concl. |  |  |  |
| 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........... | 88,148 | 83,708 | 91,279 |
| Other European. | 4,753,242 | 5,526,964 | 6,872,889 | Ukrainian ${ }^{\text {i }}$ | 225,113 | 305,929 | - 3975 |
| French.......... | 2,927,990 | 3,483,038 | 4,319,167 | Yugoslavic......... | 16,174 | 21,214 | 21,404 |
| Austrian | 48,639 | 37,715 | 32,231 | Other. | 9,392 | 9,787 | 35,616 |
| Belgian. | 27,585 | 29,711 | 35,148 | Asiatic. | 84,548 | 74,064 | 72,827 |
| Czech and Slovak. | 30,401 | 42,912 | 63,959 | Chinese. | 46,519 | 34,627 | 32,528 |
| Danish. | 34,118 | 37,439 | 42,671 | Japanese.......... | 23,342 | 23,149 | 21,663 |
| Finnish. | 43, 885 | 41,683 | 43,745 | Other............. | 14,687 | 16,288 | 18,636 |
| German | 473,544 | 464,682 | 619,995 | Other Origins..... | 149,027 | 184,448 | 354,028 |
| Greek.... | 9,444 | 11,692 <br> 54 | 13,966 | Indian and |  |  |  |
| Hungarian........ | 40,582 19,382 | 54,598 21,050 | 60,460 23,307 | Eskimo. | 128,890 | 125,521 | 165,607 |
| Icelandic......... | 19,382 98,173 | 21,050 112,625 | 23,307 152,245 | Negro. | 19,456 | 22,174 | 18,020 |
| Jewish. | 156,726 | 170,241 | 181,670 | Other and not |  |  |  |
| Lithuanian. | 5,876 | 7,789 | 16,224 |  | 9,579 | 42,028 ${ }^{2}$ | 170,401 |
| Netheriands. | 148,962 | 212,803 | 264,267 | Totals. | 10,376,786 | 11,506,655 | 14,009,429 |

${ }^{1}$ Includes Bukovinian, Galician and Ruthenian.
${ }^{2}$ Includes 35,416 half-breeds.
18.-Origins of the Population, by Provinces or Territories, 1951

| Province or Territory | British Isles | French | German | Italian | Jewish | Netherlands |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Newfoundland. | 337,780 | 9,841 | 368 | 103 | 214 | 176 |
| Prince Edward Island. | 80,669 | 15,477 | 317 | 56 | 21 | 677 |
| Nova Scotia. | 482,571 | 73,760 | 28,751 | 2,494 | 2,053 | 20,819 |
| New Brunswick | 294,694 | 197,631 | 2,623 | 635 | 1,095 | 5,920 |
| Quebec. | 491,818 | 3,327,128 | 12,249 | 34,165 | 73,019 | 3,129 |
| Ontario. | 3,081,919 | 477,677 | 222,028 | 87,622 | 74,920 | 98,373 |
| Manitoba | 362,550 | 66,020 | 54,251 | 2,882 | 18,840 | 42,341 |
| Saskatchewan | 351,862 | 51,930 | 135,584 | 1,028 | 2,702 | 29,818 |
| Alberta. | 451,709 | 56,185 | 107,985 | 5,996 | 3,935 | 29,385 |
| British Columbia | 766,189 | 41,919 | 55,307 | 17,207 | 4,858 | 33,388 |
| Yukon and Northwest Territories. | 7,924 | 1,599 | 532 | 57 | 13 | 241 |
| Canada. | 6,709,685 | 4,319,167 | 619,995 | 152,245 | 181,670 | 264,267 |
|  | Polish | Russian | Scandinavian | Ukrainian | Indian and Eskimo | Total ${ }^{1}$ |
|  | No. | No. | No. | No. | No. | No. |
| Newfoundland........ | 79 | 79 | 569 | 20 | 1,127 | 361,416 |
| Prince Edward Island | 54 | 12 | 253 | 47 | 257 | 98,429 |
| Nova Scotia. | 2,364 | 699 | 3,193 | 1,235 | 2,720 | 642,584 |
| New Brunswick | 340 | 220 | 3,367 | 129 | 2,255 | 515,697 |
| Quebec. | 16,998 | 7.909 | 5,390 | 12,921 | 16,620 | 4,055,681 |
| Ontario | 89,825 | 16,885 | 37,430 | 93,595 | 37,388 | 4,597,542 |
| Manitoba. | 37,933 | 8,463 | 32,921 | 98,753 | 21,050 | 776,541 |
| Saskatchewan | 26.034 | 19,453 | 62,439 | 78,399 | 22,253 | 831,728 |
| Alberta. ${ }^{\text {ario.... }}$ | 29,661 | 15,353 | 70,929 | 86,957 | 21,210 | 939,501 |
| British Columbia. | 16,301 | 22,113 | 65,612 | 22,613 | 28,504 | 1,165,210 |
| Yukon and Northwest Territories............... | 256 | 93 | 921 | 374 | 12,223 | 25,100 |
| Canada. . | 219,845 | 91,279 | 283,024 | 395,043 | 165,607 | 14,009,429 |

${ }^{1}$ Includes "others" and "not stated".

## Section 8.-Religious Denominations

At each census the actual numbers attached to any religious denomination, as reported by the persons enumerated, have been recorded. The distribution of the principal denominations as at the Censuses of 1931, 1941 and 1951 is given in Table 19.

## 19.-Principal Religious Denominations of the Population, Censuses of 1931-51, with Percentage Distribution 1951

Nort.-More detailed figures for the Censuses of 1871, 1881, 1891, 1901, 1911 and 1921 are given in the 1948-49 Year Book, p. 155.

| Denomination | 1931 | 1941 | 1951 |  | Denomination | 1931 | 1941 | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Baptist..... Church of England in Canada.... | No.$443,341$ | No.$483,592$ | No. <br> 519,585 | $\begin{gathered} \text { p.c. } \\ 3.71 \end{gathered}$ |  | No. | No. | No. | p.c. |
|  |  |  |  |  | Roman Catholic. |  | 4,800,895 | 6,069,496 | 43-32 |
|  | 1,635,615 | 1,751,188 | 2,060,720 | 44.71 | Ukrainian | 4,098,734 |  |  |  |
|  |  |  |  |  | (Greek |  |  |  | 1.36 |
| Oreek | 102,389 |  | $172,271$ |  | Catholic)... | 186,654 | 185,657ı | 190,831 |  |
| Jewish... | $\begin{aligned} & 155,614 \\ & 394,194 \end{aligned}$ | 1601,153 |  |  | Church of |  |  |  |  |
| Lutheran.... |  |  | $\begin{aligned} & 444,923 \\ & 125,938 \end{aligned}$ | 3-18 Canada..... |  | 2,017,375 | 2,204,875 | 2,867,271 | 20.47 |
| Mennonite. | 88,736 | 111,380 |  |  | Other.......Totals.... | 383,406 | 430,772 | 571,811 | $4 \cdot 08$ |
| Presbyter | 870,728 | 829,147 | 781,747 |  |  | 10,376,786 | $\overline{11,506,655}$ | $\overline{14,009,429}$ | $100 \cdot 00$ |

${ }^{1}$ Includes other Greek Catholic rites.

## Section 9.-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 20 gives the total population by country of birth for the census years 1931, 1941 and 1951.

## 20.-Countries of Birth of the Population, Census Years 1931-51

Note.-Figures for the Censuses of 1871, 1881, 1891, 1901, 1911 and 1921 are given in the 1948-49 Year Book, p. 158.

| Country of Birth | 1931 | 1941 | 1951 | Country of Birth | 1931 | 1841 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Canada. <br> United Kingdom. <br> Other Commonwealth. | No. | No. | No. | Europe-concl. <br> Union of Soviet Socialist Republics $^{2}$. | No. | No. | No. |
|  | 8,069,261 | 9,487,808 | 11,949,518 |  |  |  |  |
|  | 1,138,942 ${ }^{1}$ | $960,125^{1}$ | 912,482 |  |  |  |  |
|  | 45,888 | 43,644 | 20,567 |  | 133,869 | 124,402 | 188,292 |
| Europe............... | 714,462 | 653,705 | 801,618 | countries ${ }^{3}$........ | 90,042 | 72,473 | 64,522 |
| Belgium | 17,033 | 14,773 | 17,251 | Central European |  |  |  |
| Finland. | 30,354 | 24,387 | 22,035 | countries ${ }^{\text {c }}$........ | 317,350 | 309,360 | 305, 192 |
| France. | 16,756 | 13,795 | 15,650 | Other Europe..... | 11,002 | 9,810 |  |
| Germany | 39,163 | 28,479 | 42,693 | Asia............ | 60,608 | 44,443 312,473 | 37,145 282,010 |
| Greece. | 5,579 | 5,871 40,432 | 87,789 | United States...... | 344,574 3,051 | 312,473 3,512 | 282,010 6,089 |
| Italy....... | 42,578 | 40,432 9 | 57,789 41,457 | Other countrie | 3,051 | 3,512 | 6,089 |
| Netherlands. | 10,786 | 9,923 |  | Totals | 10,376,786 | 11,506,655 | 14,009,429 |

[^55]
## Section 10.-Citizenship

Results of the 1951 Census show that $96 \cdot 85$ p.c. of the total population were Canadian citizens while 0.74 p.c. were citizens of other Commonwealth countries, 1.69 p.c. European countries, 0.11 p.c. Asiatic countries, 0.49 p.c. the United States and 0.12 p.c. other countries. Information from the 1951 Census on the citizenship of the population classified by birthplace was not available at the time of the preparation of this Chapter. Figures from the 1941 Census are given in Table 22. According to that table, over 80 p.c. of the United States-born persons in Canada, who formed 2.7 p.c. of the total population, had become Canadian citizens together with 74.7 p.c. of the Continental European-born; of those born in Asiatic countries, 72.7 p.c. remained aliens. Of the total population, only 2.4 p.c. were aliens.

## 21.-Numerical and Percentage Distribution of the Population, by Country of Allegiance, 1951

| Country of Allegiance | Number | Percentage of Total | Country of Allegiance | Number | Percentage of Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Canada. | 13,567,938 | 96.85 | Continental Europe-concl. |  |  |
| Other Commonwealth. | 104,071 | 0.74 | Roumania.............. | 3,684 46,267 | 0.03 0.33 |
|  | 104,071 | 0.74 | Sweden.................... | + 2,378 | $0 \cdot 02$ |
| United States. | 69,000 | 0.49 | Yugoslavia. | 6,718 | 0.05 |
| Continental Europe- |  |  |  |  | 0.07 |
|  |  |  |  |  | $1 \cdot 69$ |
|  |  |  |  |  |  |
| Czechoslovakia | 9,990 | 0.07 |  |  |  |
| Denmark....... | 4,432 | 0.03 | Asiatic countries- |  |  |
| Finland. | 6,080 | 0.04 | China................... | 12,808 | 0.09 |
| France. | 5,031 | $0 \cdot 04$ | Japan........ | 1,312 | 0.01 |
| Germany | 12,926 | 0.09 | Other Asiatic | 1,002 | 0.01 |
| Hungary. | 7,871 137 | 0.06 | Totals, Asiatic | 15,122 | $0 \cdot 11$ |
| Italy. | 22.616 | $0 \cdot 16$ |  |  |  |
| Netherlands | 32,179 | 0.23 | Other countries ${ }^{1}$ | 16,807 | $0 \cdot 12$ |
| Norway.. | 2,375 $\mathbf{5 5 , 7 7 1}$ | 0.02 0.40 | Grand Totals. | 14,009,429 | 100.00 |

${ }^{1}$ Includes persons who reported themselves as stateless.
22.-Citizenship of the Population, by Nativity, 1941

| Country of Birth | Canadian <br> Nationals | Aliens | Total | Country of Birth | Canadian <br> Nationals | Aliens | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. |  | No. | No. | No. |
| Canada. | 9,475,252 | 12,521 | 9,487,808 | Continental <br> Europe-concl. |  |  |  |
| Other Commonwealth......... | 979,680 | 2,566 | 1,003,769 | Union of Soviet Socialist Republics.. | 96,236 | 21,235 | 117,598 |
| United States.. | 250, 929 | 61,427 | 312,473 | Sweden. <br> Yugoslavia. | $\begin{aligned} & 21,450 \\ & 11,811 \end{aligned}$ | $\begin{aligned} & 5,700 \\ & 5,601 \end{aligned}$ | 27, 160 <br> 17,416 |
|  |  |  |  |  |  |  |  |
| EuropeAustria... | 40,898 | 9,803 | 50,713 | Totals, Continental | 488,571 | 164,838 | 653.705 |
| Belgium. | 10,847 | 3,917 | 14,773 |  | 488,571 | 164,838 | 653,705 |
| Czechoslovakia... | 14,300 | 11,262 | 25,564 | Asia- |  |  |  |
| Denmark | 9,422 | 4.540 | 13,974 | China. | 3,306 | 25,786 | 29,095 |
| Finland. | 12,647 | 11,734 | 24,387 | Japan. | 3,694 | 5,767 | 9,462 |
| France.. | 10,518 | 3,269 | 13,795 | Other | 5,105 | 779 | 5,886 |
| Germany. | 20,771 21,445 | 7,679 10,359 | 28,479 <br> 31,813 | Totals, Asia | 12,105 | 32,332 | 44,443 |
| Italy.. | 33,661 | 6.764 | 40,432 | Totals, Asia |  |  |  |
| Netherla | 6,641 | 3,276 | 9,923 | Other | 2,993 | 519 |  |
| Norway.......... | 20,966 | 5,933 | 26,914 | Not stated | 780 | 137 | 945 |
|  | $\begin{array}{r} 114,755 \\ 22.561 \end{array}$ | $\begin{array}{r} 40,624 \\ 5,889 \end{array}$ | $\begin{array}{r} 155,400 \\ 28,454 \end{array}$ | Grand Totals. | 11,210,310 | 274.340 | 505 |

${ }^{1}$ Includes 21,515 British-born persons who had not, at the date of the Census, acquired Canadian domicile.

## Section 11.-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 refers only to the English and French languages. The numbers speaking one, both or neither of the official languages are given, by provinces, in Table 23. Information from the 1951 Census on official languages classified by origin was not available at the time of preparation of this Chapter. Such data for 1941 will be found in the 1947 Year Book, p. 122.
23.-Population Speaking One, Both or Neither of the Official Languages, by Provinces or Territories, 1951

Nots.-Children under 5 years of age have been classed as speaking the language of the home.

| Province or Territory | Official Language |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { English } \\ & \text { Only } \end{aligned}$ | French Only | English and French | Neither English nor French |  |
| Newfoundland. | 356,377 | 153 | 3,990 | 896 | 361,416 |
| Prince Edward Island. | 88,743 | 914 | 8,745 | 27 | 98,429 |
| Nova Scotia. | 595,257 | 7,462 | 39,524 | 341 | 642584 |
| New Brunswick | 318,560 | 100,712 | 96,095 | 330 | 515,697 |
| Quebec. | 462,813 | 2,534,242 | 1,038,130 | 20,498 | 4,055,681 |
| Ontario.. | 4,115,584 | 78,974 | - 359,965 | 43,019 | 4,597,542 |
| Manitoba | 685,914 | 7,869 | 58,441 | 24.317 | 776,541 |
| Saskatchewan | 767,248 | 4,656 | 40,789 | 19,035 | 831,728 |
| Alberta. | 868.696 | 5,922 | 40,785 | 24,098 | 939,501 |
| British Columbia | 1,112,937 | 727 | 39,433 | 12,113 | 1,165,210 |
| Yukon Territory | 1,11,337 | 10 | . 519 | 7. 230 | -9,096 |
| Northwest Territories. | 6,929 | 171 | 1,031 | 7,873 | 16,004 |
| Canada. | 9,387,395 | 2,741,812 | 1,227,447 | 152,775 | 14,009,429 |

Mother tongues spoken are dealt with in Table 24, which shows that 1,659,770 persons had neither. English nor French as mother tongue.

$$
\text { 24.-Mother Tongues of the Population, } 1951
$$

Note.-Children under 5 years of age have been classed as speaking the language of the home.

| Mother Tongue |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |

## Section 12.-School Attendance

Years of schooling is defined as the total number of years a person attended any kind of educational institution beyond kindergarten. Persons engaged in private study or part-time attendance at classes are credited with the number of years of formal schooling to which this is equivalent. Table 25 shows the number of persons 5 years of age or over attending school by years of schooling, by provinces and the Territories, while Table 26 shows this information for persons not attending school. To be considered as attending school, a person must have had some regular daytime attendance at some type of formal school or university between September 1950 and June 1951.
25.-Population 5-24 Years of Age or Over Attending School, by Years of Schooling, by Provinces or Territories, 1951

| Province or Territory | Population Attending School | Years of Schooling |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1-4 | 5-8 | 9-12 | 13-16 | 17+ |
|  | No. | No. | No. | No. | No. | No. |
| Newfoundland....... | 76,979 | 41,426 | 26,506 | 8,445 | 535 | 67 |
| Prince Edward Island. | 19,714 | 9,013 | 7,521 | 2,807 | 336 | 37 |
| Nova Scotia. | 132,127 | 63,689 | 46,376 | 19,298 | 2,281 | 483 |
| New Brunswick | 103,800 | 50,029 | 37,931 | 14,102 | 1,473 | 265 |
| Quebec.. | 725,882 | 372,988 | 251,387 | 79,727 | 15,997 | 5,783 |
| Ontario...... | 751,399 | 330,828 | 256,831 | 127,611 | 28,160 | 7,969 |
| Manitoba. | 134,998 | 61,751 | 46,863 | 22,116 | 3,519 | 749 |
| Saskatchewan. | 162,238 | 69,608 | 59,573 | 29,387 | 3,152 | 518 |
| Alberta. | 175,809 | 76,113 | 61,386 | 33,372 | 4,157 | 781 |
| British Columbia. | 183,871 | 80,329 | 61,225 | 34,275 | 6,392 | 1,650 |
| Yukon Territory...... | 1,107 | 645 | 279 182 | $\begin{array}{r}127 \\ 55 \\ \hline\end{array}$ | 46 | 10 |
| Northwest Territories. | 957 | 684 | 182 | 55 | 25 | 11 |
| Canada. | 2,468,881 | 1,157,103 | 856,060 | 371,322 | 66,073 | 18,323 |

26.-Population 5 Years of Age or Over Not Attending School, by Years of Schooling, by Provinces or Territories, 1951

| Province or Territory | Population not Attending School | Years of Schooling |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | None | 1-4 | 5-8 | 9-12 | 13-16 | 17+ |
|  | No. | No. | No. | No. | No. | No. . | No. |
| Newfoundland. | 225,606 | 34,413 | 43,466 | 86,983 | 55,598 | 4,195 | 951 |
| Prince Edward Island | 65,502 | 3,647 | 3;682 | 30,288 | 25,183 | 2,199 | 503 |
| Nova Scotia. | 427,917 | 24,137 | 33,549 | -167,145 | 179,001 | 19,056 | 5,029 |
| New Brunswick | 337,028 | 31,556 | 37,982 | 150,186 | 103, 849 | 10,775 | 2,680 |
| Quebec. | 2,788,275 | 202,301 | 243,469 | 1,393,873 | 793,646 | 110,775 | 44,211 |
| Ontario. | 3,331,421 | 157,522 | 155,167 | 1,378,881 | 1,274,945 | 284,349 | 80,557 |
| Manitoba. | 551,566 | 44,067 | 46,995 | 214,303 | 214,509 | 25,430 | 6,212 |
| Saskatchewan. | 569,635 | 49,106 | 49,190 | 246,579 | 190,667 | 29,049 | 5,044 |
| Alberta. | 646,846 | 49,619 | 43,576 | 235,898 | 268,687 | 41,057 | 8,009 |
| British Columbia. | 855,453 | 48,772 | 41,525 | 279,010 | 402,583 | 66,566 | 16,997 |
| Yukon Territory. | 6,670 | 952 | 469 | 1,751 | 2,916 | 486 | 96 |
| Northwest Territories. | 12,520 | 7,404 | 1,285 | 1,405 | 1,840 | 415 | 171 |
| Canada. | 9,818,439 | 653,496 | 700,355 | 4,186,302 | 3,513,424 | 594,40? | 170,460 |

## Section 13.-Occupations

Information under this heading from the 1951 Census was not available at the time of preparation of this Chapter but may be found in the regular series of census bulletins. Summary tables showing the occupations of the Canadian people as at the date of the 1941 Census are given in the Year Book 1943-44, pp. 1062-1073, and in the Year Book 1948-49, pp. 160-161.

## Section 14.-Dwellings, Households and Families

Statistics on dwellings, households and families, derived from the 1951 Census returns, are shown in Table 27; the figures are exclusive of the Yukon and Northwest Territories. Additional information on these subjects, which was not available at the time of preparation of this Chapter, may be found in the regular series of census bulletins.

The definitions on which the figures of Table 27 are based are as follows:-
Dwelling.-A structurally separate set of living premises with private entrance from outside the building or from a common hallway or stairway inside. The entrance must not be through another person's living quarters. Each single house, each apartment or suite in an apartment house, duplex, triplex or structurally connected single house; each flat in a building containing flats; each half of a double house; and each section of a row or terrace counts as one dwelling unit. Other structures such as summer cottages, automobile trailers, tents, cabins, railway cars, houseboats, etc., are also counted as dwelling units if they are occupied by persons who have no other usual residence.

Household.-A person or a group of persons occupying one dwelling unit. Every individual is a member of some household. The number of households will be equal to the number of occupied dwellings. A household usually consists of a family group with or without servants, lodgers, etc. However, it may consist of a group of unrelated persons sharing a dwelling, or one person living alone.

Family.-A husband and wife (with or without children) or a parent and unmarried child (or children including guardianship children under 21 years of age and single) living together in the same dwelling.
27.-Dwellings, Households and Families, and Persons per Household and Family, by Provinces and Cities of $\mathbf{3 0 , 0 0 0}$ Population or Over, 1951

| Province and City | Population | Dwellings |  | Families | Persons per Household ${ }^{3}$ | Persons per Family |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total ${ }^{1}$ | Occupied ${ }^{2}$ |  |  |  |
| Newfoundland. | 361,416 | 78,024 | 70,980 | 74,858 | $5 \cdot 0$ | $4 \cdot 4$ |
| St. John's... | 52,873 | 11,009 | 10,572 | 11,427 | $4 \cdot 8$ | 4.0 |
| Prince Edward Island. | 98.429 | 24,114 | 22,454 | 21,381 | $4 \cdot 3$ | 4.0 |
| Nova Scotia. | 642,584 | 159,795 | 149,555 | 145.127 | 4.2 | 3.9 |
| Halifax.. | 85,589 | 19,250 | 18,709 | 19.010 | $4 \cdot 1$ | $3 \cdot 5$ |
| Sydney........... | 31.317 | 6.545 | 6,324 | 7.080 | 4.8 | 3.9 |
| New Brunswick. | 515,697 | 120,639 | 114,007 | 111,639 | 4.4 | 4-1 |
| Saint John.... | 50,779 | 13,531 | 13,178 | 12,224 | 3.8 | $3 \cdot 5$ |
| Quebec. | 4, 055,681 | 898,914 | 858,784 | 856,041 | $4 \cdot 6$ | $4 \cdot 2$ |
| Hull.. | 43,483 | 9,562 | 9,324 | 9,916 | $4 \cdot 6$ | 4.0 |
| Montreal | 1,021,520 | 257, 253 | 247,482 | 246,389 | $4 \cdot 0$ | 3.5 3.4 |
| Outremont. | 30,057 | 7,559 | 7,419 | 7.329 | $3 \cdot 9$ | $3 \cdot 4$ |

For footnotes, see end of table.
27.-Dwellings, Households and Families, and Persons per Household and Family, by Provinces and Cities of $\mathbf{3 0 , 0 0 0}$ Population or Over, 1951-concluded

| Province or City | Population | Dwellings |  | Families | Persons per Household ${ }^{2}$ | Persons per Family |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total ${ }^{1}$ | Occupied ${ }^{2}$ |  |  |  |
| Quebec-concl. |  |  |  |  |  |  |
| Quebec. | 164,016 | 36,268 | 34,970 | 33,830 | $4 \cdot 4$ | $4 \cdot 1$ |
| Sherbrooke | 50,543 | 11,922 | 11,543 | 11,034 | $4 \cdot 1$ | 3.9 |
| Tbree Rivers | 46,074 | 9,848 | 9,528 | 9.466 | $4 \cdot 6$ | $4 \cdot 3$ |
| Verdun....... | 77,391 | 20,216 | 19,806 | 20,123 | $3 \cdot 8$ | $3 \cdot 4$ |
| Ontario. | 4,597,542 | 1,232,081 | 1,181,126 | 1,162.772 | 3.8 | $3 \cdot 4$ |
| Brantford. | 36;727 | 10,551 | 10,373 | 9,774 | $3 \cdot 5$ | $3 \cdot 2$ |
| Fort William | 34,947 | 9,485 | 9,297 | 9.015 | $3 \cdot 7$ | $3 \cdot 4$ |
| Hamilton | 208.321 | 56,595 | 55,337 | 55,764 | $3 \cdot 7$ | $3 \cdot 2$ |
| Kingston. | 33,459 | 8,939 | 8,708 | 8,485 | $3 \cdot 7$ | $3 \cdot 2$ |
| Kitchener | 44,867 | 11,904 | 11,571 | 11,832 | $3 \cdot 8$ | $3 \cdot 2$ |
| London. | 95,343 | 27,200 | 26,384 | 24,679 | $3 \cdot 5$ | $3 \cdot 1$ |
| Oshawa. | 41,545 | 11,680 | 11,225 | 11,170 | 3.7 | $3 \cdot 2$ |
| Ottawa.. | 202,045 | 50,691 | 48,968 | 48,811 | 3.9 | $3 \cdot 4$ |
| Peterborough | 38,272 | 10,343 | 10, $\mathrm{C18}$ | 9,807 | 3.8 | $3 \cdot 4$ |
| Port Arthur. | 31,161 | 8,672 | 8,426 | 8,082 | $3 \cdot 6$ | $3 \cdot 4$ |
| St. Catharines | 37,984 | 10,575 | 10,383 | 10,051 | $3 \cdot 6$ | $3 \cdot 3$ |
| Sarnia. | 34,697 | 9,841 | 9,380 | 8,953 | $3 \cdot 7$ | $3 \cdot 4$ |
| Sault Ste. M | 32,452 | 8,088 | 7,856 | 8,124 | $4 \cdot 1$ | $3 \cdot 5$ |
| Sudbury | 42,410 | 9,670 | 9,452 | 9,978 | $4 \cdot 4$ | $3 \cdot 7$ |
| Toronto. | 675,754 | 159,985 | 157,174 | 177.984 | $4 \cdot 2$ | $3 \cdot 0$ |
| Windsor. | 120,049 | 32,329 | 31,813 | 30,855 | $3 \cdot 7$ | $3 \cdot 4$ |
| Manitoba.. | 776,541 | 210,565 | 202,398 | 191,268 | $3 \cdot 7$ | $3 \cdot 6$ |
| Winnipeg. | 235,710 | 66,434 | 64,629 | 63,117 | $3 \cdot 6$ | $3 \cdot 1$ |
| Saskatchewan | 831,728 | 237,406 | 221,456 | 196,188 | $3 \cdot 7$ | $3 \cdot 7$ |
| Regina. | 71,319 | 19,805 | 19,161 | 18,229 | $3 \cdot 6$ | $3 \cdot 3$ |
| Saskatoon. | 53,268 | 15,667 | 14,982 | 13,639 | $3 \cdot 4$ | $3 \cdot 3$ |
| Alberta. | 939,501 | 266,939 | 250,747 | 223.326 | $3 \cdot 6$ | $3 \cdot 7$ |
| Ca!gary | 129,060 | 39,590 | 37,711 | 34,053 | $3 \cdot 3$ | $3 \cdot 2$ |
| Edmonton | 159,631 | 45,847 | 42,922 | 40,278 | $3 \cdot 6$ | $3 \cdot 3$ |
| British Columbia. | 1,165,210 | 356,651 | 337,777 | 299, 845 | $3 \cdot 3$ | $3 \cdot 3$ |
| Vancouv | 344,833 | 105, 167 | 101,330 | 92,798 | $3 \cdot 3$ | $3 \cdot 0$ |
| Victoria. | 51,331 | 16,454 | 15,788 | 13,632 | $3 \cdot 1$ | $3 \cdot 0$ |
| Canada | 14,009,429 ${ }^{3}$ | 3,585,128 | 3,409,284 | 3,287,384 ${ }^{3}$ | $4 \cdot 0$ | $3 \cdot 7{ }^{3}$ |

${ }^{2}$ Includes institutions, hotels and camps, as well as vacant dwellings and dwellings under construction. ${ }^{2}$ Excludes institutions, hotels and camps. ${ }^{3}$ Includes the Yukon and Northwest Territories.

## Section 15.-The Blind and Deaf Population

Information under this heading from the 1951 Census was not available at the time of preparation of this Chapter. Statistics from the 1941 Census are given in the Year Book 1945, p. 126, and in greater detail in Vol. IV of the 1941 Census.

## Section 16.-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 Province Census was taken as of June 1, 1946, and the results are summ arized in the Year Book 1948-49, pp. 162-171, and in the Year Book 1951, pp. 130-132. More detailed information may be obtained in the census volumes of the 1946 Census of the Prairie Provinces.

## Section 17.-The Indians and Eskimos of Canada

The Indians.*-The Indians of Canada are not one race, but are divided into a number of basic linguistic stocks or language groups which are, in turn, subdivided into tribal groups with many local dialects. There are ten linguistic groups, of which four are found east of the Rocky Mountains-Algonkian, Athapaskan, Iroquoian and Siouan-and six are found west of the Rockies-Kootenayan, Salishan, Wakashan, Tsimshian, Haida and Tlinkit. They are subdivided further into many tribes with widely differing physical and psychological characteristics and cultures. The Indians of Algonkian stock are the most numerous. They are scattered throughout the area from the Atlantic Ocean to the Rocky Mountains and include such tribes as the Miemacs of Prince Edward Island, Nova Scotia and New Brunswick, the Montagnais of Quebec, and the Ojibwas, Crees and Blackfeet. Iroquoian stock, including the Hurons, are found mainly in Ontario and Quebec. Athapaskan stock inhabit the Northwest and Yukon Territories, while tribes of Sioux are located in Manitoba, Saskatchewan and Alberta.

In all there are more than 136,000 Indians in Canada, divided into about 600 bands. Reserves, or lands set aside for the use of these Indian bands, number more than 2,000 , varying in size from a few acres to 500 sq.miles.

The Indians have long been regarded as a separate and special responsibility of the Government and their administration is now under the jurisdiction of the Indian Affairs Branch of the Department of Citizenship and Immigration, except for medical and health services which are provided by the Department of National Health and Welfare. The primary function of Indian administration has always been to conduct Indian affairs in such a manner as to enable them to become increasingly self-supporting and independent. The legislation in effect up to September 1951 covered management of Indian lands and reserves, trust funds, welfare projects, relief, family allowances, education, descent of property, rehabilitation of Indian veterans on reserves, Indian treaty obligations, enfranchisement of Indians and a variety of other matters. A complete examination of Indian affairs was conducted by a special Joint Committee of the Senate and House of Commons during the Parliamentary Sessions of 1946, 1947 and 1948, and, as a result, the previous legislation under which Indian affairs were administered was repealed and a new Act ( 15 Geo. VI, c. 29) brought into force on Sept. 4, 1951. This constituted the first complete revision of Indian legislation since 1880.

The New Indian Act.-The new Act is designed to bring the Indians, by progressive steps, into a position of social, political and economic equality with other Canadians by giving them greater powers over their own lands and funds and by decreasing the powers held by the Government.

Under the old Act, for instance, the Crown could grant timber-cutting rights on Indian reserves and lease unused lands without the consent of the Indian owners. Such transactions now require the approval of the band concerned. Similarly,

[^56]expenditures from Indian trust funds must now, with few exceptions such as assistance for indigents, be authorized by the band council concerned. A band may now be given complete control over its own lands and band revenue money. Also when an individual Indian leases land to another party the lease money may now be paid locally. Heretofore, under the Consolidated Revenue and Audit Act, it was necessary for the money to be sent first to Ottawa.

The system of elections for band councils, which correspond in a general way to the councils in a rural municipality, has been modernized. Under the old Act only males 21 years of age or over were allowed to vote in band elections. Under the new Act the vote has been extended to women in elections and in all matters in which a vote of the band is required.

The right of appeal to the civil courts in registration of band membership matters is provided for. A similar right is also provided in connection with the estates of deceased Indians administered by the Minister, when the amount involved exceeds $\$ 500$.

Revolving Fund loans which formerly assisted Indians in the purchase of farming and fishing equipment, seed grain, live stock and similar essentials, may now be granted also for the purchase of farm vehicles, fencing materials, gas and oil, and repairs and wages.

Restrictions on trade with Indians in the Prairie Provinces have been modified. The requirement for departmental consent to such transactions hitherto necessary may now be removed from any band or individual Indian. In this and various other ways the rights and liberties of the Indians have been extended.

Changes have also been made in regard to education and, while the school system on the reserves will not be changed and the present residential school arrangements will continue, provision is made for the children of Indians living off reserves. Special schools may be established in some cases and, in addition, agreements may be entered into with provincial authorities, local school boards and other bodies for the education of Indian children in association with other Canadian children.

As in the old Act, provision is made for the enfranchisement of Indians-either by entire bands or as individuals-the effect of which is to remove all legal distinctions between such Indians and other members of the community. Enfranchised Indians, accordingly, are no longer subject to the provisions of the Indian Act. A provision has been included permitting the Department to make arrangements with a province or municipality to provide financial assistance to support indigent, infirm or aged persons of an enfranchised band.

Indian Welfare.-The extension of the provisions of the Old Age Security Act to all Indians 70 years of age or over was the most important welfare development during 1951. Formerly, Indians 70 years of age or over were paid, subject to a means test, the sum of $\$ 25$ per month which was provided for in welfare appropriations of the Indian Affairs Branch. Also during 1951 the registration was undertaken of needy Indians in the 65-69 age group for benefits under the Old Age Assistance Act.

Other significant steps in Indian welfare included the liberalization of the basic scale of foods issued to destitute Indians, and the appointment of three additional social workers for duty on Indian reserves. These workers, who provide leadership in community activities among Indians, are at work in almost all reserves. The Indian Affairs Branch also continued its policy of improving existing Indian dwellings and constructing new homes on reserves.

Indian Education.-There was a total enrolment of 24,871 pupils in Indian day schools and residential schools during the 1950-51 school year. In addition, 1,468 children attended elementary grades in provincial and private schools and 564 pupils were enrolled in secondary grades and special courses in these institutions. It is significant to note that over a ten-year period the total enrolment at day and residential schools rose from 17,425 to the 1950-51 figure of 24,871 , and that during that same period the percentage of attendance climbed from 82.4 to 89.7. These increases are attributed not only to the continuing construction of schools where necessary but also to the growing recognition by the Indians of the desirability of education and to the improvements in the standards of teachers and of schools and equipment.

Fur Conservation.-The fur rehabilitation work carried on in co-operation with the various provinces is continuing. Indians are adopting in increasing measure the conservation and management techniques necessary to restore this basic industry, on which more than one-half of the total Indian population still depends for subsistence.

Beaver production figures have risen steadily in areas in Manitoba, Saskatchewan and Ontario under management by virtue of formal agreements now in effect. For example, the beaver crop in Manitoba rose from 3,379 in 1945 to 14,439 in 1950; in Saskatchewan, from 1,646 in 1947 to 10,495 in 1950; and in Ontario, from 47,276 in 1947 to 73,759 in 1950. Numbers of beavers, as well as the pelts taken, have continued to increase on the areas set aside by the Province of Quebec for the exclusive use of Indians.

Six full-time fur supervisors are now employed across Canada to assist the Indians to derive the fullest possible benefits from trapping operations.

Indian Trust Fund.-The credit balance of the Indian trust fund as at Mar. 31,1951 , was $\$ 20,232,930$, made up of $\$ 15,103,948$ in capital account and $\$ 5,128,982$ in revenue account which, at the end of the year, showed increased balances of $\$ 270,149$ and $\$ 818,951$, respectively. Interest paid by the Government on the trust fund amounted to $\$ 956,512$. Other major items of income to the fund included land leases, $\$ 473,779$; timber, $\$ 492,559$; oil exploration rights, $\$ 758,559$; and land sales, $\$ 97,973$. The total expenditure from the trust fund in the year ended Mar. 31, 1951, was $\$ 2,764,222$, chiefly for agricultural assistance, relief, distributions of cash in accordance with the provisions of land surrenders, housing construction and improvements, road building, and loans to Indians.

Statistics.-The Indian Affairs Branch takes a census of the Indians at fiveyear intervals. The figures in the following tables are the latest available. At the time of the preparation of this material, information regarding the Indian population collected at the 1951 Decennial Census was not yet ready for publication.

## 28.-Indian Population, Classifled by Age Groups and Sex, by Provinces or Territories, Departmental Census, 1949

| Province or Territory | Under <br> 7 Years |  | 7 and Under 16 |  | 16 and Under 21 |  | 21 and Under 70 |  | 70 or Over |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | $\mathrm{Fe}-$ male | Male | $\mathrm{Fe}-$ male | Male | $\mathrm{Fe}-$ Male | Male | $\mathrm{Fe}-$ male | Male | $\mathrm{Fe}-$ male | Male | Fe male |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Prince Edward Island.. | 24 | 20 | 33 | 33 | 16 |  | 68 | 58 | 6 |  | 147 | 126 |
| Nova Scotia | 273 | 243 | 292 | 302 | 123 | 132 | 635 | 544 | 50 | 47 | 1,373 | 1,268 |
| New Brunswic | 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 |
| Ontario | 3,348 | 3,352 | 3,330 | 3,349 | 1,761 | 1,747 | 8,282 | 8,005 | 713 | 720 | 17,434 | 17,173 |
| Manitoba | 2,022 | 1,991 | 1,956 | 2,021 | 940 | 830 | 3,815 | 3,340 | 293 | 305 | 9,026 | 8,487 |
| Saskatche | 1,853 | 1,869 | 1,795 | 1,866 | 854 | 811 | 3,416 | 3,347 | 246 | 251 | 8,164 | 8,144 |
| Alberta. | 1,698 | 1,724 | 1,639 | 1,591 | 700 | 692 | 2,892 | 2,579 | 206 | 270 | 7,135 | 6,856 |
| 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 | 20 | 730 | 713 |
| Northwest Territories.. | 379 | 322 | 362 | 372 | 182 | 164 | 875 | 804 | 58 | 68 | 1,856 | 1,730 |
| Total | 14,728 | 14,715 | 14,421 | 14,746 | 7,012 | 6,820 | 30,959 | 28,029 | 2,473 | 2,504 | 69,593 | 66,814 |

29.-Religious Denominations of the Indian Population, Departmental Census, 1949

| Province or Territory | Anglican | Baptist | United Church | Presbyterian | Roman Catholic | Other Christian Beliefs | Aboriginal | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| Prince Edward Island. | - | - | - | - | 273 | - | - | 273 |
| Nova Scotia. | - | - | - | - | 2,641 | - | - | 2,641 |
| New Brunswick | , | - | - |  | 2,139 | - | ${ }^{177}$ | 2,139 |
| Quebec. | 3,100 | - | 451 | $\checkmark$ | 12,120 | 152 | 147 | 15,970 |
| Ontario.. | 10,940 | 1,514 | 6,025 | 611 | 12,065 | 1,146 | 2,306 | 34,607 |
| Manitoba. | 5,735 | 12 | 4,694 | 804 | 6,091 | 82 | ${ }^{95}$ | 17,513 |
| Saskatchewan | 4,980 | - | 1,682 | 184 | 8,402 | 25 | 1,035 | 16,308 |
| Alberta. | 1,963 | 127 | 1,708 | - | 9,954 | -7 | 239 | 13,991 |
| British Columbia | 5,561 | - | 5,623 | - | 15,977 | 775 |  | 27,936 |
| Yukon Territory. | 1,191 | 二 | , | - | 2 210 | 18 | 24 | 1,443 |
| Northwest Territories. | 668 | - | - | - | 2,918 | - | - | 3,586 |
| Totals | 34,138 | 1,653 | 20,183 | 1,599 | 72,790 | 2,198 | 3,846 | 136,407 |

30.-Indian Lands and Property, by Classes and Provinces or Territories, 1950

| Province or Territory | Land |  |  |  | Property |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Uncleared and Uncultivated | Cleared but not Cultivated | Under Cultivation |  | Private Houses | Churches | Council Houses | Sawmills |
|  | acres | acres | acres | acres | No. | No. | No. | No. |
| Prince Edward Island | 1,721 | 820 | 200 | 2,741 | 48 | 1 | 1 | - |
| Nova Scotia. | 22,924 | 1,235 | 636 | 19,498 | 491 | 10 | 1 | 2 |
| New Brunswic | 33,602 | 1,157 | 294 | 37,727 | 395 | 6 | , | 1 |
| Quebec. | 138,799 | 11,597 | 4,487 | 179,619 | 2,007 | 22 | 4 | 1 |
| Ontario. | 1,198,900 | 107,957 | 33,427 | 1,560,221 | 5,383 | 115 | 48 | 25 |
| Manitoba. | 308,909 | 161,821 | 20,040 | 525,299 | 3,415 | 68 | 11 | 10 |
| Saskatchewan | 496,961 | 623,918 | 116,868 | 1,203,293 | 3,044 | 58 | 15 | 2 |
| Alberta........ | 565,373 | 772,351 | 136,060 | 1,516,796 | 2,914 | 34 | 13 | 4 |
| British Columbia.... | 437,063 | 240,028 | 42,169 | 816,549 | 6,945 | 169 | 89 | 14 |
| Territories. | 3,537 | 41 | 20 | 5,620 | 323 | 2 | 1 | - |
| Totals. | 3,207,789 | 1,920,925 | 354,201 | 5,867,363 | 24,965 | 485 | 187 | 59 |

[^57]31.-Live Stock Owned by Indians, by Provinces or Territories, 1950

| Province or Territory | Horses |  |  | Cattle |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Stallions | $\begin{aligned} & \text { Geldings } \\ & \text { and } \\ & \text { Mares } \end{aligned}$ | Foals | Bulls | Steers | Milch Cows | Young Stock |
|  | No. | No. | No. | No. | No. | No. | No. |
| Prince Edward Island.. | - | 11 | 1 | 1 | 8 | 15 | 14 |
| Nova Scotia........ | 1 | 44 |  |  | - | 58 | 33 |
| New Brunswick... | - | 25 | - | - | - | 5 | 2 |
| Quebec. . | 2 | 375 | 45 | 29 | ${ }^{61}$ | 890 | 438 |
| Ontario.... | 24 | 2,257 | 143 | 89 | 529 | 3,022 | 1,881 |
| Manitoba. | - | 2,226 | 47 | 28 | 185 | 796 | 538 |
| Saskatchewan. | 4 | 5,592 | 142 | 59 | 782 | 1,900 | 1,449 |
| Alberta ................ | 167 | 8.256 | 899 | 243 | 1,697 | 7.522 | 4,719 |
| British Columbia........ | 104 | 5,714 | 570 | 227 | 2,463 | 7,112 | 4,452 |
| Northwest and Yukon T ritories | 2 | 25 | - | - | - | - | - |
| Totals. | 304 | 24,525 | 1,848 | 679 | 5,725 | 21,320 | 13,526 |

The Eskimos.-The Eskimos of Canada are located principally north of the tree-line along the northern fringes of the mainland and around the coasts of the islands in the Arctic Archipelago and in Hudson Bay. Most of them are coastal dwellers obtaining much of their food, fuel and clothing from the mammals of the sea. There are, however, small bands living in the interior of the Districts of Keewatin and Mackenzie who depend almost wholly on caribou and fish.

The economy of these nomadic people is based on their hunting, fishing and trapping. From their hunting and fishing they obtain the essentials of food, fuel, clothing and shelter, while trapping produces furs to trade for the white man's goods. Variations in the availability of game and furs and wide fluctuations in the prices of furs from year to year add to the precariousness of the Eskimo's life in these Arctic regions.

The 1951 Census established the Eskimo population at 9,733, of whom 6,822 were located in the Northwest Territories, 1,958 in northern Quebec and 769 in Newfoundland and Labrador.

The administration of Eskimo affairs comes under the Department of Resources and Development whose aim it is to assist these people in adjusting themselves to changes being brought about by advancing civilization and ultimately to develop to a point where they can assume the full rights and responsibilities of citizenship.

The question of the ability of wildlife resources to support the native population is becoming acute. To conserve the natural resources necessary for the subsistence of the Eskimos, the Administration has introduced game preserves where only natives may hunt and trap. Game regulations provide for the efficient use of wildlife, and the Royal Canadian Mounted Police encourage hunting practices which will conserve the supply of game both on land and in the sea. The Federal Government, for a number of years, has operated a reindeer project near Aklavik, which was undertaken primarily as a possible means of improving the economic condition of the Eskimos. Research is going on to determine the suitability of other areas for reindeer culture and to determine the possibility of developing other resources such as fisheries. Eskimo handicraft is being encouraged by the Canadian Handicrafts Guild assisted by a grant from the Federal Government. Eskimos have produced carvings in soapstone, ivory and wood, and articles made of various skins and furs. Sales have been successful.

Social services available to the citizens of Canada in general are being extended to the Eskimos as rapidly as possible, care being taken that these services are extended in a manner and form conducive to the best interests of the native. Family allowances to Eskimos are issued in the form of goods, and allowances to aged Eskimos have also been authorized.

Medical care and hospitalization of Eskimos is a function of the Department of National Health and Welfare. Mission hospitals, maintained with Government assistance, are located at Aklavik, Chesterfield Inlet and Pangnirtung. At these points the Department of National Health and Welfare also maintains medical health officers who are responsible for the surrounding areas. Government nursing stations or health centres have been established at Coppermine, Coral Harbour, Cape Dorset and Lake Harbour in the Northwest Territories and at Fort Chimo and Port Harrison in Arctic Quebec.

The nomadic life of the Eskimo people places considerable difficulty in the way of formal education. For many years the missionaries have carried on some formal education assisted by Federal Government grants. Government schools have now been established at Aklavik, Tuktoyaktuk, Coppermine, Chesterfield Inlet, Coral Harbour, Cape Dorset, Port Harrison and Fort Chimo, and attention is being directed to the devising of a suitable educational program for the Eskimos.

The Royal Canadian Mounted Police detachments maintain close contact with the Eskimos throughout the Far North and act as local representatives of the Administration in all matters affecting Eskimo welfare. Administrative contact is also maintained by radio and through the Eastern Arctic Patrol, which cárries representatives of the Administration and of other government departments on an annual inspection of conditions in the Eastern Arctic. Officers of the Adminisstration also visit Arctic posts periodically by aircraft.

## Section 18.-Statistics of World Population

Population for each country or area of the world, according to the latest census and latest official estimate, is given in the Year Book 1950, pp. 176-180. The following table gives areas and estimates of populations of the Commonwealth, by continents and countries.

## 32.-Areas and Populations of the Commonwealth, by Continents and Countries, 1950

| Continent | Area | $\begin{gathered} \text { Population, } \\ 1950 \end{gathered}$ | Continent and Country | Area | $\begin{gathered} \text { Population, } \\ 1950 \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Summary by Continents | sq. miles | '000 | Europe | sq. miles | '000 |
| Europe. | 94,629 | 51,111 | Self-Governing Terri- |  |  |
| Africa. | 4,301,674 | 81,674 | United Kingdom- |  |  |
| Asia... | 2,112,566 | 469,857 | England and Wales. | 58,341 | 44,020 |
| North America (including West Indies). | 3,867,160 | 16,536 | Northern Ireland. | 5,459 30,409 | 1,377 5,219 |
| South America............ | 89,065 | 422 | Non-Self - Governing Ter- |  |  |
| Oceania. | 4,194,872 | 12,172 | ritories and Depend- |  |  |
| Totals. | 14,659,966 |  | Channel Islands.......... | 75 | 103 |
|  |  | 631,772 | Gibraltar............... | 2 221 | ${ }_{54}^{25}$ |
|  |  |  | Malta and Gozo ........ | 122 | 3131 |

For footnotes, see end of table, p. 162.

## 32.-Areas and Populations of the Commonwealth, by Continents and Countries, 1950-concluded

| Continent and Country | Area | Population, 1950 | Continent and Country | Area | $\underset{1950}{\text { Population, }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Africa | sq. miles | '000 | North America | sq. miles | '000 |
| Self - Governing Terri-tories- |  |  | Self Governing Terri-tory- |  |  |
| Union of South Africa .... | 472,475 | 12,320 | Canada........... | 3,845,774 | 13,712 |
| Non - Self - Governing Territories and Depend-encies- |  |  | Non - Self - Governing Territories and Depend-encies- |  |  |
| Basutoland. | 11,715 | 574 | Bermudas. | 21 | 371 |
| Bechuanaland | 274.980 | 289 | British Honduras. | 8,867 | 67 |
| Gambia (colony and protectorate). | 4,068 | 273 | British West Indies- Bahama Islands.... | 4,403 | 79 |
| Gold Coast (colony and |  |  | Barbados. | 166 | 209 |
| protectorate)............ | 78,799 | 3,869 | Jamaica. | 4,411 | 1,403 |
| Kenya (colony and protectorate) | 224,951 | 5,555 | Cayman Islands...... | 93 | 7 |
| Mauritius and dependencies. | 809 | 480 | Leesard Islands (incl. | 202 | 7 |
| Nigeria (colony and protectorate) | 338.580 | 24,000 | Antigua, Montserrat, St Kitts - Nevis - An- |  |  |
| Northern R hodesia....... | 290.312 | 1.866 | guilla and Virgin Is- |  |  |
| Nyasaland.... | 47,402 | 2,330 | lands (U.K.) | 422 | 112 |
| St. Helena (including |  |  | Trinidad and Tobago | 1,980 | 627 |
| Ascension)............. | 81 | 5 | Windward Islands (inel. |  |  |
| Seychelles (colony and dependencies) | 156 | 36 | Dominica, Grenada, St. Lucia and St. Vincent).. | 821 | 276 |
| Sierra Leone (colony and protectorate) | 27.924 | 1.880 |  |  |  |
| Somaliland Protectorate. | 67.997 | 500 |  |  |  |
| Southern Rhodesia. | 150.327 | 2.095 | South America |  |  |
| Swaziland. | 6.704 | 197 |  |  |  |
| Uganda. | 93.977 | 5,125 | Non - Self - Governing Ter- | - |  |
| Zanzibar and Pemb | 1,020 | 269 | ritories and Depend- |  |  |
| Trust Territories- | 34.080 | 1.000 | encies- ${ }_{\text {enitish Guiana }}$ | 82,997 | 420 |
| Tanganyika (U.K.) | 362.674 | 7,707 | Faikland Islands and de- |  |  |
| Togoland (U.K.) ........ | 13,041 | 397 | pendency.............. | 6,068 | 2 |
| Former Mandated Territory - |  |  |  |  |  |
| South-West Africa. . | 317,712 | 379 |  |  |  |
| Military Government- |  |  | Oceania |  |  |
| Eritrea (U.K.).. | 47,876 466,563 | 1,104 |  |  | . |
| Condominium- | 466,563 | 1,074 | Self - Governing Terri-tories- |  |  |
| Anglo-Egyptian Sudan | 967,451 | 8,350 | Australia. | 2,974,463 | $8,186{ }^{5}$ |
| Asia |  |  | New Zealand.......... | 103,412 | 1,920 |
|  |  |  | ritories and Depend- |  |  |
| Self - Governing Terri- |  |  | encies- <br> Noriolk (Australia) | 14 | 1 |
| Burma.. | 261.600 | 18.489 | Papua (Australia)........ | 90,537 | 369 |
| Ceylon | 25.331 | 7.550 | British Solomon Islands |  |  |
| India (Republic of) ${ }^{3}$ | 1,221.023 | 358.000 | (U.K.) .............. | 11.699 | 100 |
| Pakistan.. | 365,893 | 75,040 | Fiji Islands (U.K.)....... | 7,040 | 289 |
| Non - Self - Governing Ter- |  |  | Gilbert and Ellice (U.K.) ${ }^{6}$ | 375 |  |
| ritories and Depend- |  |  | Pitcairn...... | 2 269 | ${ }^{7} 47$ |
| Aden Colony.. | 80 | 100 | Campbell, Cook, Kerma- |  |  |
| Aden Protectorate. | 104,996 | 650 | dec, Niue and Tokelau |  |  |
| British Borneo- |  |  | Islands (New Zealand).. | 260 | 20 |
| North Borneo.... | 29,386 | 348 | Trust Territories- |  |  |
| Brunei. | 2,226 | 46 | Nauru (Australia, New |  |  |
| Sarawak... | 47,069 | 562 484 | Zealand and U.K.) <br> New Guinea (Australia) | 999,960 | 1,071 |
| Cyprus.................. | 3,572 | 2.260 ${ }^{484}$ | New Guinea (Australia).. Western Samoa (New | 999,960 | 1,071 |
| Hong Kong............ | 391 | 2,260 ${ }^{1}$ | Western Samoa (New Zealand).................... | 1,133 | 79 |
| Federation of Malaya.... | 50,598 | 5.227 | Condominium- |  |  |
| Colony of Singapore ${ }^{\text {a }}$.... | 286 | 1,018 | New Hebrides (Anglo- |  |  |
| Maldive Islands........ | 115 | 83 | French) ................. | 5,700 | 49 |

[^58]
## CHAPTER IV.-IMMIGRATION AND GITIZENSHIP

## 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.

## PART I.-IMMIGRATION AND EMIGRATION

## Section 1.-Immigration

Immigration to Canada since early times has been spasmodic, being high in periods of rapid development and prosperity and dropping off during wars and in periods of economic depression. A brief summary of the history of immigration is given in the Year Book 1948-49, pp. 172-173.

## Subsection 1.-Immigration Policy and Administration*

Policy.-The present policy of the Federal Government is to foster the growth of the population of Canada by the encouragement of immigration and, by necessary legislation and vigorous administration, to ensure the careful selection and permanent settlement of such numbers of immigrants as can be absorbed advantageously in the national economy. In line with this policy, the regulations were amended on July 1, 1950, to include-in addition to certain British subjects, citizens of France, citizens of the United States, and non-immigrants who served in the Canadian Armed Forces-any European immigrant who complies with immigration regulations and can satisfy the Minister of Citizenship and Immigration that he is a suitable immigrant, having regard to the climatic, social, educational, industrial, labour or other conditions or requirements of Canada, and that he is not undesirable owing to his probable inability to become readily adapted and integrated into the life of a Canadian community and to assume the duties of Canadian citizenship within a reasonable time after his entry.

On Sept. 14, 1950, German nationals were removed from the enemy alien category and have since been admissible as immigrants on the same basis as other Europeans. Regulations governing Asian immigration were also widened. An Order in Council of Dec. 28, 1950, provided for the admission of husbands of Asian origin in addition to the wives of Canadian citizens legally admitted to and resident in Canada. The age limit for unmarried children was raised from 18 to 21 years.

[^59]In January 1951 an agreement was reached with the Government of India to permit the admission of 150 citizens annually. In addition, the wife, husband or unmarried children under 21 years of age of Canadian citizens of Indian origin legally admitted to and resident in Canada may be admitted. Subsequently, provision was made for the admission of 100 citizens of Pakistan and 50 citizens of Ceylon annually, with the same provisions obtaining in respect of members of the immediate family of persons. of Pakistani or Ceylonese origin residing in Canada.

However, this widening of regulations was in itself insufficient to increase the flow of immigration. Several obstacles remained to be overcome, the more important being the shortage and high cost of ocean transportation, restrictions on the export of capital and the devaluation of foreign currencies. Measures were taken by the adoption of the Air Transportation Scheme and the Assisted Passage Loan Scheme to help overcome the transportation problem. Under the terms of the former Scheme, put into effect in December 1950, immigrants were enabled to utilize otherwise vacant seats on scheduled Trans-Canada Air Lines flights from the United Kingdom at a cost equivalent to tourist-class ocean passage, the balance of the regular air-passage fare being paid by the Federal Government. Up to Nov. 30, 1951, about 7,000 immigrants had been brought to Canada by this means.

The Assisted Passage Loan Scheme was put into effect on Feb. 1, 1951, for the purpose of assisting immigrants from Europe whose services were urgently required in Canada and who were unable to finance transportation costs. Single persons and heads of families were allowed interest-free loans of part of the cost of ocean transportation and inland rail fare, including meals en route, to destination in Canada. Repayment was required within a maximum period of 24 months after arrival in Canada. Up to Oct. 31, 1951, when the plan was suspended, a total of 9,870 workers had been brought to Canada under this arrangement.

In addition to these measures, the Department of Citizenship and Immigration made a determined effort to have more shipping made available, increased the size of its overseas staff, added to its overseas offices, and made a large supply of informational material available to prospective immigrants.

The success of these efforts to stimulate immigration is evidenced by the fact that during the year 1951 a total of 194,391 immigrants entered Canada as compared with 73,912 in the previous year.

Administration.--The responsibility for all immigration matters under the provisions of the Immigration Act rests with the Minister of Citizenship and Immigration. The Immigration Branch, one of the four branches comprising the Department of Citizenship and Immigration, administers this Act. Headquarters of the Immigration Branch is at Ottawa.

A primary objective of administration is to assist immigrants to become quickly and satisfactorily settled in the Canadian community. Through the work of the Settlement Service, the Immigration Branch and the Canadian Citizenship Branch of the Department of Citizenship and Immigration and the National Employment Service of the Department of Labour, the Federal Government continues its interest
in them. Liaison is maintained between the Federal Government and provincial authorities and private organizations with a view to co-ordinating the efforts in this field, filling gaps and eliminating duplication.

Immigration Operations.-Immigration services in Canada and overseas operate under the supervision of the Director of Immigration. In Canada there are five districts-Atlantic, Eastern, Central, Western and Pacific-each under the supervision of a Superintendent. There are 319 ports of entry along the CanadianUnited States border and on the Atlantic and Pacific seaboards and the admissibility of every person who enters Canada is established by an Immigration Officer at one of these ports. At inland offices located at strategic points throughout the country applications for the admission of immigrants are investigated and deportation proceedings conducted.

Immigration offices in the United Kingdom are located at London, Liverpool, Glasgow and Belfast. To facilitate compliance with immigration medical requirements, approved British medical practitioners make it possible for British immigrants to undergo medical examination within a short distance of their place of residence. An immigration office is also located at Dublin, Ireland. Immigration offices are in operation at Paris, Brussels, The Hague, Stockholm, Berne, Rome, Athens, Oslo, Copenhagen, Helsinki, Hanover, Linz and Carlsruhe.

For the past twenty-five years, a system of preliminary examination of immigrants from Continental Europe has been in effect. This examination is intended to establish, before they embark, the admissibility of persons wishing to settle in Canada in order to avoid the hardship that would ensue from rejection at the Canadian port of entry and subsequent deportation.

Settlement Service.-Of increasing importance in the immigration program is the work of the Settlement Service, which has staffs in all provinces of Canada and in the British Isles. The Settlement Officers in Canada locate and develop opportunities for immigrants in accordance with the needs of the areas under their supervision, enlist the co-operation of provincial and municipal authorities, and advise voluntary organizations that take an active interest in the establishment of immigrants. It is the responsibility of Settlement Officers overseas to locate suitable immigrants to fill the needs ascertained and the opportunities developed by the Canadian section of the Settlement Service. A continuous two-way flow of up-to-date information exists between the officers of the Settlement Service in Canada and those overseas.

## Subsection 2.-Immigration Statistics

Table 1 presents statistics of immigration to Canada from 1912 to 1951. Analyses showing place 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, 1912-51

Note.-Figures for 1852-93 are given at p. 153 of the 1942 Year Book and for 1894-1911 at p. 175 of the 1948-49 edition.

| Year | Arrivals | Year | Arrivals | Year | Arrivals | Year | Arrivals | Year | Arrivals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. |  | No. |  | No. |  | No. |  | No. |
| 1912.. | 375,756 | 1920. | 138,824 | 1928... | 166,783 | 1936.. | 11,643 | 1944. | 12,801 |
| 1913. | 400, 870 | 1921. | 91,728 | 1929. | 164,993 | 1937. | 15, 101 | 1945. | 22,722 |
| 1914. | 150,484 | 1922. | 64, 224 | 1930. | 104,806 | 1938. | 17,244 | 1946. | 71,719 |
| 1915. | 36,665 | 1923. | 133,729 | 1931. | 27,530 | 1939. | 16,994 | 1947. | 64,127 |
| 1916. | 55,914 | 1924. | 124.164 | 1932. | 20.591 | 1940. | 11,324 | 1948. | 125,414 |
| 1917. | 72,910 | 1925. | 84.907 | 1933. | 14.382 | 1941. | 9,329 | 1949. | 95,217 |
| 1918.... | $\begin{array}{r}41,845 \\ \hline 107\end{array}$ | 1926. | 135,982 | 1934 | ${ }_{12,476}$ | 1942 | 7.576 | 1950. | 73.912 |
| 1919.... | 107,698 | 1927. | 158,886 | 1935 | 11,277 | 1943 | 8,504 | 1951. | 194,391 |

## 2.-Immigrant Admissions, by Country of Last Permanent Residence, 1948-51

Note.-Comparable figures for 1946 and 1947 are given in the Year Book 1951, p. 143, and figures in less detail for 1939-45 in the Year Book 1950. p. 186.

| Country | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |
| British IslesEngland... | 30,450 | 14,414 | 9,077 | 21,155 |
| Scotland.. | 9,886 | 4,926 | 2,802 | 8,885 |
| Wales.... | 683 | 339 | 164 | 365 |
| Northern Ireland | 1,576 | 1,058 | 626 | 1,154 |
| Other Commonwealth | 5,549 | 2,301 | 2.211 | 3,494 |
| Totals, Commonwealth................. | 48.144 | 23,038 | 14,880 | 35,053 |
| Republic of Ireland................................. | 1,044 | 927 | 452 | 640 |
| Continental Europe- |  |  |  |  |
|  | 2,475 3,204 | 2,941 | 3,815 8,993 | 29,196 23,426 |
| Netherlands | 6.997 | 6,828 | 7,169 | 19,266 |
| Poland. | 27.741 | 20,091 | 9,747 | 14.245 |
| France. | 1,326 | 1.163 | 1,399 | 8.279 |
| Estonia. | 1,752 | 2,484 | 1,630 | 3,871 |
| Czechoslovakia. | 1,898 | 2,815 | 1.698 | 3,385 |
| Union of Soviet Socialist Republics. | 4,414 | 2.243 | 1,224 | 2.315 |
| Latvia................ | 2.987 | 2,711 12,733 | 1,629 10,610 | 2,300 39,107 |
| Other European countries. | 14,997 | 12,733 | 10,610 | 39,107 |
| United States ${ }^{1}$ | 7,393 | 7,756 | 7,821 | 7,755 |
| Other countries. | 1,042 | 1,759 | 2,845 | 5,553 |
| Totals, All Countries................... | 125,414 | 95,217 | 73,912 | 194,391 |

${ }^{1}$ Includes U.S.A. citizens on permit but applying for permanent residence.
Sex, Age and Marital Status.-Of the total immigrants 18 years of age or over entering Canada in 1951, 64 p.c. were males. Before 1931, adult male immigrants normally exceeded females in number, but from 1931 to 1947 female immigrants outnumbered 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. and in 1951 by 80 p.c.

Throughout the years the sex distribution of persons under 18 years of age has been fairly even. In 1951, of the 45,334 immigrants in this class, 39,474 or 87 p.c. were under 15 years of age.

Of the total male immigrants in 1951,40 p.c. were married and 59 p.c. single, the remainder being widowed or divorced; the percentages for female immigrants were 50 and 44, respectively.

## 3.-Sex Distribution of Immigrants as Adult Males, Adult Females, and Children, 1942-51

Norg.-Figures for 1930-41 are given at p. 183 of the 1946 Year Book.

| Year | Adult Males | Adult Females | Under 18 Years |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Males | Females |  |
|  | No. | No. | No. | No. | No. |
| 1942.. | 2,280 | 3,429 | 928 | 939 | 7,576 |
| 1943. | 2,113 | 4.064 | 1.177 | 1,150 | 8.504 |
| 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 | 45.191 | 14.104 | 13.133 | 125.414 |
| 1949. | 39.044 30.700 | 32,957 24.172 | 12.118 10.287 | 11.098 8.753 | 95.217 73.912 |
| 1951... | 95,818 | 53,239 | 24.348 | 20,986 | 194,391 |

4.-Sex and Marital Status of Immigrant Arrivals, by Age Groups, 1950 and 1951

| Year and Age Group | Males |  |  |  |  | Females |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Single | Married | Widowed | $\underset{\text { vorced }}{\mathrm{Di}}$ | Total | Single | Married | Widowed | $\underset{\text { vorced }}{\mathrm{Di}}$ | Total |
| 1950 | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 0-14 years..... | 8.421 | - | - | - | 8.421 | 7.668 | - | - | - | 7,668 |
| 15-19 " ${ }^{\text {a }}$ ( | 3.520 | 24 | - | - | 3,544 | 1,872 | 276 | 2 | 2 | 2,152 |
| 20-24 " | 5.054 | 858 | 3 | 4 | 5,919 | 1,979 | 2,277 | 9 | 23 | 4,288 |
| 25-29 " | 3.981 | 3.067 | 13 | 48 | 7.109 | 1.364 | 3,534 | 62 | 71 | 5,031 |
| 30-39 " | 2,369 | 5.824 | 66 | 93 | 8.352 | 1,001 | 4.302 | 226 | 162 | 5.691 |
| 40-49 " | 608 | 3.917 | 115 | 91 | 4.731 | 537 | 2.987 | 419 | 163 | 4.106 |
| 50-59 " $\ldots . .$. | 114 | 1,593 | 89 | 35 | 1.831 | 237 | 1,365 | 623 | 106 | 2.331 |
| 60 years or over.. | 66 | 759 | 239 | 16 | 1,080 | 153 | 489 | 985 | 31 | 1.658 |
| Totals, 1950.... | 24,133 | 16,042 | 525 | 287 | 40,987 | 14,811 | 15,230 | 2,326 | 558 | 32,925 |
| 1951 |  |  |  |  |  |  |  |  |  |  |
| 0-14 years. | 20,700 | - | - | - | 20,700 | 18.774 | - | - | - | 18,774 |
| 15-19 " | 8.793 | 52 | - | 3 | 8.848 | 3.818 | 600 | 1 | 1 | 4,420 |
| 20-24 " | 18.991 | 3,098 | 1 | 29 | 22.119 | 4.204 | 5,875 | 18 | 46 | 10,143 |
| 25-29 " | 12.792 | 10.799 | 31 | 138 | 23,760 | 2,764 | 9.652 | 82 | 174 | 12.672 |
| 30-39 | 7.045 | 19.556 | 156 | 410 | 27.167 | 1.900 | 11.766 | 367 | 397 | 14,430 |
| 40-49 | 1,712 | 10.711 | 220 | 272 | 12.915 | 735 | 6.271 | 658 | 346 | 8,010 |
| $50-59$ " | 231 | 2.862 | 167 | 61 | 3.321 | 283 | 2.229 | 933 | 145 | 3,590 |
| 60 years or over. . | 76 | 968 | 276 | 16 | 1.336 | 197 | 635 | 1,313 | 41 | 2,186 |
| Totals, 1951.... | 70.340 | 48,046 | 851 | 929 | 120,166 | 32,675 | 37,028 | 3,372 | 1,150 | 74,225 |

Birthplace.-British-born immigrants to Canada in 1951 numbered 35,179 and made up 18 p.c. of the total immigration; the increase over 1950 amounted to 120 p.c. Immigrants born in Continental Europe totalled 148,480, which was an increase of 201 p.c. over the previous year. They accounted for 76 p.c. of the immigration compared with 67 p.c. in 1950 . Of the $148,480,16.3$ p.c. were born in Germany, 16.0 p.c. in Italy, 12.6 p.c. in the Netherlands and 12.1 p.c. in Poland.

The number of United States-born immigrants in 1951 was about the same as in 1950, but accounted for only 3 p.c. of the total as compared with 8 p.c. in 1950 .


## 5.-Birthplaces of Immigrant Arrivals, 1949-51

Note.-Figures for 1942-46 are given at p. 178 of the 1948-49 Year Book and those for 1947 and 1948 at p. 145 of the 1951 edition.

| Country of Birth | 1949 | 1950 | 1951 | Country of Birth | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Commonwealth of | No. | No. | No. | - | No. | No. | No. |
| Nations- |  |  |  | Continent of Africa |  |  |  |
| British Isles- |  |  |  | (Other than British).... | 118 | 104 | 234 |
| England. | 13,317 | 8,419 | 18,723 |  |  |  |  |
| Northern Ireland. | 1,214 | 680 | 1,302 | Continent of North |  |  |  |
| Scotland. | 5,194 | 3,032 | 9,199 | America- |  |  |  |
| Wales. | 558 | 287 | 635 | Central America. | 15 | 22 | 20 |
| Lesser Isles, | 62 | 38 | 99 | Mexico. | 20 | 16 | 38 |
|  |  |  |  | United States. | 5,672 | 5,909 | 5,982 |
| Other Commonwealth- |  |  |  | Other. | 62 | 54 | 98 |
| Africa (British) . . . . . . . | 112 | 93 | 196 |  |  |  |  |
| Australia............... | 350 | 317 | 462 |  |  |  |  |
| Canada. | 953 | 878 | 719 | Continent of South | 207 | 254 | 350 |
| India. | 250 | 199 | 369 |  |  |  |  |
| New Zealand......... | 201 | 194 | 199 |  |  |  |  |
| West Indies (British)... | 354 | 326 | 584 | Continent of Asia- |  |  |  |
| Other.................. | 826 | 938 | 1,754 | China. | 914 | 1,873 | 2,967 |
|  |  |  |  | Japan.................... | 23 | 18 | 19 |
| Republic of Ireland...... | 1,165 | 614 | 938 | Other. | 175 | 214 | 714 |

## 5.-Birthplaces of Immigrant Arrivals, 1919-51-concluded

| Country of Birth | 1949 | 1950 | 1951 | Country of Birth | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Continental Europe- | No. | No. | No. | Contin | No. | No. | No. |
| Austria....... | 1,329 | 754 | 4,091 | concl. |  |  |  |
| Belgium | 803 | 706 | 4,235 | Norway | 355 | 237 | 925 |
| Czechoslovakia | 2,931 | 1,848 | 4,401 | Poland. | 19,184 | 9,944 | 17,907 |
| France. | 1,056 | 1,238 | 7,198 | Roumania | 1,437 | 1,212 | 2,930 |
| Germany | 3,752 | 3,918 | 24,257 | Switzerland | 356 | 482 | 1,337 |
| Greece. | . 709 | 828 | 2,758 | Union of Soviet Socialist |  |  |  |
| Hungar | 2,187 | 1,947 | 5,099 | Republics. | 3,401 | 2,043 | 4,489 |
| Italy. | .7,702 | 9,004 | 23,806 | Yugosl | 2,163 | 1,558 | 5,651 |
| Latvia | 2,626 | 1,580 | 2,679 | Othe | 4,610 | 3,932 | 16,417 |
| Lithuania. | 2,016 6,774 | 1973 7,125 | 18,781 | Grand Totals | 95,217 ${ }^{1}$ | 73,912 ${ }^{2}$ | 194,391 ${ }^{3}$ |

## ${ }^{1}$ Includes 7 born at sea and 47 others not stated.

${ }^{3}$ Includes 8 born at sea and 302 others not stated.
Origin.-Of the 35,361 immigrants of British stock entering Canada in 1951, 60 p.c. were English, 28 p.c. Scottish, 10 p.c. Irish and 2 p.c. Welsh. Immigrants of Continental European stocks, who together numbered 155,597 and accounted for 80 p.c. of the total, were 21.4 p.c. German, 15.8 p.c. Italian, 12.5 p.c. Netherlands, 8.4 p.c. Polish, 4.6 p.c. Jewish, 4.5 p.c. French and 4.5 p.c. Ukrainian.

## 6.-Origins of Immigrant Arrivals, 1949-51

Note.-Figures for 1926-48 are given in the corresponding table of previous Year Books beginning with the 1939 edition.

| Origin | 1949 | 1950 | 1951 | Origin | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| British- | No. | No. | No. | Continental Europeanconcl. | No. | No. | No. |
| English. | 16,116 | 11,068 | 21,348 |  |  |  |  |
| Irish. | 3,527 | 2,322 | 3,373 | Scandinavian-concl. |  |  |  |
| Scottish | 6,180 | 3,928 | 10,002 | Norwegian............. | 451 | 341 | 1,036 |
| Welsh | 537 | 327 | 638 | Swedish............... | 309 | 281 | 949 |
| Totals, British | 26,360 | 17,645 | 35,361 | Swiss ${ }^{\text {2 }}$ | 333 | 452 | 1,096 |
| Continental European- |  |  |  | Ukrainian <br> Yugoslavic ${ }^{1}$ | 6,602 1,488 | 3,815 1,041 | 6,949 4,175 |
| Albanian. | 57 | 30 | 56 |  |  |  |  |
| Belgian. | 741 | 472 | 2,655 | Totals, Continental |  |  |  |
| Bulgarian | 788 | 85 | 362 | European... | 67,609 | 54,069 | 155,597 |
| Czech.. <br> Estonian | ${ }_{2}^{2,1341}$ | 1,498 | 3,199 |  |  |  |  |
| Finnish. | 2, 267 | 1,904 | 4, 4 4,159 | Others- |  |  |  |
| French. | 1,906 | 1,929 | 6,949 |  |  |  |  |
| German | 6,721 | 6,642 | 33,234 | Arabian. | 26 | 29 | 52 |
| Greek. | 774 | 913 | 2,918 | Armenian | 10 | 37 | 86 |
| Italian | 7,936 | 9,246 | 24,532 | Chinese. | 803 | 1,746 | 2,708 |
| Jewish. | 5,047 | 3,006 | 7,167 | East Indian. | 53 | 77 | 99 |
| Lettish. | 2,850 | 1,791 | 2,846 | Indian (American)...... | 34 | 17 | 26 |
| Lithuani | 2,265 | ${ }^{979}$ | 1,351 | Japanese............... | 13 | 13 | 3 |
| Magyar. | 1,655 | 1,645 | 4.421 | Mexican. | $2{ }^{2}$ | 4 | 17 |
| Maltese..... | 1 8,012 8 | 845 7,635 | 1,604 19,405 | Negro.. | 214 2 | 159 2 | 165 7 |
| Polish. | 12,359 | 6,732 | 13,078 | Syrian. | 90 | 104 | 229 |
| Portuguese | 68 | 104 | 166 | Turkish | 1 | 10 | 19 |
| Roumanian | 402 | 400 | 1,000 | Not state | - | - | 22 |
| Russian................ | 937 | 653 | 2,305 |  | 1,248 | 2,198 | 3,433 |
| Danish | 922 | 967 | 4,663 |  |  |  |  |
| Icelandic. | 18 | 17 | 23 | Grand Totals | 95,217 | 73,912 | 194,391 |

${ }^{1}$ Includes a small number of minor groups.
${ }^{2}$ Reported as "Swiss" origin but are evidently one of the constituent races such as German, French, Italian, etc.

Nationality.-The nationalities of immigrants entering Canada during the years 1949, 1950 and 1951 are shown in Table 7.

## 7.-Nationalities of Immigrant Arrivals, 1949-51

Note.-Figures for 1930-48 are given in the corresponding table of previous Year Books beginning with the 1936 edition.

| Nationality | 1949 | 1950 | 1951 | Nationality | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. |  | No | No. | No. |
| African (not British)..... | 19 | 35 | 42 | Latvian. | 2.988 | 1,828 | 2,830 |
| Albanian. | 52 | 32 | 58 | Lithuanian. | 2,401 | 1,081 | 1,373 |
| Argentinian. | 16 | 9 | 20 | Mexican. | 17 | 6 | 30 |
| Armenian. | - | 5 | 9 | Netherland............ | 6,819 | 7,211 | 19,137 |
| Austrian. | 349 | 395 | 3,628 | Norwegian. | 362 | 239 | 916 |
| Belgıan. | 765 | 669 | 3,086 | Paraguayan............. | - | 13 | 16 |
| Brazilian. | 32 | 26 | 27 | Persian.. | - | - | 18 |
| British. | 23,674 | 15,399 | 34,790 | Peruvian................ | 9 | 7 | 3 |
| Bulgarian. | 81 | 95 | 395 | Polish................... | 22,913 | 12,075 | 20,408 |
| Central American. | 10 | 14 | 16 | Portuguese.............. | 5 | 11 | 42 |
| Chilean. | - | 6 | 9 | Roumanian.............. | 1,450 | 1,163 | 2,344 |
| Chinese. | 734 | 1,731 | 2,689 | Russian. | 2,569 | 1,515 | 3,744 |
| Czechoslovakian. | 3,048 | 1,840 | 3,905 | South American......... | 20 | 17 | 40 |
| Danish | 864 | 905 | 4,666 | Spanish................. | 19 | 20 | 552 |
| Ecuadorian. | - | 2 | 3 | Swedish................. | 153 | 155 | 796 |
| Estonian. | 3,004 | 2,026 | 4,748 | Swiss................... | 339 | 475 | 1,267 |
| Finnish. | 202 | 444 | 3.949 | Syrian.................. | 68 | 98 | 263 |
| French................... | 993 | 1,209 | 6,811 | Turkish................. | 5 | 13 | 54 |
| German. | 163 | 1,772 | 25,813 | Ukrainian............... | 143 | 120 | 705 |
| Greek...................... | 722 | 845 | 2,802 | United States.......... | 7,110 | 7,136 | 6,904 |
| Hungarian................ | 2,168 | 1,970 | 5,210 | Uruguayan.............. | - | 2 | 5 |
| Icelandic. | 7 | 9 | 17 | Venezuelan | - | 8 | 9 |
| Irish Republican......... | 803 | 425 | 669 | West Indian (not British) | 10 | 18 | 48 |
| Israelite. | 47 | 103 | 333 | Yugoslavic.............. | 2,322 | 1,702 | 5.573 |
| Italian................... | 7,651 | 8,939 | 23,432 | Others. | 67 | 82 | 183 |
| Japanese................. | 24 | 12 | 4 | Totals. | 95,217 | 73,912 | 194,391 |

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 1951. Of the total immigrants, 41 p.c. were dependent wives and children, 13 p.c. were classed as farm workers, 17 p.c. as skilled workers and 16 p.c. as unskilled workers, while 6 p.c. were in the clerical, professional and merchant classes.

Of the total female immigrants, aside from dependent wives and children who accounted for 75 p.c., the largest number in any one occupational class were listed as domestic servants followed by the clerical and professional classes. Only 2 p.c. were classed as skilled workers.

| Intended Occupation | Intended Destination |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Canada |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N＇f＇ld． | P．E．I． |  | N．S． |  | N．B． |  | Que． |  | Ont． |  | Man． |  | Sask． |  | Alta． |  | －B．C． |  | Yukon and N．W．T |  |  |  |  |
|  | M．F． | M． | F． |  |  | M． |  | M． | F． | M． | F． |  | F． |  | F． | M． | F． | M． | F． | M． | F． | M． | F． | Totals |
|  | No．${ }_{2}$ No． | No． |  |  |  |  | No． | No． 4.868 | No． | No． <br> 13.038 | No． | No． | No． | No． | No． | No． | No． 200 | No． <br> 1.516 |  | No． | No． | No． | No． 597 | No． 25．890 |
| Farming class | $11_{2}^{2}-$ | －${ }^{1}$ |  |  |  | $\begin{array}{r}266 \\ 15 \\ \hline\end{array}$ | $\begin{array}{r} 6 \\ 14 \end{array}$ | 4.868 <br> 980 | 37 530 | 13，038 | 1，216 |  | 52 <br> 37 |  | 38 20 | 2，429 | 200 90 | 1.516 | ${ }_{205}^{36}$ |  | 二 | 25,293 3.182 | 2，135 | 25.890 5.317 |
| Professional class | 31.19 | 6 | 1 | 62 | 25 | 35 | 16 | 881 | 278 | 1．267 | 531 | 91 | 43 | 85 | 29 | 199 | 47 | 226 | 127 | 1 |  | 2，884 | 1，117 | 4，001 |
| Merchant class．．． | 5 － | 2 | 1 | 36 |  | 20 | ， | 706 | 77 | 1，314 | 252 | 72 | 14 | 16 | ， | 108 | 18 | 252 | 48 | － | 1 | 2，531 | ${ }^{425}$ | 2，956 |
| Skilled Workers－ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bakers．． | －－ |  | － |  |  |  | － | 267 | 3 | 455 | 8 | 55 |  | 15 |  | 48 | － | 64 |  | － | － | 922 | 11 | 933 |
| Barbers | － | － | 2 |  |  |  |  | 82 | 28 | 143 | 60 | 10 | 2 | 1 | 2 | 5 | 3 | 21 | 10 | － | － | 266 | 107 | 373 |
| Blacksmiths | － | － | － | 4 | － | 1 | － | 76 | － | 180 | － | 26 | － | 4 | － | 22 | － | 31 | 1 | － | － | 344 | － | 344 |
| Butchers．．．．．． | － |  | － |  | － |  | － |  | － | 298 | 二 |  |  | 9 | － | 32 | － | 22 | － | － | － | 577 | 1 | 577 |
| Cabinetmakers．．．．．．．．．．．．．．． | － | － | － | 3 | － | 1 | － | 86 | 1 | 132 | － | 17 | － | $1{ }^{7}$ | － | 16 | － | 16 | － |  | － | ${ }^{278}$ | 1 | 279 |
| Carpenters and woodworkers Dressmakers and | 4 － | 1 | － | 43 |  | 24 | － | 700 | － | 1，902 | 2 |  | － | 113 | － | 216 | － | 330 |  | 1 | － | 3，532 | 2 | 3，534 |
| Dressmakers and seamstresses．． | －－ | － | － | － |  |  |  | 14 | 243 | 9 | 365 | 2 | 38 | － |  | － | 26 | 2 | 35 | － | － | 27 | 724 | 751 |
| Engineers，locomotive，mar－ ine and stationary |  |  |  |  |  |  |  | 37 |  | 114 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ine and stationary ．．．．．．．．．．．． | 二 二 |  | － | 23 |  | ${ }_{9}^{2}$ | 二 | ${ }_{677}$ | － | 1， 174 | －2 | 143 | 二 | 23 | 二 | 105 | 二 | 172 | － | 二 | － | ${ }_{2}^{1847}$ | －3 | 2，450 |
| Fur workers．．．．．．．．．．．．．．．． | －－ | － | － | ， | － | － | － | 126 | 11 | ${ }_{91}$ | 7 |  | 1 |  | － | 1 | 1 | 5 | － | － | － | 231 | 20 | 251 |
| Jewellers，goldsmiths and silversmiths | －－ |  | － |  |  |  |  | 95 | － |  | 1 |  |  |  |  | 3 |  | 10 |  |  | － | 179 | 2 | 181 |
| Locksmiths．．．．．．．．．．．．．．．．．．． | － | － | － |  | － | 2 | － | 116 | 二 | 251 | ${ }^{-}$ | 46 | － | 15 | $\sim$ | 24 | －1 | 31 | ， | － | － | 487 | 1 | ${ }_{488}$ |
| Machinists． | － | 1 | － | 10 | 1 | 3 | $\sim$ | 575 | － | 1，191 | 6 | 104 | － | 20 | － | 57 | － | 122 | 1 | － | － | 2，083 | 8 | 2，091 |
| Masons and bricklay | 1 － | － | － | 23 | － | 13 | － | 394 | － | 1，193 | 1 | 100 | － | 50 | － | 79 | － | 95 | － | － | － | 1，948 | 1 | 1，949 |
| Millers．．．．．．． | － | － | － |  |  | － | － | 23 | － | 42 | － |  |  |  |  | 5 | － | 2 |  | － | － | 82 |  | 82 |
| Painters and glaziers | 1 － | 2 | 二 | 5 | － | 3 | － | 238 | 1 | 522 | $\stackrel{2}{8}$ |  | － | 19 | － | 53 | － | 60 | － | － | － | 953 | 3 | 956 |
| Photographers | 1 － | － | 二 | 2 | 二 | － | 二 | 56 20 | 9 | 196 | 9 | 3 | 二 | 1 | － 1 | 4 | 1 | 14 | 2 | － | 二 | 177 | 22 | 199 |
| Plasterers | 二 | 二 | － | $\frac{1}{5}$ | 二 | $-2$ | － | 20 | － | 139 351 | 二 | 54 | －－ | 1 | － | 8 | － | $4{ }^{7}$ | 二 | － | 二 | 170 | － | 170 |
| Plumbers． | －－ | － | － | 5 |  | 2 | － | 149 | － | 351 | － | 53 | －－ | 9 | － | 49 | － | 44 | － | － | － | 662 | － | 662 |
| printing trade．．．．．．．．．．．．．． | －－ | － | － | 3 | － | 9 | － | 90 | 5 | 215 | 4 | 9 | － | 4 | － |  | － | 31 | － | － | － | 367 | 9 | 376 |
| Shoemakers． | － | － | － | 5 | － | 1 | － | 170 | － | 316 | － | 21 | － |  | － |  | － | 24 | － | － | － | 552 | － | 552 |
| Sheet metal workers． |  |  | － |  |  |  |  |  |  | 216 |  |  |  |  |  | 2 |  | 16 | 11 | 二 | － | 299 | 1 | 300 |
| Tailors <br> Textile workers including | －－ | － | － | 4 |  |  | － | 544 | 60 | 544 | 102 | 47 | 2 | 7 | － |  | 6 | 27 | 11 | － | － | 1，199 | 182 | 1，381 |
| weavers and spinners ．．．．．． |  |  | - | ${ }_{6}$ |  |  |  | 440 | 57 | 798 | 188 | 27 | 5 |  |  | 10 | 2 | 20 |  | － |  | 1，302 | 262 | 1，564 |



Rejections and Deportations.-The Immigration Act provides for the rejection and deportation of immigrants belonging to prohibited classes, and also for the deportation of those who become undesirables within five years after legal entry. The results of the operation of these regulations are shown in Table 9.

## 9.-Rejections and Deportations of Immigrants and Others, by Causes and Nationalities, 1949-51

Nore.-Figures for 1903-48 are given in the corresponding tables of previous Year Books; those for 1940-48 are given in the 1951 edition, p. 150 .

| Cause and Nationality | Rejections |  |  | Cause and Nationality | Deportations |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 | $1950 \mid$ | 1951 |  | 1949 | 1950 | 1951 |
|  | No. | No. | No. |  | No. | No. | No. |
| From Overseas- |  |  |  | Cause |  |  |  |
| Cause |  |  |  | Medical.......................... | 48 | 47 | 40 |
| Medical. | 45 | 23 | 15 | Public charges. | 27 | 31 | 14 |
| Civil. | 376 | 316 | 269 | Criminality | 94 | 100 | 85 |
|  |  |  |  | Misrepresentation and stealth..... | 190 | 176 | 286 |
|  |  |  |  | Other causes. . | 53 | 33 | 36 |
| Nationality |  |  |  | Accompanying deported persons.. | 3 | 5 | - |
| United States.. | 2 | 1 | 1 | Nationality |  |  |  |
| Other. | 262 | 228 | 180 | British........................... | 205 | 154 | 190 |
| Totals from Overseas. | 421 | 339 | 284 | United States | 92 | 108 | 70 |
| From United States. | 8,385 | 7,513 | 4,829 | Other. | 118 | 130 | 201 |
| Grand Totals, ReJections... | 3,806 | 7,852 | 5,113 | Grand Totals, Deportations. | 415 | 392 | 461 |

Returning Canadians.-The numbers of Canadians who returned to Canada in the period 1942-51 after residing in the United States are given in Table 10.

## 10.-Canadians Returned from the United States, 1942-51

Note.-Aliens with Canadian domicile are not included in these figures. Figures for 1926-41 are given at p. 182 of the 1948-49 Year Book.

| Year | $\begin{gathered} \text { Canadian } \\ \text { Born } \\ \text { Citizens } \end{gathered}$ | British Born who had Acquired Canadian Domicile | Naturalized Canadian Citizens | Total | Year | CanadianBorn Citizens | British Born who had Acquired Canadian Domicile | Naturalized Canadian Citizens | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1942... | 3,269 | 170 | 28 | 3,467 | 1947.... | 6,746 | 1,972 | 252 | 8,970 |
| 1943.. | 2,225 | 93 | 15 | 2,333 | 1948.... | 4,438 | 1,077 | 163 | 5,678 |
| 1944. | 2,070 | 120 | 20 | 2,210 | 1949.... | 3,907 | 53 | 90 | 4,050 |
| 1945. | 2,484 | 172 | 33 | 2,689 | 1950... | 3,372 | 77 | 69 | 3,518 |
| 1946.. | 4,535 | 558 | 84 | 5,177 | 1951.... | . | . |  | 3,635 |

## Section 2.-Emigration

Emigration from Canada is an important factor tending to offset the immigration activities of the past and has attained considerable proportions at certain periods. The two main factors have been the migration to the United States of Europeans originally immigrating to Canada and the emigration of native-born Canadians.

A question of considerable interest to Canadians is that of the permanent movement of population between Canada and the United States. In view of the lack of Canadian statistics on emigration, Table 11 has been compiled from figures supplied by the Immigration and Naturalization Service of the United States Department of Justice. Not all the statistics are available by months, so that it has not been possible to present the figures on a calendar-year basis; they are, therefore, shown on that of the United States fiscal year, July 1-June 30. The column headed "Deportable Aliens Destined to Canada" covers persons permitted to return to Canada in lieu of deportation proceedings.

## 11.-Presumed Permanent Movement of Population between Canada and the United States, Years Ended June 30, 1942-51

Note.-Figures for 1933-34 are given at p. 168 of the 1942 Year Book; for 1935-41 at p. 184 of the 1948-49 edition.

| Year Ended June 30- | From United States to Canada |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | U.S. Citizens Entering Canada | Aliens Entering Canada | Aliens Deported to Canada | Deportable Aliens Destined to Canada ${ }^{2}$ | Total ${ }^{1,2}$ |
|  | No. | No. | No. | No. | No. |
| 1942. | 3,413 | 595 | 631 | 2,187 | 6,826 |
| 1943. | ${ }_{2} 2.053$ | 439 | 464 | 2,350 | 5,306 |
| 1944. | 2,282 | 451 | 665 | 3.500 | 6,898 |
| 1945. | 2,260 | 567 | 474 | 2,600 | 5.901 |
| 1946. | 4,624 | 745 | 672 | 2,800 | 8,841 |
| 1947. | 5.386 | -861 | 954 | 3,600 | 10,801 |
| 1948. | 4.880 | 1,055 | 887 | 2,000 | 8,822 |
| 19493. | 3,698 | 1.233 | 869 | 1,800 | 7,600 |
| $\begin{aligned} & 1950^{3} \\ & 1951^{3} . \end{aligned}$ | 3,839 | 2,267 | 737 | 1,300 | 8.143 |
|  | 3,372 | 3,202 | 1,100 | 1,400 | 9,074 |
|  | From Canada to United States |  |  |  | $\begin{gathered} \text { Net } \\ \text { Movement } \\ \text { from } \\ \text { Canada } \end{gathered}$ |
|  | Immigrant Aliens from Canada | U.S. Citizens Returning from Canada | Persons Deported from Canada | Total |  |
|  | No. | No. | No. | No. | No. |
| 1942.. | 10,450 | 4,725 | 107 | 15,282 | -8,456 |
| 1943. | 9,571 | 4,892 | 78 | 14,541 | -9,235 |
| 1944.. | 9,821 | 4,743 | 69 188 | 14,633 | -7,735 |
| 1945....... | 11,079 20,434 | 5,138 | 188 | 16,405 | $-10,504$ $-18,776$ |
| 1947. | 23,467 | 5,003 | 589 | 29.059 | -18.258 |
| 1948. | 24,788 | 4,946 | 512 | 30,246 | -21,424 |
| 19493 | 25,156 | 5,787 | 425 | 31,368 | -23.768 |
| $1950{ }^{3}$ | 21,885 | 3,859 | 476 | 26, 220 | -18,077 |
|  | 25,880 | 4,303 | 315 | 30,498 | -21,424 |

[^60]
## PART II.-CANADIAN CITIZENSHIP*

An outline of early naturalization procedure and events leading up to the passing of the Canadian Citizenship Act is given in the Year Book 1951, pp. 153-155.

## Section 1.-The Canadian Citizenship Act

The coming into force of the Canadian Citizenship Act on Jan. 1, 1947, marked a new milestone in Canadian history. The passing of this Act exemplified the growth of autonomy in Canada and the advance of Canadian nationhood. Its purpose is 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.

On Jan. 18, 1950, the administration of Canadian citizenship was transferred from the Department of the Secretary of State to the newly established Department of Citizenship and Immigration. This change has been of considerable benefit in the co-ordination of administrative matters respecting citizenship and immigration, which are interrelated. It has had the additional effect of bringing citizenship to the status of a separate department wherein it is possible to advance materially the scientific planning of education and training in respect to the value and the importance of citizenship in Canada.

The provisions of the Citizenship Act with the changes occasioned by the 1950 and 1951 amendments are outlined in the following paragraphs.

Natural-Born Canadian Citizens.-The Act defines the status of naturalborn Canadians 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 was born after Jan. 1, 1947, he is a Canadian citizen, but he ceases to be a Canadian citizen upon reaching the age of two years unless, within that period, or within such extended period as may be authorized in special cases by the Minister, his birth is registered with an official Canadian representative abroad, or with the Minister of Citizenship and Immigration. In addition, a Canadian born outside of Canada before or after Jan. 1, 1947, ceases to be a Canadian citizen unless, within one year of age 21 (or within such longer period as may be authorized), he files a declaration of retention of Canadian citizenship and, in the case of dual nationality, a declaration renouncing the other nationality or 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 $\$ 1$. Under previous Acts, there was no provision for the issue of certificates of proof of citizenship.

British Subjects, Commonwealth Citizens, Citizens of the Republic of Ireland, and Canadian Citizens.-Sect. 21 of the Citizenship Act states that a Canadian citizen is a British subject. Before Jan. 1, 1947, he could not, officially,

[^61]describe himself as a Canadian citizen because the official designation for Commonwealth citizens 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."

The rights of non-Canadian British subjects have not been changed or infringed upon by the new Act. They 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. The application may be made to the Minister of Citizenship and Immigration or, alternatively, to the court of the district in which the applicant resides. If the Minister is in any doubt as to the qualifications of the person who applies direct to him, he may refer the case to the court for consideration.

Citizens of the Republic of Ireland, who are not British subjects, have a special status in Canada. This status is set out in Sect. 23 (3) of the Act, as amended, as follows:-
> "Any law of Canada, including this Act, and any regulation made under the authority of any law of Canada shall, unless it otherwise provides, have effect in relation to a citizen of the Republic of Ireland who is not a British subject in like manner as it has effect in relation to a British subject."

Canadian Citizens other than Natural-Born.-Under Sect. 9 of 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. Sect. 9 also defines the status as Canadian citizens of women and children, other than natural-born, 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 under Sect. 10 (4) of the Act 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 application is made direct to the Department and the qualifications are continuous residence in Canada for a period of one year immediately preceding the date of the application, and certain other general qualifications.Status and Procedure of Non-Canadians to Canadian Citizenship.Under Sect. 10 (1) of the Act any person who is not a Canadian citizen or is not otherwise a British subject, and is a resident of Canada, may take the first step towards citizenship at any time after his admission to Canada and after he has attained the age of 18 years by filing a Declaration of Intention in the office of the clerk of the court of the district in which he resides. He must then wait not less than one year, and not more than five, before filing with the court his application for citizenship, provided he has reached age 21. He must satisfy the court that he has resided in Canada for one year immediately preceding the date of his application, and a further period of four years in Canada during the six years immediately preceding the date of the application, making a total residence of five years. If
he served outside of Canada in the Armed Forces of Canada during time of war, or if the applicant is the wife of and resides in Canada with a Canadian citizen, the residence of one year immediately preceding the date of the application is all that is required. Additional requirements are lawful admission to Canada for permanent residence, good character, an adequate knowledge of English or French (such knowledge not required if he has resided continuously in Canada for more than 20 years), an adequate knowledge of the responsibilities and privileges of Canadian citizenship, and an intention, if his application is granted, either to reside permanently in Canada or to enter or continue in the public service of Canada or of a province thereof.

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 citizenship 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 under Sect. 10 (3) of the Act upon application direct to the Department. She need not be a resident of Canada and no special qualifications are required.

Status of Minors, Foundlings, Posthumous Births, etc.-Under Sect. 10 (5) of the Act, the Minister, in his discretion, may grant a special certificate of citizenship to a minor child of a person to whom a certificate of citizenship is, or has been, granted under the Act, on the application of that person if the person is the responsible parent, provided the child was born before the date of the grant of the certificate and has been admitted to Canada for permanent residence. Under Sect. 11 (3), the Minister may, in his discretion, 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.-By the amendment of July 20, 1950 (effective Jan. 1, 1947), Sect. 5 (2) 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.

Adopted or Legitimated Persons.-Effective July 20, 1950, Sect. 11 (2) of 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.-Under Sect. 11 (1) of the Act, 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 possesses 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 acqu:sition 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) Under Sect. 18 of the Act, 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 six consecutive years without maintaining substantial connection with Canada, loses his citizenship automatically, but the period of absence may, upon application, be extended beyond the six years for good and sufficient cause. Sect. 18 is effective from Jan. 1, 1947, and will come into operation on Jan. 1, 1953.

Loss of Citizenship by Revocation-Applicable 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 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, and has not maintained substantial connection with 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.-A female British subject who married an alien before Jan. 1, 1947, and upon marriage acquired her husband's alien nationality, ceased to be a British subject. If the husband was a British subject who became an alien during the course of the marriage and prior to Jan. 1, 1947, his wife became an alien if she acquired her husband's nationality.*

In the case of a marriage subsequent to Jan. 1, 1947, the woman, being 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. $\dagger$

## Section 2.-Canadian Citizenship Statistics

In 1951, 20,937 Canadian citizenship certificates were issued, 20,423 in English and 514 in French. The corresponding figures for 1950 were 19,409 certificates, 18,923 in English and 486 in French.

During 1951, the Canadian Citizenship Registration Branch recorded 1,261 certificates of registration of births abroad, 8,653 declarations of intention filed with the courts, 91 declarations of retention of citizenship, and 49 declarations of resumption of Canadian citizenship. Certificates issued free to persons who had active military service numbered 591. Corresponding figures for 1950 were: 956 registrations of births abroad, 9,059 declarations of intention, 28 declarations of retention of citizenship, 3 declarations of resumption of citizenship and 764 certificates issued free to persons who had active military service.

[^62]
## 1.-Citizenship Certificates Issued, by Status of Recipient, 1950 and 1951

| Sections of Act | Classification | 1950 | 1951 |
| :---: | :---: | :---: | :---: |
| Sect. 34 (1) (i).. | Certificates of Proof of Status- | No. | No. |
|  | Canadian citizens by birth............................................ | 1,697 | 1.771 |
|  | By naturalization under former Acts................................. | 3,950 | 3,643 |
|  | British subjects with 5 years domicile before Jan. 1, 1947 | 1,857 |  |
|  | Women, through marriage........................................ | 1,257 | 1,317 |
| Sect. 10 (2)... | British subjects with 5 years domicile after Jan. 1, 1947 | 431 | 841 |
| Sect. 10 (1).... | Aliens........................................................ | 8,931 | 9,359 |
| Sect. 10 (5).... | Minors whose parents have been granted Certificates.................. | 636 | 1,067 |
| Sect. 11 (3).... |  | 62 | ${ }^{39}$ |
| Sect. 10 (3).... | Women who regained lost Canadian citizenship through marriage...... | 486 | 1,006 |
| Sect. 10 (4)..... | Canadians who regained lost status by naturalization outside Canada.. | 84 | 227 |
| Sect. 11 (2)..... | Doubtful cases who have been now awarded Certificates | 11 | ${ }^{6}$ |
|  | Adopted and legitimated persons. | 7 | 14 |
|  | Totals | 19,409 | 20,937 |

## 2.-Certificates of Canadian Citizenship Issued to Aliens, by Country of Origin, 1950 and 1951

| Country of Origin | 1950 | 1951 | Country of Origin | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. |  | No. | No. |
| Albania. | 2 | 3 | Japan. | 323 | 292 |
| Argentina | 3 | 2 | Latvia.............................. | 9 | 14 |
| Armenia. | 3 | 1 | Lebanon. | 10 | 14 |
| Austria. | 266 | 183 | Liechtenstein. | 1 | 3 |
| Beigium. | 131 | 146 | Lithuania..... | 94 | 96 |
| Bulgaria. | 7 | 14 | Luxembourg. .................... | 5 | 1 |
| Chile... | - | 1 | Macedonia. | 2 | 1 |
| China. | 2,068 | 3,006 | Norway. | 197 | 127 |
| Czechoslovakia. | 563 | 437 | Palestine |  | 3 |
| Danzig......... | 1 | 2 | Poland. | 1,569 | 1,453 |
| Denmark | 152 | 141 | Portugal........................ |  | 3 |
| Egypt. | 1 | - | Roumania........................ | 310 | 334 |
| Estonia. | 9 | 16 | Spain.. | 6 | 11 |
| Finland. | 322 | 262 | Sweden. | 120 | 108 |
| France. | 67 | 94 | Switzerland | 79 | 107 |
| Germany | 472 | 414 | Syria.......................... | 888888 | 11 169 |
| Greece... | 101 | 126 |  |  | 169 10 |
| Haiti.... |  | 2 | Turkey .................. | 3 392 | 10 323 |
| Honduras | 403 | $3{ }^{1}$ | Union of Soviet Socialist Republics | 392 405 | 10 458 |
| Hungary | 403 9 | 394 14 | United States of America........ | 405 236 | 458 212 |
| Iraq... | 1 | 1 | Stateless... | 16 | 21 |
| Itrael. | $3 \overline{1}$ | 322 | Totals | 8,931 | 9,359 |

## CHAPTER V.-VITAL STATISTICS*

## 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 history of the collection of vital statistics in Canada is covered broadly at pp. 185-188 of the 1948-49 edition of the Year Book.

Unless otherwise specified, figures for Newfoundland, which entered Canadian Confederation on Mar. 31, 1949, have been incorporated where available in all tables for 1949 and 1950; where shown separately for the years prior to 1949, data have been taken from the Annual Reports of the Registrar General of Newfoundland. Available data for the Yukon and Northwest Territories are shown separately in Section 6, p. 220.

Numbers and rates of births and deaths are classified by place of residence and those for marriages by place of occurrence.

## Section 1.-Summary of Vital Statistics

Tables $\mathbf{1}$ to $\mathbf{6}$ give a summary of the vital statistics of the provinces of Canada for the years 1941 to 1950.

In comparing the birth, death and marriage rates of the provinces, it is important to bear in mind that part of the differences observed may be due to differences in the sex and age distribution of their populations. Similarly, changes in these rates may be due partly to changes in this distribution. These remarks also apply to international comparisons of birth, death and marriage rates. For example, over the past 15 to 20 years, the crude death rate in British Columbia has been rising, while in Ontario it has been declining gradually with the result that, though 15 years ago the death rate in Ontario was considerably higher than in British Columbia, at present the situation is reversed. This does not mean, however, that the mortality rates at each age have risen in British Columbia. On the contrary,

[^63]they have been falling. The death rate for the population as a whole has been rising since the increasing proportion of population in the higher age groups has more than outweighed the fall in the mortality rates at each age.

## 1.-Live Births and Rates per 1,000 Population, by Provinces, 1947-50, with Averages, 1941-45

(Exclusive of the Territories)

| Year | N'fld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | LIVE BIRTHS |  |  |  |  |  |  |  |  |  |  |
| Av. 1941-45 ${ }^{\text {r }}$. | 9,292 | 2,180 | 15,146 | 13,037 | 97,906 | 77.738 | 15,831 | 18,444 | 18,845 | 17,705 | 276,832 |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 1947. | 12.646 | 2.992 | 19.265 | 17,771 | 115.553 | 108,853 | 20.409 | 23.334 | 24,631 | 26.286 | 359,094 |
| 1948 | 11.634 | ${ }_{2}^{2.842}$ | 17.791 | 17.279 | 114.789 | 104.195 | 18.870 | 21.562 | 24.075 | 25.984 | 347,307 |
| 1950........... | 13,164 | 2,885 | 17,262 | 16,393 | 19,111 | 108,708 | 19,261 | 21,546 | 25.625 | 27,116 | 366,139 |
|  |  |  |  |  |  |  |  |  |  |  | 371,071 |
|  | RATES PER 1,000 POPULATION |  |  |  |  |  |  |  |  |  |  |
| Av. 1941-45 . | 29.7 | 23.7 | 25.2 | 28.2 | 28.4 | 19.9 | 21.7 | 21.6 | 23.5 | 19.8 | 23.5 |
| 1947. | 37.5 | 31.8 | 31.0 | 36.2 | 31.1 | 26.0 | 27.5 | 27.7 | 30.0 | 25.2 | 28.6 |
| 1948. | 33.8 | $30 \cdot 6$ | 28.0 | 34.4 | 30.3 | 24.2 | 24.9 | 25.2 | 28.5 | 24.0 | 27.0 |
| 1949. | 35.3 | $30 \cdot 1$ | ${ }_{27}^{27.5}$ | $32 \cdot 3$ | ${ }^{30.1}$ | 24.2 | ${ }_{2}^{24.8}$ | $\stackrel{25}{25}$ | 28.6 | $2{ }^{24.5}$ | ${ }_{27}^{27.1}$ |
| 1950. | 37.5 | $30 \cdot 1$ | $27 \cdot 1$ | 32.0 | 30.0 | $24 \cdot 3$ | 25.1 | 25.9 | 28.1 | 23.8 | $27 \cdot 1$ |

${ }^{1}$ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

## 2.-Deaths and Rates per 1,000 Population, by Provinces, 1947-50, with Averages, 1941-45

(Exclusive of the Territories)

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | DEATHS |  |  |  |  |  |  |  |  |  |  |
| Av. 1941-45 ${ }^{\text {r }}$. $\ldots$. ${ }^{\text {a }}$ | 3,681 3.325 | 964 1.020 | 6,326 6.009 | 5,050 | 34,273 33,708 | 39,738 41,619 | 6.633 6.771 | 6,437 6,610 | 6,355 | 9,368 10.613 | 115,144 117,725 |
| 1948. | 3,108 | - 887 | 6.097 | 4.959 | 33.603 | 42.364 | 6.675 | 6,496 | 6,987 | 11,316 | 119,384 |
| 1949. | 2,868 | 924 | 5,980 | 4,876 | 34,107 | 43.379 | 6,919 | 6.596 | 7,083 | 11,315 | 124,047 |
| 1950................ | 3,168 | 903 | 6,078 | 4,895 | 33,507 | 43,948 | 6,610 | 6,243 | 6,856 | 11,581 | 123,789 |
|  | RATES PER 1,000 POPULATION |  |  |  |  |  |  |  |  |  |  |
| Av. 1941-45 ${ }^{\text {²,.... }}$ | 11.8 | 10.5 | $10 \cdot 5$ | 10.9 | $9 \cdot 9$ | $10 \cdot 2$ | $9 \cdot 1$ | $7 \cdot 5$ | 7.9 | 10.5 | $9 \cdot 8$ |
| 1947. | $9 \cdot 9$ | 10.9 | $9 \cdot 7$ | 9.8 | $9 \cdot 1$ | $9 \cdot 9$ | $9 \cdot 1$ | 7.9 | $8 \cdot 0$ | $10 \cdot 2$ | $9 \cdot 4$ |
| 1948. | $9 \cdot 0$ | $9 \cdot 5$ | $9 \cdot 6$ | $9 \cdot 9$ | $8 \cdot 9$ | $9 \cdot 9$ | $8 \cdot 8$ | $7 \cdot 6$ | $8 \cdot 3$ | $10 \cdot 5$ | $9 \cdot 3$ |
| 1949 | $8 \cdot 2$ | $9 \cdot 8$ | $9 \cdot 3$ | $9 \cdot 4$ | 8.8 | 9.8 | 8.9 | 7.7 | 8.1 | $10 \cdot 2$ | $9 \cdot 2$ |
| 1950. | $9 \cdot 0$ | 9.4 | $9 \cdot 5$ | $9 \cdot 6$ | 8.4 | 9.8 | $8 \cdot 6$ | $7 \cdot 5$ | $7 \cdot 5$ | $10 \cdot 2$ | $9 \cdot 0$ |

[^64]
## 3.-Natural Increase and Rates per 1,000 Population, by Provinces, 1947-50, with Averages, 1941-45

(Exclusive of the Territories)

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | EXCESS OF BIRTHS OVER DEATHS |  |  |  |  |  |  |  |  |  |  |
| Av. 1941-45 ${ }^{\text {r }}$...... |            <br> 5.611 1,216 8.820 7,987 63.633 38,000 9,198 12.037 12,490 8,337 161,688 <br> 9.321 1,972 13.256 12.939 81,845 67.234 13,638 16.724 18.088 15.673 241.369 <br> 8.526 1.955 11.694 12.320 81.106 61.831 12.195 15.066 17.088 14.668 227.923 <br> 9.13 1.907 11.759 11.797 82.717 63.222 12.373 15.066 17,85 15.986 242.092 <br> 9,996 1,982 11.184 11,498 85.604 64,760 12,651 15,303 18.769 15,535 247,282 |  |  |  |  |  |  |  |  |  |  |
| 1948. |  |  |  |  |  |  |  |  |  |  |  |
| 1949................ |  |  |  |  |  |  |  |  |  |  |  |
| 1950............... |  |  |  |  |  |  |  |  |  |  |  |
|  | RATES PER 1,000 POPULATION |  |  |  |  |  |  |  |  |  |  |
| Av. 1941-45 ${ }^{\text {r }}$. ${ }^{\text {a }}$. | $17 \cdot 9$ | 13.2 | 14.7 | 17-3 | 18.5 | $9 \cdot 7$ | $12 \cdot 6$ | 14-1 | $15 \cdot 6$ | $9 \cdot 3$ | $13 \cdot 7$ |
| 1947. | 27.6 | 20.9 | $21 \cdot 3$ | 26.4 | 22.0 | $16 \cdot 1$ | 18.4 | 19.8 | $22 \cdot 0$ | $15 \cdot 0$ | $19 \cdot 2$ |
| 1948. | 24.8 | 21.1 | 18.4 | 24.5 | 21.4 | 14.3 | $16 \cdot 1$ | $17 \cdot 6$ | $20 \cdot 2$ | $13 \cdot 5$ | $17 \cdot 7$ |
| 1949 | $27 \cdot 1$ | $20 \cdot 3$ | 18.2 | $22 \cdot 9$ | 21.3 | $14 \cdot 4$ | 15.9 | 17.5 | 20.5 | $14 \cdot 3$ | $17 \cdot 9$ |
| 1950. | 28.5 | $20 \cdot 7$ | $17 \cdot 6$ | $22 \cdot 4$ | $21 \cdot 6$ | $14 \cdot 5$ | 16.5 | 18.4 | $20 \cdot 6$ | $13 \cdot 6$ | 18.1 |

${ }^{1}$ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.
4.-Infant Mortality ${ }^{1}$ and Rates per 1,000 Live Births, by Provinces, 1947-50, with Averages, 1941-45
(Exclusive of the Territories)

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Av. 1941-45r...... | INFANT DEATHS |  |  |  |  |  |  |  |  |  |  |
|  | 852790685651758 | 114 | $\begin{aligned} & 870 \\ & 840 \\ & 695 \\ & 750 \\ & 693 \end{aligned}$ | $\begin{array}{r} 960 \\ 1.041 \\ 1.047 \\ 993 \\ 927 \end{array}$ | $\begin{aligned} & \\ & 6,690 \\ & 6,593 \\ & 6.211 \\ & 6.031 \\ & 6,091 \end{aligned}$ | $\begin{aligned} & 3,276 \\ & 3,914 \\ & 3,684 \\ & 3,974 \\ & 3,751 \end{aligned}$ | $\begin{aligned} & 814 \\ & 931 \\ & 765 \\ & 794 \\ & 673 \end{aligned}$ | $\begin{array}{r}  \\ 858 \\ 1,018 \\ 867 \\ 834 \\ 690 \end{array}$ | 827915930823831 | 684959868855805 | 15,093 <br> 16.336 <br> 15. 164 <br> 15.843 <br> 15,324 |
| 1947 |  |  |  |  |  |  |  |  |  |  |  |
| 1948. |  | 97 |  |  |  |  |  |  |  |  |  |
| 1949. |  | 135 |  |  |  |  |  |  |  |  |  |
| 1950.. |  | 105 |  |  |  |  |  |  |  |  |  |
| Av. 1941-45 ${ }^{\text {², }}$. | RATES PER 1,000 LIVE BIRTHS |  |  |  |  |  |  |  |  |  |  |
|  | 9262595358 | 52 | 57 | 74 | 68 | 42 | 51 | 47 | 44 | 39 | 55 |
| 1947. |  | 45 | 44 | 59 | 57 | 36 | 46 | 44 | 37 | 36 | 45 |
| 1948 |  | 34 | 39 | 61 | 54 | 35 | 41 | 40 | 39 | 33 | 44 |
| 1950. |  | 48 36 | 40 | 60 57 | 52 51 | 37 35 | 41 35 | 39 32 | 33 32 | 31 30 | 43 |

[^65]
## 5.-Maternal Deaths and Rates per 1,000 Live Births, by Provinces, 1947-50, with Averages, 1941-45

(Exclusive of the Territories)

| Year | MATERNAL DEATHS |  |  |  |  |  |  |  |  |  |  | Maternal Deaths of Unmarried Mothers |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada' | No. | P.C. of Total |
| Av.1941-45 ${ }^{\text {r }}$ | 39 | 9 | 41 | 42 | 318 | 197 | 41 | 52 | 46 | 46 | 791 | 53 | 6.65 |
| 1947... | 29 |  | 20 | 25 | 259 | 129 |  |  |  |  |  |  |  |
| 1948......... | ${ }_{22}^{29}$ | , | 19 | ${ }_{23}^{25}$ | ${ }_{232}^{259}$ | 125 | 28 | ${ }_{22}^{38}$ | ${ }_{29}^{22}$ | ${ }_{29}^{32}$ | 510 | 37 | ${ }_{7 \cdot 25}^{6.14}$ |
|  | 24 |  | 20 | 18 | 234 | 134 | 25 | 27 | 25 | 28 | 536 | 40 | 7.46 |
| 1950....... | 21 | 3 | 21 | 15 | 182 | 97 | 14 | 21 | 19 | 27 | 420 | 24 | 5.71 |
|  |  |  |  | RATES | PER | 1,000 | LIVE | BIRT |  |  |  | Per | $\begin{aligned} & , 000 \\ & \text { imate } \\ & \text { Births } \end{aligned}$ |
| Av. 1941-45 | $4 \cdot 2$ | 3.9 | $2 \cdot 7$ | 3.2 | 3.2 | 2.5 | $2 \cdot 6$ | 2.8 | $2 \cdot 4$ | $2 \cdot 6$ | $2 \cdot 9$ |  |  |
|  | 2.3 | 2.0 | 1.0 | 1.4 | 2.2 | 1.2 | $1 \cdot 1$ | 1.6 | 0.9 | $1 \cdot 2$ | 1.5 |  |  |
| 1948....... | 1.9 2.0 | 1.1 0.4 1 | .1.1 | 1.3 1.1 1.1 | 2.0 | 1.2 1.3 | 1.5 1.3 1.7 | 1.0 | 1.2 1.0 | 1.1 | 1.5 1.5 1.5 |  |  |
| 1949........ | ${ }_{1.6}^{2.0}$ | - | 1.1 1.2 | 1.1 0.9 | 2.0 | 1.3 0.9 | 1.3 0.7 | 1.2 | 1.0 0.7 | 1.0 | 1.5 1.1 |  |  |

${ }^{1}$ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

## 6.-Marriages and Rates per $\mathbf{1 , 0 0 0}$ Population, by Provinces, 1947-50, with Averages, 1941-45

(Exclusive of the Territories)
Note.-Classified by place of occurrence.

${ }^{1}$ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

## 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 7.

## 7.-Birth Rates per 1,000 Population of Various Countries compared with Canada and the Provinces, 1950

(Source: Monthly Bulletin of Statistics of the United Nations and other official publications. In certain cases final figures are not available and provisional data are used.)

| Country or Province | Birth Rate | Country or Province | Birth Rate | Country | Birth Rate |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Mexico. | $45 \cdot 7$ | Canada-concluded |  | Northern Ireland | 21.42 |
| Venezuela | 43.1 | Manitoba. | $25 \cdot 1$ | Ireland. | 21.0 |
| Ceylon. | $40 \cdot 2$ | Ontario | $24 \cdot 3$ | France ${ }^{3}$. | $20 \cdot 4$ |
| Chile. | $32 \cdot 4$ | British Columbia | $23 \cdot 8$ | Spain. | $19 \cdot 9$ |
| Peru. | $30 \cdot 4$ |  |  | Italy.. | $19 \cdot 6$ |
| Japan. | 28.3 | Union of South Africa (White). | 25.7 | Norway Denmark | 19.3 18.6 |
| Canada. | 27.1 | India ${ }^{1} . .$. | 25.5 | Switzerland | $18 \cdot 1$ |
| Newfoundland. | 37.5 | New Zealand | $24 \cdot 6$ | Scotland | 17.9 |
| New Brunswick....... | $32 \cdot 0$ | Finland. | 24.4 | Belgium. | 16.5 |
| Prince Edward Island. | 30.1 30.0 | Portugal..... | $24 \cdot 2$ 23.4 | Sweden. | $16 \cdot 4$ |
| Alberta | 28.1 | Australia.... | $23 \cdot 3$ | Western Germany | 16.2 |
| Nova Scotia | $27 \cdot 1$ | Czechoslovakia | 22.9 | England and Wales | $15 \cdot 8$ |
| Saskatchewan | 25.9 | Netherlands... | 22.7 | Austria. | $15 \cdot 6$ |

${ }^{1}$ Registration area only. $\quad{ }^{2} 1949 . \quad{ }^{3}$ Excluding infants born alive but who died before registration of birth.

Canadian Births.-In Canada, the birth rate in 1921 was 29 per 1,000. Since 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 then. It fell continuously until 1937, when it was 20 per 1,000 but since 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 $28 \cdot 6$. The rate declined gradually since that year and stood at 27 in 1950. The birth rates in the provinces followed the same general trend, but in the Maritimes the fall stopped before 1930 .

Sex of Live Births.-Wh rever 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 1941-50 varied between 1,067 and 1,051 .
8.-Live Births by Sex, Birth Rates, and Ratio of Males to Females,
by Provinces, $1947-50$

| Province and Year | Total Live Births | Rate per 1,000 Population | Males |  | Females |  | $\begin{gathered} \text { Males } \\ \text { to } 1,000 \\ \text { Females } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Number | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ | Number | $\begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \end{gathered}$ |  |
| Newfoundland................ 1949 | 12,281 | $35 \cdot 3$ | 6.255 | 50.9 | 6,026 | $49 \cdot 1$ | 1,038 |
| 1950 | 13,164 | 37.5 | 6,853 | $52 \cdot 1$ | 6.311 | 47.9 | 1,086 |
| Prince Edward Island......... 1947 | 2.992 | 31.8 | 1,532 | 51.2 | 1,460 | 48.8 | 1,049 |
| 1948 | 2,842 | $30 \cdot 6$ | 1,453 | 51.1 | 1,389 | 48.9 | 1,046 |
| 1949 | 2,831 | $30 \cdot 1$ | 1,457 | 51.5 | 1,374 | 48.5 | 1,060 |
| 1950 | 2,885 | $30 \cdot 1$ | 1,442 | 50.0 | 1,443 | 50.0 | 999 |
| Nova Scotia................. 1947 | 19,265 | 31.0 | 9,771 | $50 \cdot 7$ | 9,494 | $49 \cdot 3$ | 1,029 |
| 1948 | 17,791 | 28.0 | 9,094 | 51.1 | 8,697 | 48.9 | 1,046 |
| 1949 | 17,739 | 27.5 | 9.219 | 52.0 | 8,520 | 48.0 | 1,082 |
| 1950 | 17,262 | $27 \cdot 1$ | 8,895 | 51.5 | 8,367 | 48.5 | 1,063 |

## 8.-Live Births by Sex, Birth Rates, and Ratio of Males to Females, by Provinces, 1947-50-concluded

| Province and Year | Total Live Births | Rate per 1,000 Population | Males |  | Females |  | Males to 1,000 Females |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Number | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ | Number | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ |  |
| New Brunswick................ 1947 | 17,771 | 36.2 | 9.134 | 51.4 | 8.637 | $48 \cdot 6$ | 1.058 |
| 1948 | 17.279 | $34 \cdot 4$ | 8.889 | $51 \cdot 4$ | 8.390 | $48 \cdot 6$ | 1.059 |
| 1949 | 16,673 | $32 \cdot 3$ | 8.603 | 51.6 | 8.070 | 48.4 | 1.066 |
| 1950 | 16,393 | 32.0 | 8,472 | 51.7 | 7,921 | $48 \cdot 3$ | 1,070 |
| Quebec........................ 1947 | 115,553 | 31.1 | 59.393 | 51.4 | 56.160 | $48 \cdot 6$ | 1,058 |
| 1948 | 114.709 | $30 \cdot 3$ | 58,938 | 51.4 | 55.771 | $48 \cdot 6$ | 1,057 |
| 1949 | 116,824 | $30 \cdot 1$ | 60.153 | 51.5 | 56,671 | 48.5 | 1,061 |
| 1950 | 119, 111 | $30 \cdot 0$ | 61,333 | 51.5 | 57,778 | 48.5 | 1,062 |
| Ontario....................... 1947 | 108,853 | 26.0 | 55.716 | 51.2 | 53.137 | 48.8 | 1,049 |
| 1948 | 104.195 | $24 \cdot 2$ | 53,459 | 51.3 | 50.736 | 48.7 | 1,054 |
| 1949 | 106.601 | 24.2 | 54,784 | 51.4 | 51.817 | $48 \cdot 6$ | 1,057 |
| 1950 | 108,708 | $24 \cdot 3$ | 55,911 | 51.4 | 52,797 | $48 \cdot 6$ | 1,059 |
| Manitoba...................... 1947 | 20.409 | 27.5 | 10.374 | 50.8 | 10.035 | $49 \cdot 2$ | 1,034 |
| 1948 | 18.870 | $24 \cdot 9$ | 9.615 | 51.0 | 9.255 | $49 \cdot 0$ | 1.039 |
| 1949 | 19.292 | 24.8 | 9.949 | 51.6 | $9.3+3$ | 48.4 | 1,065 |
| 1950 | 19,261 | $25 \cdot 1$ | 9,950 | 51.7 | 9,311 | $48 \cdot 3$ | 1,069 |
| Saskatchewan................. 1947 | 23.334 | $27 \cdot 7$ | 11.968 | $51 \cdot 3$ | 11.366 | $48 \cdot 7$ | 1.053 |
| 1948 | 21,562 | $25 \cdot 2$ | 11.012 | $51 \cdot 1$ | 10.550 | 48.9 | 1,044 |
| 1949 | 21.662 | 25.2 | 11.179 | 51.6 | 10.483 | 48.4 | 1,066 |
| 1950 | 21,546 | $25 \cdot 9$ | 11,027 | $51-2$ | 10,519 | 48.8 | 1,048 |
| Alberta......................... 1947 | 24.631 | $30 \cdot 0$ | 12.680 | 51.5 | 11.951 | 48.5 | 1,061 |
| 1948 | 24,075 | 28.5 | 12.331 | 51.2 | 11.744 | 48.8 | 1,050 |
| 1949 | 24,935 | $28 \cdot 6$ | 12,783 | $51 \cdot 3$ | 12,152 | 48.7 | 1,052 |
| 1950 | 25,625 | 28.1 | 13,138 | $51 \cdot 3$ | 12,487 | 48.7 | 1,052 |
| British Columbia............. 1947 | 26.286 | 25.2 | 13,405 | 51.0 | 12,881 | 49.0 | 1,041 |
| 1948 | 25.984 | $24 \cdot 0$ | 13,332 | $51 \cdot 3$ | 12,652 | 48.7 | 1.054 |
| 1949 | 27.301 | 24.5 | 13.957 | 51.1 | 13,344 | $48 \cdot 9$ | 1,046 |
| 1950 | 27,116 | 23.8 | 13,887 | 51.2 | 13,229 | $48 \cdot 8$ | 1,050 |
| Canada (Exclusive of the 1947 |  |  |  |  |  |  |  |
| Territories)................ 1947 | 359,094 347,307 | 28.6 27.0 | 183,973 178,123 | 51.2 51.3 | 175,121 169,184 | 48.8 48.7 | 1,051 |
| 1949 | 366,139 | 27.1 | 188.339 | 51.4 | 177,800 | 48.6 | 1,059 |
| 1950 | 371,071 | $27 \cdot 1$ | 190,908 | 51.4 | 180,163 | 48.6 | 1,060 |

Hospitalization and medical attendance at birth have increased in Canada. In 1926-30, only 22 p.c. of live births occurred in hospital, while in 1940-42 the proportion was 50 p.c. and in 1950, 76 p.c. The provinces still differ greatly in this respect. In 1950 the proportions of births that occurred in hospital were: Quebec 47 p.c., New Brunswick 68 p.c., Prince Edward Island 84 p.c., Nova Scotia 85 p.c., Ontario 90 p.c., Manitoba 91 p.c., Saskatchewan 95 p.c., Alberta 96 p.c., and British Columbia 97 p.c.

Births in Urban Centres.-The figures of live births are classified according to the residence of the mother, and show the number of births, wherever occurring, to residents of each centre.

## 9.-Live Births in Urban Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over, ${ }^{1}$ 1947-50, with Averages, 1941-45

| Province and Urban Centre | Census Population, 1941 | Live Births |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Average, 1941-45 | 1947 | 1948 | 1949 | 1950 |
|  | No. | No. | No. | No. | No. | No. |
| Newfoundland- St. John's.......... | $44,603^{2}$ |  | 1,720 | 1,518 | 1,482 | 1,547 |
| Prince Edward IslandCharlottetown........... | 14,821 | 385 | 506 | 495 | 499 | 504 |
| Nova Scotia- |  |  |  |  |  |  |
| Dartmouth.. | 10,847 | 405 | 517 | 463 | 521 | 523 |
| Glace Bay.. | 25.147 | 729 | 898 | 750 | 724 | 674 |
| Halifax. | 70,488 | 2,027 | 2,517 | 2,396 | 2,244 | 2,323 |
| Sydney | 28,305 | 930 | 1,071 | 968 | 997 | 988 |
| Truro.. | 10,272 | 292 | 396 | 327 | 313 | 287 |
| New Brunswick- |  |  |  |  |  |  |
| Fredericton. | 10.062 | 228 | 482 | 447 | 446 | 441 |
| Moncton. | 22,763 | 644 | 876 | 805 | 710 | 682 |
| Saint John. | 51,741 | 1,364 | 1,734 | 1,621 | 1,459 | 1,480 |
| Quebec- |  |  |  |  |  |  |
| Cap-de-la-Madeleine. | 11,961 | 371 | 445 | 530 | 577 | 590 |
| Chicoutimi...... | 16,040 | 890 | 988 | 1,003 | 1,002 | 931 |
| Drummondville. | 10.555 | 370 | 485 | 456 | 463 | 503 |
| Granby. | 14,197 | 464 | 700 | 645 | 726 | 737 |
| Hull. | 32.947 | 1,174 | 1,454 | 1,402 | 1,341 | 1,372 |
| Joliette.. | 12,749 | 407 | 415 | 425 | 466 | 434 |
| Jonquière | 13,769 | 862 | 740 | 891 | 902 | 903 |
| Lachine. | 20.051 | 501 | 669 | 629 | 680 | 696 |
| Lévis.. | 11.991 | 328 | 374 | 352 | 330 | 344 |
| Montreal. | 903,007 | 21,356 | 24,646 | 24,267 | 24,487 | 25,177 |
| Outremon | 30.751 | ${ }^{331}$ | 433 | 291 | . 250 | 298 |
| Quebec....... | 150,757 | 4,315 | 4,490 | 4,132 | 4,145 | 4,151 |
| St. Hyacinthe | 17.798 | ${ }_{415}^{419}$ | 560 | 544 | 472 | 587 |
| St. Jean. . | 13,646 | 415 | 480 | 512 | 509 | 586 |
| St. Jérôme. ${ }_{\text {Shaligis }}$ | 11.329 | 429 | 586 | 575 | 535 | 572 |
| Shawinigan Falls | 20.325 35.965 | 850 | 909 | 902 | 877 | 858 |
| Sorel....... | 35.951 | 1,1480 | 1,478 525 | 1,428 487 | 1,484 | 1.591 438 |
| Thetford Mines | 12,716 | 417 | 498 | 405 | 466 | 437 |
| Three Rivers. | 42.007 | 1,235 | 1,235 | 1,256 | 1,359 | 1,395 |
| Valleyfield. | 17.052 | 665 | 660 | 686 | -692 | , 688 |
| Verdun.... | 67.349 | 1,520 | 1,775 | 1,762 | 1,763 | 1,727 |
| Westmount | 26,047 | 251 | , 297 | 276 | 304 | 238 |
| Ontario- |  |  |  |  |  |  |
| Belleville. | 15,710 | 383 | 519 | 457 | 484 | 488 |
| Brantford. | 31,948 |  | 1,083 | 890 | 963 | 908 |
| Brockville. | 11,342 | 260 | 1,364 | 332 | 371 | 316 |
| Cornwall. | 17.369 | 412 | 554 | 507 | 529 | 529 |
| Cornwall Forest Hill | 14,117 11,757 | 506 <br> 158 | 698 | 541 | 492 | 427 |
| Fort William | 11,757 30.585 | 158 | 209 986 | 214 898 | ${ }_{921} 202$ | 196 |
| Galt. | 15.346 | 312 | 457 | 404 | 404 | 945 |
| Guelph.... | 23.273 | 469 | 693 | 649 | 684 | 645 |
| Hamilton. | 166.337 | 3,462 | 4,694 | 4,250 | 4,517 | 4,655 |
| Kingston. | 30,126 |  | 1,041 | . 870 | 912 | 860 |
| Kitchener | 35.657 | 711 | 1,051 | 1,042 | 1,040 | 1,089 |
| Niagara Fails. | 78,264 20.589 | 1,689 | 2,425 | 2,262 | 2,200 | 2,240 |
| North Bay... | 20.589 15.599 | 540 | 786 | 639 | 542 | 479 |
| Oshaws... | 15.599 26.813 | 362 584 | 509 | 478 | 488 | 469 |
| Ottawa | 154,951 | 3,357 | + 4382 | +706 | 737 | 780 |
| Owen Sound | 14,002 | 3,315 | 4,532 476 | 4,057 407 | $\begin{array}{r}3,754 \\ \hline 421\end{array}$ | $\begin{array}{r}4,798 \\ \hline 383\end{array}$ |
| Pembroke. | 11,159 | 299 | 358 | 346 | 421 349 | 383 380 |
| Peterborough | 25,350 | 680 | 1,092 | 1,019 | 1,057 | 1.017 |
| Port Arthur... | 24.426 | 558 | 1,831 | +800 | 1. 829 | 781 |
| St. Catharines. | 30.275 | 734 | 1,004 | 853 | 796 | 824 |
| Sarnia..... | 17.132 18.734 | 382 447 | 444 | 399 | 421 | 417 |
| Sault Ste. Marie | 18.784 25.794 | 725 | 7019 | 606 829 | 594 859 | 596 812 |
| Stratford. | 17,038 | 288 | 445 | 432 | 817 | 8105 |
| Sudbury. | 32,203 | 1,324 | 1,408 | 1,357 | 1,308 | 1,417 |

[^66]
## 9.-Live Births in Urban Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over, ${ }^{1}$ 1947-50, with Averages, 1941-45-concluded

| Province and Urban Centre | $\begin{gathered} \text { Census } \\ \text { Population, } \\ 1941 \end{gathered}$ | Live Births |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Average, 1941-45 | 1947 | 1948 | 1949 | 1950 |
| Ontario-concluded | No. | No. | No. | No. | No. | No. |
| Timmins......... | 28,790 667,457 |  | 15, ${ }^{953}$ | $\begin{array}{r}858 \\ 13 \\ \hline 945\end{array}$ | 851 13618 | . 824 |
| Werland. | 667,457 12,500 | 11,163 357 | 15,261 | 13,945 407 | 13,618 | 13,446 |
| Windsor. | 105,311 | 2,383 | 3,027 | 2,874 | 2,955 | 2,962 |
| Woodstock | 12,461 | 267 | 349 | 303 | 347 | 327 |
| Manitoba-- |  |  |  |  |  |  |
| Brandon.... | 17,383 | 356 | 438 | 426 | 468 | 483 |
| St. Boniface | 18,157 | 425 | 687 | 635 | 662 | 696 |
| Winnipeg. | 221,960 | 4,087 | 5,637 | 4,854 | 5,019 | 5,197 |
| Saskatchewan- |  |  |  |  |  |  |
| Moose Jaw.. | 20,753 | 462 | 678 | 606 | 602 | 587 |
| Prince Albert. | 12,508 | 340 | 536 | 478 | 508 | 448 |
| Regina... | 58,245 | 1,172 | 1,823 | 1,691 | 1,609 | 1,631 |
| Saskatoon. | 43,027 | 843 | 1,481 | 1,329 | 1,449 | 1,454 |
| Alberta- |  |  |  |  |  |  |
| Calgary. | 88,904 | 2,058 | 3,069 | 2,933 | 3,143 | 3,135 |
| Edmonton. | 93,817 | 2,379 | 3,999 | 4,083 | 4,353 | 4,745 |
| Lethbridge. | 14,612 | 372 | 588 | 558 | 558 | 647 |
| Medicine Hat | 10,571 | 287 | 378 | 432 | 436 | 385 |
| British Columbia- |  |  |  |  |  |  |
| New Westminster. . | 21,967 | 493 5.397 | ${ }_{7}^{612}$ |  | 589 | ${ }^{579}$ |
| Vancouver..... | 275,353 44,068 | 5,397 1,150 | 7,811 | 7,195 | 7,522 | 7,329 |
| Victoria.. | 44,068 | 1,150 | 1,213 | 1,189 | 1,090 | 1.039 |

${ }^{1}$ As at the 1941 Census.
Illegitimacy.-Less than 4 p.c. of live births in Canada are illegitimate. This percentage is comparatively low; in the five-year period 1926-30 it was 3 p.c. and in 1941-45 it was just over 4 p.c. The apparent increase was due partly to the more complete registration of illegitimate births, brought about in large measure by the co-operation of provincial registration officials and social welfare agencies.
10.- Hegitimate Live Births and Percentages of Total Live Births, by Provinces, 1947-50, with Averages, 1941-45
(Exclusive of the Territories)

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Av. 1941-45 ${ }^{\text {r }}$..... | ILLEGITIMATE LIVE BIRTHS |  |  |  |  |  |  |  |  |  |  |
|  | 406 | 107 | 1,074 | 591 | 3,003 | 3,751 | 597 | 673 | 852 | 889 | 11,536 |
|  | 374 | 149 | 1,325 | 767 | 3,183 | 4,748 | 744 | 961 | 1,159 | 1,502 | 14.538 |
| 1948. | 377 | 134 | 1,250 | 797 | 3,439 | 4,795 | 786 | 917 | 1,222 | 1,585 | 14,925 |
| 1949. | 484 | 161 | 1,172 | 745 | 3,555 | 3,802 | 773 | 835 | 1,224 | 1,639 | 14,390 |
| 1950. | 462 | 165 | 1,184 | 687 | 3,700 | 3,772 | 778 | 899 | 1,185 | 1.593 | 14,425 |
|  | PERCENTAGES OF TOTAL LIVE BIRTHS |  |  |  |  |  |  |  |  |  |  |
| Av. 1941-45 ${ }^{\text {r }}$. | 4.4 | $4 \cdot 9$ | $7 \cdot 1$ | $4 \cdot 5$ | $3 \cdot 1$ | $4 \cdot 8$ | 3.8 | $3 \cdot 6$ | $4 \cdot 5$ | $5 \cdot 0$ | $4 \cdot 2$ |
| 1947. | $3 \cdot 0$ | $5 \cdot 0$ | 6.9 | $4 \cdot 3$ | $2 \cdot 8$ | $4 \cdot 4$ | $3 \cdot 6$ | $4 \cdot 1$ | $4 \cdot 7$ | $5 \cdot 7$ | $4 \cdot 1$ |
| 1948. | $3 \cdot 2$ | $4 \cdot 7$ | $7 \cdot 0$ | $4 \cdot 6$ | $3 \cdot 0$ | $4 \cdot 6$ | 4.2 | $4 \cdot 3$ | $5 \cdot 1$ | 6.1 | $4 \cdot 3$ |
| 1949. | $3 \cdot 9$ | 5.7 | $6 \cdot 6$ | $4 \cdot 5$ | $3 \cdot 0$ | $3 \cdot 6$ | 4.0 | $3 \cdot 9$ | $4 \cdot 9$ | 6.0 | 3.9 |
| 1950. | $3 \cdot 5$ | $5 \cdot 7$ | $6 \cdot 9$ | $4 \cdot 2$ | $3 \cdot 1$ | $3 \cdot 5$ | $4 \cdot 0$ | $4 \cdot 2$ | $4 \cdot 6$ | $5 \cdot 9$ | $3 \cdot 9$ |

${ }^{1}$ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.
Stillbirths.-The rate of stillbirths has been falling since 1926, though not equally in all provinces. The rate of illegitimate stillbirths per 1,000 illegitimate live births is considerably higher than the rate of legitimate stillbirths, and consequently higher than the over-all rate.

## 11.-Stillbirths and Rates per 1,000 Live Births, by Provinces, 1947-50, with Averages, 1941-45

(Exclusive of the Territories)

| Year | Born to All Mothers |  |  |  |  |  |  |  |  |  |  | $\frac{$ Born to  <br>  Unmarried  <br>  Mothers $^{2}$}{ No. $\|$ P.C.  <br>  of  <br>  Total } |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. $\mid$ | Canadar |  |  |
| Av. 1941-45 r ... | STILLBIRTHS |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 191 | 50 | 388 | 295 | 2,786 | 1,988 | 345 | 348 | 327 | 309 | 6,838 | 355 | 5-20 |
| 1947. | 175 | 58 | 401 | 344 | 3,029 | 2,176 | 336 | 362 | 415 | 340 | 7,461 | 338 | 4.53 |
| 1948. | 211 | 50 | 335 | 350 | 2,769 | 1,972 | 315 | 347 | 372 | 339 | 6,849 | 325 | 4.75 |
| 1949. | 223 | 48 | 352 | 308 | 2,881 | 2,002 | 340 | 325 | 403 | 393 | 7,275 | 329 | $4 \cdot 67$ |
| 1950. | 224 | 52 | 325 | 279 | 2,886 | 1,932 | 394 | 346 | 372 | 369 | 7,179 | 372 | 5-35 |
|  | RATES PER 1,000 LIVE BIRTHS |  |  |  |  |  |  |  |  |  |  | Per Illeg Live | 1,000 <br> itimate <br> Births ${ }^{2}$ |
| Av. 1941-45 ${ }^{\text {r }}$... | 20.5 | 22.8 | $25 \cdot 6$ | $22 \cdot 6$ | 28.5 | $25 \cdot 6$ | 21.8 | 18.9 | $17 \cdot 4$ | 17.5 | $24 \cdot 7$ |  | $30 \cdot 8$ |
| 1947. | 13.9 | 19.4 | $20 \cdot 8$ | 19.4 | 26.2 | 20.0 | 16.5 | $15 \cdot 5$ | 16.8 | 12.9 | 20.8 |  | 23.2 |
| 1948. | 18.2 | $17 \cdot 6$ | 18.8 | $20 \cdot 3$ | $24 \cdot 1$ | 18.9 | 16.7 | $16 \cdot 1$ | $15 \cdot 5$ | 13.0 | $19 \cdot 7$ |  | 21.8 |
| 1949. | 18.2 | 17.0 | 19.8 | 18.5 | $24 \cdot 7$ | 18.8 | 17.6 | $15 \cdot 0$ | 16.2 | 14.4 | 19.9 |  | 23.7 |
| 1950............ | $17 \cdot 0$ | 18.0 | 18.8 | $17 \cdot 0$ | $24 \cdot 2$ | 17.8 | 20.5 | $16 \cdot 1$ | 14.5 | 13.6 | $19 \cdot 3$ |  | $26 \cdot 6$ |

${ }^{4}$ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.
${ }^{2}$ Exclusive of Newfoundland.
Multiple Births.-Approximately one confinement in 85 in Canada results in the birth of more than one child. In the period 1926-50 there have been 78,017 such confinements, of which 77,303 were twins and 704 were triplets. There have been nine sets of quadruplets. The Dionne quintuplets 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.
12.-Single and Multiple Births, Live and Stillborn, 1947-50
(Exclusive of the Territories)

| Confinements and Births | Numbers |  |  |  | Percentages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 19471 | $1948{ }^{1}$ | 1949 | 1950 | $1947{ }^{1}$ | $1948{ }^{1}$ | 1949 | 1950 |
| Confinements- |  |  |  |  |  |  |  |  |
| Single..... | 358,385 | 346,160 | 364,955 | 369,578 | 98.9 | 98.9 | 98.9 | 98.8 |
| Twin.. | 4,031 | 3,940 | 4,169 | 4,285 | $1 \cdot 1$ | $1 \cdot 1$ | 1.1 | $1 \cdot 1$ |
| Triplet. | 36 | 36 | 39 |  | -- | -- |  | -- |
| Totals, Confinements | 362,452 | 350,138 | 369,164 | 373,897 | 100.0 | $100 \cdot 0$ | 109.0 | 0.0 |
| Births- |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Live. | 351,281 | 339,624 | 358,087 | 362,712 | 98.0 | 98.1 | 98.1 | $98 \cdot 1$ |
| Stillborn | 7,104 | 6,536 | 6,868 | 6,866 | $2 \cdot 0$ | 1.9 | 1.9 | 1.9 |
| Twin- Live. | 7,712 | 7,578 | 7,940 | 8,261 | $95 \cdot 7$ | 96.2 | $95 \cdot 2$ | 96.4 |
| Triplet- | 350 | 302 | 398 | 309 | $4 \cdot 3$ | $3 \cdot 8$ | $4 \cdot 8$ | $3 \cdot 6$ |
| Live.. | 101 | 97 | 108 | 98 | 93.5 | 89.8 | $92 \cdot 3$ | 96.1 |
| Stillborn... |  |  |  |  |  |  |  |  |
|  | - | 8 | 4 | - | - | 100.0 | $100 \cdot 0$ |  |
| Totals, Births......... | 366,555 | 354,156 | 373,414 | 378,250 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |
| Live. | 359,094 | 347,307 | 366,139 | 371,071 | 98.0 | 98.1 | 98.1 | 98.1 |
| Stillborn | 7,461 | 6,849 | 7,275 | 7,179 | $2 \cdot 0$ | 1.9 | 1.9 | 1.9 |

${ }^{1}$ Exclusive of Newfoundland.

Fertility Rates.-The 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 , differences in the proportion of women of these ages to the population as a whole will cause differences 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.

Further details on this subject may be found at pp. 153-154 of the 1947 edition of the Year Book or from the D.B.S. report Gross and Net Reproduction Rates, Canada and the Provinces.

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 in Table 13, of illegitimate live births by the age of the mother in Table 14, and of stillbirths by the age of the mother in Table 15, as well as the average ages of the parents for each year shown.

In 1930-32 the average age of fathers was $33 \cdot 7$ years and of mothers $29 \cdot 3$ years. The average age of parents is now slightly lower. Besides the fertility rates at each age, two other factors help, in the main, to determine the average age of parents having children: first, the average age of potential parents, at any point in time, that is, of the population between the ages of 15 and 50 , and secondly, the proportions of first and second births to the total. The average age of men between 15 and 50 was $30 \cdot 9$ years in 1931 and $30 \cdot 7$ in 1941; the average age of women was $30 \cdot 4$ years in 1931 and again $30 \cdot 4$ in 1941. Thus the changes are very small. 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. These changes are very great and account for the lower average age of parents in recent years. However, in 1949 and 1950 the proportions of first and second births had declined to 54 and 53 p.c., respectively.

Tables 13, 14 and 15 illustrate other significant facts: that the average age of fathers of legitimate children is about four years greater than the average age of mothers; that the average age of mothers of illegitimate children is four to five years less than the average age of mothers of legitimate children-in 1930-32 the difference was six years (the fact that over 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 15 shows that the rate of stillbirths per 1,000 live births increases with the age of the mother. It is almost three times as high among mothers of $40-44$ years as it is among mothers at the ages of 20-24, and almost four times as high among mothers of 45-49 years.
13.-Legitimate Live Births, by Ages of Parents, 1948-50
(Exclusive of Newfoundland and the Territories)

14.--Illegitimate Live Births, by Age of the Mother, 1947-50
(Exclusive of Newfoundland and the Territories)

| Age Group | 19 |  |  |  | 19 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. |
| Under 20 years. | 4,179 | $30 \cdot 1$ | 4,340 | 30.5 | 4,442 | $33 \cdot 3$ | 4.445 | $33 \cdot 1$ |
| 20-24 " | 5,273 | 38.0 | 5,288 | 37.2 | 4,951 | $37 \cdot 1$ | 4,968 | $37 \cdot 0$ |
| $25 \quad 29$ | 2,441 | $17 \cdot 6$ | 2,517 | $17 \cdot 7$ | 2.222 | $16 \cdot 6$ | 2,235 | 16.7 |
| 3034 " | 1,179 | $8 \cdot 5$ | 1,196 | $8 \cdot 4$ | 1,061 | $7 \cdot 9$ | 991 | $7 \cdot 4$ |
| $35 \quad 39$ " | 600 | $4 \cdot 3$ | 665 | $4 \cdot 7$ | 503 | $3 \cdot 8$ | 581 | 4-3 |
| $40 \quad 44$ " | 185 | $1 \cdot 3$ | 191 | $1 \cdot 3$ | 151 | $1 \cdot 1$ | 174 | $1 \cdot 3$ |
| $45 \quad 49$ | 21 | $0 \cdot 2$ | 22 | $0 \cdot 2$ | 18 | $0 \cdot 1$ | 19 | $0 \cdot 1$ |
| 50 years or over | - |  | - | - | - | - | - |  |
| Totals, Stated Ages. | 13,878 | 100.0 | 14,219 | $100 \cdot 0$ | 13,348 | 100.0 | 13,413 | 100.0 |
| Ages not stated. | 660 | ... | 706 | ... | 558 | ... | 550 | ... |
| Totals, All Ages. . | 14,538 $100 \cdot 0$ |  | 14,925 $100 \cdot 0$ |  | 13,906 $100 \cdot 0$ |  | 13,963 100.0 |  |
| Average Ages of Mothers.. | $24 \cdot 1$ |  | $24 \cdot 1$ |  | $23 \cdot 7$ |  | 23.8 |  |

15.-Stillbirths by Age of the Mother, together with Rates per $\mathbf{1 , 0 0 0}$ Live Births, 1947-50
(Exclusive of Newfoundland and the Territories)


Order of Birth.-Tables 16 and 17 show the order of birth of legitimate and illegitimate live-born children according to the age of the mother. In 1949 and 1950 the proportions of first-born children were 28 and 27 p.c., respectively, among legitimate live births, as compared with 30 p.c. in 1948 , and 70 and 69 p.c., respectively, among illegitimate live births.
16.-Order of Birth of Legitimate Live-Born Children, by Age of Mother,

$$
1949 \text { and } 1950
$$

(Exclusive of Newioundland and the Territories)


## 17.-Order of Birth of Illegitimate Live-Born Children, by Age of Mother, 1949 and 1950

(Exclusive of Newfoundland and the Territories)


Birthplaces of Parents.-Table 18 shows the numbers and percentages of children whose parents were born in Canada and other countries. With increased immigration in recent years there are indications that the proportions of children born to foreign-born parents are increasing.

## 18.-Live Births, by Nativity of Parents, 1947-50

| Country of Birth of Parents and Year | Numbers |  |  | Percentages |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Father | Mother | Both Parents | Father | . Mother | Both Parents |
| Canada (exclusive of Newfoundland 1947  <br> and the Territories) 1948 <br> 1949  <br> 1950  | 307,293 | 317,762 | 278,810 | $85 \cdot 6$ | 88.5 | $77 \cdot 6$ |
|  | 297,939 | 311,661 | 274,454 | $85 \cdot 8$ | 89.7 | 79.0 |
|  | 302,457 | 317,955 | 280,734 | 85.5 | 89.9 | 79.3 |
|  | 307,088 | 323,739 | 287,866 | $85 \cdot 8$ | 90.5 | $80 \cdot 4$ |
| Commonwealth (other than Canada) 1947194819491950 | 16,814 | 24,725 | 2,511 | $4 \cdot 7$ | 6.9 | 0.7 |
|  | 15,100 | 19,510 | 2,443 | $4 \cdot 3$ | $5 \cdot 6$ | 0.7 |
|  | 14,811 | 18,099 | 2,701 | $4 \cdot 2$ | $5 \cdot 1$ | 0.8 |
|  | 12,833 | 14,826 | 2,079 | $3 \cdot 6$ | $4 \cdot 1$ | $0 \cdot 6$ |
| United States......................... 1947194819491950 | 7,217 | 6,631 | 811 | $2 \cdot 0$ | 1.8 | $0 \cdot 2$ |
|  | 6,658 | 6,433 | 739 | 1.9 | 1.9 | $0 \cdot 2$ |
|  | 6,389 | 6,221 | 740 | 1.8 | 1.8 | 0.2 |
|  | 6,142 | 5,916 | 709 | 1.7 | 1.7 | $0 \cdot 2$ |
| Other foreign countries............... 1947194819491950 | 13,107 | 9,434 | 3,318 | $3 \cdot 7$ | $2 \cdot 6$ | 0.9 |
|  | 12,425 | 9,127 | - 3,408 | $3 \cdot 6$ | $2 \cdot 6$ | $1 \cdot 0$ |
|  | 13,988 | 10,786 | 4,753 | $4 \cdot 0$ | $3 \cdot 0$ | 1.3 |
|  | 16,060 | 12,623 | 6,566 | $4 \cdot 5$ | $3 \cdot 5$ | 1.8 |
| Unspecified........................... 1947194819491950 | 14,663 | 542 | 21 | $4 \cdot 1$ | $0 \cdot 2$ | -- |
|  | 15,185 | 576 | 27 | $4 \cdot 4$ | $0 \cdot 2$ | -- |
|  | 16,213 | 797 | 103 | $4 \cdot 6$ | $0 \cdot 2$ | - |
|  | 15,784 | 803 | 94 | $4 \cdot 4$ | $0 \cdot 2$ |  |
| Totals............................. 1947194819491950 | 359,094 | 359,094 | 285,471 ${ }^{1}$ | $100 \cdot 0$ | $100 \cdot 0$ | $79.5{ }^{1}$ |
|  | 347,307 | 347,307 | 281,071 ${ }^{1}$ | 100.0 | 100.0 | 80.91 |
|  | 353,858 | 353,858 | 289,031 1 | 100.0 | 100.0 | 81.71 |
|  | 357,907 | 357,907 | 297,314 ${ }^{1}$ | $100 \cdot 0$ | $100 \cdot 0$ | $83 \cdot 1{ }^{1}$ |

[^67]Ethnic Origins of Parents.-A person's origin is usually traced through the father. For example, if the father is English and the mother French, the person's origin is said to be English. Illegitimate children, however, are usually classified by the origin of their mother, since the particulars of the father are seldom known.

Table 19 shows that about 60 p.c. of Canadian children are born to parents who are of the same ethnic origin.
19.-Live Births to Parents of Specified Origins, 1947-50
(Exclusive of Newfoundland and the Territories)

| Origin of Parenta and Year |  | Numbers |  |  | Percentages |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Father | Mother | Both Parents | Father | Mother | Both Parents |
| English................................ 1947194819491950 |  | 78,247 | 86.078 | 45,109 | 21.8 | $24 \cdot 0$ | $12 \cdot 6$ |
|  |  | 72.612 | 78,991 | 41,207 | 20.9 | 22.7 | 11.9 |
|  |  | 73,241 | 79,578 | 41,659 | 20.7 | 22.5 | 11.8 |
|  |  | 72,643 | 78,643 | 40,876 | $20 \cdot 3$ | $22 \cdot 0$ | 11.4 |
| Irish...................................... 1949781948 |  | 36,003 | 35,567 | 10,742 | $10 \cdot 0$ | $9 \cdot 9$ | $3 \cdot 0$ |
|  |  | 33,737 | 33,762 | 10,187 | 9.7 | $9 \cdot 7$ | 2.9 |
|  |  | 34.137 | 34,204 | 10,385 | $9 \cdot 6$ | $9 \cdot 7$ | $2 \cdot 9$ |
|  |  | 34,242 | 34,488 | 10,444 | $9 \cdot 6$ | $9 \cdot 6$ | $2 \cdot 9$ |
| Scottish................................ 1947194819491950 |  | 38,029 | 38,110 | 11,852 | $10 \cdot 6$ | $10 \cdot 6$ | $3 \cdot 3$ |
|  |  | 35,654 | 35,840 | 11.083 | $10 \cdot 3$ | $10 \cdot 3$ | $3 \cdot 2$ |
|  |  | 36,050 | 35,933 | 11,301 | $10 \cdot 2$ | $10 \cdot 2$ | $3 \cdot 2$ |
|  |  | 35,599 | 35,625 | 11,073 | 9.9 | $10 \cdot 0$ | $3 \cdot 1$ |

19.-Live Births to Parents of Specified Origins, 1947-50-concluded

${ }^{1}$ These figures or percentages are of children whose fathers and mothers are of the same origin. The difference between this figure and the total number of births represents the number of children whose parents are of different origins.

## 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 of other countries is shown in Table 20. It will be noted that the Canadian death rate is among the lowest in the world and that half the provinces have lower rates than most other countries.

## 20.-Death Rates per 1,000 Population of Various Countries compared with Canada and the Provinces, 1950

(Source: Monthly Bulletin of Statistics of the United Nations and other official publications. In certain cases final figures are not available and provisional data are used.)

| Country or Province | Death Rate | Country | Death Rate | Country | Death Rate |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Netherlands............ | $7 \cdot 5$ | Norway... | $9 \cdot 1$ | Czechoslovakia. | 11.4 |
|  |  | Union of South Africa |  | Northern Ireland.. | 11.51 |
| Canada. | 9.0 | (White)................ | $9 \cdot 1$ | England and Wales | 11.6 |
| Alberta. | 7.5 | Denmark.. | $9 \cdot 2$ | Peru.............. | 11.8 |
| Saskatchewan. | $7 \cdot 5$ | New Zealand............ | $9 \cdot 3$ | Portugal | $12 \cdot 1$ |
| Quebec........ | $8 \cdot 4$ | Australia................ | 9.6 9.6 | Austria. | 12.4 |
| Manitoba | $8 \cdot 6$ | Italy ....................... | 9.6 9.8 | Selgium. | 12.4 12.4 |
| Newfoundland. | $9 \cdot 0$ | Sweden | 10.0 | Ceylon. | $12 \cdot 6$ |
| Prince Edward Island. | $9 \cdot 4$ | Finland. | $10 \cdot 1$ | France ${ }^{2}$. | $12 \cdot 6$ |
| Nova Scotia.......... | $9 \cdot 5$ | Switzerland.............. | $10: 1$ 10.4 | Ireland. | $12 \cdot 6$ |
| New Brunswick....... | 9.6 | Western Germany......... | 10.4 10.8 | Chile.. | 15.7 |
| Ontario. | $9 \cdot 8$ | Venezuela | 10.8 11.0 | Mexico | 16.4 |
| British Columbia..... | $10 \cdot 2$ | Japan. | 11.0 | India ${ }^{3}$. | 16.7 |

[^68]Canadian Mortality.-Since 1931, the Canadian death rate has fluctuated between 10.3 and 9.3 per 1,000 of the population, declining slightly in recent years and reaching a record low of $9 \cdot 0$ in 1950. This decline has been apparent in all provinces but in varying degrees. The generally low rates in the Prairie Provinces are partly due to their younger average population while the relatively uniform rate in British Columbia is due to the increasing proportion of people in the older age groups.

Table 21 shows that throughout the provinces, with one exception (Prince Edward Island for 1948), the rates are higher for males than for females and that for Canada as a whole they are about 25 p.c. higher.
21.-Deaths and Death Rates per 1,000 Population, by Sex and by Provinces,
1947-50, with Averages, 1941-45

| Province and Year | Total Deaths | Rate per 1,000 <br> Populalation | Males |  | Females |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { Deaths } \end{aligned}$ | $\begin{gathered} \text { Rate per } \\ 1,000 \\ \text { Males } \end{gathered}$ | Number of Deaths | Rate per 1,000 <br> Females |
| Newfoundland..............Av. 1941-45 | 3,681 | 11.8 | 1,953 | 11.9 | 1,728 | 11.0 |
| 1947 | 3,325 | $9 \cdot 9$ | 1,763 | $10 \cdot 3$ | 1,562 | $9 \cdot 6$ |
| 1948 | 3,108 | $9 \cdot 0$ | 1,686 | 9.7 | 1,422 | 8.6 |
| 1949 1950 | 2,868 3,168 | 8.2 9.0 | 1,596 1,774 | 9.0 9.8 | 1,272 1,394 | 7.5 8.0 |
| Prince Edward Island. . . . . Av. 1941-45r | 964 | 10.5 | 509 | 10.7 | 455 | $10 \cdot 3$ |
| 1947 | 1,020 | 10.9 | 543 | $11 \cdot 3$ | 477 | $10 \cdot 4$ |
| 1948 | 887 | $9 \cdot 5$ | 455 | 9.5 | 432 | 9.6 8.7 |
| 1949 1950 | 924 903 | 9.8 9.4 | 531 464 | 10.9 9.4 | 393 439 | 8.7 9.4 |
| Nova Scotia................Av. 1941-45 ${ }^{\text {r }}$ | 6,326 | 10.5 | 3,455 | 11.2 | 2,871 | $9 \cdot 8$ |
| 1947 | 6,009 | 9.7 9.6 | 3,287 | $10 \cdot 4$ | 2,722 | 8.9 8.9 |
| 1948 1949 | 6,097 5,980 | $9 \cdot 6$ $9 \cdot 3$ | 3,331 3,321 | $10 \cdot 3$ $10 \cdot 2$ | 2,766 2,659 | 8.9 8.4 |
| 1950 | 6,078 | $9 \cdot 5$ | 3,396 | $10 \cdot 2$ | 2,682 | $8 \cdot 3$ |
| New Brunswick. . . . . . . . . . Av. 1941-45r | 5,050 | 10.9 | 2,726 | 11.5 | 2,324 | $10 \cdot 3$ |
| 1947 | 4,832 | $9 \cdot 8$ | 2,696 | $10 \cdot 8$ | 2,136 | 8.8 |
| 1948 | 4,959 | $9 \cdot 9$ | 2,668 | $10 \cdot 4$ | 2,291 | $9 \cdot 3$ 8.7 |
| 1949 | 4,876 | $9 \cdot 4$ | 2,672 | $10 \cdot 2$ | 2,204 | 8.7 8.6 |
| 1950 | 4,895 | $9 \cdot 6$ | 2,690 | $10 \cdot 2$ | 2,205 | 8.6 |
| Quebec.....................Av. 1941-45r | 34,273 | 9.9 | 18,413 | $10 \cdot 6$ | 15,861 | $9 \cdot 2$ |
| 1947 | 33,708 | $9 \cdot 1$ | 18,566 | 10.0 | 15,142 | $8 \cdot 2$ |
| 1948 | 33, 603 | $8 \cdot 9$ | 18,358 | $9 \cdot 7$ | 15,245 | 8.1 |
| 1949 | 34,107 | $8 \cdot 8$ | 18,708 | $9 \cdot 6$ | 15,399 | $7 \cdot 9$ 7.6 |
| 1950 | 33,507 | $8 \cdot 4$ | 18,396 | $9 \cdot 2$ | 15,111 | $7 \cdot 6$ |
| Ontario.....................Av. Av. 1941-45r | 39,738 | $10 \cdot 2$ | 21,650 | 10.9 | 18,088 | $9 \cdot 4$ |
| 1947 | 41,619 | $9 \cdot 9$ | 22,891 | $10 \cdot 8$ | 18,728 | 9.0 |
| 1948 | 42,364 | $9 \cdot 9$ | 23.394 | $10 \cdot 8$ | 18,970 | 8.9 8.8 |
| 1949 | 43,379 | $9 \cdot 8$ | 24,123 | $10 \cdot 8$ | 19,256 | 8.8 8.7 |
| 1950 | 43,948 | 9.8 | 24,502 | $10 \cdot 7$ | 19,446 | $8 \cdot 7$ |
| Manitoba...................Av. Av. 1941-45 r | 6,633 | $9 \cdot 1$ | 3,817 | $10 \cdot 1$ | 2,816 | 8.0 |
| 1947 | 6,750 | $9 \cdot 1$ | 3,924 | $10 \cdot 3$ | 2,826 | 7.8 |
| 1948 | 6,675 | 8.8 | 3,900 | $10 \cdot 1$ | 2,775 | 7.5 7.6 |
| 1949 | 6,919 | $8 \cdot 9$ | 4,008 | $10 \cdot 1$ | 2,911 | 7.6 |
| 1950 | 6,610 | $8 \cdot 6$ | 3,904 | $9 \cdot 6$ | 2,706 | $7 \cdot 0$ |
| Saskatchewan..............Av. Av. 1941-45 ${ }^{\text {r }}$ | 6,437 | $7 \cdot 5$ | 3,835 | $8 \cdot 4$ | 2,602 | 6.6 |
| 1947 | 6,610 | 7.9 | 3,989 | 8.9 | 2,621 | $6 \cdot 6$ |
| 1948 | 6,496 | 7-6 | 4,012 | 8.9 8.7 | 2,484 | 6.2 6.5 |
| 1949 | 6,596 | 7.7 | 3,962 | $8 \cdot 7$ 8.3 | 2,634 | 6.5 5.9 |
| 1950 | 6,243 | $7 \cdot 5$ | 3,821 | $8 \cdot 3$ | 2,422 | $5 \cdot 9$ |

## 21.-Deaths and Death Rates per 1,000 Population, by Sex and by Provinces, 1947-50, with Averages, 1941-45-concluded

| Province and Year |  | Total Deaths | Rate per 1,000 Populalation | Males |  | Females |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { Deaths } \end{aligned}$ |  | $\begin{gathered} \text { Rate per } \\ 1,000 \\ \text { Males } \end{gathered}$ | Number Deaths | Rate per 1,000 <br> Females |
| Alberta....................Av. 1941-45r |  |  | 6,355 | 7.9 | 3,864 | 9.0 | 2,491 | 6.7 |
|  | 1947 | 6,543 | $8 \cdot 0$ | 3,916 | 9.0 | 2,627 | 6.8 |
|  | 1948 | 6,987 | $8 \cdot 3$ | 4,254 | $9 \cdot 6$ | 2,733 | 6.8 |
|  | 1949 | 7,083 | $8 \cdot 1$ | 4.350 | $9 \cdot 5$ | 2,733 | 6.6 |
|  | 1950 | 6,856 | $7 \cdot 5$ | 4,189 | 8.9 | 2,667 | $6 \cdot 3$ |
| British Columbia.. ........Avv. 1941-45 ${ }^{\text {r }}$ |  | 9.368 | 10.5 | 5,841 | $12 \cdot 5$ | 3,527 | $8 \cdot 3$ |
|  | 1947 | 10,613 | $10 \cdot 2$ | 6,626 | $12 \cdot 2$ | 3.987 | $7 \cdot 9$ |
|  | 1948 | 11,316 | $10 \cdot 5$ | 7.055 | $12 \cdot 5$ | 4,261 | $8 \cdot 2$ |
|  | 1949 | 11.315 | $10 \cdot 2$ | 7.100 | $12 \cdot 3$ | 4.215 | 7.9 |
|  | 1950 | 11,581 | $10 \cdot 2$ | 7,204 | $12 \cdot 2$ | 4,377 | 8.0 |
| Canadal (Exclusive of the Territories). | Av. 1941-45 | 115,144 | $9 \cdot 8$ | 64,108 | 10.6 | 51,035 | 8.9 |
|  | 1947 | 117,704 | 9.4 | 66,438 | $10 \cdot 4$ | 51,266 | $8 \cdot 3$ |
|  | 1948 | 119,384 | 9.3 | 67,427 | $10 \cdot 3$ | 51,957 | 8.2 |
|  | 1949 | 124.047 | 9.2 | 70,371 | $10 \cdot 2$ | 53,676 | $8 \cdot 1$ |
|  | 1950 | 123,789 | 9.0 | 70,340 | 10.0 | 53,449 | 7.9 |

${ }^{2}$ Figures for Newfoundland are not included in these totals except for the years 1949 and 1950.
Deaths in Urban Centres.-In Table 22 deaths are classified by place of residence. The rates in urban centres vary only slightly from those of their respective provinces. However, due 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.

## 22.-Deaths in Urban Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over, ${ }^{1}$ 1947-50, with Averages, 1941-45

| Province and Urban Centre | $\left\lvert\, \begin{gathered} \text { Census } \\ \text { Population, } \\ 1941 \end{gathered}\right.$ | Deaths |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Average, 1941-45 | 1947 | 1948 | 1949 | 1950 |
| N | No. | No. | No. | No. | No. | No. |
| St. John's.... | 44,6032 | 3 | 477 | 475 | 462 | 441 |
| Prince Edward IslandCharlottetown. | 14,821 | 202 | 219 | 218 | 242 | 184 |
| Nova Scotia- |  |  |  |  |  |  |
| Dartmouth. | 10,847 | 120 | 86 | 122 | 133 | 98 |
| Glace Bay.. | 25,147 | 231 | 208 | 250 | 231 | 207 |
| Halifax. | 70,488 | 786 | 757 | 748 | 694 | 771 |
| Sydney. | 28,305 | 306 | 303 | 299 | 312 | 294 |
| New Brunsw | 10,272 | 107 | 96 | 84 | 104 | 123 |
| Fredericton.... | 10,062 | 121 | 139 |  | 154 |  |
| Moncton.... | 22,763 | 223 | 201 | 221 | ${ }_{216}^{154}$ | ${ }_{233}^{146}$ |
| Saint John.. | 51,741 | 645 | 662 | 617 | ${ }_{668}$ | ${ }_{617}$ |
| Quebec-Cap-de-la-Madeleine | 11,961 | 97 | 112 | 100 | 128 |  |
| Chicoutimi........... | 16,040 | 184 | 220 | 198 | 190 | 177 |
| Drummondville. | 10,555 | 91 | 102 | 100 | 107 | 106 |
| Granby...... | 14,197 | 132 | 150 | 145 | 164 | 154 |
| Hull.... | 32,947 | 355 | 346 | 356 | 357 | 355 |
| Joliette... | 12,749 | 157 | 152 | 180 | 148 | 158 |
| Jonquiere | 13,769 | 157 | 153 | 146 | 137 | 148 |
| Levis... | 20,051 11 | 230 125 | 210 | 184 | 207 | 233 |
| Montreal. | 903,007 | 9,885 | ${ }_{9} 1396$ | -135 | 128 | 121 |
| Outremont. | 90,751 | 9,887 | $\begin{array}{r}9,696 \\ \hline 1\end{array}$ | 9,898 $\mathbf{2 7 2}$ | 10,106 273 | $\begin{array}{r}9,898 \\ \hline 262\end{array}$ |
| Quebec.... | 150,757 | 1,899 | 1,809 | 1,669 | 1,673 | 1,567 |
| St. Hyacinthe | 17,798 | 256 | 264 | -239 | 240 | 257 |
| ${ }^{1}$ As at the 1941 Census. of the period. | 45 Census | Newfound |  | ${ }^{3}$ Not | ilable | ne year |

22.--Deaths in Urban Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over, ${ }^{1}$ 1947-50, with Averages, 1941-45-concluded

| Province and Urban Centre | Census Population, 1941 | Deaths |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Average, 1941-45 | 1947 | 1948 | 1949 | 1950 |
| Quebec-concluded | No. | No. | No. | No. | No. | No. |
| St. Jean........... | 13,646 | 136 | 154 | 158 | 129 | 133 |
| St. Jérôme | 11,329 | 118 | 125 | 135 | 123 | 150 |
| Shawinigan Falls. | 20,325 | 176 | 173 | 202 | 165 | 186 |
| Sherbrooke. | 35,965 | 381 | 456 | 417 | 439 | 445 |
| Sorel. | 12,251 | 168 | 166 | 155 | 156 | 123 |
| Thetford Mines. | 12.716 | 148 | 157 | 135 | 136 | 139 |
| Three Rivers. | 42,007 | 414 | 378 | 411 | 433 | 440 |
| Valleyfield. | 17,052 | 184 | 169 | 165 | 170 | 173 |
| Verdun... | 67,349 | 532 | 596 | 566 | 562 | 581 |
| Westmount | 26,047 | 275 | 275 | 307 | 311 | 298 |
| Ontario- |  |  |  |  |  |  |
| Belleville. | 15,710 | 178 | 195 | 190 | 194 | 237 |
| Brantford. | 31,948 | 419 | 408 | 391 | 429 | 423 |
| Brockville | 11,342 | 158 | 163 | 162 | 147 | 155 |
| Chatham. | 17,369 | 219 | 202 | 212 | 216 | 244 |
| Cornwall. | 14,117 | 204 | 193 | 179 | 178 | 173 |
| Forest Hill | 11,757 | 62 | 96 | 100 | 95 | 102 |
| Fort William | 30,585 | 244 | 284 | 276 | 300 | 345 |
| Galt. | 15,346 | 172 | 166 | 178 | 199 | 216 |
| Guelph. | 23,273 | 271 | 245 | 277 | 300 | 299 |
| Hamilton | 166,337 | 1,769 | 1,776 | 1,891 | 1,892 | 1,991 |
| Kingston. | 30,126 | 377 | 366 | 383 | 417 | 418 |
| Kitchener | 35,657 | 331 | 329 | 361 | 370 | 422 |
| London. | 78,264 | 930 | 1,033 | 939 | 961 | 1,112 |
| Niagara Falls. | 20,589 | 217 | 235 | 262 | 258 | 225 |
| North Bay... | 15,599 | 141 | 179 | 199 | 182 | 168 |
| Oshawa. | 26,813 | 218 | 266 | . 286 | - 251 | 274 |
| Ottawa... | 154,951 | 1,718 | 1,759 199 | 1,663 167 | 1,719 | 1,951 |
| Owen Sound | 14,002 11,159 | 127 | 138 | 126 | 143 | 147 |
| Peterborough | 25,350 | 317 | 348 | 361 | 386 | 373 |
| Port Arthur | 24,426 | 250 | 311 | 316 | 297 | 326 |
| St. Catharines. | 30,275 | 314 | 372 | 338 | 320 | 355 |
| St. Thomas. | 17,132 | 237 | 240 | 249 | 239 | 256 |
| Sarnia. | 18,734 | 219 | 234 | 232 | 230 | 219 |
| Sault Ste. Marie | 25,794 | 252 | 269 | 277 | 327 | 295 |
| Stratiord. | 17,038 | 209 | 218 | 253 | 240 | 257 |
| Sudbury. | 32,203 | 268 | 284 | 315 | 322 | 305 |
| Timmins. | 28,790 | 181 | 199 | 198 | 205 | 220 |
| Toronto. | 667,457 | 7,534 | 7,753 | 7,840 | 7,874 | $\begin{array}{r}7,749 \\ \hline 138\end{array}$ |
| Welland. | 12,500 | 123 | 138 | 145 | 113 | 138 |
| Windsor. | 105,311 | 953 | 1,020 | 1,025 | 1,132 | 1,045 |
| Woodstock | 12,461 | 174 | 165 | 157 | 167 | 162 |
| Manitoba- |  |  |  |  |  |  |
| Brandon., St. Bonifa | 18,157 | 187 | 180 | 169 | 181 | 188 |
| Winnipeg. | 221,960 | 2,155 | 2,285 | 2,244 | 2,320 | 2,238 |
| Saskatchewan- |  |  |  |  |  |  |
| Moose Jaw.... | 20,753 12,508 | 114 | 246 146 | 144 | 136 | 129 |
| Prince Albert | 12,508 58,245 | 439 | 514 | 461 | 501 | 492 |
| Saskatoon. | 43,027 | 353 | 430 | 429 | 434 | 446 |
| Alberta- |  |  |  |  |  |  |
| Calgary... | 88,904 93,817 | 878 830 | 1,038 953 | 1,139 1,038 | 1,141 | 1,183 |
| Edmonton. | 14,612 | 144 | 146 | 188 | 175 | 173 |
| Medicine Hat | 10,571 | 123 | 130 | 142 | 158 | 131 |
| British Columbia- |  |  |  |  |  |  |
| New Westminster. | 21,967 |  |  |  |  |  |
| Vancouver | 275,353 44,068 | 3,377 688 | 3,768 748 | 3,984 773 | 3,980 737 | $\begin{array}{r}4,143 \\ \hline 747\end{array}$ |

${ }^{1}$ As at the 1941 Census.
Sex and Age Distribution of Deaths.-Despite reductions in infant mortality, more deaths still occur in the first year of life than in any other single year. The number of children dying under five years of age was reduced from an average of 25,174 in $1930-32$ to 17,949 in 1940-42. In 1949 and 1950 the numbers were 18,595 and 17,841 , respectively, as compared with 17,899 in 1948 . For both males and females the greatest number of deaths occur in the age group 70-79, the next highest being 60-69 years for males and 80-89 years for females.

The percentage distribution of deaths has changed greatly since 1930-32. The percentages of deaths at all ages up to 50 years have declined and the average age at death has gradually risen. The reduction in mortality rates in the early and middle years of life increases the number of people in the older age groups and will eventually raise the average age of the population as a whole. In 1931, $16 \cdot 6$ p.c. of the population was 50 years of age or over and the average age of all males was $29 \cdot 0$ years and of all females $28 \cdot 1$ years. In $1941,19 \cdot 7$ p.c. of the population was 50 years of age or over, and the average age of all males had risen to $30 \cdot 7$ years and of all females to $30 \cdot 2$ years. The average age at death for males in 1926 was $40 \cdot 0$ years and for females 41.9 years; these have risen to 55.7 and $58 \cdot 1$, respectively, in 1950. Compared with most European countries, however, the population of Canada is still young.
23.-Deaths, by Sex and Age Groups, 1948-50
(Exclusive of the Territories)

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Age Group} \& \multicolumn{6}{|c|}{Males} \& \multicolumn{6}{|c|}{Females} \\
\hline \& \multicolumn{2}{|l|}{\(1948{ }^{1}\)} \& \multicolumn{2}{|l|}{1949} \& \multicolumn{2}{|l|}{1950} \& \multicolumn{2}{|r|}{\(1948{ }^{1}\)} \& \multicolumn{2}{|l|}{1949} \& \multicolumn{2}{|l|}{1950} \\
\hline \& No. \& \& o. \& p.c. \& No. \& p.c. \& No. \& p.c. \& No. \& p.c. \& No. \& p.c. \\
\hline Under 1 year \& 8,654 \& 12.8 \& 9,075 \& 12.9 \& 8,773 \& 12.5 \& 6,510 \& 12.5 \& 6,768 \& \(12 \cdot 6\) \& 6,551 \& 12.3 \\
\hline 1 year. \& 712 \& 1.1 \& 654 \& 0.9 \& 608 \& 0.9 \& 592 \& \(1 \cdot 1\) \& 614 \& 1.1 \& 482 \& 0.9 \\
\hline 2 years \& 336 \& 0.5 \& 358 \& \(0 \cdot 5\) \& 340 \& \(0 \cdot 5\) \& 277 \& 0.5 \& 296 \& \(0 \cdot 6\) \& 248 \& 0.5 \\
\hline \& 265 \& 0.4 \& 273 \& 0.4 \& 288 \& \(0 \cdot 4\) \& 183 \& 0.4 \& 197 \& \(0 \cdot 4\) \& 212 \& \(0 \cdot 4\) \\
\hline 4 \& 209 \& \(0 \cdot 3\) \& 197 \& \(0 \cdot 3\) \& 181 \& \(0 \cdot 3\) \& 161 \& \(0 \cdot 3\) \& 163 \& \(0 \cdot 3\) \& 158 \& \(0 \cdot 3\) \\
\hline \[
\begin{aligned}
\& \text { Totals, under } \\
\& \text { of Age...... }
\end{aligned}
\] \& 10,176 \& \(15 \cdot 1\) \& 10,557 \& 15.0 \& 10,190 \& 14.5 \& 7,723 \& 14.9 \& 8,038 \& 15.0 \& 7,651 \& 14.3 \\
\hline 5-9 years \& 686 \& 1.0 \& 684 \& 1.0 \& 678 \& 1.0 \& 423 \& 0.8 \& 490 \& 0.9 \& 446 \& 0.8 \\
\hline 10-14 \& 479 \& 0.7 \& 517 \& 0.7 \& 469 \& 0.7 \& 328 \& \(0 \cdot 6\) \& 341 \& \(0 \cdot 6\) \& 321 \& \(0 \cdot 6\) \\
\hline 15-19 \& 800 \& \(1 \cdot 2\) \& 846 \& \(1 \cdot 2\) \& 730 \& \(1 \cdot 0\) \& 541 \& \(1 \cdot 0\) \& 517 \& 1.0 \& 428 \& 0.8 \\
\hline 20-24 " \& 1,122 \& 1.7 \& 1,065 \& 1.5 \& 943 \& \(1 \cdot 3\) \& 761 \& 1.5 \& 706 \& \(1 \cdot 3\) \& - 572 \& \(1 \cdot 1\) \\
\hline 25-29 " \& 1,011 \& 1.5 \& 1,036 \& 1.5 \& 906 \& \(1 \cdot 3\) \& 799 \& 1.5 \& 781 \& 1.5 \& 673 \& 1.3 \\
\hline 30-34 " \& 1,031 \& 1.5 \& 1,072 \& 1.5 \& 949 \& 1.4 \& 876 \& 1.7 \& 856 \& \(1 \cdot 6\) \& 737 \& 1.4 \\
\hline 35-39 " \& 1,368 \& \(2 \cdot 0\) \& 1,339 \& 1.9 \& 1,261 \& 1.8 \& 1,102 \& \(2 \cdot 1\) \& 1,042 \& 1.9 \& 1,067 \& \(2 \cdot 0\) \\
\hline 40-44* \& 1,742 \& \(2 \cdot 6\) \& 1,733 \& \(2 \cdot 5\) \& 1,724 \& \(2 \cdot 5\) \& 1,260 \& 2.4 \& 1,263 \& \(2 \cdot 4\) \& 1,305 \& \(2 \cdot 4\) \\
\hline 45-49 " \& 2,391 \& \(3 \cdot 5\) \& 2,517 \& \(3 \cdot 6\) \& 2,475 \& \(3 \cdot 5\) \& 1,608 \& \(3 \cdot 1\) \& 1,635 \& \(3 \cdot 0\) \& 1,635 \& \(3 \cdot 1\) \\
\hline 50-54 " \& 3,299 \& \(4 \cdot 9\) \& 3,357 \& \(4 \cdot 8\) \& 3,370 \& \(4 \cdot 8\) \& 2,172 \& 4.2 \& 2,177 \& \(4 \cdot 1\) \& 2,094 \& \(3 \cdot 9\) \\
\hline 55-59 " \& 4,605 \& \(6 \cdot 8\) \& 4,556 \& \(6 \cdot 5\) \& 4,600 \& \(6 \cdot 5\) \& 2,894 \& \(5 \cdot 6\) \& 2,776 \& \(5 \cdot 2\) \& 2,778 \& 5-2 \\
\hline 60-64 " \& 6,258 \& 9.3 \& 6,564 \& \(9 \cdot 3\) \& 6,561 \& \(9 \cdot 3\) \& 3,787 \& \(7 \cdot 3\) \& 3,947 \& \(7 \cdot 4\) \& 3,841 \& \(7 \cdot 2\) \\
\hline 65-69 " \& 7,225 \& 10.7 \& 7,747 \& 11.0 \& 7,994 \& 11.4 \& 4,687 \& \(9 \cdot 0\) \& 4,948 \& \(9 \cdot 2\) \& 5,191 \& \(9 \cdot 7\) \\
\hline 70-74 " \& 7,768 \& 11.5 \& 8,376 \& 11.9
10.5 \& 8,476 \& \(12 \cdot 1\) \& 5,731 \& 11.0 \& 6,223 \& 11.6 \& 6,273 \& 11.7 \\
\hline 80-89 * \& 8,846 \& \(10 \cdot 1\)
13 \& 9,476 \& 13.5 \& 7,792 \& \begin{tabular}{l}
\(11 \cdot 1\) \\
13 \\
\hline 1
\end{tabular} \& 6,091
9,263 \& 117.8 \& 6,392
9,459 \& 11.9
17.6

a \& 6,414
9,834 \& $12 \cdot 0$
18.4 <br>
\hline 90 years or over \& 1,395 \& $2 \cdot 1$ \& 1.502 \& $2 \cdot 1$ \& 1.468 \& $2 \cdot 1$ \& 1,894 \& 3.6 \& 2,072 \& 3.9 \& 2,175 \& $4 \cdot 1$ <br>
\hline Totals, Stated Ages. \& 67,392 \& $100 \cdot 0$ \& 70,338 \& 100-0 \& 70,286 \& 100.0 \& 51,940 \& $100 \cdot 0$ \& 53,663 \& 100.0 \& 53,435 \& $100 \cdot 0$ <br>
\hline Ages not stated. \& 35 \& -- \& 33 \& -- \& 54 \& -- \& 17 \& -- \& 13 \& -- \& 14 \& - <br>
\hline Totals, All Ages. \& 67,427 \& $100 \cdot 0$ \& 70,371 \& 100.0 \& 70,340 \& 100.0 \& 51,957 \& 100.0 \& 53,676 \& $100 \cdot 0$ \& 53,449 \& $100 \cdot 0$ <br>
\hline
\end{tabular}

${ }^{1}$ Exclusive of Newfoundland.
Causes of Death.-Table 24 shows the deaths in Canada, grouped according to the International Abbreviated List of 50 causes. About 80 p.c. are due to 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 been noted above. Causes of death that affect children and young adults mainly 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.

Norz．－Deaths for 1950 were classified according to the 1948 （6th ）Revision of the International List of Causes of Death，while those for previous years were classified according to earlier revisions of the List．The cause groups shown below are therefore not strictly comparable with those shown in previous issues of the Year Book．

| International List No． |  | Cause of Death | N＇f＇ld． | P．E．I． | N．S． | N．B． | Que． | Ont． | Man． | Sask． | Alta． | B．C． | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Abbrevi－ ated List | Detailed List |  | NUMBER OF DEATHS |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| B 1 | 001－008 | Tuberculosis of respiratory system．．．．．．．．．．．．．． | 189 58 |  | 141 35 | 131 28 | $\begin{array}{r}1,315 \\ \hline 256\end{array}$ | 536 49 | 144 35 | 114 39 | 135 36 | 271 42 | 3，001 |
| B 3 | 020－029 | Syphilis and its sequelæ．．．．．．．．．．．．．．．．．．．．．．．． | $\begin{array}{r}5 \\ 7 \\ \hline\end{array}$ | ${ }_{2}^{4}$ | 23 | 8 | 129 | 111 | 13 | 12 | 27 | 37 | 369 |
| B 4 | 040 | Typhoid fever．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 1 | － | 2 | 2 | 12 | 1 | 1 | 1 | 1 | 1 | 22 |
| B 5 | －043 | Cholera．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 6 | － | － |  | － | － | $-4$ | － | － |  |  |
| B 6 | 045－048 | Dysentery，all forms．．．．．．．．．．．．．．．．．．．．．．．．． | ${ }_{2}^{6}$ | － | ${ }_{1}^{2}$ | 2 | 17 19 | 17 19 | 4 | 4 3 4 | 11 | 5 4 | ${ }_{62}$ |
| B 8 | 055 | Diphtheria．．．．．．．．．．．．．．．．．．．．．．．．．． | 3 | 1 | 1 | 1 | 29 | 8 | 2 | 3 | 1 | 3 | 52 |
| B 9 | 056 | Whooping cough | 49 | 8 | 20 | 22 | 135 | 41 | 15 | 3 | 3 | 10 | 306 |
| B10 | 057 | Meningococcal infections | 3 | － | 6 | 9 | 28 | 18 | 6 | 4 | － | 2 | 76 |
| ${ }_{812}{ }^{\text {B11 }}$ | 058 080 | Plague．．．．．．．．．．．．．．． | 二 | $\sim_{4}$ |  | － | －8 | －9 | $-1$ |  | ${ }^{-8}$ |  |  |
| ${ }_{\text {B13 }}$ | 080 084 | Acute poliomyelitis．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 二 |  | 二 | 二 |  |  |  |  | 8 | 2 | 41 |
| B14 | 085 | Measles．．． | 6 | － | 5 | 6 | 81 | 36 |  | 5 | 8 | 17 | 173 |
| ${ }_{815}$ | 100－108 | Typhus and other rickettsial diseases | － | － |  | － | － | － | － | － | － | － | － |
| B16 | $110-117$ $030-039$ | Malaria．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | － | － | － | － | － | － | － | － |  | － |  |
|  | 041， 042 |  |  |  |  |  |  |  |  |  |  |  |  |
| B17B18 | 052－054 | All other diseases classified as infective and |  |  |  |  |  |  |  |  |  |  |  |
|  | 059－074 | parasitic．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 6 | 3 | 14 | 7 | 101 | 95 | 11 | 22 | 25 | 29 | 313 |
|  | $081-083$ $086-096$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  | Malignant neoplasms，including neoplasms of lymphatic and hæmatopoietic tissues． |  |  |  |  |  |  |  |  |  |  |  |
| B18 | $\begin{array}{r} 140-205 \\ (140-200,202, \\ 203,205) \end{array}$ |  | 363 | 103 | 875 | 597 | 4，530 | 6，317 | 990 | 977 | 997 | 1，729 | 17，478 |
|  |  | Cancer，excluding Hodgkin＇s disease，leukæmia and aleukæmia． |  |  |  |  |  |  |  |  |  |  |  |
|  |  | and aleukæmia． <br> Hodgkin＇s disease | 349 | 101 | 839 | 565 11 | $\begin{array}{r}4,856 \\ 37 \\ \\ \hline 157\end{array}$ | 5,983 100 | $\begin{array}{r}988 \\ 14 \\ \hline 18\end{array}$ | 918 15 | 936 17 | $\begin{array}{r}1,648 \\ \hline 16\end{array}$ | 16,629 219 |
|  | （204） | Leukæmia and aleukæmia．．．．．．．．．．．．．．．．．．．．． | 11 | 2 | ธ0 | 31 | 157 | 234 | 38 | 44 | 44 | ${ }^{65}$ | ${ }_{3}^{636}$ |
| B19 | 210－239 | Benign and unspecified neoplasms．．．．．．．．．．．．．．．．． | 9 | － | 14 | 10 | 71 | 111 | 18 | 21 | 36 | 32 | 322 |
| ${ }_{821}^{\mathrm{B} 20}$ |  | Diabetes mellitus．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． Anæmiss．．．．．．．．．．．．．．．．．．．．．．．． | 18 10 | $\stackrel{1}{2}$ | 74 28 | 40 32 | 491 124 | 552 193 | 68 28 | 81 26 | 92 20 | 127 39 | 1,544 496 |
| B21 | 290－293 | Anæmis．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 10 |  | 28 | 32 |  | 193 | 22 |  | 20 |  |  |


${ }^{1}$ Exclusive of the Territories.
24.-Deaths and Rates per $\mathbf{1 0 0 , 0 0 0}$ Population, according to the International Abbreviated List of 50 Causes, by Provinces, 1950-concluded


| ¢ B26 | 420-422 | Arteriosclerotic and degenerative heart disease.. | $65 \cdot 2$ | 257.3 | 213.5 | 204-7 | 153.9 | $302 \cdot 5$ | 216.9 | $177 \cdot 7$ | $173 \cdot 7$ | $289 \cdot 3 \\|$ | $223 \cdot 1$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - B27 | 430-434 | Other diseases of heart. .......................... | $39 \cdot 9$ | $15 \cdot 6$ | 18.8 | $19 \cdot 5$ | $15 \cdot 3$ | $8 \cdot 6$ | $19 \cdot 3$ | $12 \cdot 4$ | 16.4 | 11.2 | $14 \cdot 2$ |
| \% B28 | 440-443 | Hypertension with heart disease | $20 \cdot 2$ | 26.0 | 45.9 | $32 \cdot 4$ | $35 \cdot 8$ | $34 \cdot 3$ | $23 \cdot 7$ | 26.4 | $23 \cdot 4$ | $37 \cdot 1$ | 38.2 |
| - B29 | 444-447 | Hypertension without mention o | $6 \cdot 0$ | $10 \cdot 4$ | $7 \cdot 8$ | $8 \cdot 2$ | $8 \cdot 3$ | $6 \cdot 4$ | $7 \cdot 3$ | $6 \cdot 4$ | $5 \cdot 4$ | $7 \cdot 8$ | $7 \cdot 2$ |
| B30 | 480-483 | Influenza.. | $9 \cdot 4$ | $10 \cdot 4$ | $8 \cdot 5$ | $9 \cdot 0$ | $7 \cdot 7$ | $6 \cdot 4$ | $6 \cdot 6$ | $9 \cdot 0$ | $3 \cdot 0$ | $4 \cdot 7$ | $6 \cdot 9$ |
| 出 B31 | 490-493 | Pneumonia | $43 \cdot 3$ | $41 \cdot 7$ | $39 \cdot 0$ | 46.9 | $30 \cdot 7$ | $33 \cdot 1$ | 36.6 | $32 \cdot 3$ | 29.9 | $35 \cdot 2$ | $33 \cdot 6$ |
| NTM B32 | 500-502 | Bronchitis. | $9 \cdot 4$ | $3 \cdot 1$ | $5 \cdot 0$ | $4 \cdot 5$ | $3 \cdot 3$ | $4 \cdot 1$ | $4 \cdot 0$ | $2 \cdot 0$ | $3 \cdot 2$ | $4 \cdot 4$ | $3 \cdot 9$ |
| B33 | 540,541 | Ulcer of stomach and duod | $2 \cdot 8$ | $6 \cdot 3$ | $3 \cdot 6$ | $3 \cdot 7$ | $4 \cdot 0$ | $5 \cdot 8$ | $4 \cdot 4$ | $6 \cdot 0$ | $4 \cdot 3$ | 8.9 | $5 \cdot 1$ |
| B34 | 550-553 | Appendicitis. | $1 \cdot 4$ | $2 \cdot 1$ | $2 \cdot 4$ | $3 \cdot 1$ | $3 \cdot 3$ | $2 \cdot 1$ | $2 \cdot 0$ | $2 \cdot 4$ | $2 \cdot 4$ | 1.8 | $2 \cdot 5$ |
| B35 | 560, 561, 570 | Intestinal obstruction and hernia. | $4 \cdot 3$ | $5 \cdot 2$ | $6 \cdot 6$ | $5 \cdot 5$ | $6 \cdot 9$ | $6 \cdot 6$ | $5 \cdot 1$ | $7 \cdot 3$ | $4 \cdot 9$ | $6 \cdot 3$ | $6 \cdot 4$ |
| B36 | 543, 571, 572 | Gastritis, duodenitis, enteritis and colitis, except diarrhcea of the newborn. | $16 \cdot 5$ | $12 \cdot 5$ | $7 \cdot 7$ | $18 \cdot 0$ | $13 \cdot 4$ | $7 \cdot 4$ | $7 \cdot 9$ | 6.7 | $7 \cdot 4$ | $5 \cdot 1$ | $9 \cdot 6$ |
| B37 | 581 | Cirrhosis of liver. ................................. . . | 0.9 | $4 \cdot 2$ | $2 \cdot 5$ | $2 \cdot 9$ | $5 \cdot 0$ | 5.4 | $3 \cdot 6$ | $3 \cdot 6$ | $3 \cdot 1$ | $4 \cdot 2$ | $4 \cdot 5$ |
| B38 | 590-594 | Nephritis and nephrosis. | $10 \cdot 0$ | $38 \cdot 5$ | $19 \cdot 3$ | 18.2 | $46 \cdot 2$ | $15 \cdot 5$ | 11.7 | 14.5 | $9 \cdot 7$ | 14.1 | 23.9 |
| B39 | 610 | Hyperplasia of prostate. | $3 \cdot 7$ | $6 \cdot 3$ | $7 \cdot 2$ | $7 \cdot 0$ | $4 \cdot 3$ | 6.4 | $7 \cdot 6$ | $6 \cdot 0$ | $5 \cdot 0$ | $8 \cdot 3$ | $5 \cdot 9$ |
| B40 $\{$ | $\begin{array}{r} 640-652,660, \\ 670-689 \end{array}$ | Complications of pregnancy, childbirth and the puerperium. | $6 \cdot 0$ | $3 \cdot 1$ | $3 \cdot 3$ | 2.9 | $4 \cdot 6$ | $2 \cdot 2$ | 1.8 | $2 \cdot 5$ | $2 \cdot 1$ | $2 \cdot 4$ | $3 \cdot 1$ |
| B41 | 750-759 | Congenital malformations........................ | $13 \cdot 1$ | $12 \cdot 5$ | $17 \cdot 7$ | $19 \cdot 3$ | $17 \cdot 8$ | 17.4 | $13 \cdot 2$ | $12 \cdot 7$ | $14 \cdot 7$ | 11.2 | $16 \cdot 3$ |
| B42 | 760-762 | Birth injuries, postnatal asphyxia and atelectasis | $16 \cdot 2$ | 11.5 | $19 \cdot 3$ | $21 \cdot 7$ | $23 \cdot 2$ | $18 \cdot 1$ | $15 \cdot 8$ | 18.0 | 18.9 | $16 \cdot 6$ | $19 \cdot 5$ |
| B43 | 763-768 | Infections of the newborn........................ . | $9 \cdot 4$ | $7 \cdot 3$ | $3 \cdot 9$ | $7 \cdot 4$ | $9 \cdot 1$ | $3 \cdot 3$ | $4 \cdot 6$ | $4 \cdot 1$ | $4 \cdot 3$ | 1.7 | 5.4 |
| B44 | 769-776 | Other diseases peculiar to early infancy, and immaturity unqualified. | $45 \cdot 9$ | $20 \cdot 8$ | $25 \cdot 5$ | $47 \cdot 9$ | 46-3 | $23 \cdot 6$ | 21.9 | 22.0 | 26.0 | 18.8 | $31 \cdot 3$ |
| B45 | 780-795 | Senility without mention of psychosis, illdefined and unknown causes. | $176 \cdot 4$ | 22.9 | $26 \cdot 3$ | 53.9 | $17 \cdot 1$ | $8 \cdot 3$ | $20 \cdot 3$ | $7 \cdot 3$ | $14 \cdot 3$ | $11 \cdot 3$ | $19 \cdot 1$ |
| B46 | Residual | All other diseases............... | $68 \cdot 1$ | $61 \cdot 5$ | 83.1 | $80 \cdot 3$ | 79.8 | $73 \cdot 8$ | 81.1 | 66.9 | $64 \cdot 0$ | 85.9 | 76.3 |
| BE47 | E810-E835 | Motor-vehicle accidents. | $7 \cdot 7$ | $6 \cdot 3$ | $15 \cdot 5$ | $20 \cdot 5$ | $17 \cdot 3$ | 18.7 | $10 \cdot 2$ | 11.8 | $17 \cdot 4$ | $17 \cdot 2$ | $16 \cdot 7$ |
| BE48 $\{$ | $\begin{aligned} & \text { E800-E802 } \\ & \text { E840-E962 } \end{aligned}$ | All other accidents. | $35 \cdot 8$ | $42 \cdot 7$ | 41.4 | $35 \cdot 9$ | $30 \cdot 2$ | $40 \cdot 6$ | $35 \cdot 0$ | 31.9 | $44 \cdot 0$ | $62 \cdot 4$ | $38 \cdot 5$ |
| BE49 | $\begin{aligned} & \text { E963, E970- } \\ & \text { E979 } \end{aligned}$ | Suicide and self-inflicted injury.................. | $2 \cdot 0$ | $3 \cdot 1$ | $7 \cdot 1$ | $5 \cdot 9$ | $3 \cdot 7$ | $8 \cdot 9$ | $10 \cdot 3$ | $7 \cdot 7$ | 9.0 | $18 \cdot 2$ | $7 \cdot 7$ |
| BE50 | $\begin{aligned} & \text { E964, E965 } \\ & \text { E980-E999 } \end{aligned}$ | Homicide and operations of war............... | 0.9 | - | $1 \cdot 3$ | $0 \cdot 4$ | $0 \cdot 7$ | $1 \cdot 2$ | $1 \cdot 6$ | 0.4 | $1 \cdot 3$ | $1 \cdot 3$ | $1 \cdot 0$ |
|  |  | Totals, All Causes..................... | 902-6 | $840 \cdot 6$ | 952-7 | 956-1 | $844 \cdot 2$ | 983-0 | 860.7 | $749 \cdot 5$ | $750 \cdot 9$ | 1,018.6 | 904.4 |

[^69]${ }^{2}$ Less than $0 \cdot 1$ per 100,000 population.

## 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.

## 25.-Infant Mortality per $\mathbf{1 , 0 0 0}$ Live Births in Various Countries compared with Canada and the Provinces, 1950

(Source: Monthly Bulletin of Statistics of the United Nations and other official publications. In certain cases final figures are not available and provisional data are used.)

| Country 1 | Infant Mortality Rate | Country or Province | Infant Mortality Rate | Country | Infant Mortality Rate |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sweden. | 21 | Canada. | 41 | France ${ }^{1}$ | 47 |
| New Zealand. | 23 | British Columbia | 30 | Western Germany.. | 55 |
| Netherlands. | 25 | Saskatchewan | 32 | Belgium. . . . . . . . | 59 |
| Australia. | 25 | Alberta. | 32 | Japan... | 60 |
| Norway. . . . . . . . . . . | 28 | Manitoba | 35 | Italy.. | 63 |
| United States. | 29 | Prince Edward İsland | 36 | Austria | 64 |
| England and Wales.... | 30 | Nova Scotia......... | 40 | Spain.. | 69 |
| Denmark.............. | 31 | Quebec..... | 51 | Ceylon................. | 82 |
| Switzerland........... | 31 | New Brunswick...... | 5 | Czechoslovakia..... | $82^{2}$ |
| Union of South Africa (White) | 36 | Newfoundland....... | 58 | Portugal. | 94 97 |
| Northern Ireland. | 39 | Finland. | 44 | India ${ }^{3}$ | 137 |
| Scotland. | 39 | Ireland. | 45 | Chile | 153 |

${ }^{1}$ Excluding infants born alive but who died before registration of birth. $\quad{ }^{2} 1949 . \quad{ }^{3}$ Registration area only.

Canadian Infant Mortality.-A striking improvement has been shown in the rate of infant mortality during the past 25 years. Of the children born in 1946-50, approximately 87,000 lived to their first birthday who would have died at the rate prevailing in the period 1926-30.

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. It was pointed out earlier that there were between 1,051 and 1,067 males born to every 1,000 females. Because male infant mortality is higher, the excess" "f males is reduced drastically by the end of the first year. For example, in $1940-42,397,038$ male children were born, compared with 374,908 female children, an excess of 22,130 or $5 \cdot 9$ p.c.; 25,024 male children died during their first year compared with 18,646 female children, that is 6,378 more. The excess of males at one year of age is thus reduced to 15,752 , or 4.4 p.c.

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 which take place in hospital or under proper medical care, as pointed out earlier on p. 186. Along with increased hospitalization has come better and more widespread pre-natal and post-natal care. Other factors, particularly the supervision of water supplies, improved sanitation and the pasteurization of milk, also have been important.

## 26.-Infant Mortality and Rates per 1,000 Live Births, by Sex and by Provinces, 1947-50



[^70]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 27, many cities and towns have, however, maintained consistently low rates as compared with the national rate or the rates for the province in which they are situated.

## 27.-Deaths and Death Rates of Infants Under One Year of Age (Exclusive of Stillbirths) in Urban Centres of 10,000 Population or Over, 1947-50

| Province and Urban Centre | Infant Deaths |  |  |  | Rates per 1,000 Live Births |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1947 | 1948 | 1949 | 1950 | 1947 | 1948 | 1949 | 1950 |
| $\begin{aligned} & \text { Newfoundland- } \\ & \text { St. John's....... } \end{aligned}$ | 91 | 89 | 63 | 78 | 53 | 59 | 43 | 50 |
| Prince Edward IslandCharlottetown. | 12 | 20 | 29 | 15 | 24 | 40 | 58 | 30 |
| Nova Scotia- |  |  |  |  |  |  |  |  |
| Dartmouth. | 13 | 20 | 23 | 11 | 25 | 43 | 44 | 21 |
| Glace Bay | 87 | 44 70 | 38 | 11 73 | 47 35 | 59 29 | ${ }_{34}^{52}$ | ${ }_{31}$ |
| Sydney | 44 | 35 | 53 | 42 | 41 | 36 | 53 | 43 |
| Truro.. | 18 | 12 | 12 | 17 | 45 | 37 | 38 | 59 |
| New Brunswick- |  |  |  |  |  |  |  |  |
| Fredericton. | 12 | 15 | 21 | 12 | 25 | 34 | 47 | 27 |
| Moncton... | 38 98 | 27 77 | 29 67 | 21 52 | 43 57 | 34 48 | 46 46 | 31 |
| Quebec- |  |  |  |  |  |  |  |  |
| Cap-de-la-Madeleine. | 21 | 25 | 36 | 30 | 47 | 47 | 62 | 51 |
| Chicoutimi...... | 64 | 53 | 47 | 55 | 65 | 53 | 47 | 59 |
| Drummondville. | 34 | 21 | 25 | 15 | 70 | 46 | 54 | 30 |
| Granby | 33 | 19 | 27 | 31 | 47 | 29 | 37 | 42 |
| Hull.... | 75 | 75 | 81 | 78 | 52 | 53 | 60 | 57 |
| Joliette. | 18 | 26 | 24 | 19 | 43 | 61 | 52 | 44 |
| Jonquiere | 56 | 56 | 53 | 57 | 76 | 63 | 59 | 63 |
| Lachine.. | 18 | 22 | 18 | 22 | 27 | 35 | 26 | 32 |
| Lévis.. | 19 | 14 | 14 | 11 | 51 | 40 | 42 | 32 |
| Montreal. | 1,110 | 1,085 | 1,078 | 1,061 | 45 | 45 | 44 | 42 |
| Outremont | 9 | -3 | 1,9 | 5 | 21 | 10 | 36 | 17 |
| Quebec. | 451 | 277 | 244 | 228 | 100 | 67 | 59 | 55 |
| St. Hyacinthe. | 27 | 26 | 24 | 28 | 48 | 48 | 51 | 48 |
| St. Jean...... | 21 | 19 | 14 | 19 | 44 | 37 | 28 | 32 |
| St. Jérôme. | 27 | 31 | 32 | 47 | 46 | 54 | 60 | 82 |
| Shawinigan Falls. | 39 | 50 | 40 | 33 | 43 | 55 | 46 | 38 |
| Sherbrooke...... | 100 | 74 | 81 | 97 | 68 | 52 | 54 | ${ }_{31}^{61}$ |
| Sorel.. | 31 | 28 | 31 | 15 | 59 | 57 | 70 | 34 |
| Thetiord Mines. | 30 | 14 | 18 | 23 | 60 | 35 | 39 | 53 |
| Three Rivers... | 82 | 81 | 97 | 94 | 66 | 64 | 71 | ${ }_{51}^{67}$ |
| Valleyfield. | 28 | 25 | 29 | 35 | 42 | 36 | 42 | 51 |
| Verdun..... | 89 | 71 | 32 | 58 | 50 27 | 40 33 | 18 26 | 34 34 |
| Westmount. | 8 | 9 | 8 | 8 | 27 | 33 | 26 | 34 |
| Ontario - |  |  |  |  |  |  |  |  |
| Belleville. | 22 | 10 | 13 | 21 | 42 | 22 | ${ }_{37}^{27}$ |  |
| Brantford. | 42 | 25 | 36 | 44 | 39 | 28 | 37 | 48 |
| Brockville. | 11 | 12 | 19 | 10 29 | 30 36 | 36 26 | 42 | 32 55 |

27.-Deaths and Death Rates of Infants Under One Year of Age (Exclusive of
Stillbirths) in Urban Centres of 10,000 Population or Over, 1947-50-concluded

| Province and Urban Centre | Infant Deaths |  |  |  | Rates per 1,000 Live Births |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1947 | 1948 | 1949 | 1950 | 1947 | 1948 | 1949 | 1950 |
| Ontario-concluded |  |  |  |  |  |  |  |  |
| Cornwall.......... | 35 | 24 | 28 | 22 | 50 | 44 | 57 | 52 |
| Forest Hill.... | 4 | 6 | 7 | 6 | 19 | 28 | 35 | 31 |
| Fort William... | 35 | 29 | 29 | 30 | 35 | 32 | 31 | 33 |
| Galt........... | 15 | 10 | 15 | 16 | 33 | 25 | 37 | 35 |
| Guelph.......... | 24 | 28 | 27 | 25 | 35 | 43 | 39 | 39 |
| Hamilton....... | 128 | 138 | 127 | 139 | 27 | 32 | 28 | 30 |
| Kingston.. | 25 | 21 | 25 | 37 | 24 | 24 | 27 | 43 |
| Kitchener. | 26 | 27 | 32 | 29 | 25 | 26 | 31 | 27 |
| London, ......... | 92 | 80 | 72 | 57 | 38 | 35 | 33 | 25 |
| Niagara Falls.. | 19 | 20 | 30 | 7 | 24 | 31 | 55 | 15 |
| North Bay..... | 21 | 22 | 21 | 14 | 41 | 46 | 43 | 30 |
| Oshawa.. | 29 180 | 35 154 | 19 139 | 27 167 | 39 40 | 50 38 | 26 37 | 35 35 |
| Owen Sound | 27 | 6 | 18 | 12 | 57 | 15 | 43 | 31 |
| Pembroke. | 10 | 23 | 26 | 26 | 28 | 66 | 74 | 68 |
| Peterborough | 37 | 34 | 29 | 36 | 34 | 33 | 27 | 35 |
| Port Arthur.. | 41 | 26 | 31 | 29 | 49 | 33 | 37 | 37 |
| St. Catharines. | 24 | 30 | 32 | 27 | 24 | 35 | 40 | 33 |
| St. Thomas. | 20 | 23 | 19 | 14 | 45 | 58 | 45 | 34 |
| Sarnia.. | 18 | 20 | 20 | 21 | 26 | 33 | 34 | 35 |
| Sault Ste. Marie | 31 | 39 | - 54 | 33 | 34 | 47 | 63 | 41 |
| Stratford. | 17 | 16 | 13 | 16 | 38 | 37 | 31 | - 40 |
| Sudbury. | 63 | 64 | 72 | 59 | 45 | 47 | 55 | 42 |
| Timmins. | 39 | 48 | 39 | 32 | 41 | 56 | 46 | 39 |
| Toronto. | 462 | 415 | 414 | 385 | 30 | 30 | 30 | 29 |
| Welland. | . 22 | 15 | 13 | 11 | 53 | 37 | 34 | 29 |
| Windsor. |  |  |  | 108 | 34 | 36 | 44 | 36 |
| Woodstock | 12 | 9 | 15 | 6 | 34 | 30 | 43 | 18 |
| Manitoba- |  |  |  |  |  |  |  |  |
| Brandon.. | 22 | 17 | 20 | 21 | 50 | 40 | 43 | 43 |
| St. Boniface. | 24 | 21 | 22 | 19 | 35 | 33 | 33 | 27 |
| Winnipeg.... | 205 | 156 | 140 | 131 | 36 | 32 | 28 | 25 |
| Saskatchewan- |  |  |  |  |  |  |  |  |
| Moose Jaw . . . . | 29 | 30 | 23 | 7 | 43 | 50 | 38 | 12 |
| Prince Albert. . | 26 | 19 | 30 | 11 | 49 | 40 | 59 | 25 |
| Regina... | 70 | 45 | 59 | 39 | 38 | 27 | 37 | 24 |
| Saskatoon. | 70 | 44 | 42 | 45 | 47 | 33 | 29 | 31 |
| Alberta- |  |  |  |  |  |  |  |  |
| Calgary... | 104 | 118 | 87 | 91 | 34 | 40 | 28 | 29 |
| Edmonton. | 130 | 139 | 112 | 137 | 33 | 34 | 26 | 29 |
| Lethbridge... | 12 | 30 | 9 | 18 | 20 | 54 | 16 | 28 |
| Medicine Hat | 8 | 14 | 19 | 10 | 24 | 32 | 44 | 26 |
| British Columbia- |  |  |  |  |  |  |  |  |
| New Westminster. | 16 | 19 | 12 | 16 | 26 | 32 | 20 | 28 |
| Vancouver......... | 218 | 172 | 191 | 174 | 28 | 24 | 25 | ! 24 |
| Victoria..................... | 26 | 23 | 21 | 20 | 21 | 19 | 19 | 19 |

Causes of Infant Deaths.-Of the 15,324 infant deaths in 1950 almost 15 p.c. were due to immaturity; 12 p.c. to congenital malformations; over 11 p.c. to pneumonia among infants over 4 weeks of age and over 10 p.c. were due to injury at birth. These specific causes accounted for almost one-half of the total infant deaths.

Nore. - Deaths for 1950 were classified according to the 1948 (6th) Revision of the International List of Causes of Death, while those for previous years were classified according to earlier revisions of the List. The cause groups shown below are, therefore, not strictly comparable with those shown in previous issues of the Year Book.


28．－Infant Mortallty and Rates per 100，000 Live Births，by Selected Causes and by Provinces，1950－concluded

| Inter－ national List No． | Cause of Death | New－ foundland | Prince Edward Island | Nova Scotia | （ $\begin{gathered}\text { New } \\ \text { Brunswick }\end{gathered}$ | Quebec | Ontario | Manitoba | Saskat－ chewan | Alberta | British | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | RATES PER 100，000 LIVE BIRTHS |  |  |  |  |  |  |  |  |  |  |
| 001－019 | Tuberculosis． | 53 | － | 29 | 18 | 26 | 6 | 31 | 23 | 27 | 7 | 20 |
| 020－029 | Syphilis．．．．．． | 15 | － | 6 | － | 7 |  | － |  | ， | 4 | 5 |
| 050 | Scarlet fever． | － | － | － | 二 | 1 | － | － | － | 4 | － | 1 |
| 052 | Erysipelas．．． | 二 | － | － | 二 | 3 | － | － | － |  | 二 |  |
| ${ }^{055}$ | Diphtheris．．．．．．． | 304 | $\overline{2}^{277}$ | 93 | 116 | 91 | 27 | 47 | 5 | 4 | 18 | 64 |
| 057 | Meningococcal infections．．．．．．．．．．．．．．．．． | 8 | 27 | 6 | 37 | 13 | 10 | 10 | 9 | 4 |  | 10 |
| 085 | Measles．．．．．．．．．．．．．．．．．． | － |  | 6 | 18 | 28 | 7 | 21 | 14 | 12 | 18 | 16 |
| 273 | Diseases of the thymus gland．．．．．．．．．．． | 15 | － | 6 | 49 | 42 | 16 | 10 |  | 16 | 52 | 26 |
| 340 | Meningitis（non－meningococcal）．．．．．．．．．． | 68 | 104 | 64 | 79 | 78 | 14 | 26 | 5 | 20 | 33 | 44 |
| 391， 392 | Otitis media．．．．．．．．．．．．．．．．．．．．．．．．．．． | ${ }^{8}$ | 139 | 6 75 | 31 140 | 175 | 15 | 5 57 | 74 | 4 | 18 | 64 |
| 480－483 | Influenza．．．．．．．．．．．． | 152 | 139 | 75 | 140 | 119 | ${ }_{35}^{35}$ | 57 | 74 | ${ }_{31}^{31}$ | ${ }^{96}$ | 81 |
| 490－493 | Pneumonia（4 weeks and over）．．．．．．．．．． | 676 | 485 | 689 | 769 | 530 | 325 | 472 | 441 | 363 | 332 | 458 |
| 500－502 | Bronchitis（4 weeks and over）．．．．．．．．．． | 99 349 | ${ }_{312}$ | 29 185 | $\begin{array}{r}31 \\ 415 \\ \hline\end{array}$ | 31 323 | ${ }_{178}^{22}$ | $\begin{array}{r}36 \\ 187 \\ \hline\end{array}$ | 172 | $\cdot 152$ | 37 74 | 2998 |
| 750－759 | Congenital malformations．．． | 304 | 347 | 539 | 494 | 523 | 589 | 410 | 408 | 437 | 332 | 500 |
| 760，761 | Injury at birth．．．．．．．．．． | 228 | 208 | 348 | 427 | 550 | 381 | 405 | 418 | 308 | 387 | 428 |
| 763 | Pneumonia of newborn（under 4 weeks）． | 182 | 139 | 110 | 116 | 188 | 71 | 145 | 111 | 101 | 41 | 123 |
| 764 | Diarrhoes of newborn（under 4 weeks）．． | 53 | 104 | 29 | 104 | 98 | 50 | 26 | 42 | 43 | 15 | 63 |
| 769 | Antenatal toxæmia．．．．．．．．．．．．．．．．．．．．．． | 23 | 35 | 64 | 82 | 70 | 50 | 26 | 28 | 47 | 81 | 57 |
| 770 | Erythroblastosis．．．．．．．．．．．．．．．．．．．．．． | 76 | 69 | 52 | 98 | 114 | 61 | 52 | 93 | 66 | 55 | 81 |
| 772 | Nutritional maladjustment．．．．．．．．．．．．． | 61 | 69 | 75 | 110 | 61 | 32 | 47 | 37 | 23 | 18 | 48 |
| $\begin{array}{r} 773 \\ 774-776 \\ 795 \end{array}$ | Ill－defined diseases peculiar to early infancy．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 357 | 35 | 98 | 293 | 777 | 75 | 140 | 93 | 94 | 66 | 326 |
|  | Immaturity．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 684 | 520 | 597 | 866 | 493 | 723 | 587 | 566 | 679 | 542 | 614 |
|  | Ill－defined and unknown causes | 843 | 69 | 104 | 634 | 34 | 41 | 130 | 5 | 27 | 48 | 99 |
|  | Other specified causes．．．．．．．．．．．．．．．． | 1，200 | 797 | 805 | 720 | 739 | 721 | 623 | 645 | 765 | 693 | 740 |
|  | Totals，All Causes | 5，758 | 3，640 | 4，015 | 5，655 | 5，114 | 8，451 | 3，494 | 3，202 | 3，243 | 2，969 | 4，130 |

[^71]
## Subsection 3.-Maternal Mortality

The number of mothers who die in pregnancy and childbirth has been greatly reduced in recent years. Maternal mortality in Canada and the provinces is shown in Table 5, p. 184. 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 1,405 deaths and a rate of almost six deaths for every 1,000 live births) to 420 in 1950. Since 1945 the rate of maternal mortality has dropped below two per 1,000 live births and was just over one per 1,000 live births in 1950. Mortality among unmarried mothers is higher than among married mothers.

Age at Death.-Table 29 shows the distribution of maternal deaths by age, together with the 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. The rate at $30-34$ years is over twice as high as the rate at 20-24 years, and at 40-44 years it is over six times as high. The higher rate in the first age group shown in the table, compared with the second, is due to the high proportion of illegitimate children born to young mothers.

## 29.-Maternal Mortality and Rates per 1,000 Live Births, by Age Groups, 1947-50

(Exclusive of the Territories)

| Age Group | Maternal Deaths |  |  |  | Rates per 1,000 Live Births |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 19471 | $1948{ }^{1}$ | 1949 | 1950 | 19471 | $1948{ }^{1}$ | 1949 | 1950 |
|  | No. ${ }^{\text {p.c. }}$ | No. ${ }^{\text {p.c. }}$ | No. $\mid$ p.e. | No. 1 p.c. |  |  |  |  |
| Under 20 years. | 244 | 24 $4 \cdot 7$ | $25 \quad 4.9$ | 18 - 4.5 | 1.07 | 1.06 | 1.06 | 0.76 |
| 20-24 " | $96 \quad 17 \cdot 3$ | $83 \quad 16 \cdot 3$ | $77 \quad 15 \cdot 0$ | $42 \quad 10 \cdot 5$ | 0.92 | 0.84 | 0.78 | $0 \cdot 43$ |
| $25 \quad 29$ " | 107 19-3 | $106 \quad 20 \cdot 8$ | $116 \quad 22 \cdot 7$ | $95 \quad 23 \cdot 8$ | 1.00 | 1.02 | 1.07 | $0 \cdot 86$ |
| $30-34$ " | $144 \quad 26 \cdot 0$ | $107 \quad 21 \cdot 0$ | $121 \quad 23 \cdot 6$ | $85 \quad 21 \cdot 3$ | 2.00 | 1.56 | $1 \cdot 75$ | $1 \cdot 19$ |
| 3539 " | $120 \quad 21.7$ | 115 22.5 | $101 \quad 19 \cdot 7$ | $99 \quad 24 \cdot 8$ | 3.06 | $2 \cdot 97$ | $2 \cdot 52$ | $2 \cdot 42$ |
| 4044 " | $55 \quad 9 \cdot 9$ | $66 \quad 12 \cdot 9$ | $64 \quad 12 \cdot 5$ | $51 \quad 12 \cdot 8$ | 4.43 | 5-42 | 5-25 | $4 \cdot 16$ |
| 4549 " | $8 \quad 1.4$ | $9 \quad 1.8$ | $8 \quad 1 \cdot 6$ | $6{ }^{6} 1.5$ | $7 \cdot 65$ | $8 \cdot 38$ | $7 \cdot 54$ | 6.03 |
| 50 years or over. | , |  | - ... | $3 \quad 0.8$ | ... | ... | ... | ... |
| Totals, AII Ages at Death. | 554 $100 \cdot 0$ | $5101100 \cdot 0$ | $512100 \cdot 0$ | 399 100-0 | $1 \cdot 54$ | $1 \cdot 47$ | 1.45 | $1 \cdot 11$ |
| Average Ages at Death. | 31.5 | 31.9 | $31 \cdot 7$ | $32 \cdot 5$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |

${ }^{1}$ Exclusive of Newfoundland.
Causes of Maternal Deaths.-Table 30 shows, by causes, the numbers and rates of maternal deaths per 100,000 live births. Until a decade ago, puerperal sepsis and toxæmias of pregnancy were by far the most important causes. Since 1936 the rate for puerperal sepsis has been reduced by almost 95 p.c. due 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 still remains the second major cause of maternal deaths, after complications of delivery.

## 30.-Maternal Mortallty and Rates per 100,000 Live Births, by Causes and by Provinces, 1950

Nore.-Deaths for 1950 were classified according to the 1948 (6th) Revision of the International List of Causes of Death, while those for previous years were classified according to earlier revisions of the List. The cause groups shown below are, therefore, not strictly comparable with those shown in previous issues of the Year Book.


[^72]
## 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 9.7 in 1937. Since then the rate has increased to $12 \cdot 6$ in $1940-42,14 \cdot 5$ in $1945,17 \cdot 5$ in 1946 and $19 \cdot 2$ in 1947. The rates of $17 \cdot 7$ in 1948, $17 \cdot 9$ in 1949 and $18 \cdot 1$ in 1950 were lower due to increases in total deaths in recent years.

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 due 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. Due to high birth rates, Newfoundland and New Brunswick have had the highest rates of natural increase in Canada in recent years.

The rates are generally higher for females than for males for the reason that 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 makes for a lower 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 will 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.
31.-Natural Increase and Rates of $\underset{1947-50}{\text { Natural Increase, by Sex and by Provinces, }}$

| Province and Year |  | Excess of Births Over Deaths | Rate per 1,000 Population | Males |  | Females |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Number |  | $\begin{gathered} \text { Rate } \\ \text { per } 1,000 \\ \text { Males } \end{gathered}$ | Number | Rate per 1,000 Females |
| Newfoundland. | . 1947 |  | 9,321 | $27 \cdot 6$ | 4,804 | 28.1 | 4,517 | 27.7 |
|  | 1948 | 8,526 | 24.8 | 4,246 | 24.4 | 4.280 | $25 \cdot 8$ |
|  | 1949 | 9,413 | $27 \cdot 1$ | 4,659 | $26 \cdot 2$ | 4.754 | 27.9 |
|  | 1950 | 9,996 | $28 \cdot 5$ | 5,079 | 28.0 | 4,917 | 28.4 |
| Prince Edward Island. | . 1947 | 1,972 | 20.9 | 989 | 20.5 | 983 | 21.5 |
|  | 1948 | 1,955 | 21.1 | 998 | 20.8 | 957 | 21.2 |
|  | 1949 | 1,907 | $20 \cdot 3$ | 926 | $19 \cdot 0$ | 981 | $21 \cdot 7$ |
|  | 1950 | 1,982 | $20 \cdot 7$ | 978 | $19 \cdot 8$ | 1,004 | $21 \cdot 5$ |
| Nova Scotia. | 1947 | 13,256 | 21.3 | 6,484 | $20 \cdot 6$ | 6,772 | 22.2 |
|  | 1948 | 11,694 | $18 \cdot 4$ | 5,763 | 17.9 | 5,931 | 19.0 |
|  | 1949 | 11,759 | $18 \cdot 2$ | 5,898 | $18 \cdot 0$ | 5,861 | $18 \cdot 4$ |
|  | 1950 | 11,184 | $17 \cdot 6$ | 5,499 | 16.5 | 5,685 | 17.5 |
| New Brunswick. | . 1947 | 12,939 | 26.4 | 6,438 | $25 \cdot 8$ | 6,501 | 26.9 |
|  | 1948 | 12,320 | $24 \cdot 5$ | 6,221 | 24.3 | 6,099 | $24 \cdot 7$ |
|  | 1949 | 11,797 | 22.9 | 5,931 | $22 \cdot 6$ | 5,866 | 23.1 |
|  | 1950 | 11,498 | 22.4 | 5,782 | $21 \cdot 9$ | 5.716 | $22 \cdot 2$ |
| Quebec.. | . 1947 | 81,845 | 22.0 | 40,827 | 21.9 | 41,018 | $22 \cdot 2$ |
|  | 1948 | 81,106 | 21.4 | 40,580 | $21 \cdot 3$ | 40.526 | $21 \cdot 4$ |
|  | 1949 | 82,717 | $21 \cdot 3$ | 41,445 | 21.3 | 41,272 <br> 42 | 21.3 21.5 |
|  | 1950 | 85,604 | 21.6 | 42.937 | $21 \cdot 6$ | 42,667 | 21.5 |
| Ontario. | . 1947 | 67,234 |  |  |  |  | $16 \cdot 6$ $15 \cdot 0$ |
|  | 1948 1949 | 61.831 63.222 | $14 \cdot 3$ 14.4 | 30,065 30,661 | 13.8 13.7 | 31,766 32,561 | $15 \cdot 0$ 14.9 |
|  | 1949 1950 | 63.222 64,760 | 14.4 14.5 | 30,661 31,409 | 13.8 | 32,561 33,351 | 15.0 |

31.-Natural Increase and Rates of Natural Increase, by Sex and by Provinces, 1947-50-concluded

${ }^{1}$ Figures for Newfoundland are not included in these totals except for the years 1949 and 1950.
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 given in Table 32.
32.-Natural Increase in Urban Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over, 1947-50, with Averages, 1941-45

| Province and Urban Centre | $\begin{gathered} \text { Census } \\ \text { Population, } \\ 1941 \end{gathered}$ | Natural Increase |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\underset{1941-45}{\text { Average }}$ $1941-45$ | 1947 | 1948 | 1949 | 1950 |
| NewfoundlandSt. John's. $\qquad$ | 44,6031 | 2 | 1,243 | 1,043 | 1,020 | 1,106 |
| Prince Edward IslandCharlottetown........... | 14,821 | 183 | 287 | 277 | 257 | 320 |
| Nova Scotla- |  |  |  |  |  |  |
| Dartmouth. | 10,847 | 285 | 431 | 341 | 388 | 425 |
| Glace Bay | 25,147 | 498 | 690 | 500 | 493 | 467 |
| Halifax.. | 70,488 | 1.241 | 1,760 | 1,648 | 1,550 | 1,552 |
| Sydney | 28,305 | 624185 | 768300 | 669243 | 685209 | 688 |
|  | 10,272 |  |  |  |  | 164 |
| New Brunswick- |  |  |  |  |  |  |
|  | 10.062. | 107 | 343 | 301 | 292 | 295 |
| Moncton.... | 22,763 51,741 | 421 719 | + 675 | ${ }^{584}$ | 494 | 449 |
| Quebec- |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Chicoutimi....... | 16,040 | 274 | 333 | 430 | 449 | 471 |
| Drummondvilie. | 10,555 | 779 <br> 18 | 768 383 | 805 356 | 812 356 | 754 397 |
| Granby | 14,197 | 332 | 550 | 500 | 562 | 583 |
| Hull... | 32,947 | 819 | 1,108 | 1,046 | 984 | 1,017 |
| Joliette... | 12,749 | 250 | 263 | 245 | 318 | 276 |
| Jonquiere. | 13,769 | 705 | 587 | 745 | -765 | 755 |
| ${ }^{1} 1945$ Census of Newfoundland | ${ }^{2}$ Not available for one year of the period. |  |  |  |  |  |

32.-Natural Increase in Urban Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over, 1947-50, with Averages, 1941-45-concluded

| Province and Urban Centre | Census Population, | Natural Increase |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { Average } \\ 1941-45 \end{gathered}$ | 1947 | 1948 | 1949 | 1950 |
| Quebee-concluded |  |  |  |  |  |  |
| Lachine........... | 20,051 | 271 | 459 | 445 | 473 | 463 |
| Lévis.... | 11,991 | ${ }^{2} 203$ | 241 | 217 | 202 | 223 |
| Montreal. | 903,007 30,751 | 11,471 | 14,950 | 14,369 | 14,381 | 15,279 |
| Outremont | 30,751 150,757 | 1144 2.416 | 137 2,681 | 19 2,463 | - $\square^{23}$ | - 36 |
| St. Hyacinthe. | 17,798 | 2,4163 | $\begin{array}{r}2,681 \\ \hline 296\end{array}$ | 2,463 305 | 2,472 | 2,584 330 |
| St. Jean. | 13.646 | 279 | 326 | 354 | 380 | 453 |
| St. Jérôme | 11,329 | 311 | 461 | 440 | 412 | 422 |
| Shawinigan Falls | 20,325 | 674 | 736 | 700 | 712 | 672 |
| Sherbrooke. | 35,965 | 760 | 1,022 | 1,011 | 1,048 | 1,146 |
| Sorel.... | 12,251 | 312 | 359 | 332 | 288 | 1315 |
| Thetford Mines | 12,716 | 269 | 341 | 270 | 330 | 298 |
| Three Rivers. | 42,007 | 821 | 857 | 845 | 926 | 955 |
| Valleyfield. | 17,052 | 481 | 491 | 521 | 522 | 515 |
| Verdun..... | 67,349 | 988 | 1,179 | 1,196 | 1,201 | 1,146 |
| Westmount. | 26,047 | -24 | 22 | -31 | -7 | -60 |
| Ontarlo- |  |  |  |  |  |  |
| Belleville. | 15,710 | 205 | 324 | 267 | 290 | 251 |
| Brantford. | 31,948 | 346 | 675 | 499 | 534 | 485 |
| Brockville. | 11,342 | 102 | 201 | 170 | 224 | 161 |
| Chatham. | 17,369 | 193 | 352 | 295 | 313 | 285 |
| Cornwall. | 14,117 | 302 | 505 | 362 | 314 | 254 |
| Forest Hill. | 11,757 | 96 | 113 | 114 | 107 | 94 |
| Fort William | 30,585 | 404 | 702 | 622 | 621 | 566 |
| Galt. | 15.346 | 140 | 291 | 226 | 205 | 241 |
| Guelph. | 23,273 | 198 | 448 | 372 | 384 | 346 |
| Hamilton. | 166,337 | 1,693 | 2,918 | 2,359 | 2,625 | 2,664 |
| Kingston. | 30,126 | 467 | 675 | 487 | 495 | 442 |
| Kitchener | 35,657 | 380 | 722 | 681 | 670 | 667 |
| London. | 78.264 | 759 | 1,392 | 1,323 | 1,239 | 1,128 |
| Niagara Falls | 20,589 | 323 | 551 | 377 | 284 | 254 |
| North Bay | 15,599 | 221 | 330 | 279 | 306 | 301 |
| Oshawa. | 26,813 | 366 | 471 | 420 | 486 | 506 |
| Ottawa.. | 154,951 | 1,639 | 2,773 | 2,394 | 2,035 | 2,847 |
| Owen Sound | 14,002 | 130 | 277 | 240 | 255 | ${ }_{212}$ |
| Pembroke. | 11,159 | 172 | 220 | 220 | 206 | 233 |
| Peterborough | 25,350 | 363 | 744 | 658 | 671 | 644 |
| Port Arthur. | 24,426 | 308 | 520 | 484 | 532 | 455 |
| St. Catharines | 30.275 | 420 | 632 | 515 | 476 | 469 |
| St. Thomas. | 17,132 | 145 | 204 | 150 | 182 | 161 |
| Sarnia. | 18,734 | 228 | 467 | 374 | 364 | ${ }_{517}^{377}$ |
| Sault Ste. M | 25,794 | 473 | 650 | 552 | 532 | 517 |
| Stratford. | 17,038 | 79 | ${ }^{227}$ | +179 | 177 | 148 |
| Sudbury. | 32, 203 | 1.056 | 1,124 | 1,042 | 986 | 1,112 |
| Timmins. | 28,790 667,457 | 652 3.629 | 754 7,508 | 1.660 6.105 | 646 5,744 | 604 $\mathbf{5}, 697$ |
| Toronto. | 667,457 12,500 | $\begin{array}{r}3,629 \\ \hline 234\end{array}$ | 7,508 | 6,105 262 | $\begin{array}{r}5,744 \\ \hline 269\end{array}$ | $\begin{array}{r}5,697 \\ \hline 239\end{array}$ |
| Windsor | 105,311 | 1,430 | 2,007 | 1,849 | 1,823 | 1.917 |
| Woodstock | 12,461 | 93 | 184 | 146 | 180 | 165 |
| Manitoba- |  |  |  |  |  |  |
| Brandon.. | 17,383 | 191 | ${ }_{5}^{230}$ | ${ }_{2}^{247}$ | 265 | 279 508 |
| St. Boniface | 18,157 | ${ }_{1}^{238}$ | 507 | 466 2.610 | 481 2.699 | 508 2,959 |
| Winnipeg. | 221,960 | 1,932 | 3,352 | 2,610 | 2,699 | 2,959 |
| Saskatchewan- |  |  |  |  |  |  |
| Prince Albert | 12,508 | 226 | 390 | 334 | 372 | 319 |
| Regina. | 58,245 | - 733 | 1,309 | 1,230 | 1,103 | 1,139 |
| Saskatoon. | 43,027 | - 490 | 1,051 | 900 | 1,015 | 1,008 |
|  |  |  |  |  |  |  |
| Calgary. | 88,904 | 1.180 | 2,031 | 1,794 | 2,002 | 1,981 |
| Edmonton. | 93,817 | 1,549 | 3,046 | 3.045 |  | 3,562 |
| Lethbridge | 14,612 | 228 | 442 | 370 290 | 383 278 | 474 |
| Medicine Hat. | 10,571 | 164 | 248 | 290 | 278 | 254 |
| British ColumbiaNew Westminster. | 21,967 | 260 | 351 | 330 | 328 | 332 |
| Vancouver......... | 275,353 | 2,020 | 4,043 | 3,211 | 3,542 | 3,186 |
| Victoria... | 44,068 | 462 | 465 | 416 | 353 | 292 |

## Section 5.-Marriages and Divorces

## Subsection 1.-Marriages

International Comparisons.-Table $\mathbf{3 3}$ shows the marriage rates in Canada and the provinces in comparison with those of other countries. Canadian marriage rates have always been relatively high.

## 33.-Marriage Rates per $\mathbf{1 , 0 0 0}$ Population of Various Countries compared with Canada and the Provinces, 1950

(Source: Monthly Bulletin of Statistics of the United Nations and other official publications. In certain cases final figures are not available and provisional data are used.)

| Country or Province | $\underset{\text { Rate }}{\text { Marriage }}$ | Country or Province | $\begin{gathered} \text { Marriage } \\ \text { Rate } \end{gathered}$ | Country | $\underset{\text { Rate }}{\text { Marriage }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| United States. | $11 \cdot 0$ | Canada-concluded |  | Chile. | 7.9 |
| Western Germany | 10.7 | Manitoba. | $9 \cdot 3$ | France. | $7 \cdot 9$ |
| Czechoslovakia. | $10 \cdot 4$ | Quebec.. | $8 \cdot 6$ | Switzerland. | 7.9 |
| Hungary.. | $10 \cdot 4$ | New Brunswick | $8 \cdot 5$ | Switzerland. | 7.9 7.8 |
| Japan........... | 10.2 | Saskatchewan.. | 8.3 | Scotland. | $7 \cdot 8$ |
| Union of South Africa |  | Nova Scotia. | $7 \cdot 9$ | Italy................... | $7 \cdot 7$ |
| (Whites)............ | $9 \cdot 9$ | Newfoundland . ${ }^{\text {a }}$. | $7 \cdot 2$ | Portugal.............. | 7-7 |
| Austria............... | $9 \cdot 4$ $9 \cdot 2$ | Prince Edward Island | $6 \cdot 4$ | Sweden............. | $7 \cdot 7$ |
| Australia.............. | $9 \cdot 2$ $9 \cdot 2$ |  |  | Spain. . . . . . . . . . . . | $7 \cdot 4$ |
| New Zealand. ......... | $9 \cdot 2$ | Denmark............. | $9 \cdot 1$ | Ceylon.............. | $6 \cdot 8$ |
|  |  | Finland.................. | $8 \cdot 5$ | Northern Ireland...... | $6 \cdot 81$ |
| Canada. | 9.1 | Belgium. . . . . . . . . . . . | $8 \cdot 3$ | Mexico............... | $5 \cdot 71^{\circ}$ |
| Alberta........ | 10.2 | Norway. . ............ | $8 \cdot 3$ | Ireland. | $5 \cdot 4$ |
| British Columbia | 9.88 | Netherlands. ${ }^{\text {Na...... }}$ | $8 \cdot 2$ | Venezuela.............. | $5 \cdot 1$ |
| Ontario........... | $9 \cdot 8$ | England and Wales.... | $8 \cdot 1$ | Peru................... | $3 \cdot 5$ |

${ }^{1} 1949$.

As a rule, marriage rates vary with the level of economic prosperity. They fell during the depression years following 1929, but recovered in the later 1930's. 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, and reached peak rates in the immediate post-war years. The Canadian post-war peak marriage rate of 10.9 was reached in 1946.

Canadian Marriages.-Table 34 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.

For the country as a whole, about 85 p.c of the grooms were born in Canada70 p.c. in the province in which they were married. Almost 90 p.c. of the brides were born in Canada-over 75 p.c. in the province in which they were married. However, there are wide variations from this pattern as between provinces; in the four Atlantic Provinces and Quebec there is a greater tendency to marry native and/or province-born partners than in the other provinces.
34.-Marriages and Marriage Rates, by Provinces, with Percentage Distribution of Bridegrooms and Brides by Nativity, 1947-50

| Province and Year | Total Marriages | Rate per 1,000 Population | Born <br> in Province Where Married |  | Born in Other Provinces |  | BornOutsideCanads |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Grooms | Brides | Grooms | Brides | Grooms | Brides |
|  | No. |  | p.c. | p.e. | p.c. | p.e. | p.c. | p.c. |
| Newfoundland............ 1949 | 2,445 | $7 \cdot 0$ | 94.91 | 98.81 | $1 \cdot 12$ | $0 \cdot 31$ | $4 \cdot 01$ | 0.91 |
| 1950 | 2,515 | $7 \cdot 2$ | $89 \cdot 61$ | $97 \cdot 81$ | $1 \cdot 31$ | $1 \cdot 21$ | $9 \cdot 01$ | 1.01 |
| Prince Edward Island...... 1947 | 676 | $7 \cdot 2$ | 85.9 | 88.5 | $8 \cdot 6$ | $5 \cdot 5$ | $5 \cdot 5$ | $6 \cdot 1$ |
| $1948$ | 635 | $6 \cdot 8$ | 86.0 | 91.8 | 8.5 | $3 \cdot 8$ | $5 \cdot 5$ | $4 \cdot 4$ |
| 1949 | 619 | $6 \cdot 6$ | 85.0 | 92.9 | $10 \cdot 2$ | $3 \cdot 6$ | 4.8 | $3 \cdot 6$ |
| 1950 | 616 | $6 \cdot 4$ | 82.5 | 91.6 | 13.0 | $4 \cdot 4$ | $4 \cdot 5$ | $4 \cdot 1$ |
| Nova Scotia. . . . . . . . . . . 1947 | 5,861 | $9 \cdot 4$ | $80 \cdot 9$ | 84.0 | 11.2 | 6.9 | $7 \cdot 8$ | $9 \cdot 0$ |
| 1948 | 5,093 | 8.0 | $80 \cdot 1$ | $84 \cdot 3$ | $12 \cdot 3$ | $6 \cdot 8$ | $7 \cdot 7$ | 8.9 |
| 1949 | 5,058 | 7.8 | $79 \cdot 6$ | $85 \cdot 3$ | $13 \cdot 6$ | 9.4 | $6 \cdot 8$ | $5 \cdot 3$ |
| 1950 | 5,065 | 7.9 | $77 \cdot 7$ | $85 \cdot 2$ | 16.5 | $10 \cdot 3$ | $5 \cdot 9$ | $4 \cdot 5$ |
| New Brunswick........... 1947 | 5,189 4,640 | 10.6 9.2 | 78.6 78.4 | 84.6 84.2 | 10.5 10.4 | $7 \cdot 2$ $7 \cdot 3$ | 10.9 11.2 | 8.3 |
| 1948 1949 | 4,640 4,251 | $9 \cdot 2$ $8 \cdot 2$ | $78 \cdot 4$ 79.8 | $84 \cdot 6$ $84 \cdot 6$ | 10.4 10.7 | $7 \cdot 3$ 7.9 | $11 \cdot 2$ 9.5 | 8.4 7.5 |
| 1950 | 4,376 | 8.5 | 78.5 | $85 \cdot 1$ | 11.5 | $7 \cdot 2$ | $10 \cdot 1$ | 7.7 |
| Quebec...................... 1947 | 35,494 | $9 \cdot 6$ | 88.0 | 89.9 | $6 \cdot 4$ | $5 \cdot 9$ | $5 \cdot 6$ | $4 \cdot 2$ |
| 1948 | 34,646 | $9 \cdot 1$ | 86.9 | $89 \cdot 3$ | 6.7 | $6 \cdot 0$ | 6.5 | $4 \cdot 8$ |
| 1949 | 33,485 | $8 \cdot 6$ | $85 \cdot 8$ | 88.1 | 6.4 | $6 \cdot 1$ | $7 \cdot 8$ | 5.8 |
| 1950 | 34,093 | $8 \cdot 6$ | 86.2 | $88 \cdot 6$ | 6.3 | 6.0 | $7 \cdot 5$ | $5 \cdot 5$ |
| Ontario.................... 1947 | 44,056 | 10.5 | $73 \cdot 6$ | 76.1 | 11.8 | 10.9 | 14.5 | 13.0 |
| 1948 | 43,242 | $10 \cdot 1$ | $72 \cdot 0$ | $75 \cdot 9$ | 12.0 | 11.0 | 15.9 | 13.0 |
| 1949 | 43,304 | 9.8 | 68.9 | $74 \cdot 2$ | $12 \cdot 8$ | 11.5 | $18 \cdot 3$ | 14.3 |
| 1950 | 43,744 | $9 \cdot 8$ | $67 \cdot 5$ | $73 \cdot 3$ | 13.5 | 11.8 | $19 \cdot 0$ | 14.9 |
| Manitoba. . . . . . . . . . . . . . 1947 | 7,712 | 10.4 | $70 \cdot 9$ | 75.4 | 15.9 | 13.8 | 13.3 | 10.8 |
| 1948 | 7,325 | $9 \cdot 7$ | $70 \cdot 2$ | 75-7 | 14.5 | 13.4 | $15 \cdot 4$ | 10.9 |
| 1949 | 7,265 | $9 \cdot 3$ | $67 \cdot 8$ | $74 \cdot 2$ | $15 \cdot 2$ | $13 \cdot 2$ | $17 \cdot 0$ | $12 \cdot 6$ |
| 1950 | 7,128 | $9 \cdot 3$ | 68.5 | $74 \cdot 3$ | 14.8 | $13 \cdot 2$ | $16 \cdot 7$ | $12 \cdot 4$ |
| Saskatchewan.............. 1947 | 7,674 | $9 \cdot 1$ | 76.7 | 83.7 | 11.5 | $7 \cdot 0$ | 11.7 | $9 \cdot 3$ |
| 1948 | 7,171 | 8.4 | 76.4 | $85 \cdot 7$ | 11.6 | $6 \cdot 3$ | 11.9 | $7 \cdot 9$ |
| 1949 | 7,037 | $8 \cdot 2$ | $76 \cdot 1$ | 85.5 | 11.4 | $6 \cdot 0$ | $12 \cdot 5$ | 8.4 |
| 1950 | 6,904 | $8 \cdot 3$ | 77-6 | 86.0 | $10 \cdot 8$ | $6 \cdot 5$ | 11.5 | $7 \cdot 5$ |
| Alberta................... 1947 | 8,797 | 10.7 | 58.1 | 65.7 | 23.3 | $19 \cdot 3$ | 18.6 | $15 \cdot 0$ |
| 1948 | 8,844 | 10.5 | $56 \cdot 8$ | 66.5 | $23 \cdot 6$ | $20 \cdot 1$ | $19 \cdot 6$ | $13 \cdot 4$ |
| 1949 | 9,037 | 10.4 | $55 \cdot 3$ | $65 \cdot 8$ | 23.8 | $19 \cdot 2$ | 20.9 | $15 \cdot 0$ |
| - 1950 | 9,294 | $10 \cdot 2$ | $54 \cdot 2$ | 65.5 | $25 \cdot 3$ | 19.9 | $20 \cdot 5$ | $14 \cdot 6$ |
| British Columbia. . . . . . . 1947 | 11,852 | 11.4 | $33 \cdot 7$ | 38.7 | $43 \cdot 0$ | 43.7 | 23.3 | $17 \cdot 6$ |
| British Columbia ......... 1948 | 11,718 | 10.8 | 33.8 | 38.1 | $43 \cdot 0$ | $45 \cdot 4$ | 23.1 | $16 \cdot 5$ |
| 1949 | 11,376 | 10.2 | $33 \cdot 6$ | $39 \cdot 2$ | 44.0 | 44.2 | 22.5 | 16.6 |
| 1950 | 11,110 | 9.8 | $34 \cdot 8$ | $39 \cdot 6$ | $43 \cdot 4$ | $45 \cdot 1$ | 21.8 | $15 \cdot 3$ |
| Canada (Exclusive of the 1947 |  |  |  |  |  |  |  | 10.4 |
| Territories).............. 1947 | 123,314 | 10.1 9.6 | 73.5 72.3 | 76.9 | 14.2 14.3 | 12.7 13.0 | 12.4 | 10.4 |
| 1949 | 123,877 | $9 \cdot 2$ | 70.91 | $76.1{ }^{1}$ | 14.61 | 12.91 | 14.51 | $11 \cdot 01$ |
| 1950 | 124,845 | $9 \cdot 1$ | $70 \cdot 61$ | $76.1{ }^{1}$ | 14.81 | 13.11 | 14.61 | $10.8{ }^{1}$ |

${ }^{1}$ Excluding "not stated" birthplace.
Age and Marital Status of Bridegrooms and Brides.-Over 91 p.c. of the marriages in 1950 were between persons who had not previously been married; 5 p.c. of the brides and grooms had been widowed, while almost 4 p.c. of the marriages were of divorced persons. The average age at marriage of bachelors is about 27 years and that of spinsters about 24 years. The average age of widowers and widows at the time of re-marriage is almost double that of bachelors and spinsters. Nine out of ten spinsters married in 1950 were less than 30 years of age- 7 out of 10 below 25 years-while 8 out of 10 bachelors were less than 30 and about one-half of the total were below 25 years of age.
35.-Bridegrooms, by Age Groups and Marital Status, 1948-50
(Exclusive of the Territories)

| Age Group | $1948{ }^{1}$ |  |  |  | 1949 |  |  |  | 1950 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\left.\begin{array}{\|c\|c\|c\|} \hline \text { Bach- } & \begin{array}{c} \text { Wid- } \\ \text { elors } \end{array} & \begin{array}{c} \text { Di- } \\ \text { owers } \end{array} \\ \text { vorced } \end{array} \right\rvert\, \text { Total }$ |  |  |  | Bach- Wid- Di- <br> elors owers vorced Total |  |  |  | $\left.$Bach- <br> elors$\left\|\begin{array}{c}\text { Wid- } \\ \text { owers }\end{array}\right\|$Di- <br> vorced \right\rvert\, |  |  | Total |
| Under 20 years. . | Numbers |  |  |  |  |  |  |  |  |  |  |  |
|  | 5,47848,86933,77212,8205,4432,5451,314608325134109 | 1622534045926187208699178421,242 |  | $\begin{array}{r} 5,480 \\ 49,115 \\ 35,060 \\ 14,548 \\ 7,179 \\ 3,939 \\ 2,515 \\ 1,715 \\ 1,370 \\ 1,023 \\ 1,369 \end{array}$ | 5,75248,94434,08812,4635,4892,6171,400696323183130 | $\begin{array}{r} - \\ 56 \\ 254 \\ 448 \\ 598 \\ 675 \\ 776 \\ 880 \\ 924 \\ 908 \\ 1,371 \end{array}$ | 1,154 <br> 1,008 <br> 726 <br> 448 <br> 252 <br> 117 <br> 52 <br> 35 | 5,752 <br> 49,160 <br> 35,236 <br> 14,065 <br> 7,095 <br> 4,018 <br> 2,624 <br> 1,828 <br> 1,364 <br> 1,143 <br> 1,536 | $\begin{array}{r} 6,345 \\ 51,055 \\ 33,877 \\ 11,976 \\ 5,346 \\ 2,436 \\ 1,385 \\ 631 \\ 300 \\ 174 \\ 136 \end{array}$ | $\begin{array}{r\|r\|} 1 & - \\ 49 & 120 \\ 225 & 820 \\ 385 & 1,103 \end{array}$ |  | 6,346 |
| 20-24 " .. |  |  |  |  |  |  |  |  |  |  |  | 51,224 |
| 25-29 " .. |  |  |  |  |  |  |  |  |  |  |  | 34,922 |
| 30-34 " |  |  |  |  |  |  |  |  |  |  |  | 13,464 |
| 35-39 " . |  |  |  |  |  |  |  |  |  | 524 | 997 | 6,867 |
| 40-44 ${ }^{\text {a }}$ |  |  |  |  |  |  |  |  |  | 600 | 739 | 3,775 |
| 45-49 " .. |  |  |  |  |  |  |  |  |  | 703 | 454 | 2,542 |
| 50-54 " |  |  |  |  |  |  |  |  |  | 803 | 270 | 1,704 |
| 55-59 " |  |  |  |  |  |  |  |  |  | 877 | 144 | 1,321 |
| 60-64 " |  |  |  |  |  |  |  |  |  | 882 | 57 | 1,113 |
| 65 years or over. $\qquad$ |  |  |  |  |  |  |  |  |  | 1,380 | 27. | 1,543 |
| Totals, <br> Stated Ages | 111,417 | 6,520 | 5,376 | 123,313 | 112,085 | 6,890 | 4,846 | 123,821 | 113,661 | 6,429 | 4,731 | 124,821 |
| Ages not stated. |  |  |  |  | 50 | 3 |  | 56. | 22 | 2 | - | 24 |
| $\begin{gathered} \text { Totals, All } \\ \text { Ages...... } \end{gathered}$ | 111,418 | 6,520 | 5,376 | 123,314 | 112,135 | 6,893 | 4,849 | 123,877 | 113,683 | 6,431 | 4,731 | 124,845 |
| Av. ages | 26.8 | 52-5 | 36. | 28.6 | 26.9 | 52.7 | $37 \cdot 4$ | 28.7 | 26. | $53 \cdot 3$ | 37.9 | 28.5 |
|  | Percentages |  |  |  |  |  |  |  |  |  |  |  |
| Under 20 years.. | 1 \| 1 - | |  |  |  | 5.1 | - | - | 4.6 | 5.6 | $\cdots$ | $-$ | $5 \cdot 1$ |
| 20-24 " | $43 \cdot 9$ | $1 \cdot 0$ | $3 \cdot 4$ | $39 \cdot 8$ | $43 \cdot 7$ | 0.8 | 3-3 | $39 \cdot 7$ |  | 0.8 | $2 \cdot 5$ | 41.0 |
| 25-29 " | $30 \cdot 3$ | $3 \cdot 9$ | $19 \cdot 3$ | 28.4 | $30 \cdot 4$ | 3.7 | 18.4 | 28.5 | 29.8 | $3 \cdot 5$ | $17 \cdot 3$ | 28.0 |
| 30-34 " | 11.5 | 6.2 | $24 \cdot 6$ | 11.8 | $11 \cdot 1$ | 6.5 | 23.8 | 11.4 | $10 \cdot 5$ | 6.0 | 23.3 | 10.8 |
| 35-39 " | 9 | $9 \cdot 1$ | $21 \cdot 3$ | 5.8 | $4 \cdot 9$ | $8 \cdot 7$ | 20.8 | $5 \cdot 7$ | $4 \cdot 7$ | 8.2 | 21.1 | $5 \cdot 5$ |
| 40-44 " .. | $2 \cdot 3$ | 5 | 14.4 | $3 \cdot 2$ |  | $9 \cdot 8$ | $15 \cdot 0$ | $3 \cdot 2$ | $2 \cdot 1$ | $9 \cdot 3$ | $15 \cdot 6$ | 3.0 |
| 45-49 " .. | 2 | 11.0 | 8.9 | 2.0 | $1 \cdot 2$ | 11.3 | $9 \cdot 2$ | $2 \cdot 1$ | 1.2 | 10.9 | $9 \cdot 6$ | $2 \cdot 0$ |
| 50-54 " | 0.5 | $13 \cdot 3$ | 4 |  |  | 12.8 | $5 \cdot 2$ | 1.5 | 0.6 | 12.5 | $5 \cdot 7$ | 1.4 |
| 55-59 " | $0 \cdot 3$ | 1 | . 4 | 1.1 | 0.3 | $13 \cdot 4$ | $2 \cdot 4$ | 1 | 0.3 | $13 \cdot 6$ | 3.0 | $1 \cdot 1$ |
| 60-64 " | $0 \cdot 1$ | 12.9 | 0.9 |  | 0.2 | $13 \cdot 2$ | $1 \cdot 1$ | 0.8 | 0.2 | 13.7 | $1 \cdot 2$ | 0.9 |
| 65 years or over. $\qquad$ | $0 \cdot 1$ | 19.0 | $0 \cdot 3$ | $1 \cdot 1$ | $0 \cdot 1$ | 19.9 | 0.7 | $1 \cdot 2$ | $0 \cdot 1$ | 21.5 | $0 \cdot 6$ | $1 \cdot 2$ |
| Totals, Stated Ages | 100.0 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | 100.0 |
| Percentages of all ages. | 90-4 | 5-3 | $4 \cdot 4$ | $100 \cdot 0$ | $90 \cdot 5$ | 5-6 | $3 \cdot 9$ | 100.0 | 91.1 | 5-2 | $3 \cdot 8$ | $100 \cdot 0$ |

[^73]
## 36.-Brides, by Age Groups and Marital Status, 1948-50

(Exclusive of the Territories)

| Age Group | 19481 |  |  |  | 1949 |  |  |  | 1950 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Spin- } \\ & \text { sters } \end{aligned}$ | Widows | $\underset{\text { vorced }}{\mathrm{Di}}$ | Total | $\begin{aligned} & \text { Spin- } \\ & \text { sters } \end{aligned}$ | Widows | $\underset{\text { vorced }}{\text { Di- }}$ | Total | Spinsters | $\left\|\begin{array}{c} \text { Wid- } \\ \text { ows } \end{array}\right\|$ | Di- vorced | Total |
|  | Numpers |  |  |  |  |  |  |  |  |  |  |  |
| Under 20 years. . | 28, 014 - 8 - $28,620 \mid$ |  |  |  | 20, 179 |  | 8 ${ }^{\text {a }}$ 29,195\| |  | 30,507 |  | 11 | 30,537 |
|  | 51,709 | 238 | $\begin{array}{r} 7 \\ 554 \end{array}$ | 52,501 | 51,800 | r ${ }^{8} 199$ | . 499 | 52,498 | 52,545 | 181 | 393 | 53,119 |
| 25-29 " . | 19,645 | 737 | 1,321 | 21.703 | 19,601 | 641 | 1,247 | 21,489 | 19,239 | 560 | 1,110 | 20,909 |
| $30-34$ " | 6,790 | 697 | 1,123 | 8,610 | 6,426 | 720 | 1,036 | 8,182 | 6,311 | 692 | 985 | 7,988 |
| 35-39 " . | 2,982 | 713 | 848 | 4,543 | 3,053 | 800 | 773 | 4.626 | 2,871 | 807 | 837 | 4,515 |
| 40-44 " | 1,388 | 701 | 445 | 2,534 | 1,374 | 777 | 478 | 2,629 | 1,436 | 782 | 472 | 2,690 |
| 45-49 " . | 663 | 800 | 252 | 1,715 | 715 | 897 | 273 | 1,885 | 647 | 858 | 230 | 1,735 |
| 50-54 ${ }^{\text {a }}$ " . | 278 | 728 | 103 | 1,109 | 309 | 895 | 103 | 1,307 | 302 | 742 | 128 | 1,172 |
| 55-59 ${ }^{\text {a }}$ ¢ | 136 | 604 | 41 | 781 | 162 | 570 | 48 | 780 | 176 | 625 | 51 | 852 |
| 60-64 " . | 66 | 488 | 23 | 577 | 68 | 494 | 17 | 579 | 68 | 505 | 14 | 587 |
| over...... | 43 | $568$ | - | 611 | 58 | 575 | 8 | 641 | 58 | 647 | 9 | 714 |
| Totals, StatedAges | 112,314 | 6,282 | 4,717 | 123,313 | 112,745 | 6,576 | 4,490 | 123,811 | 114,160 | 6,418 | 4,240 | 124,818 |
| Ages not stated. |  | - |  |  |  | 3 |  | 66 | 27 | - | - | 27 |
| Totals, AII Ages..... | 112,315 | 6,282 | 4,717 | 123,314 | 112,807 | 6,579 | 4,491 | 123,877 | 114,187 | 6,418 | 4,240 | 124,845 |
| Av. ages.... | 23.9 | $45 \cdot 6$ | $33 \cdot 3$ | $25 \cdot 4$ | 23.9 | 46.0 ( | $33 \cdot 7$ | $25 \cdot 4$ | $23 \cdot 8$ | 46.5 | $34 \cdot 2$ | $25 \cdot 3$ |
|  |  |  |  |  | Percentages |  |  |  |  |  |  |  |
| Under 20 years. . | $25 \cdot 5$ | 0.1 $0.1{ }^{\text {a }}$ ( $23.2 \mid$ |  |  | $25 \cdot 9$ | 0.1 | 0.1 |  | $26 \cdot 7$ | 0.3 | $0 \cdot 3$ | $24 \cdot 5$ |
| 20-24 " . | $46 \cdot 0$ | 0.1 $3 \cdot 8$ 11 | $11 \cdot 7$ | $42 \cdot 6$ | 45.9 | $3 \cdot 0$ | $11 \cdot 1$ | $42 \cdot 4$ | $46 \cdot 0$ | $2 \cdot 8$ | $9 \cdot 3$ | $42 \cdot 6$ |
| 25-29 * | $17 \cdot 5$ | $11 \cdot 7$ | 28.0 | $17 \cdot 6$ | $17 \cdot 4$ | $9 \cdot 7$ | $27 \cdot 8$ | $17 \cdot 4$ | 16.9 | $8 \cdot 7$ | $26 \cdot 2$ | $16 \cdot 8$ |
| 30-34 | $6 \cdot 0$ | 1.1 | 23.8 | $7 \cdot 0$ | $5 \cdot 7$ | 10.9 | $23 \cdot 1$ | $6 \cdot 6$ | $5 \cdot 5$ | $10 \cdot 8$ | $23 \cdot 2$ | $6 \cdot 4$ |
| 35-39 " . | $2 \cdot 7$ | $11 \cdot 3$ | 18.0 | $3 \cdot 7$ | $2 \cdot 7$ | $12 \cdot 2$ | $17 \cdot 2$ | $3 \cdot 7$ | $2 \cdot 5$ | $12 \cdot 6$ | $19 \cdot 7$ | $3 \cdot 6$ |
| 40-44 | $1 \cdot 2$ | $11 \cdot 2$ | $9 \cdot 4$ | $2 \cdot 1$ | $1 \cdot 2$ | 11.8 | $10 \cdot 6$ | $2 \cdot 1$ | $1 \cdot 3$ | $12 \cdot 2$ | $11 \cdot 1$ | $2 \cdot 2$ |
| 45-49 " . . | $0 \cdot 6$ | $12 \cdot 7$ | $5 \cdot 3$ | 1-4 | $0 \cdot 6$ | $13 \cdot 6$ | $6 \cdot 1$ | $1 \cdot 5$ | $0 \cdot 6$ | $13 \cdot 4$ | $5 \cdot 4$ | $1 \cdot 4$ |
| 50-54 " . | $0 \cdot 2$ | $11 \cdot 6$ | $2 \cdot 2$ | $0 \cdot 9$ | $0 \cdot 3$ | $13 \cdot 6$ | $2 \cdot 3$ | $1 \cdot 1$ | $0 \cdot 3$ | $11 \cdot 6$ | $3 \cdot 0$ | $0 \cdot 9$ |
| 55-59 " . | 0-1 | 9.6 <br> $7 \cdot 8$ | 0.9 | $0 \cdot 6$ | $0 \cdot 1$ | $8 \cdot 7$ | $1 \cdot 1$ | $0 \cdot 6$ | $0 \cdot 2$ | $9 \cdot 7$ | 1.2 | $0 \cdot 7$ |
| 60-64 ". <br> 65 years or over...... | $0 \cdot 1$ |  | $0 \cdot 5$ | $0 \cdot 5$ | $0 \cdot 1$ | $7 \cdot 5$ | 0.4 | $0 \cdot 5$ | $1 \cdot 1$ | 7-9. | $0 \cdot 3$ | 0.5 |
|  |  | $9 \cdot 0$ | - | $0 \cdot 5$ | $0 \cdot 1$ | $8 \cdot 7$ | $0 \cdot 2$ | $0 \cdot 5$ | $1 \cdot 1$ | $10 \cdot 1$ | 0.2 | $0 \cdot 6$ |
| Totals. <br> Stated Ages | 100.0 | 100.0 | $100 \cdot 0$ | 100.0 | 100.0 | $100 \cdot 0$ | $100 \cdot 0$ | 100.0 | $100 \cdot 0$ | $100 \cdot 0$ | 100.0 | $100 \cdot 0$ |
| Percentages of all ages. . | 91.1 | 5-1 | $3 \cdot 8$ | $100 \cdot 0$ | $91 \cdot 1$ | $5 \cdot 3$ | $3 \cdot 6$ | 100.0 | $91 \cdot 5$ | $5 \cdot 1$ | $3 \cdot 4$ | $100 \cdot 0$ |

${ }^{1}$ Exclusive of Newfoundland.
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 37 shows the very strong influence that religion has on marriage. About 70 p.c. of all marriages are between persons of the same religious denomination; among those of Jewish faith, it was 95 p.c. in 1950; among Roman Catholics 89 p.c.; United.Church 62 p.c.; and Eastern Orthodox 59 p.c.

GRAPHIC RECORD OF VITAL STATISTICS IN CANADA I93I-5I

POPULATION OF CANADA BY SEX AND QUINQUENNIAL AGE GROUPS


BIRTH, DEATH AND NATURAL INCREASE RATES
Rates per 1,000 Population


MATERNAL MORTALITY
FROM CERTAIN GROUPS OF CAUSES


MATERNAL MORTALITY
Rotes per 1000 Live Buths by Age



## 37.-Marriages, by Religious Denominations of Contracting Parties, 1918-50

(Exclusive of the Territories)


## Subsection 2.-Dissolutions of Marriage (Divorces)

For many years after Confederation, the number of divorces granted in Canada were few. There were less than 20 divorces in every year before 1900, 23 in 1903, 51 in 1909 and 60 in 1913. These numbers represent less than one per 1,000 of the yearly number of marriages.

The end of World War I in 1918 saw an increase in the number of divorces. The generally unsettled conditions and the long separation between men on Active Service and 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 had increased to 114 in 1918; 608 in

1926; 700 in 1931; 1,570 in 1936; and 2,369 in 1940. From 1940, the numbers increased annually to a peak of 8,199 in 1947, declining gradually since that year until in 1950 they were 5,373 or 34 p.c. lower than in 1947.
38.-Dissolutions of Marriage (Divorces), by Provinces, 1947-51

| Item | Granted by Parliament of Canada |  | Granted by the Courts |  |  |  |  |  |  |  | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N'f'ld. | Que. | P.E.I. | N.S. | N.B. | Ont. | Man. | Sask. | Alta. | B.C. |  |
| Numbers- |  |  |  |  |  |  |  |  |  |  |  |
| 1947 | $\cdots$ | 348 | 18 | 207 | 236 | 3,509 | 665 | 509 | 881 | 1,826 | 8,199 |
| 1948 | $\ldots$ | 292 | 49 | $78{ }^{2}$ | 211 | 3,107 | 477 | 333 | 651 | 1,683 | 6,881 |
| 1949 | $\cdots$ | 350 | 20 | 181 | 202 | 2,396 | 411 | 289 | 594 | 1,491 | 5,934 |
| 1950 | 5 | 234 | 13 | 199 | 194 | 2,228 | 309 | 280 | 534 | 1,377 | 5,373 |
| 1951p | 4 | 289 | 10 | 187 | 156 | 2,002 | 361 | 226 | 589 | 1,339 | 5,163 |
| Percentages- |  |  |  |  |  |  |  |  |  |  |  |
| 1947 | ... | $4 \cdot 2$ | $0 \cdot 2$ | $2 \cdot 5$ | $2 \cdot 9$ | $42 \cdot 8$ | $8 \cdot 1$ | $6 \cdot 2$ | 10.7 | $22 \cdot 3$ | $100 \cdot 0$ |
| 1948 | $\cdots$ | $4 \cdot 2$ | $0 \cdot 7$ | $1 \cdot 12$ | $3 \cdot 1$ | $45 \cdot 2$ | 6.9 | $4 \cdot 8$ | 9.5 | 24.5 | $100 \cdot 0$ |
| 1949 | $\cdots$ | $5 \cdot 9$ | $0 \cdot 3$ | $3 \cdot 1$ | $3 \cdot 4$ | $40 \cdot 4$ | $6 \cdot 9$ | $4 \cdot 9$ | 10.0 | 25.1 | $100 \cdot 0$ |
| 1950 | $0 \cdot 1$ | $4 \cdot 4$ | $0 \cdot 2$ | $3 \cdot 7$ | $3 \cdot 6$ | 41.5 | $5 \cdot 8$ | $5 \cdot 2$ | 9.9 | $25 \cdot 6$ | $100 \cdot 0$ |
| 1951p | $0 \cdot 1$ | $5 \cdot 6$ | $0 \cdot 2$ | $3 \cdot 6$ | 3.0 | 38.8 | $7 \cdot 0$ | $4 \cdot 4$ | 11.4 | 25.9 | $100 \cdot 0$ |

[^74]
## Section 6.-Vital Statistics of the Yukon and Northwest Territories

The vital statistics of the Yukon and 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 are not considered complete in that the personal particulars in many cases are not available, and the small and varying population of each year is not accurately known.

## 39.-Vital Statistics of the Yukon and Northwest Territories, 1941-50, with Five-Year Averages, 1926-40

Note.-Figures for 1944 to 1950 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. |
| Averages, 1926-30. | 33 | 14 | 54 | 158 | 24 | 185 137 |
| Averages, 1931-35. | 49 67 | 24 36 | 61 72 | 190 | 41 | 137 177 |
| Averages, 1936-40. | 67 72 | 36 36 | 72 67 | 228 314 | 82 | 306 |
| 1942.......... | 96 | 36 | 108 | 369 | 109 | 222 |
| 1943...... | 99 | 67 | 120 | 403 | 94 | 304 |
| 1944. | 136 | 94 | 100 | 316 | 66 | 349 |
| 1945. | 123 | 69 | 87 | 511 | 122 | 478 |
| 1946. | 146 | 66 | 80 | 593 | 177 | 347 376 |
| 1947. | 224 | 61 | r77 | 625 | 111 | 376 370 |
| 1948.. | 274 309 | 77 76 | 112 86 | 645 644 | 117 134 | 370 434 |
| 1949... | 309 316 | 76 84 | 89 99 | 622 | 134 154 | 332 |
|  |  |  |  |  |  |  |

## Section 7.-Canadian Life Tables

Two official life tables for Canada and regions 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. 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 for 1947 is given in abbreviated form in Table 40.
40.-Canadian Life Table, 1947


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. The life tables show how, on the basis of the mortality rates at $\epsilon$ ach age in the given years, these 100,000 of each sex are reduced in number by death. For example, during the year 1947, of 100,000 males born, 5,198 died in their first year, so that 94,802 survived to one year of age; 408 died in their second year, so that 94,394 survived to two years of age; and so on. At 100 years of age,
only 56 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 life is the average number of years which a person might expect to live if the mortality rates in the given years remained constant.

Mortality rates for males are higher at all ages than for females, particularly in infancy. Infant mortality in 1940-42 was 62 per 1,000 live births for males compared to 49 per 1,000 for females. Because infant mortality is still so high, the expectation of life at birth is less for both sexes than at age one. In 1947 males who had survived their first year had an expectation of life of almost 68 years and females of almost 71 years. The expectation of life of a boy at age 15 was 55 years, and of a girl 58 years. At age 25, it was about 46 years for men and almost 49 for women. At age 70, it was $10 \cdot 4$ years for men and 11.4 years for women.

Table 41 summarizes the life expectancy figures for 1931, 1941 and 1947. During this period, life expectancy at birth increased from 60 to over 65 years for males and from 62 to 69 years for females. The greatest increases were among the younger ages for both sexes but were appreciably higher among females than among males and for females extended into the older ages. There was little or no appreciable increase between 1931 and 1947 in life expectancy among males over 40, whereas for females the rates increased at all ages up to 80 . Increases in life expectation among women of child-bearing age are worthy of note.
41.-Expectation of Life, 1931, 1941 and 1947

| Age |  | 1931 |  | 1941 |  | 1947 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male | Female | Male | Female | Male | Female |
| Under 1 year. |  | 60.00 | $62 \cdot 10$ | 62.96 | 66.30 | $65 \cdot 18$ | 69.05 |
|  | year.... | $64 \cdot 69$ | $65 \cdot 71$ | $66 \cdot 14$ | 68.73 | 67.75 | $70 \cdot 93$ |
|  | years. | 64.46 | $65 \cdot 42$ | $65 \cdot 62$ | 68.16 | 67.04 | $70 \cdot 19$ |
| 3 |  | 63.84 | $64 \cdot 75$ | 64.88 | $67 \cdot 38$ | 66.20 | 69-33 |
| 4 | " | $63 \cdot 11$ | 63.99 | $64 \cdot 07$ | 66.56 | $65 \cdot 32$ | 68.43 |
| 5 | " | $62 \cdot 30$ | $63 \cdot 17$ | 63.22 | $65 \cdot 69$ | 64-43 | $67 \cdot 52$ |
| 10 | " | 57.96 | 58.72 | 58.70 | 61.08 | 59.79 | 62.78 |
| 15 | " | 53.41 | $54 \cdot 15$ | 54.06 | 56.36 | $55 \cdot 07$ | 57.99 |
| 20 | " | 49.05 | $49 \cdot 76$ | $49 \cdot 57$ | 51.76 | 50.48 | 53.33 |
| 25 | " | 44.83 | $45 \cdot 54$ | $45 \cdot 18$ | 47.26 | $45 \cdot 95$ | 48.73 |
| 30 | " | $40 \cdot 55$ | 41.38 | 40.73 | 42.81 | 41.41 | $44 \cdot 12$ |
| 35 | " | 36.23 | 37.19 | 36.26 | $38 \cdot 37$ | 36.85 | $39 \cdot 53$ |
| 40 | " | 31.98 | 33.02 | 31.87 | 33.99 | $32 \cdot 37$ | 35.00 |
| 45 | " | 27.79 | 28.87 | $27 \cdot 60$ | $29 \cdot 67$ | 28.03 | $30 \cdot 61$ |
| 50 | " | 23.72 | 24.79 | 23.49 | 25.46 | 23.92 | 26.32 |
| 55 | " | 19.88 | $20 \cdot 84$ | $19 \cdot 64$ | 21.42 | 20.04 | $22 \cdot 18$ |
| 60 | " | 16.29 | $17 \cdot 15$ | 16.06 | $17 \cdot 62$ | 16.46 | $18 \cdot 25$ |
| 65 | " | 12.98 | 13.72 | 12.81 | 14.08 | 13.25 | $14 \cdot 65$ |
| 70 | " | 10.06 | $10 \cdot 63$ | 9.94 | 10.93 | 10.44 | 11.41 |
| 75 | " | 7.57 | 7.98 | 7.48 | $8 \cdot 19$ | 7.96 | $8 \cdot 60$ |
| 80 | " | $5 \cdot 61$ | $5 \cdot 92$ | $5 \cdot 54$ | 6.03 | $5 \cdot 87$ | $6 \cdot 24$ |
| 85 | " | $4 \cdot 10$ | $4 \cdot 38$ | 4.05 | $4 \cdot 35$ | $4 \cdot 21$ | $4 \cdot 37$ |
| 90 | " | $2 \cdot 97$ | $3 \cdot 24$ | 2.93 | $3 \cdot 13$ | 2.94 | 2.98 |
| 95 | " | $2 \cdot 14$ | 2.40 | $2 \cdot 09$ | $2 \cdot 26$ | $2 \cdot 02$ | 1.98 |
| 100 | " | $1 \cdot 53$ | 1.77 | 1.46 | $1 \cdot 64$ | $1 \cdot 35$ | 1.28 |

## Section 8.-Communicable Diseases

The national reporting of communicable diseases in Canada was undertaken in 1933 by the Dominion Bureau of Statistics, at the request of the Federal Department of Pensions and National Health in co-operation with the Provincial Departments of Health. Since then, the Health and Welfare Division of the Bureau has been responsible for the weekly compilation and analysis of communicable diseases except for a short period during 1939-40, when the work was transferred to the Department
of Pensions and National Health. The reports of cases of venereal diseases are included in the current analyses and a standard report form is used by all the provinces.

Table 42 indicates the relative number of cases of certain communicable diseases reported to the Dominion Bureau of Statistics by the Provincial Departments of Health in 1950. The reporting of two diseases, dysentery and rubella, is not compulsory in all provinces and the totals for Canada should, therefore, be accepted with reservations.

## 42.-Cases of Certain Communicable Diseases Reported by Provincial Departments of Health, 1950

(Exclusive of the Territories)

| Disease | N'fld. | 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. |
| Chickenpox | 41 13 |  | 1,418 | 18 | 8,756 | 13, 225 | 1,747 | 2,234 | 3,083 | 5,004 | 35,602 |
| Diphtheria. | 13 |  |  | ${ }^{18}$ | 215 239 | (187 ${ }^{55}$ | $\begin{array}{r} 16 \\ 132 \end{array}$ | 15 <br> 6 | ${ }^{15}$ | 63 191 | ${ }_{759}^{421}$ |
| Ampebic | - |  |  |  |  |  |  | - |  |  | 11 |
| Bacillary |  |  |  |  | 298 | 178 | 181 | ${ }^{6}$ |  | 189 | 746 |
| Encephalitis (infecti <br> Influenza (epidemic) | - |  | 1,464 |  |  |  | 182 | ${ }_{27}^{12}$ |  |  | ${ }_{4.225}^{41}$ |
| Measles. | 68 |  | 438 | 1,858 | 6,733 | 25,973 | 1,640 | 1,602 | 1,683 | 5,658 | 55,653 |
| Meningitis (meningococ- |  |  |  |  |  |  |  |  |  |  | 191 |
| Mumps.. | 86 |  | 2,488 | 168 | 6,202 | 17,285 | 619 | 2,831 | 5,350 | 8,642 | 43,671 |
| Poliomyeli | ${ }^{3}$ |  | 17 | 15 | 77 | 376 | 22 | 120 | 138 | 76. | 911 |
| Rubella ${ }^{3}$ | 10 |  | 1,450 | 88 |  | 21,354 | 35 | 1,792 | 4,865 | 7,903 | 37,917 |
| Scarlet fever | 133 |  | 108 | 76 | 2,802 | 1,613 | 457 | 369 | 2.329 | 69 | 8,756 |
| Tuberculosis. | 624 | 86 | 282 | ${ }_{7}^{763}$ | 4,897 | 1,431 | 946 | 5374 | 1,036 | 1,827 | 12,429 |
| Pulmonary | 618 | 78 | 276 | 747 | 4.807 |  | 984 | 397 | 976 | 1,683 | 10,501 |
| Typhoid pulmonary. | 11 12 | $-{ }^{8}$ | ${ }_{6}^{6}$ | 16 26 | 90 414 | ${ }_{60}$ | ${ }^{22}$ | 105 22 | 60 <br> 15 | ${ }_{153}^{144}$ | ${ }_{718}^{468}$ |
| Undulant fever.. |  |  |  |  | 116 | 56 | 2 |  |  | 22 | 49 |
| Venereal diseases | 495 | 42 | 813 | 678 | 7,028 | 3,958 | 1,495 | 1,330 | 2,147 | 4,234 | 22,220 |
| Syphilis. | 187 | 17 | 313 | 265 | 2,782 | 1,187 | 225 | 435 | 165 | ${ }^{572}$ | 6,098 |
| Gonorr |  |  |  | 418 |  | 2,821 |  | 94 | 1,981 | 9,655 | 16, 106 |
| Whooping cough | 71 | - | 750 | 200 | 4,488 | 4,182 | 483 | 146 | 122 | 1,740 | 12,182 |

[^75]
## CHAPTER VI. - PUBLIC HEALTH, WELFARE AND SOCIAL SECURITY

## 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 DEVELOPMENT OF PUBLIC HEALTH, WELFARE AND SOCIAL SECURITY IN CANADA*

Evolution of Provincial and Municipal Administration.-Public health and welfare, traditionally and constitutionally, have been regarded as matters primarily for provincial and municipal action. While the British North America Act does not clearly or specifically refer to public welfare or social security, the references therein to such matters as eleemosynary institutions, hospitals, asylums, public charities, etc., have fixed in the minds of most authorities the principle that, under the Canadian constitution, the provinces rather than the federal authorities have constitutional responsibility in the health and welfare field. The Federal Government, however, is specifically assigned jurisdiction over "quarantine and the establishment of marine hospitals"

Many of the earliest welfare undertakings were initiated not by provincial or municipal governments, but by voluntary organizations led by public-spirited citizens. It was voluntary citizen initiative in most of the early Canadian communities that led to the establishment of orphanages, hospitals, homes for the

[^76]aged, other institutions, and health and welfare agencies working within the homes of families to bring help and assistance where needed. As the worth of these programs was proved and as the financial burden of carrying them became too great for private philanthropy, municipal governments, first of all, responded to appeals for help by granting financial assistance without assuming administrative responsibility. Gradually, however, as municipal financial involvement became greater, the necessity for taking over certain of these undertakings as direct administrative responsibilities of the municipal authorities became apparent, and municipalities found themselves in the business of providing public health and welfare services at public expense for the citizens of their respective communities.

This process by which financial and subsequently administrative responsibility for certain health and welfare services was imperceptibly shifted from voluntary to municipal auspices repeated itself, as time went on, at the municipal-provincial level. Prior to the outbreak of World War I, welfare services were provided almost exclusively by local voluntary agencies and by the municipal authorities. Beginning, however, with the enactment of the first Workmen's Compensation Act in Ontario in 1914, there followed a series of interventions by provincial governments in the public welfare and social security field, which established during the years between the two world wars a clear pattern of provincial responsibility for providing direct social services in some instances and assisting municipalities in other instances in the provision of local public welfare programs. A number of other provincial governments quickly followed Ontario's lead with respect to workmen's compensation. Coincident with the granting of the women's suffrage, the Manitoba Government in 1916 passed the first mothers' allowances legislation. Once again this was followed by similar legislation in a number of other provinces.

Each provincial enactment, whether in the form of workmen's compensation legislation, mothers' allowances, child protection legislation or laws providing for the establishment of juvenile courts and juvenile reform institutions, added successively to the predominance of provincial government authority in the social welfare field; and as the legislative, administrative, supervisory and financial responsibilities of the provincial governments increased, such responsibilities carried by the municipalities correspondingly diminished.

Provincial responsibility in the health field was recognized at an early date. The duties specifically assigned by the British North America Act, together with the residual powers generally accepted under interpretations of the "property and civil rights" clause of Sect. 92, stimulated this development. A Department of Public Health, succeeding an earlier Central Board of Health, was created by the Assembly of Nova Scotia in 1904 and several provinces followed the example of the Public Health Act of New Brunswick of 1918 which created a full-time Cabinet post for such a Department. A similar growth in the welfare field was to take place in the late 1930's and early 1940 's, with the establishment of separate Departments of Welfare or the enlargement of the existing Departments of Health to embrace both health and welfare.

Development of Federal Responsibility.-During the years of World War I and the following decade, there was little or no indication of public support for the intervention of the Federal Government in what appeared to be normal peacetime provincial and local areas of responsibility. In the aftermath of World War I, the federal authority found itself committed to an extensive program of health and welfare services for discharged and pensionable ex-service men. In this and in a
number of other specialized fields, the Federal Government slowly began to acquire a certain familiarity with the nature of the problems involved, although there was little thought at the time, either in the minds of governments or on the part of the public generally, that the federal authority had any proper responsibility in this field.

The year 1919 is significant since it marks the establishment of a Federal Department of Health, whose functions included quarantine and immigration medical services, narcotic control, food and drug standards, child welfare, housing and the supervision of a venereal disease control grant. Beginning with the year ended Mar. 31, 1920, with the exception of a few years in the 1930's, money from this grant was available to assist the provinces in the establishment and operation of a series of venereal disease clinics. In 1928, the Departments of Health and Soldiers' Civil Re-establishment were merged.

Not until 1927, however, did the Federal Government enter into a commitment in the field of public welfare which could be regarded as continuous or permanent. Here again, the pattern that had manifested itself with regard to the voluntary and municipal agencies in the first instance, and later with the municipal and provincial governments, repeated itself in the area of provincial-federal relationships.

Recognizing that the costs of providing old age pensions on a means-test basis for persons 70 years of age or over were too great to be borne by the provincial governments alone, the Federal Government passed the Old Age Pensions Act in 1927 authorizing federal tax funds to be made available to reimburse provincial governments for 50 p.c. of the costs of old age pensions paid in conformity with standards laid down in federal legislation. In taking this step, the federal authority entered the field of public welfare and social security legislation for the first time on a continuing basis. Just as the year 1914 marked an important point of transition in the shift of the burden of administrative and financial responsibility for public social services from the municipal to the provincial level, so the year 1927 was significant as the beginning of a new phase in which, slowly at first but in later years with gathering momentum, the financial and administrative responsibility for public social services shifted from provincial governments to the Federal Government.

For a decade or more following the first significant step in 1927 the trend was slow to develop. The position taken by the Federal Government was that public welfare services, under the constitution, were the exclusive responsibility of the provinces and that, while federal financial assistance might be made available to help in carrying the burden, the basic financial and administrative responsibility rested with the provinces. It was on this basis that the old age pension plan of 1927 was conceived and carried out. It was likewise on this basis that the unemployment relief program during the depression years was undertaken, with all three levels of government sharing in the financial responsibility, but with most of the administrative responsibility resting on the provincial and local authorities.

During these years the provincial governments began to protest the thesis that responsibility for large-scale social services should be carried by the provincial authorities. They pointed out that problems of such magnitude could be dealt with satisfactorily only by that governmental jurisdiction which had the broadest and most extensive taxing powers, namely, the Federal Government. Strong pressures developed on the provincial and municipal levels to have the Federal Government take over responsibility for unemployment relief. This trend, running counter to the normal provincial concern regarding federal encroachment in provincial
fields, led in 1940 to the constitutional amendment of the British North America Act which made it possible for the Federal Government to enact unemployment insurance legislation. The Unemployment Insurance Act of 1940 was the first in a series of steps taken by which the Federal Government has been committed to a continuing responsibility for a number of major programs in the public welfare and social security fields. Provincial expenditures for health services, however, continue to exceed those of the Federal Government despite the increased federal commitments under the National Health Grants commencing in 1948.

Responding to the development of public opinion in favour of a larger measure of social security, the Federal Government has assumed direct administrative as well as financial responsibility for specific social security programs. One example of this was, of course, unemployment insurance, already mentioned, but more significant still was the enactment of the Family Allowances Act of 1944 whereby the Federal Government entered the social security field on a large scale. Under this Act, monthly allowances are paid for $4,500,000$ children under 16 years of age at a yearly cost now running in excess of $\$ 330,000,000$. By this Act, and by the establishment at the same session of Parliament of a Department of National Health and Welfare, the Federal Government made it clear that it was prepared to accept a continuing responsibility for developing and carrying out a health, social security and social welfare policy on broad lines for the benefit and protection of the Canadian people.*

Through the establishment, both on provincial and on federal levels, of organized departments of public welfare, the machinery now exists for co-operative and integrated planning of national and provincial social welfare services. While the outlines are not yet clear as to the respective roles of the provincial governments and the Federal Government, the creation of these departments has combined to give the development of public social services a tremendous impetus during the past decade.

Current Social Security Program.-Through the enactment of unemployment insurance in 1940, the passage of the Family Allowances Act of 1944, the creation of the Department of National Health and Welfare in the same year, the passage of improved and extended veterans legislation during the later war and the post-war years, the inauguration of the national health program in 1948, and finally through the enactment in 1951 of the Old Age Security Act, the Old Age Assistance Act and the Blind Persons Act, the Federal Government has established on the national level the broad framework of a social security program which, while yet incomplete, has the elements of an organized and planned social security development.

While municipal and provincial governments still carry heavy responsibilities in the public welfare field, the administrative and financial responsibilities assumed by the federal authority have greatly outstripped these in the past few years. Further information is provided in the Sections that follow concerning the various activities and programs.

Expenditures on Health, Welfare and Social Security.-Governmental expenditures in the fields of health, welfare and social security are now larger than expenditures for any other peacetime purpose and rank second only to expenditures for national defence. While definitions may vary as to what should or should

[^77]not be included in any tabulation of health, welfare or social security expenditures, it may safely be estimated that the total of federal, provincial and municipal expenditures in these fields stands currently at not less than $\$ 1,300,000,000$ annually. Under some tabulations, in fact, the figure is shown to be as high as $\$ 1,500,000,000$ annually. Expressed in another way, health, welfare and social security expenditures in 1952 will amount to not less than 20 p.c. of total expenditures made by all governments-federal, provincial and municipal.

These formidable figures of current expenditure contrast sharply with the modest amounts expended only a generation ago for the same purposes. In 1871, four years after Confederation, Canada, with a population of approximately $3,700,000$, spent around $\$ 1,000,000$ on public health and welfare programs. This amount had risen to not more than $\$ 15,000,000$ in 1913 when the population numbered about $7,530,000$. Even allowing for the fact that present population exceeds $14,000,000$ and that price levels have risen with the post-war inflation, current amounts spent are still striking. They are evidence of the increased importance which governments generally have attached to meeting the social needs of the people.

Expenditures under the 1951 Legislation on Old Age Security, Old Age Assistance and Blind Persons' Allowances.-The inauguration of the new old age security program at the beginning of 1952 added almost $\$ 225,000,000$ annually to the Federal Government's continuing commitments in the field of social security. Annual costs under the Old Age Security Act, by which monthly pensions of $\$ 40$ are provided free of means-test to all persons over the age of 70 with 20 years' residence in Canada, are expected to commence at a level around $\$ 320,000,000$ annuallyabout the same as for family allowances. Within a few years, however, because of the rapidly ageing population, expenditures under the Old Age Security Act are expected to outstrip family allowance expenditures, thus making the old age security program Canada's most expensive social security undertaking.

In addition to payments under the Old Age Security Act to persons over the age of 70 , provision was also made beginning Jan. 1, 1952, under the Old Age Assistance Act, for sharing with provincial governments the cost of old age assistance payments provided on the basis of need to persons between the ages of 65 and 69 . Costs under this program, shared on a fifty-fifty basis by the Federal Government and the provinces, are expected to reach a level of $\$ 40,000,000$ in the first year of operation, and to rise in a relatively short time to an annual expenditure of $\$ 60,000,000$ or more.

The third related legislative development which took effect at the beginning of 1952 was the passage of the Blind Persons Act under which provision is made for continuing the cash assistance, previously paid under joint federal-provincial auspices to blind persons through the Old Age Pensions Act, on an extended and somewhat more generous basis and related exclusively to the needs of the blind. Under the new Blind Persons Act the Federal Government will reimburse the provinces for 75 p.c. of the cost of blindness allowances paid to eligible blind persons between the ages of 21 and 69. Allowances under this legislation are paid on the basis of need, the maximum amount payable being $\$ 40$ monthly as in the case of old age assistance and old age security. Blind persons reaching the age of 70 give up the allowances received under this legislation and become eligible for the old age security benefit on a basis free of the means-test.

While more generous conditions of eligibility have been established for the blindness allowances due to more generous means-testing and a reduction in the residence requirement from 20 years to 10 years, expenditures under the Blind Persons Act are expected to be smaller than expenditures formerly made for pensions to the blind under the Old Age Pensions Act. The reason for this is, of course, that blind persons 70 years of age or over are not carried as charges under the Blind Persons Act but are transferred to the new Old Age Security Act. In consequence, annual expenditures under the Blind Persons Act for means-test allowances to blind persons between the ages of 21 and 69 are expected to run between $\$ 3,000,000$ and $\$ 4,000,000$ annually, 75 p.c. of this cost being reimbursed to the provinces by the Federal Government.

In summary, annual expenditures under these three new enactments are expected to be not less than $\$ 364,000,000$ in the first year of operation and to rise steadily in subsequent years. Not all of this, of course, is additional expenditure, since the Old Age Security Act, the Old Age Assistance Act and the Blind Persons Act absorb among them the total expenditure formerly made under the Old Age Pensions Act. A comparison of the expenditures formerly made under the Old Age Pensions Act with respect to aged and blind persons with the expenditures anticipated under the new legislation is shown in the following table.

## 1.-Expenditures for 1951 and 1952 under Old Age Security Act, 1951, Old Age Assistance Act, 1951, Blind Persons Act, 1951, and Old Age Pensions Act, 1927

(Millions of dollars)

| Legislation | 1951 | 1952 | Increase or $\mathrm{De}-$ crease | Legislation | 1951 | 1952 | Increase or Decrease |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Old Age Security Act, 1951Federal expenditures. | $\ldots$ | 320 | +320 | Old Age Pensions Act, 1927 Old Age Pensions- |  |  |  |
| Provincial expenditures...... | ... | ... | + | Federal expenditures...... | $103 \cdot 5$ | $\ldots$ | -103.5 |
| Totals | ... | 320 | +320 | Provincial expenditures.. | $34 \cdot 5$ | $\ldots$ | -34.5 |
|  |  |  |  | Totals.. | 138.0 | $\ldots$ | -138.0 |
| 1951 - Assistance Act, |  |  |  | Pensions for the Blind- |  |  |  |
| Federal expenditures... | $\ldots$ | 20 | +20 | Federal expenditures..... | $4 \cdot 5$ | $\ldots$ | -4.5 |
| Provincial expenditures. | ... | 20 | +20 | Provincial expenditures... | 1.5 | ... | -1.5 |
| Totals | ... | 40 | $+40$ | Totals | 6.0 | ... | -6.0 |
| Blind Persons Act, 1951- |  |  |  | All Programs- |  |  |  |
| Federal expenditures........ | $\ldots$ | 3 | +3 | Federal expenditures. | 108 | 343 | +235 |
| Provincial expenditures..... | ... | 1 | +1 | Provincial expenditures.. | 36 | 21 | -15 |
| Totals................. | ... | 4 | +4 | Grand Totals. | 144 | 364 | +220 |

## PART I.-PUBLIC HEALTH*

The planning, supervising and financing of public health and medical care services in Canada rest mainly with the provinces while 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 Program and maintains, as well, 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 institutional statistics are given in Section 3.

[^78]
## 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 (see Part IV of this Chapter); the Department of National Defence, which is 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, which undertakes 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 to exclude 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; 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 quality 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 passes on the visual eligibility of applicants for blind person allowances and co-operates with the provinces in the provision of remedial services for recipients of these allowances; it is responsible for supervision of health conditions for persons engaged 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 to the Department of Transport in all matters pertaining to the safety, health and comfort of air crew and passengers.

The National Health Program.-The National Health Program, which was announced in May 1948, provides for the payment of federal grants to the provinces. The provision of these grants represented the first stage in the development of a comprehensive health insurance plan for all Canada. The program has three basic purposes: to assist the provinces in surveying their health facilities and services; to assume part of the cost of new hospital construction over a period of years; and to make annual grants to improve and strengthen provincial services in particular health fields.

Since the inception of the program the provinces have steadily increased their utilization of the grants for the development of all types of provincial health services. In the first year (ended Mar. 31, 1949) the provinces spent $25 \cdot 8$ p.c. of the funds
available under all grants except the Health Survey Grant, in 1950-51 expenditures amounted to $53 \cdot 1$ p.c. of the funds available and in 1951-52, $68 \cdot 9$ p.c. was spent. Total expenditures, by type of grant, from May 1948 to Mar. 31, 1952, together with amounts spent for the year ended Mar. 31, 1952, were as follows:-

| Type of Grant | $\begin{gathered} \text { May } 1948 \\ \text { to } \\ \text { Mar. s1, } 1958 \end{gathered}$ | Expenditures for Year Ended Mar. 31, 1952 |
| :---: | :---: | :---: |
|  | \$'000 | \$ 000 |
| Crippled children. | 885 | 350 |
| Professional training. | 1,587 | 521 |
| Hospital construction. | 26,090 | 9,166 |
| Venereal disease control. | 1,782 | 480 |
| Mental health. | 8,737 | 3,724 |
| Tuberculosis control. | 12,225 | 4,046 |
| Public health research. | 736 | 314 |
| General public health. | 9,375 | 3,605 |
| Cancer control........ | 5,737 | 2,042 |
| Health surveys.. | 493 | 73 |
| Totals. | 67,647 | 24,321 |

By December 1951, surveys of existing health facilities had been undertaken in all provinces, accommodation for about 35,000 new hospital beds had been approved for construction and approximately 3,300 health workers had received or were undergoing special training. The provision of the federal grants made possible the employment in 1951 of over 4,300 additional health workers across the country. Provincial and municipal health facilities had been aided by the purchase of additional technical equipment and by the extension of both preventive and treatment services and a significant increase in health research had been made possible.

Federal Grants to Non-Governmental Organizations.-Grants are paid 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 and the Montreal Association for the Blind.

Medical Care of Indians and Eskimos.-Health services for Indians and Eskimos are administered by the Department of National Health and Welfare. In 1951, 18 hospitals, 29 nursing stations, and 49 other health centres were operated by the Department which also remburses, on a per diem basis, the mission and other non-federal hospitals which provide accommodation for Indians and Eskımos. Full-time departmental medical officers serve the larger Indian reserves and parttime officers serve the smaller bands. In addition, 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 and, independently and in co-operation with other departments and agencies, conduct surveys in research and development, the evaluation of programs and procedures, and the establishment of standards. These Divisions include Blindness Control, Child and Maternal Health, Industrial 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 are administered in different ways in the various provinces, 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 costs 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, is characteristic of most provinces; financial and administrative responsibility is shared by the provincial and local authorities involved. In spite of 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, communicable disease and venereal disease control programs, nutrition and sanitary inspection services, and the provision on a prepayment basis of medical, hospital and nursing care in certain regions.

The Provincial Tuberculosis Dispensary at St. John's provides free diagnostic and treatment services and acts as the centre for tuberculosis control. The Province subsidizes separate tuberculosis control programs conducted in the northern areas by the International Grenfell Association and the Notre Dame Bay Memorial Hospital, and assists the Newfoundland Tuberculosis Association, which maintains a sea-borne X-ray unit, with surveys in other areas.

Free treatment services and drugs for venereal disease are available țhroughout the Province through full-time and part-time district medical health officers and public health nurses. A school health program includes educational work and such activities as the distribution of chocolate milk-powder and cod-liver oil.

The Department operates a general hospital, a tuberculosis sanatorium and a hospital for mental and nervous diseases all at St. John's and has recently opened a new provincial sanatorium at Corner Brook. Privately operated hospitals receive per diem payments for departmental cases and, in certain outlying areas, substantial. provincial grants.

The "cottage hospital" scheme operates on a prepayment basis and is designed to provide medical and hospital service to the population of outlying areas. Services are provided through 17 small provincially operated hospitals with a total capacity of about 450 beds and equipped in most cases with laboratory and X-ray services. Medical officers and nursing stations in adjoining communities supplement these services. Prepayment of $\$ 10$ annually for the head of each family and $\$ 5$ annually for each single adult, entitle subscribers to outpatient diagnosis and treatment, to home visits by the doctor and to hospitalization, as required, in the cottage hospitals or, when necessary, in the general hospital at St. John's or outside the Province. Hospitalization for maternity is provided only in complicated cases. In districts not served by doctors, nursing services are provided on payment of an annual fee of $\$ 6$ for a family or $\$ 3$ for a single person. In general, the cost of medical and hospital care for indigents is borne by the Province, but some social aid recipients 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, 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 seven district nurses, and sanitary services are provided under the direction of a public health engineer. Free dental treatment is available for needy children at a permanent clinic at Charlottetown and for children in Grade I classes in rural areas through a mobile unit. Laboratory facilities are being decentralized through the establishment in the larger hospitals of branches which remain under the supervision of the Central Laboratory at Charlottetown. Venereal disease clinics are operated at Charlottetown and Summerside.

Free diagnostic services for tuberculosis are provided through five clinics maintained by the Division of Tuberculosis Control, and through a mobile unit which operates under voluntary auspices. At the Provincial Sanatorium at Charlottetown, streptomycin for treatment, and training and employment placement services are available free of charge to all patients. Sanatorium care, though not unqualifiedly free, is heavily subsidized by the Province. 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.

Per diem grants are made to general hospitals for all patients and the Province also meets the cost of operating the Falconwood Mental Hospital.

Nova Scotia.-The principal Divisions of the Department of Public Health are Laboratories, Industrial Hygiene, Neuropsychiatry, Physical Fitness, Dental Hygiene, Nutrition, Nursing Service and Sanitary Engineering. In addition, a 98452-16
provincial program of generalized public health services is administered through seven local health divisions; the City of Halifax operates its own Health Department. Each division is staffed by public health nurses and sanitary inspectors under the supervision of a full-time divisional medical health officer.

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 Industrial Hygiene Division. Streptomycin for tuberculosis and penicillin for venereal disease cases are provided free by the Province.

Three mobile dental clinics provide treatment for children in rural areas; Gield psychiatrists provide mental guidance and consultant services in two regions and mobile chest X-ray units provide diagnostic services for tuberculosis. At Halifax, the Province operates a psychiatric ward and out-patient psychiatric service, a cancer clinic and a Kenny treatment clinic for poliomyelitis, all at the Victoria General Hospital.

Five provincially owned hospitals are operated under the direction of the Department-Victoria General Hospital, the Nova Scotia Hospital for mental illness, and three tuberculosis sanatoria. All treatment for tuberculosis and treatment for mental illness in the Nova Scotia Hospital is given without charge.

All approved hospitals receive a provincial per diem subsidy for each patient. Old-age and blind pensioners and recipients of mothers' allowances are eligible for limited medical services administered by agreement with Maritime Medical Care Incorporated, including home and office calls but excluding surgery, drugs and medical aids or appliances.

New Brunswick.-The Health Branch of the Department of Health and Social Services includes the following Divisions: Hospital Services and Cancer Diagnostic Clinics, Laboratories, Public Health Nursing, Communicable and Venereal Disease Control, Tuberculosis Control, Maternal and Child Health, Mental Health and Sanitary Engineering.

Medical health officers and some 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 three to five sub-districts are serviced by a district medical health officer assisted by public health nurses. In some cases, locally administered nursing services are subsidized by the Province.

Pathological, bacteriological, serological and chemical tests are provided by the Provincial Laboratories which also supervise the distribution of vaccines, sera and bacteriologicals, including free immunizing agents, drugs for venereal diseases and insulin for indigent diabetics through the Central Laboratory at Saint John and a branch laboratory at Fredericton. A Mobile Hygiene Laboratory conducts milk and water analyses during the summer months.

Free X-ray and diagnostic services for tuberculosis are provided at eight clinics in larger centres and pneumothorax treatment for convalescent tuberculosis patients is supplied by the Province through payment of physicians' fees. The Health Department supervises and provides free treatment and care in three privately
operated sanatoria in addition to the two owned by the Province. Ten cancer diagnostic clinics provide free diagnosis and free tissue examination service. Acute and immediate post-paralytic cases of poliomyelitis also receive free hospital treatment and grants are made to the Junior Red Cross to enable free treatment for other crippling conditions in children.

A mental health program includes the operation of 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 at the Provincial Mental Hospital at Saint John.

General care for all patients is subsidized by provincial per diem grants to approved hospitals.

Quebec.-The Ministry of Health maintains the following Divisions: County Health Units, Sanitary Engineering, Epidemiology, Laboratories, Demography, Hospitals for Mental Diseases, Public Charities, Industrial Hygiene, Nutrition, Venereal Disease, Tuberculosis, Health Education and Medical Service to Settlers.

The Division of County Health Units supplies services to 66 of the Province's 76 counties. 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, 16 larger municipalities operate their own health bureaus. 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. Assistance is given to agencies which operate clinics or dispensaries for prevention, case-finding and treatment of tuberculosis. The Department pioneered with the initiation in 1949 of a BCG immunization campaign administered to all new-born infants in hospitals and available to children generally through the health units.

Through the Division of Public Charities, recognized institutions receive provincial grants to cover about one-half of the cost of indigent care; the remainder is paid by the hospital board and the municipality of residence.

The Department operates public mental institutions and supervises tuberculosis sanatoria which are operated chiefly under private and religious auspices and in which 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.

Ontario.-The Department of Health carries on public health services through the following Divisions: Public Health Administration, Public Health Nursing, Maternal and Child Hygiene, Dental Services, Epidemiology, Venereal Disease Control, Tuberculosis Prevention, Industrial Hygiene, Laboratories and Sanitary Engineering.

Local public health services are available to about one-quarter of the population through 26 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.

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 prenatal examination. In certain northern areas a railway dental car operated by the Province provides treatment and two mobile units operated by the Red Cross provide dental examinations. Three other mobile dental units operate locally under the supervision of health boards or school authorities.

The Central Laboratory and 15 branch laboratories (nine provincially operated and six subsidized) 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 tuberculosis patients, are distributed free of charge by the Department.

Chest clinics, held in approximately 170 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 sanatoria.

Cancer control in Ontario is administered by the Ontario Cancer Treatment and Research Foundation and provincial grants are given this organization to subsidize diagnosis and treatment in eight clinics.

Care is provided for the mentally ill in 17 institutions operated by the Province. Special units are concerned with the care of epileptics, the tubercular and the criminally insane. In addition, the Province operates four travelling mental health clinics. A provincial hospital for alcoholics and a treatment clinic have recently been opened.

Old-age pensioners, blind pensioners, mothers' allowance recipients and those receiving unemployment relief are eligible for free medical care including home and office calls, minor surgery and certain basic drugs. The program is operated by the Ontario Medical Association on per capita allowances paid by the Province.

Per diem grants, which vary according to hospital size, are paid to all public hospitals by both provincial and municipal authorities.

Manitoba.-Health and welfare services are administered by the Department of Health and Public Welfare consisting of four main Divisions: General Administration, Health Services, Psychiatric Services and Welfare Services.

Local preventive health services including local health units and diagnostic units are maintained and operated by the Health Extension Section of the Health Services Division, which recovers part of the costs from the municipalities served. Public health services, currently covering approximately one-third of the provincial population, are provided through 14 full-time units, each comprising a variable number of municipalities (approximately another third of the population is covered by Winnipeg's health service facilities). In two health unit areas (Dauphin and Selkirk) prepaid diagnostic X-ray and laboratory facilities have been organized. Outside the health unit areas the Provincial Nursing Service provides public health services.

The principle of district organization is also followed in the legislative provisions for hospital and medical care. Of the 34 hospital districts now organized, all but two contain at least one general hospital often augmented by one or more medical nursing units. Medical care has also been organized through municipal prepayment plans, provincially subsidized.

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 by public health nurses. The cost of hospitalization and treatment in sanatoria is met by provincial grants and by payments from municipalities determined by the patient-days accrued by residents. The Manitoba Cancer Relief and Research Institute, which is subsidized by the Province, administers all cancer activities. A free cancer biopsy service is provided throughout the Province while radium and $X$-ray treatments are available without charge in rural areas and at a nominal charge in urban areas.

Laboratory services are provided through provincial laboratories at Winnipeg, Brandon and Portage la Prairie. In addition, the Department distributes drugs to doctors, hospitals and government agencies including penicillin and other drugs for venereal disease, insulin and other biologicals for indigents and antibiotics for tubercular patients.

The Provincial Government contributes a per diem grant to hospitals and sanatoria for all public-ward patients and lump sum grants to teaching hospitals.

Saskatchewan.-The Saskatchewan Department of Public Health was reorganized in 1950 and now includes four main Branches: Preventive Services, Regional Health Services, Medical and Hospital Services and Psychiatric Services. The Health Services Planning Commission functions as an advisory and planning agency on major policy and administrative matters in the Department.

The Preventive Services Branch includes divisions of communicable disease control, child health, laboratories, venereal disease control, nursing services, dental health, nutrition and sanitation. The Communicable Diseases Division distributes free vaccines and sera to doctors, health departments and hospitals, and supervises immunization programs and poliomyelitis clinics at Saskatoon and Regina. The Child Health Division provides services for crippled children, including mobile consultation units and a rehabilitation centre for the cerebral palsied. Public health laboratory services and the free distribution of certain drugs and biologicals are carried out by the Provincial Laboratories. Field services for venereal disease, tuberculosis, mental health and other public health programs are provided by the Nursing Services Division.

The Regional Health Services Branch is 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. Seven of the 12 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 medical-care plan including general practitioner, specialist, diagnostic and limited dental services. The plan is financed by personal and property taxes with some Provincial Government contributions. In addition, many districts have municipal doctor programs with medical services provided under a contract between the municipal authority and the medical practitioner.

Responsibility for the administration of the Saskatchewan Hospital Services Plan rests with the Medical and Hospital Services Branch of the Department. All residents are eligible for hospital care under the compulsory plan financed by an annual tax of $\$ 10$ for all persons 18 years of age or over and $\$ 5$ for persons under 18 years of age, with $\$ 30$ as a maximum family tax; additional funds are provided by the Province as needed. Payment of the tax for social assistance recipients is by the government agency responsible for their hospital care and treatment. In addition to free hospital care, medical, dental and optical services and some drugs are provided to old-age and blind pensioners and their dependants, to beneficiaries of mothers' allowances and to social-aid groups including provincial wards.

The Psychiatric Services Branch supervises psychiatric hospitals and administers community psychiatric services including clinics. The Province provides free care and treatment for all mentally ill and mentally defective persons requiring hospitalization. The Province's tuberculosis control program is operated by the Saskatchewan Anti-tuberculosis League. Stationary and mobile clinics give diagnostic service and pneumothorax treatments while provincial per diem grants and municipal levies pay the cost of hospital care and treatment. The Saskatchewan Cancer Commission co-ordinates all cancer control measures and operates publicly financed consultative, diagnostic and treatment clinics at Saskatoon and Regina.

Alberta.-The Department of Public Health includes Divisions of Communicable Disease, Public Health Education, Hospital and Medical Services, Laboratory, Public Health Nursing, Social Hygiene, Sanitary Engineering, Cancer Services, Mental Health, Tuberculosis Control, Entomology, Nutrition Services and Vital Statistics.

For the provision of local health services, the Province is divided into health unit districts. The units are administered, with Departmental supervision and financial aid, by local boards of health composed of members appointed by local governments. One-half of the 18 units currently organized are directed by full-time medical health officers and one-half 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 for a period of up to two weeks 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 Province provides full medical (including specialist), optical and extensive dental services to old-age and blind pensioners, recipients of mothers' allowances and their dependants. The Department also bears the cost of hospital and medical care for rheumatoid arthritic patients under 21 years of age and provides all residents suffering from the after-effects of poliomyelitis with medical, surgical and hospital care and rehabilitation services. All maternity patients satisfying resident requirements may be hospitalized for a twelve-day period at provincial expense.

Over two-thirds of the population of the Province is provided with standard hospitalization through a district municipal hospital program. The plan is operated at the local level under provincial supervision. Costs are distributed among the patient, the municipality and the Provincial Government. The patient is charged $\$ 1$ per day and the municipality pays the remainder of the basic ward rate, raised by a mill-rate tax on real property. The Provincial Government then reimbarses the municipality for one-half of this amount.

British Columbia.-The Department of Health and Welfare is divided into two branches and, in addition, there is a Hospital Insurance Commission directly responsible to the Minister of Health and Welfare.

The Health Branch consists of three bureaus, two located at Victoria and one at Vancouver. The Bureau of Local Health Services at Victoria includes Divisions of Nutrition, Health Units, Public Health Nursing, Environmental Sanitation 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 Service 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. Thirteen of the 18 units planned 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. Vancouver and Victoria have their own city health departments; other centres have part-time medical health officers.

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- 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. Ten communities have pre-school and Grade I dental programs with service provided by private resident dentists in which costs are met by provincial grants (about 50 p.c.) and by local contributions and flat minimum charges to parents of children receiving treatment. In connection with mental health services the Province operates stationary and travelling child-guidance clinics. A clinic of psychological medicine has been established at the provincial hospital at Essondale; it 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 and diagnostic 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. The Province also 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 blood transfusion 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 in accordance with their ability. Rehabilitation and visiting homemaker services are available to tubercular patients.

Standard hospital care is available to all residents through a compulsory prepayment plan. The plan is financed by annual premiums, amounting in 1952 to $\$ 30$ for a person without dependants and $\$ 42$ for a person with one or more dependants, supplemented by provincial and municipal contributions and additional patient payments up to a family maximum of $\$ 35$ per year. Full medical, surgical and obstetrical, dental and optical care, and some drugs are provided old-age and blind pensioners, mothers' allowance recipients and their dependants, who are also covered by the hospital plan, their premiums being paid by the Province. A similar program, with costs of some services shared by the municipalities, is provided for social-assistance groups including provincial wards.

## Section 3.-Institutional Statistics*

This Section provides a brief outline of hospital conditions in Canada. The figures included in the tables are for 1950 (except for mental institutions) while those published in the 1951 Year Book are for 1948. Figures for the intervening year may be obtained from the Annual Report of Hospitals 1949 and the Annual Report of T'uberculosis Institutions 1949, available from the Dominion Statistician, Ottawa.

For statistical purposes hospitals are divided into three main groups on the basis of their admission policies-public hospitals, federal hospitals and private hospitals. Public hospitals are subdivided into acute disease hospitals, chronic disease hospitals, mental institutions and tuberculosis sanatoria. Hospitals with a relatively rapid turnover of patients, i.e., acute disease hospitals, are further subdivided according to the type of medical care provided into general and special hospitals. The latter group includes contagious diseases, women's, children's, convalescent and unclassified hospitals.

The number of hospitals in Canada which reported for 1950 is shown in Table 1, classified according to type and province. The significance of facilities in Canadian hospitals is shown in Table 2 which indicates the distribution of bed capacity in 1950, by provinces, according to type of hospital. A comparison of data in both tables will reveal the relative size of hospitals of various types.

[^79]Two important factors should be taken into account for an effective interpretation of the information shown in Table 2. Firstly, it should be noted that bed capacity expresses the number of beds for which the hospital was designed. It is calculated on the basis of a standard floor area per bed and varies in the different provinces. The use of this figure may eliminate over-crowding as a disturbing factor in certain kinds of statistical studies. Secondly, the bed complement only, i.e., the number of beds actually set up, is shown in these tables for tuberculosis sanatoria. For mental institutions and other hospitals bed capacity is shown; the bed complement for these institutions is available in specialized publications and may be compared with bed-capacity figures to obtain a measure of over-crowding in such hospitals.

The fact that many institutions also provide care of a kind different from the classification in which they have been placed should be taken into account. A major distortion that may occur in the interpretation of these figures is illustrated in Tables 1 and 10. Table 1 gives the number of units in public hospitals that are reserved for tubercular patients; Table $\mathbf{1 0}$ shows the bed complement of these units.
1.-Hospitals Reporting; classified by Types and by Provinces, 1950

| Type of Institution | N'r'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. |  | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Population (1950 estimate. 000 's omitted). | No. 351 | No. 96 | $\begin{gathered} \text { No. } \\ 638 \end{gathered}$ | $\begin{array}{\|r\|} \hline \text { No. } \\ 512 \end{array}$ | No. <br> 3.969 | No. <br> 4.471 | $\begin{gathered} \text { No. } \\ 768 \end{gathered}$ | $\begin{array}{\|c\|} \hline \text { No. } \\ 833 \end{array}$ | $\begin{array}{r} \text { No. } \\ 913 \end{array}$ | No. 1,137 | No. 24 | No. $13,712$ |
| Public Hospitals- <br> Acute Diseases-1 General. Special. | - | 6 | 41 4 | 30 1 | 79 <br> 22 | 153 16 | 55 3 | $\begin{array}{r} 145 \\ 3 \end{array}$ | 94 5 | $\begin{array}{r}73 \\ 3 \\ \hline\end{array}$ | 8 | $\begin{array}{r}684 \\ 57 \\ \hline\end{array}$ |
| Totals, Acute Diseases | - | 6 | 45 | 31 | 101 | 169 | 58 | 148 | 99 | 76 | 8 | 741 |
| Chronic diseases ${ }^{2}$. | - | - | - | 2 | 6 | 10 | 1 | - | - | $3{ }^{3}$ | - | 22 |
| Mental institutions ${ }^{\text {S }}$. | 1 | 1 | 18 | 1 | 10 | 18 | 4 | 4 | 5 | 4 | - | 66 |
| Tuberculosis sanatoria Units in other hospitals | 8 | $-1$ | 5 <br> 8 | 5 | 19 | 16 8 | 78 | 3 2 | 5 | 11 6 | 1 | 74 41 |
| Totals, Public Hospitals5. | 2 | 8 | 68 | 39 | 136 | 213 | 70 | 155 | 109 | 94 | 9 | 903 |
| Federal Hospitals- |  |  |  |  |  |  |  |  |  |  |  |  |
| Department of Veterans Affairs. | - | - | 1 | 2 | 5 | 9 | 2 | 2 | 3 | 4 | - | 28 |
| Department of National |  |  |  |  |  |  |  |  |  |  |  |  |
| Health and Welfare... | - | - | 3 | 2 | 1 | 4 | 5 | 1 | 5 | 5 | - | 26 |
| Defence............... | 1 | 1 |  | - | 2 | 9 |  | - |  |  | 1 | 28 |
| Totals, Federal Hospitals. | 1 | 1 | 8 | 4 | 8 | 22 | 11 | 3 | 10 | 13 | 1 | 82 |
| Private Hospitals | - | - | 7 | 4 | 85 | 46 | 5 | 16 | 12 | 48 | 2 | 225 |
| Totals, All Hospitals.. | 3 | $9$ | 83 |  | 229 | 281 | 86 | 174 | 131 | 155 | 12 | 1,210 |

[^80]
## 2.-Numbers of Beds and Bassinets in Reporting Hospitals, classified by Types and by Provinces, 1950

Nore.-Figures here given indicate bed capacity, except for tuberculosis sanatoria, for which beds actually set up are given (see text on p. 241).

| Type of Institution | 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. |
| ate, 000 's omitted).... | 351 | 96 | 638 | 512 | 3.969 | 4.471. | 768 | 833 | 913 | 1.137 | 24. | 13,712 |
| Public HospitalsAcute Diseases-GeneralBeds. $\qquad$ <br> Bassinets. $\qquad$ <br> Special- <br> Beds. $\qquad$ <br> Bassinets. $\qquad$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - | 571 | 2.919 | 1.838 | 13.601 | 16,042 | 3.450 | 5,378 | 5.003 | 5,897 | 359 | 55,058 |
|  | - | 131 | 535 | 312 | 1,832 | 3,040 | 796 | 845 | 903 | 937 | 24 | 9,355 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - | - | 252 | 16 | 3.850 | 1.368 | 490 | 12 | 145 | 224 | - | 6.357 |
|  | - | - | 78 | 15 | 428 | 183 | - | 12 | 36 | 55 | - | 807 |
| Totals, Acute DiseasesBeds. Bassinets. | - | 571 | 3,171 | 1,854 | 17,451 | 17,410 | 3.940 | 5.390 | 5,148 | 6,121 | 359 | 61,415 |
|  | - | 131 | 613 | 327 | 2.260 | 3.223 | 796 | 857 | 939 | 992 | 24 | 10,162 |
| Chronic Diseases- - <br> Beds. | - | - | - | 122 | 1,258 | 1,947 | 434 | - | - | 353 | - | 4,114 |
| Mental Institutions-: Beds. | 530 | 250 | 2,346 | 1,100 | 14,303 | 13,640 | 2,477 | 3,443 | 2,558 | 3,061 | - | 43,708 |
| Tuberculosis SanatoriaBeds. $\qquad$ | 365 | 150 | 862 | 826 | 4.546 | 4,092 | 801 | 803 | 492 | 802 | 90 | 13,829 |
| Totals, Public HospitalsBeds. $\qquad$ Bassinets. $\qquad$ | 895 | 971 | 6,379 | 3,902 | 37,558 | 37,089 | 7,652 | 9,636 | 8,198 | 10,337 | 449 | 123,066 |
|  | - | 131 | 613 | 327 | 2,260 | 3,223 | 796 | 857 | 939 | 992 | 24 | 10,162 |
| Federal HospitalsDepartment of Veterans AffairsBeds. $\qquad$ |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | - | - | 550 | 450 | 2,275 | 3,495 | 1,000 | 175 | 545 | 1,665 | - | 10,155 |
| Department of National Health and Welfare-3 |  |  |  |  |  |  |  |  |  |  |  |  |
| Beds................. | - | - | 91 | 15 | 218 | 256 | 527 | 65 | 609 | 547 | - | 2,328 |
| Bassinets........... | - | - | - | 2 | - | 29 | 12 | 6 | 17 | 5 | - | 71 |
| Department of National Defence- <br> Beds. |  |  |  |  | 75 | 410 | 115 |  | 60 | 155 | 35 | 1,180 |
| Beds.................. | 15 | 20 | 295 |  |  |  |  |  |  |  |  |  |
| Totals, Federal Hospitals- |  |  |  |  |  |  |  |  |  |  |  |  |
| Beds....... | 15 | 50 | 936 | 465 | 2,568 | 4,161 | 1,642 | 240 | 1,214 | 2,367 | 35 | 13,663 |
| Bassinets.. | - | - | - | 2 | - | 29 | 12 |  | 17 |  | 5 - | 71 |

For footnotes, see end of table.

## 2.-Numbers of Beds and Bassinets in Reporting Hospitals, classified by Types and by Provinces, 1950-concluded

| Type of Institution | 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. |
| Private HospitalsBeds. | - | - | 35 | 96 | 1,384 | 925 | 87 | 71 | 136 | 1,201 | 20 | 3,955 |
| Bassinets............ | - | - | 20 | 31 | 361 | 178 | 7 | 8 | 17 | 15 | 1 | 638 |
| Totals, All HospitalsBeds. | 910 | 991 | 7,350 | 4,463 | 41,510 | 42,175 | 9,381 | 9,947 | 9,548 | 13,905 | 504 | 140,684 |
| Bassinets | - | 131 | 633 | 360 | 2,621 | 3,430 | 815 | 871 |  | 1,012 | 25 | 10,871 |

[^81]
## 3.-Summary Statistics of Reporting Public Hospitals for Acute Diseases and Private Hospitals, 1946-50

| Item | 1946 | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. |
| Public Hospitals for Acute Diseases- |  |  |  |  |  |
| Units reporting....................... | 595 | 653 | 678 | 719 | 741 |
| Bed capacities ${ }^{1} . . . . . . . . . . . . . . . . . . . . .$. | 61,324 | 62,822 | 64,936 | 67,419 | $\cdot 71,577$ |
| Patients under care ${ }^{2}$. | 1,504,893 | 1,633,069 | 1,707,946 ${ }^{1}$ | 1,820,888 | 1,791,825 |
| Total collective days' stay ${ }^{2} \ldots \ldots \ldots .$. | 16,818,176 | 17,250,382 ${ }^{3}$ | 17,793,754 ${ }^{3}$ | 18,490, $400^{3}$ | 17,604,913 ${ }^{\text {a }}$ |
| Private Hospitals- |  |  |  |  |  |
| Units reporting........................ | 235 | 212 | 210 | 194 | 225 |
|  | 4,074 | 3,906 | 3,997 | 3,722 | 4,593 |
| Patients under care ${ }^{2}$. $\ldots \ldots \ldots . . \ldots \ldots .$. | 58,216 | 61,434 | 61.530 | 63,052 | 70,577 |
| Total collective days' stay ${ }^{2}$. $\ldots \ldots \ldots .$. | 882,356 | 934,196 | 923,779 | 877,054 | 1,029,935 |

[^82]
## Subsection 1.-Statistics of Public Hospitals for Acute Diseases

Movement of patients, personnel and hospital facilities for in-patients in both general and special public hospitals during 1950 are summarized in Tables 4 and 6. Comparative workload, staff per patient, etc., may be obtained from these data. The last item in Table 5, cost per patient day, where revenues and expenditures are divided into main sources and objects, respectively, provides a significant connection between patient and financial statistics.

## 4.-Movement of Patients, Personnel, and Hospital Facilities of

| Item |  |  | Prince Edward Island | Nova Scotia |  | New Brunswick |  | Quebec |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | General |  | Special | General | Special | General | Special |
|  |  |  |  |  | No. | No. |  | No. | No. | No. |
|  | Hospitals reporting. ..... | 8 | 6 | 41 | 4 | 30 | 1 | 79 | 22 |
|  | nursing................. | - | 3 | 12 | 1 | 14 | - | 34 | 2 |
|  | Movement of Patients- |  |  |  |  |  |  |  |  |
|  | Admissions ${ }^{1}$. | 2,246 | 13,227 | 75,764 | 7,927 | 76,880 | 878 | 345,756 | 34, 834 |
|  | Live biiths. | 192 | 2,225 | 11,754 | 2,105 | 11,089 | 421 | 44.494 | 7,546 |
|  | Discharges ${ }^{1}$ | 2,171 | 12.961 | 73,857 | 7,808 | 75,151 | 874 | 335, 897 | 33, 872 |
|  | Deaths ${ }^{\text {d }}$ Under treatment ${ }^{\text {a }}$ | 64 2,508 | 313 13,628 | -1,909 | 118 8.133 | 1,637 | 5 | 9, 1478 | ${ }^{7} 813$ |
|  | Total collective days | 2,308 | 13,628 | 77,807 | 8,133 | 78,357 | 892 7 | 353,251 | 37,910 $1,181.106$ |
|  | stay ${ }^{1} \ldots \ldots \ldots \ldots \ldots \ldots$ | 95,355 | 131,584 | 734,386 | 72,005 | 678,008 | 7,179 | 3,827,146 | 1,181.106 |
| 10111213 | Personnel-- |  |  |  |  |  |  |  |  |
|  | Salaried doctors, full- | 1 | 2 | 9 | 2 | 8 | - | 124 | 51 |
|  | Interns.......... | - | 1 | 73 | 8 | 15 | - | 561 | 84 |
|  | Graduate nurses. | 26 | 64 | 565 | 61 | 429 | 3 | 2.601 | 494 |
|  | Student nurses ${ }^{2}$. |  | 163 | 757 | 74 | 811 | - | 3,130 | 89 |
|  | Other | 112 | 230 | 1,626 | 222 | 1,270 | 9 | 9,698 | 2.084 |
|  | Totals, Personn | 139 | 460 | 3,030 | $36 \%$ | 2,533 | 12 | 16,114 | 2,802 |
| 11 | Hospital Facilities- |  |  |  |  |  |  |  |  |
|  | X-ray.................. | 4 | 6 | 31 | 2 | 26 | - | 77 | 12 |
|  | Clinical laboratories..... | 4 | 4 | 29 | 2 | 22 | - | 65 | 12 |
|  | Physio-therapy.......... | 1 | 3 | 10 | 1 | 14 | - | 56 | 8 |

[^83]5.-Finances of Reporting Public Hospitals


Reporting Public Hospitals for Acute Diseases, by Provinces, 1950

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multicolumn{2}{|c|}{Ontario} \& \multicolumn{2}{|l|}{Manitoba} \& \multicolumn{2}{|l|}{Saskatchewan} \& \multicolumn{2}{|l|}{Alberta} \& \multicolumn{3}{|l|}{British Columbia} <br>
\hline General \& Special \& General \& Special \& General \& Special \& General \& Special \& General \& Special \& <br>
\hline No. \& No. ${ }^{16}$ \& No. ${ }^{55}$ \& \& No. ${ }^{145}$ 10 \& No. $\begin{aligned} & \\ & \\ & -\end{aligned}$ \& No. ${ }^{94}$ \& No.

$-\quad 5$
$-\quad$ \& No. ${ }^{7}$ \& No. \& 1 <br>
\hline 566,288 \& 37, 348 \& 114,214 \& 4,245 \& 186.291 \& 425 \& 180,110 \& 1,560 \& 191,170 \& 7,905 \& 3 <br>
\hline 87,060 \& 87,263 \& 16,850 \& \& 19,857 \& 198 \& 23,561 \& 433 \& 23,715 \& 2,491 \& 4 <br>
\hline 548,965 \& 37, 210 \& 111.366 \& 4,147 \& 182, 372 \& 426 \& 176,778 \& 1,548 \& 186.049 \& 7,862 \& 5 <br>
\hline 16.581 \& - 5978 \& 2,720
116,464 \& r 62 \& 3,668
190,859 \& ${ }_{431}^{2}$ \& 3.341
183.769 \& ${ }_{1,660}$ \& 4,954 \& 8.42 \& 7 <br>
\hline 579,448 \& 38,686 \& 116,464 \& 4,395 \& 190,859 \& 431 \& 183,769 \& 1,660 \& 162,674 \& 8,090 \& 7 <br>
\hline 5,702,568 \& 388,960 \& 997,847 \& 55,799 \& 1,970,872 \& 4,551 \& 1,558,001 \& 40,881 \& 1,909,146 \& 87,589 \& 8 <br>
\hline 92 \& 9 \& 32 \& 6 \& 6 \& - \& 19 \& - \& 36 \& - \& 9 <br>
\hline 516 \& 10 \& 100 \& 8 \& 43 \& - \& 75 \& - \& 122 \& \& 10 <br>
\hline 5,127 \& 442 \& 623 \& 53 \& 1,208 \& 5 \& 1.085 \& 27 \& 2.030 \& 80 \& 11 <br>
\hline 4,777 \& 218 \& 894 \& 34 \& 1,223 \& \& 1,237 \& \& 1,236 \& \& 12 <br>
\hline 13,397 \& 1,441, \& 2,226 \& 332 \& 3,660 \& 11 \& 3,313 \& 50 \& 4,491 \& 245 \& 13 <br>
\hline 23,909 \& 2,120 \& 3,375 \& 433 \& 6,140 \& 16 \& 5,729 \& 77 \& 7,915 \& 327 \& <br>
\hline 148 \& 5 \& 46 \& 2 \& 128 \& - \& 92 \& 1 \& 72 \& \& <br>
\hline 85 \& 6 \& 32 \& 2 \& 103 \& 1 \& 49 \& 1 \& 50 \& \& 15 <br>
\hline 57 \& 10 \& 11 \& 2 \& 43 \& - \& 23 \& 1 \& 29 \& 2 \& 16 <br>
\hline
\end{tabular}

for Acute Diseases, by Provinces, 1950

| Ontario |  | Manitoba |  | Saskatchewan |  | Alberta |  | British Columbia |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| General | Special | General | Special | General | Special | General | Special | General | Special |  |
| No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |  |
| 148 | 10 | 53 | 2 | 141 | 3 | 92 | 4 | 73 | 3 | 1 |
| \$ | 8 | \$ | $\delta$ | \$ | \$ | \$ | \$. | \$ | \$ |  |
| 38,827,110 | 2,235,643 | 5,719,339 | 230,641 | 12,621,409 | 16,177 | 9,472.786 | 34,778 | 20,010,120 | 589,779 | 2 |
| 9,959,303 | 747,137 | 512,085 | 37,609 | 818,236 | 12,200 | $3.304,033$ | 57,580 | 241,417 | 40,000 | 3 |
|  | 1,241,715 | 345.842 | 138,575 | 1.821,608 | 19,414 | 747,547 | 95,303 | 4,225,426 | 286,739 |  |
| 60,783,890 | 4,224,495 | 6,577,266 | 406,825 | 15,261,253 | 47,791 | 13,524,366 | 187,661 | 24,476,963 | 916,518 |  |
| 27,798,909 | 1,967.884 | 3.341,779 | 229.776 | 7,179,397 | 14,702 | 6,329.963 | 108,351 | 12,760.462 | 561,283 | 5 |
| 18,434.900 | 1.187.753 | 2.600,630 | 137.539 | 4.741,471 | 17.937 | 4.598,783 | 57,53: | 5,856,146 | 174.529 | 6 |
| 5,934,921 | 439,66.3 | 911.731 | 43.876 | 1,980.589 | 14.078 | 2.300,413 | 21.595 | 2,756,521 | 119,342 |  |
| 52,168.730 | 3,595,300 | 6.854,140 | 411,18. | t3.901,45t | 46,71i | 13.22 1, 159 | 187, 175 | 21,373,129 | 855, 154 |  |
| 8.41 | 8.81 | 7.2i | 7-70 | 6.83 | 10.26 | $7 \cdot 7 \mathrm{C}$ | 5•74 | $10 \cdot 24$ | 9.52 | 8 |

Organized Services.-Organized services analysed in Table 6 are hospital departments or services in charge of qualified specialists. Many of the smaller public general hospitals have available certain facilities for specialized services but, since these are not organized, they are not included in the figures in the table.
6.-Organized Services and Medical Staffs in Reporting Public Hospitals for Acute Diseases, by Provinces, 1950
(Exclusive of Newfoundland)

| Item |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

Organized Out-Patient Departments.-Out-patient departments are operated by hospitals for the treatment of patients who do not occupy in-patient beds. The extension of out-patient services to patients of modest means has farreaching and beneficial effects. It may eliminate unnecessary admissions to inpatient wards of hospitals or may serve to secure necessary hospitalization.

## 7.-Organized Out-Patient Departments in Public Hospitals for Acute Diseases, by Provinces, 1950

| Province | OutPatient Departments | Treatments | Province | OutPatient Departments | Treatments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. |  | No. | No. |
| Newfoundland...... | . |  | Ontario... | 18 | 577.472 |
| Prince Edward Island | .. | .. | Manitoba...... | 4 | 99,248 |
| Nova Scotia |  |  | Saskatchewan |  |  |
| New Brunswick. | 2 30 | 34,233 994,538 | British Columbi | 2 | 70.411 |

## Subsection 2.-Statistics of Mental Institutions

The 64 mental institutions operating in Canada during 1949 include two Federal Government and three private institutions. The three public institutions in British Columbia are reported as one hospital. Table 8 contains information from all these institutions. Total patients shown in the table include 4,619 nonresidents, either on parole or boarding out, distributed by provinces as follows: Nova Scotia, 134; New Brunswick, 190; Quebec, 1,370; Ontario, 2,089; Manitoba, 193; Saskatchewan, 330; Alberta, 82; and British Columbia, 231.

Financial data for 1949 shown in Table 9 cover only public mental institutions and include neither private institutions (one in Quebec, one in Ontario and one in British Columbia) nor Federal Government institutions (one in Quebec and one in Ontario).
8.-Movement of Patients and Personnel in Mental Institutions, by Provinces, 1949

| Item | Nf'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. |
| Institutions reporting......... | 1 | 1 | 18 | 1 |  | 17 | 4 | 4 | 5 |  | 64 |
| Movement of Patients- |  |  |  |  |  |  |  |  |  |  |  |
| Admissions (transfers not included). | 174 | 104 | 666 | 492 | 3,410 | 5,339 | 793 | 1,269 | 857 | 2,372 | 15,476 |
| Under huspital care............ | 826 | 413 | 3,000 | 1,824 | 18,373 | 22,265 | 3,967 | 5,730 | 3,985 | 6,778 | 67,161 |
| Separations (transfers not included). | 150 | 121 | 679 | 439 | 3,173 | 4,875 | 783 | 1,254 | 816 | 2,138 | 14,428 |
| Total Patients, Dec. 31, 1949. | 676 | 292 | 2,447 | 1,587 | 16,686 | 19,349 | 3,358 | 4,777 | 3,251 | 4,859 | 57,282 |
| Personnel- |  |  |  |  |  |  |  |  |  |  |  |
| Medical staff, full-time (interns included). | 3 | - | 4 | 6 | 57 | 88 | 18 | 17 | 12 | 22 | 227 |
| Medical staff, part-time (interns included). |  | 1 | 17 |  | 53 |  | 5 | 1 | 5 |  | 121 |
| Registered nurses............. | 18 | 1 | 31 | 19 | 238 | 451 | 25 | 9 | 33 | 23 | 848 |
| Other nurses. | 130 | 40 | 190 | 135 | 1,400 | 2,568 | 464 | 807 | 424 | 939 | 7,097 |
| Other personnel | 126 | 37 | 251 | 114 | 1,254 | 1.587 | 297 | 420 | 384 | 472 | 4,942 |
| Totals, Personnel. ......... | 277 | 79 | 493 | 277 | 3,002 | 4,730 | 809 | 1,254 | 858 | 1,456 | 13,235 |

## 9.-Financial Statistics for Mental Institutions, by Provinces, 1949

(Exclusive of Newfoundland)

| Item | Prince <br> Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Recelpts- | \$ | \$ | \$ | \$ | 5 |
| Government and municipal payments.. | 218.486 | 996.239 | 890,152 | 5,478,281 | 11,186,020 |
| Fees from paying patients.............. | 38,123 | 108.523 | 61.793 | 854,908 | 1,423,226 |
| Received from other sources. |  | 112.552 | 5,525 | 1,154,421 | 422,554 |
| Totals, Recelpts. | 256,609 | 1,217,314 | 957,470 | 7,487,610 | 13,031,800 |
| Expenditures- |  |  |  |  |  |
| Salaries (net). | 88,833 | 495,619 | 453,533 | 2,894,657 | 7,547,736 |
| Provisions. | 82,404 | 404,039 | 227.194 | 1,915,242 | 2,108,364 |
| Other expenditures for maintenance | 85.372 | 425.547 | 276.743 | 2,015,511 | 2,922,193 |
| Totals, Maintenance Expenditures. | 256,609 | 1,325,205 | 957,470 | 6.825.410 | 12.578,293 |
| New buildings and improvements...... Other purposes | 二 | $\begin{aligned} & 10,823 \\ & 13.063 \end{aligned}$ | 31,903 | $\begin{aligned} & 697.330 \\ & 474.831 \end{aligned}$ | 453.507 |
| Totals, Non-maintenance Expenditures. | - | 23,886 | 31.903 | 1,172,161 | 453.507 |
| Totals, Expenditures. | 256,609 | 1,349,091 | 989,373 | 7,997,571 | 13,031,800 |

9.-Financial Statistics for Mental Institutions, by Provinces, 1949-concluded

| Item | Manitoba | Saskatchewan | Alberta | British Columbia | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ |
| Receipts- |  |  |  |  |  |
| Government and municipal payments. Fees from paying patients Received from other sources $\qquad$ | 2,053,791 | 4,181.871 | 3,091,769 | 4,431,863 | 32,528,472 |
|  | 222.043 | 195,664 | 364,611 | 345,908 | 3,614,799 |
|  | 86,961 | 298,155 | 48,024 |  | 2.128,192 |
| Totals, Receipts.............. | 2,362,795 | 4,675,690 | 3,504,404 | 4,777,771 | 38,271,463 |
| Expenditures- |  |  |  |  |  |
| Salaries (net).. | 1,139,562 | 2,555,970 | 1,509,915 | 2,471,153 | 19,156,978 |
| Provisions............................. | 1.559,589 | 808.314 | 535.347 | 983,054 | 7,623,547 |
| Other expenditures for maintenance.... <br> Totals, Maintenance Expenditures. | 505.318 | 570,781 |  | 1,323,564 | 8,602,706 |
|  | 2,204,469 | 3,935,065 | 2,522.939 | 4,777,771 | 35.383,231 |
| New buildings and improvements...... Other purposes. | 98,378 | 246,806 | $\begin{array}{r} 895,088 \\ 87,777 \end{array}$ | - | $\begin{array}{r} 2,433,835 \\ 575,671 \end{array}$ |
| Totals, Non-maintenance Expenditures. | 98,378 | 246.806 | 982,865 | - | 3,009,506 |
| Totals, Expenditures.......... | 2,302,847 | 4,181,871 | 3,505,804 | 4,727,771 | 38,392,737 |

## Subsection 3.-Statistics of Tuberculosis Institutions

Table 10 shows that $22 \cdot 3$ p.c. of total bed complement provided for tubercular patients in 1950 , i.e., 3,961 of the 17,790 beds, were located in Federal Government sanatoria, tuberculosis units in Federal Government hospitals, and tuberculosis units in public general hospitals. Movement of patient statistics in Table 11 include data from these sources. As a result, any comparison of movement of patients and personnel statistics will be misleading since the latter involve only personnel of public sanatoria.
10.-Bed Complements of Tuberculosis Sanatoria and Tuberculosis Units in Other Hospitals, by Provinces, 1950

| Item | N'f'ld. | P.E.I. | N.S. | N.B. | Que | Ont. | Man. | Sask. | Alta. | B.C. | N.W.T. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Public sanatoria. | 365 | 150 | 862 | 826 | 4,5-16 | t,092 | 801 | 803 | 492 | 802 | 90 | 13,829 |
| Federal Government sanatoria. | - | - | - | - | $20 ¢$ | 168 | 474 | - | 448 | 498 |  | 1,788 |
| Units in public hospitals... | 123 | - | 201 | - |  | - | - | - | - | 10 | 149 | 1,329 |
| Units in Federal Government hospitals. | - | - | 158 | 80 | 17. | 216 | 12 | 80 | - | 123 | - | 844 |
| Totals, Bed Complement | 488 | 150 | 1,221 | 90. | ;,76. | 1,476 | 1,287 | 883 | 940 | 1,433 |  | 17,790 |

11.-Movement of Patients, Personnel and Hospital Facilities in Tuberculosis Sanatoria and Units, by Provinces, 1950

| Item | Newfoundland | Prince Edward Island | Nova Scotia | New <br> Brunswick | Quebèc | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Movement of Patients- Admissions............ | 501 | 165 | 1,885 | 1,542 | 6,404 | 4,225 |
| Discharges ${ }^{1}$. | 463 | 166 | 1,863 | 1,583 | 5,635 | 3,948 |
| Deaths ${ }^{2}$. | 37 | 17 | 82 | 95 | 544 | 386 |
| Under care. | 925 | 311 | 2,392 | 2,388 | 10,434 | 8,084 |
| Total collective days' stay | 163,509 | 54,022 | 322,532 | 307,786 | 1,682,183 | 1,522,363 |
| Personnel-3 |  |  |  |  |  |  |
| Salaried doctors. | 8 | 4 | 15 | 23 | 154 | 96 |
| Graduate nurses. | 24 | 18 | 75 | 82 | 247 | 372 |
| Other personnel............ | 242 | 85 | 420 | 439 | 1,582 | 1,958 |
| Totals, Personnel | 274 | 107 | 510 | 544 | 1,983 | 2,426 |
| Hospital Facilities-s |  |  |  |  |  |  |
| C-ray ${ }_{\text {Clinical }}$ | 1 | 1 | 3 3 3 | 5 5 | 15 | 14 |
| Physio-therapy............ | - 1 | 1 |  | 3 | 10 | 7 |
|  | Manitoba | Saskatchewan | Alberta | British Columbia | Northwest Territories | Total |
| Movement of Patients- |  |  |  |  |  | No. |
| Admissions............... | 1,793 | 959 | 901 | 1,450 | 416 | 20,241 |
| Discharges ${ }^{1} . . . . . . . . . . . .$. | 1,800 | 919 | 848 | 1,404 | 382 | 19,011 |
| Deaths ${ }^{2}$.. | 130 | 72 | 104 | 147 | 37 | 1,651 |
| Under care. | 2,856 | 1,719 | 1,708 | 2,773 | 602 | 34,192 |
| Total collective days' stay | 418,652 | 299,827 | 309,532 | 497,847 | 71,673 | 5,649,926 |
| Personnel- ${ }^{\text {a }}$ |  |  |  |  |  |  |
| Salaried doctors. | 18 | 18 | 15 | 32 | .. | 383 |
| Graduate nurses. | 54 | 82 | 28 | 129 | .. | 1,111 |
| Other personnel............ | 512 | 475 | 166 | 540 | . | 6,419 |
| Totals, Personnel. . . . . | 584 | 575 | 209 | 701 | .. | 7,913 |
| Hospital Facilities- |  |  |  |  |  |  |
| X-ray | 4 |  | 4 |  |  | 56 |
| Clinical laboratories...... | 4 4 | 3 <br> 3 | 4 | 6 | $\cdots$ | 56 39 |

${ }^{1}$ Includes all deaths.
${ }^{2}$ Deaths as reported from 106 of a total of 115 institutions. ${ }^{3}$ Sanatoria only (exclusive of Federal Government sanatoria).
12.-Financial Statistics for Tuberculosis Sanatoria, by Provinces, 1950
(Exclusive of Federal Government Sanatoria)

| Item | Newfoundland | Prince Edward Island | Nova Scotia | New <br> Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Sanatoria reporting. | 1 | 1 | 3 | 5 | 15 | 14 |
| Revenues- | \$ | \$ | \$ | \$ | 5 | \$ |
| Government and municipal grants and pay- |  |  |  |  |  |  |
| ments............. | 793,300 | 215,702 | 1,351,923 | 1,495,466 | 3,837,269 | 6,115,546 |
| Pay patients. | -133 | $\begin{array}{r}41,020 \\ \hline 88\end{array}$ |  | 4,970 | 299,092 | 210,429 |
| Other sources | - | 387 | 3,468 | 55,303 | 422,689 | 896,960 |
| Totals, Revenues | 793,433 | 257,109 | 1,355,391 | 1,555,739 | 4,559,050 | 7,222,935 |
| Expenditures- |  |  |  |  |  |  |
| Salaries and wages. | 258,502 | 112,415 | 620,359 | 747,743 | 2,017,570 | 3,711,264 |
| Supplies........ | 449,759 | 109,405 | 702,611 | 609,838 | 2,046,652 | 2,156.482 |
| Other expenditures. | 85,174 | 11,711 | 32,421 | 291,902 | 1,002,181 | 1,313,331 |
| Totals, Expenditures. | 793,435 | 233,531 | 1,355,391 | 1,649,483 | 5,066,403 | 7,181,077 |
| Cost per patient day ${ }^{1}$. | 5.99 | $4 \cdot 32$ | 5.80 | $5 \cdot 51$ | 3.56 | 4.58 |

For footnote, see end of table, p. 250.
12.-Financial Statistics for Tuberculosis Sanatoria, by Provinces, 1950-concluded

| Item | Manitoba | Saskatchewan | Alberta | British Columbia | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sanatoria reporting......... | No. | No. | No. | No. | No. |
|  | 4 | 3 | 4 | 62 | 56 |
|  | \$ | \$ | \$ | \$ | \$ |
| Revenues- <br> Government and municipal grants and payments. <br> Pay patients. $\qquad$ <br> Other sources. $\qquad$ |  |  |  |  |  |
|  | 1,066,414 | 1,674,385 | 1,025.344 | 2,582.065 | 20,157,414 |
|  | 3.326 |  | 2,340 | 95,656 | 656,966 |
|  | 61,673 | 37,808 | - |  | 1,478.288 |
| Totals, Revenues | 1,131,413 | 1,712,193 | 1,027,684 | 2,677,721 | 22,292,668 |
| Expenditures- <br> Salaries and wages........ <br> Supplies. <br> Other expenditures |  |  |  |  |  |
|  | 586,732 | 913,180 | 388,940 | 1,282.527 | 10,639.232 |
|  | 419.585 | 463,433 | 125, 146 | 681,664 | 7,764.575 |
|  | 191.385 | 334,092 | 513.599 | 713,527 ${ }^{3}$ | 4.489,323 |
| Totals, Expenditures. . <br> Cost per patient day ${ }^{1}$ | 1,197,702 | 1,710,705 | 1,027,685 | 2,677,718 ${ }^{3}$ | 22,893,130 |
|  | $4 \cdot 65$ | 5.74 | 6.01 | $8 \cdot 67$ | 4.85 |

[^84] institutions operated by the provincial Division of Tuberculosis Control. contracts for care of patients in units of other hospitals.

## 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.

Veterans Affairs Hospitals.*-The accommodation and movement of patients in hospitals administered by the Department of Veterans Affairs, together with their locations, are given in Table 13.

[^85]13.-Accommodation and Movement of Patients in Veterans Affairs Hospitals, 1951

Note.-Statistics re veterans pavilions attached to civilian hospitals are not included.

| Type of Hospital and Location | Bed Capacity | Personnel |  | Movement of Patients |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Salaried <br> Doctors | Total | In Residence Beginning of Year | Admissions During Year | $\begin{aligned} & \text { In } \\ & \text { Residence } \\ & \text { End of } \\ & \text { Year } \end{aligned}$ | Total Patient Days During Year |
|  | No. | No. | No. | No. | No. | No. | No. |
| Hospitals- |  |  |  |  |  |  |  |
| Halifax, N.S.... | 550 | 10 | 466 | 306 | 3,969 | 341 | 140,438 |
| Saint John, N.B............ | 450 | 10 | 434 | 293 | 3.108 | 262 | 113.049 71.924 |
| Quebec, Que.............. | 275 | 3 | 267 839 | 156 479 | 2,262 5,908 | ${ }_{471}^{137}$ | 71.924 194.904 |
| Montreal, Que.............. | 700 1,100 | 118 | 839 767 | 479 1,066 | 5,906 | 1371 1,060 | 1983,432 |
| Toronto, Ont.............. | 1,500 | 24 | 1,711 | 1,057 | 8.341 | 1,046 | 415,612 |
| London, Ont................. | 1,500 | 16 | 1,134 | 1,165 | 4.914 | 1,186 | 460,540 |
| Winnipeg, Man. | 850 | 9 | 743 | 649 | 5.421 | 655 | 252.760 |
| Saskatoon, Sask | 125 | 3 | 107 | 115 | 976 | 108 | 42.641 |
| Calgary, Alta. | 375 | 10 | 324 | 323 | 3.546 | 295 | 116.812 |
| Vancouver, B.C............ | 1,120 | 12 | $\begin{array}{r}1,007 \\ \hline 249\end{array}$ | 910 190 | 5.942 1.713 | 926 198 | 184.828 71.941 |
| Victoria, B.C............ | 225 | 1 | 249 | 190 | 1.713 | 198 | 71.941 |
| Totals, Active Treatment Hospitals. | 8,770 | 117 | 8,048 | 6,709 | 46,830 | 6,685 | 2,608,881 |

13.-Accommodation and Movement of Patients in Veterans Affairs Hospitals, 1951
-concluded

| Type of Hospital and Location | Bed Capacity | Personnel |  | Movement of Patients |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Salaried Doctors | Total | In Residence Beginning of Year | AdDuring Year | In Residence End of Year | Total <br> Patient <br> Days <br> During <br> Year |
| Health and Occupational Centres- <br> Ottawa, Ont. <br> Toronto, Ont. <br> Burnaby, B.C. | No. | No. | No. | No. | No. | No. | No. |
|  |  |  |  |  |  |  |  |
|  | 150 | 5 | 100 | 125 | 187 | 121 | 43,431 |
|  | 150 | - | 62 | 135 | 178 | 133 | 48.499 |
|  | 200 | 1 | 81 | 211 | 812 | 195 | 72,567 |
| Totals, Health and Occupational Centres. | 500 | 6 | 243 | 471 | 1,177 | 449 | 164,497 |
| Special InstitutionSte. Hyacinthe, Que. | 200 | 5 | 224 | 165 | 232 | 153 | 60,544 |
| Veterans HomesToronto, Ont. Amherstburg, Ont $\qquad$ Regina, Sask Edmonton, Alta. | 165 | 2 | 107 | 158 | 107 | 160 | 59,018 |
|  | 30 | - | 13 | 21 | 13 | 24 | 8.922 |
|  | 50 | 2 | 26 | 60 | 79 | 59 | 20,773 |
|  | 70 | 1 | 26 | 71 | 178 | 68 | 25,060 |
| Totals, Veterans Homes. Grand Totals. | 315 | 5 | 172 | 310 | 377 | 311 | 113,773 |
|  | 9,785 | 133 | 8,687 | 7,655 | 48,616 | 7,598 | 2,947,695 |

During 1950 and 1951 new facilities included a nurses' residence at Westminster Hospital, London, Ont., with accommodation for 216 nurses, and the remodelled Annex at Halifax, N.S., which now has accommodation for 78 patients requiring domiciliary care. Under the hospital construction program to replace outmoded accommodation by modern fireproof buildings, progress was made on the construction of new facilities at Lancaster Hospital, Saint John, N.B., which will be completed in 1952. A 60 -bed addition to the Veterans' Hospital at Victoria, B.C., will also be completed in 1952 and a 300-bed hospital is under construction at Quebec, Que.

Early in 1952 the Veterans' Home at Halifax was closed, Lyndhurst Lodge at Toronto was transferred to the Canadian Paraplegia Association, Christie Street Hospital was transferred to the City of Toronto to be used as a home for the aged, and York Health and Occupational Centre at Toronto was closed.

Amalgamations in 1950 and 1951 included: Western Counties Veterans' Lodge with Westminster Hospital, London, Ont.; Senneville Health and Occupational Centre with Ste. Anne's Hospital, Ste. Anne de Bellevue, Que.; Ridgewood Health and Occupational Centre with Lancaster Hospital, Saint John, N.B.; Veterans' Home with Deer Lodge Hospital, Winnipeg, Man.; Calgary Convalescent Hospital with Colonel Belcher Hospital, Calgary, Alta.; and Hycroft Veterans' Lodge with Shaughnessy Hospital, Vancouver, B.C. The functions of these amalgamated units remain unchanged but they now operate as wings or divisions of the parent unit.

The numbers of patients in Veterans Affairs hospitals at Dec. 31, 1950, and Dec. 31, 1951, were 7,655 and 7,598 , respectively, classified by status and treatment groups as follows:-

| Patient Strength | 1950 | 1951 | Treatment Group | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| World War I. | 4.802 | 4.824 | General | 5.759 | 5,681 |
| World War II | 2,336 | 1,964 | Tuberculosis | . 624 | 544 |
| Other. | 517 | 810 | Mental. | 1,272 | 1,373 |

Clinical treatments in Departmental institutions numbered 483,202 in 1950 and 451,149 in 1951.

Department of National Defence Hospitals.*-Table 14 shows accommodation and movement of patients in National Defence hospitals for the year 1951. Thirty-one of these hospitals are equipped to provide radiology services, 31 to provide laboratory services, 14 have facilities for physio-therapy treatments and all but one conduct out-patient departments.

* Revised in the Department of National Defence, Ottawa.


## 14.-Accommodation and Movement of Patients in Department of National Defence Hospitals, 1951

| Service and Location of Hospital | Bed Capacity | Personnel |  | Movement of Patients |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Salaried <br> Doctors | Total | In Residence Beginning of Year | Admissions During Year | In Residence End of Year | Total <br> Patient <br> Days <br> During <br> Year |
| Nayy- | No. | No. | No. | No. | No. | No. | No. |
| Cornwallis, N.S........... | 100 | 2 | 28 | 12 | 1,492 | 29 | 11,642 |
| Dartmouth, N.S........... | 25 | 1 | 10 | 7 | 1303 | 7 | 1,869 |
| Esquimalt, B.C............. | 100 | 5 | 63 | 29 | 1,641 | 18 | 16.845 |
| Halifax, N.S............... | 200 | 7 | 83 | 41 | 1,793 | 37 | 23,882 |
| Army- |  |  |  |  |  |  |  |
| Calgary, Alta. ${ }^{1}$............. | 50 | 5 | 44 | 40 | 1,537 | 42 | 20,866 |
| Camp Borden, Ont.......... | 35 | 3 | 34 | 5 | 1,443 | 21 | 10,160 |
| Chilliwack, B.C........... | 15 | 1 | 9 | - | 177 | ${ }_{17}$ | . 762 |
| Fort Churchill, Man........ | ${ }^{60}$ | 4 | 58 | 18 | 1,045 | 17 | 9,489 |
| Kingston, Ont.. | 125 | 9 | 109 | 21 | 1,905 | 71 | 29,210 |
| London, Ont. . | 15 | 1 | 14 | - | ${ }_{1} 336$ | 11 | 1,964 |
| Montreal, Que. ${ }^{1}$............. | 50 | 6 | 49 | 78 | 1,668 | 126 | 40.511 |
| Petawawa, Ont. | 50 | 2 | 39 | 8 | 813 | 15 | 5,927 |
| Quebec, Que. | 75 | 6 | 67 | 26 | 1,643 | 39 | 19,025 |
| Rivers, Man. | 35 | 2 | 25 | 3 | 284 | 3 | 2,824 |
| Shilo, Man.................. | 50 | 3 | 47 | 10 | ${ }_{2}$, 222 | 12 | $\begin{array}{r}7.248 \\ \\ \hline\end{array}$ |
| Toronto, Ont................ | 100 | 9 | 120 | 85 | 2,155 | 75 | 20,282 |
| Valcartier, Que | 15 50 | 1 | 140 | ${ }^{2} 27$ | 1,114 | 39 | 16,701 |
| Wainwright, Alta | 100 | 7 | 81 | - | 533 | - | 2.911 |
| Whitehorse, Yukon | 50 | 4 | 46 | 8 | 808 | 16 | 6,727 |
|  | 50 | 5 | 41 | 23 | 1,256 | 56 | 21,615 |
| Air Force- ${ }^{3}$ |  |  |  |  |  |  |  |
| Aylmer, Ont................ | 25 | 2 | 27 | 1 | 328 | - | 1,488 |
| Bagotville, Que............. | 10 | 1 | 5 | .. | .. | .. | . |
| Camp Borden, Ont......... | 25 | 2 | 12 | $\cdots 1$ | 360 |  | 1,749 |
| Centralia, Ont............. | 25 | 2 | 20 | 1 | 132 | 1 | 1,490 |
| Claresholm, Alta............ | 25 | 1 | 7 |  |  |  |  |
| Clinton, Ont................ | 35 | 2 | 20 | - | 270 | 8 | 943 |
| Edmonton, Alta............ | 17 | 2 | 15 | 5 | 402 | 3 | 2,131 |
| Fort Nelson, B.C........... | 25 | 1 | 6 | - | 83 | - | 433 |
| Gimli, Man.............. | 15 | 2 | 13 | - | 101 | 5 | ${ }^{455}$ |
| Goose Bay, N'1'ld.......... | 35 | 3 | 25 | - | 440 | 5 | 3,365 1,248 |
| Greenwood, N.S........... | 25 | 2 | 24 | 2 | 234 | 5 | 1,248 |
| Lachine, Que. . . . . . . . . . . . | . | 2 | 6 | .. | .. | . | -. |
| MacDonald, Man. ......... | . | 1 | 4 | $\cdots$ | . | . | . |
| North Bay, Ont........... | 10 | 1 | 5 | . | . | $\cdots$ | . |
| North Luffenham, England | 17 100 | 3 7 | 31 74 | ${ }^{*} 20$ | 1,949 |  | 18,580 |
| Rockeliffe, Ont............ | 100 | 7 | 74 17 | 20 | 1,949 | 19 | 18,580 |
| St. Hubert, Que. . . . . . . . . |  | 5 | 34 | - | 434 | 19 | 2,259 |
| St. John's, Que.... | 60 | 5 | $\begin{array}{r}17 \\ 3 \\ \hline\end{array}$ |  | 434 |  |  |
| Sea Island, B.C........... | 5 | 2 | 8 |  |  | $\cdots$ |  |
| Summerside, P.E.I. ....... | 25 | 2 | 12 | 1 | 377 | 2 | 1,772 |
| Trenton, Ont................ | 50 | 4 | 45 | 4 | 907 | 4 | 5,350 |
| Uplands, Ont . . . . . . . . . . | 10 | 1 | 6 | .. | .. | .. | . |
| Whitehorse, Yukon........ | 40 | ${ }_{2}^{1}$ | ${ }_{11}^{2}$ | $\cdots$ | $\cdots$ | . | $\cdots$ |
| Winnipeg, Man.............. | 40 | 2 | 11 | . | $\cdots$ | . | . |

${ }^{1}$ Integrated with Department of Veterans Affairs hospital at the same location. ${ }^{2}$ This unit was not functioning as an individual establishment until Jan. 1, $1952 .{ }^{3}$ A number of the listed units were activated in the latter part of 1951 . In some cases no data are available and in other cases the data given are for comparatively short periods.

National Health and Welfare Hospitals．－The Department operates quar－ antine and immigration hospitals，hospitals for sick mariners，hospitals for lepers and hospitals for the Indian and Eskimo population．Table 15 provides data on accom－ modation and the movement of patients in these institutions．

Data for 1950 show that there were 570,499 patient days in hospitals operated by Indian Health Services．Total patient days in immigration，sick mariners and leper hospitals in 1951 were 64,167 ．There were no patients suffering from major infectious diseases in any of the quarantine units during the year 1951. These units are kept in reserve to meet emergency requirements．

## 15．－Accommodation and Movement of Patients in National Health and Welfare Hospitals

| Type of Hospital and Location | Bed Capacity ${ }^{2}$ | Personnel |  | Movement of Patients ${ }^{1}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Salaried Doctors | Total | In <br> Residence <br> Beginning of Year | Ad－ missions During Year | In Residence End of Year | Total <br> Patient <br> Days <br> During <br> Year |
|  | No． | No． | No． | No． | No． | No． | No． |
| Quarantine，Immigration， Sick Mariner and Leper， 1951－ <br> Quarantine－ <br> Halifax，N．S． <br> Saint John，N．B $\qquad$ Quebec，Que <br> William Head，B．C．．．．．． |  |  |  |  |  |  |  |
|  |  | 2 |  |  |  |  |  |
|  | 7 | 1 | 4 | 二 | 二 | 二 | 二 |
|  | 7 | 2 | 3 | － |  | － | － |
|  | 48 | 2 | 6 | － | － | － | － |
| Immigration－ Halifax，N．S Saint John，N．B Quebec，Que． |  |  |  |  |  |  |  |
|  | 25 | 2 | 8 | 4 | 277 |  | 2.640 |
|  | 25 | 1 | 4 | ${ }^{7}$ | 55 | 13 | 478 |
|  | 200 | 4 | 81 | 114 | 762 | 179 | 55，733 |
| Sick Mariner－ Sydney，N．S Lunenburg，N．S． $\qquad$ | 35 | 1 | 22 | 5 | 89 | 7 | 1.391 |
|  | 15 | 1 | 2 | 6 | 27 | 2 | 1，459 |
| Leper－ <br> Tracadie，N．B． <br> Bentinek Island，B．C．．．．． |  |  |  |  |  |  |  |
|  | 12 | 1 | $1^{3}$ | 6 | 1 | 7 | 2，462 |
|  | 12 | 1 | 3 |  | ， | 4 | 1，004 |
| Totals，Quarantine，etc．．． | 393 | 18 | 138 | 144 | 1，213 | 218 | 64，167 |
| Indian Health Service， |  |  |  |  |  |  |  |
| Maliseet，N．B．．． | 6 | － | 2 | 2 | 108 | 2 | 586 |
| Moose Factory，Ont．．．．．．．． | 133 | 1 | 40 | － | 118 | 83 | 9，301 |
| Manitowaning，Ont．．．．．．．．． | 15 | 1 | 10 | 6 | 266 | 3 | 2.995 |
| Sioux Lookout，Ont．．．．．．．． | 90 | 3 | 66 | 23 | 460 | 85 | 23，406 |
| Fort William，Ont．${ }^{5}$ ．．．．．．．． | 18 |  | 10 | 20 | 27 | 17 | 4，200 |
|  | 50 | 4 | 33 | 43 | 72 | 44 | 16，084 |
| The Pas，Man．${ }^{5}$ ．．．．．．．．．． | 164 | 2 | 100 | 150 | 210 | 140 | 54.824 |
| Pine Falls，Man．．．．．．．．．．．． | 18 | 1 | 13 | 8 | 487 | 13 | 4.669 |
| Hodgson，Man ．．．．．．．．．．．．．． | 39 | 1 | 22 | 17 | 383 | 22 | 9.313 |
|  | 256 | 2 | 151 | 247 | 183 | 251 | 93.124 |
| North Battleford，Sask．．．． | 65 | － | 40 | 19 | 677 | 37 | 10．924 |
| Edmonton，Alta．．．．．．．．．．．． | 497 | 9 | 251 | 400 | 605 | 444 | 157．184 |
| Gleichen，Alta．．．．．．．．．．．．．． | 45 | 1 | 6 | 18 | 531 | 14 | 5，434 |
| Brocket，Alta． | 10 | 1 | 4 | 2 | 184 | － | 1.208 |
| Cardston，Alta | 47 | 1 | 14 | 17 | 850 | 17 | 6，488 |
| Morley，Alta．．．．．．．．．．．．．．．． | 10 | 1 | 6 | 5 | 193 | 4 | 1，325 |
| Sardis，B．C．${ }^{\text {s．．．．．．．．．．．．．．．}}$ | 108 | 2 | 103 | 93 | 96 | 99 | 35.029 |
| Nanaimo，B．C．${ }^{\text {c．．．．．．．．．．．．}}$ | 220 | 3 | 153 | 201 | 113 | 212 | 74，042 |
| Miller Bay，B．C．s．．．．．．．．．． | 170 | 3 | 128 | 159 | 141 | 169 | 60.363 |
| Totals，Indian Service．． | 1，961 | 36 | 1，152 | 1，430 | 5，704 | 1，656 | 570，499 |

[^86]
## PART II.-PUBLIC WELFARE AND SOGIAL 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 matters of welfare are a major responsibility. The Department is charged with the administration of Federal Acts relating to welfare which are not assigned by law 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 and allowances for blind persons. In addition, grants are made to the provinces for physical fitness.

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 Resources and Development, respectively.

Administration and financial responsibility in other fields of welfare, such as mothers' allowances, child protection and general assistance or relief, are left entirely with the provinces and their local subdivisions.

Major developments in 1951 included the amendment to the British North America Act allowing the Federal Parliament to legislate with respect to old age pensions, and the changes in federal and provincial legislation for old age income security and for pensions for the blind.

## Section 1.-Federal Government Programs

## Subsection 1.-Family Allowances

The Family Allowances Act, 1944, was introduced as a basic social security measure designed to assist in providing equal opportunity for all Canadian children. The allowances, which involve no means test, are paid entirely out of the Federal Consolidated Revenue Fund and are not part of taxable income under income tax, 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,

[^87]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 behalf 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 Resources and Development which are responsible for the welfare of Indians and Eskimos, respectively (see Subsection 5, pp. 258-260).
1.-Family Allowance Statistics, by Provinces, Years Ended Mar. 31, 1948-51

| Province | Year Ended Mar. $31-$ | Families Receiving Allowance in March | Children for Whom Allowance Paid in March | Average Number of Children per Family in March | Average Allowance ${ }^{1}$ |  | Net <br> Total <br> Allowances <br> Paid During <br> Fiscal Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\begin{gathered} \text { per } \\ \text { Family } \end{gathered}$ | per Child |  |
| Newfoundland ${ }^{2}$........... |  | No. | No. | No. | \$ | \$ | \$ |
|  | $\begin{aligned} & 1950 \\ & 1951 \end{aligned}$ | 50,694 51,663 | 139.571 145.230 | 2.75 2.81 | 16.48 16.87 | 5.99 6.00 | $\begin{array}{r} 9.747 .030 \\ 10,224,103 \end{array}$ |
| Prince Edward Island.... | 1948 | 12.748 | 31.861 | 2.50 | 14.90 | $5 \cdot 96$ | 2,256.477 |
|  | 1949 | 12.920 | 32.621 | $2 \cdot 52$ | 14.89 | $5 \cdot 90$ | 2.295 .286 |
|  | 1950 | 13.165 | 33.588 | $2 \cdot 55$ | 15.41 | 6.04 | 2.411.291 |
|  | 1951 | 13,317 | 34,308 | $2 \cdot 58$ | 15.56 | 6.04 | 2,467.257 |
| Nova Scotia............. | 1948 | 87,170 | 202,029 | $2 \cdot 32$ | 13.78 | 5.95 | 14.207.958 |
|  | 1949 | 88,927 | 207,282 | $2 \cdot 33$ | 13.76 | $5 \cdot 90$ | 14.515.131 |
|  | 1950 | 91,012 | 213.981 | $2 \cdot 35$ | $14 \cdot 18$ | 6.03 | 15.291.614 |
|  | 1951 | 92,095 | 218.496 | $2 \cdot 37$ | $14 \cdot 32$ | 6.04 | 15,660,003 |
| New Brunswick.......... | 1948 | 68.510 | 175.390 | $2 \cdot 56$ | 14.91 | $5 \cdot 82$ | 12,086.892 |
|  | 1919 | 70.610 | 181.921 | 2.58 | $14 \cdot 96$ | $5 \cdot 81$ | 12. 462.093 |
|  | 1950 | 72.410 | 188.593 | $2 \cdot 60$ | $15 \cdot 61$ | 5.99 | 13.375.434 |
|  | 1951 | 72,692 | 191.608 | $2 \cdot 63$ | $15 \cdot 77$ | $5 \cdot 98$ | 13,708, 198 |
| Quebec.................. |  | 468.680 | 1.260 .735 | $2 \cdot 69$ | $15 \cdot 66$ | $5 \cdot 82$ | 87.157,243 |
|  | 1949 | 488.263 | 1,302.242 | $2 \cdot 67$ | 15.47 | $5 \cdot 80$ | 89.304, 108 |
|  | 1950 | 507,727 | 1.350 .588 | $2 \cdot 66$ | 16.00 | 6.01 | 95.901,763 |
|  | 1951 | 525,358 | 1,405.161 | $2 \cdot 67$ | 16.06 | $6 \cdot 00$ | 99,558,247 |
| Ontario. | 1948 | 555.658 | 1.096.779 | 1.97 | 11.79 | $5 \cdot 97$ | 77.328 .535 |
|  | 1949 | 575.961 | 1,140,778 | 1.98 | 11.81 | $5 \cdot 96$ | 80.151 .250 |
|  | 1950 | 603.847 | 1.204 .558 | 1.99 | $12 \cdot 01$ | 6.02 | 84940.809 |
|  | 1951 | 627,511 | 1,265,313 | $2 \cdot 02$ | $12 \cdot 07$ | 5.99 | 89,034,871 |

For footnotes, see end of table, p. 256.
1.-Family Allowance Statistics, by Provinces, Years Ended Mar. 31, 1948-51-concluded

| Province or Territory | YearEadedMar. 31- | Families Receiving Allowance in March | Children for Whom Allowance Paid in March | Average <br> Number of Children per Family in March | Average Allowance ${ }^{\text {l }}$ |  | Net <br> Total Allowances Paid During Fiscal Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Family | per |  |
| Manitoba................ |  | No. | No. | No. | \$ | \$ | 8 |
|  | 1948 | 99.954 | 207,544 | 2.08 | 12.42 | $5 \cdot 98$ | 14,798,437 |
|  | 1949 | 101.917 | 211,752 | 2.08 | $12 \cdot 36$ | $5 \cdot 95$ | 15.016.278 |
|  | 1950 | 105.611 | 220.862 | $2 \cdot 09$ | 12.58 | 6.02 | 15,668.695 |
|  | 1951 | 108,288 | 228,245 | $2 \cdot 11$ | $12 \cdot 66$ | 6.00 | 16,235,520 |
| Saskatchewan........... | 1948 | 114,613 | 257.611 | $2 \cdot 25$ | $13 \cdot 45$ | $5 \cdot 98$ | 18.561,330 |
|  | 1949 | 115, 170 | 258.370 | $2 \cdot 24$ | 13.37 | 5.96 | 18.527.408 |
|  | 1950 | 116.917 | ${ }^{261,623}$ | $2 \cdot 24$ | $13 \cdot 56$ | 6.06 | 18,953,600 |
|  | 1951 | 118,276 | 264,582 | $2 \cdot 24$ | $13 \cdot 59$ | 6.08 | 19,237.071 |
| Alberta.................. | 1948 | 119,739 | 255,818 | $2 \cdot 14$ | 12.78 | $5 \cdot 98$ | 18.181,663 |
|  | 1949 | 124.173 | 266.133 | $2 \cdot 14$ | $12 \cdot 75$ | $5 \cdot 95$ | 18.695,325 |
|  | 1950 |  | 280.780 | $2 \cdot 15$ | $12 \cdot 89$ | 6.00 | 19,822,387 |
|  | 1951 | 135,864 | 292, 104 | $2 \cdot 15$ | $12 \cdot 91$ | 6.01 | 20,762,273 |
| British Columbia........ | 1948 | 139,627 | 260,752 | 1.87 | 11.20 | 6.00 | 18.012,189 |
|  | 1949 | 147,630 | 279.769 | 1.89 | 11.24 | 5.93 | 19,347, 837 |
|  | 1950 | 156.367 | 299,838 | 1.92 | 11.44 | 5. 96 | 20,813, 661 |
|  | 1951 | 161,088 | 313,525 | $1 \cdot 95$ | 11.59 | $5 \cdot 95$ | 21,952,569 |
| Yukon and Northwest Territories............... | 1948 | 3,245 | 7,023 | $2 \cdot 16$ |  |  |  |
|  | 1949 | 3.579 | 7,785 | $2 \cdot 17$ | 12.71 | $5 \cdot 84$ | 595.063 |
|  | 1950 | 3,833 | 8.281 | $2 \cdot 16$ | 13.51 | 6.25 | 587,750 |
|  | 1951 | 4,040 | 8.819 | $2 \cdot 18$ | 13.89 | $6 \cdot 36$ | 625.349 |
| Canada............. | 1948 | 1,669,944 |  |  | 13.31 | $5 \cdot 92$ | 263,165,192 |
|  | 1949 | 1,729,150 | 3,888,653 | $2 \cdot 25$ | $13 \cdot 25$ | $5 \cdot 89$ | 270,909,779 |
|  | 1950 | 1,852,269 | 4,202,263 | $2 \cdot 27$ | $13 \cdot 64$ | 6.01 | 297,514,034 |
|  | 1951 | 1,910,192 | 4,367,391 | $2 \cdot 29$ | $13 \cdot 72$ | 6.00 | 309,465,461 |

${ }^{1}$ Based on gross payments for March.
${ }^{2}$ Payment of Family Allowances implemented in April 1949.

## Subsection 2.-Old Age Security

Under the Old Age Security Act of 1951, effective January 1952, a universal pension of $\$ 40$ per month is payable by the Federal Government to all persons aged 70 or over, subject only to a residence qualification. The resident 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, payments may then be made for as much as three 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 tax became effective in July 1952, resulting in a maximum tax of $\$ 30$ for that year. The fund will also receive the amount collected by a 2 p.c. tax on corporate
taxable income and the proceeds of a 2 p.c. sales tax. The latter tax is not new but is simply an earmarking of one-fifth of the existing sales tax of 10 p.c. Temporary loans may be made to the Old Age Security Fund, subject to repayment as directed.

It is estimated that the pension payments will cost from $\$ 322,000,000$ to $\$ 330,000,000$ in the first year of operation-the year ending Mar. 31, 1953. Collections from the three taxes for the same period are estimated at: personal tax, $\$ 52,000,000$; corporate tax, $\$ 48,000,000$; and sales tax, $\$ 135,000,000$; a total of $\$ 235,000,000$.

The total number of persons in Canada who were 70 years of age or over in 1952 is estimated at 682,000 . Some of these will not be eligible because of insufficient years of residence and certain eligible persons may not apply.

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 pension at the end of 1951 under the Old Age Pensions Act of 1927 were transferred to the rolls of the universal pension as of January 1952, 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 certain provinces supplements are payable to recipients of old age security.
2.-Old Age Security Statistics, by Provinces, January, February and March 1952

| Province and Month | Pensioners | Pensions Paid (Gross) | Province or Territory and Month | Pensioners | Pensions Paid (Gross) |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ |  | No. | \$ |
| Newfoundland- |  |  | Manitoba- |  |  |
| January. | 14,056 | 562,240 | January.. | 36,144 | 1,445,760 |
| February | 14,097 14,177 | 565,920 569,160 | February | 37,351 | 1,502,040 |
| Prince Edward Island- |  |  | Saskatchewan- |  |  |
| January. | 6,162 | 246,480 | January.... | 35,622 | 1,424,880 |
| February | 6,279 | 253,880 | February | 36,316 | 1,470,480 |
| March. | 6,338 | 255,440 | March.. | 37,153 | 1,510,400 |
| Nova Scotia- |  |  | Alberta- |  |  |
| January. | 33,547 | 1,341,880 | January. | 35,194 | 1,407,760 |
| February | 34,169 | 1,373,600 | February | 35,895 | 1,444,240 |
| March. | 34,832 | 1,420,240 | March... | 36,637 | 1,485,080 |
| New Brunswick- |  |  | British Columbia- |  |  |
| January.. | 24,044 | 961,760 | January . | 69,325 | 2,773,000 |
| February | 24,382 | 985,280 | February | 70,825 | 2,853,960 |
| March... | 24,540 | 988,840 | March.. | 72,225 | 2,922,360 |
| Quebec- |  |  | N.W.T. and Yukon- |  |  |
| January. | 135,265 | 5,410,600 | January............ | 377 | 15,080 |
| February | 138,146 | 5,598,640 | February | 401 | 16,600 |
| March. | 139,954 | 5,638,000 | March. | 406 | 16,760 |
| Ontario- |  |  | Canada- |  |  |
| January | 227,864 | 9,114,560 | January. | 617,600 | 24,704,000 |
| Februar | 233,774 | 9,523,480 | February | 631,635 | 25,588,120 |
| March. | 238,925 | 9,700,680 | March | 643,013 | 26,032,800 |

## Subsection 3.-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 conjuction with the unemployment insurance scheme. It is administered through the employment and claims offices and supervised by the Department of Labour. This program is also described in Chapter XVIII.

## Subsection 4.-Prairie Farm Assistance

The Prairie Farm Assistance Act is administered by the Department of Agriculture; a description of the legislation is given in Chapter X.

## Subsection 5.-Welfare Services for the Indian and Eskimo

Indian Welfare.*-In addition to direct relief of all kinds for destitute Indians which is provided to prevent hardship, the Government of Canada, through the Department of Citizenship and Immigration, promotes a number of activities designed to assist individuals and bands to achieve self-support or to better their economic position. During the year ended Mar. 31, 1951, $\$ 3,925,172$ was spent for direct relief in the form of food, fuel, clothing, household equipment and care for helpless and indigent Indians. In addition, special diets were provided for convalescent tubercular Indians in the post-hospitalization period.

Indians in Canada are eligible for family allowances and old age security on the same basis as non-Indians. Moreover, in most provinces Indians are eligible for the provincially administered old age assistance pension payable to persons 65 to 69 years of age subject to a means test. Blind Indians in most provinces are also eligible for the blind persons allowances.

Family allowances amounting to $\$ 3,619,075$ were paid to 20,399 Indian families in 1951. This income has exerted a very great influence on Indian Reserves toward the betterment of the children's diet, their clothing and school attendance. It is estimated that approximately $\$ 2,500,000$ will be paid annually to Indians 70 years of age or over through old age security pensions. This income, in addition to that paid to Indians in the 65-69 age group and to blind Indians, will be of great benefit to these people.

During the year ended Mar. 31, 1951, Indians who were unable to provide adequate housing for themselves were assisted in the construction of 1,082 new houses and with repairs to 2,052 houses. The Departmental contribution to this program was $\$ 911,991$ for new construction and $\$ 195,701$ for repairs.

Grants for settlement under the Veterans' Land Act were obtained for 122 Indian veterans, bringing the total number of such grants to 1,212 amounting to $\$ 2,721,868$.

The Indian Affairs Branch operates a service for the promotion and sale of Indian handicraft to merchants in all parts of Canada. The articles include utilitarian and ornamental or novelty baskets and items made of bark and wood, the

[^88]value of which amounted to $\$ 30,000$ in 1951 . This work provides a steady income for a limited number of Indian women and men and is done mostly in the home. Handicraft articles are also often produced on a part-time basis for local sale to tourists.

The fur-development program undertaken in co-operation with the various provinces was continued during 1951 and the benefits accruing to Indians were most apparent with respect to beaver production in Manitoba, Saskatchewan and Ontario. In the 1951 season these three Provinces took over 100,000 beaver pelts valued at more than $\$ 2,000,000$ of which approximately $\$ 1,300,000$ was paid to the participating Indian trappers. In Quebec, extensive areas are set aside exclusively for Indian trappers under joint management by the Indian Affairs Branch and the Quebec Department of Fish and Game. In these reserves, the beaver has been successfully rehabilitated, by means of management and control through registered traplines, from a state of virtual depletion to the point where Indians, in 1951, realized $\$ 376,032$ from that fur-bearer alone. The program has also been extended to take in such fur-bearers as the fisher and the marten.

Eskimo Welfare.*-One of Canada's most challenging welfare-administrative problems is the task of assisting its Eskimo citizens to adjust themselves to changing conditions in the Arctic. Since the turn of the present century, when trading posts started to appear in Eskimo territory, marked changes have taken place in Eskimo culture and ways of living and recently improved means of transportation and communication have stimulated interest in the Arctic and have accelerated those changes.

Rifles and modern tools and equipment have largely supplanted primitive weapons and implements and most Eskimos now depend, to some extent at least, on the trade stores for their needs although they are still able to obtain a good part of their food, clothing and shelter off their own country. Their purchases of imported goods must be made from trapping proceeds and, except for muskrats which are available in the Mackenzie Delta only, the white fox is the only resource of any considerable economic value to the Eskimos. And an unstable resource it is, being subject to wide fluctuations both in numbers and in value from year to year. This has been very apparent in recent years when prices have declined to particularly low levels.

The Northern Administration and Lands Branch of the Department of Resources and Development is responsible for 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. 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 inhabitants, including teachers, missionaries, traders, doctors, nurses, radio operators and weather-station personnel.

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. Extensive tuberculosis and other medical surveys have been made in recent years and, where necessary, patients have been brought

[^89]to hospitals outside for treatment. After-care of such patients and their rehabilitation after returning home sometimes raises problems requiring close co-operation of all parties concerned.

Government schools are operating in eight of the larger centres-Aklavik, Tuktoyaktuk, Coppermine, Chesterfield Inlet, Coral Harbour, Cape Dorset, Port Harrison and Fort Chimo. At a number of other settlements schools are operated by missions, assisted by Government grants. Missions are also assisted in the operation of two industrial homes, one at Chesterfield Inlet and the other at Pangnirtung, where aged and physically handicapped Eskimos are cared for. In co-operation with the Canadian Handicrafts Guild, Northern Administration has been promoting handicrafts in the Eastern Arctic. This development began in 1949 and each year since then qualified instructors have been sent into the field to expand the work. Many interesting items have been produced and readily disposed of throughout Canada. Eskimos are encouraged to follow trades, such as reindeer herding and fishing, and are given some assistance in their efforts.

Studies are being made relating to the conservation of the wildlife resources, particularly caribou and marine animals, on which Eskimos depend greatly for food and clothing. Game preserves have been established and regulations made to preserve these resources for the sole benefit of the Eskimo population.

Family allowances are paid to Eskimos in kind from a list drawn up in cooperation with the Department of National Health and Welfare. This list is designed to supplement rather than to supplant the normal native diet. Under recent legislation, Eskimos also enjoy the full benefits of old age security pensions, old age assistance and pensions for the blind.

## Subsection 6.-Government Annuities*

Under the Government Annuities Act (R.S.C. 1927, c. 7, amended by c. 33, 1931) 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.

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. Annuity contracts may be deferred or immediate. Under deferred annuity contracts purchase is by periodic or single premiums. Immediate annuity contracts provide immediate income.

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 to the purchaser or his legal representative with interest. 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.

[^90]From Sept. 1, 1908, the date of the inception of the system, to Mar. 31, 1952, the total number of annuity contracts and certificates issued was 331,791. Of these, 42,098 have been cancelled (including 3,158 cancelled in 1951-52) leaving in effect on Mar. 31, 1952, 289,693 contracts and certificates. The total amount of purchase money received up to Mar. 31, 1952, was $\$ 710,499,698$.

Up to Mar. 31, 1952, 915 corporations, institutions and associations, as compared with 900 up to Mar. 31, 1951, had entered into agreements with the Government to purchase annuities. Under these agreements, 131,749 employees or members were holding certificates for purchase of deferred annuities as compared with 128,299 one year earlier. The number of certificates issued under groups in the year 1951-52 was 12,135 as compared with 15,028 in the previous year.

## 3.-Government Annuities Contracted and Purchase Money Received, Years Ended Mar. 31, 1933-52

Nore.-Figures for the years 1909 to 1932 will be found at p. 873 of the 1942 Year Book.

| 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 <br> Money Received |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ |  | No. | \$ |
| 1933. | 1,375 | 3,547,345 | 1943. | 9,608 | 20,415,365 |
| 1934. | 2,412 | 7,071,439 | 1944. | 19,354 | 26,600,098 |
| 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 | $63,133,242$ |
| 1971 | 11,994 | 18,803,645 | 1951. | 21,775 | 59,648,323 |
| 1942. | 8,593 | 19,630,645 | 1952. | 17,038 | 57,548,671 |

## 4.-Government Annuities Fund Statements, Years Ended Mar. 31, 1948-52

| Item | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Assets | \$ | \$ | \$ | \$ | \$ |
| Fund at beginning of fiscal year | 357,161,953 | 429,518, 235 | 501, 737, 659 | 563, 182, 111 | 620,398,995 |
| Receipts during the year, less payments.. | 72,356,282 | 72,219,424 | 61,444,452 | 57, 216, 884 | 55,532,708 |
| Fund at end of fiscal year | 429,518,235 | 501,737,659 | 563,182,111 | 620,398,995 | 675,931,703 |
| Luablities |  |  |  |  |  |
| Value of outstanding contracts. | 429,518, 235 | 501,737,659 | 563, 182,111 | 620,398, 995 | 675,931,703 |
| Receipts |  |  |  |  |  |
| Immediate annuities | 20,874,824 | 9,363,110 | 8,500,020 | 6,954,048 | 4,437,155 |
| Deferred annuitie | 54,748, 242 | 55, 193, 325 | 55, 165, 127 | 53, 101, 159 | 53,438,891 |
| Interest on fund. | 15.250,733 | 17,804,595 | 20,504,145 | 22,680, 245 | 24,671,668 |
| Amount transferred to maintain reserve.. | 331,857 | 11,408, 468 | 1,255,772 | 659,787 | 940,138 |
| Totals, Receipts | 91,205,656 | 93,769,498 | 85,425,064 | 83,395,239 | 83,487,852 |
| Payments |  |  |  |  |  |
| Payments under vested annuity contracts | 17, 588, 142 | 20,120, 185 | 22,031,613 | 23,964, 819 | 25,820,310 |
| Return of premiums with interest........ | 705,993 555,239 | $\begin{array}{r}1,184,569 \\ 245 \\ \hline\end{array}$ | 1,417,094 | 1,806,652 | 1,807,459 |
| Totals, Payments | 18,849,374 | 21,550,074 | 23,980,612 | 26,178,355 | 27,955,144 |

5.-Numbers and Values of Annuity Contracts, as at Mar. 31, 1951 and 1952

| Classification | 1951 |  |  | 1952 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contracts | $\begin{aligned} & \text { Amount } \\ & \text { of } \\ & \text { Annuity } \end{aligned}$ | Value, at Mar. 31, Contracts in Force | Contracts | $\begin{aligned} & \text { Amount } \\ & \text { of } \\ & \text { Annuity } \end{aligned}$ | Value, at Mar. 31, <br> Contracts <br> in Force |
|  | No. | \$ | \$ | No. | \$ | $\delta$ |
| Immediate. | 22,395 | 8,541,037 | 81,625,477 | 23,776 | 9,119,867 | 86,089,722 |
| Immediate guaranteed...... | 28, 108 | 13,911,027 | 162,542,341 | 29.817 | 15, 113,865 | 174,277,914 |
| Immediate last survivor.... | ${ }_{20}^{4,523}$ | 2,117, ${ }_{1}$ | 29,056,432 | 4,464 231,636 | 2,107, 1 | 28,565,657 |
| Deferred................. | 220,787 |  | 347, 174,745 | 231,636 |  | 386,998,410 |
| Totals. | 275,813 | 24,569,7912 | 620,398,995 | 289,693 | 26,341,603 ${ }^{2}$ | 675,931,703 |

## Section 2.-Federal-Provincial Programs

## Subsection 1.-Old Age Assistance

The Old Age Assistance Act of 1951, effective January 1952, provides for financial aid to the provinces toward the provision of assistance, not exceeding $\$ 40$ a month, to persons aged $65-69$ subject to a residence qualification of at least 20 years. 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 January 1952 in all provinces, except Newfoundland, and in the Northwest Territories; in Newfoundland it became effective in April 1952. No agreement had been made with the Yukon Territory by Mar. 31, 1952.

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 certain provinces supplements are payable to the recipients of old age assistance.

Table 6 presents the statistics available for the early months of the program; it is not anticipated that the program will mature fully until it has been effective five years.
6.-Old Age Assistance Statistics, by Provinces, January, February and March, 1952

| Province or Territory and Month | Recipients | Average Amount of Assistance Monthly | P.C. of Recipients to <br> Population Age 65-691 | Federal Contribution for the Month |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | p.c. | \$ |
| Prince Edward Island............... $\begin{aligned} & \text { Jan. } \\ & \text { Feb. } \\ & \text { Mar. }\end{aligned}$ | $\begin{array}{r} 98 \\ 220 \\ 305 \end{array}$ | 16.87 21.58 21.72 | $\overline{-}_{9.33}$ | 827 2,374 3,332 |
| Nova Scotia...................... $\begin{aligned} & \text { Jan. } \\ & \text { Feb. } \\ & \text { Mar. }\end{aligned}$ | 987 1,541 2,271 | $34 \cdot 39$ $34 \cdot 37$ $34 \cdot 09$ | $\overline{11} \cdot 68$ | 16,972 28,989 49,712 |
| New Brunswick....................................Feb. <br> Mar. | 1,746 2,240 3,237 | 37.45 37.29 36.91 | $22 \cdot 66$ | 32,691 49,238 83,709 |
| Quebec............................................Feb. <br> Mar. | 3,500 8,167 12,267 | 38.81 38.72 38.61 | $13 \cdot 17$ | $\begin{array}{r} 67,925 \\ 245,181 \\ 376,976 \end{array}$ |
|  | $\begin{array}{r} 7,173 \\ 10,051 \\ 12,697 \end{array}$ | $37 \cdot 84$ $37 \cdot 62$ $37 \cdot 28$ | $\overline{-}_{8.19}$ | $\begin{aligned} & 135,703 \\ & 236,624 \\ & 300,185 \end{aligned}$ |
|  | 588 745 1.239 | $38 \cdot 51$ $38 \cdot 57$ $38 \cdot 45$ | $4 \cdot 53$ | 14,389 33,288 59,012 |
| Saskatchewan $\ldots \ldots \ldots \ldots \ldots \ldots \ldots . .$Jan. <br> Feb. <br> Mar. | 1,508 1,991 2,497 | 37.01 37.07 36.93 | $8 \cdot 58$ | 27,907 43,534 61,951 |
|  | 1,922 2,279 2,954 | $37 \cdot 74$ $37 \cdot 58$ $37 \cdot 36$ | $\overline{-}$ | $\begin{aligned} & 36,409 \\ & 45,106 \\ & 62,537 \end{aligned}$ |
| British Columbia...................................Fan. <br> Feb. <br> Mar. | 1,819 3,396 4,134 | $38 \cdot 96$ $38 \cdot 37$ $38 \cdot 28$ | $\overline{7}_{7.81}$ | 53,771 92,654 116,223 |
|  | - | - | - | - |
| Canada (exclusive of Newfoundland and Yukon) $\ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \begin{array}{r}\text { Jan. } \\ \text { Feb. } \\ \text { Mar. }\end{array}$ | $\begin{aligned} & 19,341 \\ & 30,630 \\ & 41,601 \end{aligned}$ | $\begin{aligned} & 37 \cdot 75 \\ & 37.68 \\ & 37 \cdot 47 \end{aligned}$ | $9.76$ | $\begin{array}{r} 386,594 \\ 776,988 \\ 1,113,637 \end{array}$ |

[^91]
## Subsection 2.-Old Age Pensions Act 1927

For practical purposes the Old Age Pensions Act of 1927 ceased to be effective Dec. 31, 1951, at which time all recipients of pensions thereunder were automatically transferred to the rolls of the universal pension payable under the Old Age Security Act (see p. 256). A description of the provisions of the Old Age Pensions Act of 1927 may be found in the Year Book 1951, pp. 234-235. Statistics on the operation of the program up to Dec. 31, 1951, are given in Table 7.

## 7.-Old Age Pensions Statistics, by Provinces, Years Ended Mar. 31, 1950 and 1951, and Nine Months Ended Dec. 31, 1951

| Province and Effective Date of Act | Year Ended Mar. $31-$ <br> Mar. 31- | Average Pension ${ }^{1}$ | Pensioners ${ }^{1}$ | P.C. of Pensioners ${ }^{1}$ to Population ${ }^{2}$ | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Persons } \\ & \text { Age 70 } \\ & \text { Years } \\ & \text { or Over } \\ & \text { to Popu- } \\ & \text { lation }^{2} \end{aligned}$ | P.C. of Pensioners ${ }^{1}$ to Population Age 70 Years or Over | Federal Contribution During Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \$ | No. | p.c. | p.c. | p.c. | \$ |
| Newfoundland. <br> (Apr. 1, 1949) | $\begin{aligned} & 1950 \\ & 1951 \\ & 1951^{3} \end{aligned}$ | $\begin{aligned} & 29 \cdot 47 \\ & 38 \cdot 01 \\ & 38 \cdot 02 \end{aligned}$ | $\begin{aligned} & 10,296 \\ & 11,394 \\ & 11,925 \end{aligned}$ | $\begin{aligned} & 2 \cdot 96 \\ & 3 \cdot 21 \\ & 3 \cdot 36 \end{aligned}$ | $\begin{aligned} & 3.82 \\ & 3.89 \\ & 3.89 \end{aligned}$ | $\begin{aligned} & 77 \cdot 41 \\ & 82 \cdot 57 \\ & 86 \cdot 41 \end{aligned}$ | $\begin{aligned} & 2,229,446 \\ & 3,819,074 \\ & 3,091,342 \end{aligned}$ |
| Prince Edward Island......... <br> (July 1, 1933) | $\begin{aligned} & 1950 \\ & 1951 \\ & 1951^{3} \end{aligned}$ | $\begin{aligned} & 34 \cdot 36 \\ & 34 \cdot 38 \\ & 34 \cdot 92 \end{aligned}$ | $\begin{aligned} & 2,976 \\ & 3,136 \\ & 3,226 \end{aligned}$ | $\begin{aligned} & 3 \cdot 17 \\ & 3 \cdot 27 \\ & 3 \cdot 36 \end{aligned}$ | $\begin{aligned} & 6.81 \\ & 6 \cdot 46 \\ & 6.46 \end{aligned}$ | $\begin{aligned} & 46 \cdot 50 \\ & 50 \cdot 58 \\ & 52 \cdot 03 \end{aligned}$ | $\begin{aligned} & 865,299 \\ & 945,052 \\ & 746,064 \end{aligned}$ |
| Nova Scotia (Mar. 1, 1934) | $\begin{aligned} & 1950 \\ & 1951 \\ & 1951^{3} \end{aligned}$ | $\begin{aligned} & 35 \cdot 41 \\ & 35 \cdot 65 \\ & 35 \cdot 64 \end{aligned}$ | $\begin{aligned} & 19,966 \\ & 20,808 \\ & 20,808 \end{aligned}$ | $\begin{aligned} & 3 \cdot 10 \\ & 3 \cdot 16 \\ & 3 \cdot 16 \end{aligned}$ | $\begin{aligned} & 5 \cdot 33 \\ & 5 \cdot 33 \\ & 5 \cdot 33 \end{aligned}$ | $\begin{aligned} & 58 \cdot 04 \\ & 59 \cdot 28 \\ & 59 \cdot 28 \end{aligned}$ | $\begin{aligned} & 6,056,998 \\ & 6,572,267 \\ & 5,031,712 \end{aligned}$ |
| New Brunswick................ <br> (July 1, 1936) | $\begin{aligned} & 1950 \\ & 1951 \\ & 1951^{3} \end{aligned}$ | $\begin{aligned} & 36 \cdot 22 \\ & 36 \cdot 48 \\ & 36 \cdot 58 \end{aligned}$ | $\begin{aligned} & 16,231 \\ & 16,681 \\ & 16,825 \end{aligned}$ | $\begin{aligned} & 3 \cdot 15 \\ & 3 \cdot 20 \\ & 3 \cdot 22 \end{aligned}$ | $4 \cdot 38$ 4.46 $4 \cdot 46$ | 71.82 71.59 $72 \cdot 21$ | $\begin{aligned} & 5,083,788 \\ & 5,427,021 \\ & 4,154,187 \end{aligned}$ |
| Quebec. <br> (Aug. 1, 1936) | $\begin{aligned} & 1950 \\ & 1951 \\ & 1951^{3} \end{aligned}$ | $\begin{aligned} & 37 \cdot 73 \\ & 37 \cdot 71 \\ & 37 \cdot 68 \end{aligned}$ | $\begin{aligned} & 69,017 \\ & 73,564 \\ & 75,541 \end{aligned}$ | $\begin{aligned} & 1.78 \\ & 1.85 \\ & 1.90 \end{aligned}$ | $3 \cdot 42$ $3 \cdot 48$ $3 \cdot 48$ | $51 \cdot 85$ $53 \cdot 15$ $54 \cdot 58$ | $\begin{aligned} & 22,328,643 \\ & 24,478,750 \\ & 19,115,704 \end{aligned}$ |
| Ontario. <br> (Nov. 1, 1929) | $\begin{aligned} & 1950 \\ & 1951 \\ & 1951^{3} \end{aligned}$ | $\begin{aligned} & 38.06 \\ & 37.79 \\ & 37.73 \end{aligned}$ | $\begin{aligned} & 85,100 \\ & 91,509 \\ & 93,175 \end{aligned}$ | $\begin{aligned} & 1.93 \\ & 2 \cdot 03 \\ & 2 \cdot 07 \end{aligned}$ | $5 \cdot 42$ $5 \cdot 54$ $5 \cdot 54$ | $35 \cdot 59$ 36.59 37.26 | $\begin{aligned} & 27,863,894 \\ & 30,065,394 \\ & 23,357,032 \end{aligned}$ |
| Manitoba. <br> (Sept. 1, 1928) | $\begin{aligned} & 1950 \\ & 1951 \\ & 1951^{3} \end{aligned}$ | $\begin{aligned} & 38 \cdot 44 \\ & 38 \cdot 34 \\ & 38 \cdot 16 \end{aligned}$ | $\begin{aligned} & 16,868 \\ & 17,573 \\ & 17,906 \end{aligned}$ | $2 \cdot 17$ $2 \cdot 21$ $2 \cdot 25$ | 4.74 4.91 4.91 | $\begin{aligned} & 45 \cdot 71 \\ & 45 \cdot 06 \\ & 45 \cdot 91 \end{aligned}$ | $\begin{aligned} & 5,578,655 \\ & 5,984.845 \\ & 4,599,348 \end{aligned}$ |
| Saskatchewan. . <br> (May 1, 1928) | $\begin{aligned} & 1950 \\ & 1951 \\ & 1951^{3} \end{aligned}$ | $\begin{aligned} & 37 \cdot 30 \\ & 37 \cdot 51 \\ & 37 \cdot 48 \end{aligned}$ | $\begin{aligned} & 16,566 \\ & 17,409 \\ & 17,844 \end{aligned}$ | 1.92 1.99 2.04 | $\begin{aligned} & 4 \cdot 29 \\ & 4 \cdot 52 \\ & 4 \cdot 52 \end{aligned}$ | $44 \cdot 89$ $44 \cdot 07$ $45 \cdot 17$ | $\begin{aligned} & \mathbf{5 , 3 5 6}, 205 \\ & 5,798.980 \\ & 4,514,081 \end{aligned}$ |
| Alberta. <br> (Aug. 1, 1929) | $\begin{aligned} & 1950 \\ & 1951 \\ & 1951^{3} \end{aligned}$ | $\begin{aligned} & 37 \cdot 90 \\ & 37 \cdot 63 \\ & 37 \cdot 53 \end{aligned}$ | $\begin{aligned} & 16,445 \\ & 17,990 \\ & 18,408 \end{aligned}$ | $\begin{aligned} & 1 \cdot 89 \\ & 2 \cdot 01 \\ & 2 \cdot 06 \end{aligned}$ | $\begin{aligned} & 4 \cdot 06 \\ & 4 \cdot 23 \\ & 4 \cdot 23 \end{aligned}$ | $\begin{aligned} & 46 \cdot 45 \\ & 47 \cdot 47 \\ & 48 \cdot 57 \end{aligned}$ | $\begin{aligned} & 5,182,534 \\ & 5,876,261 \\ & 4,608,500 \end{aligned}$ |
| British Columbia. <br> (Sept. 1, 1927) | $\begin{aligned} & 1950 \\ & 1951 \\ & { }^{1951} \end{aligned}$ | $\begin{aligned} & 37 \cdot 17 \\ & 36 \cdot 95 \\ & 36 \cdot 75 \end{aligned}$ | $\begin{aligned} & 28,988 \\ & 31,983 \\ & 33,060 \end{aligned}$ | $\begin{aligned} & 2.60 \\ & 2.81 \\ & 2.91 \end{aligned}$ | $\begin{aligned} & 6 \cdot 02 \\ & 6 \cdot 29 \\ & 6.29 \end{aligned}$ | $\begin{aligned} & 43 \cdot 20 \\ & 44 \cdot 67 \\ & 46 \cdot 17 \end{aligned}$ | $\begin{array}{r} 9,072,353 \\ 10,252,116 \\ 8,088,759 \end{array}$ |

For footnotes, see end of table.
7.-OId Age Pensions Statistics, by Provinces, Years Ended Mar. 31, 1950 and 1951, and Nine Months Ended Dec. 31, 1951-concluded

| Territory and Effective Date of Act | $\begin{aligned} & \text { Year } \\ & \text { Ended } \\ & \text { Mar.31- } \end{aligned}$ | Average Pension ${ }^{1}$ | Pensioners ${ }^{1}$ | P.C. of Pensioners ${ }^{1}$ to Population ${ }^{2}$ |  | P.C. of Pensioners ${ }^{1}$ to Population Age 70 Years or Over ${ }^{2}$ | Federal Contribution During Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \$ | No. | p.c. | p.c. | p.c. | \$ |
| Northwest Territories. <br> (Jan. 25, 1929) | $\begin{aligned} & 1950 \\ & 1951 \\ & 1951^{3} \end{aligned}$ | $\begin{aligned} & 39 \cdot 71 \\ & 39 \cdot 55 \\ & 38 \cdot 69 \end{aligned}$ | $\begin{aligned} & 23 \\ & 26 \\ & 22 \end{aligned}$ | $\begin{aligned} & 0.19 \\ & 0.22 \\ & 0.18 \end{aligned}$ | $\begin{aligned} & 1 \cdot 52 \\ & 1 \cdot 52 \\ & 1 \cdot 52 \end{aligned}$ | $\begin{aligned} & 12.57 \\ & 14.21 \\ & 12.02 \end{aligned}$ | $\begin{array}{r} 9,898 \\ 11,221 \\ 8,956 \end{array}$ |
| Yukon Territory <br> (Apr. 1, 1949) | $\begin{aligned} & 1950 \\ & 1951 \\ & 1951^{3} \end{aligned}$ | $\begin{aligned} & 38 \cdot 65 \\ & 38 \cdot 53 \\ & 38 \cdot 75 \end{aligned}$ | $\begin{array}{r} 108 \\ 100 \\ 85 \end{array}$ | $\begin{aligned} & 2 \cdot 20 \\ & 2.04 \\ & 1.73 \end{aligned}$ | $6 \cdot 67$ $6 \cdot 67$ $6 \cdot 67$ | 32.93 $30 \cdot 49$ 25.91 | $\begin{aligned} & 24,484 \\ & 37,024 \\ & 24,327 \end{aligned}$ |
| Canada. | $\begin{aligned} & 1959 \\ & 1951 \\ & 1951^{3} \end{aligned}$ | $\begin{aligned} & \mathbf{3 5} \cdot \mathbf{2 5} \\ & 37.44 \\ & 39.39 \end{aligned}$ | $\begin{aligned} & 282,584 \\ & 30,173 \\ & \mathbf{3 0 8 , 8 2 5} \end{aligned}$ | $\begin{aligned} & 2 \cdot 08 \\ & 2 \cdot 19 \\ & 2 \cdot 23 \end{aligned}$ | $4 \cdot 62$ $4 \cdot 74$ 4.74 | $\begin{aligned} & 45 \cdot 16 \\ & 46.14 \\ & 47 \cdot 16 \end{aligned}$ | $\begin{aligned} & 89,652,205 \\ & 99,268,006 \\ & 77,340,012 \end{aligned}$ |

[^92]
## Subsection 3.-Allowances for the Blind

The Blind Persons Act of 1951, effective January 1952, provides for financial aid to the provinces toward the provision of allowances not exceeding $\$ 40$ 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 certain provinces, supplements are payable to the recipients of allowances for the blind.

Table 8 presents the statistics available for the early months of the program.

## 8.-Statistics of Allowances for the Blind, by Provinces, January, February and March, 1952

| Province or Territory and Month | Recipients | Average Amount of Allowance Monthly | P.C. of Recipients to <br> Population Age 60-69 ${ }^{1}$ | Federal Contribution for the Month |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | p.c. | \$ |
| Newfoundland........................... Jan. | 311 318 | $39 \cdot 62$ | - | 9,241 |
| Feb. | 318 | $39 \cdot 23$ | $\square$ | 9,424 |
| Mar. | 321 | $39 \cdot 26$ | $0 \cdot 18$ | 9,572 |
| Prince Edward Island...................... Jan. | 76 | $38 \cdot 13$ | - | 2,173 |
| Feb. | 76 | 38.13 | - 15 | 2,173 |
| Mar. | 75 | $38 \cdot 10$ | $0 \cdot 15$ | 2,113 |
| Nova Scotia. . . . . . . . . . . . . . . . . . . . . . . . . Jan. | 735 | 38.71 | - | 21,363 |
| Feb. | 734 | 38.77 | - | 21,443 |
| Mar. | 734 | 38.69 | 0.21 | 21,394 |
| New Brunswick................................ Jan. | 780 | 39.23 | - | 22,952 |
| Feb. | 784 | $39 \cdot 24$ | $0 \cdot 30$ | 23,210 |
| Mar. | 783 | 39.25 | $0 \cdot 30$ | 23,024 |
| Quebec ...................................... Jan. | 3.073 | 39.58 | - | 91,217 |
|  | 3,066 | 39.54 | $\bigcirc$ | 91,411 |
| Mar. | 3,013 | 39.48 | $0 \cdot 14$ | 89,274 |
| Ontario.......................................... . Jan. | 1,599 | 39.15 | - | 46,950 |
| Ontar. Feb. | 1,589 | $39 \cdot 22$ | $\bigcirc$ | 47,341 |
| Mar. | 1,604 | 39.20 | 0.06 | 48,693 |
| Manitoba..................................... Jan. | 403 | $39 \cdot 47$ | - | 11,966 |
| Feb. | 404 | 39.37 | $\bigcirc$ | 11,996 |
| Mar. | 401 | $39 \cdot 37$ | $0 \cdot 09$ | 11,987 |
| Saskatchewan.................................. Jan. | 338 | $39 \cdot 47$ | - | 10,006 |
| Feb. | 340 | $39 \cdot 22$ | - | 10,080 |
| Mar. | 343 | 39.25 | 0.07 | 10,581 |
| Alberta........................................ Jan. | 380 | 39.02 | - | 11,363 |
| Feb. | 378 | 38.90 |  | 11,134 |
| Mar. | 376 | 38.89 | 0.07 | 11,270 |
| British Columbia............................. Jan. | 425 | 38.70 | - | 12,408 |
| Feb. | 424 | $39 \cdot 29$ | - | 12,603 |
| Mar. | 426 | $39 \cdot 25$ | 0.06 | 12,816 |
| Northwest Territories....................... Jan. | 1 | 40.00 | - | 30 |
| Feb. | 1 | 40.00 |  | 30 |
| Mar. | 1 | $40 \cdot 00$ | $0 \cdot 01$ | 30 |
|  | 2 | $40 \cdot 00$ | - | 60 |
|  | 2 | 40.00 | - 0 | 60 |
|  | 2 | $40 \cdot 00$ | $0 \cdot 03$ | 60 |
| Canada. . . . . . . . . . . . . . . . . . . . . . . . . $\begin{aligned} & \text { Jan. } \\ & \text { Feb. } \\ & \text { Mar. }\end{aligned}$ | 8,123 | 39.29 | - | 239,729 |
|  | 8,116 | 39.29 | 0.10 | 240,905 |
|  | 8,079 | 39.25 | 0.10 | 240,814 |

[^93]The figures of Table 8 do not constitute an extension of those in Table 9 which refer to the pensions payable to the blind under the different residence and meanstest conditions of the Old Age Pensions Act of 1927. A description of the pensions payable to the blind under the 1927 Act may be found in the Year Book 1951, pp. 234-235. Table 9 presents the statistics on operations under that Act up to Dec. 31, 1951.

## 9.-Statistics of Pensions for the Blind, by Provinces, Years Ended Mar. 31, 1950 and 1951, and Nine Months Ended Dec. 31, 1951

| Province or Territory and Effective Date of Act | Year Ended Mar. $31-$ | Average Pension ${ }^{1}$ | Pensioners ${ }^{1}$ | P.C. of Pensioners ${ }^{1}$ to <br> Population ${ }^{2}$ | Federal Contribution During Year |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \$ | No. | p.c. | \$ |
|  | 1950 | 29.38 | 171 | 0.049 | 35,662 |
|  | 1951 | $39 \cdot 46$ | 317 | 0.089 | 102,737 |
|  | $1951^{3}$ | $39 \cdot 33$ | 385 | $0 \cdot 108$ | 99,956 |
| Prince Edward Island. <br> (Dec. 1, 1937) | 1950 | $37 \cdot 66$ | 129 | $0 \cdot 137$ | 40,336 |
|  | 1951 | $38 \cdot 22$ | 127 | 0.132 | 43,343 |
|  | $1951{ }^{3}$ | $38 \cdot 15$ | 125 | 0.130 | 32,009 |
| Nova Scotia. <br> (Oct. 1, 1937) | 1950 | 38.44 | 962 | 0.149 | 311,947 |
|  | 1951 | 38.35 | 1.048 | $0 \cdot 159$ | 348,338 |
|  | $1951{ }^{3}$ | $38 \cdot 39$ | 1,028 | $0 \cdot 156$ | 267,004 |
| New Brunswick................................... <br> (Sept. 1, 1937) | 1950 | 39.06 | 1,047 | 0.203 | 357,877 |
|  | 1951 | $39 \cdot 00$ | 1.067 | $0 \cdot 204$ | 377,556 |
|  | $1951{ }^{3}$ | $39 \cdot 03$ | 1,082 | 0.207 | 285,345 |
| Quebec.(Oct. 1, 1937) | 1950 | $39 \cdot 07$ | 3,869 | 0-100 | 1,312,410 |
|  | 1951 | $39 \cdot 07$ | 4,016 | $0 \cdot 101$ | 1,430,107 |
|  | $1951{ }^{3}$ | 39.06 | 3,948 | 0.099 | 1,064,253 |
| Ontario. <br> (Sept. 1, 1937) | 1950 | 38.88 | 2,243 | 0.051 | 778,909 |
|  | 1951 | $38 \cdot 66$ | 2,408 | 0.053 | 830,485 |
|  | $1951{ }^{3}$ | $38 \cdot 71$ | 2,491 | 0.055 | 650,326 |
| Manitoba. <br> (Sept. 1, 1937) | 1950 | $39 \cdot 29$ | 539 | 0.069 | 184,497 |
|  | 1951 | $39 \cdot 32$ | 573 | 0.072 | 203,836 |
|  | $1951{ }^{3}$ | $39 \cdot 14$ | 584 | 0.073 | 156,919 |
| Saskatchewan. <br> (Nov. 15, 1937) | 1950 | 38.91 | 472 | 0.055 | 161,883 |
|  | 1951 | $38 \cdot 96$ | 484 | 0.055 | 171,024 |
|  | $1951{ }^{3}$ | 38.88 | 498 | 0.057 | 133,442 |
| Alberta.(Mar. 7, 1938) | 1950 | $38 \cdot 68$ | 453 | 0.052 | 148,295 |
|  | 1951 | $38 \cdot 49$ | 494 | 0.055 | 167,280 |
|  | $1951^{3}$ | $38 \cdot 50$ | 507 | 0.057 | 129,554 |
| British Columbia. <br> (Dec. 1, 1937) | 1950 | 38.17 | 629 | 0.056 | 204,086 |
|  | 1951 | $38 \cdot 13$ | 661 | 0.058 | 225, 083 |
|  | $1951{ }^{3}$ | 38.07 | 684 | 0.060 | 176,317 |
| Yukon Territory(Apr. 1, 1949) | 1950 | 40.00 | 2 | 0.041 | 240 |
|  | 1951 | $40 \cdot 00$ | 2 | 0.041 | 720 |
| Canada (Including N.W.T.)4........ | 1950 | 38.73 | 10,517 | 0.078 | 3,536,730 |
|  | 1951 | 38.84 | 11,198 | 0.086 | 3,901,109 |
|  | $1951{ }^{3}$ | 38.83 | 11,335 | $0 \cdot 081$ | 2,996,115 |

[^94]
## Subsection 4.-National Physical Fitness Program

A program of physical fitness and recreation for Canada was introduced with the proclamation on Oct. 1, 1943, of the National Physical Fitness Act. A National Council was established to promote the well-being of the people of Canada through physical fitness and recreational activities. The Council, set up on Feb. 15, 1944, is an executive body appointed by the Governor General in Council, which meets twice each year. In some provinces, provincial councils function as advisory bodies to the provincial government.

The Council has sponsored and initiated a number of projects of significance. National Fitness Scholarships are awarded annually to give material assistance to professionally qualified Canadians with three years' successful experience who desire to improve their professional services. The Council has convened a number of National Conferences including the First National Conference on Undergraduate Professional Preparation and the First National Conference on Employee Recreation. The Canadian Aquatic Standards were developed out of such a conference and the Canadian Sports Advisory Council was formed as a result of conferences of national sports governing bodies called by the National Council on Physical Fitness.

Further, a National Achievement Award has been initiated to honour those who have made outstanding contributions in their fields of endeavour. In 1950 the first national Survey of Municipal Recreation was carried out on a sampling basis by the Council with the assistance and co-operation of the Federation of Mayors and Municipalities and the Parks and Recreation Association. The Council also operates a preview visual-aids library service.

The Act is administered by the Department of National Health and Welfare with the Physical Fitness Division acting as a clearing-house among the provinces for the latest information on fitness, recreation, community centres, physical education, athletics, sports and games, theatre arts and related activities. The Division also acts as a liaison office with national associations and comparable organizations in other countries.

The Federal Government makes available to the provinces on a per capita basis an amount not exceeding $\$ 232,000$ annually for the promotion of physical fitness and recreational programs. Financial assistance is given only to those provinces that have signed specific agreements with the Federal Government and to the extent to which they match it dollar for dollar up to the maximum available. At the beginning of 1952, eight provinces and the Northwest Territories were participating in the program.
10.-Grants Available under the National Physical Fitness Act

| Province | Annual Grant Available | Expiry <br> Date of Agreement | Province or Territory | Annual Grant Available | Expiry <br> Date of Agreement |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\delta$ |  |  | \$ |  |
| Newioundland | 5,985 | - ${ }^{1}$, | Manitoba | 12,860 | Mar. 31, 1953 |
| Prince Edward Island. | 1,630 | Mar. 31, 19522 | Saskatchewan | 13,774 | Dec. 31, 1953 |
| Nova Scotia.......... | 10,641 | Mar. 31, 1953 | Alberta ...... | 15,558 | Mar. 31, 1953 |
| New Brunswick | 8,540 | $\text { Mar. 31, } 1953$ | British Columbia..... | 19.296 | Mar. 31, 1953 |
| Quebea. | 67,163 |  | Northwest Territories. | 265 | Mar. 31, 1953 |
| Ontario. | 76,136 | Mar. 31, 1953 | Yukon Territory....... | 151 | 1 |

[^95]
## Subsection 5.-Training Programs

Under the Vocational Training Co-ordination Act of 1942 as amended, 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 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 child or children must be under 16 years of age except in Manitoba where the age limit is 15 years. Provision is made in most provinces to extend payment for a specified period if the child is attending school and five 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 Act is administered by public welfare authorities, in most provinces through a Mothers' Allowances Board or Commission which either 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 January 1952 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 $\$ 50$ 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. In New Brunswick the family maximum is $\$ 60$ a month, with $\$ 27 \cdot 50$ for a mother and one child and $\$ 7 \cdot 50$ for each additional child. Where necessary, an additional $\$ 7 \cdot 50$ 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 $\$ 30$ in a district where the population is under 5,000 and $\$ 35$ 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 $\$ 48$, with $\$ 10$ for each additional child. The allowance may be increased up to $\$ 20$ a month where need is shown and winter fuel allowance is also paid according to need. The maximum monthly allowance in Manitoba for a mother and one child is $\$ 51$ per month. An additional $\$ 10$ is paid for a child aged one to six years, $\$ 13$ for a child seven to 11 years, and $\$ 15$ for a child 12 to 14 years; $\$ 17 \cdot 25$ is paid for a disabled father in the home. The family maximum is $\$ 150$ plus winter fuel for seven months, with supplementary assistance of up to $\$ 25$ in special circumstances. In Saskatchewan the maximum allowance for a family is $\$ 75$ a month, with $\$ 25$ 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. 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, with $\$ 20$ for the second, $\$ 15$ 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 is $\$ 42 \cdot 50$ for a mother with one dependent child, and $\$ 7 \cdot 50$ for each additional child and for a disabled father living at home. Supplementation from social allowance funds brings the actual maximum monthly payments to $\$ 60$ per month for a mother and one child and $\$ 9 \cdot 50$ for each additional child and for a disabled father living at home. Extra expenditures may be met through social allowance funds, and a nutrition allowance is available for tubercular patients and their families.
11.-Mothers' Allowances, by Provinces, as at Mar. 31, 1948-51 ${ }^{1}$

| Province and Year | Families Assisted | Children <br> Assisted | Benefits Paid ${ }^{1}$ | Province and Year | Families Assisted | Children Assisted | $\begin{aligned} & \text { Benefits } \\ & \text { Paid }^{1} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ |  | No. | No. | \$ |
| Newfoundland- $1951 . . . . . . . . . . . . . . . ~$ | 3,129 | 6,417 | 1,112,976 ${ }^{2}$ |  | 7,304 | 15,581 15,885 | $\begin{aligned} & 5,346,016 \\ & 5,546,054 \end{aligned}$ |
| $\begin{gathered} \text { P.E. Island- } \\ 1950 \ldots \ldots \ldots . . \end{gathered}$ | 170 | 468 | 26, $839^{3}$ | Manitoba- |  |  |  |
| 1951................ | 230 | 857 | 52,120 | 1948. | 639 | 1,672 1,804 | $\begin{aligned} & 383,682 \\ & 536,280 \end{aligned}$ |
| Nova Scotia- |  |  |  | 1950. | 786 | 2,073 | 606,009 |
| 1948......... | 1,562 | 4,374 | $1,005,1124$ | 1951. | 880 | 2,305 | 679,854 |
| 1949. | 1,725 | 5,007 | 1,119,1414 |  |  |  |  |
| $\begin{aligned} & 1950 . \\ & 1951 . \end{aligned}$ | 1,918 2,043 | 5,754 | $1,376,6314$ <br> $1,386,9964$ | Saskatchewan- 1948........... | 2,508 | 5,890 | 1,026,112 |
|  |  |  |  | 1949. | 2,555 | 5,984 | 1,068,598 |
| New Brunswick- |  |  |  | 1950 | 2,610 | 6,024 | 1,083,188 |
| 1948. | 1,492 | 4,002 | 680,551 ${ }^{\text {s }}$ | 1951 | 2,690 | 6,335 | 1,106,506 |
| 1949. | 1,611 | 4,431 | 759,855 ${ }^{\text {s }}$ |  |  |  |  |
| 1950............... | 1,788 | 5,002 | 844,2425 | Alberta- |  |  |  |
| 1951............... | 1,814 | 5,130 | 854,027 ${ }^{\text {s }}$ | 1948. | 1,393 | 3,073 3,032 | $\begin{aligned} & 634,753 \\ & 650,692 \end{aligned}$ |
| Quebec- |  |  |  | 1950. | 1,462 | 3,110 | 792,274 |
| 1948. | 12,277 | 34,375 | 4,834, 066 | 1951 | 1.503 | 3,191 | 836,469 |
| 1949............. | 13,220 | 37,016 | 5,239,327 |  |  |  |  |
| 1950................ | 13,591 13,817 | 39,413 40,070 | $\begin{aligned} & 5.454,980 \\ & 5,623,847 \end{aligned}$ | British Columbia- |  |  |  |
|  |  |  |  | 1948... | 751 | 1,608 | 441,967 |
| Ontario- |  |  |  | 1949......... | 681 | 1,445 | 389,347 |
| 1948. | 6,300 | 15,280 | 3,484,808 | 1950.............. | 643 | 1,372 | $366,588{ }^{5}$ |
| 1819.............. | 6,815 | 14,388 | 4,535,343 | 1951............... | 569 | 1,206 | $332,494{ }^{6}$ |

${ }^{1}$ Year ended Mar. 31, unless otherwise indicated. $\quad{ }^{2}$ Fourteen months ended Mar. 31; initial payments were retroactive to Feb. 1, $1950 . \quad{ }_{5}^{3}$ Ten months ended Mar. 31; program became effective June 1949. ${ }^{4}$ Year ended Nov. 30. ${ }^{5}$ Year ended Oct. 31. ${ }^{6}$ Not including $\$ 71,353$ and $\$ 64,055$ paid as supplementation from social allowances funds in 1950 and 1951, respectively.

## Subsection 2.-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. While 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. 232-240. Mothers' allowances are dealt with separately at pp. 269-271, old age assistance at pp. 262-263, and allowances for the blind at pp. 265-267.

Newfoundland.-Provincial welfare services are administered by the Department of Public Welfare through a number of regional welfare offices.

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 and, for delinquent children, maintains a Boys' Home and Training School and a Girls' Home and Training School. The Director of Child Welfare is Judge of the Juvenile Court.

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.

Care of the Aged.-The aged and infirm are cared for in the Falconwood Mental Hospital and 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 25 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 staff. 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 settlement may contribute to the cost of maintenance. Homes for the aged are subject to provincial inspection, but 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.-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 child-caring 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. Juvenile Courts are under the AttorneyGeneral'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 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 equally 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 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. 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. The cost of maintenance in these schools is shared equally by the Province and municipalities of residence. 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 local doctors and clergy.

Care of the Aged.-Institutional care for indigent old people is provided under the Quebec Public Charities Act.

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.

Ontario.-Provincial welfare services are administered by the Department of Public Welfare. The Province may pay 50 p.c. of the administrative costs of welfare units established by municipalities or districts to co-ordinate services.

Child Care and Protection.-Child protection legislation is administered by the Child Welfare Division 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. The Province also 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. Children's institutions and day nurseries are supervised by the Child Welfare Division and must be licensed. The Province makes small per diem grants to non-profit-making 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 cost of approved new construction. 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 needy person maintained.

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.

Manitoba.-The Public Welfare Division of the Department of Health and Public Welfare is generally responsible for provincial welfare services.

Child Care and Protection.-Preventive and protective services for children are provided by four non-denominational Children's Aid Societies in their respective territories. The Public Welfare Division supervises their programs, provides services in other areas and supervises children's institutions. Neglected children may be made wards of the Director of Child 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 $\$ 300,000$ 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 Child 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 $\$ 300,000$ annual social assistance fund which is allocated on a pro-rata basis. The Province is responsible for aid to persons without municipal residence as well as for general assistance_in_unorganized territory.

Saskatchewan.-The administration of provincial welfare services, under the Department of Social Welfare and Rehabilitation, was reorganized in 1952 to provide for more effective co-ordination and supervision of programs. A single Public Welfare Branch replaced the former Child Welfare, Public Assistance and Welfare Services Branches and three new Branches were set up to deal with research and planning, nursing homes and housing, and with rehabilitation.

Child Care and Protection.--The Department provides welfare services for children throughout most of the Province and supervises the program of the Children's Aid Society at Saskatoon to which certain responsibilities are delegated. 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 three institutions for the temporary care of wards.

The Corrections Branch of the Department is responsible for both adult and juvenile correctional services, provides probation and parole services for juvenile delinquents and administers the Saskatchewan Boys' School. Juvenile Courts, reorganized in 1950, consist of an Adjudication Division, under a judge, which determines whether a delinquency has been committed, and a Disposition Division which determines treatment. The latter is composed of a magistrate and the provincial youth guidance authority which also has wide supervisory powers over treatment measures.

Care of the Aged.-The Department operates two 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 also responsible for planning to meet future needs of the aged and for co-operating 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, the Province paying 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 Metis-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. Two schools are conducted for Metis children.

Alberta.-The Department of Public Welfare is responsible for the administration of provincial welfare measures.

Child Care and Protection.-The care of children who are made wards of the Government is under the control of the Child Welfare Commission. These children may be placed in foster homes, boarding homes or institutions. Financial responsibility for wards rests with the municipalities of residence but the Province may make grants of up to 60 p.c. of the maintenance costs. The Home Investigating Committee is responsible for the inspection of all homes in which children are given care. Effective July 1, 1952, administration of juvenile delinquency was transferred from the Department of Public Welfare to the Attorney-General's Department.

Care of the Aged.-The Province reimburses municipalities for 50 p.c. of costs incurred for the maintenance of needy, aged or infirm persons in municipally licensed homes. The grants may not exceed a prescribed maximum and are contingent upon the maintenance of certain standards.

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 these assistance costs. The Province pays the total cost of assistance granted to transients and to residents of unorganized districts. Families may be assisted through resettlement on suitable farm lands. The Single Men's Division maintains four hostels 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 set aside Metis Settlement Areas where settlers have exclusive fishing, hunting and trapping rights, and are encouraged to engage in lumbering, agriculture and stock-raising. Educational services are provided and government-operated stores sell goods at cost price.

British Columbia.-The administration of provincial welfare services by the Social Welfare Branch of the Department of Health and Welfare is decentralized through district offices in five regions covering the whole Province. Generalized field service is provided by provincial social workers in the area to which each is assigned. The staff of the Social Welfare Branch is also responsible for welfare services in 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 either have their own or amalgamated social welfare departments or 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 and provides direct services except at Vancouver and Victoria where it supervises the Children's Aid Societies to which responsibility is largely delegated. Municipalities are responsible for the costs of maintaining
wards, with the Province reimbursing them for 80 p.c. of these expenditures and paying the entire cost for children in unorganized areas. Children's institutions, boarding homes and day nurseries are lieensed and supervised. The Division administers the boys' and girls' industrial schools for delinquent children. Family casework and rehabilitative supervision of boys and girls released from the schools are carried on in co-operation with the Psychiatric Division, the probation service of the Juvenile Courts, which are under the Attorney-General's Department, and with voluntary agencies.

Care of the Aged.-The Province operates the Provincial Home which provides care for aged men, contributes 33 p.c. of the capital cost of construction of municipal homes, and licenses and supervises municipal homes, private institutions and boarding homes. The maintenance of needy residents, where necessary, is shared with the municipalities on an $80-20$ basis.

Social Assistance.-The social assistance program administered by the Family Division includes allowances to needy individuals or families, counselling services, occupational training, and boarding and foster-home care. The Province reimburses the municipalities 80 p.c. of the costs of basic social assistance payments to indigent residents and pays 50 p.c. of the increased allowances authorized in 1951.

## 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 legislation is given in Chapter XVIII.

## Subsection 4.-Care of the Dependent and the Handicapped

Detailed statistics of charitable and benevolent institutions are made available every five years. The results of the 1951 Census in this field, published in midsummer 1952, may be secured from the Dominion Statistician. Figures for 1946 are given in summary form in the Year Book 1950, p. 288.

## 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 Welfare, 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, civil defence, and a large number of surveys on a variety of subjects 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 Committee of Youth Services.-This Committee, established in June 1949, serves in an advisory capacity to youth groups and provides an opportunity for organizations concerned with youth to meet for discussion of mutual problems.

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, newsstands 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 treatment 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 National Health and National Immunization Weeks.

The Order of St. John.-The primary purpose of the Order is to teach first aid, home nursing, child welfare, sanitation, hygiene and kindred subjects to citizens of Canada irrespective of age, race and creed, and to provide trained and organized personnel to help in time of disaster or national 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. A blood-grouping program was started early in 1943 so that compatible donors might be obtained with the least possible delay in emergencies.

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 operated in British Columbia, Saskatchewan, Manitoba, Ontario and Quebec. The British Columbia Division conducts an outpatient diagnostic service, in-patient care and a mobile unit; the diagnostic service is supplied through arthritis clinics and a mobile unit which brings treatment facilities to those unable to leave home.

The National Cancer Institute of Canada.-The National Cancer Institute was incorporated in 1947 for the purpose of correlating cancer-control activity in Canada and of establishing and maintaining cancer research. Its program includes the sponsorship of research projects through grants-in-aid and fellowships, professional education, the co-ordination of provincial cancer-control programs and the operation of the Canadian Tumour Registry at Ottawa. The Canadian Tumour Registry utilizes the technical facilities of the Laboratory of Hygiene of the Department of National Health and Welfare to diagnose unusual tumours and to act as a central tumour library. The Institute has advisory committees on radiation therapy and on records and statistics.

The Canadian Cancer Society.-This Society, incorporated in 1938, works under a joint director with, and acts as a fund-raising body for, the National Cancer Institute. The Society has branch divisions in nine provinces and these provide services particularly in the fields of lay education and welfare. The services vary from province to province but include assistance from social-service workers and the provision of free cancer dressings and medicines, nursing care, transportation and living accommodation.

The Canadian Tuberculosis Association.-This Association, which was founded in 1900, is active in fund-raising for the purpose of educating the general public in tuberculosis prevention and of sponsoring services for the tuberculous. Services are provided through provincial branches. The Saskatchewan branch operates the provincial tuberculosis-control program in that Province and in several provinces services include assistance in the diagnosis, treatment and rehabilitation of the tuberculous through the operation of mobile X-ray units, the employment of teachers of vocational and academic subjects, and generally through co-operation in tuberculosis-control programs of provincial health departments.

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 Committee worked for the conservation of mental health; it has studied mental health conditions in Canada and has sponsored mental health projects such as a teacher-training course designed to provide liaison officers between the school and the mental health clinics, and a psychiatric centre for work with social agencies in the community. The Association is continuing and expanding the interests of the Committee through the formation of provincial branches to make consultative and educational services more readily available to the whole population.

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 treatment, payment of pensions and allowances, welfare work and land settlement. The Department maintains 18 District Offices and two Sub-district Offices in Canada as well as District Offices at London, England. The administration of the Veterans' Land Act also requires the maintainance of District and Regional Offices in locations as accessible as possible to veterans. Travelling welfare officers operate from these Offices.

The basis of administration of the Department of Veterans Affairs, established in 1944, is dealt with in the Year Book 1946, pp. 1053-1054. The work of the Department as it developed year by year is outlined in subsequent editions and is brought up to Mar. 31, 1952, in the following sections.

## Section 2.-Medical, Dental and Prosthetic Services

Medical Services.-It is the policy of the Department to give the veterans the most modern treatment possible. Wherever 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 under-graduate and postgraduate teaching, and members of the medical faculties are employed in the hospitals with other sperialists. Ten 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. Six of these are also approved for advanced post-graduate teaching in specialties. The majority of the consultant staffs at-Departmental hospitals are employed on a part-time basis and are also generally 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.

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, 1952, 105 research projects were submitted to the Advisory Board for Medical Research and Education and, of these, 58 were continuing and 47 were new. These projects included clinical research of the effects of ACTH and Cortisone on various diseases, a follow-up study on Hong Kong prisoners of war, a study on Canadian veterans of World War II and a five-year study of gunshot wounds of the head. In addition, studies were in progress on paraplegia, mental diseases, chronic bronchitis and circulatory diseases. Research information is constantly being exchanged with authorities in the United Kingdom and the United States.

[^96]At the end of 1951, the Department had in operation 9,785 beds in 19 institutions. Of these, 12 were active treatment hospitals, two were health and occupational centres for convalescents, four were veterans homes and one was a special institution. Statistics of accommodation and movement of patients in these hospitals are given at pp. 250-251.

Dental Services.-The number of dental treatments given during the years ended Mar. 31, 1941-52 were:-

| Year ended Mar. 31- | Treatments | Year ended Mar. 31- | Treatments |
| :---: | :---: | :---: | :---: |
|  | No. |  | No. |
| 1941. | 99,590 | 1947. | 2,700,052 |
| 1942. | 73,113 | 1948. | 1,191,218 |
| 1943. | 102,554 | 1949. | 218,173 |
| 1944. | 66,562 | 1950. | 158,149 |
| 1945. | 249,170 | 1951. | 128,206 |
| 1946. | 509,703 | 1952. | 103, 242 |

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 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 in Canada and with research committees in the United States and the United Kingdom.

During the year ended Mar. 31, 1952, 60,053 persons were supplied with appliances or accessories, compared with 55,854 during the previous fiscal year. Total issues during these two years numbered 113,530 and 104,936, respectively.

Vetcraft Shops.-The Department operates Vetcraft Shops at Toronto and Montreal as sheltered employment for disabled veterans. These shops manufacture poppy emblems and wreaths for sale by the Canadian Legion on Remembrance Day. An average of 60 veterans are employed. Production value was approximately $\$ 235,600$ for the 1951 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 the Department 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 Naval, Army or Air Forces 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. 1927, c. 157 and amendments):-
(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 African 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 to Veterans of 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 is made for the Canadian Army Special Force.

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 Dec. 31, 1951, pensions in force were as follows:-

| Payable | Pensions | Liability |
| :---: | :---: | :---: |
|  | No. | \% |
| To dependants. | 33,854 | 27, 195,386 |
| For disability. | 161,085 | 69,319,818 |
| Totas. | 194,939 | 96,515,204 |

The basic scale of pensions was increased with effect from Jan. 1, 1952, and it is anticipated that the annual liability will now approximate $\$ 125,000,000$. By the 1951 amendments, the pension paid for a total disability to a former member of the 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 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 a gratuity of twelve months' pension, 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.

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 Year Book 1947, 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. The service is free of charge and most applications for pension are handled in this way. At Mar. 31, 1952, the Veterans' Bureau had 6,644 active claims in hand.

## 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 of 1951.

The Department renders assistance to veterans and advises them in social problems through the Social Service Division of the Veterans Welfare Services Branch. At the same time, it does not duplicate any service that is already available to a veteran as a citizen. The rehabilitation of women veterans has been conducted along with that of the male veterans and no particular problems have been encountered.

War Service Grants.-The amounts expended as gratuities under the War Service Grants Act up to Mar. 31, 1952, are shown in Table 1.

## 1.-Gratuity Payments under the War Service Grants Act, Years Ended Mar. 31, 1945-52



Re-establishment Gredits. -To Mar. 31, 1952, 963,395 veterans re-establishment credit accounts had been opened and 718,890 of these accounts had been closed due to authorization having been given for the complete disposal of the credit. In addition to the $\$ 278,356,263$ authorized for use for the purposes listed in Table 2, about $\$ 59,307,000$ was written off for veterans who had used the alternative benefit of training, or had made application to settle under the Veterans' Land Act. Of the total re-establishment credit issued to Mar. 31, 1952, more than 78 p.c. was used for homes.

The expenditures made to Mar. 31, 1952, resulted from 1,933,424 individual approved applications for use of the credit.

## 2.-Re-establishment Credits Paid, by Required Purposes, Years Ended Mar. 31, 1951 and 1952, with Cumulative Totals to Mar. 31, 1952

| Purpose | Total to Mar. 31, 1950 | 1951 | 1952 | Total to Mar. 31, 1952 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| Homes- <br> Purchased under National Housing Act. | 2,638,585 | 361,833 | 130,439 | 3,130,857 |
| Purchased other than under National Housing Act | 28,941,619 | 1,251,026 | 750,376 | 30,943,021 |
| Repairs, etc..................................... | 13,868, 102 | 1,862,045 | 481,137 | 15,211, 284 |
| Furniture and equipment | 149,498,360 | 10,617,822 | 5,924,726 | 166,040,908 |
| Reduction of mortgages. | 4,039,012 | 135,318 | 78,822 | 4,253,152 |
| Totals, Homes | 198,985,678 | 13,228,044 | 7,365,500 | 219,579,222 |
| Business- |  |  |  |  |
| Purchase of a business. | 3,514,409 | 68,613 | 41,302 | 3,624,324 |
| Working capital. | 22,463,408 | 740,782 | 517,834 | 23,722,024 |
| Tools and equipment | 21,041,387 | 1,694,699 | 972,313 | 23,708,399 |
| Totals, Business. | 47,019,204 | 2,504,094 | 1,531,449 | 51,054,747 |
| Miscellaneous- |  |  |  |  |
| Insurance, annuities, etc. | 5,919,485 | 625,723 | 581,421 | 7,126,629 |
| Special equipment for training | 462,095 | 62,192 | 44,482 | 568,769 |
| Clothing | , | 5,651 | 21,245 | 26,896 |
| Totals, Miscellaneous | 6,381,580 | 693,566 | 647,148 | 7,722,29 |
| Grand Totals. | 252,386,462 | 16,425,704 | 9,544,097 | 278,356,263 |

Casualty Rehabilitation.-The Casualty Welfare Division, the function of which is to provide vocational guidance, 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, 1952, 36,788 registrations with this Division of which 7,638 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. |
| Amputation. | 262 | 1,940 |
| Other muscular and skeleton system disabilities. | 1,776 | 9,860 |
| Total and partial loss of hearing or sight. | 357 | 2,303 |
| Neurological cases.. | 268 | 1,034 |
| Heart and vascular system | 404 | 2,976 |
| Respiratory disabilities........ | 3,308 | 6,775 |
| Mental and emotional disabilities | 324 | 628 |
| Unclassified. | 939 | 3,634 |
| Totals. | 7,638 | 29,150 |

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, B.E.S.L.; 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 War Amputations of Canada.

During the fiscal year ended Mar. 31, 1952, the total number of registrants increased by over 800 cases but the number of active cases decreased by approximately 1,125 . Progress in the rehabilitation of the cases between Mar. 31, 1951, and Mar. 31, 1952, was as follows:-

| Status | Mar. 31, 1951 | Mar.31, 1952 |
| :---: | :---: | :---: |
|  | No. | No. |
| Employed. | 28,850 | 29,991 |
| Unemployed. | 862 | 786 |
| Receiving treatment, training or ot | 4,339 | 3,997 |
| Rehabilitation not feasible. | 1,660 | 1,874 |
| Unknown.. | 191 | 140 |
| Totals. | 35,902 | 36,788 |

Rehabilitation of Older Veterans.-The welfare of the older veteran has become firmly established as an important function of the Department of Veterans Affairs. Continuous educational work conducted in co-operation with the Departs ment of Labour and national organizations has created a general awareness of the importance of maintaining the mature, middle-aged worker in gainful productive employment until he reaches an acknowledged retirement age.

The Department's responsibilities in this regard are not lessening with the advancing age of veterans of World War I. Many veterans of World War II have now reached mature age and thousands more will reach this state every succeeding year.

By enlisting support of veterans organizations and other groups, a national chain of voluntary committees has been developed, each accepting local responsibility in co-operation with the Department and the National Employment Service toward their own unemployed older veterans.

Assistance Fund.-Two welfare surveys conducted by the Welfare Services Branch of the Department in the autumn and winter of $1948-49$ showed that approximately 21 p.c. of war veterans allowance recipients living in rural areas and 27 p.c. of those living in urban areas were unable to manage on the current allowance. The Assistance Fund was introduced to supplement the allowance in such cases.

District Assistance Fund Committees are established in each District Office of the Department. The District Committee has the responsibility of investigating and adjudicating on each application. Approved applications are paid from the District Treasury Office, thus making funds available to veterans in need as rapidly as possible.

Vocational and University Training.-The vocational training program, authorized under the Veterans' Rehabilitation Act, is dealt with in Chapter XVIII and the university training for veterans program in Chapter VIII.

Rehabilitation Benefits for Members of the Special Force.-The Veterans Benefit Act, 1951, provides for the extension of rehabilitation benefits to ex-members of the Special Force. Persons who enlisted in the Special Force, served in a theatre of operations and were discharged on strength of the Special Force, are eligible for benefits similar to those provided for veterans of World War II. This also applies to members of the reserve and regular forces who served with the Special Force in a theatre of operations subject to certain conditions and time limits respecting commencement and termination of the service performed with the Special Force.

The Veterans' Land Act.-New settlement under the Veterans' Land Act, designed to assist eligible and qualified veterans to settle on farms, small holdings and commercial fishing properties, continued in 1951-52 at a surprisingly high level, 3,887 new accounts being opened of which 2,600 were for small holdings.

Veterans settled in previous years continued to improve their financial positions and integrate themselves into their respective communities. Their payment record was very good, with the exception of those settled in areas where crop failures were reported, and terminations of unfilled contracts, either voluntary or with the consent of Provincial Advisory Boards; were relatively few in number.

During the year, prices of land and buildings, live stock and equipment continued to rise, resulting in increased emphasis being placed on sound appraisals and supervisory work, particularly on behalf of veterans settled on full-time farms, in order to bridge the gap between the capital available to the veteran and the capital required to-day to set up an economic farm unit.

This supervisory work is carried on continuously with the veterans through personal contact by field staff, by field days, demonstrations, evening meetings and through the dissemination of agricultural information material. In this activity the administration enjoys extensive co-operation from federal and provincial agricultural authorities, experimental farms, schools and colleges, from private organizations and associations, commercial companies and successful farmers.

Supervision activity in connection with small holders stressed the utilization of the land available for enterprises likely to return secondary income, and some outstanding successes in this respect have been reported. These veterans were also encouraged and assisted to maintain or increase the value of their properties by building upkeep and landscaping. Evidence indicates that there is a definite relationship between this supervisory activity and the payment record of the veterans.

Table 3 shows the number of veterans who have qualified for settlement, the number for whom financial assistance has been approved, and the amounts approved in the form of loans and grants to these veterans since the legislation was passed.
3.-Summary of Settlement Status, Loans and Grants under the Veterans' Land Act, 1942, as at Mar. 31, 1952 ${ }^{1}$

| Item | Full-Time Farming | Small Holdings | Commercial Fishing | Provincial Lands | Federal Lands | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Qualified for settlement. No. | 31,071 | 37,575 | 996 | 5,340 | 358 | 75,340 |
| Approved for financial assistance............ No. | 24,155 | 25,895 | 860 | 4,279 | 275 | 55,464 |
| Amounts approved for land and permanent improvements....... | 91,630,107 | 127,164,162 | 2,482,030 | 4,060,562 | 609,463 | 225,946,324 |
| Amounts approved for stock and equipment. | 28,989,529 | 6,734,180 | 930,077 | 5,636,108 | 11,870 | 42,301, 764 |
| Average amounts approved per veteran.. | 4,994 | 5,171 | 3,968 | 2,266 | 2,259 | 4,837 |
| Average conditional grants per veteran.... | 1,953 | 1,400 | 1,755 | 2,266 | 2,259 | 1,718 |

${ }^{1}$ Excluding Indian veterans on Reserve Lands.

The construction of new houses continued on about the same level as in the previous year, with an even higher percentage ( $85 \cdot 7$ ) being built by the veterans themselves acting as their own contractors.
4.-House Construction under the Veterans' Land Act, 1942, as at Mar. 31, 1952

| Item | Full- <br> Time Farming | Small Holdings | Commercial Fishing | Provincial Lands | Federal Lands | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Houses completed. | 1,089 | 10.943 | 205 | 1,046 | 84 | 13,367 |
| Houses under construction. | 213 | 1,567 | 17 | 197 | 9 | 2,003 |
| Houses projected. | 297 | 613 | 20 | 192 | - | 1,122 |
| Net applications for new housing....... | 1,599 | 13,123 | 242 | 1,435 | 93 | 16,492 |

Veterans Life Insurance.-The administration and statistics concerning veterans life insurance will be found in Chapter XXVI.

War Veterans' Allowance.-The War Veterans' Allowance Act 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 a disability pension and have reached the age of 60 , or earlier if their physical condition prevents them earning their own living. 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 of right but is subject to certain financial tests.

This Act was completely revised during the Sixth Session of the 21st Parliament, 1952. The new Act recognizes that many of the older veterans are still able to take light or intermittent employment, and its provisions encourage this by eliminating
the ceiling on wages for eligible veterans over 60 years during the months in which they are employed and permitting them to receive the allowance during the months in which they may be unemployed.

The maximum rate of an allowance for a single recipient was increased from $\$ 40.41$ to $\$ 50$ a month, and for a married recipient from $\$ 70 \cdot 83$ to $\$ 90$ a month. The permissible income ceiling was raised from $\$ 610$ to $\$ 720$ a year for a single veteran and from $\$ 1,100$ to $\$ 1,200$ a year for a married veteran. Where a veteran's wife is blind, the ceiling was raised from $\$ 1,100$ to $\$ 1,320$ a year.

The previous provision whereby upon the death of a recipient the widow could be granted twelve monthly payments of the amount of the award in payment to him at the time of his death has been changed to permit the payment to the widow of the maximum amount permissible under the Act, i.e., $\$ 90$ a month for twelve months. The same provision has been extended in the new Act to the recipient bereft by death of his spouse. This latter provision is entirely new and is designed to assist the veteran recipient in discharging the costs of the last illness and funeral of his wife and his adjustment to single status.

The maximum monthly allowance for orphans has been increased to $\$ 40$ for one orphan, $\$ 70$ for two orphans, and $\$ 85$ for three or more orphans of one veteran. The amount of personal liquid assets that an applicant may have before being granted the allowance is $\$ 1,000$ in the case of a single veteran and $\$ 2,000$ for a married veteran. In both instances, interest from bonds, etc., up to a maximum of $\$ 25$ annually is permitted as exempt income. The permissible value of property which the veteran owns or in which he may have an equity has been raised from $\$ 4,000$ to $\$ 6,000$. Complete medical and dental treatment by the Department without cost is available.

As at Mar. 31, 1952, there were 37,959 recipients including 8,736 widows. The liability for the year was $\$ 20,945,255$.

## CHAPTER VII.-CRIME AND DELINQUENCY*

## 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.

## Section 1.-Canadian Criminal Law and Procedure $\dagger$

The system under which justice is administered in a State is never rigid. This is neither expedient nor indeed possible. A judicial system must grow and adapt itself to the requirements of the people, and the exact limits of the powers of the different legislative bodies require continued definition by the courts.

The exclusive legislative authority of the Parliament of Canada extends to criminal law throughout Canada. This law is based on the common law of England, built up through the ages and consisting first of customs and usages and later of principles enunciated by generations of judges and introduced into Canada, as regards criminal law, by Royal Proclamation in 1763. For particulars of the Federal judiciaries see Chapter II, pp. 61-63.

The judicial systems of the provinces as they exist to-day are based upon the British North America Act of 1867. Section 91 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" In each province (Sect. 92, ss. 14), the legislature may, exclusively, 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 and including procedure in civil matters in those courts" The Parliament of Canada may, however (Sect. 101), establish any additional courts for the better administration of the laws of Canada. For further details of the provincial judiciaries see Year Book 1951, pp. 76-83.

It is frequently 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 set of facts.

[^97]Prior to Confederation, each province had its own criminal jurisprudence and statutes which caused great and increasing inconvenience until the adoption of various consolidation Acts, the chief of which are the Criminal Law and Amendment Acts of 1869 and the Criminal Procedure Act of 1886 . These Acts deal exhaustively with procedure in respect of indictable and non-indictable offences, jurisdiction of justices of the peace, juvenile offenders, speedy trials, criminal law, schedules and forms, etc.

Codification of the law of crimes by a Criminal Code Bill, founded on the English draft code of 1880, Stephen's Digest of Criminal Law, Burbidge's Digest of the Canadian Criminal Law, and on the Canadian statutory law, was introduced by the Minister of Justice, Sir John Thompson, passed both Houses of Parliament and became law July 1, 1893.

The Criminal Code classifies offences as indictable and non-indictable. Indictable offences include all offences which are not punishable by way of summary convictions. A limited few of such offences are triable by magistrates without the consent of the accused, by virtue of Part XVI of the Criminal Code relating to the summary trial of indictable offences. The majority, however, are triable only in the Superior Court of the province with a jury, or by consent of the accused, either under Part XVIII of the Criminal Code relating to the speedy trial of indictable offences, or under Part XVI of the Criminal Code relating to the summary trial of indictable offences. Cases triable by jury without the consent of the accused are: treason, treasonable offences, assaults on the Queen, mutiny, unlawfully obtaining and communicating official information, taking of oath to commit certain crimes, seditious offences, libels on foreign sovereigns, piracy, corruption of officers employed in prosecuting offenders, frauds on the Government, breach of trust by public officers, municipal corruption, selling of appointments to any office, murder, attempt to murder, conspiracy to murder, accessory after the fact to murder, manslaughter, rape, attempt to commit rape, defamatory libel, combination in restraint of trade, conspiring or attempting to commit, or being accessory after the fact to any of the above offences, also bribery or undue influence, personation or other corrupt practice under the Canada Elections Act. Also, when an offence is punishable with imprisonment for a period exceeding five years, the Attorney General may require the charge to be tried by jury.

Capital offences now include levying war, murder, piracy in cases of violence, rape, and treason. This is a drastic modification of the Code as it stood a century and a half ago. For further details of law and procedure see the Year Book 1951, pp. 256-258.

In the Province of Quebec a district magistrate has powers extending beyond those of a magistrate in any other province. He has the same jurisdiction as a county court judge in Ontario and disposes of cases under Part XVIII of the Criminal Code, whereas the jurisdiction of the magistrates of other provinces extends only to Parts XV and XVI of the Criminal Code.

Non-indictable offences include cases usually dealt with summarily by police magistrates and justices of the peace under Part XV of the Criminal Code or under the Provincial Summary Convictions Acts, as the case may be, and comprise breaches of municipal regulations and other minor offences.

The statistics presented in this Chapter are collected directly from the criminal courts in the different judicial districts throughout Canada. There are 157 such districts divided by provinces as follows: Newfoundland 7, Prince Edward Island 3,

Nova Scotia 7, New Brunswick 15, Quebec 28, Ontario 48, Manitoba 6, Saskatchewan 21, Alberta 12, British Columbia 8, Yukon Territory 1 and the Northwest Territories 1.

Although Newfoundland became a Province of Canada on Mar. 31, 1949, and the Criminal Code of Canada was proclaimed in that Province on Aug. 1, 1950, statistics of criminal and other offences and delinquencies will not be available on a uniform basis with those of the other provinces and territories until 1951. The only information presently available regarding Newfoundland is given in Section 4. Data in the other Sections are entirely exclusive of that Province.

## Section 2.-Adult Offenders and Convictions

## Subsection 1.-Adults Convicted of Indictable Offences

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.

At a Dominion-Provincial Conference on Criminal Statistics, held in 1949 and attended by representatives of the Provincial Departments of the Attorneys General and the Departments of Health and Welfare, it was recommended that the method of compilation of Canadian criminal statistics be changed to base the statistics of indictable crimes on offenders rather than, as in the past, on convictions, a procedure later approved by the provinces.

This innovation makes impossible any comparisons of the tables in this subsection with those on indictable offences in previous Year Books, but the advantage of obtaining a truer and a more readily understood analysis of persons responsible for serious crimes in Canada outweighs this disadvantage. It is more logical to have details of age, sex, marital status, etc., related to the offenders of crimes rather than to the convictions for crimes. Thus, 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 was tried on several charges; if there are 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 is the same, the most serious offence (as measured by the maximum penalty allowed by the law) appears in the tables. Where a person is prosecuted fcr one offence and convicted of another (e.g., charged with murder and convicted of manslaughter), the case appears only under the offence of which he is convicted.

In the case of non-indictable offences, the figures given continue to be based on convictions and are comparable with those previously published.

Statistics are for years ended Sept. 30 and 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.
1.-Adults Convicted of Indictable Offences and Ratio per 10,000 Population, 16 Years of Age or Over, by Provinces, Years Ended Sept. 30, 1949 and 1950

| Province or Territory | 1949 |  | 1950 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Persons Convicted | Ratio to Population | Persons Convicted | Ratio to Population |
|  | No. | No. | No. | No. |
| Newfoundland.......... | - | $\cdots$ | -• | $\cdots$ |
| Prince Edward Island.. | 119 | 19 | 124 | 20 |
| Nova Scotia. . | 1,522 | 35 | 1,464 | 33 |
| New Brunswick. | 787 | 24 | 905 | 27 |
| Quebec.. | 6,923 | 27 | 6,417 | 25 |
| Ontario. | 12,577 | 39 | 12,818 | 39 |
| Manitoba. | - 1,614 | 29 | 1,802 | 32 |
| Saskatchewan. | 1,133 | 19 | 1,134 | 19 |
| Alberta. | 2,305 | 39 | 2,401 | 40 |
| British Columbia. | 3,839 | 46 | 4,178 | 50 |
| Totals. | 30,819 | 34 | 31,243 | 34 |
| Yukon and Northwest Territories. | 103 | 1 | 142 | 1 |
| Canada. | 30,922 | 1 | 31,385 | 1 |

[^98]Indictable offences are divided into six classes as shown in Table 2. Class I covers crimes against the person. In the period under review the number of offenders in this class was not large, being practically the same in 1950 as in 1949. Over 70 p.c. of the offenders were convicted of such crimes as assaults of various kinds and obstructing police. Nineteen persons were convicted of murder in 1950, seven less than in 1949; 13 of attempted murder; and 75 of manslaughter as against 51 in the preceding year.

Classes II, III, IV and V cover offences against property. Thieves predominate among all other offenders in these classes though the number was slightly lower in 1950 than in 1949. Burglars and robbers whose serious crimes involve acts of violence were the next most numerous and in 1950 increased by 8 p.c. over 1949. The number of persons who maliciously damaged property decreased in 1950 except for those guilty of arson who, though not many, doubled in number.

Miscellaneous offences are listed in Class VI. Reckless and drunken drivers who endanger many lives increased in numbers during 1950, the latter by 17 p.c. There were 356 offenders under the Opium and Narcotic Drug Act, an increase of only three over 1949; 252 of these were males and 300 were convicted of possessing heroin. Of these offenders, 302 or 85 p.c. were born in Canada; British Columbia courts convicted 48 p.c. of the total and Ontario courts 24 p.c.

## 2.-Adults Convicted of Indictable Offences, by Classes of Offence, Years Ended Sept. 30, 1949 and 1950

(Exclusive of Newfoundland)

| Class and Offence | 1949 |  |  | 1950 |  |  | Increase or <br> Decrease in <br> Persons Convicted |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Adults Charged | Adults Convicted |  | Adults Charged | Adults Convicted |  |  |
|  |  | M. | F. |  | M. | F. |  |
|  | No. | No. | No. | No. | No. | No. | p.c. |
|  | 24 | 12 | 1 | 21 | 13 | 3 | + 23.1 |
| Assault, common, aggravated and on police. | 5,310 | 3,962 | 232 | 5,241 | 3,930 | 225 | - 0.9 |
| Offences against females ${ }^{1}$. | 1,161 | 825 | 27 | 1,163 | 845 | 27 | + 2.3 |
| Manslaughter and murder.......... | 194 | 72 | 5 | 174 | 83 | 11 | $+22.1$ |
| Attempted murder; shooting and wounding. | 259 | 192 | 9 | 263 | 184 | 12 | - 2.5 |
| Non-support, desertion.................. | 368 | 249 | 8 | 336 | 221 | 8 | - 10.9 |
| Other offences against the person | 346 | 273 | 27 | 396 | 310 | 27 | $+12.3$ |
| Totals, Class I | 7,662 | 5,585 | 309 | 7,594 | 5,586 | 313 | $+0.1$ |
| Class II.-Offences against Property with Violence- <br> Burglary and robbery | 4,520 | 3,952 | 63 | 4,838 | 4,292 | 44 | $+8.0$ |
| Totals, Class I | 4,520 | 3,952 | 63 | 4,838 | 4,292 | 44 | +8.0 |
| Class III.-Offences against Property without Violence- |  |  |  |  |  |  |  |
| Fraud, embezzlement and false pretences | 2,010 | 1,614 | 122 | 2,265 | 1,809 | 141 | +12.3 |
| Receiving stolen goods................. | 1,083 | 819 | 38 | 1,105 | 867 | 46 | +6.5 |
| Theft. | 11,430 | 9,457 | 722 | 11,179 | 9,162 | 804 | - 2.1 |
| Totals, Class I | 14,523 | 11,890 | 882 | 14,549 | 11,838 | 991 | $+0.4$ |
| Class IV.-Malicious Offences against Property- |  |  |  |  |  |  |  |
| Arson.................... Malicious damage to property | 72 905 | 51 718 | 44 | 136 <br> 774 | 107 606 | 5 36 | +103.6 -15.7 |
| Totals, Class | 977 | 769 | 48 | 910 | 713 | 41 | - 7.7 |
| Class V.-Forgery and Other Offences against the Currency- <br> Offences against currency.. <br> Forgery and uttering forged documents. | $\begin{array}{r}11 \\ 684 \\ \hline\end{array}$ | 9 603 | 59 | $\begin{array}{r}36 \\ 715 \\ \hline\end{array}$ | $\begin{array}{r}27 \\ 607 \\ \hline\end{array}$ | 70 | $\begin{array}{r}+200.0 \\ +\quad 2.3 \\ \hline\end{array}$ |
| Totals, Class | 695 | 612 | 59 | 751 | 634 | 70 | +4.9 |
| Class VI.-Offences not included in the Foregoing Classes- |  |  |  |  |  |  |  |
| Dangerous or reckless driving......... | 1,865 | 1,679 | 21 15 | 2,006 | 1,703 | 31 | a |
| Driving car while drunk...... | 1,641 | 1,341 | 15 | 1,842 | 1,574 | 11 | +16.9 |
| Opium and Narcotic Drug Act, offences against. | 425 | 255 | 98 | 420 | 252 | 104 | + 0.9 |
| Gambling and lotteries. | 962 | 820 | 39 | 897 | 782 | 61 | $\cdots 1.9$ |
| Keeping bawdy houses and inmates | 237 | 47 | 150 | 229 | 83 | 134 | $+10 \cdot 2$ |
| Various................... | 2,627 | 2,136 | 152 | 2,441 | 1,985 | 143 | - 7.0 |
| Totals, Class VI. | 7,757 | 6,278 | 475 | 7,835 | 6,379 | 484 | $+1.6$ |
| Grand Totals. | 36,134 | 29,086 | 1,836 | 36,477 | 29,442 | 1,943 | $+1 \cdot 5$ |

[^99]
## 3.-Persons Convieted of Indictable Offences, classifled by Occupation, Marital Status, Sex, Birthplace, etc., Years Ended Sept. 30, 1949 and 1950

(Exclusive of Newfoundland)

| Item | 1949 | 1950 | Item | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Type of Occupation- | No. | No. | Sex- | No. | No. |
| Agriculture......... | 2,278 | 2,014 | Male. | 29,086 | 29,442 |
| Armed Services | 474 | 264 | Female. | 1,836 | 1,943 |
| Clerical. | 973 | 602 |  |  |  |
| Commercial | 1,809 | 2,622 |  |  |  |
| Construction | 2,608 | 3,024 | Educational Status- |  |  |
| Finance and insurance. . . . . . . . . | 44 | 70 | Unable to read or write......... | 1,039 | 1,039 |
| Fishing and trapping............. | 312 | 303 | Elementary...................... | 19,085 | 19,068 |
| Labour. | 8,227 | 8,166 | High school | 6,618 | 8,172 |
| Logging and lumbering | 1,195 | 1,194 | Superior.. | 1,055 | 865 |
| Manufacturing. | 3,002 | 3,012 | Not given. | 3,125 | 2,241 |
| Mining and quarrying............ | 604 | 703 |  |  |  |
| Service- | 507 | 474 | ${ }_{16}^{\text {Age- }}$ to 19 years. | 5,614 | 6,033 |
| Personal | 1,392 | 1,298 | 20 to 24 years. | 6,858 | 6,716 |
| Professional | 267 | 249 | 25 to 44 years. | 13,236 | 13,619 |
| Public. | 196 | 147 | 45 years or over | 3,555 | 3,717 |
| Recreational | 102 | 138 | Not given. | 1,659 | 1,300 |
| Student...................... | 519 | 667 |  |  |  |
| Transportation and communications. | 3,183 | 3,328 | $\begin{gathered} \text { Birthplace- } \\ \text { Canada... } \end{gathered}$ | 26,970 | 27,897 |
| Unemployed and retired. | 1,898 | 2,220 | British Isles and Common- |  |  |
| Not given. | 1,332 | 890 | with | 943 | 971 |
| Totals | 30,922 | 31,385 | Europe. | 1,219 | 1,260 |
|  |  |  | Asia. | 143 | 144 |
| Marital Status- |  |  | Other foreign countries | 15 | 13 |
| Single... | 16,812 | 17,411 | Not given. | 1,151 | 603 |
| Married. | 11, 158 | 11,535 |  |  |  |
| Widowed. | 374 | 399 | Residence- |  |  |
| Divorced. | 152 | 189 | Urban centres. <br> Rural districts | 22,677 7,289 | 23,782 7,06 |
| Separated. Not given. | 603 1,823 | 538 1,313 | Rural district Not given... | 7,289 $\mathbf{9 5 6}$ | 7,061 542 |

Female Offenders.-There were 1,943 female offenders convicted of indictable offences in 1950, 107 more than in 1949 or an increase of $5 \cdot 8$ p.c. New Brunswick, Quebec and Ontario were the only provinces showing decreases. Nearly 44 p.c. of the women convicted in 1950 were found guilty of theft and receiving stolen goods, while 12 p.c. were committed for assault.

## 4.-Females Convicted of Indictable Offences, by Provinces, Years Ended Sept. 30, 1949 and 1950

| Province or Territory | Numbers of Females Convicted |  | Percentages of Females Convicted to Total Convictions |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1949 | 1950 | 1949 | 1950 |
| Newfoundland. |  |  |  |  |
| Prince Edward Island | $\cdots$ | 3 | 0.8 | $2 \cdot 4$ |
| Nova Scotia.... | 50 | 66 | 3.4 | $4 \cdot 5$ |
| New Brunswick | 34 | 33 | $4 \cdot 5$ | $3 \cdot 6$ |
| Quebec....... | 359 | 335 | $5 \cdot 5$ | $5 \cdot 2$ |
| Ontario... | 796 | 772 | 6.8 | 6.0 |
| Msinitobs..... | 137 | 192 | $9 \cdot 3$ | 10.7 |
| Saskatchewan. | 51 | 64 | $4 \cdot 7$ | $5 \cdot 6$ |
| Alberta. | 154 | 166 | $7 \cdot 2$ | 6.9 |
| British Columbia. | 253 | 303 | $7 \cdot 1$ | 7.3 |
| Yukon and Northwest Territories | 1 | 9 | $0 \cdot 9$ | $6 \cdot 3$ |
| Canada | 1,836 | 1,943 | 6.3 | 6.2 |

Persons with Multiple Convictions.-Table 5 shows the number of persons having more than one conviction at a court appearance for the years 1946-50. 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, Years Ended Sept. 30, 1946-50

(Exclusive of Newfoundland)

| Item | 1946 | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Persons Convicted of - | No. | No. | No. | No. | No. |
| 2 offences. | 2,387 | 2,364 | 2,260 | 2,593 | 1,769 |
| 3 " | 627 | , 646 | 2,290 | 814 | , 507 |
| 4 " | 304 | 308 | 332 | 363 | 275 |
| 5 " | 129 | 157 | 154 | 195 | 174 |
| 6 " | 111 | 111 | 98 | 120 | 108 |
| 7 " | 68 | 46 | 56 | 63 | 70 |
| 8 " | 51 | 47 | 47 | 63 | 50 |
| 9 " | 34 | 41 | 42 | 46 | 46 |
| 10 " | 17 | 26 | 27 | 56 | 31 |
| 11 to 20 offences. | 73 | 83 | 93 | 107 | 88 |
| 21 offences or over | 16 | 33 | 25 | 30 | 14 |
| Totals, Convicted of More than One Offence... | 3,817 | 3,862 | 3,724 | 4,450 | 3,132 |
| Totals, Convicted of One Offence.... | 34,886 | 31,271 | 28,959 | 26,472 | 28, 253 |
| Grand Totals. | 38,703 | 35,133 | 32,683 | 30,922 | 31,385 |

Disposition of Cases and Recidivism.-Of all suspects before the courts for indictable crimes, 86 p.c. were adjudged guilty in 1950; the convictions against males ( $86 \cdot 3$ p.c.) constituted a higher percentage than those against females ( 81.7 p.c.) and varied greatly as between provinces. New Brunswick showed the highest percentage ( $95 \cdot 7$ p.c.) of convicted persons and Nova Scotia the lowest percentage ( 74.5 p.c.).

In $1950,60 \cdot 2$ p.c. of the convicted persons were first offenders, $9 \cdot 1$ p.c. had previously been found guilty of one offence and $20 \cdot 7$ p.c. had two or more earlier convictions. Court records for the remaining 10.0 p.c. were not obtained. These proportions were much the same in 1949 when $57 \cdot 7$ p.c. of those convicted were first offenders, 8.5 p.c. were second offenders and $20 \cdot 2$ p.c. third offenders; information for the remaining 13.6 p.c. was not stated.

## 6.-Persons Charged, Acquitted and Convicted of Indictable Offences, Years Ended Sept. 30, 1949 and 1950

(Exclusive of Newfoundland)

| Item | 1949 | 1950 |
| :---: | :---: | :---: |
|  | No. | No. |
| Charges.... | 36,134 | 36,477 5,992 |
| Acquittalst.. | 5,212 30,922 | 5,092 31,385 |
| Males..... | 29,086 | 29,442 |
| Females. | 1,836 | 1,943 |
| First convictions. | 17,856 | 18,893 2,855 |
| Second convictions.... Reiterated convictions. | 2,634 6,244 | 2,855 |
| Not given.............. | 4,188 | 3,125 |

[^100]7.-Persons Charged and Convicted and Percentages respecting Indictable Offences, by Provinces, Years Ended Sept. 30, 1949 and 1950

| Province or Territory | 1949 |  |  | 1950 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Charges | Convictions |  | Charges | Convictions |  |
|  | No. | No. | p.c. | No. | No. | p.c. |
|  | 125 | ${ }^{\text {- }} 119$ | 95.2 | 131 | ${ }^{-} 124$ | 94.7 |
| Prince Edward Island.. Nova Scotia........... | 1,954 | 1,522 | $95 \cdot 2$ 77.9 | 1,964 | 1,464 | $94 \cdot 7$ 74.5 |
| New Brunswick... | 841 | 1,787 | $93 \cdot 6$ | 946 | 1,905 | $95 \cdot 7$ |
| Quebec...... | 8,004 | 6,923 | 86.5 | 7,252 | 6,417 | 88.5 |
| Ontario... | 15,267 | 12,577 | $82 \cdot 4$ | 15,691 | 12,818 | 81.7 |
| Manitoba...... | 1,725 | 1,614 | $93 \cdot 6$ | 1,889 | 1,802 | 95.4 |
| Saskatchewan. | 1,221 | 1,133 | 92.8 | 1,213 | 1,134 | 93.5 |
| Alberta.......... | 2,481 | 2,305 | 92.9 | 2,589 | 2,401 | $92 \cdot 7$ |
| British Columbia | 4,411 | 3,839 | 87.0 | 4,644 | 4,178 | $90 \cdot 0$ |
| Yukon and N.W.T. | 105 | 103 | 98.1 | 158 | 142 | $89 \cdot 9$ |
| Canada | 36,134 | 30,922 | 85.6 | 36,477 | 31,385 | 86.0 |

Sentences.-The types of sentences were in much the same proportion in 1949 and 1950. In the latter year $29 \cdot 1$ p.c. of persons convicted of indictable crimes were fined; $38 \cdot 1$ p.c. were sent to gaol without option of fine, 6.5 p.c. were committed to reformatories and 6.6 p.c. to penitentiaries, and 19.6 p.c. were given suspended sentence or put on probation. Eighteen males and one female were given the death sentence.
8.-Sentences given Persons for Indictable Offences, by Provinces, Year Ended Sept. 30, 1950, with Totals for 1949
(Exclusive of Newfoundland)

| Sentence | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | $\begin{gathered} \text { Yukon } \\ \text { and } \\ \text { N.W.T. } \end{gathered}$ | $\begin{gathered} \text { Canada } \\ 1950 \end{gathered}$ | $\underset{1949}{ }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Option of fine. | 41 | 471 | 328 | 1,908 | 2,974 | 475 | 394 | 867 | 1,643 | 39 | 9,140 | 9,666 |
| Gaol- |  |  |  |  |  |  |  |  |  |  |  |  |
| Under one year.. | 49 | 492 | 334 | 2,519 | 3,773 | 561 | 485 | 804 | 1,257 | 80 | 10,354 | 10,022 |
| One year or over. | 5 | 12 | , | 535 | 315 | 161 | 91 | 206 | 267 | 9 | 1,607 | 1,601 |
| Reformatory..... | - | 7 | 4 | 60 | 1,846 | 39 | - | 7 | 91 | - | 2,054 | 1,964 |
| Penitentiary- <br> Two years and under five. . | 5 | 150 | 79 | 543 | 461 | 53 | 44 | 146 | 248 | 5 | 1,734 | 1,518 |
| Five years or over. | - |  |  |  | 78 78 | 12 |  |  | 218 59 |  | + 325 | 1,518 268 |
| Life............. | - | 1 | , |  |  | $-$ | $-$ | 1 | 5 | - | 5 | 2 |
| Preventive detention. | - | - | - | - | - | - | - | - | $2$ | - | 2 | 1 |
| Death. | - | - | - | 6 |  | 2 | 1 | 3 | 3 | - | 19 | 26 |
| Suspended sentence or other disposition. | 24 | 321 | 150 | 714 | 3,366 | 499 | 116 | 339 | 608 | 8 | 6,145 | 5,854 |
| Totals.... | 124 | 1,464 | 905 | 6,417 | 12,818 | 1,802 | 1,134 | 2,401 | 4,178 | 142 | 31,385 | 30,922 |

Court Proceedings.-The 1950 figures show that $68 \cdot 3$ p.c. of the persons tried by jury were convicted; speedy trials (by court after waiver of jury trial) brought convictions in $75 \cdot 1$ p.c. of the cases and summary trials by magistrates ended in convictions in $87 \cdot 3$ p.c. of the cases.

Of persons charged on indictment, $90 \cdot 9$ p.c. were tried by magistrate or family court judge, $2 \cdot 5$ p.c. by judge and jury and 6.6 p.c. by judge alone.

Tables 9 and 10 summarize court proceedings for the year ended Sept. 30, 1950.
（Exclusive of Newioundland）

| Method of Trial | Prince <br> Edward <br> Island | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskat－ chewan | Alberta | British Columbia | $\begin{gathered} \text { Yukon } \\ \text { and } \\ \text { N.W.T. } \end{gathered}$ | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． |
| Convicted．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．M． | 4 | 46 | 16 | 96 | 180 | 18 | 15 | 28 | 205 | － | 608 |
| ， |  | 3 | 1 | 7 | 12 | － | 1 | －－ | 2 | － | 26 |
| Acquitted．．．．．．．．．．．．．．．．．．．．．．．．．．．M． | － | 22 | 11 | 38 | 75 |  | 10 | 20 | 69 | 2 | 253 |
| Detained because of insanity $\ldots \ldots \ldots \ldots$. | － | 2 | 1 | 4 3 | 5 | － | 1 | － | 2 | － | 13 13 |
| Detained because of insanity ．．．．．．．．．．．．．．．．． F ． | － |  | 1 |  |  | － | － |  |  |  | 1 |
|  | － | $-3$ | 1 | － | 2 | $-3$ | － | － | 5 | － | 14 |
| By Speedy Trial－ |  |  |  |  |  |  |  |  |  |  |  |
| Convicted．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．M． |  | 113 | 32 | 743 | 488 | 51 |  |  | 178 | 1 | 1，730 |
| （ | － | 9 | 1 | 40 | 17 | 4 | 2 | 9 | 5 | － | 87 |
| Acquitted．．．．．．．．．．．．．．．．．．．．．．．．．．．．．M． | 4 | 21 | － | 261 | 181 | 2 | 15 | 15 | 46 | － | 545 |
| Detained for insanity ．．．．．．${ }_{\text {M．}}$ | 二 | 1 | 二 | 29 | 15 | 二 | 1 | － | 4 | － | 50 |
| Detained for insanity ．．．．．．．$\ldots \ldots \ldots \ldots \ldots$ ． | 二 | － | 二 | 二 | － | － | － | － | 1 | － | 1 |
| $\left.\begin{array}{l}\text { Stay of Proceedings } \\ \text { No Bill and Nolle Prosequi }\end{array}\right\} \cdots \cdots \cdots \cdots \cdots$ ．．．．．．．．．．．．．． | 二 | － | 二 | 二 | 二 | 4 1 | 二 | $-1$ | 1 | 二 | 5 2 |
| By Summary Trial－ |  |  |  |  |  |  |  |  |  |  |  |
| Convicted．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．M． | 112 | 1，239 | 824 | 5，243 | 11，378 | 1.541 | 1，025 | 2，118 | 3，492 | 132 | 27，104 |
|  | 3 |  | 31 | 288 | 743 | 188 |  | 157 | 296 | 9 | 1，830 |
| Acquitted．．．．．．．．．．．．．．．．．．．．．．．．．．．．．M． | 3 | 396 | 25 | 463 | 2，341 | 64 | 48 | 140 | 299 | 14 | 3.793 |
| Detained because insanity | － | 51 | 2 | 28 | 229 | 6 | 4 | 10 | 30 | － | 360 23 |
| Detained because of insanity ．．．．．．．．．．．． $\mathrm{M}_{\mathrm{F}}^{\mathrm{M}}$ ． | 二 | ${ }^{4}$ | － | 7 | 12 | － | 二 | － | 二 | － | 23 6 |
| Stay of Proceedings $\quad$ ．$\ldots \ldots \ldots \ldots \ldots . . \begin{gathered}\text { M }\end{gathered}$ | － | － | － |  | － | 1 | － | 2 | 6 | － | 10 |
| No Bill and Nolle Prosequi）F． | － | － | － | 1 | － | 1 | － | 2 | 3 | － | 3 |
| Totals，Persons Charged． | 131 | 1，964 | 946 | 7，252 | 15，691 | 1，889 | 1，213 | 2，589 | 4，644 | 158 | 36，477 |
| Totals，Persons Convieted． | 124 | 1，464 | 905 | 6，417 | 12，818 | 1，802 | 1，134 | 2，401 | 4.178 | 142 | 31，385 |

10．－Persons Charged and Convicted of Indictable Crimes according to Trial Court， by Provinces，Year Ended Sept．30， 1950
（Exclusive of Newfoundland）

| Province or Territory | Persons Charged and Convicted by－ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Police <br> Magis－ trate or Re－ corder＇s Court | Justice of the Peace | Juvenile or Family Court | County Court | Circuit <br> Court | Higher <br> Court | Totals |
| － | No． | No． | No． | No． | No． | No． | No． |
| P．E．Island．．．．．．．．．Charged $\begin{gathered}\text { Convicted }\end{gathered}$ | $\begin{aligned} & 116 \\ & 113 \end{aligned}$ | － | $\stackrel{2}{2}$ | 9 5 | － | 4 | 131 124 |
| Nova Scotia．．．．．．．．．Charged $\begin{gathered}\text { Convicted }\end{gathered}$ | 1,741 1,290 | 二 | 4 4 | 143 122 | 二 | 76 48 | 1,964 1,464 |
| New Brunswick．．．．．${ }_{\text {Charged }}^{\text {Convicted }}$ | 879 852 | 二 | 3 3 | 34 34 | 12 9 | 18 | 946 905 |
| Quebec．．．．．．．．．．．．．chernarged $\begin{gathered}\text { Convicted }\end{gathered}$ | $\begin{aligned} & \mathbf{5 , 6 0 3} \\ & 5,098 \end{aligned}$ | 二 | 454 454 | 1,037 752 | 二 | 158 113 | 7,252 6,417 |
| Ontario．．．．．．．．．．．．．．Charged | $\begin{aligned} & 14,555 \\ & 11,975 \end{aligned}$ | 二 | 171 158 | 686 492 | 二 | 279 193 | $\begin{aligned} & 15,691 \\ & 12,818 \end{aligned}$ |
| Manitoba．．．．．．．．．．．．Charged | 1,593 1,524 | － | 207 205 | 62 55 | － | 18 | 1,889 1,802 |
| Saskatchewan．．．．．．．Charged $\begin{gathered}\text { Convicted }\end{gathered}$ | 1,097 1,045 | $\begin{aligned} & 46 \\ & 45 \end{aligned}$ | － | 43 29 | － | 27 15 | 1,213 1,134 |
| Alberta．．．．．．．．．．．．． $\begin{gathered}\text { Convicted }\end{gathered}$ | $\begin{aligned} & 2,258 \\ & 2,106 \end{aligned}$ | － | 180 179 | 30 21 | 二 | 121 95 | 2,589 2,401 |
| British Columbia．．．．Charged | $\begin{aligned} & 3,762 \\ & 3,432 \end{aligned}$ | 1 | 370 358 | 265 205 | 1 | 245 181 | 4,644 4,178 |
| Yukon and N．W．T．．Charged Convicted | 156 142 | － | － | － | － | 2 | 158 142 |
| Totals．．．．．．．．．Charged | 31，760 | 47 | 1，391 | 2，309 | 13 | 957 | 36，472 |
| Convicted | 27，577 | 46 | 1，363 | 1，715 | 10 | 674 | 31，385 |

## Subsection 2．－Young Adult Offenders（16－24 Years）

Young men and women from 16 to 24 years of age formed $40 \cdot 6$ p．c．of the criminal population who committed indictable offences in 1950，although they comprise only about 21 p．c．of the total population of 16 years of age or over．As this age group includes some of the most daring offenders and，at the same time， those most likely to profit by education and training，it seems worth while to give consideration to it as distinct from the older and confirmed offender groups．

Over 75 p．c．of the young offenders were tried in three provinces－Ontario （ 40.8 p．c．），Quebec（ 22.7 p．c．）and British Columbia（ 12.5 p．c．）．Almost one－half （ $47 \cdot 2$ p．c．）of them were under 20 years of age．

98452－20 $\frac{1}{2}$

## 11.-Young Adult Offenders, by Age Groups and Provinces, Year Ended Sept. 30, 1950

(Exclusive of Newfoundland)

| Age Groups and Sex | 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. |
| 16-17 years............. ${ }_{\text {F }}$. |  | 105 | 59 1 | 638 18 | $\begin{array}{r} 1,064 \\ 54 \end{array}$ | 166 49 | 101 9 | 182 | 419 28 | $\frac{1}{2}$ | 2,745 181 |
| 18-19 " $\ldots \ldots \ldots .$. |  | 146 4 | 80 1 | 652 19 | $\begin{array}{r} 1,226 \\ 83 \end{array}$ | 129 18 | 122 10 | 200 29 | 349 23 | 6 1 | 2,919 188 |
| 20-24 " $\quad \ldots \ldots \ldots . \mathrm{M}$. | 21 | 284 | 159 | $\begin{array}{r}1,487 \\ 85 \\ \hline\end{array}$ | 2,599 171 | 288 27 | 243 13 | 493 37 | 710 59 | 21 1 | 6,305 411 |
| Totals. | 42 | 553 | 308 | 2,899 | 5,197 | 677 | 498 | 955 | 1,588 | 32 | 12,749 |

Among all male offenders, the young men aged 16 to 24 years were responsible for 33.4 p.c. of the assaults (including obstructing the police). They represented 55.0 p.c. of the total who attempted and committed rape; 66.5 p.c. of the male robbery and burglary convictions; 44.9 p.c. of those guilty of damage to property without violence, which includes all thefts; $75 \cdot 5$ p.c. of those who stole motorvehicles; and 42.4 p.c. and 48.4 p.c., respectively, of those who maliciously damaged property and were found with offensive weapons.

Young male offenders within the age groups 16 to 24 years were convicted of 171 more crimes in 1950 than in 1949, an increase of 1.4 p.c. The only classes of crime showing decreases were forgery and uttering and malicious damage to property. Thefts and receiving stolen goods accounted for 41.0 p.c. of the total young male offenders, burglaries and robberies 23.8 p.c., and common and aggravated assault 11 p.c.

Of the total females convicted of indictable offences, $40 \cdot 1$ p.c. fell within this group of young offenders. Over 50 p.c. of the females committed for forgery and uttering were in this group, as were 46 of the 47 women found guilty of offences against public morals.

Young women were convicted of 106 more offences in 1950 than in 1949, an increase of $15 \cdot 8$ p.c. While there was a decided decrease in the number convicted of burglary and robbery in 1950, and a slight decrease in those guilty of malicious damage to property, these decreases did not counterbalance the increases in other classes of offence. Thefts and receiving stolen goods brought over one-half of these young women to court.

## 12.-Young AduIt Offenders Convicted of Indictable Offences, by Classes of Offence and Sex, Years Ended Sept. 30, 1949 and 1950

(Exclusive of Newfoundland)

| Class and Offence | 1949 |  | 1950 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Male | Female |
|  | No. | No. | No. | No. |
| Class I.-Offences against the Person- | 7 |  | 3 | 2 |
| Assault, common and aggravated..... | 1,294 | 51 | 1,314 | 59 |
| Offences against females ${ }^{1} . . . . . . . . .$. | 221 | 11 | 241 | 4 |
| Manslaughter and murder..... | 16 | 3 | 21 | 4 |
| Attempted murder; shooting and wounding. | 60 | 1 | 48 | 2 |
| Non-support, desertion and cruelty to children........ Other offences against the person................ | 30 71 | 3 <br> 8 | 21 88 | 15 |
| Totals, Class I. | 1,699 | 77 | 1,736 | 87 |
| Class II.-Offences against Property with ViolenceBurglary and robbery. | 2,619 | 42 | 2,854 | 29 |
| Totals, Class II. | 2,619 | 42 | 2,854 | 29 |
| Class III.-Offences against Property without Violence- |  |  |  |  |
| Fraud, embezzlement and false pretences............ Receiving stolen goods....................... | 376 335 | 47 11 | 410 344 | 53 <br> 25 |
| Theft.................. | 4,565 | 311 | 4,564 | 366 |
| Totals, Class III. | 5,276 | 369 | 5,318 | 444 |
| Class IV.-Malicious Offences against PropertyArson. | 18 | 1 | 28 | - |
| Malicious damage to property ..................... | 388 | 16 | 274 | 14 |
| Totals, Class IV. | 406 | 17 | 302 | 14 |
| Class V.-Forgery and Other Offences against the Curreney- <br> Offences against currency. <br> Forgery and uttering forged documents. | 247 | - 33 | 4 206 | 36 |
| Totals, Class V. | 253 | 33 | 210 | 36 |
| Class VI.-Other Offences- |  |  |  |  |
| Carrying unlawful weapons... | 178 | 1 | 151 | 2 |
| Dangerous or reckless driving | 434 | 1 | 435 | 7 |
| Offences against public morals........................ | 38 | 24 | 38 38 | 46 |
| Opium and Narcotic Drug Act, offences against...... | 39 | 2 | 30 | 23 |
| Gambling and lotteries.............. | 57 | 8 | 61 | 4 |
| Keeping bawdy houses and inmates. | 6 | 41 | 7 | 49 |
| Riots and unlawful assembly ...... | 169 415 | 55 | 149 471 | 1 35 |
| Totals, Class VI. | 1,546 | 135 | 1,550 | 169 |
| Grand Totals. | 11,799 | 673 | 11,970 | 779 |

[^101] sault, carnal knowledge, incest, procuration, rape, attempted rape, seduction and wife desertion.

In Table 13 the rates per 100,000 estimated population show the proportions of young offenders in three age groups.
13.-Rates per $\mathbf{1 0 0 , 0 0 0}$ Population of Young Adults Convicted of Indictable Offences, by Age Groups, Years Ended Sept. 30, 1949 and 1950
(Exclusive of Newfoundland)

| Age Group | 1949 |  |  | 1950 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number of Offenders | Per 100,000 Population in Respective Group | Percentage Change from Preceding Year | Number of Offenders | Per 100,000 Population in Respective Group | Percentage Change from Preceding Year |
| 16-17 years..... | 2,682 | 627 | . | 2,926 | 684 | +9.1 |
| 18-19 " | 2,932 | 675 | . | 3,107 | 718 | +6.0 |
| 20-24 " | 6,858 | 617 | . | 6,716 | 606 | -2.1 |

The sentences meted out to these young people varied somewhat from those given to offenders of over 24 years of age. A higher proportion of them in 1950 were given suspended sentence, put on probation or sent to reformatories while a lower proportion were fined or given gaol or penitentiary sentences.
14.-Disposition of Sentences for Indictable Offences, Year Ended Sept. 30, 1950
(Exclusive of Newfoundland)

| Disposition of Sentences | Males |  | Females |  |
| :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 16-24 \\ & \text { Years } \end{aligned}$ | 25 Years or Over | ${ }_{\text {Years }}^{\text {16-24 }}$ | $\begin{aligned} & 25 \text { Years } \\ & \text { or Over } \end{aligned}$ |
|  | p.c. | p.c. | p.c. | p.c. |
| Suspended sentence. | 14.5 | 9.8 | 23.1 | 17.2 |
| Probation....... | ${ }_{22.1}^{11.1}$ | 3.9 33.9 | ${ }^{24.1}$ | ${ }_{34.7}^{10 \cdot 3}$ |
| Fined. | $22 \cdot 4$ 35.4 | - $\begin{array}{r}33.8 \\ 40.9\end{array}$ | 17.5 26.4 | $34 \cdot 7$ $32 \cdot 6$ |
| Reformatory | ${ }_{9.6}$ | 4.6 | ${ }_{8.0}$ | ${ }_{2.6}$ |
| Penitentiary.. | 6.8 | 7.0 | 0.9 | 2.5 |
| Death........ | $0 \cdot 2$ | $0 \cdot 1$ |  | $0 \cdot 1$ |

Through suspending sentence and probation supervision many of these young offenders received another chance to make good, while reformatory training gave others an opportunity to better their employment possibilities. In this connection it is interesting to note that $34 \cdot 7$ p.c. of the males were recorded as labourers, which indicates that they had no particular skill by which to earn a living; the proportion of male offenders of all ages recorded as labourers was 22.9 p.c. About 6 p.c. of the youths were unemployed and $78 \cdot 8$ p.c. lived in urban centres.

Of the young female offenders, $28 \cdot 8$ p.c. were not gainfully employed; domestic or personal service was the occupation of 39.5 p.c. and $85 \cdot 1$ 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 Conviction 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, but they do not involve violence, cruelty or serious dishonesty as, for example, parking violations or exercising callings without licence. 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 $20 \cdot 8$ p.c. to $1,183,991$ in 1950 from 980,489 in 1949. Increases were general in all provinces except Prince Edward Island, while Ontario and Quebec showed the largest numerical increases.

## 15.-Convictions for Non-indictable Offences, by Provinces, Years Ended Sept. 30, 1941-50

(Exclusive of Newfoundland)
Nore.-Figures for 1900-40 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

| Year | 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. |
| 1941 | 1,664 | 10,254 | 7,703 | 152,330 | 288, 874 | 32,481 | 10,499 | 15,434 | 28,096 | 80 | 141 | 547,556 |
| 1942 | 1,521 | 10,386 | 8,170 | 195, 672 | 285, 240 | 32,209 | 8,541 | 14,543 | 24,905 | 86 | 91 | 581,364 |
| 1943 | 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 | 280,868 | 617,565 | 79,079 | 22,717 | 28,344 | 117,729 | 553 |  | 1,183,991 |

It should be remembered that, while the Criminal Code undergoes little change over a period of time, the figures for summary 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 1950, decreases in certain types of offences, such as common assaults, disturbing the peace, gambling, frequenting bawdy houses and operating a radio without a licence, were offset by decided increases in convictions for breaches of traffic regulations, which reached an all time peak, breaches of the Lord's Day Act, which doubled in number, and exercising callings without licence, which were $89 \cdot 8$ p.c. more numerous than in 1949. There were 1,399 convictions for taking a car without the owner's consent in 1950 as against 774 in 1949 and 1,823 convictions for offences against the Unemployment Insurance Act compared to 924 in 1949.

## 16.-Convictions for Non-indictable Offences, by Types, Years Ended Sept. 30, 1946-50

(Exclusive of Newfoundland)

| Type of Offence | 1946 | 1947 | 1948 | 1949 | 1950 | Increase or Decrease 1949-50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | p.c. |
| Assault (common) | 4,640 | 4,543 | 4,416 | 4,607 | 3,906 | $-15.2$ |
| Disturbing the peace | 2,399 | 4,438 | 7,544 | 11,018 | 10,568 | - $4 \cdot 1$ |
| Drunkenness... | 64,076 | 70,868 | 70.542 | 75,931 | 75,935 |  |
| Vagrancy ${ }^{1}$. | 21,963 | 15,904 | 9,051 | 8,576 | 8,967 | + $4 \cdot 6$ |
| Damage to propert | 1,661 | 1,544 | 1,537 | 1,675 | 1,720 | + $2 \cdot 7$ |
| Gambling Acts, offences against........ | 8,254 | 5,215 | 5,523 | 6,360 | 4,818 | $-24.3$ |
| Bawdy houses (frequenting). | 591 | 373 | 1,111 | 586 | 480 | $-18.1$ |
| Non-support and neglecting ch | 3,359 | 2,928 | 4,524 | 4,217 | 4,459 | + 5.7 |
| Contributing to delinquency | 1,085 | 1,212 | 1,272 | 1,087 | 1,126 | + 3.6 |
| Traffic regulations.......... | 453,630 | 537,519 | 649,599 | 761,467 | 938,549 | $+23.3$ |
| Provincial and Federal Acts- Game and Fishing Acts............. | 3,597 | 4.423 |  | 5,854 |  |  |
| Indian Act.......... | 2, 297 | 4.423 | 1,570 | 2,386 | 6,144 2,426 | a $+\quad 5.0$ $+\quad 1.7$ |
| Liquor Control and Temperance Acts. | 33,362 | 28,486 | 27,744 | 28,259 | 31,738 | +12.3 |
| Lord's Day Act. ..................... | , 572 | 1,235 | 1,428 | 1,014 | 2,072 | +104.3 |
| Radio without a licenc | 10,867 | 12,477 | 10,693 | 12,235 | 10,642 | $-13 \cdot 0$ |
| Railway Acts.. | 1,346 | 1,586 | 1,735 | 1,827 | 2,278 | + 4.7 |
| Revenue Laws. | 2,179 | 2,430 | 2,690 | 2,704 | 3,175 | +17.4 |
| Other provincial and federal Acts | 10,529 | 15,610 | 23,006 | 13,240 | 20,399 | + 54.1 |
| Municipal by-laws, breaches of.. | 25,499 | 34,354 | 40,552 | 30,387 | 44,349 | +95.0 |
| Exercising various callings without licence. | 3,266 | 2,096 | 1,178 | 1,359 | 2,580 | +89.8 |
| Other offences | 6,797 | 5,217 | 6,177 | 5,700 | 7,660 | + 34.4 |
| Totals. | 659,672 | 752,458 | 876,645 | 980,489 | 1,183,991 | $+20.8$ |

${ }^{1}$ Includes loose, idle and disorderly conduct. Acts, and Drunkenness.
${ }^{2}$ Included with Liquor Control and Temperance

Breaches of Traffic Regulations.-Each year breaches of traffic regulations constitute a greater proportion of the total convictions for non-indictable offences; in 1950 they amounted to $79 \cdot 3$ p.c., an increase of $23 \cdot 3$ p.c. over 1949 , which accounted to a great extent for the over-all increase in convictions for all non-indictable offences.

## 17.-Convictions for Breaches of Traffic Regulations, by Provinces, Years Ended Sept. 30, 1941-50

(Exclusive of Newfoundland)
Nore.-Figures for 1900-40 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

| Year | 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. |
| 1941. | 530 | 2,444 | 2,314 | 73,367 | 231,823 | 26,092 | 5,625 | 8,253 | 18,784 | 2 | 369,234 |
| 1942 | 331 | 2,594 | 1,765 | 110,579 | 232,646 | 25,522 | 4,034 | 7,779 | 14,705 | 2 | 399,957 |
| 1943 | 209 | 2,772 | 1,722 | 82,884 | 152,557 | 16,074 | 2,961 | 4,745 | 10,628 | 21 | 274,573 |
| 1944 | 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 | 327 | 1,707 | 2,014 | 123,915 | 271,379 | 26,266 | 5,253 | 5,574 | 17,193 | 2 |  |
| 1947. | 556 | 2,370 | 2,667 | 138,321 | 315,412 | 36,526 | 6,141 | 7,476 | 28.043 | 7 | 537,519 |
| 1918 | 393 | 4,607 | 2,469 | 174,021 | 352,253 | 41,074 | 6,300 | $\begin{array}{r}7,984 \\ \hline 11\end{array}$ | 60,493 69 | 58 | 649,599 761,467 |
| 1949. | 519 | 4,084 | 3,729 | 188,003 | 417,016 | 60,127 | 7,274 | 11,112 13,772 | 69,545 92,038 | 58 138 | 761,467 938,549 |
| 1950. | 366 | 4,265 | 11,909 | 227,857 | 508,010 | 67,832 | 12,362 | 13,772 | 92,038 | 138 | 938,549 |

For the year 1950 , Ontario with $42 \cdot 5$ p.c. of the registrations of motor-vehicles in Canada had $54 \cdot 1$ p.c. of the total convictions for breaches of traffic regulations; Quebec in the same year had $16 \cdot 7$ p.c. of the motor-vehicles and $24 \cdot 3$ 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. The above two provinces have large urban centres, while in provinces with lower degrees of urbanization such as the Maritimes, 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 Table 18, 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 Provinces, Years Ended Sept. 30, 1941-50 (Exclusive of Newfoundland)

Note.-Figures for 1900-40 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

| Year | 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. |
| 1941. | 539 | 3,654 | 3,332 | 8,292 | 17,831 | 1,472 | 591 | 1.353 | 2,871 | 23 | 44 | 40,002 |
| 1942 | 606 | 4,387 | 4,217 | 10.400 | 17,622 | 1,580 | 570 | 1,393 | 3,964 | 43 | 19 | 44,801 |
| 1943. | 332 | 2,380 | 3,489 | 10,363 | 17,482 | 1,885 | 778 | 1,462 | 4,055 | 51 | 15 | 42,292 |
| 1944. | 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 | 83,446 | 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 |

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 Provinces, Years Ended Sept. 30, 1941-50 <br> (Exclusive of Newfoundland)

Nore.-Figures for 1900-40 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

| Year | 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. |
| 1941. | 250 | 1,273 | 431 | 3,206 | 6,346 | 624 | 894 | 1,298 | 994 | 25 | 28 | 15,369 |
| 1942. | 188 | 1,323 | 477 | 3,037 | 6,901 | 1,130 | 982 | 1,294 | 1,508 | 24 | 34 | 16,898 |
| 1943. | 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 | 2,712 | 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 |
| 195 | 268 | 2,192 | 1,172 | 3,121 | 15,761 | 1,980 | 2,478 | 3,504 | 1,164 | 64 | 34 | 31,738 |

Conviction of Females.-The number of convictions against females for non-indictable offences has increased steadily each year since 1944; the increase in 1950 over 1949 amounted to $32 \cdot 2$ p.c. Only two provinces, Manitoba and Alberta, recorded decreases in 1950 from the previous year. Fewer traffic offences in these two provinces was partly the reason for the decrease, along with a decline in Alberta in cases of vagrancy and common assault, and a reduction in the number of cases of intoxication in Manitoba. British Columbia, Ontario and Quebec showed the largest percentage increases in convictions against females- $38 \cdot 2$ p.c., $33 \cdot 8$ p.c., and $40 \cdot 4$ p.c., respectively.

Total traffic offences for which women were responsible increased in 1950 over 1949 by 37.2 p.c. and were the cause for $78 \cdot 9$ p.c. of the summary convictions against them.

## 20.-Convictions of Females for Non-Indictable Offences, by Provinces, Years Ended Sept. 30, 1946-50

| Province or Territory | Numbers of Convictions |  |  |  |  | Percentages of Convictions of Females to Total Convictions |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1946 | 1947 | 1948 | 1949 | 1950 | 1946 | 1947 | 1948 | 1949 | 1950 |
| Newfoundland. |  |  |  |  |  |  |  |  |  |  |
| Prince Edward Island. | 124 | 43 | 65 | 66 | 67 | $4 \cdot 6$ | 1.5 | $2 \cdot 5$ | $2 \cdot 1$ | $3 \cdot 2$ |
| Nova Scotia. | 635 | 383 | 469 | 349 | 389 | $4 \cdot 9$ | $3 \cdot 2$ | $3 \cdot 5$ | $2 \cdot 8$ | $3 \cdot 0$ |
| New Brunswick | 515 | 480 | 348 | 373 | 446 | $3 \cdot 7$ | $3 \cdot 4$ | 2.9 | 2.8 | $2 \cdot 1$ |
| Quebec. | 6,974 | 6,738 | 6,803 | 7,404 | 10,398 | 3.9 | $3 \cdot 6$ | $3 \cdot 7$ | $3 \cdot 2$ | $3 \cdot 7$ |
| Ontario. | 19,804 | 20,581 | 33,360 | +2,022 | 56,225 | $5 \cdot 6$ | $5 \cdot 1$ | $8 \cdot 1$ | $8 \cdot 2$ | $9 \cdot 1$ |
| Manitoba | 1,688 | 1,715 | 1,812 | 2,135 | 1,684 | $4 \cdot 1$ | $3 \cdot 6$ | $3 \cdot 6$ | $3 \cdot 0$ | $2 \cdot 1$ |
| Saskatchewan | 616 | 526 | 513 | 476 | 595 | $4 \cdot 4$ | $3 \cdot 5$ | $3 \cdot 4$ | $2 \cdot 9$ | $2 \cdot 6$ |
| Alberta. | 909 | 1,057 | 1,156 | 1,224 | 1,194 | $5 \cdot 6$ | $5 \cdot 7$ | 6.2 | 4.8 | $4 \cdot 2$ |
| British Columbia | 2,509 | 2,936 | 7,254 | 7,216 | 9,972 | 7.8 | 6.4 | 9-3 | 7.7 | 8.5 |
| Yukon and N.W.T | 31 | 49 | 76 | 16 | 42 | 6.5 | $7 \cdot 5$ | 13.9 | $5 \cdot 5$ | $5 \cdot 8$ |
| Canada | 33,805 | 34,508 | 51,856 | 61,281 | 81,012 | $5 \cdot 1$ | $4 \cdot 6$ | 6.3 | 6.3 | 6.8 |

## Subsection 4.-Appeals

In the calendar year 1950, the Supreme Court of Canada and the Provincial Supreme Courts dealt with 895 appeals of criminal cases as compared with 721 in 1949. The Crown was the appellant in 58 of these cases and the accused in 837 cases. The original conviction or orders were affirmed in 538 cases ( $60 \cdot 1$ p.c.), sentence was varied or the verdict changed or substituted in 201 cases ( 22.5 p.c.), 104 convictions ( $11 \cdot 6$ p.c.) were quashed, and 52 new trials ( $5 \cdot 8$ p.c.) were ordered.

The returns from the County and District Courts showed that 747 appeals against summary convictions were disposed of in 1950, as against 605 in the previous year. Of that number the informant was the appellant in 75 cases and the accused in 672 cases. The appeals against convictions and orders were dismissed in 430 cases ( 57.6 p.c.), sentence was varied and the verdict changed or substituted in 116 cases ( $15 \cdot 5$ p.c.), and there were 201 acquittals ( $26 \cdot 9$ p.c.). More than a third ( $38 \cdot 2$ p.c.) of the appeals in all the courts were heard in Ontario, 18.9 p.c. in British Columbia, $15 \cdot 6$ p.c. in Alberta, $9 \cdot 1$ p.c. in Nova Scotia and $7 \cdot 7$ p.c. in Quebec.

21．－Appeals in Indictable and Summary Conviction Cases，by Provinces， 1950

| Province or Court | INDICTABLE OFFENCES |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ap－ peals Dis－ posed of by Courts | Crown Appeal |  |  |  |  | Appeal of Accused |  |  |  |  |  |  |
|  |  | From Acquittal |  |  | From Sentence |  | From Conviction |  |  |  |  | From Sentence |  |
|  |  | $\underset{\text { missed }}{\text { Dis- }}$ | New Trial | Con－ viction | Dis－ missed | Varied | Dis－ missed |  |  | New Trial | $\|$Sub－ <br> sti－ <br> tuted <br> Verdic | Dis－ missed | Varied |
|  | No． | No． | No． | No． | No． | No． | No． | N |  | No． | No． | No． | No． |
| N＇f＇ld．．．．．． | ＇i | － |  | $\cdots$ | － | 兰 | － |  |  | $\therefore$ | － | $\cdots$ | － |
| N．S．．．．．．．． | 12 | 二 | － | 2 | － | － | 8 |  | $\underline{1}$ | 2 | － | － | － |
| N．B．．．．．．．． | 11 | － | 1 | 5 | － | － | 1 |  | 2 | 1 | 1 | － | － |
| Que．． | 60 | 2 | － | － | 2 | 2 | 27 |  | 2 | 2 | 4 | 8 | 1 |
| Ont．．．．．．．．． | 291 | 4 | － | － | 2 | 12 | 164 |  | 6 | 8 | － | 3 | 52 |
| Man．．．．．．．．． | 59 | 1 | － | － | － | － | 8 |  | 1 | 8 | 1 | 25 | 15 |
| Sask．．．．．．． | 31 | 1 | － | － | － | － | 11 |  | 4 | 2 | － | 7 | 6 |
| Alta．．．．．． | 184 | 3 | － | 1 | － | 3 | 44 |  | 14 | 9 | － | 70 | 40 |
| B．C．．．．．．．． | 243 | 7 | － | － | 6 | 4 | 94 |  | 23 | 17 | 4 | 40 | 48 |
| Supreme Court of Canada．． | 3 | － | － | － | － | － | － |  | 1 | 2 | － | － | － |
| Totals．．．． | 895 | 18 | 1 | 8 | 10 | 21 | 357 | 10 |  | 51 | 10 | 153 | 162 |
| Province |  | SUMMARY CONVICTION CASES |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 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 |  | is－ ssed |  |  | Sub－ sti－ tuted Verdict | Dis－ missed | Varied |
|  |  |  | No． | No． | No． | No． | No． |  | No． | N |  | No． | No． | No． |
| N＇f＇ld．．．．．．． | ．．．．．．． |  | 15 | － |  | － | 1 |  | 9 |  | 3 | $\cdots 1$ | － | ${ }^{\prime} 1$ |
| N．S．．．．．．． |  | 138 | －2 | 15 | 二 | 2 |  | 80 |  | 7 | 8 | 4 |  |
| N．B． |  | 20 | 1 | 6 | － | － |  | 11 |  | 2 | － | － | － |
| Que．．．．．．．．． |  | 66 | － | － | 6 | － |  | 31 |  | 18 | 3 | 3 | 5 |
| Ont．．．．．．．．． |  | 336 | 12 | 9 | 2 | － |  | 180 |  | 5 | 18 | 13 | 7 |
| Man． |  | 10 | － | － | － | 1 |  | 3 |  | 1 | 4 | － | 1 |
| Sask |  | 23 | － | 1 | － | － |  | ${ }_{3}^{9}$ |  | 9 | 1 | － | 3 |
| Alta． |  | 72 | 4 | 3 | 1 | 1 |  | 33 |  | 17 | 3 | 3 | 9 |
| B．C． |  | 67 | 3 | 5 | 1 | 1 |  | 18 |  | 29 | 6 | 2 | 2 |
| Totals．． | ． | 747 | 22 | 39 | 9 | 5 |  | 374 |  | 1 | 44 | 25 | 28 |

## 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，Alberta，Manitoba and Quebec．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．

In 1950 the practice was abandoned of dividing delinquencies into major and minor offences．This division has always been arbitrary and open to question depending on the standards of behaviour in different communities，as a minor delinquency in one locality may be judged a major delinquency in another．

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 a picture 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 childcaring agency. Moreover, it does not include those cases which 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 almost steady decrease in the number of recorded court cases in the past seven years. In 1950 approximately 4,900 cases were disposed of in this way.

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 under-estimate 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 they represent the number of offences committed by offenders, as when a child is charged with more than one delinquency at a hearing the most serious offence only is counted.

Reports of juvenile delinquents were received in 1949 from 131 of the 149 judicial districts; the remaining 18 districts reported no offenders. In 1950, reports were submitted by 147 districts. Twenty-nine of these had no cases to report. Separate reports were received in 1950 from 129 incorporated urban centres of 4,000 population or more.

Juveniles before the Courts.-The number of cases of juveniles brought before the courts declined steadily each year from 1943 to 1949. In 1950, according to the reports received by the Dominion Bureau of Statistics, this trend was broken when the cases of 7,304 children were heard for behaviour that was contrary to the law. However, this number, though 266 higher than that for 1949, was the second lowest in the past 25 years.

The rise of 3.8 p.c. in court appearances was accounted for by the Provinces of New Brunswick, Quebec and Ontario. Among the other provinces, Prince Edward Island and Saskatchewan showed the most marked decreases. The effect of the Saskatchewan Correction Act, 1950, may have a bearing on the sharp drop of cases in that Province.
22.-Juveniles brought before the Courts, by Provinces, 1946-50

Nort.-Statistics for years prior to 1950 are for fiscal years ended Sept. 30. Figures for 1950 are given on a calendar-year basis; for the three months intervening-Oct. 1 to Dec. 31, 1949-see D.B.S. report, Juvenile Delinquents, 1950.

| Province or Territory | 1946 | 1947 | 1948 | 1949 | 1950 | Percentage Change, 1949-50 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. |  |
| Newioundland......................... | ... | ... | $\cdots$ | . | . | $\cdots$ |
| Prince Edward Island................ | 63 | 30 | 28 | 49 | 10 | $-79.6$ |
| Nova Scotia.. | 491 | 513 | 518 | 485 | 411 | -15.3 |
| New Brunswick. | 385 | 342 | 277 | 218 | 281 | +28.9 |
| Quebec............................... | 2,183 | 1,908 | 1,889 | 1,490 | 1,555 | $+4 \cdot 4$ |
| Ontario. | 3,684 | 3,262 | 3,256 | 2,983 | 3,550 | +19.0 |
| Manitoba............................. | 344 | 490 | 422 | 490 | 417 | -14.9 |
| Saskatchewan. | 203 | 222 | 193 | 178 | 80 | $-55 \cdot 1$ |
| Alberta................................ | 455 | 300 | 269 | 292 | 272 | -6.8 |
| British Columbia. | 899 | 1,181 | 1,015 | 852 | 722 | -15.3 |
| Yukon Territory..................... | - | 4 | 3 | 1 | 5 | $+400 \cdot 0$ |
| Northwest Territories. | - | 13 | 8 | - | 1 | +100.0 |
| Canada . | 8,707 | 8,265 | 7,878 | 7,038 | 7,304 | $+3 \cdot 8$ |

The peak in the number of girls appearing before the courts was reached in 1943, a year later than the boys, followed by a decline each year up to 1949. The number of girls appearing in 1950 (756) was higher than that in 1949 but, with this exception, lower than in any year since 1930.

## 23.-Percentage Changes in the Numbers of Boys and Girls brought before the Courts, 1941-50

(Exclusive of Newfoundland)
Note.-See headnote to Table 22.

| Year | Percentage Changes from Preceding Year |  |  | Percentage Changes from 1940 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys' Cases | Girls' Cases | $\begin{gathered} \text { All } \\ \text { Cases } \end{gathered}$ | Boys' Cases | Girls' Cases | $\begin{gathered} \text { All } \\ \text { Cases } \end{gathered}$ |
| 1941. | +22.1 | +18.4 | +21.7 | +22.1 | +18.4 | +21.7 |
| 1942. | +14.6 | $+6.7$ | +13.7 | +39.9 | +26.4 | +38.4 |
| 1943. | $-12.9$ | +1.1 | -11.4 | +21.9 | +27.8 | +22.5 |
| 1944. | -4.8 | -10.5 | $-5.5$ | +16.0 | +14.4 | +15.8 |
| 1945... | $-16.3$ | $-9.6$ | -15.6 | -2.9 | +3.4 | -2.2 |
| 1946... | -11.4 | $-5.8$ | -10.8 | -14.0 | $-2.6$ | -12.7 |
| 1947. | $-3.3$ | $-17 \cdot 3$ | -5.1 | -16.9 | -19.4 | $-17.2$ |
| 1948. | -5.1 | $-1.3$ | $-4.7$ | -21.1 | -20.5 | $-21.0$ |
| 1949.. | $-9.0$ | $-24 \cdot 0$ | $-10.7$ | -28.1 | -39.6 | -29.5 |
| 1950... | +2.9 | +11.8 | +3.8 | $-26.1$ | -32.4 | -26.8 |

Reasons for Court Appearances.-The number of children adjudged delinquent by the courts of the provinces, exclusive of Newfoundland, in 1950, was 6,418 . This was an increase of 220 or $3 \cdot 5$ p.c. over the year 1949 .

## 24.-Juvenile Delinquents, by Provinces, 1941-50

(Exclusive of Newfoundland)
Note.-See headnote to Table 22, p. 309.

| Year | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T. | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1941. | 75 | 385 | 436 | 3,967 | 3,467 | 378 | 316 | 716 | 570 | - | 10,310 |
| 1942. | 101 | 353 | 350 | 4,044 | 4,394 | 602 | 466 | 835 | 613 | - | 11,758 |
| 1943. | 89 | 488 | 429 | 3,196 | 4,178 | 438 | 421 | 447 | 610 | - | 10,296 |
| 1944. | 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 |
| 1916.. | 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 |

The greater number of delinquents in 1950 was due partly to an increase in those committing thefts of various kinds (including thefts of money, articles, mail and automobiles), receiving stolen goods, and taking a motor-vehicle without the owner's consent. Thefts accounted for the delinquencies of $37 \cdot 7$ p.c. of the boys in 1950 , robbery, burglary and breaking and entering for $22 \cdot 7$ p.c., and wilful damaging of property for $11 \cdot 2$ p.c.

Only 2.4 p.c. of the juveniles were judged to be delinquent for offences against the person and over a third of those convictions were for common assault.

The largest percentage of girls ( 40.7 p.c.) were judged incorrigible; theft was the weakness of 18 p.c., and immorality of 8.8 p.c.

## 25.-Juvenile Delinquents by Groups of Offences and Ratios per $\mathbf{1 0 0 , 0 0 0}$ Population 7-16 Years of Age, 1941-50

(Exclusive of Newfoundland)
Note.-See headnote to Table 22, p. 309.

| Year | Offences against the Person |  | Offences against Property with Violence |  | Offences against Property without Violence |  | Wilful Offences against Property |  | Forgery and Offences against Currency |  | Other Offences |  | Total Convictions |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Ratio to Population | No. | Ratio to Population | No. | Ratio to Population | No. | Ratio to Population | No. | Ratio to Popu- lation | No. | Ratio to Popu- lation | No. | Ratio to Population |
| 1941. | 263 | 13 | 1,407 | 72 | 3,467 | 17 s | 1,063 | 55 | 14 |  | 4,096 | 210 | 10,310 | 529 |
| 1942. | 206 | 11 | 1,536 | 79 | 4,039 | 208 | 1,228 | 63 | 11 |  | 4,738 | 244 | 11,758 | 606 |
| 1943. | 260 | 14 | 1,550 | 81 | 3.658 | 190 | 1,140 | 59 | 21 | 1 | 3,667 | 190 | 10,296 | 535 |
| 1944. | 216 | 11 | 1,739 | 91 | 3,393 | 178 | 1,269 | 67 | 22 | 1 | 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 | 473 |
| 1946 | 173 | 9 | 1,353 | 71 | 2,594 | 137 | 887 | 47 | 23 | 1 | 2,826 | 149 | 7,856 | 414 |
| 1947. | 189 | 10 | 1,389 | 72 | 2,449 | 127 | 677 | 35 | 23 |  | 2,818 | 147 | 7.545 | 392 |
| 1948 | 204 | 10 | 1,229 | 64 | 2.400 | 124 | 729 | 38 | 15 |  | 2,578 | 134 | 7,155 | 371 |
| 1949. | 176 | 9 | 1,346 | 67 | 2,244 | 113 | 600 | 30 | 15 |  | 1,817 | 91 | 6,198 | 311 |
| 1950. | 151 | 7 | 1,337 | 65 | 2,394 | 116 | 667 | 32 | 16 | 1 | 1,853 | 90 | 6.418 | 311 |

The number of thefts and the cases of wilful damage to property have tended to decrease since 1930. On the other hand, the serious offences of burglary, and breaking and entering have increased in the same period.
26.-Juvenile Delinquents classified by Offences, Five-Year Intervals, 1925-50
(Exclusive of Newfoundland)
Note.-See headnote to Table 22, p. 309.

| Offence | 19251 | 1930 | 1935 | 1940 | 1945 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Manslaughter and murder. | - | - | - | 2 | 14 | - |
| Rape, carnal knowledge and incest...... | - | 5 | 8 | 12 | 14 | 4 |
| Indecent assault. . . . . . . . . . . . . . . . . . . . | 37 | 49 | 29 | 32 | 30 | 36 |
| Aggravated assault and wounding........ | 12 | 11 | 60 | 24 | 27 | 26 |
| Common assault....................... | 118 | 101 | 100 | 99 | 115 | 59 |
| Endangering life on railway. | 40 | 31 | 48 | 28 | 30 | 12 |
| Other offences against the person........ | 5 | 2 | 3 | 11 | 4 | 14 |
| Burglary, breaking and entering. | 798 | 944 | 1,022 | 1,245 | 1,494 | 1,310 |
| Robbery . . . . . . . . . . . . . . . . . . . . . . . | 17 | 7 | 9 | 16 | 19 | 27 |
| Theit and receiving stolen goods. ....... | 3,386 12 | 3,662 24 | 3,548 14 | 3,037 21 | 2,944 20 | 2,373 21 |
|  | 18 | 45 | 29 | 26 | 27 | 49 |
| Wilful damage to property | 983 | 927 | 716 | 736 | 1,163 | 618 |
| Forgery and offences against currency... | 7 | 17 | 12 | 8 | 29 | 16 |
| Immorality............................ . | 177 | 82 | 45 | 186 | 112 | 126 |
| Various other offences | 3,129 | 2,518 | 2,036 | 2,948 | 2,881 | 1,727 |
| Totals | 8,739 | 8,425 | 7,679 | 8,431 | 8,909 | 6,418 |

${ }^{1}$ Figures include 852 cases adjourned sine die.
Sex and Age of Delinquents.-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 1950, it was approximately one girl to nine boys.

There were 121 boys of seven and eight years of age found to be delinquent in 1950, though more than one-half of the delinquent boys were 14 and 15 years of age, and $67 \cdot 3$ p.c. were 13 years of age or over.

The ages of 67.5 p.c. of the delinquent girls in 1950 were 14 and 15 years, and 81.7 p.c. were 13 years of age or over. No girls were brought before the courts for delinquencies in Saskatchewan and Prince Edward Island in 1950, and none under the age of 12 in Manitoba and Alberta.
27.-Percentages of Delinquent Boys and Girls, by Age Groups, 1949 and 1950
(Exclusive of Newfoundland)
Note.-See headnote to Table 22, p. 309.

| Age Group | 1949 |  |  | 1950 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boys | Girls | Both Sexes | Boys | Girls | Both Sexes |
|  | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| 7-12 years. | 33.8 | 21.1 | $32 \cdot 6$ | $31 \cdot 6$ | 17.5 | $30 \cdot 2$ |
| 13-15 years. | $64 \cdot 9$ | $78 \cdot 6$ | 66.2 | $67 \cdot 3$ | $81 \cdot 7$ | 68.7 |
| Not given. | $1 \cdot 3$ | 0.3 | $1 \cdot 2$ | $1 \cdot 1$ | 0.8 | $1 \cdot 1$ |
| Totals. | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | 100.0 | $100 \cdot 0$ |

Education and Employment.-Backwardness in school work may be due to many causes: illness, disturbed family situations, overcrowding in the home or other factors. Presuming that six years is the age for entering Grade I, $48 \cdot 6$ p.c. of the boys and $55 \cdot 6$ p.c. of the girls who were delinquent in 1950 were two years or more below the normal grade for their age, while $3 \cdot 2$ p.c. of the girls and boys were a year or more above it.

Well over one-half of the delinquent boys were in Grades V to VIII, and onehalf of the girls had attained Grades VI to VIII, while $12 \cdot 7$ p.c. of the boys and girls were known to have attended high school for some period of time.
28.-Age, Sex and School Grade of Delinquent Boys and Girls, 1950
(Exclusive of Newfoundland)
( $\mathrm{B}=$ Boys; $\mathrm{G}=$ Girls)

| Age | School Grades |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | $\begin{gathered} \text { Total } \\ \text { De- } \\ \text { linquents } \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Elementary |  |  |  |  |  |  |  |  |  | Second- |  | $\underset{\text { ary }}{\text { Auxili- }}$ |  | NotGiven |  |  |  |
|  | I-IV |  | V |  | VI |  | VII |  | VIII |  |  |  |  |  |  |  |  |  |
|  |  | G |  | G | B | G | B | G | B | G |  | G | B | G | B | G | B | G |
| 7 years. | 28 | 3 |  |  | - |  | - |  | - |  | - | - | - |  |  |  | 30 |  |
| ${ }_{9}^{8}$ " | ${ }^{88}{ }^{88}$ | 4 | 14 | 二 | 1 |  |  |  | - |  | 二 |  |  |  | ${ }_{14}$ |  | $\stackrel{91}{197}$ | ${ }_{5}^{4}$ |
| 10 " | 194 | 15 | 87 |  | 22 | - | 1. |  | - |  |  |  | 1 | - | 19 | 1 | 324 | 20 |
| 11 " | 174 | 11 | 126 |  | 102 |  | 20 |  |  |  |  |  | 4 |  | 24 | 2 | 450 | 24 |
| ${ }_{13}^{12}$ " | 142 80 | 14 | ${ }_{156}^{168}$ | 15 | ${ }_{193}^{192}$ |  | ${ }_{226}^{117}$ |  | ${ }_{157}^{32}$ | ${ }_{18}^{2}$ | ${ }_{29}^{3}$ |  | ${ }_{22}^{14}$ | , | ${ }_{75}^{63}$ | 7 | ${ }_{938}^{731}$ | ${ }_{92}^{55}$ |
| 14 " | 55 | 16 | 108 |  | 190 |  | 292 | 37 | 304 | 41 | 211 | 31 | 40 | 6 | 116 | 14 | 1,316 | 189 |
| 15 " | 63 | 11 |  |  | 203 |  | 272 |  | 326 | 55 |  | 61 | 35 | - | 164 | 27 | 1,629 | 247 |
| Not given. | 2 |  |  |  |  |  |  |  |  |  | 4 |  |  |  | 38 |  | 66 |  |
| Totals. | 990 | 86 | 764 |  |  |  |  |  | 822 | 118 | 716 | 98 | 118 | 20 | 518 | 59 | 5,772 | 646 |

In $1950,13 \cdot 4$ p.c. of the delinquent boys and $23 \cdot 2$ p.c. of the delinquent girls were no longer attending school. Their ages varied and were from 11 years or over but the majority were from 14 to 15 years of age. More than 50 p.c. of these boys and girls had left school from Grades V to VIII.

Nearly a third ( 31.7 p.c.) of the delinquent boys who had left school were idle. Of those reported as gainfully employed 43.4 p.c. were occupied in transportation and communication concerns or were factory workers, while another $23 \cdot 1$ p.c. were day-labourers.

Of the girls no longer at school, $42 \cdot 7$ p.c. were unemployed and, of those reported as employed, 40.4 p.c. were in domestic service.

Birthplaces of Juvenile Delinquents and their Parents.-Canada was the country of birth of 6,142 or $95 \cdot 7$ p.c. of the juvenile delinquents in 1950. Thirtyfour delinquents were born in other Commonwealth countries, 19 in the United States, 29 in Europe and one in China. Ontario was the home province of $68 \cdot 7$ p.c. of the 83 delinquents born outside this country.

Both parents of $69 \cdot 3$ p.c. of the delinquent children in 1950 were born in Canada, while $14 \cdot 2$ p.c. had one parent and 11.8 p.c. had both parents born in other countries. Of those born outside Canada the fathers outnumbered the mothers two to one. To evaluate these figures, comparisons should be made with population ratio of children from 7-16 years of age whose parents were Canadian-born to those whose parents were born elsewhere.

Home Circumstances. -The type of home from which a delinquent comes and the amount and quality of parental supervision he receives are important factors in a child's behaviour. The statistics for the marital status and occupation of the parents, which reflect home conditions, are worth recording though it is impossible to draw definite conclusions from them. For every five juveniles who appeared in court, four lived in an urban centre and one in a rural district. The
parents of 73.4 p.c. of the delinquents were reported as living together in 1950. In the case of 2.4 p.c. of the children, one parent was a stepmother or stepfather. Homes broken by separation of the parents, divorce or death were the background from which 19.9 p.c. of these boys and girls came. The mothers of $8 \cdot 3$ p.c. of the juvenile delinquents were employed other than in the home and, in the case of another 2.7 p.c., the mothers were dead. The fathers of 6.9 p.c. of the cases were deceased.

Source of Complaint.-Not all economic, social and racial groups commonly use the services of a court; nevertheless, some parents do turn to the court for advice and assistance in handling difficult children. In the case of 6.5 p.c. of the children brought to court in 1950, the complaint was laid by a parent or relative, but by far the largest proportion ( $70 \cdot 2$ p.c.) of charges were laid by the police. School authorities instigated $4 \cdot 6$ p.c. of the complaints, probation officers another $5 \cdot 2$ p.c., other persons $5 \cdot 1$ p.c. and the source of $8 \cdot 4$ p.c. was not stated.

Repeaters.-Experience, which dispels or increases resentment to authority, may be a factor in encouraging or deterring repeaters. Some of the responsibility for the attitude that is built up, be it good or bad, rests with the police, the probation officer, the staff of the detention home and the judge. The recollection of how he was picked up the first time, how he was handled while awaiting hearing, the opinion of those in whose care he was placed during the process of readjustment, all make an impression on a child.

Over the ten-year period, 1941-50, approximately one in every four children brought before the court failed to heed the first warning and made at least a second appearance. In 1950, 78.5 p.c. of the delinquent children appeared before the court for the first time, $13 \cdot 9$ p.c. were second offenders, $4 \cdot 9$ p.c. third, while $2 \cdot 7$ p.c. were dealt with by the courts four or more times.

## 29.-First Offenders and Repeaters of Major Offences, 1941-50

(Exclusive of Newioundland)
Note.-See headnote to Table 22: p. 309.

| Year | Total Delinquents | First Offenders | Repeaters |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Second | Third | Fourth | Fifth More | Total | Percentage of Total Delinquents |
|  | No. | No. | No. | No. | No. | No. | No. |  |
| 1941. | 6,204 | 4,356 | 994 | 396 | 199 | 259 | 1,848 | 29.8 |
| 1942. | 6,920 | 5,577 | 669 | 348 | 144 | 182 | 1,343 | $19 \cdot 4$ |
| 1943.. | 6,494 | 4,831 | 885 | 386 | 183 | 229 | 1,663 | $25 \cdot 6$ |
| 1944. | 6,529 | 4,665 | 943 | 429 | 221 | 271 | 1,864 | $28 \cdot 6$ |
| 1945. | 5,758 | 4,231 | 812 | 337 | 137 | 241 | 1,527 | 26.5 |
| 1946. | 4,949 | 3,430 | 799 | 344 | 155 | 221 | 1,519 | $30 \cdot 7$ |
| 1947.. | 4,683 | 3,376 | 673 | 329 | 138 | 167 | 1,307 | $27 \cdot 9$ |
| 1948. | 4,591 | 3,340 | 674 | 266 | 147 | 164 | 1,251 | 27.3 |
| ${ }_{19501} 1948$ | 6,198 | 5,195 | ${ }_{6}^{603}$ | 208 | 109 | 83 | 1,003 | $16 \cdot 2$ |
| 19501. | 6,418 | 5,039 | 892 | 314 | 140 | 33 | 1,379 | 21.5 |

${ }^{1}$ Includes minor offences.
Disposition of Cases.-The disposition of cases by the various courts depends on the practices within the courts and on the facilities for court supervision, for institutional care and other services for delinquent children. In 1950, $92 \cdot 4$ p.c. of
all juvenile cases were heard by judges of juvenile courts and the remainder by magistrates or justices of the peace. Only $2 \cdot 7$ p.c. of the cases were dismissed, showing that most complaints were justified.

Some courts consider children whose cases are adjourned sine die as delinquent, but others do not. For the sake of uniformity, the latter point of view is maintained by the Dominion Bureau of Statistics. And yet, in estimating the total problem of juvenile delinquency, cases adjourned sine die have to be taken into account, for when the number of cases dealt with in this way increases the number of those declared delinquent decreases, as seen by Table 30 which shows proportionately the disposition of cases at five-year intervals from 1925 to 1950.

30.-Juveniles Before the Court, Dismissed and Delinquent, Five-Year Intervals, 1925-50
(Exclusive of Newfoundland)
Note.-See headnote to Table 22, p. 309.

| Item | 1925 |  | 1930 |  | 1935 |  | 1940 |  | 1945 |  | 1950 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. | No. | p.c. |
| Before the court. | 8,993 | 100.0 | 10,905 | $100 \cdot 0$ | 9,397 | $100 \cdot 0$ | 9,976 | $100 \cdot 0$ | 9,756 | 100-0 | 7,304 | $100 \cdot 0$ |
| Dismissed. | 254 | $2 \cdot 8$ | 310 | $2 \cdot 8$ | 187 | $2 \cdot 0$ | 239 | $2 \cdot 4$ | 162 | 1.7 | 197 | $2 \cdot 7$ |
| Adjourned sine die | 852 | $9 \cdot 5$ | 2,170 | 19.9 | 1,531 | $16 \cdot 3$ | 1,306 | $13 \cdot 1$ | 685 | $7 \cdot 0$ | 689 | $9 \cdot 4$ |
| Delinquent | 7,887 | $87 \cdot 7$ | 8,425 | $77 \cdot 3$ | 7,679 | $81 \cdot 7$ | 8,431 | $84 \cdot 5$ | 8,909 | $91 \cdot 3$ | 6,418 | $87 \cdot 9$ |

In the past decade, the dispositions of cases have gradually increased in severity (with the exception of 1950), as shown in Table 31. As the years progressed, a greater proportion of delinquents, or their parents, were fined or asked to make restitution for damages and losses. Training schools received a larger share of commitments, while in fewer cases the final disposition was suspended or the child merely reprimanded. However, corporal punishment was resorted to in appreciably fewer cases-in 1950 only three boys were strapped.

With the present-day interest in probation as a means of giving guidance and control, preferably in the child's own home in order to conserve and strengthen the family ties where possible, it is interesting to note that the number of cases handled in this way has remained fairly constant.
31.-Disposition of Delinquents, by Types of Sentence, 1941-50
(Exclusive of Newfoundland)
Note.-See headnote to Table 22, p. 309.

| 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. |  |  |  | No. |  | No. |  |  |  | No. |  | No. | p.c. | No. |  |
| 1941 | 422 |  | 5,024 | 48.7 | 130 |  | 1,397 | $13 \cdot 6$ | 139 | $1 \cdot 3$ | 1,332 | $12 \cdot 9$ | 1,831 | 17.8 | 35 | $0 \cdot 3$ |
| 1942 | 432 | $3 \cdot 7$ | 3,069 | $26 \cdot 1$ | 83 | $0 \cdot 7$ | 2,303 | 19.6 | 117 | 1.0 | 1,454 | $12 \cdot 4$ | 4,249 | $36 \cdot 1$ | 51 | 0.4 |
| 1943 | 464 | $4 \cdot 5$ | 2,854 | $27 \cdot 7$ | 140 | $1 \cdot 4$ | 1,962 | 19.0 | 101 | 1.0 | 1,401 | $13 \cdot 6$ | 3,322 | $32 \cdot 3$ | 52 | $0 \cdot 5$ |
| 1944 | 395 | 4.0 | 2,780 | 28.0 | 112 | $1 \cdot 1$ | 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 | 26.6 | 65 | 0.7 | 1,348 | $15 \cdot 1$ | 1,947 | 21.9 | 23 | $0 \cdot 3$ |
| 1916 | 233 | $3 \cdot 0$ | 2,291 | 29.2 | 67 | $0 \cdot 8$ | 1,854 | $23 \cdot 6$ | 53 | $0 \cdot 7$ | 1,180 | 15-0 | 2,150 | $27 \cdot 4$ | 28 | $0 \cdot 3$ |
| 1947 | 182 | $2 \cdot 4$ | 2,273 | $30 \cdot 1$ | 69 | $0 \cdot 9$ | 2,116 | 28.1 | 40 | $0 \cdot 5$ | 1,108 | 14-7 | 1,733 | $23 \cdot 0$ | 24 | $0 \cdot 3$ |
| 1948 | 248 | $3 \cdot 4$ | 2,201 | $30 \cdot 8$ | 55 | 0.8 | 1,850 | $25 \cdot 8$ | 47 | $0 \cdot 7$ | 1,120 | $15 \cdot 6$ | 1,622 | $22 \cdot 7$ | 12 | $0 \cdot 2$ |
| 1949 | 196 | $3 \cdot 2$ | 2,141 | 34.5 | 98 | $1 \cdot 6$ | 1,655 | 26.7 | 39 | $0 \cdot 6$ | 1,036 | 16.7 | 1,029 | 16.6 |  | $0 \cdot 1$ |
| 195 | 354 |  | 2,392 | $37 \cdot 3$ | 94 |  | 1,148 | 17-9 | 26 |  | 1,144 | 17.8 | 1,257 | $19 \cdot 6$ | 3 |  |

## Section 4.-Crime and Delinquency in Newfoundland

The Criminal Code of Canada was proclaimed in Newfoundland Aug. 1, 1950. Statistics of criminal and other offences and delinquencies will be uniform with those of other provinces in 1951 and will appear in the report for that year. Legislation has been passed establishing district courts, and magistrates have been appointed in the seven judicial districts of Grand Falls-White Bay, Bonavista-Twillingate, Trinity-Conception, St. John's East, St. John's West, Burin Burgeo and HumberSt. George's.

The city of St. John's is policed by the Newfoundland Constabulary. On Aug. 1, 1950, the Royal Canadian Mounted Police took over the policing of the remainder of the Province, including Labrador, and absorbed into their force about 60 Rangers who previously had patrolled the rural areas under the Newfoundland Department of Natural Resources.

Juvenile Delinquency.-The following extracts from the Report of the Judge of the St. John's Juvenile Court for the year ended Mar. 31, 1950, give some idea of the problem of juvenile delinquency in that Province.
"During the year complaints of delinquency were made in 127 cases ( 117 boys and 10 girls) in this Court as compared with 147 for the preceding year. . . . . The chief offences which brought the juvenile boys into court were stealing, breaking and entering with stealing, damage to property, and truancy, while the complaints against the girls were mainly for assault and theft.

[^102]
#### Abstract

"It is particularly gratifying to note that the number of complaints of damage to property was less than one-half that of last year.


[^103]
## Section 5.-Police Forces

The Police Forces operating in Canada are organized under three groups. (1) the Federal Force, which is the Royal Canadian Mounted Police and 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 Police-every city of reasonable size employs its own police organization which is paid for by the local taxpayers and which attends to purely 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. It was organized in 1873 as the North West Mounted Police, whose 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 dutiés as formerly, each province making a contribution towards defraying the cost. This 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

[^104]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 with Headquarters at Ottawa, whose duties were largely connected with guarding public buildings in that city and the Canadian Government dockyards at Halifax, N.S., and Esquimalt, B.C., were 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 for many years have been selected from serving non-commissioned officers. The Force is divided into 15 Divisions, including the Marine Division with Headquarters at Halifax, N.S. There are 602 detachments distributed over the entire country. Its land force transportation consists of 1,023 motor-vehicles, most of which are fitted with twoway radio sets connecting with wireless stations operated by the Force. Such stations operate in both Western and Eastern Canada, including the QuebecUnited States boundary area. The Aviation Section of the Force operates eight aircraft of various types. The present (Mar. 31, 1952) strength of the Force is approximately 4,517 officers and men, with a reserve strength of about 342 . 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 total strength of 203 officers and men and operates 26 ships of various kinds, the majority of which are located on the Atlantic Coast and on the Great Lakes. The R.C.M.P. schooner St. Roch, which has been used as a floating detachment in the Far North and as a supply ship to isolated detachments, is the only ship to navigate the Northwest Passage from east to west and from west to east. It was recently transferred from Esquimalt, B.C., to Halifax, N.S., via the Panama Canal, the only vessel to have circumnavigated the North American Continent.

The Personnel Branch of the R.C.M.P. has officers in each Division across the country. Great care is taken in the selection of recruits.

Duties.-The Royal Canadian Mounted Police has the responsibility 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 narcotic drugs. In all, the 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 Alherta, 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 23 years and those with the

Provinces of Alberta, Manitoba, New Brunswick, Nova Scotia and Prince Edward Island for 19 years. The agreements were entered into with the Provinees 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 120 urban centres within the provinces mentioned.

Other Services.-The services of R.C.M.P. experts in fingerprints, crimeindex 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 persons wanted and missing persons, is sent to all police forces across the country. The R.C.M.P. has two Police Colleges which 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 the youth of Canada in developing a healthful outlook towards the police, law, order and responsible citizenship. Personal contacts with over a million young people have been made through school and youth groups supervised by churches and service clubs.

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.

This Force, composed of about 800 men, is in charge of a Director, who acts under direct orders from and is responsible to the Attorney-General 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. This Police Force, which has enjoyed an enviable reputation for the successful policing of Quebec's highways and for its efficiency in solving crimes, has been in course of reorganization for the past three years. During this time, the highway motorcycle patrol has been gradually replaced by a fleet of automobiles which have proved much more efficient, especially during the winter months.

[^105]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 Government of the Province of Ontario 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 beginnings in the early years of Confederation to passing of the Police Act, 1946, is outlined in the 1950 Year Book, pp. 332-333.

The Force, with a strength of approximately 1,167 in 1951, consists of a General Headquarters at Toronto and 16 Districts with headquarters at Chatham, London, Dundas, Niagara Falls, Aurora, Mount Forest, Barrie, Peterborough, Belleville, Perth, Cornwall, Haileybury, Sudbury, Cochrane, Port Arthur and Kenora. Each District has detachments adequate to meet law-enforcement requirements. A Criminal Investigation Branch of the Force, under the command of a Chief Inspector, is maintained at Toronto. This Branch investigates 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 49 fixed stations and 370 two-way radio cruisers. The 250-watt stations at District Headquarters are open 24 hours daily and many of the cars are on continuous round-the-clock patrols.

Up to July 1951, 92 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 1950 by Chiefs of Police in 205 urban centres, 13 district communities and two unorganized districts of 4,000 population or over. For the first time the statistics are included of the Newfoundland Constabulary, who police the city of St. John's.

The population figures used in table 32 are those of the 1941 census, except where otherwise designated. They are lower than the 1950 estimated population by as much as 1 p.c. in Prince Edward Island to 16 p.c. in Ontario. Any attempt therefore to determine the number of police per population would result in an over-estimation.
32.-Summary Police Statistics, by Urban Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over with Totals for Urban Centres of $\mathbf{4 , 0 0 0}$ Population or Over, 1950

Note.-Cities and towns of 4,000 or over incorporated since 1941 have been included.

| Province and Urban Centre | $\begin{gathered} \text { Population } \\ 1941 \end{gathered}$ | Police on Force | Offences <br> Known <br> to the Police | Prosecutions | Arrests | Summonses |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| NewfoundlandSt. John's. | 44,603 ${ }^{1}$ | 171 | 6,753 | 5,291 | 1,520 | 3,461 |
| Totals of 10,000 or Over | 44,603 ${ }^{1}$ | 171 | 6,753 | 5,291 | 1,520 | 3,461 |
| Totals of 4,000 or Over. | 57,866 ${ }^{1}$ | 192 | 7,202 | 5,697 | 1,690 | 3,697 |
| Prince Edward IslandCharlottetown........... | 14,821 | 15 | 750 | 728 | 656 | 72 |
| Totals of $\mathbf{1 0 , 0 0 0}$ or Over | 14,821 | 15 | 750 | 728 | 656 | 72 |
| Totals of 4,000 or Over. | 19,855 | 22 | 1,180 | 1,137 | 976 | 161 |
| Nova Scotia- |  |  |  |  |  |  |
| Halifax.. | 70,488 | 117 | 7,863 | 4,596 | 2,667 | 1,598 |
| Sydney | 28,305 | 36 | 3,522 | 2,801 | 1,862 |  |
| Glace Bay | 25,147 | 21 | 921 | 861 | 756 | 85 |
| Dartmouth | 10.847 | 13 | 738 | 518 | 235 | 283 |
| Truro. | 10,272 | 7 | 583 | 525 | 494 | 41 |
| Totals of 10,000 or Ove | 145,059 | 194 | 13,627 | 9,301 | 6,014 | 2,007 |
| Totals of 4,000 or Over | 211,651 | 236 | 18,877 | 12,417 | 7,695 | 3,278 |
| New Brunswick- |  |  |  |  |  |  |
| Saint John. | 51,741 | 72 <br> 37 | 6,654 2,380 | 3,934 1,458 | 2,214 | 4,341 |
| Mredericto | 22,763 10,062 | 22 | 1,216 | 1,458 | 638 | 615 |
| Totals of $\mathbf{1 0 , 0 0 0}$ or Over | 84,566 | 131 | 10,250 | 6,238 | 3,684 | 5,282 |
| Totals of 4,000 or Over | 111,200 | 158 | 11,882 | 7,687 | 4,618 | 5,804 |
| Quebec- |  |  |  |  |  |  |
| Montreal. | 903,007 | 1,829 | 264,644 |  |  | 197,019 8,642 |
| Quebec. | 150,757 67,349 | 292 68 | 16,895 7,568 | 8,642 5,028 | 2,931 1,533 | 8,642 462 |
| Three Rivers | 67,349 42,007 | 91 | 2,491 | 2,432 | 2,087 | 404 |
| Sherbrooke.. | 35,965 | 58 | 3,525 | 3,390 | 511 | 3,020 |
| Hull...... | 32,947 | 41 | 6,797 | 5,679 | 926 | 4,661 |
| Outremont | 30,751 | 49 | 7,308 | 7,308 | 425 | 2,369 |
| Westmount. | 26,047 | 42 | 11,289 | 6,710 | 646 | 6,064 |
| Jacques-Cartier | $21,500^{2}$ | ${ }^{6}$ | 4,089 | 1.104 | 161 | 357 |
| Shawinigan Falls. | 20,325 | 36 | 1,762 | 1,683 | 125 | 166 |
| Lachine. . . . . . | 20,051 | 25 | 410 | 335 | 255 82 | 55 |
| St. Hyacinthe.... | 17,798 | 26 | 279 | 160 | 137 | ${ }_{23}$ |
| Valleyfield.......... | 17,052 | 29 | 485 | 485 | 140 | 2 |
| Chicoutimi. | 16,040 | 17 | 244 | 244 | 53 | 191 |
| Granby | 13,769 | 16 | 2,074 | 262 | 262 | - |
| St. Jean. | 13,646 | 17 | 147 | 19 | 19 | $\stackrel{7}{ }$ |
| Joliette. | 12,749 | 23 | 3,446 | 3,328 | 31 | 3,299 |
| Thetford Mines. | 12,716 | 15 | 1,890 | 244 | 221 | 23 |
| Sorel. | 12,251 | 17 13 | 468 583 | 361 443 | 140 | 6 |
| Cap-de-la-Madeleine | 11,961 | 19 | 1,802 | 173 | 125 | 48 |
| St. Jérôme........ | 11,329 | 14 | 1,071 | 177 | 135 | 88 |
| Drummondville. | 10,555 | 17 | 1,282 | 695 | 608 | 87 |
| Totals of $\mathbf{1 0 , 0 0 0}$ or Over. | 1,526,760 | 2,783 | 341,012 | 271,239 | 36,141 | 226,997 |
| Totals of $\mathbf{4 , 0 0 0}$ or Over | 1,725,992 | 3,086 | 365,531 | 285,977 | 38,663 | 235,426 |

[^106]21950 population.
32.-Summary Police Statistics, by Urban Centres of 10,009 Population or Over with Totals for Urban Centres of 4,000 Population or Over, 1950-continued

| Province and Urban Centre | Population 1941 | Police on Force | Offences Known to the Police | Prosecutions | Arrests | Summonses |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Ontario- |  |  |  |  |  |  |
| Toronto. | 667,457 | 1,227 | 428,651 | 442.303 87.320 | 28,923 | 406,802 |
| Hamilton | 166,337 154,951 | $\begin{array}{r}256 \\ 238 \\ \hline\end{array}$ | 91.682 23,702 | 87.320 16.709 | 5,911 3,673 | 81,409 |
| Windsor | 105,311 | 182 | 14,975 | 8,636 | 3,981 | 4,655 |
| London. | 78,264 | 105 | 10,076 | 7,902 | 2.844 | 5,048 |
| Kitchener | 35,657 | 40 | 14,523 | 13,719 | 1,217 | 12,502 |
| Sudbury | 32,203 | 38 | 8,161 | 6,686 | 2,243 | 4,443 |
| Brantiord | 31,948 | 36 | 12,068 | 6,195 | 683 | 3,145 |
| Fort William | 30,585 | 42 | 3,128 | 2,659 | 1,015 | 1,644 |
| St. Catharines | 30,275 | 44 | 8.339 | 6,190 | 886 | 5,924 |
| Kingston. | 30,126 | 38 | 4,512 | 3,717 | 1,021 | 2,696 |
| Timmins. | 28,790 | 26 | 2,171 | 1,941 | 1,374 | 567 |
| Oshawa. | 26,813 | 36 | 6,924 | 6,195 | 537 | 5,658 |
| Sault Ste. Marie | 25,794 | 32 | 3,535 | 3,189 | 1,674 | 1,321 |
| Peterborough. | 25,350 | 35 | 5,414 | 3,639 | 721 | 2,918 |
| Port Arthur. | 24,426 | 36 | 2,863 | 2,502 | 2,168 | 334 |
| Guelph. | 23,273 | 28 | 2,373 | 2,399 | 503 | 2.141 |
| Niagara Falls | 20,589 | 36 | 1.940 | 1,250 | 683 | 567 |
| Sarnia.. | 18,734 | 30 | 2,294 | 1,829 | 397 | 1,432 |
| Chatham. | 17,369 | 27 | 2,425 | 1,990 | 662 | 1,346 |
| St. Thomas | 17,132 | 19 | 1.085 | 735 | 323 | 448 |
| Stratiord. | 17,038 | 16 | 3,686 | 3,356 | 207 | 2,338 |
| Belleville. | 15,710 | 22 | 3,347 | 2,005 | 1,014 | 991 |
| North Bay | 15,599 | 17 | 1,900 | 1,619 | 1,028 | 591 |
| Galt. | 15,346 | 13 | 4,044 | 758 | 296 | , 362 |
| Cornwall. | 14,117 | 19 | 1,182 | 976 | 298 | -668 |
| Owen Sound | 14,002 | 15 | 1,053 | 1,013 | 222 | 239 |
| Welland. | 12,500 | 22 | 2.200 | 1.715 | 169 | 1,513 |
| Woodstock | 12,461 | 15 | 3.466 | 3,466 | 391 | 1,313 |
| Forest Hill | 11,757 | 23 | 1,900 | 1,560 | 48 | 1,484 |
| Brockville. | 11,342 | 15 | 2,761 | 2,436 | 543 | 322 |
| Pembroke. | 11,159 | 11 | 1.608 | 1,343 | 688 | 251 |
| Totals of 10,000 or Ove | 1,742,415 | 2,739 | 678,018 | 647,952 | 66,343 | 567,111 |
| Totals of $\mathbf{4 , 0 0 \%}$ or Ove | 2,030,892 | 3,046 | 721,258 | 678,458 | 72,347 | 590,035 |
| Manitoba- |  |  |  |  |  |  |
| Winnipeg. | 221,960 | 239 | 77,685 | 75.685 | 5,843 | 70,149 |
| St. Bonifac | 18.157 | 20 | 2.949 | 1.111 | 215 | 1,073 |
| Brandon. | 17,383 | 15 | 1.325 | 713 | 333 | 380 |
| Totals of 10,000 or Over | 257,500 | 274 | 81,959 | 77,509 | 6,391 | 71,602 |
| Totals of $\mathbf{4 , 0 0 0}$ or Over | 287,354 | 403 | 84,590 | 78,992 | 6,871 | 22,389 |
| Saskatchewan- |  |  |  |  |  |  |
| Regina. | 58,245 | 71 | 9,993 | 9.328 | 1.579 | 2,977 |
| Saskatoon | 43.027 | 52 | 7.985 | 2.502 | 874 | 1.546 |
| Moose Jaw | 20.753 | 21 | 2,365 | 2,166 | 415 | 776 |
| Prince Albert | 12,508 | 16 | 2,922 | 1,253 | 543 | 411 |
| Totals of 10,009 or Over | 134,533 | 160 | 23,265 | 15,249 | 3,411 | 5,710 |
| Totals of 4,060 or Over | 160,639 | 188 | 26,635 | 17,053 | 3,876 | 7,059 |
| Alberta- |  |  |  |  |  |  |
| Edmonton. | 93.817 | 164 | 14.964 | ¢. 173 | 3,811 | 3,362 |
| Calgary | 88.904 | 144 | 13,809 | 10.386 | 5,338 | 4,399 |
| Lethbridge. | 14.612 | 20 | 5,269 | 5.024 | 670 | 3,915 |
| Medicine Hat | 10.571 | 13 | 748 | 416 | 176 | 301 |
| Totals of 10,000 or Orer. | 207,904 | 341 | 34,790 | 23,059 | 9,993 | 11,977 |
| Totals of 4,000 or Over. | 207,904 | 341 | 34,790 | 23,059 | 9,995 | 11,977 |

32.-Summary Police Statistics, by Urban Centres of $\mathbf{1 0 , 0 0 0}$ Population or Over with Totals for Urban Centres of $\mathbf{4 , 0 0 0}$ Population or Over, 1950-concluded

| Province and Urban Centre | Population 1941 | Police on Force | Offences Known to the Police | Prosecutions | Arrests | Summonses |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| British Columbia- | No. |  | No. | No. | No. | No. |
| Vancouver. | 275,353 | 610 | 50,180 | 45,927 | 12,943 | 42,748 |
| Victoria. | 44,068 | 89 | 21,804 | 8,972 | 885 | 8,087 |
| New Westminster | 21,967 | 34 | 8.066 | 6,324 | 979 | 352 |
| Totals of $\mathbf{1 0 , 0 0 0}$ or | 341,388 | 733 | 80,050 | 61,223 | 14,807 | 51,187 |
| Totals of 4,000 or Ove | 419,461 | 859 | 94,425 | 74,184 | 19,611 | 59,241 |
| Grand Totals of Urban Centres of 10,000 Population or Over. | 4,499,549 | 7,541 | 1,270,474 | 1,117,789 | 148,962 | 945,406 |
| Grand Totals of Urban Centres of 4,000 Population or Over........... | 5,232,814 | 8,531 | 1,366,370 | 1,184,661 | 166,342 | 989,067 |

## Section 6.-Penitentiaries and Reformatories

Penal institutions may be classified under four headings: (1) penitentiaries, with slow turnover since prisoners have long sentences; (2) reformatories, also with rather slow turnover; (3) common gaols, where the turnover is extremely rapid; and (4) training schools, where pupils have the advantage of long educational periods. If the average population for the year be taken as the average of the figures for inmates at the beginning and at the end of the year, and the number discharged as the turnover, the turnover in the years 1949 and 1950 was: in penitentiaries, 50 and 44 p.c.; in reformatories, 390 and 286 p.c.; in gaols, no less than 1,628 and 1,458 p.c.; and in training schools, 90 and 71 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.

## 33.-Movement of Population in Penitentiaries, Reformatories, Gaols and Training

 Schools, 1947-50| Type of Institution and Item | 1947 | 1948 | 1949 | $1950{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: |
| Penitentlaries- | No. | No. | No. | No. |
| Inmates in custody at beginning of year. | 3,362 | 3,752 | 3,851 | 4,260 |
| Admitted during the year. | 1,908 | 1,867 | 2,382 | 2,445 |
| Discharged during the year | 1,518 | 1,768 | 2,008 | 1,965 |
| In custody at end of year... | 3,752 | 3,851 | 4,225 | 4,740 |
| Reformatories for Men- |  |  |  |  |
| Inmates in custody at beginning of year.. | 2,436 | 2,612 | 2,939 | ${ }_{7}^{2,556}$ |
| Admitted during the year... | 8,732 | 11,230 | 12,199 | 7,937 |
| Discharged during the year. | 8,589 | 10,903 | 11,989 | 7,765 |
| In custody at end of year..... | 2,579 | 2,939 | 3,149 | 2,728 |
| Reformatories for Women- |  |  |  |  |
| Inmates in custody at beginning of year.. | 192 | 248 | 264 | 230 |
| Admitted during the year... | 370 | 832 | 861 | 367 400 |
| Discharged during the year In custody at end of year... | 373 189 | 816 264 | 873 252 | 197 |

33.-Movement of Population in Penitentiaries, Reformatories, Gaols and Training Schools, 1947-50-concluded

| Type of Institution and Item | 1947 | 1948 | 1949 | $1950{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |
| Common Gaols- |  |  |  |  |
| Inmates in custody at beginning of year..... | 4,185 | 4,171 | 4,530 | 5,625 |
| Admitted during the year.................. | 66,279 66304 | 69,463 | 77,729 | 85,062 |
| In custody at end of year.................. | 4,160 | 4,519 | 4,964 | 5,990 |
| Training Schools for Boys- | - |  |  |  |
| Inmates in custody at beginning of year..... | 1,340 | 1,308 | 1,365 | 1,614 |
| Admitted during the year. | 1,336 | 1,391 | 1,189 | 1,220 |
| Discharged during the year................. | 1,368 | 1,334 | 1,158 | 1,172 |
| In custody at end of year...................... | 1,308 | 1,365 | 1,396 | 1,662 |
| Training Schools for Girls- |  |  |  |  |
| Inmates in custody at beginning of year..... | 508 | 491 | 516 | 680 |
| Admitted during the year... | 502 | 431 | 595 | 493 |
| Discharged during the year. | 517 | 406 | 559 | 478 |
| In custody at end of year.................... | 493 | 516 | 552 | 695 |
| Totals- |  |  |  |  |
| Mnmates in custody at beginning of year. | 12,023 | 12,582 | 13,465 | 14,965 |
| Admitted during the year. | 79,127 | 85,214 | 94,955 |  |
| Discharged during the year | 78,669 | 84,342 | 93,882 | 96,477 |
| In custody at end of year................. | 12,481 | 13,454 | 14,538 | 16,012 |

${ }^{1}$ Changes in reporting of the following items were made in 1950: Penitentiaries-Newfoundland Penitentiary reported for the first time; Reformatories for Men-Oakalla Prison Farm previously classed as a reformatory changed to a gaol; and Training Schools statistics are given on fiscal-year basis, Apr. 1Mar. 31, instead of Oct. 1-Sept. 31 as previously submitted.

## Subsection 1.-Penitentiaries*

The Penitentiaries Branch of the Department of Justice is charged with the administration of the various penitentiaries of Canada. Seven institutions are included in the system, the two largest of which are at Kingston, Ont., and St. Vincent de Paul, Que. The other five are at Dorchester, N.B.; Prince Albert, Sask.; Stony Mountain, Man.; New Westminster, B.C.; and Collins Bay, Ont. While the penitentiary at St. John's, N'f'ld., is operated by provincial authority, the figures for inmates serving two-year or longer sentences are included for 1950 and 1951 in the following tables. During the year ended Mar. 31, 1951, the average daily population of these institutions was 4,700 and the total net cash outlay for the year was $\$ 6,121,254$ or $\$ 3 \cdot 57$ per convict per diem, compared with 3,028 average daily population and $\$ 2,689,059$ total cash outlay or $\$ 2 \cdot 43$ per convict per diem for 1941.

Females given penitentiary sentences in the different provinces are sent to the penitentiary at Kingston, Ont., where special quarters and staff are maintained for their detention and supervision. Female convicts in custody on Mar. 31, 1951, numbered 104 compared with 46 in 1941.

[^107]
## 34.-Movement of Convicts in Penitentiaries, Years Eaded Mar. 31, 1948-51

| Item | 1948 | 1949 | $1950{ }^{1}$ | 1951 |
| :---: | :---: | :---: | :---: | :---: |
|  | No. |  | No. | No. |
| In Custody, Apr. 1. | 3,752 | 3,851 | 4,260 | 4,740 |
| Received- |  |  |  |  |
| From gaols. | 1,580 | 1,874 | 2,017 | 1,981 |
| By transfer | 283 | 504 | 419 | 338 |
| By cancellation of ticket-of-leave. | 4 | 4 | 9 | 15 |
| Totals, Received. | 1,867 | 2,382 | 2,445 | 2,334 |
| Discharged by- |  |  |  |  |
| Expiry of sentence. | 1,089 | 1,135 | 1,142 | 1,391 |
| Transfer Ticket-o.l. ${ }^{\text {a }}$. | 283 | 504 285 | 419 | 339 |
| Ticket-of-leave | 333 | 285 | 331 | 459 |
| Death..... | 14 | 21 | 15 | 5 |
| Pardon.. | 31 | 44 | 40 | 49 |
| Release to military authorities. | 4 | - | - | - |
| Release on order of court...... | 1 | 16 | 5 | 7 |
| Return to provincial authorities............. | 1 | - | 4 | 1 |
| Instructions from Immigration Department | 二 | $-_{3}$ | 9 | - 6 |
| Totals, Discharged. | 1,768 | 2,008 | 1,965 | 2,257 |
| In Custody, Mar. 31. | 3,851 | 4,225 | 4,740 | 4,817 |

${ }^{1}$ Includes Newfoundland.
35.-Summary Statistics re Convicts in Penitentiaries, at Mar. 31, 1948-51

| Item | 1948 | 1949 | $1950{ }^{1}$ | $1951{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: |
| Place of Birth- | No. | No. | No. | No. |
| Canada... | 3,403 | 3,736 | 4,264 | 4,358 |
| British Isles and possessions. | 167 | 173 | 157 | 144 |
| Austria and Hungary....... | 18 | 23 | 21 | 22 |
| Italy.. | 8 | 9 39 | 11 | ${ }_{34}^{9}$ |
| Poland....... | 67 | ${ }^{39}$ | 60 | 64 |
| Other Europe. | 47 | 58 | 63 | 65 |
| United States. | 91 | 99 | 110 | 110 |
| Other countries. | 14 | 20 | 12 | 11 |
| Marital Status- |  |  |  |  |
| Single...... | 2,360 | 2,568 | 2,863 | 2,937 |
| Married... | 1,237 | 1,378 | 1,573 130 | 1,560 135 |
| Widowed. | 103 69 | 133 65 | 103 | 108 |
| Separated. | 82 | 81 | 71 | 77 |
| Sex- |  |  |  |  |
| Male. | 3,777 | 4,140 | 4,650 | 4,713 104 |
| Female. | 74 | 85 | 90 | 104 |
| Age- |  |  |  | 520 |
| Under 21 years. | 497 1,660 | 481 1,919 | 2,147 | 2,209 |
| 31 to 40 " | ${ }^{1} 973$ | 1,060 | 1,148 | 1,176 |
| 41 to 50 " | 450 | 481 | 575 | 575 |
| 51 to 60 " | 180 | 181 | 210 | 227 110 |
| Over 60 " | 91 | 102 | 109 | 110 |
| Not stated... | - | 1 | - |  |
| Totals. | 3,851 | 4,225 | 4,740 | 4,817 |

[^108]The Ticket-of-Leave System.-The parole system in Canada is legalized under the Ticket-of-Leave Act (R.S.C. 1927, c. 107) and is administered by the Minister of Justice. It is described in detail in the Year Book 1948-49, pp. 305-308.

## Subsection 2.-Reformatories and Training Schools

A census of reformatories and training schools is taken at five-year intervals, the latest being for June 1, 1951. At that date there were 13 reformative and corrective institutions of which four were for women and 26 training and industrial schools, 12 of which were for girls. Details regarding the inmates or pupils of these institutions were not available at the time of going to press.

Reports on movement of population are received yearly from penal institutions and training schools. These figures are given for the years 1947-50 in Table 33, pp. 322-323.

## CHAPTER VIII.-EDUCATION AND RESEARCH

## 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.

## PART I.-FORMAL EDUCATION*

## Section 1.-Education in the Provinces

Education in Canada is the responsibility of the provinces. 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 a Superintendent of Education for 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.

[^109]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.

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 1 to VI); Intermediate (Grades VII to X); and Senior (Grades XI and 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 studies-with 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 over the compulsory age limit.

Further training is open to the high-school graduate through normal school training of one year for elementary school teachers; specialized technical training extending up to two years in a technical institute-there is at least one such institute in every province; nurse-training school where training extends over three years; or university. University courses are available in all branches of arts, commerce, science, education, philosophy, medicine, theology, etc. Graduation with a first degree (B.A , B.Sc., etc.) requires 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 Intermediate Grades, VIII and IX, and thence enter a regional household science school, begin a four-year course in normal school or enter a superior school whera a two-year course leads to a school of fine arts, a commercial course or a nurse-training course.

At the end of the fifth 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-normal school. The latter leads to entrance to a normal 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

The Northwest Territories.-Education in the Northwest Territories is carried on under authority of the Northwest Territories Act and the Ordinances thereunder and the Indian Act and the Regulations thereunder. The Territorial Government operates day schools at Fort Smith, Hay River, Fort Resolution and Fort Simpson for the education of Whites and those of mixed blood residing in the Northwest Territories. The Indian Affairs Branch of the Department of Citizenship and Immigration operates day schools for Indians at Fort Norman, Fort McPherson, Arctic Red River, Fort Franklin, Fort Rae, Rocher River and Fort Good Hope

For the education of Eskimos, day schools are operated by the Northern Administration and Lands Branch of the Department of Resources and Development at Aklavik, Tuktoyaktuk, Coppermine, Chesterfield Inlet, Cape Dorset and Coral Harbour, N.W.T., and at Fort Chimo and Port Harrison in the Province of Quebec.

Mission residential schools are operated by the Roman Catholic Church 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. These churches and other mission organizations also conduct schools for Eskimos at a number of points in the Eastern Arctic and northern Quebec. Eldorado Mining and Refining (1944) Limited at Port Radium and the Discovery Yellowknife Mines of the Mackenzie District also operate day schools.

The only organized school districts are the Yellowknife Public School District No. 1 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 has under consideration the erection of a four-classroom school. Meanwhile provision has been made for the attendance of the pupils of this District at the public school.



## CANADIAN EDUCATION <br> DIAGRAMS

Canada has developed two distinct education systems, the French-language system of Quebec, and the English-language system found in the other provinces and in Quebec for the English-speaking minority. The English-language system is generally co-educational, while the French-language system provides distinct, though parallel systems for boys and girls. The philosophy behind both organizations is unique, and breaks in the education ladder occur at different ages.

The two diagrams are designed to illustrate these systems, showing the stages and number of years usually spent in each type of school. Alternate paths are shown at the secondary level leading to higher units or to occupations.

High school teachers using these diagrams for counselling purposes must bear in mind that while they are generally applicable, pupils should check with individual institutions to discover courses offered and years of study required for each. Not all institutions offer higher degrees. Omitted from the diagrams are courses in journalism, public administration, occupational therapy, etc., mainly due to lack of space but, in part, because they may be offered under Arts, Commerce, etc.

Territorial, Federal and Indian day schools are maintained by the authorities concerned and residential, mission, mine, public and separate schools receive aid in the form of grants or supplies from the government authorities concerned. A Superintendent of Education, with headquarters at Fort Smith, periodically inspects the schools of the Mackenzic 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.

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 now 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.

A program designed to improve education and welfare facilities generally has been initiated in the Northwest Territories. The program 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 Yukon are operated by the Territorial Government at Dawson, Mayo, Whitehorse, Carcross, Teslin, Watson Lake, Haines Junction, Kluane Lake, Brook's Brook, Destruction Bay and Swift River. The Roman Catholic Church operates a day school at Dawson and a residential school at Whitehorse.

The education of native 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, and seasonal schools at Burwash Landing, Ross River and at other points as required. A residential school is conducted under the auspices of the Church of England at Carcross. Close to the southern boundary of Yukon Territory at Lower Post in British Columbia, an Indian residential school is conducted under the auspices of the Roman Catholic Church. Residential schools in Yukon receive a per capita grant for Indian children registered therein.

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. University entrance (junior matriculation) examinations are held in June at Dawson and Whitehorse by authority of the British Columbia Department of Education. The examination papers are forwarded from Victoria and are returned there for grading. In outlying districts correspondence courses are provided at a nominal fee by the British Columbia Department of Education.

Educational matters in Yukon are in charge of a Superintendent of Schools, resident at Dawson, who is responsible to the Commissioner. Annual inspections of all schools are made by the Superintendent.

## Section 3.-Statistics of Schools, Universities and Colleges

This Section summarizes the statistics of all educational institutions in Canada classified into four types: provincially controlled schools, privately controlled schools, universities and colleges and federal Indian schools.

## 1.-Enrolment in Educational Institutions, classified by Types of School and by Provinces, School Year 1949-50

| Type of School | Newfoundland | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Provincially Controlled Schools- | No. | No. | No. | No. | No. | No. |
| Ordinary and technical day schools... | 78,271 | 18,863 | 130,398 | 104, 071 | 617,489 | 745,169 |
| Evening schools. | 162 |  | 4,868 | 1,401 | 18,000 ${ }^{1}$ | 67,0001 |
| Correspondence schools................ | 12 | 105 | 1,240 | 1335 | 1,000 ${ }^{1}$ | 1,567 |
| Special schools ${ }^{2}$..................... Normal Schools- | - | - | 337 | - | 769 | 531 |
| Full time ${ }^{3} \ldots . . . . . .$. | 143 359 | 76 | 343 85 | 170 | $\underline{5,785}$ | 1,481 591 |
| Privately Controlled Schools- |  |  |  |  |  |  |
| Ordinary day schools................. | - | 971 | 4,217 | 2,306 | 63,6001 | 18,823 |
| Day classes....... | - | 107 | 744 | 606 | 6,3001 | 6,242 |
| Evening classes.. | - | 78 | 309 | 493 | 2,8001 | 5,757 |
| Universities and Colleges- |  |  |  |  |  |  |
| Preparatory courses... | - | 527 | 368 | 642 | 18,114 | 3,256 |
| Courses of university standar | 914 | 303 | 4,632 | 2,687 | 27,717 | 35,212 |
| Other courses at university. | - | 76 | 284 | 452 | 13,579 | 9,647 |
| Indian schools and schools in the Territories. | - | 46 | 592 | 397 | 1,957 | 5,398 |
| Totals | 79,861 | 21,152 | 148,417 | 113,560 | 777,110 | 900,674 |
| Population (June 1, 1950 estimate).. | 351,000 | 96,000 | 638,000 | 512,000 | 3,969,000 | 4,471,000 |
|  | Manitoba | Saskatchewan | Alberta | British Columbia | Yukon and N.W.T. | Totals |
| Provincially Controlled Schools- | No. | No. | No. | No. | No. | No. |
| Ordinary and technical day schools... | 126,477 | 166,747 | 167,790 | 164,212 | - | 2,319,487 |
| Evening schools. . . . . . . . . . . . . . . . . | 3,903 | 2,588 | ${ }^{704}$ | 15,937 | - | 114,563 |
| Correspondence schools | 996 | 3,057 | 10,337 | 5,233 | - | 23,882 |
| Special schools ${ }^{2}$...................... | 17 | 173 |  | 134 | - | 1,961 |
| Fuil time ${ }^{3}$. . . . . | 360 | 582 | 457 | 553 | - | 9,950 |
| Accelerated courses. | 507 | - | - | - | - | 1,542 |
| Privately Controlled Schools- Ordinary day schools............... | 5,271 | 2,630 | 3,539 |  | - | 107,613 |
| Ordinary day schools. <br> Business Training Schools- | 5,271 | 2,630 | 3,539 | 6,256 |  | 107,013 |
| Day classes............... | 1,723 | 907 | 1,408 | 1,845 | - | 19,882 |
| Evening classes...................... | 1,925 | 755 | 1,292 | 2,511 | - | 15,920 |
| Universities and CollegesPreparatory courses. | 665 | 844 | 727 |  | - | 25,143 |
| Courses of university standard | 5,833 | 6,283 | 5,612 | 9,814 | - | 99,007 |
| Other courses at university.. | 4,447 | 989 | 1,568 | 440 | - | 31,482 |
| Indian schools and schools in the Territories. | 3,208 | 3,229 | 2,775 | 4,886 | 2,654 | 25,142 |
| Totals. | 155,332 | 188,784 | 196,209 | 211,821 | 2,654 | 2,795,574 |
| Population (June 1, 1950 estimate)....... | 768,000 | 833,000 | 913,000 | 1,137,000 | 24,000 | 13,712.000 |

[^110]The provincially controlled schools are the most important group and account for about 90 p.c. of the total enrolment shown in Table 1. 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 provincial 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. For information on the inauguration of a system of federal grants to universities and colleges, see p. 337. Agricultural schools and colleges are listed in the 1943-44 Year Book, pp. 203-213.


## 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, except in Saskatchewan. Birth registrations of the past few years indicate that by 1953-54 the enrolment in Grades I to VIII will have increased from $1,712,662$ to over $2,307,000$, a total of 595,000 , and there is every indication that the increase may amount to 800,000 by 1960. A decline may set in shortly after that. An increase of 800,000 is equal to over 45 p.c.

[^111]of the 1944-45 enrolment in the elementary schools of Canada. Grades above Grade VIII will begin to feel the effects between 1953 and 1955 and by 1965 secondary school enrolment may be close to double the present total.

Other 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; increased transportation facilities at public expense; the building of dormitories in some provinces; the larger unit of administration; the establishment of junior high schools and composite schools; and the wave of post-war immigration. Enrolment in provincially controlled schools is given for the latest school year available in Table 1 and average daily attendance is shown in Table 2 . The average daily attendance figures are more comparable, as between provinces, and for most purposes probably more significant than those of enrolment.

## 2.-Average Daily Attendance in Provincially Controlled Schools, by Provinces, School Years Ended 1941-50

Nore.-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. |
| 1941 | ... | 12,855 | 89,379 | 69,321 | 542,938 | 582,466 | 110,826 | 155,937 | 135,386 | 103, 192 | 1,802,300 |
| 1942 | ... | 12,975 | 89,915 | 72,119 | 532,759 | 576,711 | 106,631 | 152,354 | 139,886 | 102,085 | 1.785,435 |
| 1913. | ... | 12,759 | 86,630 | 69,814 | 515,140 | 553,954 | 100, 169 | 138,019 | 127,214 | 93,473 | 1,697, 172 |
| 1944 | ... | 12.621 | 89,490 | 69,523 | 518,896 | 559,796 | 99,471 | 136,752 | 128,051 | 102,999 | 1,717.599 |
| 1945 | $\ldots$ | 12,984 | 93,831 | 70,746 | 523,741 | 571,625 | 100,971 | 135, 336 | 130,095 | 107,599 | 1,746.928 |
| 1946 | ... | 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 | 544,000 ${ }^{1}$ | 613,627 | 103,744 | 135,927 | 133,410 | 129,859 | 1,860,256 ${ }^{\text {b }}$ |
| 1949 | 59,520 | 14,727 | 107,914 | 82,168 | $560.000^{1}$ | 638,733 | 105,240 | 135,872 | 136,690 | 138,94] | 1,979,805 ${ }^{1}$ |
| 1950. | 66,727 | 15.043 | 111.813 | 87,158 | 585,000 ${ }^{1}$ | 668,000 ${ }^{1}$ | 106,008 | 136,991 | 146,388 | 147,58. | 2,070,712 ${ }^{1}$ |

${ }^{1}$ Estimated.
Grade Distribution.-A record of the grade distribution of pupils in the provincially controlled schools of all provinces is presented in Table 3. The grades of boys and girls cannot be shown separately.
3.-Grade Distribution of Pupils Enrolled in Provincially Controlled Schools, by Provinces, School Year 1949-50

| Grade | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Kindergarte |  | 2.73 | 24.938 | 14.937 | 3,957 09 | 38,089 | 2,555 | - 496 |  | 1,433 |
| Grade İ | 18,422 10,151 | 2,743 1,990 | 24,938 14,868 | 14,937 13,018 | 99,598 91.687 | 92,449 81,764 | 18,313 15,080 | 21,997 18,506 | 22,253 18,546 | 20,640 |
| " IIİ | 10,151 8,923 | 1,990 2,106 | 14,868 | 13, 12 | 91,687 88,636 | 81,764 72,790 | 15,080 14,124 | 18,506 18,197 | 18,546 17,867 | 17.833 |
| " IV | 8,375 | 1,921 | 13,718 | 11,818 | 84, 162 | 69,066 | 13,296 | 17,561 | 16,961 | 16.331 |
| " V | 7,663 | 2,134 | 13,428 | 10,967 | 74,187 | 68,340 | 12,375 | 16,912 | 16, 170 | 15,042 |
| " VI | 6,838 | 1,884 | 12,015 | 9,671 | 65,090 | 64,835 | 11,491 | 15,717 | 15.477 | 11,425 |
| " VII | 5,408 | 1,609 | 10,959 | 8,461 | 49,577 | 58.873 | 10,518 | 14,811 | 14,854 | 13.891 |
| " VIII | 4,028 | 1,588 | 8.723 | 7,215 | 25,981 | 57,268 | 8,845 | 13,317 | 12,88 | 12,420 |
| " IX | 3,631 | 1,162 | 7,069 | 4,793 | 18,029 | 48,616 | 8,078 | 10.712 | 11.653 | 11,050 |
| " X | 2,550 | 1,023 | 5,267 | 4,088 | 8,814 | 35,950 | 5,723 | 7,875 | 8,383 | 9,083 |
| " XI | 1,809 | $558{ }^{1}$ | 3,652 | 2,633 | 5,594 | 22,544 | 4,521 | 5,869 | 6,484 | 6,752 |
| "، XII |  | 891 | 1,347 | 157 | 1,864 | 17,637 | 1,558 | 4,447 | 6,258 | 5,398 1,010 |
| " Special... | 426 |  | 二 | 895 | 313 | 10,542 6,406 | 二 |  |  | 1,010 |
| Unclassified |  | 56 | - | 3.074 |  |  |  | 330 |  |  |
| Totals | 78,271 | 18,863 | 130,398 | 104.071 | 617,489 | 745,169 | 126,477 | 166,747 | 167,790 | 164,212 |

[^112]Teaching Staffs.-In 1950 the teaching staffs of the publicly controlled elementary and secondary schools comprised 22,761 men and 62,531 women, a total of 85,292 . Omitting Quebec for which comparable data are not available, 35 p.c. of the teachers were in cities, 27 p.c. were in towns and villages, 25 p.c. were in one-room rural schools, and the remaining 13 p.c. in schools of two or more rooms outside of urban centres. The proportion of men teachers is increasing and in 1950 reached 29 p.c., a little short of the pre-war level of 30 p.c. Again omitting Quebec where 36 p.c. of the teachers are members of religious orders, approximately 25 p.c. of the women teachers are married. Of the total number of teachers in the nine provinces, at least 10 p.c. are only partially trained or are untrained; also about 10 p.c. of the total staff leave the profession each year. During the 1949-50 school year there was an increase of $\$ 110$ in the median salary (see Table 4) for teachers in the nine provinces (Quebec excluded).*

## 4.-Teachers in Provincially Controlled Schools classified according to Salary, by Provinces, School Year 1949-50

Note.-Comparable figures for Quebec are not available.

| Salary | N'f'ld. | P.E.I. | N.S. | N.B. | Ont. | Man. | Sask. | Alta. | B.C. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| \$ 525-\$1.024. | 1,266 | 253 | 600 | 736 | 1,255 | 281 | 82 | 39 | - |
| \$1,025-1, 524. | 517 | 366 | 1,423 | 1,559 | 1,556 | 1,103 | 2,733 | 518 | 103 |
| \$1,525-2.024. | 324 | 66 | 1,155 | 571 | 8.827 | 1,651 | 2,778 | 1,461 | 1,182 |
| \$2,025-2,524. | 148 | 19 | 563 | 337 | 4,851 | 651 | 881 | 2,080 | 1,303 |
| \$2,525-3,024 | 79 | 3 | 290 | 127 | 3,294 | 384 | 367 | 945 | 1,376 |
| \$3,025-3,524. | 22 | 4 | 165 | 99 | 2,688 | 233 | 220 | 537 | 730 |
| \$3.525-4,024. | 5 | - | 62 | 32 | 1,308 | 115 | 110 | 288 | 579 |
| \$4,025 or over. | - | - | 21 | 5 | 1,339 | 107 | 36 | 175 | 478 |
| Unspecified. | 14 | - | - | 11 | 10 | 304 |  | 28 | 11 |
| Totals. | 2,375 | 711 | 4,279 | 3,477 | 25,128 | 4,829 | 7,210 | 6,071 | 5,762 |
| Median salaries....... \$ | 966 | 1,083 | 1,569 | 1,341 | 2,109 | 1,689 | 1,580 | 2,279 | 2,668 |

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 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 loom largest in Quebec where there is marked emphasis on training for home industries, arts and crafts.

[^113]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 5 presents a comparable statement of the finances of school boards operating publicly controlled schools so far as this can be done with existing records.

## 5.-Financial Support of Provincially Controlled Schools, by Provinces, for Provincial Fiscal Years Ended 1939, 1948 and 1949

Note.-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 tables of previous Year Books beginning with the 1936 edition. The fiscal years of all provinces end Mar. 31, except Nova Scotia (Nov. 30) and New Brunswick (Oct. 31).


[^114]
## 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 828 private schools reported in 1950, 505 were in Quebec, 122 in Ontario, 120 in the Prairie Provinces, 43 in British Columbia and 38 in the Maritimes. There were 6,455 full-time teachers of whom 1,334 were men. Outside of Quebec, the salaries for lay teachers ranged from $\$ 600$ to $\$ 4,800$ with a median of $\$ 1,325$ for women, and from $\$ 800$ to $\$ 8,000$ with a median of $\$ 2,037$ for men.

In these schools, 63 p.c. of the pupils, including 41,000 girls and 24,000 boys, were in the elementary grades. At the secondary level there were 22,000 girls and 11,000 boys.

The private schools are financed largely from fees, legacies, gifts, or by religious orders. The fees range from very little to upwards of $\$ 1,000$ per year. In 1948 they averaged $\$ 100$ for day students and $\$ 500$ for boarders. Excluding Quebec, the expenditures of the private schools in 1949 amounted to over $\$ 7,850,000$. Of this amount $\$ 2,303,000$ was paid out in teachers' salaries.

## 6.-Enrolment in Private Elementary and Secondary Schools, by Provinces, Specified School Years Ended 1921-50

Norz.-Figures for intervening years will be found in the corresponding tables of the 1937, 1942 and 1946 Year Books.

| Year | P.E.I. | N.S. | N.B. | *Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1921. | 682 | 3,047 | 2,607 | 54,671 | 9,961 | 3,149 | 1,608 | 2,274 | 3,159 | 81,158 |
| 1926. | 580 | 2,956 | 3,528 | 54,767 | 10,126 | 4,534 | 2,358 | 2,281 | 4,624 | 85,754 |
| 1931. | 570 | 2,746 | 3,625 | 57,320 | 12.214 | 5,864 | 2,853 | 2,944 | 5,276 | 93,412 |
| 1941. | 638 | 2,986 | 2,935 | 55,847 | 13.458 | 4,509 | 1,985 | 3,813 | 5,003 | 91,174 |
| 1945 | 754 | 3,913 | 2,843 | .. | 15,911 | 4,593 | 3,544 | 2,032 | 5,704 | 39,294 ${ }^{1}$ |
| 1946 | 804 | 3,362 | 2,903 | .. | 16,336 | 4,643 | 3,682 | 2,852 | 5,576 | 40,158 ${ }^{1}$ |
| 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 | 61.200 | 18,251 | 5,348 | 2,625 | 3,630 | 6,334 | $104,737^{2}$ |
| 1950 | 971 | 4,217 | 2,306 | 63,600 | 18,823 | 5,271 | 2,630 | 3,539 | 6,256 | 107,613 ${ }^{2}$ |

[^115]Business Colleges.-Of the 152 business schools reported in 1950 in eight provinces (exclusive of Quebec and Newfoundland) 18 were in the Maritimes, 85 in Ontario, 27 in the Prairie Provinces and 22 in British Columbia. There were 221 men and 459 women employed as full-time teachers and 72 men and 159 women as part-time teachers.

Girls predominate in the student body and the enrolment in evening classes is almost equal to the full-time day enrolment. The 1950 enrolment was: full-time day classes, 4,424 boys and 12,894 girls; part-time classes, 521 boys and 2,043 girls; evening classes, 4,156 boys and 11,764 girls. The total for the year was about 2,000 less than in 1946 and 1947. About 55 p.c. of the students were 17 to 19 years of age.

Monthly fees ranged from $\$ 5$ to $\$ 25$ for day classes and from $\$ 3$ to $\$ 15$ for evening classes. Total operating expenditures for these schools amounted to over $\$ 1,500,000$ in 1949 of which $\$ 830,000$ was for teachers' salaries.

## 7.-Enrolment in Private Business and Commercial Schools (Business Colleges), by Provinces, Specified School Years Ended 1921-50

Note.-Figures include day and evening classes. Those for intervening years will be found in the corresponding tables of the 1937, 1942 and 1916 Year Books.

| Year | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1921. | 85 | 1,280 | 740 | 4,319 | 14,537 | 3,538 | 1,333 | 2,216 | 1,986 | 30,034 |
| 1926. | 114 | 766 | 722 | 2,713 | 10,314 | 3,502 | 1,436 | 2,739 | 2,230 | 24,566 |
| 1931 | 140 | 775 | 671 | 2,807 | 9,732 | 3,087 | 1,400 | 1,629 | 2,180 | 22,421 |
| 1941 | 168 | 1,019 | 329 | 3,707 | 9,119 | 1,782 | 1,431 | 2,145 | 2,010 | 21,710 |
| 1945 | 104 | 684 | 816 | .. | 11,141 | 3,532 | 1,200 | 2,726 | 2,906 | 23,109 ${ }^{1}$ |
| 1946 | 181 | 1,080 | 805 | . | 14,901 | 4,099 | 1,568 | 3,482 | 4,021 | 30,137 ${ }^{1}$ |
| 1947 | 212 | 1,106 | 1,119 | $\ldots$ | 15,024 | 3,721 | 1,904 | 3,855 | 4,009 | 30,950 ${ }^{1}$ |
| 1948 | 227 | 1,011 | 958 |  | 13,917 | 3,493 | 1,533 | 3,731 | 3,674 | 28,544 ${ }^{1}$ |
| 1949 | 214 | 1,070 | 916 | 9,000 ${ }^{1}$ | 12,938 | 3,449 | 1,554 | 2,969 | 3,932 | 36,0421.2 |
| 1950 | 185 | 1,053 | 1,099 | 9,100 ${ }^{1}$ | 11,999 | 3,648 | 1,662 | 2,700 | 4,356 | 35,802 1,2 |

${ }^{1}$ Estimated. ${ }^{2}$ There are no schools of this type in Newfoundland.

## Subsection 3.-Indian Schools*

A great expansion has taken place in the educational work being carried on by the Federal Government for the benefit of Indian children and adults. In the year ended Mar. 31, 1951, 435 Indian schools were in operation, including 67 residential, 3 combined and 365 day schools. The enrolment in residential schools was 9,357 and in the day schools 15,514 , the latter showing an increase of 5,196 pupils since 1947.

Enrolment in Indian schools, by provinces, for the year 1950-51 was as follows: Prince Edward Island, 51; Nova Scotia, 591; New Brunswick, 416; Quebec, 2,208; Ontario, 5,736; Manitoba, 3,205; Saskatchewan, 3,423; Alberta, 3,141; British Columbia, 5,094; Yukon Territory, 317; and the Northwest Territories, 689.

[^116]8.-Enrolment and Average Attendance at Indian Schools, Years Ended
Mar. 31, 1942-51

| Year | Residential Schools |  | Day Schools |  | All Schools. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Enrolment | Average Attendance | Enrolment | Average Attendance | Enrolment | Attendance |  |
|  |  |  |  |  |  | No. | P.C. of Enrolment |
| 1942. | 8,840 | 8,283 | 8,441 | 5,837 | 17,281 | 14,120 | $81 \cdot 7$ |
| 1943. | 8,830 | 8,046 | 8,046 | 5,395 | 16,876 | 13,441 | 79.6 |
| 1944 | 8,729 | 7,902 | 7,858 | 5,355 | 16,587 | 13,257 | 79.9 |
| 1945. | 8,865 | 8,006 | 7.573 | 5,159 | 16.438 | 13,165 | 80.1 |
| 1946. | 9,149 | 8,264 | $\begin{array}{r}9,656 \\ \hline 10.318\end{array}$ | 6.779 7 | 18,805 | ${ }_{15}^{15.043}$ | 80.0 79.7 |
| 1947. | 9.304 | 8.192 | 10,318 | 7,449 | 19,622 | 15, 641 | 79.7 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 | $89 \cdot 7$ |

In addition to pupils in Indian schools, there were 1,468 Indian children enrolled in elementary grades in provincial schools and 564 in secondary provincial schools. Thus the total enrolment of Indians in educational classes numbered 26,903 in 1950-51.

An active building program has been conducted in recent years and many new day schools have been erected. Assistance is given to pupils attending high schools, technical schools and universities through the payment of individual tuition grants. In 1950-51 there were 1,051 Indians receiving secondary education.

The administration of Indian affairs generally by the Indian Affairs Branch of the Department of Citizenship and Immigration is dealt with in Chapter III, pp. 156-160.

## Subsection 4.-Universities and Colleges

The most significant event in the development of higher education in Canada during the academic year 1951-52 was the inauguration of a system of federal grants to be paid directly to the universities and colleges to help sustain their essential functions and to assist in their further development. Prior to 1951-52, federal assistance to the universities was restricted to fields of study and research considered as national in scope. This assistance usually took the form of national scholarships to students or subsidies to universities for research projects related to the promotion and utilization of national resources, related to national defence, or to national health and welfare.

The change in federal policy was the result of the inquiry of the Royal Commission on National Development in the Arts, Letters and Sciences in Canada. The Commission reported that the universities, although provincial institutions, make great and indispensable contributions to the development of the arts, humanities and sciences, and to scholarship and research throughout the country, but that the financial position of most of the universities was such that they were unable further to develop their functions and were in danger of being forced to curtail and restrict their progress. The Royal Commission, therefore, recommended that federal grants be made to support the work of universities with full cognizance that such grants would not trespass on or limit provincial responsibilities in matters of education.

For the academic year 1951-52, the project was in a preliminary or experimental stage. The prescriptions and regulations governing the university grants for the initial year were authorized by Order in Council (P.C.123, Jan. 9, 1952). The amount, $\$ 7,100,000$, voted for this purpose under the present proposal was allocated on a population basis at a rate not exceeding 50 cents per capita for each province. The population figures used were those of June 1, 1951, estimated in August 1951 by the Dominion Bureau of Statistics, and the proportion of the grant for each university and college within a province must not exceed that which the universitygrade enrolment of the individual institution bears to the total provincial universitygrade enrolment.

To overcome anomalies in the level of education considered as of university grade, the enrolment has been restricted to students in full-time attendance at a university or college registered in a program of studies leading to a recognized university degree, or to a diploma for which a university degree is prerequisite.

Institutions considered eligible for the federal grants are those that have attained membership within the National Conference of Canadian Universities and the affiliated colleges of those universities. The college must provide at least two years of instruction, each year of which gives full credit towards a university degree.

The new grants are timely in that they are initiated in the year which will see the expiration of federal allowances to universities for the education of war veterans, and an expected drop in enrolment from that of recent years.

Graduate Schools.-Prior to 1940, five of the English language universitiesToronto, McGill, Queen's, Manitoba and Alberta-carried graduate work to the doctorate level in certain fields of study. The University of Montreal and Laval University in the French tradition had a wider variety of 'doctorats' in the graduate faculties and professional schools that comprised the university organization. All the major universities provided courses of study to the mastership level, but in all cases the fields of graduate study were restricted.

In 1940 Laval University organized a school of graduate studies in which the direction of all graduate work was centralized.

During the past five years Dalhousie University, the University of New Brunswick, the University of Ottawa, the University of Western Ontario and the four western provincial universities have established schools, or separate faculties, of graduate studies and research. McGill University has increased its roster of doctoral degrees and the University of Toronto has assumed the status of a fully rounded school of graduate studies with degrees to the doctorate level in all disciplines.

Enrolment.-Undergraduate students registered in the full-time session for 1949-50 numbered 69,011 , a drop of 9 p.c. from 75,807 undergraduates of the preceding year and 13 p.c. lower than the peak year 1947-48 registration of 79,225 undergraduate students. The Department of Veterans Affairs records show that student veterans in $1949-50$ represented 18.9 p.c. of the total undergraduate student body; in $1948-49$ the proportion was 28.8 p.c. and in $1947-48$ it was $37 \cdot 3$ p.c. The Department estimates that less than 2,000 veteran students will be included in the 1951-52 enrolment.

In graduate schools and courses enrolment has increased. The universities reported 5,122 post-graduate students in the full-time session for 1949-50 as compared with 4,857 in 1948-49 and 4,139 in 1947-48. War-veteran students represented 20.7 p.c. of the $1949-50$ post-graduate students, 26.8 p.c. of the $1948-49$ registration and $21 \cdot 7$ p.c. in 1947-48.

The total full-time enrolment of university-grade students includes some who entered university under the Department of Veterans Affairs training scheme but whose war-service benefits have expired. These students account for a certain degree of inflation in the enrolment. However, after allowance is made for them and for civilian students whose entrance to university was delayed by lack of accommodation during the period of inflated enrolment, enrolment for 1951-52 should be higher than that of the pre-war years.

Interprovincial Student Migration.-The student body of Canadian universities, recorded by province, includes students from foreign countries and students whose place of residence in Canada is outside the province in which they are attending university. There is considerable variation in the proportions of students who attend university in their home province. Several factors promote the interprovincial migration of students.

The Provinces of Nova Scotia and New Brunswick record 32 p.c. and 30 p.c., respectively, of their students from other provinces of Canada, mainly from sister Maritime Provinces. For the sake of economy, there is considerable centralization of professional training at Halifax for students of the Maritimes. The University of New Brunswick conducts the only English-language School of Forestry east of Toronto, Ont. Further, there is the factor of denominational church-controlled universities in the region, the largest Baptist and United Church universities east of Toronto are located in New Brunswick, while the largest Anglican university east of Toronto is in Nova Scotia.

Quebec and Ontario have the largest graduate schools in Canada and the largest French-language universities. These factors have a bearing on their student enrolment from other provinces.

The total enrolment of university-grade students for 1949-50 may be expressed in the following proportions:

| Province | Full-time <br> Enrolment (Undergraduate and Post-Graduate) | Percentages from- |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Home Province | Other Provinces of Canada | Foreign Countries |
|  | No. |  |  |  |
| Newfoundland. | 324 | 100 | - | - |
| Prince Edward Island. | 298 | 88 | 11 | 1 |
| Nova Scotia. | 4,126 | 62 | 32 | 6 |
| New Brunswick. | 2,233 | 67 | 30 | 3 |
| Quebec.. | 21,366 | 83 | 10 | 7 |
| Ontario.. | 26,005 | 86 | 9 | 5 |
| Manitoba. | 4,543 | 86 | 12 | 2 |
| Saskatchewan. | 3,360 | 91 | 7 | 2 |
| Alberta.... | 3,921 | 92 | 7 | 1 |
| British Columbia. | 7,957 | 89 | 9 | 2 |
| Alu Provinces. | 74,133 | 84 | 11 | 5 |
|  |  | = | = | $=$ |

University Graduates.-In 1949-50 there were 17,681 bachelor and first professional degrees awarded, about 18 p.c. going to women. Awards in the arts and sciences, including commerce, represented approximately one-half of the total basic degrees conferred. Graduates in applied science, engineering and architecture represented 11 p.c. of the total and the medical sciences, including dentistry, pharmacy and nursing degrees, made up about 10 p.c.

At post-graduate level there were 1,186 master's degrees, 513 licentiates and 226 doctorates in course. About 23 p.c. of all those receiving post-graduate degrees were women.

## 9.-Graduates from Universities and Colleges, School Years Ended 1939 and 1948-50

Note.-Figures for 1920-36 are given at pp. 993-997 of the 1938 Year Book and for 1937-47 in the corresponding tables of subsequent editions.

| Course | 1939 |  | 1948 |  | 1949 |  | 1950 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Female | Total | Female | Total | Female | Total | Female |
| Graduates in Arts, Pure Science and Commerce- |  |  |  |  |  |  |  |  |
| Bachelors of Arts ${ }^{1}$........... | 3,354 | 1,119 | 6,293 | 2,003 | 7,043 | 2,078 | 6,791 | 1,987 |
| Bachelors of Science (in Arts).... Bachelors of Commerce ${ }^{2}$........ | 356 <br> 242 | 55 29 | 1,003 | 173 56 | 1,324 1,362 | 175 71 | $\begin{array}{r}1,242 \\ \hline 950\end{array}$ | 129 |
| Totals | 3,952 | 1,203 | 8,423 | 2,232 | 9,729 | 2,324 | 8,983 | 2,158 |
|  |  |  |  |  |  |  |  |  |
| Totals | 680 | 3 | 1,849 | 16 | 3,354 | 10 | 4,082 | 8 |
| Graduates in Agriculture, Veterinary Science and Household Science- |  |  |  |  |  |  |  |  |
| Bachelors of Agricultural Science. Graduates in Veterinary Science. | 258 77 | $\begin{array}{r}3 \\ 1 \\ \hline\end{array}$ | $\begin{array}{r}384 \\ 84 \\ \\ \hline\end{array}$ | 24 2 | 893 139 | 30 2 | 804 <br> 150 <br> 15 | 23 3 |
| Bachelors of Household Science.. | 194 | 194 | 258 | 258 | 299 | 299 | 275 | 275 |
| Totals. | 529 | 198 | 726 | 284 | 1,331 | 331 | 1,229 | 301 |
| Teacher Diplomas and Graduates in Education and Social Serv-ice- |  |  |  |  |  |  |  |  |
| Teacher diplomas............. | 485 |  | 804 |  | 774 |  | 858 |  |
| Degrees in education or pedagogy. | 100 | 25 | 481 | 103 | 632 95 | 152 | 531 | ${ }_{1}^{138}$ |
| Librarian degrees and diplomas. | 60 | 56 | 79 | 68 | 95 | 72 | 117 | 88 |
| Physical training degrees and diplomas. | 39 | 38 | 146 | 62 | 170 | 63 | 151 | 61 |
| Social service degrees and diplomas. | 62 | 58 | 241 | 160 | 268 | 174 | 268 | 162 |
| Totals | 746 | 1774 | 1,751 | 3934 | 1,939 | 461 | 1,925 | 449 |
| Graduates in Medicine and Related Studies- |  |  |  |  |  |  |  |  |
| Medical doctors. | 565 | 27 | ${ }_{177}^{651}$ | 54 15 | 684 178 | 56 2 | 817 329 | 4 |
| Pharmacists | 190 | 18 | 426 | 80 | 374 | 51 | 422 | 65 |
| Degrees and diplomas in nursing. | 204 | 204 | 318 | 318 | 470 | 470 | 538 | 538 |
| Physio-therapy and occupational therapy. | 34 | 34 | 47 | 47 | 154 | 154 | 73 | 73 |
| Totals | 1,104 | 285 | 1,619 | 514 | 1,860 | 733 | 2,179 | 722 |
|  |  |  |  |  |  |  |  |  |
| Roman Catholic theological col- |  |  |  |  |  |  |  |  |
| leges.................... | 348 154 | 19 | 357 135 | 24 | $\begin{aligned} & 335 \\ & 155 \end{aligned}$ | 27 | 326 181 | 6 |
| Total | 766 | 29 | 930 | 35 | 1,203 | 44 | 1,271 | 34 |
| Post-Graduate and Honorary De-grees- |  |  |  |  |  |  |  |  |
| Honorary doctorates. . . . . . . . . . | 102 | 9 | 173 | 11 | 227 | 8 | 198 | ${ }_{21}$ |
| Doctorates in courses. | 80 | 7 | 134 | 10 | 194 | 19 | 220 | 21 |
| Masters of Arts ${ }^{\text {s }}$. | 286 | 75 | 474 | 128 | 646 | 180 | 769 | 175 |
| Masters of Science ${ }^{6}$ | 120 |  | 279 | 20 | 324 47 | 23 | 417 73 | 33 |
| Bachelors of Divinity ........... | 42 |  | 52 |  | 47 417 |  | 73 362 | 34 |
| Licentiates (except in theology). | 133 | 10 | 336 | 23 | 417 | 29 | 362 | 34 |
| Other post-graduate degrees and diplomas ${ }^{7}$. | 85 | 7 | 611 | 121 | 469 | 155 | 583 | 198 |
| Totals. | 848 | 110 | 2,059 | 313 | 2,324 | 414 | 2.622 | 472 |

[^117]Staffs.-On the basis of full-time university-grade enrolment in the regular session, there was one teacher for eight students in 1950, one for nine students in 1948 and 1949, and one for six students in 1941. This computation includes the part-time and full-time teaching staff recorded for each year. The ratio of full-time staff to full-time enrolment is almost double that of the above but this ratio excludes a large number of instructors in professional schools, such as medicine, where a considerable part of the teaching is done by part-time personnel.

The teaching complement for certain years since 1921 was as follows:-

| School Year Ended- | Faculties of Arts and Science |  | Professional Schools |  | Totals (excluding duplicates) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Full-time | Part-time | Full-time | Part-time | Full-time | Part-time |
| 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 | 3,877 |
| 1950. | 2,890 | 1,153 | 3,078 | 3,036 | 5,246 | 4,127 |

Salaries paid to the full-time teaching staff are somewhat higher than in pre-war years. There is a considerable disparity between salaries paid to teachers in science, engineering and medicine and those paid to teachers in the humanities. The Report of the Royal Commission on National Development in the Arts, Letters and Sciences included the following data on annual salaries paid in three representative universities in 1949-50 to these two groups of teachers:-*

| Classification | Humanities Division |  |  | Engineering, Science and Medicine |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Professors |  |  | Professors |  |  |
|  | $\frac{F u l l}{\$}$ | $\frac{\text { Associate }}{\$}$ | $\frac{\text { Assistant }}{\mathrm{s}}$ | $\frac{F u l l}{\$}$ | $\frac{\text { Associate }}{\$}$ | Assistant <br> \$ |
| High.......... | 6,500 | 5,500 | 3,750 Over | 10,000 | 7,000 | 6,500 |
| Upper quintile | 5,750 | 4,250 | 3,500 | 6,500 | 4,500 | 3,500 |
| Median. | 5,000 | 3,750 | 3,000 | 5,500 | 4,000 | 3.250 |
| Mode. | 5,000 | 3,500 | 3.000 | 5,000 | 4,000 | 3.000 |
| Low... | 3,750 | 3,000 | 2,500 | 4,000 | 3,250 | 2,250 |

Income and Expenditures.-A record of the sources of annual income for a representative group of universities and colleges is given in Table 10 for certain years from 1921 to 1950. For the academic year 1949-50, the institutions in the sample, representing about 85 p.c. of the total enrolment, reported an expenditure of $\$ 651$ per student. In Nova Scotia and New Brunswick the rate was $\$ 488$ per student; in Quebec $\$ 794$; in Ontario $\$ 657$; and in the western provinces it was $\$ 589$ per student. Student fees represented 38 p.c. of the total income reported and provincial grants constituted 36 p.c.; special allowances made to the universities by the Department of Veterans Affairs amounted to 6 p.c. of total income and that available for general purpose from endowments constituted an additional 7 p.c. The balance, about 13 p.c., was made up of gifts, small contributions from a few municipalities and all other sources of income including the grants from churches to some denominational institutions.

[^118]
## 10.-Income and Capital Resources of Universities and Colleges, Specified School Years Ended 1921-50

Note.-The larger universities and many of the colleges in Canada are included and represent an enrolment 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.

| School Year End-ed- | Current Income |  |  |  |  | Deficit ${ }^{2}$ | Surplus ${ }^{2}$ | Capital Resources |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | From Endowment | Government Grants | Student Fees ${ }^{1}$ | Miscellaneous | Total |  |  | Land, Buildings and Equipment | Endowment | Trust Funds |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \%'000 |
| 1921... | 1,497 | 4,522 | 1,826 | 1,244 | 9,089 | 80 | 194 | 48,124 | 28,328 |  |
| 1926. | 2,148 | 5,471 | 2,380 | 1,236 | 11,235 | 192 | 132 | 65,708 | 42,157 |  |
| 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 |
| 1945. | 2,469 | 8,305 | 5,701 | 2,677 | 19,152 | 114 | 192 | 97,454 | 60,403 | 24,163 |
| 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 |

${ }^{1}$ Board and lodging not included.
${ }^{2}$ Combined deficits or surpluses of schools reporting.
University Training under the Veterans' Rehabilitation Act.*-Assistance to veterans in training is provided under the Veterans' Rehabilitation Act as outlined in the 1948-49 Year Book at pp. 321-322.

Since veterans were obliged to commence their university training within 15 months after discharge, the number entering training has dropped very sharply. In the academic year 1950-51, approximately 8,000 veterans in universities were receiving assistance through the Department of Veterans Affairs compared with about 15,000 in 1949-50 and 24,000 in 1948-49. Since the commencement of the training program 9,000 veterans have had insufficient qualifying service to carry them through to graduation but 6,068 of them qualified for continued assistance by securing scholarship standing in their universities. In 1949-50, 94 p.c. of the student veterans passed their examinations and won a high proportion of the available scholarships.

The distribution of the 8,000 veterans enrolled in 1950-51 by academic years, was: first year 255 ; second year 309 ; third year 1,140 ; fourth or subsequent year 4,605 , and post-graduate 1,299 . Since the inception of the rehabilitation program in $1941,54,000$ veterans have received university training.

## PART II.-GULTURAL AGTIVITIES RELATED TO EDUCATION

## REPORT OF THE ROYAL COMMISSION ON NATIONAL DEVELOPMENT IN THE ARTS, LETTERS AND SCIENCES $\dagger$

The basis of the appointment of the Royal Commission on National Development in the Arts, Letters and Sciences in April 1949 and its objectives are presented in the Year Book 1951 at pp. 315-316. The Commission completed its work and tabled its Report in Parliament on June 1, 1951. The Report immediately aroused great interest in the press and with the public, and in the following months it was the subject of innumerable articles and commentaries.

[^119]As a preface to the Report the Commission quoted a passage from St. Augustine defining a nation: "A nation is an association of reasonable beings united in a peaceful sharing of the things they cherish; therefore, to determine the quality of a nation, you must consider what those things are". From this felicitous quotation and from evidence given in the Report it seems apparent that the Commissioners proceeded throughout their task on the assumption that in the arts and letters may be found a useful yardstick of a nation's culture and, further, that the arts and letters of any country can be important unifying factors. This theme occurs frequently throughout the Report; for example, in discussing the theatre and music in Canada their unifying influence on the country as a whole is emphasized. It seems evident, too, that in surveys of the various federal institutions and agencies which were reviewed particular attention was given to the manner in which these institutions might best serve the country as a whole.

Implicit throughout the Report seems to be the conviction that Canadian institutions which serve the national interests are logically entitled to some measure of support from the Federal Government. For example, recommendations were made concerning grants to Canadian universities and for the establishment of a council the principal duty of which would be to strengthen voluntary organizations concerned with matters reviewed by the Commission.

The Report of the Royal Commission is presented in two parts; the first consists of a survey of the many and varied subjects which the Commission was instructed to consider, and the second deals with the 146 recommendations presented under eight principal headings. It is proposed here to summarize the recommendations concerning national museums, federal libraries, public records and archives, historic sites and monuments, aid to universities, national scholarships and the establishment of a council for the arts, letters, humanities and social sciences. For accounts of the recommendations of the Royal Commission concerning the National Gallery, the National Film Board, and the Canadian Broadcasting Corporation, see pp. 347,348 and 352 , respectively.

The survey of the national and local museums found that Canadian museums lag far behind those of comparable countries. The Commission recommended that the present National Museum of Canada be given more space and more funds and that its principal exhibits be confined to Canada's geology, botany and zoology, and to the natural resources on which the primary industries of the country are founded. Further, the creation of a new Canadian Historical Museum was recommended for the exhibition of various historical collections now in the custody of the Public Archives, the Canadian War Museum and certain departments and agencies of the Federal Government. The Report also recommended the creation of a Canadian Museum of Science as well as national botanical and zoological gardens in appropriate regions of Canada.

The overcrowded condition of the Library of Parliament was examined and it was recommended that most of the collection be removed for safe-keeping, leaving space for adequate working library services and suitable stacks. The Commission further recommended the immediate establishment of a National Library.

Concern was shown regarding the extent to which the files of most government departments are congested with inactive or worthless documents and records and the Commission noted the very considerable storage spaces which the Department of Public Works must provide for great quantities of outdated records. The Commission therefore recommended that the responsibility of the existing Public Records

Committee be clearly defined and that a systematic and continuous transfer of inactive records from all departments and agencies of government be made to the Archives. A number of recommendations were designed to correct the existing situation, to prevent its recurrence and to ensure that valuable historical documents receive proper care and that worthless records be systematically destroyed.

The Report dealt at some length with the work of the Historic Sites and Monuments Board which was commended for its accomplishments on a modest budget. The Commissioners observed that much has yet to be done to preserve what remains of historic buildings and to mark the sites of important events in Canadian history. It recommended that it be made possible for the Historic Sites and Monuments Board to undertake a much more comprehensive program and that the Board be reconstituted and provided with permanent secretarial assistance. Immediate measures were urged for the restoration of the Halifax Citadel, one of Canada's great military monuments which is fast falling into complete ruin.

A variety of problems with which Canadian universities are now faced were reviewed at length and particular concern was felt for the low estate to which the study of the humanities has fallen. The financial plight of the universities was considered in detail and a strong argument advanced in support of federal aid to education (see p. 337).

Closely linked with the consideration of aid to universities were proposals for the creation of a system of national scholarships. The Commission recommended that existing grants to the National Research Council for scholarships be maintained, that a system of post-graduate scholarships be introduced for students engaged in the study of the humanities, the social sciences and law, and that funds be made available to provide exchange scholarships for scholars and students from other countries. It urged a comprehensive system of scholarships at the undergraduate level, proposing 100 annual scholarships of $\$ 1,000,250$ scholarships of $\$ 500,2,000$ bursaries of $\$ 500$ a year and the establishment of a loan fund open to students whose work is acceptable to their university authorities. In addition, the Commission proposed further scholarships and grants for persons engaged in the arts and letters but not enrolled in university. These scholarships would be given to artists, musicians, men of letters and students or practitioners of broadcasting, films and the press.

In the final chapter of the Report, the Commission recommended in considerable detail the establishment of a new semi-independent body to be known as the Canada Council for the Encouragement of the Arts, Letters, Humanities and Social Sciences. Outlines were given of the structure of this organization, partly administrative, partly advisory in nature, which would be financed by federal funds but would have a large measure of independence in its operations. In brief, this Council would have functions similar to those of both the Arts Council of Great Britain and the British Council. In addition, the proposed Council (its short title to be the Canada Council) would assume the duties of a national commission for UNESCO and would work to the greatest extent possible through existing voluntary organizations which it would be the Council's principal duty to strengthen financially and otherwise. The Canada Council would be composed of fifteen appointed members. representative of the various cultures and regions of Canada. The Commission recommended that the Canada Council establish a central office of information on those aspects of the arts, letters, humanities and social sciences that fall within its competence. The duty of the Council, moreover, would be to encourage Canadian
music, drama and ballet by such means as the underwriting of tours within Canada, and the establishment of awards to young Canadians of promise and also to strive to increase the knowledge of Canada abroad by arranging tours by Canadian lecturers and by performers in music and the allied arts. The Commission proposed that the Council arrange abroad exhibitions of Canadian art in its varied forms. The Canada Council would administer the system of post-graduate scholarships to be created in the arts, letters, humanities and the social sciences.

At the end of the Report, the Commissioners observed that, "We are under no illusion that the results which we trust may be achieved from the creation of the Canada Council can be attained cheaply; indeed, we observed in the introduction to this part of our Report that if we in Canada want a more generous and better cultural fare we must pay for it. It is obvious that the system of scholarships and awards mentioned above and the furtherance of the work of UNESCO in Canada would cost considerable sums of money". However, "if all our recommendations were accepted, the total figure might in isolation appear substantial; but in comparison with the costs of other activities of Government, it would be modest, almost insignificant"

Although the Canadian press and public have been far from unanimous in their attitude towards the recommendations, there has been a widespread conviction that the Report is a work of real distinction and a very great landmark in the development of Canada as a united and cultivated community.

## Section 1.-The Relationship of Art to Education*

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 University of Saskatchewan, there is a sufficient number of courses to allow the taking of a Bachelor 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 have been opened by McGill University (1948-49), and the University of British Columbia (1949-50) and re-opened by McMaster University (1951).

There are also schools of art not requiring any fixed academic standing for admission, which 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 Beaux-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.

[^120]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. In many cases these institutions supply their surrounding areas with travelling exhibitions, while the National Gallery of Canada carries on a nation-widé program of this nature.

The principal art galleries and museums* are:-

> New Brunswick Museum, Saint John, N.B.
> Museum of the Province of Quebec, Quebec, Que.
> Montreal Museum of Fine Arts, Montreal, Que.
> National Gallery of Canada, Ottawa, Ont.
> National Museum of Canada, Ottawa, Ont.
> London Public Library and Art Museum, London, Ont.
> Art Gallery of Toronto, Toronto, Ont. Royal Ontario Museum, Toronto, Ont. Art Gallery of Hamilton, Hamilton, Ont.
> Willistead Library and Art Gallery, Windsor, Ont.
> Winnipeg Art Gallery, Winnipeg, Man.
> Edmonton Museum of Arts, Edmonton, Alta.
> Vancouver Art Gallery, Vancouver, 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 incorporated under a Board of Trustees in 1913, it has assembled its permanent collection largely 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 for any program of art education.

The collection of the National Gallery to-day is of international repute and is accessible to the whole country by means of catalogues, photographs and 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. A number of the more important recent additions to the permanent collection have been in the field of French painting which for some time had been unavoidably neglected because of insufficient funds. Chevaux de courses by Degas and Portrait de paysan and Forêt by Cézanne are outstanding examples acquired from the Vollard collection. The presence of this famous collection in Canada accounts for one of, the most interesting chapters in the Gallery's history. Formed by Ambroise Vollard (1867-1939), the French connoisseur, art dealer and publisher, it was taken to Portugal in 1940 and then consigned to the United States. The Royal Navy seized it at Bermuda on suspicion that it had come under Nazi control and was being sent to America under false pretences. It was then deposited in the National Gallery of Canada for safe-keeping. In 1948 it was released to the owners and in 1950 the sisters of Vollard allowed their part of the collection to be exhibited in Canada, an event which caused considerable interest throughout the country. Three other French paintings were presented by H.S. Southam, C.M.G., LL.D., of Ottawa: L'Evasion by Daumier and Dans le bois: neige and Femme aux gants by Courbet. Works by Van Gogh and Redon were purchased and acquisitions in other departments included works by Tiepolo and Augustus John. Canadian paintings include

[^121]a representative selection of contemporary work and additions to the collection of earlier painting. Drawings by Guardi, Claude, Sébastien Bourdon, Adriaen van Ostade, Constable, Renoir, Rouault and others have also been added. Prints included examples by Rembrandt, Goya (a complete set of the first edition of the Tauromaquia) and Rouault.

In 1951, exhibitions of the art of other countries included: Scottish Painters, Contemporary Irish Painting, Lovis Corinth, Pageant of Britain, Swedish Children's Art, Sculpture by Mestrovic, Vollard Collection, Ukrainian Folk Arts, and Paintings by J. M. W. Turner. Among the Canadian exhibitions held were the Sarah Robertson Memorial Exhibition, the designs submitted for Massey Medals for Architecture and Industrial Design 1950 B.C.-A.D. 1950. A large Canadian exhibition sent to the National Gallery of Art, Washington, D.C., was opened on Oct. 29, 1950, by the Canadian Ambassador to the United States and was later shown in San Francisco, San Diego, Santa Barbara, Seattle and Vaneouver.

The National Gallery carries out 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 available to the entire country and are widely circulated. About 30 such exhibitions are toured and a total of some 150 separate showings are thus held annually under the auspices of the National Gallery of Canada. In addition, individual loans of material from the collection are made to a number of centres in all parts of the country each year. In this way actual works of art are constantly being brought to the attention of the public. Sets of reproductions are also sent on tour of localities which have not the facilities for handling original works of art.

The latest major development in the general educational work of the National Gallery was established in 1948-an Industrial Design Section 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.

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 children at the Gallery, exhibitions of children's art, conducted tours of the Gallery's collections and educational demonstrations, public lectures at Ottawa, and lecture tours throughout Canada.

The National Gallery also maintains an art film library. Silk screen prints by Canadian artists, already famous in many parts of the world as the result of their distribution during the War, are available to schools and the public generally. These and the facsimile colour reproductions published by the National Gallery are listed in the free leaflet, Reproductions, Publications, and Educational Material. The magazine Canadian Art, in the publication of which the National Gallery takes a leading part, has doubled its circulation since 1945.

Speaking highly. of the Gallery's work over many years despite serious difficulties, 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;

[^122]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, repair and restoration of paintings.

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 $\ddagger$

Generally, the function of the National Film Board as defined in the National Film Act, 1950, is to produce and distribute films "designed to interpret Canada to Canadians and other nations". The Board, in addition, is required to represent the Government of Canada in its relations with persons engaged in commercial motion picture film activity for the Government or for any government department; to engage in film research and to make results available to the film industry; to advise the Governor in Council in connection with film activities; and to discharge other duties relating to film activity in accordance with directions by the Governor in Council.

Publication of the Royal Commission Report on National Development in the Arts, Letters and Sciences brought attention to the functions of the Board and "their proper interpretation in relation to Canadian national life and culture".

The National Film Board reaches Canadians through distribution of 16 mm . films produced for Canadian audiences; and through commercial theatres by the production and distribution of theatrical films without which Canadian audiences would see very few Canadian productions. The Board is currently producing more than 30 theatrical films annually and almost 100 non-theatricals.

The number of theatrical bookings of National Film Board short productions in the last nine months of 1951 increased by about 70 p.c. over the same period of 1950. In addition to the Canada Carries On and Eyewitness series in English (En avant Canada and Vigie in French), the Board also supplies newsreel features on Canadian subjects for Canadian commercial distribution. The tour of Canada,

[^123]in 1951, by Her Royal Highness, the Princess Elizabeth and His Royal Highness the Duke of Edinburgh was recorded in the Board's first full-length production in colour, Royal Journey. In addition to widespread Canadian distribution, Royal Journey is being shown in the United States, the United Kingdom, Europe, South Africa, Australia, New Zealand and some parts of Asia.

The non-theatrical program is based on a nation-wide system of film circuits, film councils and libraries. The program is deeply rooted in community activities and the films are shown in about 3,450 clubs, schools, churches and community halls. It is estimated that more than $10,000,000$ Canadians will attend National Film Board non-theatrical showings during 1952. Operation of film circuits is progressively being turned over to voluntary community groups. Touching on this phase of film distribution, the Royal Commission Report called it "a remarkable example of improvisation with limited resources". Film councils-voluntary groups promoting wider use of documentary films-now number 338, an increase of 30 over last year. Forty new libraries were established, bringing the total to 305. More than $4,000,000$ school children are being reached annually at approximately 60,000 school showings.

There are still many rural areas that rely on the National Film Board for films and film services. Free programs for both children and adults in rural areas are released monthly. In addition, the field officers of the National Film Board are available to assist in the organization of self-operating circuits. The latter are taken over by the area-film councils which, like their counterparts, the communityfilm councils, purchase their own projection equipment, train projectionists, organize workshops on film selection and use, and arrange film festivals where informational films produced in Canada and abroad are shown to the public.

In addition to providing monthly programs and technical assistance from its field staff, the National Film Board deposits large blocks of films in provincial and community film libraries on a free-loan basis.

In co-operation with federal departments, film libraries have been established in the specialized fields of health, welfare, medicine and biology, physical fitness and industry. Additions to these libraries are circulated across the country in preview blocks before being deposited in a central library from which they can be borrowed. The Board also offers a wide variety of information services, including instructional material on the selection and use of the films and filmstrips, discussion guides, teachers' notes, and film and filmstrip catalogues. The Board has deposited well over 25,000 films in local libraries.

Many different types of organizations, both governmental and voluntary, co-operate with and assist the Board in the distribution of films. The University of Alberta Extension staff is an example of technical instruction provided by a non-governmental body. The University of British Columbia administers rural film circuits. In the Maritime Provinces, distribution of National Film Board films to adult audiences is directed by the Department of Education. In some provinces, federations of agriculture assist with rural film distribution.

Films are being used to help interpret their own country to persons in the more settled parts of Canada and to bring to Canadians in more remote areas a picture of how people in other parts of Canada live. In schools and settlements throughout Yukon Territory, the Northwest Territories, Ungava and Labrador, National Film Board programs are being shown regularly for the native and white populations. Federal and provincial authorities co-operate in this work.

The story of Canada is also being told abroad in films as part of the function of interpreting Canada to other nations. Non-commercial distribution of films and filmstrips abroad is now carried on through 56 posts of the Departments of External Affairs and Trade and Commerce through National Film Board offices at London, New York and Chicago, and through universities, schools and other educational agencies. Non-theatrical showings of Canadian films abroad are attended by approximately $10,000,000$ persons a year in 42 countries. Moreover, prints of National Film Board films are sold abroad at the rate of over 3,000 a year. This theatrical distribution is already well established in the United Kingdom and the United States and is rapidly expanding in Continental Europe and Latin America. A recent interesting development has been the advance in the use of National Film Board newsreel films and productions on United States television networks. Bookings currently are running at 1,500 annually. The National Film Board also provides newsreel feature coverage about Canada for United Kingdom, United States, and South American distribution.

## 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.-While many story programs for pre-school-age children are broadcast purely as entertainment, a special series has been developed to give young children, especially 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 one-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 it 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 1951-52 season, six of these series were planned for students from Grade III to senior high school. These were: Voices of the Wild, on Canadian wildlife; a series on conservation of natural resources; They Made History, dealing with highlights in Canada's history; Life in Canada Today, a series of documentaries; Julius Caesar, a

[^124]full-length performance of Shakespearean drama; and Things We Are Proud Of, comprising five programs contributed by broadcasting organizations in Great Britain, Australia, New Zealand, South Africa and Ceylon, relating outstanding features in the development of those countries.

The Department of Transport issued more than 8,000 free receiving licences to schools throughout Canada in 1951-52, indicating that at least one-third of all English-language schools were radio-equipped and using school broadcasts.

In the Province of Quebec, the CBC's French network broadcasts RadioCollege, 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-College. Both are published annually by the CBC.

Adult Education.-Programs of an adult-education nature take many forms. Issues of the day are discussed on such round-table programs as Citizens' Forum, now in its eighth year, and its French network counterpart, Les Idées en marche. Both are produced in co-operation with the Canadian Association for Adult Education, and organized listening groups which form part of the audience carry on their own discussions of the topic following the broadeast. This Association co-operates with the Canadian Federation of Agriculture in the presentation of National Farm Radio Forum, a broadcast concerned primarily with discussion of topics of interest to Canadian farmers. This program has developed into the largest listening-group project of its type in the world. Cross Section, a series dealing with economic and social issues-a look at industrial Canada through the eyes of business, labour and the consumer-is typical of the dramatized documentary form in which many programs of an adult-education nature are presented. Understanding of human relationships is fostered by such series as In Search of Ourselves, presenting stories and a commentary by a psychiatrist, psychologist, or sociologist of people with mild emotional disturbances; In Search of Mental Health, showing recent improvements in the treatment of mentally ill people in Canada; and Life With the Robinsons, a dramatized story of human relations in a typical, ordinary family. On the French network, Radio-Parents presents broadcasts designed to help parents solve their problems, and general questions sent in by parents on the subject of child care are answered by psychologists in the series Le Courrier de Radio-Parents.

More than 2,600 hours are devoted annually to informative talks on a very wide range of topies including international affairs, consumer information, politics, business and labour interests, community activities and social problems, literature and creative writing, science, nature and sports.

The CBC maintains an office and a resident correspondent at United Nations Headquarters, and an overseas bureau with headquarters at London, England. For programs such as CBC News Roundup, voice reports are brought in from many parts of the world.

Music and Drama.-Music and drama are two of the chief items in the CBC schedules. Music makes up about 50 p.c. of the network programs, while those in the 'drama and feature' category take up the largest percentage of time
among spoken-word programs. High-quality programs of both types are heard frequently at good listening hours. Apart from regular broadcasts by Canadian symphony orchestras, the Metropolitan Opera programs, and similar programs, much fine music is presented on the CBC Wednesday Night program-a full evening on the Trans-Canada network for more discriminating listeners. The many periods of "standard" classical music on this broadcast are accompanied by programs giving expression to Canadian composers and contemporary composers of other countries. Chamber music by various groups as well as choral music originating at many points in Canada, and recitals by Canadian artists and those of international reputation are important features of the music schedules. Productions by the CBC Opera Company (which in the 1951-52 season included La Bohême, The Marriage of Figaro, Manon, Peter Grimes, and two Canadian operas, Deirdre and Basmatchkin) and by the CBC Light Opera Company are heard throughout the season.

During an average year more than 1,000 plays are produced by the CBC for the networks, chief among them the annual Stage series broadcast Sunday nights to a national audience, and longer items for the CBC Wednesday Night program. In this category, plays have ranged from adaptations of the humorous stories of Stephen Leacock to two-hour performances of Shakespearean dramas and such plays of Lister Sinclair's Socrates, Bernard Shaw's Candida, Christopher Fry's verse drama The Lady's Not For Burning, and Crime Passionel by the contemporary French writer Jean-Paul Sartre. A recent innovation has been the production of "anthologies" made up of prose, poetry and music, and programs such as Vienna: The Glorious Age which presented in dramatic words and music a comprehensive picture of an era.

Lighter fare is broadcast from production points across Canada, and includes a very high percentage of work by Canadian writers, both English and French.

Television.-Preliminary plans for CBC television broadcasting, expected to get under way at Toronto and Montreal in the autumn of 1952, call for a limited amount of broadcasting per day in the initial stages, and a program pattern roughly paralleling that developed for radio, but on a much smaller scale. As in radio programming, the objective of combining entertainment with information will be followed where possible.

The Royal Commission on National Development in the Arts, Letters and Sciences, in its report in 1951 which, after an intensive review of broadcasting in Canada, endorsed in the main the CBC's programming pattern for radio, had this to say about television programs:-

[^125]
## Section 4.-Public Libraries

The biennial survey of libraries in Canada, 1948-50, reports increased activity in the field of library service. At the national level, first steps have been taken toward the establishment of a National Library for Canada.

In June 1948, Parliament approved the principle of establishing a Bibliographic Centre at Ottawa and the preparation of a National Union Catalogue which would provide a nucleus for the reference department and the catalogues for a National Library. A National Library Advisory Committee was established with representatives from each province under the chairmanship of the Public Archivist. After some months of preparatory work, the Centre came formally into existence with the appointment of a Director and an initial staff on May 1, 1950.

The Bibliographic Centre has proceeded with the preparation of the National Union Catalogue. The catalogues of 21 libraries, covering more than $1,250,000$ volumes, have been reproduced by means of microfilm. These reproductions will be co-ordinated to provide an index of the holdings of the main libraries in Canada, including information on the location of rare books that may be obtained on the basis of inter-library loans. Eventually the National Library will offer procurement services but, in the meantime, the catalogue represents a record of the book resources of Canadian libraries and provides a means for more effective use of those books.

A second project of the Bibliographic Centre is the monthly publication of Canadiana, a bilingual list of commercial and government publications relating to Canada. At present the Centre has a small stock of reference books that will be supplemented by volumes not in steady demand and located in various libraries across the country, and by standard publications of the United States. The index will be expanded to include holdings relating to Canada in the libraries of Great Britain, the United States and France.

Local Public Libraries.-As local institutions of education and culture, public libraries are mainly the responsibility of the municipalities in which they are located. In certain provinces, the provincial library authorities supplement the efforts of the municipalities by annual grants, by assistance to buildingconstruction funds and by aid in the procurement of book stock. The public libraries in the cities represent the largest proportion of all such service in Canada. The libraries of seven cities, each with a population of over 100,000 , held 36 p.c. of the entire book stock reported in the survey of libraries, and were responsible for 51 p.c. of all the expenditures recorded. The libraries in a second group of 29 cities, with populations of from 25,000 to 100,000 , held 17 p.c. of the book stock and accounted for 22 p.c. of the expenditures. In the smaller cities with populations of from 10,000 to $24,999,26$ libraries held 9 p.c. of the book stock and were responsible for 9 p.c. of the expenditures. In all, the city libraries held 62 p.c. of the books and accounted for 82 p.c. of all expenditures on public library service.

It is estimated that some form of public library service is available to about 75 p.c. of the population but that barely 50 p.c. of the population has anything approaching adequate library service. In the small towns, villages and rural communities many public libraries are supported and administered by organizations or associations within the communities. Including these, less than 12 p.c. of the rural population has public library service and, where it does exist, it is in most cases quite inadequate.

Tables 1 to 4 summarize data on the holdings, service, income and expenditures of the public libraries of Canada for 1949. More details are available in the D.B.S. publication Survey of Libraries 1948-50.

## 1.-Book Stocks in Public Libraries, classified by Types and by Provinces, 1949

| Province or Territory | Adult <br> Fiction | Adult <br> Non-fiction | Juvenile | Unclassified | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. |
| Newfoundland. | - 74 | - | 24,164 | 92,403 | 116,567 |
| Prince Edward Island. | 19,742 | 30,684 | 20,896 |  | 71,322 |
| Nova Scotia. | 9.302 | 12,110 | 9,317 | 69,992 | 100,721 |
| New Brunswick | 22,780 | 47,427 | 8,421 | 32,412 | 111,040 |
| Quebec. | 34,681 | 59,486 | 29,378 | 802,624 | 926,169 |
| Ontario. | 969,428 | 1,673,337 | 716,998 | 835,250 | 4,195,013 |
| Manitoba | 38,775 | 75,607 | 35,093 | 7,068 | 156,543 |
| Saskatchewan | 100,402 | 124,790 | 51,879 | 56,260 | 333,331 |
| Alberta. | 172,856 | 87,493 | 72,348 | 31,337 | 364,034 |
| British Columbia | 124,294 | 241,202 | 131,442 | 42,882 | 539,820 |
| Yukon Territory | 5,600 | 4,100 | 500 | - | 10,200 |
| Totals | 1,497,860 | 2,356,236 | 1,100,436 | 1,970,228 | 6,924,760 |

## 2.-Book Circulation by Public Libraries, classified by Types and by Provinces, 1999

| Province or Territory | Adult Fiction | Adult Non-fiction | Juvenile | Unclassified | Total | Borrowers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Newfoundland | $\overline{63}$ | $\overline{\text { 2 }}$ | 15,782 | 285,590 | 285,590 | 22,606 |
| Prince Edward Island | 63,453 | 22,800 | 115,782 |  | 202,035 | 15,956 |
| Nova Scotia. | 52,868 | 24,367 | 32.259 | 47,732 | 157,226 | 8,934 |
| New Brunswi | 71,924 | 18,659 | 28,479 | 50,100 | 169,162 | 15,091 |
| Quebec. | 209.171 | 91,337 | 184,126 | 841,976 | 1,326,610 | 44,262 |
| Ontario | 4,422,059 | 2,620,641 | 4,871,359 | 2,766,578 | 14,680,637 | 780,122 |
| Manitoba | 247,929 | 188,332 | 274,186 | 50,215 | 760,662 | 46,845 |
| Saskatchewan | 434,959 | 123,015 | 278,593 | 72,813 | 909,380 | 54,299 |
| Alberta. | 310,770 | 112,609 | 531,896 | 596,746 | 1,552,021 | 84,080 |
| British Columb | 1,133,843 | 590,391 | 784,256 | 17,802 | 2,526, 292 | 158,385 |
| Yukon Territory | - | - | - | 6,500 | 6,500 | 125 |
| Totals | 6,946,976 | 3,792,151 | 7,100,936 | 4,236,052 | 22,576,115 | 1,230,705 |

3.-Expenditures of Public Libraries, by Provinces, 1949

| Province or Territory | Books and Periodicals | Binding and Repair | Salaries of Library Staff |  | All Other Expenditures | Balance End of Year | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | $\delta$ | \$ | \$ | \$ | \$ | \$ |
| Newfoundland. |  | - |  |  |  |  |  |
| Prince Edward Island | 6,658 5,076 | - | 12,725 11,098 | 644 | 3,291 4,640 | 319 1,773 | 22,993 23,231 |
| New Brunswi | 6,500 | 741 | 18,454 | 1,675 | 6,730 | 1,639 | 35,739 |
| Quebec | 106,989 | 61,409 | 228,079 | 7,052 | 122,759 | 28,484 | 554,772 |
| Ontario | 582,711 | 80.377 | 1,449,536 | 136,687 | 620,424 | 135,897 | 3,005,632 |
| Manitoba | 39,593 | 5,932 | 103,484 | 12,000 | 30,376 | 3,556 | 194,941 |
| Saskatchewan | 36,681 | 6,115 | 94,118 | 12,299 | 39,982 | 6,723 | 195,918 |
| Alberta. | 56,957 | 8,734 | 142,468 | 11,501 | 38,179 | 7,819 | 265,658 |
| British Columbia | 99,866 | 22,678 | 361,155 | 23,190 | 134,926 | 11,446 | 653,261 |
| Yukon Territory. | 210 |  | 600 |  | 105 | 682 | 1,597 |
| Totals | 941,241 | 185,986 | 2,421,717 | 205,048 | 1,001,412 | 198,338 | 4,953,742 |

4.-Receipts of Public Libraries, by Provinces, 1949

| Province or Territory | $\begin{aligned} & \text { Balance } \\ & \text { from } \\ & \text { Preceding } \\ & \text { Year } \end{aligned}$ | Local Taxes | Provincial Grants | Other <br> Grants or Donations | All Other Receipts | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | § |
| Newfoundland. | - | - | 22,993 | - | - | 22,993 |
| Prince Edward Island | -2,853 | 11,050 | - | -5,169 | 4,159 | 23,231 |
| Nova Scotia...... | 2,853 | 32,250 |  | 5,97 | 3,381 | 35,739 |
| Quebec. | 15,642 | 374,650 | 60,900 | 53,828 | 49,752 | 554,772 |
| Ontario. | 123,218 | 2,267,005 | 403,649 | 11,743 | 200,017 | 3,005,632 |
| Manitoba. | 4,398 | 187,925 | 200 | 126 | 2,292 | 194,941 |
| Saskatchewan. | 11,230 | 167,201 | 4,228 | 4,128 | 9,131 | 195,918 |
| Alberts | 2,978 | 228,021 | 11,373 | 9,179 | 14,107 | 265,658 |
| British Columbia | 6,917 661 | 586,029 | 20,475 $900{ }^{1}$ | 1,000 | 18,840 36 | 653,261 1,597 |
| Totals. | 167,908 | 3,854,131 | 524,718 | 85,270 | 321,715 | 4,958,742 |

${ }^{1}$ Territorial grant.
Regional Libraries.-In order to improve the library services in rural districts and in the smaller communities, all provinces except New Brunswick and Quebec have made some effort to establish regional libraries or modifications of such libraries. Prior to World War II, regional library service, or an adaption thereof, existed in British Columbia, Prince Edward Island, Newfoundland and Ontario. Since 1946, Saskatchewan has put into operation the North-Central Saskatchewan Regional Library with headquarters at Prince Albert, and is organizing a second section of this library. Nova Scotia has four new regional libraries in operation, the Annapolis Valley Regional Library, the Colchester-East Hants Regional Library, the Pictou County Regional Library and the Cape Breton Regional Library. Manitoba and Alberta have passed legislation providing for the organization of such libraries.

In the provinces where regional libraries are functioning, efforts have been made to improve the services rendered by increasing the number of distribution agencies and constructing new local libraries to act as regional depots.

Complete statistics for the new libraries were not yet available at the time of going to press. Services of the older regional libraries are given in Table 5.

## 5.-Statistics of Libraries Organized for Regional Collaboration, Alternate Years 1941-49

| Library or Library Co-operative and Year |  | Branch Libraries | Deposit Stations | Schools | Total <br> Library <br> Agencies | Popu- <br> lation <br> Served | Registered Borrowers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Prince Edward Island. |  | No. | No. | No. | No. | No. | No. |
|  | 1941 | 23 | - | 255 | 278 | 95,047 | 20,889 |
|  | 1943 | 23 | 4 | 320 | 347 | 91,000 | 20.289 |
|  | 1945 | 23 | 7 | 309 | 339 | 92.000 | 23,922 |
|  | 1947 | 23 | - | 352 | 375 | 94.000 | 13,193 |
|  | 1949 | 24 | - | 408 | 432 | 91.000 | 13,278 |
| Ontario County Library Co operatives. | 1941 | $\cdots$ | . | . | 7 | $\cdots$ | . |
|  |  | . | $\cdots$ | . | 9 | .. | . |
|  | 1945 | $\cdots$ | .. | $\cdots$ | 11 | $\cdots$ | . |
|  | 1947 1949 | $\ldots$ | $\cdots$ | $\cdots$ | 12 | . | $\cdots$ |
|  |  | $\cdots$ | $\cdots$ | $\cdots$ | 13 | . | . |

## 5.-Statistics of Libraries Organized for Regional Collaboration, Alternate Years 1941-49-concluded



In Newfoundland there are 25 centres which act as regional distributing depots under the supervision of a provincial regional librarian with headquarters at St. John's. The most recent statistics on these libraries show 35,000 volumes, 15,205 borrowers and 141,064 loans.

Staffs.-The personnel employed by the public and regional libraries included about 1,400 librarians and their assistants engaged in full-time work, supplemented by more than 1,000 persons working on a part-time basis. About one-third of the full-time staff had professional rating-a Bachelor of Library Science degree or
an equivalent diploma. In addition, 184 staff members, or about 13 p.c. of the total, had taken courses of training ranging in length from six weeks to less than a year.

Salary schedules have recently improved considerably, especially in the larger cities where more than 40 p.c. of the employees have full professional training. On the basis of duties and responsibilities, the median salaries of the full-time personnel of public libraries in the cities were as_follows:-

| Population of City | Chief Librarians | Heads of <br> Branches or Divisions | Other <br> Librarians | Other Classifications |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| 10,000-24,999. | 2,667 | 1,950 | 1.563 | 1,375 |
| 25,000-99,999. | 3.550 | 2,491 | 1,772 | 1,577 |
| 100,000 or over. | 4,417 | 3,000 | 2,070 | 1,618 |

Expenditures on salaries represented more than 50 p.c. of total library expenditures for 1949. In cities over 100,000 population, salaries accounted for 54 p.c. of the total budget; the second group of cities reported 53 p.c., and the smaller cities 50 p.c.

Children's Libraries.-One of the primary objectives of the libraries in Canada is guidance in the formation of good reading habits. This work is begun in the children's departments of the libraries, in special children's libraries, and in the schools. Efforts are made to interest children in the public libraries by attractive quarters and special programs conducted by persons with specialized training and particular aptitude for this work. Some 320,000 boys and girls were registered borrowers from the public libraries in 1949, and each read an average of 18 books during the year.

Auxiliary Services.-In recent years the public libraries have supplemented their main services with educational and cultural programs in music, fine arts and related subjects. Audio-visual programs are now a part of the services of the public libraries in many centres. More than 30 city libraries provided film services for their communities in 1949. The films are owned by the libraries or are on deposit from the National Film Board for circulation in the area. Some 32,000 programs, with audiences totalling $3,739,990$ people, were reported by the libraries including those held in the libraries and those sponsored by community organizations outside.

Increasing use of the libraries is made for public meetings. About 700 public lectures, 316 forums and 2,387 meetings were held in public libraries during 1949.

Income and Expenditures.-Local taxes represented 81 p.c. of current income from all sources. Grants from the provinces have increased six-fold in recent years to the point where they now represent more than 10 p.c. of all income in comparison with slightly more than 3 p.c. in 1941. Total expenditures in 1949 were two and one-quarter times those of 1941 and about $\$ 1,000,000$ in excess of those of the previous biennium. At that, the current expenditures on public libraries represent only 35 cents per capita-a rate varying considerably in the different provinces: Ontario 65 cents, British Columbia 56 cents, Alberta 32 cents, Manitoba 25 cents, Saskatchewan 23 cents, Prince Edward Island 21 cents, Quebec 14 cents, New Brunswick seven cents and Nova Scotia four cents. The new regional libraries in Nova Scotia and Saskatchewan are, however, not included in the above rates.

The per capita rate established by library authorities for minimum services is $\$ 1$, and for maximum services $\$ 4$. While no province has as yet reached the minimum rate, it is encouraging to note that the per capita rate for all of Canada in 1949 was double that of 1941.

Academic Libraries.-University and college libraries, 90 in English-language institutions and 88 in French-language institutions, reported $6,314,000$ volumes in 1949. This represented less than 100 volumes for each full-time university-grade student in Canada. Fourteen of these libraries had more than 100,000 volumes, 13 libraries reported from 50,000 to 99,000 volumes and 36 libraries reported 25,000 to 49,000 volumes. The remaining 115 libraries had under 25,000 volumes, 61 of them containing under 10,000 volumes.

Centralization of book stock in certain cities presents a major problem to postgraduate students and scholars in Canada. It is a prime factor in the establishment of the National Union Catalogue mentioned earlier and in the ultimate establishment of a National Library in Canada.

On the basis of the returns from libraries for 1949, an estimate was made of the library resources available to university students in the cities where the larger universities are located. The libraries included in the estimate are the academic libraries, the reference departments of the public libraries and the government and special libraries considered of value to university students. The results show the comparative poverty of book resources for certain of these areas. The volumes available per full-time university student, including both undergraduate and post-graduate students, were as follows: Ottawa 530, Quebec city 278, London 246, Hamilton 198, Montreal 162, Halifax 130, Kingston 113, Toronto 108, Winnipeg 90, Fredericton 75, Saskatoon 60, Vancouver 53 and Edmonton 51. The students registered in these cities represent 87 p.c. of all university-grade students in the full-time session.

Government Libraries.-Returns for 1949-50 were received from 59 libraries supported by the Federal Government, 38 of them at Ottawa, and from 34 libraries supported by provincial governments. The Library of Parliament with more than 500,000 volumes represented 23 p.c. of the total of $1,915,302$ volumes reported by the federal libraries. The provincial libraries, considerably fewer in number, reported $1,020,416$ volumes.

## Section 5.-Canada"and the United Nations Educational, Scientific and Cultural Organization

The Sixth General Conference of United Nations Educational, Scientific and Cultural Organization, which was held at Paris in the summer of 1951, agreed on certain projects and made administrative decisions which are of particular interest to Canada.

In the field of education the decision to extend the co-operation of UNESCO to the Programs of Technical Assistance of the United Nations illustrates the co-ordination of action which Canada endeavours to promote between the UN Specialized Agencies in order to obtain concentration of effort and, hence, better results. The assistance which the Secretariat of UNESCO will be able to provide to Member States in organizing regional seminars on adult education by sending suitable documentation, by preparing working papers and by providing the services of experts, is also considered an appropriate initiative.

The most important recent change in the administrative field was the decision to hold the General Conferences every two years rather than annually in order to have more time between Conferences to carry out the projects and to survey their progress. The admittance to UNESCO of the German Federal Republic, Japan, the Kingdom of Laos, the Kingdom of Cambodia and the State of Viet Nam brought the total number of Member States to 64.

Direct relations between the Government of Canada and UNESCO are conducted by the Department of External Affairs. Canadian participation includes the work of Canadian delegations to the General Conferences, the administration of UNESCO fellowships and scholarships tenable in Canada, the selection of Canadian delegates to international seminars sponsored by UNESCO, assistance in the organization of seminars in Canada, and the distribution of UNESCO publications to interested associations and educational institutions.

Since signing the instrument of admission to UNESCO, Canada has supported many measures designed to help the agency accomplish its work in a consistent and practical way and has contributed money, time and specialist personnel. In addition to its regular annual contribution ( $\$ 319,022$ in 1952), Canada, in 1947, made available to the Canadian Council for Reconstruction through UNESCO a sum of $\$ 200,000$ for the purchase of materials "for the purposes of educational, scientific and cultural reconstruction". This was the beginning of a happy cooperation between the Government of Canada and some 30 voluntary associations which joined their forces in the establishment of a specialized institution (CCRU) to assist in educational and cultural relief and reconstruction.

Following a joint appeal to the Canadian public by the National Council for the United Nations Appeal for Children in Canada and the CCRU, an additional amount of $\$ 939,250$ was received by CCRU to further its educational reconstruction program which included projects to collect books in Canada for universities abroad, to supply artists in foreign countries with essential materials, and to bring students from abroad to Canada on scholarships. A number of direct grants amounting to $\$ 190,186$ were made by CCRU to various Canadian and foreign institutions engaged in educational reconstruction.

In brief, Canada has tried to maintain a well-balanced contribution to UNESCO. The support given to the activities of this agency is considered an essential part of Canadian support of the United Nations general program of peace, well-being and security.

## 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 Canadian Government 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-graduate 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.

[^126]A Special Committee of Parliament was appointed to study a recommendation for the establishment of national laboratories and endorsed the proposal but financial difficulties intervened. However, public opinion made it possible to have the Research Council Act passed 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 Ottawa Air Station. Later several other buildings were erected on this site, including separate laboratories for research on engines, gas and oil, hydraulics, structures, and wood-working and metal-working shops. Since then these facilities have been enlarged and extended and new buildings have been provided for engineering, low-temperature studies and high-speed aerodynamics. In 1951-52, construction was proceeding on applied chemistry laboratories, a thermodynamics building, offices and laboratories for the Division of Building Research, and an extensive laboratory building for the Division of Radio and Electrical Engineering.

The Atomic Energy Project at Chalk River, Ont., also was administered by the National Research Council from Feb. 1, 1947, to Mar. 31, 1952. On Apr. 1, 1952, operation of the atomic energy project was assumed by a new Crown company, Atomic Energy of Canada Limited, and proceeded as previously under policies laid down by the Atomic Energy Control Board. The President of the new Company is C. J. Mackenzie, C.M.G., F.R.S.

A Prairie Regional Laboratory, constructed on the campus of the University of Saskatchewan, was opened in June 1948, and a Maritime Regional Laboratory is under construction on Dalhousie University campus at Halifax, N.S.

The National Research Council consists of the President, two Vice-Presidents (Scientific), one Vice-President (Administration) and sixteen 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.

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 in bringing their operating problems to the attention of the Council. With 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 also obtains assistance, in return, from many companies. The Council has long-standing and intimate contacts of this co-operative kind with many Canadian industries in many fields, most notably in refractories, oils, metals, chemicals and transport.

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 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.

Scholarships and fellowships for graduate work in science and medicine, granted in 1951-52, included 57 bursaries ( $\$ 600$ ), 73 studentships ( $\$ 900$ ), 29 fellowships ( $\$ 1,200$ ), 17 special scholarships of varying amounts, and six post-doctorate overseas fellowships. In addition, 27 medical-research fellowships and two dental fellowships were awarded. Medical research is carried on by means of grants to accredited workers and fellowships for graduate research in the various medical schools and university hospitals.

Principal Acitivities, 1951-52.-The threat of unsettled foreign relations once again began to make itself felt during 1950 and Canada, in common with other members of the United Nations, was compelled to divert considerable industrial and other activities along defence production lines, and to orient its research organization accordingly to provide the best possible aid to the military services. The emphasis on defence production needs during 1950-51 at the National Research laboratories, at Ottawa, was chiefly in aeronautical, building, and radar research and to a less extent in applied chemistry, applied biology, physics, and information services.

A large part of the laboratory research in chemistry and physics carried on at the National Research Council laboratories is now being done under the postdoctorate fellowship plan inaugurated in 1948 and developed since that time. In the Chemistry Division particularly, a substantial proportion of the salary allotment is reserved each year for the employment of post-doctorate fellows, recruited from the universities of the world, to work with members of the regular staff. The scheme has been very successful, providing as it does for a continuous turnover of younger men with a variety of training.

In June 1951, the post-doctorate fellows employed in the laboratories included 56 scientists from 24 universities of 12 countries. Distribution of fellows by Divisions was as follows: Chemistry, 34; Physics, 17; Radio and Electrical Engineering, 1; and 4 at the Atomic Energy Project, Chalk River, Ont.

The post-war growth of the aviation industry and the current world situation called for increased effort in aeronautical research for defence purposes and led to the creation in January 1951 of a National Aeronautical Establishment and the formation of a National Aeronautical Research Committee. The Committee is under the chairmanship of the President of the National Research Council and the other members are the Chairman of the Defence Research Board, the Chief of Air Staff, Royal Canadian Air Force, and the Chairman of the Air Transport Board. The objective of the Establishment is the achievement of an orderly development of facilities in aeronautical research and a closer integration of military and civil requirements in this field.

The National Aeronautical Establishment will be administered as a joint military and civil establishment and will be operated by the National Research Council as a separate agency along lines somewhat similar to those on which it operated the Atomic Energy Project at Chalk River. Administration policy will be determined by the National Aeronautical Research Committee. Thus, members of the staff of the aeronautical laboratories will serve in a dual capacity; on peacetime problems they will work as Council employees and, on military projects, as members of staff of the National Aeraunautical Establishment.

Despite the necessity of their active participation in the defence preparedness program, the Council's several laboratory divisions continued during 1951-52 to carry on an impressive amount of peacetime research on a wide variety of subjects. Staff, including 1,200 at Chalk River, was maintained at a level of about 3,000 . Included in this total were 825 university graduates, of whom 440 held the bachelor's degree, 160 the master's, and 225 the doctorate degree in science.

A few highlights from the 1951-52 reports of the several laboratory divisions give some idea of the variety of work undertaken and the wide scope of the National Research Council's interests.

Atomic Energy.-The Atomic Energy Project has been preoccupied with the detailed design of a new nuclear reactor to be constructed at Chalk River, Ont. This is a heavy water reactor like the existing NRX pile, but of greater power and improved design.

Operation of the NRX pile has been improved and its high flux of neutrons has been applied to many special investigations. A major advance has been applied to unravel complex sequences of radioactive disintegrations. An event which follows another even by less than a thousandth of a micro-second can be distinguished and timed by electronic circuits used with scintillation counters. This has been applied in studying the radioactive isotopes thulium-170, gold-199, iodine-131, and nep-tunium-239.

Hitherto undiscovered isotopes have been identified as a result of certain reactions in the NRX pile. These include calcium-41 with a half-life of 120,000 years and actinium- 229 with a half-life of 66 minutes.

In co-operation with the Department of Agriculture, insects have been tagged with sufficient radioactive cobalt to be detectable 13 feet away. Observers equipped with counters, which register radioactivity as clicks in earphones, have followed marked insects liberated in the bush to see how far and fast they travel. Radioactive phosphorus was injected into sawfly larvæ infected with parasites, and the radioactivity was still detectable in the second generation of parasites.

Mechanical Engineering.--Supersonic tunnels have been built in the Division of Mechanical Engineering. The first of these wind tunnels for work on high-speed aircraft has been placed in operation and is being tuned up. The tunnel has a working section $10^{\prime \prime} \times 10^{\prime \prime}$ in which speeds up to five times the speed of sound can be obtained. A second tunnel now being built has a larger working section, $16^{\prime \prime} \times 30^{\prime \prime}$, and will have a range up to three times the speed of sound.

A laboratory for work on gas turbines, compressors and combustion is nearing completion and the heavy equipment is under construction. Fuels for gas turbines, Canadian crudes as a source of gas turbine fuels, combustion, thrust augmentation, blading and application to locomotives are some of the studies being made. Present gircraft gas turbines are being tested at low temperatures and different methods
are being investigated for their protection against icing. Canadian fighters and transports are being tested in co-operation with the Royal Canadian Air Force and aircraft firms, very comprehensive instrumentation having been designed and built for this work.

The model-testing basin for work on ship models has been very active with investigations proceeding both for the Royal Canadian Navy and for the shipbuilding industry. Studies in the latter field have included the design and operation of lake bulk-freighters, an ice-breaking ferry, fishing boats, and shallow-draft tugs.

Building Research.-Construction has been started on a laboratory and office building at Ottawa for the Division of Building Research. The Division's research station at Saskatoon, Sask., began regular operation during 1951, and first results of tests on wood-frame walls with air spaces will be published early in 1952. Studies on building in the North were continued and plans are being made for a permafrost research station. A draft of the first section of the revised National Building Code is now being circulated throughout Canada.

Experimental work on concrete slab foundations for houses without basements was begun in 1951, at Ottawa. Two slabs have been constructed, each heated electrically and carrying a building comparable to conventional house construction.

Development of test sites to study the effects of weather on various building materials in selected locations has been continued, and it is expected that all sites will be equipped and in use by the end of 1952 . The appointment of a climatologist to the Division staff has further emphasized the importance of climate in relation to building research. Work on the correlation of the performance of standard test huts with climate has been expanded to include huts at Churchill, Man., and at Pennsylvania State College, U.S.A.

The Division co-operates with other government agencies on problems allied with building research. Special studies have been made for the Department of National Defence and many technical problems of the Central Mortgage and Housing Corporation have been investigated.

Radio and Electrical Engineering.-The Division of Radio and Electrical Engineering is very active in defence production work. In connection with radar and its application to artillery fire control, satisfactory progress has been made in redesigning experimental equipment, in engineered form, suitable for industrial production. Detection of aircraft by radar is also being highly developed. A recent redesign of a mobile medium-range radar used during World War II is now going into production on a large scale.

Work is proceeding on the design and positioning of "suppressed" antennæ to ensure their perfect performance on high-speed aircraft where the aerodynamic drag of external radio antennæ is so great that it is necessary to enclose them within the skin of the aircraft.

NRC's million-volt impulse generator is being used continuously for testing electric power-transmission equipment. The generator applies sudden high-voltage impulses, similar to lightning strokes, to power-line insulators, transformers and cables. The need for better insulating materials in the electrical industry in Canada requires, in turn, the development of accurate methods of testing materials already available. NRC is working on methods of testing transformer insulating oil and on the difficult problem of electrical breakdown characteristics of liquids.

Power supplied commercially to most types of electrical apparatus is subject to undesirable fluctuations. Regulators combining electrical and mechanical methods are used, but such stabilizers are not suitable for use with precision electronic instruments because they react too slowly. A new type has been developed which can correct supply fluctuations within one-tenth of a second, and maintain an output of several kilowatts constant within a fraction of one percent.

Applied Biology.-Work in applied biology includes investigations on food preservation, the synthesis, composition and utilization of plant and animal products, the effects of environment on animals, and statistical interpretation of biological data. A few examples follow.

Citric acid is now being produced on a laboratory scale by submerged mould fermentation of sugar-beet molasses. Seventy percent of the sugar is converted to acid in less than three days. This fermentation rate is about three times as high as that of other known methods. High-temperature treatment of certain vegetable oils has resulted in improved flavour stability but with some decrease in nutritive value. Taste tests of frozen whole milk and of frozen evaporated milks prepared by two different methods indicate that the whole milk keeps better. The keeping qualities of the evaporated milks are affected by the method of concentration.

When foods and certain other biological materials are quick-frozen for preservation, the question arises as to whether the ice formed becomes continuous throughout the frozen material. Work with an artificial system indicates that cell membranes or concentrated cell saps may act as barriers to continuous ice formation thus preventing loss of flavour on thawing.

The work of the Prairie Regional Laboratory at Saskatoon, Sask., is closely allied with the Applied Biology Division at Ottawa. New antibiotic and enzyme-producing fermentations are being studied there, and radioactive tracers are being used to obtain a better understanding of certain fermentation mechanisms. Many bacterial antibiotics have been checked for possible use in the control of plant diseases in western Canada.

Crop utilization studies include work on starches, proteins, oils from rapeseed, flax, sunflower and similar crops, and the straw residue. Methods have been developed for the production of undenatured gluten for use in improving the baking properties of lower grade wheat flours. Fibre wallboard produced in a pilot plant using straw as the pulp material has proven superior to standard commercial boards.

Chemistry.-Corrosion of metals is a long-term study in the Division of Chemistry. A survey is being made of the various types of corrosion inhibitors used in automotive cooling systems. Typical inhibitors proposed for use in new and reclaimed antifreeze solutions are being tested.

Investigations are proceeding on the quality of motor-vehicle paints and test methods are being developed for the assessment of insulating varnishes, finishes for electronic equipment, undercoatings for vehicles, and fire-retardant paints which are used on structures where the fire hazard is an important consideration.

In the field of aviation, the Division has won recognition for its rain-repellent preparation, FC-10, for use on aeroplane windscreens. Lately, the procedure for applying this preparation has been further simplified.

Mothproofing of fabrics is of great importance, not only to the householder, but also to the military services because of the necessity of storing and shipping clothing consisting of wool or part-wool fabrics. Shrink-resistant treatment for
wool textiles is another laboratory problem. Blending of wool with other fibres, notably nylon, gives a more serviceable product. Recommendations of the textile laboratory have been incorporated in purchase specifications for army socks.

In organic chemistry, the structures of two new alkaloids, thermopsine and rhombifoline have been elucidated, and a new type of alkaloidal structure has been synthesized. An infra-red microscope has been designed and made with which it is possible to identify one one-hundredth of a milligram of an organic compound by its infra-red absorption spectrum. The instrument is being used in the study of the metabolism of cortisone and other steroid hormones.

Physics.-In the Division of Physics, one of the problems worked on during 1951-52 was concerned with improving the efficiency of fog horns. By the use of modern acoustical theory, it was found possible to make certain changes, and one of these, the exponential horn, showed an improvement of efficiency by a factor of 20 compared with previous installations. Another horn of the catenoidal design was found to be 59 p.c. better than the one of exponential shape. To attain the full efficiency of the new horns, careful regulation of pitch is required.

Extensive studies of cosmic rays are being made from recordings of Geiger counters at an Arctic post and at Ottawa to obtain information on the relationship between cosmic-ray activity and meteorological and magnetic conditions, and to aid in unravelling the mysteries of the atomic nucleus. Another research group is using photographic emulsions to record collisions between cosmic rays and atomic nuclei. Evidence has been obtained which indicates that both charged and neutral mesons (subatomic particles) are emitted when a cosmic ray strikes the nucleus of an atom. Further work may shed light on elementary interactions between particles having billions of volts of energy. Cosmic rays offer the simplest method for this study.

Valuable information on the genesis of mica and the age of the earth is being obtained by X-ray diffraction studies of the nucleus of dark circles, called pleochoric haloes, which frequently appear in mica.

Successful experiments, designed to secure information needed for the construction of a new type of radiation unit for cancer treatment, have been concluded using two large radioactive cobalt sources.

Increased accuracy in temperature measurements, important to industry, has been obtained by the precise determination of certain fixed points on the International Temperature Scale. The Division can now establish, with the highest accuracy, temperatures over a range of more than $1,000^{\circ}$

Spectroscopic studies of light emitted by chemical compounds have been used to increase the available information on their molecular structure. Investigations have been completed in nitric oxide, aluminium chloride, nitrous oxide, methyl chloroform, methyl cyanide, and pyridine. An improved method of producing sulphur monoxide has been developed and the structure of this compound has been accurately established; it contains two sulphur atoms and two oxygen atoms instead of one of each as might have been assumed on other bases. Examination of the composition of distant planets this year yielded a new discovery when some features in the spectra of the planets Uranus and Neptune were reproduced in the laboratory and it was thereby shown that hydrogen is abundant in the atmospheres of these planets. Work in theoretical physics is laying a firm foundation for the correlation of results of scientific speculation with experimental data.

## Section 2.-Other Scientific and Industrial Research Facilities

Aside from the work of the National Research Council, which is the central national research organization, research is carried on by the Departments of Agriculture, Mines and Technical Surveys, Resources and Development, Fisheries, the Board of Grain Commissioners and the Dominion Observatories. These bodies have trained permanent scientific staffs for investigation and research in their own fields. The research and experimentation carried on by the Science Service of the Department of Agriculture is outlined in Chapter X, pp. 381-382. The work of the Experimental Farms System is described at pp. 349-352 of the 1948-49 edition of the Year Book. Specialized work in scientific forest research is described in Chapter XI, pp. 460-463. Investigational work carried on by the Department of Fisheries and the Fisheries Research Board are given in Chapter XIV, pp. 572-575.

The Board of Grain Commissioners employs a staff of seven chemists and 21 assistants in the main research laboratories for milling, baking, malting, etc., while the Dominion Observatories carry out research in the fields of solar physics, astrophysies, seismology, terrestrial magnetism, gravity and other studies.

A Defence Research Board was established in 1947 to correlate the Special Scientific requirements of the Armed Forces with the scientific research activities carried on by the National Research Council and industry generally. The research stations of the Board deal with only those problems that are peculiar to national defence, collaborating with existing research facilities in other fields. The organization of the Board is covered in Chap. XXVII.

Universities often show bold initiative in exploring the field of scientific research but with the limited facilities at their disposal the task of carrying their discoveries to a conclusion is not always easy. Government and industrial laboratories are often able to pick up and carry on where the universities leave off.

A number of research foundations have their own special fields of research. The Ontario Research Foundation at Toronto, Ont., established in 1928, is an independent non-profit-seeking scientific organization available to the public and to industry for assistance in matters of a technological character.

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.

The Rockefeller Foundation assists various agencies in Canada in the furtherance of scientific research in medical science, natural science, social science and public health.

# CHAPTER IX.-SURVEY OF PRODUGTION* 

## CONSPECTUS

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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 entirely excluded. This is in contrast to the scope of Gross National Production which encompasses all industries. Net production, or "value added", is generally considered the most significant measure of production and is consequently stressed in the following analysis. It is obtained by deducting from the total value of output for each industry, the cost of materials, fuel, purchased electricity and process supplies consumed in the production process. $\dagger$ This measurement comes closest to representing the concept involved in the contribution of each industry to gross national product at factor cost. 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 the compilation of the national accounts, the contribution of these services to gross national production at factor cost is classified to the non-commodity industries from which they originate.

The 1949 national totals include Newfoundland's production for forestry, mining, electric power, construction and manufactures. Statistics on agriculture, fishing, trapping and custom and repair for that Province are not yet available.

Current Trends.-In 1949, net value of commodity production in Canada broke all records as it rose to nearly $\$ 10,000,000,000$, a gain of about 7 p.c. over the total value recorded in $1948 \ddagger$ and 250 p.c. over the 1938 level. The total net value rose steadily from $\$ 2,859,000,000$ in 1938 to a wartime peak of $\$ 6,737,000,000$ in 1944. After a moderate recession occasioned by the problems of conversion to peacetime production, it resumed its rapid advance in 1947. Higher prices accounted for the greater part of the gain over 1948, although there was some increase in volume in the majority of industries. Estimates indicate that further

[^127]expansion in production was achieved in 1950 and 1951. Between 1949 and 1950, the volume index of industrial production rose more than 7 p.c. and preliminary calculations show that an additional rise of about 7 p.c. occurred in 1951. Wholesale prices in 1950 averaged about 6 p.c. higher thtan in 1949 and registered a further advance of nearly 14 p.c. in 1951. After a slight increase in 1950 , total nonagricultural employment rose approximately 7 p.c. in 1951. Although the value of agricultural production levelled off in 1950 as compared with 1949, near-record grain crops in 1951 resulted in a considerable advance in the value of farm output.

Substantially higher price levels, sustained demand for consumer goods both in Canada and abroad, the rapid development of the industrialization program and, more recently, the outbreak of hostilities in Korea and the subsequent expansion of defence industries have all contributed to record high levels of production in the post-war years.

## Section 1.-Industrial Distribution of Production

The figures in Table 1 show that the net value of Canadian commodity production in most industrial groups rose considerably during the post-war period. Value of net output in the mining, construction and manufacturing industries advanced rapidly from 1946 to peak levels in 1949 . The 90 p.c. gain in the value of mineral production in that comparison was the result of both higher prices and expanded physical output. High levels of building activity and the rapid advance in costs of construction combined to account for the marked advance of 161 p.c. in the total for the construction industry. The net value of manufacturing production in 1949 was over 50 p.c. higher than in 1946. In this case, the greater part of the increase was due to higher prices although volume of output rose nearly 15 p.c. The electricpower industry expanded steadily over the period, although the value rose at a more moderate pace since it was less influenced by the increase in prices. In the agriculture and forestry groups, net value receded slightly in 1949 from the record levels of 1948, but remained far above the 1946 totals. The value of the fisheries industry, after rising moderately in 1947 and 1948 recorded a drop in 1949, and returns from trapping showed a tendency to decline.

Table 1 classifies industry into primary and secondary production, although there is a certain amount of duplication since many stages of manufacturing are closely connected with primary activities. Fish-packing plants, for instance, are operated in close relationship with the fishing fleets, sawmills and pulp and paper mills with forest operations, and smelters and refineries with metal mining. The net values of production of such processing industries are given separately in Table 3, to show the degree of this duplication between primary industries and manufactures which is eliminated in Tables 1 and 2.

## 1.-Net Values of Production, by Industries, 1944-49

Nork.-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 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | \$ |
| Agricultur | 1,533, 807,000 | 1,269,362,000 | 1,468,027,000 | 1,507,519,000 | 2,045,693,000 | 2,027,304,000 |
| Forestr | 507,357,605 | 550,970,574 | 711,026,833 | 953,918,800 | 1,070,439,308 | 1,056,403,7891 |
| Fisherie | 76,889,487 | 103, 106, 209 | 107,908, 162 | 110,088,471 | 127,212,417r | 119,315,946 |
| Trapping | 23,988,773 | 21,505,447 | 31,077,867 | 16,842,966 | 20,178,077 | 15,296,615 |
| Mining. | 454,022,468 | 413,276,800 | 422,074,303 | 552,309,949 | 727,950,430 | 800,217,3361 |
| Electric power | 209,757,908 | 210,006,712 | 220,511,067 | 232,245,222 | 248,963,255r | 270,126,982 ${ }^{1}$ |
| Less duplication in forest production ${ }^{2}$. | 61,357,859 | 64,501,946 | 73,516,000 | 89,058,000 | 99,824,000 ${ }^{\text {a }}$ | 100,451,890 |
| Production... | 2, 744,465,408 | 2,503,725,796 | 2,887, 109, 232 | 3,283,866,408 | 4,140,612,4875 | 4,188,212,778 |
| Construction | 249,037, 017 | 267,957,837 | 408,695,662 | 601,539,452 | 829,644,000 | 1,066,649,000 ${ }^{1}$ |
| Custom and repair | 165,174,000 | 178,200,000 | 213,273,000 | 247,086,000 | 279,211,000 | 292,277,000 |
| Manufactures. | 4,015,776,010 | 3,564,315,899 | 3,467,004,980 | 4,292,055, 802 | 4,940,369,190 | 5,330,566,434 ${ }^{1}$ |
| Totals, Secondary Production. | 4,429,987,027 | 4,010,473,736 | 4,088,973,642 | 5,140,681,254 | 6,049,224,190 | 6,689,492,434 |
| Less duplication in manufactures ${ }^{3}$. | 487,045,069 | 428,243,781 | 518,517,965 | 737,458,025 | 838,363,278 | 880,698,4861 |
| Grand Totals | 6,737,407, | 6, | 6,457,564, | 7,687,094, | 9,351,473,3 | 9,997,066,776 |

${ }^{1}$ Includes Newfoundland. ${ }^{2}$ Eliminates duplication between the agriculture and forestry totals. ${ }^{2}$ Eliminates duplication under "Manufactures"; this item includes sawmills, pulp and paper mills, etc., which are also included under other headings above.


## 2.-Percentage Analyses of the Net Value of Production, by Industries, 1944-49

| Industry | Percentages of Net Value in 1938 |  |  |  |  | Percentages of Total Net Production |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1944 | 1946 | 1947 | 1948 | 1949 | 1944 | 1946 | 1947 | 1948 | 1949 |
| Agriculture | $249 \cdot 2$ | $238 \cdot 5$ | 244.9 | $332 \cdot 3$ | $329 \cdot 3$ | 22.8 | 22.7 | $19 \cdot 6$ | 21.9 | $20 \cdot 3$ |
| Forestry... | 207.5 | $290 \cdot 7$ | $390 \cdot 0$ | 437.7 | 432.0 | $7 \cdot 5$ | 11.0 | $12 \cdot 5$ | 11.4 | $10 \cdot 6$ |
| Fisheries. | 216.0 | $303 \cdot 2$ | 309-3 | 357.4 | $335 \cdot 2$ | $1 \cdot 1$ | 1.7 | 1.4 | 1.4 | 1.2 |
| Trapping | $365 \cdot 0$ | $472 \cdot 8$ | 256.3 | $307 \cdot 0$ | $232 \cdot 7$ | $0 \cdot 4$ | $0 \cdot 5$ | $0 \cdot 2$ | $0 \cdot 2$ | $0 \cdot 1$ |
| Mining. | 121.3 | 112.7 | 147.5 | 194-4 | 213.7 | $6 \cdot 7$ | $6 \cdot 5$ | $7 \cdot 2$ | 7.8 | $8 \cdot 0$ |
| Electric power | $147 \cdot 4$ | $154 \cdot 9$ | 163.2 | $174 \cdot 9$ | 189.8 | 3.0 | $3 \cdot 4$ | 3.0 | 2.7 | $2 \cdot 7$ |
| Less duplication in forest production. | 176.3 | 211.9 | 255.9 | 286.9 | 288.7 | 0.9 | $1 \cdot 1$ | $1 \cdot 2$ | $1 \cdot 1$ | $1 \cdot 0$ |
| Totals, Primary Production | 198.3 | $208 \cdot 6$ | $230 \cdot 5$ | 299.1 | $302 \cdot 6$ | $40 \cdot 7$ | $44 \cdot 7$ | $42 \cdot 7$ | $44 \cdot 3$ | 41.9 |
| Construction. | 141.0 | 231-3 | $340 \cdot 5$ | $469 \cdot 6$ | 603.8 | $3 \cdot 7$ | $6 \cdot 3$ | $7 \cdot 8$ | $8 \cdot 9$ | $10 \cdot 7$ |
| Custom and repair | 151.6 | 195.8. | 226.8 | $256 \cdot 3$ | $268 \cdot 3$ | $2 \cdot 5$ | $3 \cdot 3$ | $3 \cdot 2$ | 3.0 | 2.9 |
| Manufactures.... | 281.2 | 242-7 | $300 \cdot 5$ | $345 \cdot 9$ | $373 \cdot 2$ | 59.6 | 53.7 | 55.9 | 52.8 | $53 \cdot 3$ |
| Totals, Secondary Production. | $258 \cdot 5$ | $238 \cdot 6$ | 299.9 | $353 \cdot 0$ | $390 \cdot 3$ | $65 \cdot 8$ | $63 \cdot 3$ | 66.9 | $64 \cdot 7$ | 66.9 |
| Less duplication in manufactures. | 182.5 | $216 \cdot 5$ | 307.8 | $350 \cdot 1$ | S67.7 | $6 \cdot 5$ | $8 \cdot 0$ | $9 \cdot 6$ | 9.0 | 8.8 |
| Grand Totals. | 235.7 | 225.9 | 265.2 | 327.1 | 349.7 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |

3.-Net Value of Production in the Processing Industries, 1944-49

| Industry | 1944 | 1945 | 1946 | 1947 | 1948 | 1919 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | $\delta$ | \$ | \$ |
| Fish curing and packing. | 22,066,801 | 30,529,102 | 31,084,775 | 41,081,688 | 39,468,334 | 41,140,022 ${ }^{\text {2 }}$ |
| Sawmilling. | 96,528,955 | 103,153,766 | 129,408,392 | 190,514,978 | 196, 936, 196 | 186, 120,981 |
| Pulp and paper........ | 174,492, 103 | 180,401,885 | 258,164,578 | 356,084,900 | 412,770,470 | 423,375,527 |
| Non-ferrous metal smelting........ | 123,303, 038 | 89, 898, 878 | 69, 565,922 | 115,798,652 | 146, 830, 891 | 181,907,847 |
| Cement... | 6,882,354 | 9,416,426 | 12,930,058 | 13,449,437 | 17,704,519 | 21,077,322 |
| Clay products........ | 5,478,923 | 6,938,409 | 9,563,690 | 11,266,933 | 13,602,445 | 14,076,742 |
| Lime. | 5,005, 235 | 4,663,859 | 4,910,127 | $5,763,244$ | 7,284,638 | $8,223,272$ $4,716,723$ |
| Salt. | 3,287,660 | 3,241,456 | 2,890,423 | 3,493,193 | 3,765,785 | 4,716,723 |
| Totas. | 437,045,069 | 428,243,781 | 518,517,965 | 737,453,025 | 838,363,278 | 880,638,436 |

${ }^{1}$ Excludes Newfoundland.

In 1949, manufacturing continued to be by far the leading group in producing new wealth. Although its position was less predominant than in the wartime economy of 1944, manufacturing still accounted for more than one-half of the total net value of commodity production in 1949. Agriculture remained the second most productive group, contributing about 20 p.c. of total net value. The relative importance of the forestry and the construction industries increased significantly since 1938; in 1949, each of these groups accounted for over 10 p.c. of the total. On the other hand, the mining and electric power industries showed declines, contributing 8 p.c. and 3 p.c., respectively, to the Canadian aggregate in 1949 compared with 13 p.c. and 5 p.c. in 1938.

## Section 2.-Provincial Distribution of Production

In the 1946-49 period, each of the provinces (Newfoundland excluded) recorded a substantial increase in net value of output. Ontario, Alberta and Saskatchewan showed the greatest advances, amounting in each case to about 60 p.c. The smallest gain was recorded by Prince Edward Island.

In 1948 each province reached a peak level of production. During 1949, Ontario, Quebec, Nova Scotia and Alberta, made further substantial increases, New Brunswick, Prince Edward Island and Saskatchewan rose more moderately, and Manitoba and British Columbia recorded small recessions. As a result of the higher increases in Ontario, Quebec and Nova Scotia in 1949, these provinces gained in relative importance, their advances being proportionately greater than for Canada as a whole. Manitoba and British Columbia, having shown absolute declines, lost considerable ground, while the other provinces whose gains were lower than the total gain also dropped somewhat in relative importance.
4.-Net Value of Production, by Provinces, 1944-49

| Province or Territory | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | \$ |
| Newfoundland........ |  |  |  |  |  | 74,882,2791 |
| Prince Edward Island. | 18,844,736 | 20,658,906 | 22, 144,302 | 19,493, 244 | 27,744,734 | 28,384, 606 |
| Nova Scotia. | 193,557,552 | 186,931, 838 | 197, 329,638 | 198,468,760 | 251, 872,883 | 271, 185, 430 |
| New Brunswi | 135,117,593 | 139,435,407 | 162,700,528 | 183,102,027 | 213,325,278 | 218, 423, 088 |
| Quebec. | 1,899,824,337 | 1,716,038,573 | 1,775, 525,027 | 2,050, 946, 288 | 2,430,339,997 | 2,615,449,241 |
| Ontario | 2,682,969,260 | 2,510, 200, 208 | 2,557, 193, 223 | 3, 148, 517, 907 | $3,758,300,952$ | 4,114,751,839 |
| Manitoba. | 313,077,535 | 280,458,384 | -329,300, 254 | 366,588, 138 | 486, 141,707 | 477, 290,300 |
| Saskatchewan | 528,817, 265 | 339,755,726 | 388, 858,319 | 458,040,217 | 611,642,712 | 618,211,097 |
| Alberta...... | 416,117,352 | 340,703,182 | 434,902,340 | 493,641, 826 | $669,662,346$ | 694,863,825 |
| British Columbia.... | 543,947, 198 | 547,116,908 | 583, 012,640 | 761,385,115 | 891,709,706 | $869,200,883$ |
| Yukon and N.W.T.... | $5,134,538$ | 4,656,619 | 6,598,538 | 6,911,115 | 10,733,084 | 14,424, 188 |
| Canada. | 6,737,407,366 | 6,085,955,751 | 6,457,564,909 | 7,687,091,637 | 9,351,473,399 | 9,997,066,776 |

${ }^{1}$ Includes only forestry, mining, electric power, construction and manufactures.
5.-Percentages of Total Net Production, by Provinces, 1944-49

| Province or Territory | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland. |  |  |  |  |  | 0.75 |
| Prince Edward Island. | 0.28 | 0.34 | 0.34 | 0. 25 | \%.30 | 0.28 |
| Nova Scotia. | $2 \cdot 87$ | $3 \cdot 07$ | $3 \cdot 06$ | $2 \cdot 58$ | $2 \cdot 69$ | $2 \cdot 71$ |
| New Brunswick | $2 \cdot 01$ | $2 \cdot 29$ | $2 \cdot 52$ | $2 \cdot 38$ | 2.28 | $2 \cdot 19$ |
| Quebec. | 28.20 | 28.20 | 27.50 | 26.68 | 25.99 | 26.16 |
| Ontario.. | 39.81 | 41.24 | $39 \cdot 60$ | 40.96 | $40 \cdot 19$ | 41.16 |
| Manitoba..... | $4 \cdot 65$ | 4.61 | $5 \cdot 10$ | 4.77 | $5 \cdot 20$ | 4.78 |
| Saskatchewan | $7 \cdot 85$ | $5 \cdot 58$ | 6.02 | $5 \cdot 96$ | 6.54 | $6 \cdot 18$ |
| Alberta. | $6 \cdot 18$ | $5 \cdot 60$ | 6.73 | $6 \cdot 42$ | $7 \cdot 16$ | 6.95 |
| British Columbia | $8 \cdot 07$ | 8.99 | 9.03 | 9.91 | 9.54 | $8 \cdot 70$ |
| Yukon and Northwest Territori | 0.08 | 0.08 | $0 \cdot 10$ | $0 \cdot 09$ | $0 \cdot 11$ | $0 \cdot 14$ |
| Canada | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | $\mathbf{1 0 0 . 0 0}$ |

Per Capita Production.-Per capita net value of production in Canada (exclusive of Newfoundland) in 1949 reached $\$ 757$, which surpassed by almost 4 p.c. the previous record of $\$ 729$ established in 1948. From 1938 to 1949 the population
of Canada increased by about $17 \cdot 5$ p.c. which may be compared with a rise of 247 p.c. in the net value of production. Per capita output increased from $\$ 256$ to $\$ 757$ in that period, or by about 196 p.c.

Per capita production in the three Maritime Provinces was well below the national average throughout the period. New Brunswick and Prince Edward Island, however, recorded slightly higher percentage advances than Canada as a whole, but per capita production in Nova Scotia failed to increase as rapidly. Among the provinces, Nova Scotia, New Brunswick and Prince Edward Island occupied seventh, eighth and ninth positions, respectively, in 1949.

Per capita net output in Quebec was $\$ 674$ in 1949, a figure somewhat below the Canada average. During the $1938-49$ period, however, it rose 197 p.c. compared with the 196 p.c. rise for all Canada. The Province ranked fifth in value of output per capita in 1949, dropping from fourth position in 1938. Per capita production in Ontario rose to $\$ 940$ in 1949, continuing well in advance of any other province. The increase since 1938 was nearly 175 p.c., somewhat less than the national average.

Per capita output in Manitoba, amounting to $\$ 631$ in 1949, increased well over 200 p.c. since 1938, but remained rather moderate as compared with the Canada average. The Province, ranking fifth in 1938, was sixth in 1949. The fact that 1938 was a depression year for the agricultural economy of Saskatchewan accounts partly for the large percentage gain of 467 p.c. by 1949 in the per capita production of that Province. In the latter year, Saskatchewan ranked fourth in Canada with an output per capita amounting to $\$ 743$. The population of the Province actually decreased nearly 9 p.c. during that period. Alberta's per capita output in 1949 was recorded at $\$ 785$, the second highest in the country. Production in that Province rose rapidly over the period 1938-49 though the population gained only 13 p.c.

Per capita output in British Columbia in 1949, at $\$ 781$, was third highest in Canada. The great advance since 1938 was accompanied by a population increase of nearly 44 p.c.
6.-Per Capita ${ }^{1}$ Net Value of Production, by Provinces, 1944-49

| Province or Territory | 1944 | 1945 | 1946 | 1947 | 1948 ${ }^{\text {\% }}$ | 1949 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | $\checkmark$ | \$ | 8 | \$ | \$ |
| Newfoundland. ${ }^{\text {Pring }}$ | \% 7 | 225 | 236 | 207 | 298 | ${ }_{302}^{217}$ |
| Prince Edward Island. | 207 317 | 225 302 | 236 325 | 323 | 403 | 431 |
| Nova Scotia... | 293 | 299 | 340 | 375 | 428 | 430 |
| Quebec.. | 543 | 482 | 489 | 553 | 642 | 674 |
| Ontario. | 677 | 628 | 625 | 754 | 879 | 940 |
| Manitoba. | 431 | 386 | 453 | 496 | 652 | 631 |
| Saskatchewan | 633 | 408 | 467 | 548 | 730 | 743 |
| Alberta. | 515 | 422 | 542 | 598 | 784 | 785 |
| British Columbia | 584 | 577 | 581 | 729 | 824 | 781 |
| Yukon and Northwest Territori | 302 | 274 | 275 | 288 | 447 | 601 |
| Canada. | 564 | 504 | 525 | 612 | 729 | 7573 |

[^128]
## Section 3.-Distribution of Industrial Production in Each Province*

Maritime Provinces.-In Prince Edward Island, the net value of agricultural production, the main source of income, contributed about 59 p.c. of the total value in 1949 and showed little change from the previous year. The relative importance of the industry was slightly less than it was in 1938 when it accounted for 61 p.c. of the net output of the Province. A decline from the previous year in the value of fisheries was offset by increased construction activity. In Nova Scotia, more than one-half the rise from 1948 in the value of net output was accounted for by an increase in construction. Declines were recorded in forestry and fisheries while other industries advanced moderately. Compared with 1938, the relative importance of construction and manufactures gained markedly at the expense of agriculture, mining and electric power. In New Brunswick, a drop in the output of the important forestry industry in 1949, compared with the previous year, was offset by a gain in construction. As in Nova Scotia, the secondary industries contributed more to the Province's total net value in 1949 than in the pre-war year of 1938.

Quebec.-The manufactures group, which contributed 63 p.c. of provincial net production in 1949, recorded a gain of nearly 8 p.c. over the previous year and the value of construction advanced more than 34 p.c. The decline in forestry output was offset by an increase in mineral production, while agriculture showed little change. Here also, the primary industries-agriculture, mining and electric power-lost ground to construction and manufactures in the 1938-49 comparison. By contrast, the contribution of the forestry industry was greater than in 1938.

Ontario.-All the principal industries except forestry showed a higher value of output in 1949 than in 1948. The value of manufactures and construction rose 9 p.c. and 27 p.c., respectively, and mining advanced nearly 16 p.c. The relative importance of agriculture and mining in 1949 amounted to 13 p.c. and 6.4 p.c., respectively, compared with 15 p.c. and $14 \cdot 5$ p.c. in 1938 . By contrast the contribution of construction and manufactures rose from 6 p.c. and 60 p.c., respectively, to 11 p.c. and 66 p.c. in the same comparison. Forestry also improved its position while the value of electric power lost in relative importance.

Prairie Provinces.-Agriculture continued to dominate the economy of the Prairie Provinces in 1949. In Manitoba, the decline of about 12 p.c. in 1949 from the preceding year in the value of agricultural output was mainly responsible for the drop in the total net output of the Province. In the 1938-49 comparison, the changes in the relative importance of mining and construction were the most marked features. In the pre-war year, the contribution of mining was 10.6 p.c. and that of construction 4.4 p.c. The positions were reversed in 1949, mineral production dropping to 4.1 p.c. and construction advancing to 10.8 p.c.

In Saskatchewan, the drop in the value of mining in 1949 from 1948 was more than offset by advances in agriculture and construction. The relative position of agriculture in Saskatchewan increased from 67 p.c. in 1938 to 77 p.c. in 1949. In contrast to the other provinces, the contribution of the secondary industries declined considerably during that period.

[^129]In Alberta, the value of mineral production jumped sharply in 1949 over 1948 and, together with a considerable gain in construction, resulted in a bigher net output despite a drop in the value of agriculture. The relative importance of mining, construction and manufacturing in the 1938-49 period gained at the expense of agriculture, the contribution of the latter having dropped from 63 p.c. to 52 p.c.

British Columbia.-Net value of production fell off slightly in 1949 from the peak established in 1948. Declines were recorded in forestry, fisheries, trapping, mining and manufacturing; the recession in mining amounted to 16 p.c. The net value of construction, however, rose nearly 19 p.c. The relative importance of all primary industries, except forestry, declined in 1949 from their 1938 positions, the drop in mining being especially notable. By contrast, the contribution of construction and manufactures, following the trend in most other provinces, rose considerably. The relative importance of construction advanced from 5 p.c. in 1938 to 13 p.c. in 1949 while that of manufactures jumped from 38 p.c. to 47 p.c. in the same comparison.

## 7.-Net Values of Production in Each Province, classified by Industries, 1948 and 1949

Note.-Figures available for Newfoundland for 1949 are as follows: forestry, $\$ 38,709,853$; mining, $\$ 17,471,590$; electric power, $\$ 1,910,629$; construction, $\$ 8,196,000$; and manufactures, $\$ 32,918,776$.

| Year and Industry | Prince <br> Edward <br> Island | Nova Scotia | New <br> Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $1948^{\text {x }}$ | 8 | \$ | \$ | \$ | \$ |
| Agriculture. | 16,579,000 | 30,932,000 | 40,304,000 | 291,469,000 | 510,537,000 |
| Forestry... | 1,206,939 | 29,710,433 | 76,310,968 | 389,048,344 | 265,005,103 |
| Fisheries. | 3,390, 329 | $33,124,491$ 254,422 | 16,482,706 | $5,306,619$ $1,865,826$ | 5,357,209 |
| Mining. | 7,595 | 44,069,431 | 5,959,256 | 165,762, 032 | 228,112,583 |
| Electric powe | 538,727 | 7,835,081 | 5,156,263 | 96,130,639 | 82,896,142 |
| Construction. | 2,603,000 | 34,240,000 | 26,176,000 | 194,186,000 | 345,080,000 |
| Custom and repair | 1,227,000 | 10,207,000 | 6,170,000 | 85,211,000 | 106,275,000 |
| Manufactures.. | 4,217,680 | 95,774,483 | 91,404,150 | 1,534, 214,660 | 2,486,867,987 |
| Less duplication ${ }^{1}$ | 2,025,586 | 34,274,458 | 54,742,998 | 332,854,123 | 278,209,707 |
| Totals, 1948. | 27,744,734 | 251,872,883 | 213,325,278 | 2,430,339,997 | 3,758,300,952 |
| 1949 |  |  |  |  |  |
| Agriculture. | 16,654,000 | 32,997,000 | 41,667,000 | 290, 287,000 | 532,738,000 |
| Forestry... | 1,208,796 | 26,972,713 | 69,763,460 | 371, 303,864 | 261, 098,124 |
| Fisheries. | 2,473,747 | 32,073,225 | 14,878,858 | 4,548,377 | 5,728,289 |
| Trapping. | 7,104 | 4727,495 | 256,202 | $1,664,404$ $183,199,468$ | $\begin{array}{r}3,963,776 \\ \hline 26365\end{array}$ |
| Mining... |  | 47,125,183 | 6,073,542 | 183, 199,468 | 263,605,255 |
| Electric power | 655,260 $3,766.000$ | $8,381,204$ $45,257,000$ | 6,255,370 | 104,106,864 | 86, $439,776,000$ |
| Construction... | $3,766.000$ $1,284,000$ | $45,285,000$ | 63,259,000 | -89,199,000 | 111,248,000 |
| Manufactures... | 4,338,320 | 102,294,298 | 91,187,375 | 1,651,629,668 | 2,708,554,013 |
| Less duplication ${ }^{1}$. | 2,002,621 | 35,027,688 | 61,598,719 | 341, 314,404 | 298,215,400 |
| Totals, 1949 | 28,384,606 | 271,185,430 | 218,423,088 | 2,615,449,241 | 4,114,751,839 |

For footnote, see end of table.

## 7.-Net Values of Production in Each Province, classified by Industries, 1948 and 1949-concluded

| Year and Industry | Manitoba | Saskatchewan | Alberta | British Columbia | Yukon and N.W.T. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 ${ }^{\text {r }}$ | \$ | \$ | \$ | \$ | \$ |
| Agriculture. | 227,490,000 | 465,422,000 | 389,090,000 | 73,870,000 | ${ }^{2}$ |
| Forestry | 13,550,145 | 7,077,168 | 16,686,501 | 271,737,240 | 106,467 |
| Fisheries. | 5,414,583 | 1,282,437 | 636,352 | 53,653,431 | 1,527,834 |
| Trapping. | 3,931,845 | 2,344,846 | 2,702,049 | 1,506,933 | 2,102,419 |
| Mining. | 21,861, 157 | 44,998, 172 | 80,931,360 | 129,984,244 | 6,272,195 |
| Electric power | 13,250,448 | 8,203,874 | 10,946,786 | 23,554, 184 | 451,111 |
| Construction. | 40,883,000 | 29,744,000 | 60,370,000 | 96,382,000 |  |
| Custom and repair | 16,863,000 | 12,993,000 | 15, 175,000 | 25,090,000 | 779,525 |
| Manufactures.. | 157,646,732 | 45,053,786 | 107,134,881 | 417,675,306 | 379,525 |
| Less duplication ${ }^{1}$. | 14,749,203 | 5,476,571 | 14,010,683 | 201,745,632 | 106,467 |
| Totals, 1948 | 486,141,707 | 611,642,712 | 669,662,346 | 891,709,706 | 10,733,084 |
| 1949 |  |  |  |  |  |
| Agriculture | 199,738,000 | 476,913,000 | 361, 918,000 | 74.392,000 | 2 |
| Forestry. | 14,542,821 | 7,339,337 | 15,570,537 | 249,738,745 | 155,539 |
| Fisheries | 4,800,387 | 1,025,896 | 652,545 | 50,800,613 | 2,334,009 |
| Trapping | 2,545,046 | 1,991,848 | 1,926,783 | 834,686 | 1,679,271 |
| Mining. | 19,670,622 | 33, 809,447 | 111,162,841 | 108,944, 255 | 9,155,133 |
| Electric powe | 14,910,607 | 8,850,909 | 11,960,694 | 26,188,784 | 650,879 |
| Construction. | 51,509,000 | 34,510,000 | 75,169,000 | 114,360,000 |  |
| Custom and repair | 17,652,000 | 13,601,000 | 15,885,000 | 26,264,000 | 2 |
| Manufactures.... | 167,335,495 | 47,356,949 | 114,681,296 | 409,665,348 | 604,896 |
| Less duplication ${ }^{1}$. | 15,415,678 | 7,187,289 | 14,062,871 | 191,987,548 | 155,559 |
| Totals, 1949 | 477,290,300 | 618,211,097 | 694,863,825 | 869,200,883 | 14,424,188 |

[^130]
## CHAPTER X.-AGRIGULTURE

## 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 $20 \cdot 0$ 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 present and potential agricultural land is shown by provinces at p. 19 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 says, 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 exists at the present time 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 Natural Resources. The Federal Department was established in 1868.

At present there are four main fields of activity: (1) general policy, including security and price stability; (2) research and experimentation; (3) maintenance of standards and protection of products; and (4) reclamation and development. The first three fields are dealt with in the following subsections, while reclamation and development is covered in Section 3, pp. 393-405.

[^131]Policies and projects conducted under these headings are co-ordinated within the Department and with similar work done by other departments and institutions, both federal and provincial. The results of work in these various fields and information on the policies of the Department in general are given to farmers and to the public through bulletins, the press, radio and the screen.

Generally, Canadian farmers entered 1952 in a strong financial position and at no time has farm investment been on a sounder foundation. Many long-term commitments have been liquidated, or have been considerably reduced, and a large quantity of farm machinery and equipment has been acquired, mostly for cash or on large down-payments. Farmers have never been so well represented as they are to-day through national and provincial organizations and co-operatives, nor have they been so well protected by measures for security in marketing as they are by legislation passed by Parliament during the past decade.

## Subsection 1.-General Policy and Price Support

The most important of the special Acts passed in recent years to assist the farmer are described below.

Agricultural Prices Support Act, 1944.-Under this Act, the Federal Government, acting through a Board, may stabilize the price of any agricultural product (except wheat, which is handled separately) by outright purchase or by underwriting the market through guarantees or deficiency payments. The net cost of operations under the Act, from its inception to the end of 1951, has been approximately $\$ 10,000,000$, although at times the Board has had title to products valued at more than $\$ 35,000,000$.

Agricultural Products Board Act, 1951.-This Act authorizes the establishment of a Board to buy, sell, export and import agricultural products when directed by the Governor in Council. When so designated by the Agricultural Prices Support Board, the Board may act as agent for the purchase and disposal of agricultural products under provisions of the Agricultural Prices Support Act.

Agricultural Products Co-operative Marketing Act, 1939.-This Act aids farmers in pooling returns from the sale of their products by guaranteeing initial payments and thus assisting in orderly marketing. The legislation has been used extensively by co-operatives, and agreements throughout the years have covered onions, potatoes, corn, many seed crops, and ranch-bred fox and mink pelts.

Agricultural Products Marketing Act, 1949.-A number of provincial governments have passed legislation providing for the establishment of a board to regulate or control the marketing of agricultural products produced and marketed within the province concerned. The Agricultural Products Marketing Act permits such provincial marketing legislation to be applied in the same way to the marketing of agricultural products outside that province and in export trade.

Prairie Farm Assistance Act, 1939.-The Federal Government under this legislation makes cash payments each year to farmers in areas within the Prairie Provinces that have had low crop yields because of drought or other causes. The award to a farmer is based upon the acreage of the farm and the average yield of wheat in the township in which the farm is located. The maximum amount payable on any one farm is $\$ 500$. Contributory payments are made by the farmers in the form of a levy of 1 p.c. on the value of all grains marketed. Additional amounts required are provided from the Consolidated Revenue Fund.

Potato Warehouses.-A policy was inaugurated in 1947 whereby the Federal Government provides cash assistance in respect to potato warehouses constructed by co-operative associations. The assistance is conditional upon the association providing an agreed amount, the Federal Government and the provincial government concerned sharing the remainder. All warehouses must have the approval of a federal-provincial committee set up for the purpose in each province in which warehouses are to be built under this policy.

The Cheese and Cheese Factory Improvement Act, 1939.-The purpose of this Act is to encourage the improvement of cheese factories and the quality of cheese production. A quality premium of one cent per pound is paid on cheddar cheese scoring 93 points and two cents per pound on cheese scoring 94 points or over. Under this Act the Federal Government may grant up to 50 p.c. of the amount expended for new material, new equipment and labour utilized in the construction, reconstruction and equipping of cheese factories eligible for a subsidy. This subsidy applies in the case of amalgamation of two or more existing cheese factories provided that the replaced cheese factories cease to operate as such prior to the payment of the grant. The Act also provides for paying 50 p.c. of the cost expended in efficiently insulating and enlarging cheese-curing rooms, either with or without mechanical refrigeration. Also, in order to standardize the size of cheese manufactured in the various factories, the Act provides for paying 50 p.c. of the cost of replacing cheese hoops where factories are using hoops of a diameter other than 15 inches. The cost of adjusting or replacing other equipment occasioned by the changeover is also included in the subsidy.

Cold Storage Act.-This Act provides financial assistance in the construction of public cold-storage warehouses in localities where it is considered that such warehouses are in the interests of the public.

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 (see p. 381).

The Canadian Farm Loan Act, 1929.*-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 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.

From the commencement of operations in 1929 to Mar. 31, 1951, the Board has lent $\$ 74,960,000$. During the first ten years the annual average was $\$ 3,860,000$, but borrowing declined during the war years, reaching a low of $\$ 1,215,450$ in 1943 . Since then it has increased to a high of $\$ 5,189,400$ for the year ended Mar. 31, 1950, but the amount approved in the year ended Mar. 31, 1951, was $\$ 4,722,000$. The trend in recent years has been toward decreased borrowing to pay debts and increased borrowing to purchase land and equipment.

[^132]
## 1.-Loans Approved and Disbursed under the Canadian Farm Loan Act, Years Ended Mar. 31, 1942-51

Note.-Figures for 1930 are given at p. 186 of the 1940 Year Book and those for 1931-41 at p. 189 of the 1942 edition.

| $\begin{gathered} \text { Year } \\ \text { ended } \\ \text { Mar. 31- } \end{gathered}$ | Applications Received |  | Loans Approved |  |  |  |  | Loans Paid Out |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Amount | First Mortgage |  | Second <br> Mortgage |  | Total Amount | First Mortgage | Second Mortgage | Total |
|  |  |  | No. | Amount | No. | Amount |  |  |  |  |
|  |  | \$ |  | \$ |  | \$ | \$ | \$ | 5 | \$ |
| 1942. | 1,812 | 3,820, 156 | 1,024 | 1,891,100 | 155 | 75,650 | 1,966,750 | 2,053,712 | 79,802 | 2,133,514 |
| 1943.. | 1,055 | 2,277,830 | 601 | $1,156,150$ | 135 | 59,300 | $1,215,450$ | $1,260,033$ | 60,223 | 1,320,256 |
| 1944. | 1,037 | 2,419,001 | 603 | 1,315,950 | 162 | 90,850 | 1,406,800 | 1,251,949 | 84,154 | 1,336,103 |
| 1945. | 1,306 | 3,293, 559 | 728 | 1,623,000 | 176 | 100,700 | 1,723,700 | 1,561,174 | 104,235 | 1,661,409 |
| 1946. | 1,846 | 4,758,916 | 918 | 2,161,050 | 258 | 163,050 | 2,324, 100 | 1,977,902 | 143,305 | 2, 121,207 |
| 1948. | 2,015 | 5,579,142 | 1,312 | $3,165,250$ $3,145,150$ |  | 253,900 315,400 | $3,419,150$ $3,460,550$ | $3,030,915$ $2,911,167$ | 242,896 | $3,273,811$ $3,185,240$ |
| 1949. | 3,357 | 9,698, 276 | 1,821 | $4,450,100$ | 756 | 469,200 | 4,919,300 | 4,169,070 | 425,966 | 4,595,036 |
| 1950 | 4,639 | 13,293,132 | 1,949 | $4,715,500$ | 801 | 473,900 | $5,189,400$ | 4,480,779 | 462,150 | 4,942,929 |
| 1951. | 3,971 | 11,485,673 | 1,796 | 4,312,450 | 680 | 409,550 | 4,722,000 | 4,288,866 | 404,213 | 4,693,079 |

## 2.-Loans Approved under the Canadian Farm Loan Act and Appraised Values of Security, by Provinces, Year Ended Mar. 31, 1951

Nore.-Figures for previous years will be found in the corresponding tables of former editions of the Year Book.

| Province | Loans Approved |  |  |  |  | Appraised <br> Values of Security at Time of Loan |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | First Mortgage |  | Second Mortgage |  | Total Amount | Land | Buildings | Total |
|  | No. | Amount | No. | Amount |  |  |  |  |
|  |  | \$ |  | \$ | \$ | \$ | 5 | \$ |
| Newioundland. | - | - | - | - |  |  |  |  |
| Prince Edward Island. | 86 | 175,650 | 20 | 11,500 | 187, 150 | 2305, 365 | 1774,954 | 430,319 |
| Nova Scotia ......... | 47 | 107,350 | 3 | 1,150 | 108,500 | 166,517 | 107,695 | 274,212 |
| New Brunswick....... | 132 | 256,150 | 17 | 9,850 | 266,000 | 386,248 | 272, 838 | 659,086 |
| Quebec..... | 308 | 801,550 | 14. | 80,850 | 882,400 | 1,122,535 | 805,439 | 1,927,974 |
| Ontario............... | 297 146 | 843,500 374 | 79 | 49,150 | 892,650 | $1,166,374$ | 814,439 | $1,980,813$ |
| Manitoba.............. | 146 | 374,150 985,850 | 70 | 41,900 | 1,1416,050 | 779,311 | 319,115 | 1,098,426 |
| Alberta............... | 244 | 478,700 | 66 | 158,150 39,550 | $1,144,000$ 518,250 | $2,158,020$ $1,053,328$ | 628,770 318,778 | 2,786,790 $1,372,106$ |
| British Columbia. | 124 | 289,550 | 21 | 17,450 | 307,000 | 470,938 | 287,518 | 758,456 |
| Totals | 1,796 | 4,312,450 | 680 | 409,550 | 4,722,000 | 7,558,636 | 3,729,546 | 11,288,182 |

The main forms of financial assistance provided at the present time by the Federal Government to farmers for housing purposes include: the Canadian Farm Loan Act outlined above, the National Housing Act and the Farm Improvement Loans Act dealt with under Construction, and the Veterans' Land Act, under Veterans Affairs (see Index).

The Farm Improvement Loans Act, 1944.*-The Farm Improvement Loans Act is designed to provide intermediate-term credit and a type of short-term credit to 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 his home for which a loan may not be made. Assistance may also be obtained

[^133]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. The Act is intended to assist the farmer who previously has not been able to obtain adequate credit for such purposes. Moreover, 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. This legislation, originally operating for three years, was extended in February 1948 for a further three-year period. During these six years the Government guaranteed each bank against loss in an amount equal to 10 p.c. of the total of all loans made by the bank. The amount of the guarantee was limited to $\$ 250,000,000$. In February 1951, the Act was again extended for three years and the guarantee was set at $\$ 200,000,000$. Up to Dec. 31, 1951, 54 claims amounting to $\$ 26,230$ were paid under the guarantee.

Loans may be obtained for periods of up to seven years with maximum interest at 5 p.c. The maximum amount that may be on loan to a borrower at any one time is $\$ 3,000$. Also, the borrower must himself provide 20 p.c. to 33 p.c. of the cost of his project. The Act is administered by the Department of Finance.

Loans made from the inception of the Act to Dec. 31, 1951, were:-

|  | Year | Loans | Amount |
| :---: | :---: | :---: | :---: |
|  |  | No. | \$ |
| 1945 (10 months). |  | 4,311 | 3,381,742 |
| 1946. |  | 13,030 | 9,880,566 |
| 1947. |  | 22,046 | 18,160,821 |
| 1948. |  | 30,431 | 29,331,131 |
| 1949. |  | 44,775 | 45,879,080 |
| 1950. |  | 58,969 | $63,421,363$ |
| 1951. |  | 75,063 | 85,326,227 |
| Totals |  | 248,625 | 255,380,930 |

By Dec. 31, $1951, \$ 153,714,985$, or over 60 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 1.3 p.c. had been repaid; of those made during the second three years, all but 27 p.c. had been repaid.
3.-Loans made under the Farm Improvement Loans Act, classified by Purposes, 1945-51

| Purpose | 1950 |  | 1951 |  | Totals <br> Since Inception in 1945 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Loans | Amount | Loans | Amount | Loans | Amount |
|  | No. | \$ | No. | 8 | No. | 8 |
| Purchase of agricultural implements..... | 52,733 | 58,391,636 | 67,605 | 78,302,385 | 216,375 | 230,155,069 |
| Construction, repair or alteration of, or additions to any structure on a farm. . | 2,128 | 2,402,309 | 2,813 | 3,378,564 | 12,538 | 13,428,712 |
| Purchase of live stock................... | 1,805 | 1,483,474 | 2,918 | 2,741,289 | 8,323 | 6,556,789 |
| Improvement or development project... | 1,809 | 902,885 | 1,253 | 694,460 | 9,320 | 4,213,562 |
| Purchase or installation of equipment or electric system. | 422 | 195,669 | 406 | 167,668 | 1,676 | 795,778 |
| Fencing or drainage.................. | 51 | 35,897 | 61 | 39,374 | 342 | 211,149 |
| Alteration or improvement of electric system. | 21 | 9,493 | 7 | 2,487 | 51 | 19,871 |
| Totals. | 58,969 | 63,421,363 | 75,063 | 85,326,227 | 248,625 | 255,380,930 |

## 4.-Loans made under the Farm Improvement Loans Act, classified by Provinces, 1945-51

| Province | 1950 |  | 1951 |  | Totals <br> Since Inception in 1945 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Loans | Amount | Loans | Amount | Loans | Amount |
|  | No. | \$ | No. | \$ | No. | $\delta$ |
| Newfoundland....... | 2 | -967 9 | ${ }^{3}$ | 2,412 | ${ }^{5}$ | 3,379 |
| Prince Edward Island. | 706 | 605,518 | 1,271 | 1,144,295 | 2,306 | 2,023,570 |
| Nova Scotis. | 340 | 274,940 | 695 | 619,720 | 1,457 | 1,224,781 |
| New Brunswick | 348 | 358,756 | 655 | 696,751 | 1,380 | 1,430,728 |
| Quebec.. | 3,003 | 3,097,204 | 5,405 | 6,125,622 | 10,984 | 11,517,025 |
| Ontario. | 7,914 | 8,043,839 | 11,323 | 12,178,465 | 29,909 | 30,481, 580 |
| Manitoba. | 7,712 | 8,263,982 | 10, 120 | 11,370,755 | 35,664 | 35,862,757 |
| Saskatchewan | 20,090 | 22,557,445 | 23,272 | 27,876,923 | 82,583 | 87,876,144 |
| Alberta. | 17,161 | 18,508,717 | 20,309 | 23,240,816 | 77,462 | 78,219,834 |
| British Columbia | 1,693 | 1,709,995 | 2,010 | 2,070,468 | 6,875 | 6,741,132 |
| Totals. | 58,969 | 63,421,363 | 75,063 | 85,326,227 | 248,625 | 255,380,930 |

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 $\$ 1,000$.

## 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 varieties, the microbiology 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. In addition to providing information on current production problems, the work is of paramount importance to the long-time well-being of agriculture.

Conservation of the soil is of basic importance to agriculture. Research in that field takes the form of soil surveys and study of methods for protecting and conserving soil resources and is carried on 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 been done with the aim of 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.

As might be expected, much of the research and experimental work carried on 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. Their culture, their nutritional value and, in the case of food crops and their suitability for human con-sumption-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 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 mainly on the adoption of known processes and the application of such processes to specific aims. At the same time, some discoveries bordering on fundamental research are occasionally made, and it is also found necessary to extend to some degree into the fundamental 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 about 100 laboratories throughout the country, including the recently opened laboratories of Insect Pathology at Sault Ste. Marie, Ont., and the Science Service Laboratory at London, Ont.

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. Also, that the work of the agricultural scientist is never done may be illustrated by the appearance of a new stem rust of wheat (Race 15B) which attacks varieties previously found to be rustresistant. The only answer to this menace is the development of a new resistant strain necessitating an intensive breeding program. The answers to many such problems are found only after years of continuous study and investigation.

## Subsection 3.-Protection and Grading

Unlike manufactured articles, even close scrutiny of most agricultural products is no clue to their purity as food, or 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 go for naught if legislation were not provided to see that the end-product of such work was satis-
factory. In addition, Canada's live stock, crops and trees must be protected from diseases that might be introduced with importations from other countries, 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. The Division is responsible for the inspection of animals slaughtered for food, and post-mortem examination is made on 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 primarily concerned 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. In the case of seeds it 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 products would be dangerous in use, 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, both for the domestic and the export market, and for the issuance of health certificates required for a wide range of plant products.

Standards and Inspection.-For 50 years or more, the Department has been steadily establishing and improving standards of quality for agricultural products. 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. The provinces have in most cases adopted these standards for enforcement within their respective areas on products marketed intraprovincially.

Grade standards are established and enforced for dairy products, meats, eggs and poultry, fruits and vegetables (canned and processed, and seed). 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.-The grading and inspection services of the Dairy Products Division is somewhat typical of other sections of the Marketing Service engaged in such work. Cheddar cheese, creamery butter and dry skimmed milk must be graded before being exported; in practice this means practically all the cheddar cheese, 60 p.c. of the creamery butter and 82 p.c. of the dry skimmed milk. In addition, creamery print butter is branded as to grade in nine provinces. Dairy products are required to meet standards of composition, be of correct weight or volume and be described accurately in accordance with the provisions of the Dairy Industry Act and regulations thereunder. In the case of condensed, evaporated and dried milk products, technical assistance is given on manufacturing and sanitation problems.

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 28 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. These stations have been brought to a high standard of efficiency with regard to sanitation, equipment, temperature control, grading and packaging.

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 sale at wholesale and retail. 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.

Canned boneless poultry for interprovincial and export shipment must be packed according to grade and prepared in registered canneries. Registered poultry canneries also operate on a high standard of efficiency with respect to sanitation, temperature control, cooking procedure, packaging, etc.

Fruits and Vegetables.-A commercial inspection service covering fresh fruits and vegetables is provided and dealers and brokers handling these commodities in interprovincial, export and import trade are licensed and are subject to established regulations.

The fruit and vegetable canning and processing industry has made great strides in the past quarter-century. In 1950, 558 plants were licensed to operate, and produced processed fruits and vegetables valued at $\$ 161,000,000$. The inspection of these plants, the testing of the products and the grading is done by the Canning Section of the Fruit and Vegetable Division.

Maple Products and Honey.-Regulations are established for the inspection, analysis and grading of these products. Maple products manufacturers and sugarbush owners, operating interprovincially or for export, are licensed. To prevent the possibility of adulteration of maple syrup and sugar, inspection is made of manufacturing plants, stores and restaurants. Interprovincial and export shippers of honey are registered.

## Subsection 4.-Canada's Relationship with FAO

The Food and Agriculture Organization of the United Nations (FAO) was conceived at a special United Nations Conference at Hot Springs, Virginia, in May-June 1943, and brought into being at Quebec in October 1945. Its objectives include the raising of levels of nutrition and standards of living of the peoples of all countries, improvement in the efficiency of production and distribution of farm, forest and fisheries products, and the betterment of the conditions of rural populations. Membership in the Organization expanded from 42 member nations in 1945 to 68 at the end of 1951 .

FAO is governed by a Conference in which each member nation has one vote. The Conference meets every second year and between sessions a Council acts for the Conference. The Council has 18 members, elected for a period of two years. The work is directed by a Director-General who, with the Chairman of the Council, is elected by the Conference for a two-year term of office. Under the Director-General are the General Secretariat, Special Assistants and the Area Liaison Service which includes the regional offices for North America, Latin America, Asia and the Far East, and the Near East and European areas. The Organization is divided into five technical Divisions: agriculture, economics, fisheries, forestry and nutrition.

FAO carries out four major types of activity. (1) It serves as a world extension or advisory service mobilizing modern scientific knowledge for increased production, improved handling and processing, and better distribution of food and other farm, forest and fisheries products. Much of the work is concerned with the economic development of underdeveloped areas. (2) It serves as a forum for bringing governments together for organizing international action. (3) It provides all governments, to the limits of its facilities, with facts and figures relating to food, agriculture, forestry, fisheries and nutrition. (4) It endeavours to appraise the outlook for production and consumption and the likely developments of international trade in food and agricultural commodities.

In the field of economic development, experts, scientists and investigating missions are supplied at the request of member countries to work in the country concerned on problems that are hindering its development. Through this program
of technical assistance, FAO, by December 1951, had signed 144 basic agreements with 48 countries or territories; 226 experts were either at work in these countries or had returned from their short-term assignments, and 45 additional specialists had been recruited or were on their way to take up their duties. While 107 requests remained to be filled, this was either because the work was seasonal or because requesting governments were not yet ready to initiate the studies. Of the total number of experts in the field on that date whose assignments were completed or whose appointments were pending, 143 were connected with agriculture, 42 with forestry, 11 with fisheries, 20 with nutrition, 21 were lecturers and instructors and 9 were administrative field personnel.

Associated with the provision of experts is a Fellowship Program covering some 30 countries providing for 260 fellowships to be granted to responsible government officials or senior professional men already familiar with the work being done or to be undertaken. Where technical assistance is supplied, the salary and travelling expenses to and from the country in which the expert is to work is paid by FAO; the contracting country meets other expenses. FAO itself is financed through contributions of member countries on a percentage basis.

Canada, as an important agricultural producer and exporter, has maintained a close interest in FAO and has played a prominent role in its development. A Canadian was a member of the original Executive Committee of the Organization and Canada has had continuous representation on the 18 -member Council which replaced that Committee. Canadians are on most of the standing advisory technical committees and have taken part in many of the technical missions sent to underdeveloped countries. Canada has been able to provide considerable technical assistance to other nations through FAO and has benefited materially in return from the technical and statistical information supplied by FAO and through participation in discussions on national and international policies relating to agricultural production and distribution.

In its seventh year of operation in 1952, FAO has slowly but surely become firmly established. The preliminary surveys of requirements have been completed and the ideals and aims of the Hot Springs Conference are beginning to unfold into achievement on a practical scale. Food production is lagging still and it will take some time for many projects of FAO to demonstrate their full value. In many cases results will not be complete for generations in fertilization, irrigation and reclamation projects to bring soils and forests into productivity. The task of FAO is unceasing; it is in the vanguard of the march toward international betterment of mankind.

The permanent headquarters for the organization was established at Rome, Italy, in 1951. The Sixth Conference was held at that city, Nov. 19-Dec. 6, 1951.

## Section 2.-Provincial Governments in Relation to Agriculture*

## Subsection 1.-Agricultural Services

Newfoundland.-Since 1934, government agricultural services in Newfoundland have been operated by the Agricultural Division of the Department of Natural Resources. The Division maintains an extension service and encourages agricultural development by the payment of bonuses for the purchase of pure-bred sires and for the clearing of land, assistance with agricultural exhibitions, the payment of subsidies on live stock and the conducting of a soil-survey service. Each year

[^134]several scholarships are awarded to young men enabling them to take a four-year degree course in agriculture. Government policy relating to land settlement affecting both civilians and war veterans, and the scheme of assistance to farmers in clearing land with government-owned tractors are administered by the Land Development Division of the Department of Natural Resources.

Prince Edward Island.-The Department of Agriculture is presided over by a Minister, assisted by a Deputy Minister, a Dairy Inspector, a Pathologist and Veterinarian, a Soil Assistant, five County Representatives and a Superintendent of Women's Institutes.

Nova Scotia.-Provincial agricultural policies in Nova Scotia are administered by the Department of Agriculture and Marketing, with the Minister's Office and those of the Deputy Minister, the Director of Marketing Services and the Superintendent of Agricultural Services located at Halifax. The Department is composed of several Branches, each headed by a Director. The Branches include: Agricultural Engineering Services; Animal and Poultry Services; Chemistry, Soils and Fertilizer Services; Dairy Services; Extension Services; Field Crops Services; Horticultural and Biological Services; Immigration and Land Settlement Services; and Marketing Services. With the exception of the agricultural representatives who are located in the 18 county offices, all technical officials are located at the Nova Scotia Agricultural College, Truro.

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 ten services: education, rural economics, extension, animal husbandry, horticulture, field husbandry, information and research, handicrafts and home economics, health of animals and rural engineering. Each service is divided into sections dealing with particular problems. The Department also includes many other special organizations such as the Farm Credit Bureau, the Research Council, the Rural Electrification Bureau and the Dairy Industry Commission.

The annual competition for the Agricultural Merit Order, organized in 1890, is held alternately in each of five regions. Honours and awards are conferred upon the operators of the best kept farms. More than 5,000 farmers have participated in the competition since its inception. County Farm Improvement Contests, started about 1930, have brought about most gratifying results on over 5,000 farms and remain very popular. Each contest lasts five years during which time farms are completely transformed and their production greatly increased.

Soil-improvement policies include large drainage projects carried out by the Department and smaller projects by "groups of farmers with government help. Over 500,000 acres have been reclaimed or improved in the past few years. Financial and mechanical assistance is given for land clearing, stoning, levelling and terracing. Grants are also available for underground drainage, liming, etc.

Various forms of assistance are offered towards crop and live-stock improvement. An artificial insemination station operates at St. Hyacinthe for the benefit of breeders' clubs. Plant-breeding stations for cereal and forage crops are maintained at Macdonald College and for vegetables and small fruits at Ste. Foy, near Quebec City. Trained specialists, with main laboratories at Quebec and field laboratories in different districts or schools, are employed in the work of curbing the enemies of plant and animal health.

Agricultural co-operation is widespread in Quebec. There are 610 co-operatives with 69,829 members; 90 agricultural societies ( 27,000 members) look after local interests and organize county exhibitions. There are also in operation 900 Cercles de Fermières (Women's Institutes) with a membership of $50,000,500$ farmers' clubs with a membership of 25,982 , and numerous junior farmer clubs.

Farm credit, established in 1936, accepts about 2,000 loans each year, two-thirds of which are used to facilitate the settlement of young farmers. Special grants are also available to farmers starting their sons on new farms.

Ontario.-The Ontario Department of Agriculture provides financial assistance and administrative services to agriculture through its Head Office, 12 branches, three Experimental Farms, and through research and extension work carried out 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 Crops, Seeds and Weeds 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 Credit Unions 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 club work carried on with farm youth; (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; (12) the Ontario Farm Labour Service assists farmers in securing help during the busy seasons, particularly at harvest time. 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 of Manitoba serves through the following branches: agricultural extension; live stock; dairy; 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, junior live stock, boys' and girls' clubs and women's work, with specialists devoting their attention to these subjects. Meetings, field days and short courses are held throughout the Province. There are 30 agricultural representatives located throughout the Province, each representative serving from one to five municipalities.

The Live Stock Branch administers the Animal Husbandry Act, develops and administers policies which encourage the improvement and production of live stock, and works in close co-operation with the Veterinary Laboratory Service and the Dominion 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 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 gathers and compiles statistics on co-operative activity throughout the Province. The Director is Secretary of the Co-operative Promotions 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 into six Branches. (1) The Administration Branch conducts daily farm-information radio programs over seven private stations and, in co-operation with the Dominion Bureau of Statistics, gathers data on crop conditions, production, marketing and income. (2) The Agricultural Representative Service has a field staff of 37 Agricultural Representatives, four District Supervisors and specialists in farm mechanics and visual aids. Agricultural Representatives, working with municipal agricultural and conservation committees, study local problems and determine their needs; the Department pays one-half the costs of local development projects. Assistance is given to farm people through meetings, visits, the press and radio in respect to the use and conservation of soil and water resources, and the production of crops, live stock, poultry and bees. Agricultural Representatives are active in all federal, provincial
and university farm services under the Saskatchewan Co-operative Agricultural Extension Program. Co-operation is maintained with the Federal Department of Labour and the National Employment Service in directing large annual movements of farm labour in and out of the Province. (3) The Conservation and Development Branch is responsible for the engineering, farming and land development activities of the Department, including irrigation and drainage programs conducted in cooperation with the Federal Government and irrigation on departmental and privately owned 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 service for conservation and water-control projects. (4) The Lands Branch classifies all Crown land according to the use for which it is best suited;"disposes of such land under long-term leases.or, by "inclusion in land-utilization projects; collects rentals for land under disposition; clears and breaks plots made available for settlement; and operates community pastures. (5),The Plant Industry Branch organizes and administers programs for crop improvement and crop protection, and advises on seed and crop improvement, soil erosion, horticultural problems and weed control. 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 beekeeping and honey production, carries on continuous inspection for American foul brood and supervises grading. (6) 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, bonds and 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 and bonds produce dealers and poultry buyers, hatcheries and hatchery agents. It also assists with poultry shows and field days and generally 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.

Alberta.-The Alberta Department of Agriculture is organized as follows. (1) The Field Crops Branch deals with all matters pertaining to the utilization of soil and 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 assist in implementing field-crop policies of local concern. 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 maintaining an artificial insemination laboratory. The work of the Branch includes the inspection of stallions, the supervision of live-stock feeder association, 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 trucker licences for the handling of poultry products. (5) The Veterinary Services Branch is responsible for the diagnosis of animal diseases for veterinarians and conducts considerable veterinary extension work. During 1951, approximately 8,500 specimens of live stock and poultry were examined. (6) The Apiculture Branch administers the Bee Diseases Act which requires the registration of all beekeepers and the maintenance of an inspection service. The Branch also carries on a considerable amount of general educational work. (7) The Agricultural Extension Service operates 37 offices and employs the services of 43 District Agriculturists and 13 District Home Economists. The District Agriculturists work with farmers, assisting them 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, together with weekly agricultural notes and a tri-weekly radio program. The Branch, in cooperation with the Federal Department of Labour, is concerned with recruitment and placement of farm labour and is responsible for the supervision of agricultural societies. (8) The Fur Farm Branch administers the licensing and exporting of live animals and pelts and assists fur farmers with problems pertaining to care and management, stock improvement and disease control. Considerable educational work is conducted in the form of meetings, field days, short courses and bulletins. Fur farm inspections are carried out periodically. (9) The Schools of Agriculture Branch administers the operation of three institutions located at Olds, Vermilion and Fairview, which offer practical two-year courses for young men who intend to farm and for young women who plan to become homemakers. During the summer the schools are used for short courses and gatherings of farm people. The Alberta Junior Farm and Home Clubs educate young people in practical phases of farming and homemaking and train them in the essentials of good citizenship. In 1951 there were 426 junior clubs with a membership of 6,575 .

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 and New Brunswick 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 province. At the secondary school level, practical courses in agriculture are included in the high-school curricula of all provinces except Newfoundland. The Province of Quebec provides for such instruction in special schools.

## 5.-Agricultural Colleges and Schools, by Provinces, 1951

| Province | Number and Type | Course |
| :---: | :---: | :---: |
| Newfoundland................. | - | - |
| Prince Edward Island......... | 1 Faculty of Agriculture, Prince of Wales College. <br> 1 vocational school. | 2-year course preparatory to third year of degree course at Mac donald College, Que. <br> 1 -year and short courses in vocational agriculture. |
| Nova Scotia.................. | 1 agricultural college.. | 2-year degree course and short-term or correspondence courses in vocational agriculture. |
| New Brunswick............... | $\left.\begin{array}{l} 1 \text { vocational school } \\ 3 \text { agricultural schools } \end{array}\right\}$ | Courses in agriculture and home economics. |
| Quebec....................... | 3 agricultural colleges.............. | 4-year degree and 2-year diploma courses. |
|  | 17 secondary agricultural schools.... <br> 6 agricultural orphanages. | 2 winter terms for farm children. Practical training for prospective |
|  | 6 agricultural orphanages. <br> 4 special schools. | farmers. <br> Dairy, veterinary, experimental and fur-farm schools. <br> Short courses and special or refresher courses are offered to farmers by most of these schools. |
| Ontario........................ | 1 agricultural college.............. | 4-year degree course in agriculture or household science, 2 -year diploma course in agriculture, 1-year course in household science, and short courses in agriculture and household science. |
|  | 1 college of veterinary science...... | 5 -year degree course. |
|  | 2 agricultural schools................ | 2-year diploma course in agriculture. One school gives also a 2 -year course in household science. |

5.-Agricultural Colleges and Schools, by Provinces, 1951-concluded


# 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 Canada were assisted, with P.F.R.A. 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 P.F.R.A. 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 four principal phases of investigational study in the field of engineering include surveys (exploration), soil mechanics, drainage and design. These studies are undertaken by P.F.R.A. to gather the fundamental groundwork of technical and other basic information that is required before construction of any project is undertaken. Considerable work in each of these fields of study was undertaken during the year ended Mar. 31, 1952, together with co-operative studies using the services of existing government departments.

## Water Conservation

Small and Community Projects.-P.F.R.A. 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

[^135]amount of financial assistance awarded is largely dependent upon the type and size of the project contemplated. At all times the P.F.R.A. 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 Farm Projects.-During 17 years of operation P.F.R.A. has provided assistance to farmers to construct 46,759 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.

Of the 46,759 projects completed by Mar. 31, 1952, 38,416 have been designed as dugouts, 5,928 as stock-watering dams and the remaining 2,415 projects as small irrigation schemes. The construction of these projects has extended the benefits of water to all parts of the dry area. By so doing, 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 groups of farmers organize a water users' association or the rural municipality provides leadership in an irrigation or water-storage project, the P.F.R.A. 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, 1952, P.F.R.A. has provided the necessary assistance to construct 244 community projects. The majority of these are located on six watersheds originating in the three Prairie Provinces. Their purpose is to conserve surplus spring runoff water that flows in streams early in the season 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.
P.F.R.A.'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, P.F.R.A. 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 P.F.R.A. and the provincial government concerned whereby the P.F.R.A. 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 P.F.R.A. 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 P.F.R.A. administration beyond the boundaries of the P.F.R.A. 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 distributary system from the main works to the land.

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 and was marked by an official opening July 16, 1951. Built under Canada's share of the Federal-Provincial agreement, the dam stands 195 feet high and 2,536 feet wide, and creates a reservoir capable of storing 320,000 acre-feet of water. The dam, which was a major engineering accomplishment, took five years to construct.

Approximately 150 miles of main canal have been built by the Government of Canada. Ten thousand acres of land have so far been developed as the Province's share under the agreement, together with over 100 miles of the distribution canal system. Further lands will be developed in 1953 and 1954.

South Saskatchewan River Development.-This development in central Saskatchewan is a proposed multiple-purpose 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. Considerable investigational work has been undertaken on this project, a full report of which was presented to the Government of Canada in 1951.

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 an existing 57,000 acres of irrigated land and will bring an additional 180,000 acres "under the ditch". The project is being undertaken by the Federal Government in order to rehabilitate hundreds of farmers now residing within drought areas of the prairies. In addition, it is expected that this scheme will serve as a stabilizing influence on agriculture in southern Alberta.

Engineering surveys, drainage studies and soil mechanics investigations, started in 1950, were continued.

Construction activities have been mainly the repair and enlarging of old and worn out 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.

Red Deer Irrigation Project.--The proposed Red Deer River development concerns the irrigation of an estimated 400,000 acres of land located in the east-central 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 fully developed. Engineering topographic and plain table surveys on lands proposed for irrigation are all but completed. Engineering surveys on proposed irrigation works are also nearing a stage of completion and negotiations are under way to finalize all those phases of study pertinent to the development of the project.

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, namely, 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 World War II.

Intensive farming is practiced both in the Okanagan and South Thompson Valleys. The land developed for irrigation by P.F.R.A. will be used mainly for the growing of small fruits and vegetables and for dairying.

New projects are constantly being investigated as potential development areas. During the year ended Mar. 31, 1952, complete investigation reports were completed for: Lister Project, Creston; Grandview Flats Project, Vernon; Black Mountain Irrigation Project, Black Mountain Irrigation District; Salmon Arm Irrigation Project, Salmon Arm; Pitt Meadows Dyking District No. 1, Port Coquitlam; British Columbia Fruitlands Irrigation Project, between Kamloops and Tranquille; and Penticton West Benches Project, Penticton

Major Reclamation Projects.-Riding Mountain Reclamation Project.Extensive investigations have been undertaken by P.F.R.A. 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. P.F.R.A. 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 consists 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.-Consideration has been given by P.F.R.A. during the past two years to 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. Surveys and investigations are under way in the area to determine the feasibility of development. The work is being undertaken pursuant to a request made to the Government of Canada by the Provincial Governments of Manitoba and Saskatchewan.

A preliminary report on survey activities has been prepared and has been submitted to the Manitoba Government for consideration. Preliminary survey results indicate the possibility of reclaiming 96,000 acres of land in the area that would be suitable for cultivation if protected from floods and another 10,000 acres suitable for grazing.

Assiniboine River Project.-This project was undertaken as a direct result of damaging floods that occurred in 1950 in the vicinity of Winnipeg from the Assiniboine and Red Rivers. The project is being undertaken at the request of the Manitoba Government to prevent further 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 repeatedly inundated. 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 possibilities of building water-storage works on the headwaters of the Assiniboine River.

Lillooet Valley Reclamation Project.-The Lillooet Valley Reclamation project has been 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 to be reclaimed will ultimately amount to 14,000 acres, which will allow farmers in the district to increase their holdings and also permit the settlement of hundreds of additional inhabitants.

Construction work to deepen and straighten the channel leading from Lillooet Lake to Green Lake. below the town of Pemberton, was completed during the 1949 construction season. The construction of dykes and drains to reclaim the flooded areas along Miller Creek to Ryan Creek and Green River to Miller Creek has been almost completed. No damage from flooding occurred in the protected areas during 1951-52.

## Land Utilization

In addition to cultural and water-conservation activities, the 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 the P.F.R.A.'s Land Utilization Program has constructed 57 operating pasture units, resulting in the reclamation of $1,590,200$ acres of submarginal land. During the 1951-52 construction season, $149 \cdot 5$ miles of pasture fence were built which enclosed 69,120 acres in sections of three new pastures under construction and included extensions to eight established pastures. The three new pastures under construction are the Royal Pasture near Shellbrook, Sask., the Mantario Pasture near Alsask, Sask., and the Antelope Pasture near Laverna, Sask. Although these pastures were not completed entirely, the demand of local residents persuaded P.F.R.A. to begin pasture operations in 1952.

During the year ended Mar. 31, 1952, summer grazing was provided for over 70,000 head of live stock owned by between 5,500 and 6,000 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 practiced in all pastures are: (1) regrassing-since 1938 approximately 160,000 acres of land in community pastures have been regrassed; (2) development of stock-watering sites-to Mar. 31, 1952, nearly 1,000 stock-watering dams, dugouts and wells have been constructed in community pastures for the purpose of facilitating the more efficient utilization of grass resources; and (3) pasture management and controlled grazing-with the application of scientific principles to the proper utilization of grass resources on pasture lands, P.F.R.A. has been able to greatly increase the beneficial use of grass resources.

## 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 the Federal Government's 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 $\$ 2 \cdot 50$ per acre.

From the inception of the scheme to Feb. 23, 1952, the total amount paid out under the Act was $\$ 138,665,114$. The amount collected under the 1 p.c. levy to Dec. 31, 1951, was \$58,455,486.

## 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. The original structures were made by hand labour and simple tools. Earth-moving equipment was not used until after 1940.

Through a variety of circumstances, i.e., 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, in many cases, deterioration 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.

In 1949 an administrative and operational group was established in the Maritimes by the Federal Department of Agriculture and the program of reclamation was initiated. Modern design and construction principles will be used for the building of protective structures, bearing in mind the basic principles of the older methods used. It is estimated that 70,000 or 80,000 acres, well drained and well farmed, will eventually be protected from the tide.

By Mar. 31, 1951, the provinces had asked to have 92 areas considered for reclamation purposes. These comprised 19,240 acres of marshland in New Brunswick, 22,570 acres in Nova Scotia and 250 acres in Prince Edward Island. It is estimated that the 42,060 acres of marshland in the three provinces constitute an integral part of 300,100 acres of farm land.

By the end of the 1950 construction season, protective works of a major type had been carried out on a total of 21 projects. In addition, 45 areas had received work on protective structures to some extent, placing them in a position to withstand the action of tidal waters until major reconstruction could be carried out.

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.

Considerable progress was made in the establishment of standard structures and standard methods of modern construction. New designs, based on up-to-date engineering knowledge and techniques, were under development with particular reference to soil mechanics.

## Subsection 2.-Provincial Projects

Saskatchewan.*-Crown lands have been administered by the Lands Branch of the Saskatchewan Department of Agriculture since Apr. 1, 1947. A further development was the establishment of a Conservation and Development Branch on Apr. 1, 1949, which is responsible for the following: (1) development of irrigation; (2) reclamation of land by flood.control and drainage; (3) the restoration of misused land and the development of under-utilized land; (4) the improvement of unoccupied land for agricultural settlement; (5) the construction of community pastures not provided for in the agreement with the Federal Government or outside the area served by the P.F.R.A. program.

The work of the Department in the field of agricultural rehabilitation and reclamation is based on the co-ordination of the federal P.F.R.A. program and the Provincial Department of Agriculture conservation and development activity. A closely knit working arrangement is fostered with respect to the development of federal and provincial projects.

The following is a summary of the activities of the Saskatchewan Department of Agriculture in accordance with the division of responsibility set out above.

There were 16 dry-land feed and fodder projects under development on Dec. 31, 1951. These projects were located on lands that have been under-utilized or that have been settled but abandoned because they were not suitable for arable agriculture. The area within the boundaries of the projects totalled 43,990 acres with 16,590 acres seeded to forage and 5,965 acres in preparation for seeding.

Five irrigated fodder projects located in or close to winter feed-deficient areas are under development; these include 5,800 acres of which 5,475 acres had, to Dec. 31, 1951, been prepared for irrigation, seeded or were in the process of being seeded to forage crops.

The Department has also assisted seven co-operative associations and rural municipalities in developing fodder-reserve projects. These projects include 4,160 acres of which 1,000 acres have been seeded to forage crops and 1,050 acres are in preparation for seeding.

Since Apr. 1, 1949, the installation of secondary distribution systems on irrigation projects for which storage and main canals had been constructed by P.F.R.A. brought an additional 17,668 acres in Saskatchewan under "the ditch". During the same period, 26 water-users districts were established with 684 farmer members.

The activity in the developing and promoting of community pastures outside the scope of the P.F.R.A. program resulted in the construction and improvement of 29 pastures comprising 354,000 acres. These pastures are operated as community pastures by the Lands Branch of the Department or by the municipality in which they are located, or by co-operative community pasture associations.

During 1951 provincial community pastures provided grazing for 7,133 head of live stock owned by 407 vicinity farmers.

[^136]The reclamation of lands by flood control and drainage is proceeding in 14 separate areas in the Province. Emphasis is being placed on the northeastern area bordering the presently settled northeastern portion of the Province. Lands benefited by drainage works constructed to date total 46,900 acres. Surveys for drainage and flood control works that will benefit 160,500 acres have been completed. Minor channel improvement works to secure more adequate drainage have been constructed in three sub-drainage areas in the southeastern portion of the Province.

Miscellaneous projects undertaken include the re-grassing of 14,700 acres and the planting of about 300,000 trees. Assistance is available to municipalities and local organizations for tree planting either by way of loan of departmentally owned machinery or financially for the purchase of machinery.

In areas of northern Saskatchewan concentrated groups of farmers outside the P.F.R.A. area have been assisted in the construction of dugouts and dams in developing stock-watering facilities.

Six conservation and development areas comprising a total of $1,316,340$ acres have been established.

Activity during 1950 and 1951 in the improvement of unoccupied land for agricultural settlement included the designing of five new settlement projects containing 262 farm units. Under supervision of the Lands Branch, contracts were let for the clearing and breaking of 50 acres on each farm. Each of these farms will be under a 33 -year lease that provides for specific conservation measures by Apr. 1, 1952.

Alberta.*-Extensive surveys have been carried out from time to time 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 Alberta 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.

Much of the work done in more recent years 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 Resources and Development, while irrigation surveys are carried out largely by the Water Development Organization under P.F.R.A. The Water Resources Division, Federal Department of Resources and Development, and the power companies operating in the Province also assist in the program.

The Calgary Power Company has recently 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.

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 their most beneficial use; the benefits which such water

[^137]development projects would confer on federal and provincial interests; the allocation of costs; and methods which might be adopted to finance such developments. The 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 following is a list of projects in operation in Alberta, together with irrigable areas and construction costs. Certain of these developments have been brought to fruition as joint efforts by the Province of Alberta and the federal authorities under P.F.R.A.


The following paragraphs outline developments during 1951-52.
St. Mary River Project.-The construction of the St. Mary and Milk Rivers development will make possible the addition of 390,000 acres to the irrigable area. This, together with the area now under irrigation under the old Alberta Railway and Irrigation Company's irrigation project (some 120,000 acres), will raise the total for the project to approximatcly 510,000 acres.

During 1951, the Water Resources Office spent about $\$ 2,500,000$ on the St. Mary River development for the construction of canals, purchase of material, acquiring right of way and colonization. The completion of the St. Mary River dam in 1951 is an outstanding contribution to irrigation development in Alberta.

Expenditures on the development in 1949-50 amounted to $\$ 94,107$ and in $1950-51$ to $\$ 1,673,563$.

Bow River Project.-During 1951, P.F.R.A. commenced work on the enlargement of the main canals in order to provide for the extension of the project and for the irrigation of an additional 102,000 acres of prairie land. The total irrigable area of this project will be about 240,000 acres.

Work on the proposed P.F.R.A. earth dam on the Little Bow River is expected to start in 1952 and active participation by the Water Resources Office is expected to commence in 1953.

William Pearce Irrigation Project.-Topographical and soil surveys were continued during 1951 on this project and soil, climatic and engineering reports were made. Because of the excessive cost of constructing two separate projects, one in Saskatchewan and another in Alberta, a combined Alberta-Saskatchewan development has been proposed and investigated to some extent. However, a Royal Commission has recently been appointed by the Federal Government to advise regarding the Saskatchewan project and it is probable that a combined development will be investigated by the Commission.

Macleod Irrigation District.-During 1951, the Water Resources Office extended further assistance to the Macleod Irrigation District by improving laterals. P.F.R.A. is investigating ways and means of augmenting the water supply which is insufficient for the project. Expenditures by the Province on this project were: 1948-49, \$7,783; 1949-50, \$10,127; 1950-51, \$10,349; and 1951-52, \$13,603.

Ross Creek Irrigation District.-The construction phase of this project was completed in 1951 and is now considered ready for operation. Classification of the irrigable area has commenced and it is estimated that the area classified as irrigable will amount to 2,400 acres.
P.F.R.A. installed a proper headgate and improved the spillway of its diversion structure on Gros Ventre Creek thus ensuring proper operation of the main canal. Expenditures by the Province on this project were: 1950-51, $\$ 52,964$, and 1951-52, $\$ 46,469$.

Heart River Diversion Project.-This multiple-purpose project was brought to virtual completion in 1951. The concrete spillway at the dam was completed and two $6^{\prime} \times 6^{\prime}$ steel headgates installed. During the spring runoff the reservoir on the Heart River filled up rapidly and overflowed into Winagami Lake through the north diversion canal, completely filling the lake, and the overflow in the south channel reached sizeable dimensions. In 1951 a combined control structure and roadway was built in the inlet to the south channel thus permitting control of the level of Winagami Lake. The project held back over 200,000 acre-feet of water during the 1951 runoff. Purchase of flooded areas around Winagami Lake was under way.

An aerial survey resulted in the production of an accurate topographic map from the southeast corner of Winagami Lake over to the Heart River. It has been established that a two-mile canal can readily be built to exploit the storage of the lake for power development. The power head involved is 70 ft . and the canal would be designed to carry 200 c.f.s. Economic aspects of this project are under investigation.

The town of McLennan is desirous of bringing water for domestic use from Winagami Lake by canal to Kimiwan Lake.

West Prairie River Control.-To protect the town of High Prairie and the road leading north from that town, the Water Resources Office has built a new bed for the West Prairie River with dykes on each side for a distance of about $1,500 \mathrm{ft}$., around a portion of the old bed that had become blocked with logs and silt.

A study is being made of the flooding in the area north and east of High Prairie. where a problem is created by logs and silt brought down from the Swan Hills.

Michichi Creek Diversion.-In 1951 the Department of Public Works started the construction of a new channel for Michichi Creek in North Drumbeller to prevent flooding. The project will be completed in 1952.

Ground Water.-An inventory of ground-water supplies was undertaken in 1951 with the co-operation of the Federal Department of Agriculture which reported artesian or semi-artesian wells. Much valuable data has been obtained from the oil exploration companies on the results of striking water in their shot holes.

Highwood River Protection.-Further dredging was required at High River to keep the full force of the river away from the south bank and more work will be required in 1952 to ensure that the river will not jump over into the Little Bow River. High water conditions in 1951 did not improve the situation at High River and further work is essential.

Peace River Dugout Program.-Since the inception of this program, 1,900 dugouts have been constructed, the Department of Agriculture contributing five cents per cubic yard to a maximum of $\$ 100$. The average assistance given has been about $\$ 90$ per dugout and the average cost of earth work 20 cents per cubic yard. On this basis the actual cost value of dugouts constructed was approximately $\$ 684,000$.

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 exists 150,000 acres of irrigated land which is considered to be less than one-half the ultimate land that can be served by water (approximately 350,000 acres).

About two-thirds of the irrigated area is made up of individual projects while the remaining 50,000 acres cover the larger irrigation projects listed below.

[^138]6.-Major Irrigation Projects in British Columbia, 1951

| Project | Water Supply | Irrigable Area | Irrigated Area | Locality |
| :---: | :---: | :---: | :---: | :---: |
|  |  | acres | acres |  |
| Provinclal Irrigation SystemSouthern Okanagan Lands Project. | Okanagan River............... | 6,130 | 4,530 | Okanagan Valley |
| Municipal Irrigation SystemsPenticton Municipality | Penticton and Ellis Creeks..... | 2,720 3,464 | 2,232 3,418 | Okanagan Valley |
| Summerland Municipality.... | Trout and Ellis Creeks......... | 3,464 | 3,418 |  |
| Irrigation Districts- |  |  |  |  |
| Balfour........... | Laird Creek.................... | 240 | 150 | Kootenay Valley |
| Barriere....................... | Barriere River................. | 225 | 129 | North Thompson Valley |
| B.C. Fruitlands. | Jameson and North Thompson Rivers. | 3,200 | 2,800 | North Thompson Valley |
| Black Mountain. | Belgo Creek................... | 5,124 170 | 3,924 170 | Okanagan Valley |
| Black Sage...... | Okanagan River <br> Blueberry Creek | 170 250 | 170 40 | Columbia Valley |
| Blueberry Creek | Blueberry Creek.................. Similkameen River....... | 601 | 275 | Okanagan Valley |
| Covert. | Fourth of July Creek............ | 272 | 272 | Near Grand Forks |
| Darfield. | Lindquist Creek................ | 363 | 200 | North Thompson Valley |
| East Creston. | Arrow Creek................... | 1,400 | 1,160 | Kootenay Valley |
| Ellison....... | Kelowna Creek.................. | 733 | 658 | Okanagan Valley |
| Girouard. | Swan Lake Creek | 2,566 | 2.005 | " " |
| Grand Forks | Kettle River. | 3,000 | 2,500 | Kettle Valley |
| Heffley....................... | Heffley Creek and North Thompson River | 2,700 | 1,632 | North Thompson Valley |

6.-Major Irrigation Projects in British Columbia, 1951-concluded

| Project | Water Supply | $\begin{aligned} & \text { Irri- } \\ & \text { gable } \end{aligned}$ Area | Irrigated Area | Locality |
| :---: | :---: | :---: | :---: | :---: |
|  |  | acres | acres |  |
| Irrigation Districts-concl. | Marron Creek. | 550 | 530 | Okanagan Valley |
| Keremeos...................... | Ashnola River and Keremeos |  |  |  |
|  | Creek..................... | 1,160 | 1,000 | Similkameen Valley |
| Malcolm Horie | Joseph Creek | 200 | 150 |  |
| Merritt Centre | Coldwater River. | 125 | 125 | Nicola Valley |
| Naramsta. | Lequime and Robinson Creeks. | 966 | 916 | Okanagan Valley |
| Okanagan Falls. | Shuttleworth Creek........... | 408 | 239 |  |
| Okanagan Mission............. | Bellevue (Sawmill) CreekOkanagan Lake. | 750 | 670 | " |
| Osoyoos....................... | Haynes Creek and Osoyoos Lake. . | 230 | 80 | Oliver-Osoyoos |
| Oyams | Long Lake. | 303 | 293 | Okanagan Valley |
| Peachland | Peachland Creek | 771 | 455 |  |
| Renata. | Dog Creek. | 200 | 140 | Columbia Valley |
| Robson. | Pass Creek | 262 | 262 |  |
| Scotty Creek | Scott Creek | 1,863 | -863 | Okanagan Valley |
| South Vernon | Long Lake. | $\begin{array}{r}1,808 \\ \hline 208\end{array}$ | 2,623 | Vernon |
| Trout Creek | Trout Creek. | 403 | 303 | Okanagan Valley |
| Valleyvie | South Thompson River | 107 | 107 |  |
| Vermilion | Kindersley Creek..... | 800 | 400 | Columbia Valley |
| Vernon. | Coldstream and Jones Creek... | 12,095 | 7,595 | Okanagan Valley |
| Vinsulla. | Knouff (Sullivan) Creek....... | 298 | 155 | Kamloops |
|  | Powers Creek................. | 930 | 765 | Okanagan Valley |
| Winfield and Okanagan Centre | Vernon Cree Duck Creek | 2,025 512 | 1,903 410 | Kootenay Valle |
| Irrigation Companies- |  |  |  |  |
| Columbia Valley Irrigated |  |  |  |  |
| Wruitlands Company........ | Bruce Creek. | 2,000 792 | 367 792 | Okanagan Valley |
| Water-Users Communities- |  |  |  |  |
| Bullock Creek. | Bullock Creek Falls. | 175 | 100 | Lower Similkameen |
| Boundary. | Osoyoos Lake. | .. | 95 | Oliver-Osoyoos |
| Kelowna Area................. | Various (12 Branches) | .. | 2,655 |  |
| Meadow Valley | Dark Creek. | .. | 240 | Summerland |
| Powers Creek.. |  | . | 180 | Westbank-Peachland |
| Trepanier.................... | . | . | 195 | Westbank-Peach- |
| Tronson. |  | 117 | 117 | Vernon |
| Miscellaneous- |  |  |  |  |
| Dominion Experimental Station. | Okanagan Lal | 160 | 135 | Summerland |
| w. Hochsteiner (independent operator) | Osoyoos Lake. | . | 178 | O!iver-Osoyoos |

## 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 each Census of the Prairie Provinces. Very few of the results from the 1951 Census were available when this Chapter of the Year Book was prepared but have been incorporated wherever possible. Detailed agricultural census statistics are published in bulletin form and may be secured from the Dominion Statistican, Ottawa.

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.

[^139]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 voluntarily send in reports.

The figures for 1949 to 1951 (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.-Farm Income and Capital

Farm Cash Income.-Estimates of farm cash income are based on reports of marketings and prices received by farmers for principal farm products and are subject to revision. The estimates include the amounts paid on account of wheat participation certificates, oats, barley and flax adjusting and equalization payments and those Federal and Provincial Government payments that farmers receive as subsidies to prices. It is estimated that, during 1950, Canadian farmers (excluding Newfoundland) received $\$ 2,219,600,000$ from the sale of farm products and from grain equalization and participation payments on previous years' crops. This estimate is 10.7 p.c. below the record high figure of $\$ 2,486,600,000$ for 1949 . In addition to the above receipts, supplementary payments made under the provisions of the Prairie Farm Assistance Act amounting to $\$ 13,800,000$ were paid to farmers in the drought-stricken areas of the Prairie Provinces. This figure compares with $\$ 20,700,000$ and $\$ 17,600,000$ paid during 1948 and 1949 , respectively.

The decline in the 1950 farm cash income was largely attributable to a drop in the cash receipts from the sale of grains and substantially smaller grain equalization and adjustment payments to prairie farmers. The latter amounted to nearly $\$ 50,000,000$ compared with approximately $\$ 220,000,000$ in 1949. A lowering of the initial price to producers and a poor-quality crop combined to offset increased marketings during 1950 and give a cash income from the sale of wheat of $\$ 379,100,000$, almost 20 p.c. below the returns realized in 1949. Commencing Aug. 1, 1950, the initial price to producers of No. 1 Northern wheat, in store at the Lakehead, was lowered from $\$ 1.75$ to $\$ 1.40$ per bu. Severe frosts in the Prairie Provinces during August caused considerable damage to the crop and sharply reduced the average grade.

Receipts from the sale of coarse grains during 1950 were also below the 1949 level, partly because of smaller marketings and lower-quality crops. From Aug. 1, 1949, coarse grains came under the terms of the government compulsory marketing scheme whereby farmers received initial prices only at time of delivery. These prices were based on 60 cents per bu. for No. 1 Feed oats and 87 cents per bu. for No. 1 Feed barley, in store Fort William-Port Arthur, and were lower than the free market prices prevailing during the first seven months of 1949. However, in addition to
these initial prices, farmers also received producer participation certificates which entitled them to share, at a later date, any surpluses accumulated by the Canadian Wheat Board through the sale of these grains. During the last quarter of 1950 about $\$ 42,000,000$ was distributed in the form of participation payments for the 1949 crop of oats and barley.

An increase in total live-stock returns from $\$ 829,000,000$ in 1949 to $\$ 895,600,000$ in 1950 was largely due to higher average prices for all live stock except hogs, since marketings were slightly lower. Higher prices for cattle reflected a continuing strong demand in the United States for Canadian beef. Declines in marketings of cattle and calves and of sheep and lambs in 1950 were more than compensated for by the higher prices. On the other hand, a United Kingdom-Canada bacon contract at prices below those received in 1949 resulted in lower average hog prices for 1950 and the income from this source amounted to $\$ 317,500,000$ compared with $\$ 327,900,000$ in 1949. Income from the sale of dairy products, estimated at $\$ 330,100,000$, was $6 \cdot 2$ p.c. below the 1949 total of $\$ 352,000,000$. Reduced income from the sale of eggs in 1950 resulted from a combination of smaller marketings and ower prices.

## 7.-Cash Income from the Sale of Farm Products, by Sources, 1949 and 1950

(Exclusive of Newfoundland)
Nore.-Figures for the years 1926 to 1948, inclusive, will be found in D.B.S. Reference Paper No. 25 (Part II).

| Item | 1949 | 1950 | Item | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 |  | \$'000 | \$'000 |
| Grains, Seeds and HayWheat. Wheat participation and adjustment payments. Oats. | 470,338 | 379,145 | Live Stock- |  |  |
|  |  |  | Cattle and calves.. | 412,629 14,035 | 486,707 16,267 |
|  | 211,337 |  | (egs........ | - 327,879 | 317,463 |
|  | 58,303 | 44,022 | Poultry | 74,501 | 75,132 |
| Oats and barley participation and equalization payments. | 58,363 | 42,190 | Totals, Live Stock.......... | 829,044 | 895,569 |
|  | $\begin{array}{r} 8,651 \\ 14,203 \end{array}$ |  |  |  |  |
| Rye........................... |  | 11,209 | Dairy products | $\begin{array}{r} 351.955 \\ 43,968 \end{array}$ | $\begin{array}{r} 330,088 \\ 41,165 \end{array}$ |
| Flax.......................... | 15,384 | 9,47330 | Fruits <br> Other Principal Farm Products- |  |  |
| Flaxseed adjustment pay- ments................... |  |  |  |  |  |
| Corn.... | 10,586 | 6,349 | Eggs....................... | 110,667 | 96,147 |
| Clover and grass seed | 14,317 | 13,796 | Wool | 1,988 | 3,922 |
| Hay and clover............ | 4,126 | 4,274 | Honey | 4,968 | 4,144 |
| Totals, Grains, Seeds and Hay. | 865,608 | 564,132 | Totals, Other Principal Farm Products.. | 123.790 | 7,180 111,393 |
| Vegetables and Other Field Crops- <br> Potatoes. | 43,582 | 39,605 |  |  | 111,393 |
|  |  |  | Miscellaneous farm products... <br> Forest products sold off farms. | 45,871 | 41,785 |
|  |  |  |  | 61,945 | 74,728 |
| Vegetable | $\begin{aligned} & 45,866 \\ & 10,507 \\ & 54,416 \end{aligned}$ | $\begin{array}{r} 42,989 \\ 13,479 \\ 56,759 \\ 326 \end{array}$ | Totals, Cash Income from Farm Products. | 9,515 | 7,624 |
| Tobarcoe...................... |  |  |  | 2,486,598 | 2.219,642 |
| Totals, Vegetables and Other Field Crops... | 154,902 | 153,158 | Supplementary payments ${ }^{1}$..... <br> Totals, Cash Income. $\qquad$ | 17,628 | 13,806 |
|  |  |  |  | 2,504,226 | 2,233,448 |

[^140]
8.-Cash Income from the Sale of Farm Products, by Provinces, 1946-50

Nore.-Figures for the years 1926 to 1945, inclusive, will be found in D.B.S. Reference Paper No. 25 (Part II).

| Province | 1946 | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | ' 000 | \$'000 |
| Newfoundland. |  |  |  |  |  |
| Prince Edward Island Nova Scotia. | 17,109 34,356 | 17,602 32,691 | 22,295 36,990 | 20,680 35,262 | ${ }_{39,45}$ |
| New Brunswick | 35,972 | 39,904 | 45,634 | 42,846 | 46,858 |
| Quebec. | 256,465 | 286,909 | 356,471 | 344,488 | 361,005 |
| Ontario. | ${ }^{481,126}$ | 543,415 | 664,234 | ${ }^{678,252}$ | ${ }^{678,483}$ |
| Manitoba | 167, 253 | 181,564 | 247,536 | 245.246 | 195,408 |
| Saskatchewan. | 387,589 | 428,489 | 533,987 | 566.062 | 408,288 |
| Alberta. | 280,417 | 340,308 | 452,350 | 452,453 | 368,007 |
| British Columbia | 82,132 | 94,165 | 103,651 | 101.3c9 | 100,342 |
| Tota | 1,742,419 | 1,965,047 | 2,463,148 | 2,486,598 | 2,219,642 |

Farm Net Income.-Preliminary estimates indicate that farmers' net income from farming operations in 1950 amounted to $\$ 1,451,700,000$, almost 12 p.c. less than the 1949 total of $\$ 1,640,500,000$ and about 14 p.c. less than the record high of $\$ 1,681,600,000$ realized in 1948 . This decline came as a result of a substantially lower cash income, a smaller value of income in kind and a continued increase in farm operating expenses and depreciation charges. Compared with 1949, cash income from the sale of farm products at $\$ 2,219,600,000$ was down nearly 11 p.c., while income in kind at $\$ 383,500,000$ declined about 1 p.c. Farm operating expenses and depreciation charges totalling $\$ 1,296,000,000$ were almost 11 p.c. higher than in 1949. Increases in the year-end, farm-held stocks of grain in 1950 more than offset a decline in year-end live-stock numbers to give an over-all inventory increase for the first time since 1943.

## 9.-Net Income of Farm Operators from Farming Operations, 1948-50

(Exclusive of Newfoundland)

| Item | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 |
| 1. Cash income from sale of farm products................. | 2,463,148 | 2,486,598 | 2,219,642 |
| 2. Income in kind............................................ | 411,732 | 387,551 | 383,478 |
| 3. Value of changes in inventory............................. | -64,684 | -71,655 | +130.729 |
|  | 2,810,196 | 2,802,494 | 2,733,849 |
| 5. Operating expenses... | 1,008,862 | 1,026,231 | 1,121,881 |
| 6. Depreciation charges. $\ldots \ldots . . . \ldots \ldots \ldots \ldots \ldots \ldots$ | 140,519 | 153,387 | 174,069 |
| 7. Total operating and depreciation (Items 5+6).......... | 1,149,381 | 1,179,618 | 1,295,950 |
| 8. Net income, excluding supplementary payments (Items 4-7). | 1,660,815 | 1,622,876 | 1,437,899 |
| 9. Supplementary payments.............................. | 20,748 | 17,628 | 13,806 |
| 10. Net income of farm operators from farming operations (Items 8+9) ${ }^{1}$ | 1,681,563 | 1,640,504 | 1,451,705 |

${ }^{1}$ Includes estimated rental value of farm homes and supplementary payments made under the provisions of the Prairie Farm Assistance Act and small belated payments made under the provisions of the Wheat Acreage Reduction Program.

## 10.-Net Income of Farm Operators from Farming Operations, by Provinces, 1948-50

Nork.-Net income includes estimated rental value of farm homes and supplementary payments made under the provisions of the Prairie Farm Assistance Act and small belated payments made under the provisions of the Wheat Acreage Reduction Program.

| Province | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 |
| Newfoundland. |  |  |  |
| Prince Edward Island. | 13,381 | 13,036 | 12,914 |
| Nova Scotia.. | 20,943 | 20,498 | 23,565 |
| New Brunswick | 33,868 | 32,992 | 33,463 |
| Quebec. | 252,912 | 248, 134 | 252,024 |
| Ontario. | 438,169 | 458,546 | 459,584 |
| Manitoba. | 182.666 | 154,087 | 126,346 |
| Saskatchewan. | 376,379 | 385.287 | 265, 201 |
| Alberta. | 306,802 | 270,325 | 236,406 |
| British Columbis. | 56.443 | 57.599 | 42,202 |
| Totals | 1,681,563 | 1,640,504 | 1,451,705 |

Value of Farm Capital.-The items included in the term "farm capital" as used in Table 11 are: lands and buildings; implements and machinery, including motor-trucks and automobiles; and live stock, including poultry and animals on fur farms. The value of lands and buildings for intercensal years is based on the value of occupied farm lands reported annually by crop correspondents; annual values of farm implements and machinery are estimated on the basis of sales reported each year.
11.-Current Value of Farm Capital, by Provinces, 1949 and 1950

| Province | 1949 |  |  |  | 1950 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lands and Buildings | Implements and Machinery ${ }^{1}$ | Live Stock ${ }^{2}$ | Total | Lands and Buildings | Implements and Machinery ${ }^{1}$ | Live Stock ${ }^{2}$ | Total |
|  | \$'000 | \$ 000 | \$'000 | \$ 000 | \$'000 | \$'000 | \$'000 | \$'000 |
| P.E. Island. . | $\stackrel{1}{52}, 596$ | 8,066 | 16,371 | 77,033 | $\dot{5} \dot{5}, 647$ | 8,864 | 17,465 | 81.976 |
| Nova Scotia. | 103,915 | 15,420 | 28, c73 | 147,408 | 110.253 | 16,975 | 33,798 | 161,026 |
| New Brunsw | 104,393 | 15,209 | 28,931 | 148.533 | 118,277 | 16.731 | 31,513 | 166,521 |
| Quebec. | 642,075 | 109.213 | 309,018 | 1,060,306 | 718.482 | 121,882 | 325, 253 | 1,165,617 |
| Ontario. | 1.320.160 | 238,081 | 521.239 | $2.079,480$ | 1,394,089 | 279,678 | 582,435 | 2,256,202 |
| Manitoba. | 187.424 | 121,919 | 107.142 | 716.485 | 527.880 | 154,209 | 114,933 | 797,022 |
| Saskatchew | $1,141.563$ <br> 1 | 270.100 | 186,541 | 1,598, 204 | 1,236.313 | 313,107 | 206.102 | 1,755,522 |
|  | 1,027.855 | 203.277 | 227,463 | 1,458,595 | 1,090.554 | 235,135 | 256,822 | 1,582,511 |
| British Columbia. | 160.553 | 27.398 | 51,134 | 239.085 | 166.333 | 32,424 | 58,117 | 256,874 |
| Totals | 5,040,534 | 1,008, 683 | 1,475,912 | 7,525,129 | 5,417,828 | 1,179,005 | 1,626,438 | 8,223,271 |

[^141]Value of Farm Lands.-The average value of occupied farm land in Canada for 1950 was reported at $\$ 43$ per acre. This was an increase of $7 \cdot 5$ p.c. over the 1949 average value but an advance of $79 \cdot 2$ p.c. over the 1935-39 level. The allCanada average is determined by weighting the provincial averages by the area of occupied farm land in each province according to the latest census figures available. The upward trend in farm land values from pre-war levels reflects, at least in part, the relative changes in the price levels of farm products and of the things that farmers buy. The Bureau's index of farm prices of agricultural products for 1950 was $160 \cdot 8$ p.c. above the $1935-39$ level, while for the same year the index of prices of commodities and services used by farmers, including living costs, advanced 95 p.c. over the 1935-39 base-period level.

## 12.-Average Values per Acre of Occupied Farm Lands, Selected Years, 1910-50

Nore.-Figures include unimproved lands and buildings.

| Province | 1910 | 1920 | 1927 | 1929 |  | 1935 |  | 19 | 194 |  | 942 | 1943 | 944 |  |  |  | 1947 | 1948 | 19 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | 8 | \$ | 8 | 8 |  | \$ | \$ | \$ | S |  | \$ | \$ | \$ | \$ | 8 |
| Newfoundland. | 31 | 49 | 41 | 43 | 31 | 31 | 35 | 32 | 34 |  | 37 | 37 | \#i | 43 |  | $\ldots$ | 73 | 5i |  |  |
| Nova Scotia.. | 25 | 43 | 37 | ${ }_{36}$ | 28 | 31 | 33 | 28 | 31 |  | 33 | 35 | 41 | ${ }_{41}^{43}$ |  | ${ }_{42}^{42}$ | 46 | 48 | 49 | 52 |
| New Brunswick | 19 | 35 | 30 | 35 | 24 | 25 | 29 | 24 | 25 |  | 30 | ${ }^{33}$ | 40 | 40 |  | 39 | 44 | 44 | 45 | 51 |
| Quebec. | 43 | 70 | ${ }_{65}^{57}$ | 55 | ${ }_{38}^{37}$ | 41 | 44 | 44 | 50 |  | 55 | 58 | 58 | 57 |  | 59 | 61 | 63 | 59 | ${ }^{66}$ |
| Manitoba | ${ }_{29}^{48}$ | 70 | ${ }_{27}^{65}$ | 60 26 | 16 | 17 | 46 17 | ${ }_{16}^{46}$ | 45 17 |  | 18 | 56 19 | ${ }_{20}^{58}$ | 57 |  | ${ }_{25}^{59}$ | 6 | 68 | 71 | ${ }_{39}$ |
| Saskatchewan | 22 | 32 | 26 | 25 | 16 | 17 | 15 | 15 | 14 |  | 15 | 15 | 17 | 18 |  | 19 | 21 | 24 | 24 | ${ }_{26}$ |
| Alberta. | 24 | 32 | 26 | 28 | 17 | 16 | 16 | 16 | 16 |  | 17 | 18 | 19 | 20 |  | 21 | 25 | 31 | 33 | 35 |
| British Columbia.. | 74 | 175 | 89 | 90 | 65 | 58 | 60 | 58 | 60 |  | 62 | 62 | 64 | 67 |  | 70 | 75 | 79 | 84 | 87 |
| Totals. | 33 | 48 | 38 | 37 | 24 | 24 | 25 | 24 | 25 |  | 26 | 28 | 30 | 30 |  | 32 | 35 | 39 | 40 | 43 |

## Subsection 2.-Volume of Agricultural Production

The index of physical volume of agricultural production, based on the period 1935-39, inclusive, represents a measure of "net farm production". This is achieved by removing duplication, e.g., when feed grains credited to field-crop production also appear in the various forms of live stock and live-stock products.

The high point of the index, $164 \cdot 2$, was reached in 1942; in 1950 it stood at 139 -8.

## 13.-Index Numbers of Physical Volume of Agricultural Production, by Provinces, 1941-50

(1935-39=100. Exclusive of Newfoundland)

Note.-For a description of this index, methods and coverage, see D.B.S. Quarterly Bulletin of Agricultural Statistics for July-September, 1949. Figures for 1935-40 are given at p. 420 of the 1950 Year Book.

| Year | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1941. | $90 \cdot 6$ | 91.3 | 101.9 | 106.2 | 107.4 | 133.9 | $110 \cdot 1$ | 100.9 | 113.4 | 108.7 |
| 1942 | 121.9 | 88.5 | $104 \cdot 0$ | 121.7 | 125.0 | $174 \cdot 2$ | $247 \cdot 8$ | 184.2 | 99.9 | $164 \cdot 2$ |
| 1943. | $102 \cdot 7$ | $89 \cdot 6$ | 133.2 | $112 \cdot 3 \mathrm{r}$ | 89.4 | 152.2 | $138 \cdot 1$ | $104 \cdot 6$ | 114.7 | 113.7 |
| 1944 | 119.2 | $107 \cdot 3$ | 136.8 | 131.1 | $114 \cdot 0$ | $145 \cdot 1$ | $196 \cdot 4$ | $125 \cdot 1{ }^{\text {r }}$ | $140 \cdot 0$ | $140 \cdot 4$ |
| 1945 | 121.3 | $80 \cdot 7$ | 106.7 | $100 \cdot 7$ | 107.6 | 116.8 | $129 \cdot 3$ | $97 \cdot 6$ | 131.1 | $110 \cdot 9$ |
| 1946. | $123 \cdot 6$ | $100 \cdot 3$ | 119.6 | $112 \cdot 2$ | 117.6 | $139 \cdot 1$ | $138 \cdot 7$ | 122.7 | 151.9 | $125 \cdot 6$ |
| 1947 | 128.9 | $86 \cdot 7$ | 119.0 | $102 \cdot 6$ | 107.7 | $122 \cdot 1$ | $128 \cdot 2$ | 115.8 | $146 \cdot 8$ | 116.0 |
| 1948 \% | $133 \cdot 3$ | 91.8 | 124.3 | $121 \cdot 6$ | 119.0 | 143.8 | 131.8 | 118.5 | 143.7 | 125.1 |
| 1949 \% | $158 \cdot 8$ | $105 \cdot 1$ | $145 \cdot 8$ | 126.4 | 124.9 | 125.7 | 128.1 | 98.1 | 148.7 | $122 \cdot 3$ |
| 1950. | 147.5 | $105 \cdot 0$ | $137 \cdot 0$ | $135 \cdot 5$ | 131.6 | 138.4 | $168 \cdot 1$ | 126.5 | $134 \cdot 4$ | $139 \cdot 5$ |

## Subsection 3.-Field Crops

The total area of principal field crops in 1950 was estimated at $62,297,000$ acres, up slightly from 1949 and about 7 p.c. above the pre-war (1935-39) level. Production of the major grains in 1950 was well above that in 1949 but severe frost damage to western crops in the autumn of 1950 resulted in the marketing of large volumes of low-quality grain. Of the 1950 wheat crop only an estimated 34 p.c. graded No. 3 Northern or better, in contrast to approximately 85 p.e. of the 1949 crop qualifying for the same grades.

The gross value of production of principal field crops produced on Canadian farms in 1950, based on average prices received by farmers throughout the 1950-51 crop year, was estimated at a record $\$ 1,854,463,000$.

Acreage data for 1951 field crops are not published in the accompanying tables but may be found in the current publications of the 1951 Agricultural Census. Necessary revisions of intercensal data in Tables 14 to 17 are being prepared.

## 14.-Acreages and Values of FieId Crops, by Provinces, 1947-50, with Five-Year Averages, 1935-39

| Province | 1935-39 | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | ACREAGES |  |  |  |  |
|  | '000 | '000 | '000 | '000 | '000 |
| Newfoundland. |  | .. 486 | -.. 487 | - 489 |  |
| Prince Edward Island......................... | 482 | 486 <br> 545 <br> 9 | 487 <br> 524 | 489 509 | 498 505 |
| New Brunswick. | 910 | 949 | 939 | 934 | $\therefore \quad 926$ |
| Quebec. | 6,044 | 6,395 | 6,369 | 6,424 | 6,362 |
| Ontario. | 9,084 | 8,117 | 9,140 | 9,411 | 9,419 |
| Manitoba..... | 6,445 | 6,809 | 6,686 | 6,898 | 6,634 |
| Saskatchewan. | 20,625 | 22,891 | 22,670 | 22,217 | 22,862 |
| Alberta. | 13,426 | 13,966 | 13,530 | 14,351 | 14,431 |
| British Columbia | 487 | 630 | 596 | 630 | 660 |
| Totals, Acreages............ | 58,055 | 60,785 | 60,943 | 61,863 | 62,297 |
|  | VALUES |  |  |  |  |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland ${ }_{\text {Prince Edward İland }}$ |  |  |  |  |  |
| Prince Edward Island.................. | 9,374 12,085 | 23,270 22,430 | 23,484 25,260 | 25,526 22,472 | - 20,330 |
| New Brunswick | 16,958 | 44,178 | 37,921 | 33,120 | 28,948 |
| Quebec..................................... | 87,148 | 170,138 | 195,722 | 193,361 | 211,802 |
| Ontario................................... | 147,031 | 282, 239 | 378,378 | 359, 256 | 423,874 |
| Manitoba. . | 57,990 | 180,748 | 216,676 | 200,452 | 225,834 |
| Saskatchewan | 121,773 | 453,442 | 453,832 | 424,553 | 541,833 |
| Alberta...... | 116,163 | 347, 178 | 348,912 | 283,865 | 347,491 |
| British Columbia | 14,739 | 33,360 | 33,703 | 34,780 | 30,474 |
| Totals, Values. | 583,261 | 1,556,984 | 1,713,888 | 1,577,385 | 1,854,463 |

## 15.-Acreages, Yields and Prices of Principal Field Crops, 1949 and 1950, with Five-Year Averages, 1945-49.

(Exclusive of Newfoundland)

| Crop and Year | Area | Yield per Acre | Pro- duction | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { Price } \end{aligned}$ | Total <br> Value ${ }^{1}$ | Crop and Year | Area | Yield per Acre | Production | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { Price } \end{aligned}$ | Total <br> Value ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { '000 } \\ & \text { acres } \end{aligned}$ | bu. | $\begin{gathered} \text { '000 } \\ \text { bu. } \end{gathered}$ | $\begin{aligned} & \text { \$per } \\ & \text { bu. } \end{aligned}$ | \$'000 |  | $\begin{aligned} & \text { '000 } \\ & \text { acres } \end{aligned}$ | bu. | $\begin{aligned} & \text { '000 } \\ & \text { bu. } \end{aligned}$ | \$ per bu. | \$'000 |
| Wheat- | 24,717 | 14.8 | 366,349 | 1.62 | 593,271 | Flaxseed- Av. 1945-49 | 1,135 | $8 \cdot 2$ | 9,253 | $3 \cdot 84$ | 489 |
| 1949... | 27,575 | 13.5 | 371,406 | 1.61 | 599,485 | 1949........ | ${ }^{1,132}$ | $7 \cdot 1$ | 2,284 | $3 \cdot 31$ | 7,570 |
| 1950 | 27,021 | $17 \cdot 1$ | 461,664 | 1.54 | 712,210 | 1950. | 560 | $8 \cdot 4$ | 4,686 | $3 \cdot 47$ | 16,260 |
| Oats- Av. 1945-49 | 12,021 | 28.4 | 341,612 | $0 \cdot 67$ | 229,883 |  |  | cwt. | '000 | $\begin{aligned} & \text { § per } \\ & \text { cwt. } \end{aligned}$ |  |
| 1949.. | 11,389 | 27.9 | 317,916 | 0.79 | 251,045 | Potatoes- |  |  |  |  |  |
| 1950 | 11,575 | $36 \cdot 3$ | 419,930 | 0.79 | 331,015 | Av. 1945-49 | 509 | 156.0 | 79,282 | $11 \cdot 11$ | 69 |
|  |  |  |  |  |  | 1949........ | 510 | $175 \cdot 0$ | 89,197 | 0.93 | 83,255 |
| Barley- |  |  |  |  |  | 1950........ | 505 | $192 \cdot 0$ | 97,045 | 0.77 | 74,970 |
| Av. 1945-49 | 6,717 | 21.5 | 144,688 | 0.94 | 136,599 |  |  |  |  |  |  |
| 1949. | 6,017 | $20 \cdot 0$ | 120,408 | $1 \cdot 30$ | 157,124 |  |  | ton | '000 | \$per |  |
| 1950. | 6,625 | $25 \cdot 9$ | 171,393 | $1 \cdot 13$ | 193,658 |  |  |  | ton | ton |  |
| Rye- |  |  |  |  |  | Hay and Clover- |  |  |  |  |  |
| Av. 1945-49 | 1,128 | 11.2 | 12,654 | 1.86 | 23,482 | Av. 1945-49 | 9,911 | 1.54 | 15,297 | 14.92 | 228,281 |
| 1949. | 1,182 | $8 \cdot 5$ | 10,011 | 1.23 | 18,294 | 1949. | 9,502 | 1.28 | 12,122 | $19 \cdot 61$ | 237,744 |
| 1950. | 1,168 | 11.4 | 13,333 | $1 \cdot 33$ | 17,697 | 1950 | 9,254 | 1.40 | 12,913 | 18.11 | 233,900 |
| Mixed Grains- |  |  |  |  |  | Alfalfa- |  |  |  |  |  |
| Av. 1945-49 | $1,429$ |  | $50,551$ | 0.85 | 42,859 | Av. 1945-49 | 1,358 |  | $2,959$ |  | 46,193 |
| 1949........ | 1,683 1,679 | $33 \cdot 2$ $44 \cdot 2$ | 55,928 74,190 | 0.85 1.02 | -55,627 | 1949........ | 1,489 1,547 | 1.75 2.09 | 2,602 | (19.70 | 55,031 63,675 |
|  |  |  |  |  |  |  |  |  |  |  | 63,675 |

${ }^{1}$ Gross value of farm production; does not represent cash income from sales.

## 16.-Acreages, Production and Values of Principal Field Crops, by Provinces, 1949 and 1950, with Five-Year Averages, 1945-49

(Exclusive of Newfoundland)

| Province | Area |  |  | Total Production |  |  | Gross Farm Value |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|} \hline \text { Aver- } \\ \text { age } \\ 1945-49 \end{array}$ | 1949 | 1950 | $\begin{gathered} \hline \text { Aver- } \\ \text { age } \\ 1945-49 \end{gathered}$ | 1949 | 1950 | $\begin{gathered} \text { Aver- } \\ \text { age } \\ 1945-49 \end{gathered}$ | 1949 | 1950 |
| Maritimes- <br> Prince Edward Island. Nova Scotia <br> New Brunswick............ | '000 ac. | '000 ac. | '000 ac. | '000 bu. | '000 bu. | '000 bu. | \$'000 | \$'000 | \$'000 |
|  | WHEAT |  |  |  |  |  |  |  |  |
|  | 724 |  |  | 107 29 55 | 150 44 79 | $\begin{array}{r} 187 \\ 45 \\ 90 \end{array}$ | 167 43 92 | 278 76 149 | $\begin{array}{r}337 \\ 78 \\ 157 \\ \hline\end{array}$ |
| Totals, Maritimes. | 10 | 12 | 13 | 191 | 273 | 322 | 302 | 503 | 572 |
| Central CanadaQuebec Ontario <br> (a) winter wheat. <br> (b) spring wheat. | $\begin{array}{r} 24 \\ 719 \\ 43 \end{array}$ | $\begin{array}{r} 26 \\ 805 \\ 59 \end{array}$ | $\begin{gathered} 33 \\ 928 \\ 55 \end{gathered}$ | $\begin{array}{r} 412 \\ 20,970 \\ 867 \end{array}$ | $\begin{array}{r} 468 \\ 24,714 \\ 1,062 \end{array}$ | $\begin{array}{r} 691 \\ 30,067 \\ 1,166 \end{array}$ | $\begin{array}{r} 633 \\ 33,066 \\ 1,376 \end{array}$ | $\begin{array}{r} 856 \\ 43,744 \\ 1,880 \end{array}$ | $\begin{array}{r} 1,230 \\ 53,519 \\ 2,075 \end{array}$ |
| Totals, Central Canada.. | 786 | 890 | 1,016 | 22,249 | 26,244 | 31,924 | 35,075 | 46,480 | 56,824 |
| Prairie ProvincesManitoba. | 2,442 | 2,887 | 2,382 | $\begin{array}{r} 48,160 \\ 185,220 \end{array}$ | $\begin{array}{r} 52,000 \\ 186,000 \end{array}$ | $\begin{array}{r} 50,000 \\ 260,000 \end{array}$ | $\begin{array}{r} 79,827 \\ 301,085 \end{array}$ | $\begin{array}{r} 84,760 \\ 299,460 \end{array}$ | $\begin{array}{r} 81,000 \\ 387,400 \\ 182,520 \end{array}$ |
| Saskatchewan............ | 14,438 | 15,737 | 16,203 |  |  |  |  |  |  |
| Alberta. | 6,920 | 7,900 | 7,251 | 107,540 | 103,000 | 117,000 | 171,983 | 161,710 |  |
| Totals, Prairie Provinces. <br> British Columbia. <br> Totals. | 23,800 | 26,524 | 25,836 | 340,920 | 341,000 | 427,000 | 552,895 | 545,930 | 650,920 |
|  | 122 | 149 | 157 | 2,989 | 3,889 | 2,418 | 4,999 | 6,572 | 3,893$\mathbf{7 1 2 , 2 1 0}$ |
|  | 24,718 | 27,575 | 27,021 | 366,349 | 371,406 | 461,664 | 593,271 | 599,485 |  |

## 16.-Acreages, Production and Values of Principal Field Crops, by Provinces, 1949 and 1950, with Five-Year Averages, 1945-49-continued

| Province | Area |  |  | Total Production |  |  | Gross Farm Value |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \hline \text { Aver- } \\ \text { age } \\ 1945-49 \end{gathered}$ | 1949 | 1950 | $\begin{gathered} \hline \text { Aver- } \\ \text { age } \\ 1945-49 \end{gathered}$ | 1949 | 1950 | $\begin{array}{c\|} \hline \text { Aver- } \\ \text { age } \\ 1945-49 \end{array}$ | 1949 | 1950 |
| Maritimes- <br> Prince Edward Island Nova Scotia <br> New Brunswick........ | '000 ac. | '000 ac. | '000 ac. | '000 bu. | '000 bu. | '000 bu. | \$'000 | \$'000 | \$'000 |
|  | OATS |  |  |  |  |  |  |  |  |
|  | $\begin{gathered} \\ 118 \\ 69 \\ 191 \end{gathered}$ | 11370189 | $\begin{array}{r} 113 \\ 69 \\ 184 \end{array}$ | $\begin{aligned} & \\ & 4,379 \\ & 2,389 \\ & 6,599 \end{aligned}$ | $\begin{aligned} & 4,407 \\ & 2,780 \\ & 6,993 \end{aligned}$ | 4,9723,1698,280 | 3,3562,0395,171 | $\begin{aligned} & 3,614 \\ & 2,558 \\ & 6,014 \end{aligned}$ | $\begin{aligned} & 4,375 \\ & 3,201 \\ & 7,452 \end{aligned}$ |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Totals, Maritimes....... | 378 | 372 | 366 | 13,367 | 14,180 | 16,421 | 10,566 | 12,186 | 15,028 |
| Central CanadaQuebec. | $\begin{aligned} & 1,481 \\ & 1,673 \end{aligned}$ | $\begin{aligned} & 1,509 \\ & 2,086 \end{aligned}$ | 1,5462,128 | $\begin{aligned} & 35,462 \\ & 63,168 \end{aligned}$ | $\begin{aligned} & 37,574 \\ & 71,967 \end{aligned}$ | $\begin{aligned} & 50,620 \\ & 96,186 \end{aligned}$ | $\begin{array}{r} 28,745 \\ 47,005 \end{array}$ | $\begin{aligned} & 33,817 \\ & 60,452 \end{aligned}$ | $\begin{aligned} & 50,114 \\ & 86,567 \end{aligned}$ |
| Ontario. |  |  |  |  |  |  |  |  |  |
| Totals, Central Canada | 3,154 | 3,595 | 3,674 | 98,630 | 109,541 | 146,806 | 75,750 | 94,269 | 136,681 |
| Prairie ProvincesManitoba. |  |  |  |  |  | $\begin{array}{r} 70,000 \\ 112,000 \\ 72,000 \end{array}$ | $\begin{aligned} & 33,205 \\ & 61,734 \\ & 45,962 \end{aligned}$ | $\begin{aligned} & 40,810 \\ & 62,900 \\ & 37,440 \end{aligned}$ | $\begin{aligned} & 50,400 \\ & 77,280 \\ & 49,680 \end{aligned}$ |
| Saskatchewan | $\begin{aligned} & 1,542 \\ & 4,212 \\ & 2,654 \end{aligned}$ | $\begin{aligned} & 1,703 \\ & 3,381 \\ & 2,255 \end{aligned}$ | $\begin{aligned} & 1,610 \\ & 3,381 \\ & 2,455 \end{aligned}$ | $\begin{aligned} & 51,300 \\ & 99,400 \\ & 75,000 \end{aligned}$ | $\begin{aligned} & 53,000 \\ & 85,000 \\ & 52,000 \end{aligned}$ |  |  |  |  |
| Alberta. |  |  |  |  |  |  |  |  |  |
| Totals, Prairie Provinces. <br> British Columbia <br> Totals. $\qquad$ | 8,408 | 7,339 | 7,446 | 225,700 | 190.000 | 254,000 | 140,901 | 141,150 | 177,360 |
|  | 81 | 83 | 89 | 3,915 | 4,195 | 2,703 | 2,666 | 3,440 | 1,946 |
|  | 12,021 | 11,389 | 11,575 | 341,612 | 317,916 | 419,930 | 229,883 | 251,045 | 331,015 |
|  | BARLEY |  |  |  |  |  |  |  |  |
| MaritimesPrince Edward Island Nova Scotia New Brunswick. $\qquad$ | 11 <br> 8 <br> 12 | 10 <br> 8 <br> 15 | 12 <br> 8 <br> 17 | $\begin{aligned} & 324 \\ & 221 \\ & 364 \\ & \hline \end{aligned}$ | $\begin{aligned} & 337 \\ & 234 \\ & 435 \end{aligned}$ | $\begin{aligned} & \hline \\ & 425 \\ & 285 \\ & 661 \end{aligned}$ | $\begin{aligned} & \\ & 331 \\ & 249 \\ & 406 \end{aligned}$ | $\begin{aligned} & 394 \\ & 295 \\ & 552 \\ & \hline \end{aligned}$ | 527370859 |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Totals, Maritimes. | 31 | 33 | 37 | 909 | 1,006 | 1,371 | 986 | 1,241 | 1,756 |
| Central CanadaQuebec............ | $\begin{aligned} & 137 \\ & 256 \end{aligned}$ | $\begin{aligned} & 125 \\ & 228 \end{aligned}$ | $\begin{aligned} & 142 \\ & 222 \end{aligned}$ | $\begin{aligned} & 3,076 \\ & 8,193 \end{aligned}$ | $\begin{aligned} & 3,000 \\ & 6,908 \end{aligned}$ | $\begin{aligned} & 4,325 \\ & 8,325 \end{aligned}$ |  |  |  |
| Ontario. |  |  |  |  |  |  | $\begin{aligned} & 3,374 \\ & 7,867 \end{aligned}$ | $\begin{aligned} & 3,750 \\ & 8,635 \end{aligned}$ | $\begin{array}{r} 5,752 \\ 10,822 \end{array}$ |
| Totals, Central Canada.. | 393 | 353 | 364 | 11,269 | 9,908 | 12,650 | 11,241 | 12,385 | 16,574 |
| Prairie Provinces- | $\begin{aligned} & 1,795 \\ & 2,377 \\ & 2,106 \end{aligned}$ |  |  |  |  |  |  |  |  |
| Saskatchewan |  | $\begin{aligned} & 1,699 \\ & 1,800 \\ & 2,118 \end{aligned}$ | $\begin{aligned} & 1,717 \\ & 1,954 \\ & 2,534 \end{aligned}$ | $\begin{aligned} & 42,900 \\ & 43.500 \\ & 45,600 \end{aligned}$ | $\begin{aligned} & 40,000 \\ & 33.000 \\ & 36.000 \end{aligned}$ | $\begin{aligned} & 55,000 \\ & 46.000 \\ & 56.000 \end{aligned}$ | $\begin{aligned} & 41,416 \\ & 40,125 \\ & 42.326 \end{aligned}$ | $\begin{aligned} & 56,000 \\ & 42,240 \\ & 44,640 \end{aligned}$ | $\begin{aligned} & 62,700 \\ & 50,600 \\ & 61,600 \end{aligned}$ |
| Alberta. |  |  |  |  |  |  |  |  |  |
| Totals, Prairie Provinces. | 6,278 | 5,617 | 6,205 | 132,000 | 109,000 | 157,000 | 123,867 | 142,880 | 174,900 |
| British Columbia......... | 15 | 14 | 19 | 510 | 494 | - 372 | 505 | 618 | 428 |
| Totals. | 6,717 | 6,017 | 6,625 | 144,688 | 120,408 | 171,393 | 136,599 | 157,124 | 193,658 |

FALL RYE

Ontario

Totals

| 87 | 106 | 91 | 1,810 | 2,226 | 1,856 | 2,964 | 2,961 | 2,598 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 40 | 40 | 69 | 664 | 665 | 1,100 | 1,132 | 791 | 1,441 |
| 496 | 557 | 518 | 4,023 | 3.000 | 4.400 | 7,883 | 3,600 | 5,720 |
| 201 | 170 | 152 | 3,026 | 1.300 | 1,900 | 5,704 | 1.521 | 2,508 |
| 737 | 767 | 739 | 7.713 | 4.965 | 7,400 | 14.719 | 5,912 | 9,669 |
| 824 | 873 | 830 | 9,523 | 7,191 | 9,256 | 17,683 | 8,873 | 12,267 |

16.-Acreages, Production and Values of Principal Field Crops, by Provinces, 1949 and 1950, with Five-Year Averages, 1945-49-continued

| Province | Area |  |  | Total Production |  |  | Gross Farm Value |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Aver- } \\ \text { age } \\ 1945-49 \end{gathered}$ | 1949 | 1950 | $\begin{array}{c\|} \hline \text { Aver- } \\ \text { age } \\ 1945-49 \end{array}$ | 1949 | 1950 | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & 1945-49 \end{aligned}$ | 1949 | 1950 |
| Quebec................... | '000 ac. | '000 ac. | '000 ac. | '000 bu. ' | 000 bu . | '000 bu. | \$'000 | \$'000 | \$'000 |
|  | SPRING RYE |  |  |  |  |  |  |  |  |
|  | 10 | 14 | 14 | 166 | 221 | 261 | 217 | 336 | 428 |
| Prairie ProvincesManitoba. | 10163120 | 6133155 | 113 | $\begin{array}{r} 141 \\ 1,638 \\ 1,165 \end{array}$ | $\begin{array}{r} 85 \\ 1,400 \\ 1,100 \end{array}$ | $\begin{array}{r} 200 \\ 1,800 \end{array}$ | $\begin{array}{r} 253 \\ 3,078 \end{array}$ | 1011,680 | 2,340 |
| Saskatchewan. |  |  |  |  |  |  |  |  |  |
| Alberta. |  |  | 160 |  |  | 1,800 | 2,213 | 1,287 | 2,376 |
| Totals, Prairie Provinces. | 293 |  | 323 | 2,944 | 2,585 | 3,800 | 5,544 | 3,068 | 4,978 |
| British Columbia <br> Totals | 1 | 1 | 1 | 21 | 14 | 16. | 38 | 17 | 24 |
|  | 304 | 309 | 338 | 3,131 | 2,820 | 4,077 | 5,799 | 3,421 | 5,430 |
|  | ALL RYE |  |  |  |  |  |  |  |  |
| Central Canada- <br> Quebec. <br> Ontario. $\qquad$ | 10 14 <br> 87 106 |  | 1491 | $\begin{array}{r} 166 \\ 1,810 \end{array}$ | $\begin{array}{r} 221 \\ 2,226 \end{array}$ | $\begin{array}{r} 261 \\ \mathbf{1}, 856 \end{array}$ | $\begin{array}{r} 217 \\ 2,964 \end{array}$ | $\begin{array}{r} 336 \\ 2,961 \end{array}$ | $\begin{array}{r} 428 \\ 2,598 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |  |
| Totals, Central Canada.. | 97 | 120 | 105 | 1,976 | 2,447 | 2,117 | 3,181 | 3,297 | 3,026 |
| Prairie ProvincesManitoba. | $\begin{array}{r} 50 \\ 654 \\ 321 \end{array}$ | $\begin{array}{r} 46 \\ 690 \\ 325 \end{array}$ | $\begin{gathered} 82 \\ 668 \\ 312 \end{gathered}$ | $\begin{array}{r} 805 \\ 5,661 \\ 4,191 \end{array}$ | $\begin{array}{r} 750 \\ 4,400 \\ 2,400 \end{array}$ | $\begin{aligned} & 1,300 \\ & 6,200 \\ & 3,700 \end{aligned}$ | $\begin{array}{r} 1,385 \\ 10,961 \\ 7,197 \end{array}$ | $\begin{array}{r} 892 \\ 5,280 \\ 2,808 \end{array}$ | $\begin{aligned} & 1,703 \\ & 8,060 \\ & 4,884 \end{aligned}$ |
| Saskatchewan........... |  |  |  |  |  |  |  |  |  |
| Alberta................... |  |  |  |  |  |  |  |  |  |
| Totals, Prairie Provinces. | 1,025 1,061 |  | 1,062 | 10,657 | 7,550 | 11,200 | 19,543 | 8,980 | 14,647 |
| British Columbia......... | 1 | 1 | 1 | 21 | 14 | 16 | 38 | 17 | 24 |
| Totals. | 1,123 | 1,182 | 1,168 | 12,654 | 10,011 | 13,333. | 22,762 | 12,294 | 17,697 |
|  | PEAS |  |  |  |  |  |  |  |  |
| Central CanadaQuebec........... | 1931 | $\begin{aligned} & 15 \\ & 25 \end{aligned}$ | 14 | 261 | 222 | 248 | $\begin{array}{r} 982 \\ 1,575 \end{array}$ | $\begin{aligned} & 888 \\ & 966 \end{aligned}$ | $\begin{array}{r} 1,084 \\ 849 \\ \hline \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Totals, Central Canada.. | 50 | 40 | 32 | 813 | 613 | 531 | 2,557 | 1,854 | 1,933 |
| Prairie Provinces- | 19616 | 626 | 617 | $\begin{array}{r} 334 \\ 91 \\ 215 \end{array}$ | $\begin{array}{r} 120 \\ 44 \\ 85 \end{array}$ | 1161294 | $\begin{aligned} & 846 \\ & 242 \\ & 598 \end{aligned}$ | $\begin{aligned} & 234 \\ & 101 \\ & 298 \end{aligned}$ | $\begin{array}{r}238 \\ 28 \\ 268 \\ \hline\end{array}$ |
| Manitoba................ |  |  |  |  |  |  |  |  |  |
| Saskatchewan........... |  |  |  |  |  |  |  |  |  |
| Alberta................... |  |  |  |  |  |  |  |  |  |
| Totals, Prairie Provinces. | $41 \quad 14$ |  | 14 | 640 | 249 | 222 | 1,686 | 633 | 534 |
| British Columbia <br> Totals. | 4 |  | 4 | 126 | 74 | 59 | 326 | 166 | 177 |
|  | 971 | 58 | 49 | 1,579 | 936 | 812 | 4,569 | 2,653 | 2,644 |
|  | BEANS |  |  |  |  |  |  |  |  |
| New Brunswick. ......... | 1 | 1 | 1 | 19 | 25 | 17 | 81 | 119 | 81 |
| Central CanadaQuebec. $\qquad$ | 12 | 1081 | 965 | $\begin{array}{r} 183 \\ 1,326 \end{array}$ | $\begin{array}{r} 156 \\ 1,578 \end{array}$ | $\begin{array}{r} 158 \\ 1,168 \end{array}$ | $\begin{array}{r} 760 \\ 4,900 \end{array}$ | $\begin{array}{r} 702 \\ 5,239 \end{array}$ | $\begin{array}{r} 732 \\ 5,606 \end{array}$ |
| Ontario.. | 80 |  |  |  |  |  |  |  |  |
| Totals, Central Canada.. | 92 | 91 | 74 | 1,509 | 1,734 | 1,326 | 5,660 | 5,941 | 6,338 |
| British Columbia. | 1 | 1 | 1 | 14 | 7 | 7 | 48 | 32 | 34 |
| - Totals | 94 | 93 | 76 | 1,542 | 1,766 | 1,350 | 5,789 | 6,092 | 6,453 |

${ }^{1}$ Less than 500 acres.

## 16.-Acreages, Production and Values of Principal Field Crops, by Provinces, 1949 and 1950, with Five-Year Averages, 1945-49-continued



## 16.-Acreages, Production and Values of Principal Field Crops, by Provinces, 1949 and 1950, with Five-Year Averages, 1945-49-continued


16.-Acreages, Production and Values of Principal Field Crops, by Provinces, 1949 and 1950, with Five-Year Averages, 1945-49-continued


## 16.-Acreages, Production and Values of Principal Field Crops, by Provinces, 1949 and 1950, with Five-Year Averages, 1945-49-concluded

| Province | Area |  |  | Total Production |  |  | Gross Farm Value |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c\|} \hline \text { Aver- } \\ \text { age } \\ 1945-49 \end{array}$ | 1949 | 1950 | $\left\lvert\, \begin{gathered} \text { Aver- } \\ \text { age } \\ 1945-49 \end{gathered}\right.$ | 1949 | 1950 | $\begin{array}{\|c\|} \hline \text { Aver- } \\ \text { age } \\ 1945-49 \end{array}$ | 1949 | 1950 |
| Prairie Provinces- <br> Manitoba. <br> Saskatchewan. $\qquad$ <br> Alberta. $\qquad$ <br> Totals, Prairie Provinces. | '000 ac. | '000 ac. 1 | '000 ac. | '000 tons\|' | 000 tons ' | 000 tons | \$'000 | \$'000 | 8'000 |
|  | FODDER CORN-concluded |  |  |  |  |  |  |  |  |
|  | 21 20 <br> 6 4 <br> 2 1 |  | 19 5 1 | 73 15 10 | 96 9 3 | 95 11 10 | $\begin{array}{r} 528 \\ 146 \\ 59 \\ \hline \end{array}$ | 768 124 21 | $\begin{array}{r} 760 \\ 121 \\ 75 \end{array}$ |
|  | 29 | 25 | 25 | 98 | 108 | 116 | 733 | 913 | 956 |
| British Columbia. <br> Totals. | 4 | 4 | 3 | 42 | 46 | 36 | 310 | 368 | 324 |
|  | 507 | 567 | 628 | 4,401 | 5,476 | 6,421 | 22,961 | 34,615 | 34,746 |
|  | GRAIN HAY |  |  |  |  |  |  |  |  |
| Alberta <br> British Columbia <br> Totals. | $\begin{array}{r}826 \\ 39 \\ \hline\end{array}$ | 70040 | 77044 | 1,11875 | 84074 | 1,02485 | 8,7791,111 | 10,0801,221 | $\begin{array}{r} 12,800 \\ 1,700 \end{array}$ |
|  |  |  |  |  |  |  |  |  |  |
|  | 865 740 $\quad 814$ 1,193 |  |  |  | 914 | 1,109 | 9,890 | 11,301 | 14,500 |
|  | SUGAR BEETS |  |  |  |  |  |  |  |  |
| Central Canada- <br> Quebec. <br> Ontario $\qquad$ <br> Totals, Central Canada. | $\begin{array}{r}3 \\ 22 \\ \hline\end{array}$ | 66 | 12 <br> 34 | $\begin{array}{r} 27 \\ 218 \end{array}$ | $\begin{array}{r} 69 \\ 335 \end{array}$ | $\begin{aligned} & 147 \\ & 386 \end{aligned}$ | $\begin{array}{r} 344 \\ 2,950 \end{array}$ | $\begin{array}{r} 892 \\ 4,565 \end{array}$ | $\begin{aligned} & 1,911 \\ & 6,010 \end{aligned}$ |
|  | 25 | 36 | 46 | 245 | 404 | 533 | 3,294 | 5,457 | 7,921 |
| Manitoba <br> Alberta | 1130 | $\begin{aligned} & 16 \\ & 32 \end{aligned}$ | $\begin{aligned} & 20 \\ & 36 \\ & \hline \end{aligned}$ | $\begin{array}{r} 90 \\ 354 \end{array}$ | $\begin{aligned} & 127 \\ & 328 \end{aligned}$ | $\begin{aligned} & 150 \\ & 445 \end{aligned}$ | 1,111 | $\begin{aligned} & 1,817 \\ & 4,476 \end{aligned}$ | $\begin{aligned} & 2,325 \\ & 8,213 \end{aligned}$ |
|  |  |  |  |  |  |  | 4,672 |  |  |
| - Totals | 66 | 84 | 102 | 689 | 859 | 1,128 | 9,077 | 11,750 | 18,459 |

17.-Acreages and Production of Grain in the Prairie Provinces, 1949 and 1950

Nore.-Figures for years prior to 1949 will be found in corresponding tables of previous editions of the Year Book.

| Grain | Acreages |  | Production |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1949 | 1950 | 1949 | 1950 |
|  | '000 acres | '000 acres | '000 bu. | '000 bu. |
| Wheat.. | 26,490 7 | 25,836 7 | 337,000 190,000 | 427,000 254,000 |
| Oats... | 7,339 5,617 | 7,446 6,205 | 180,000 109,000 | 254,000 157,000 |
| Rye... | 1,061 | 1,062 | 7,550 | 11,200 |
| Flaxseed. | 304 | 525 | 2,050 | 4,300 |

Stocks of Grain in Canada.-Table 18 shows the stocks of Canadian grain on hand on July 31 for the years 1945-51, with averages for the five-year periods 1935-39 and 1940-44, in both Canada and the United States, also the amounts held on farms in Canada. Farm stocks are given for Canada and the Prairie Provinces separately, while an additional column indicates the amounts held in country elevators in the Prairie Provinces.

## 18.-Carryover of Canadian Grain as at July 31, 1945-51, with Five-Year Averages, 1935-39 and 1940-44

Nore.-Figures for individual years prior to 1945 will be found in corresponding tables of previous editions of the Year Book.

| Year ended July 31- | Total in Canada and United States | $\begin{aligned} & \text { Total } \\ & \text { in } \\ & \text { Canada } \end{aligned}$ | $\begin{aligned} & \text { In } \\ & \text { Commercial } \\ & \text { Storage } \\ & \text { in } \\ & \text { Canada } \end{aligned}$ | $\begin{aligned} & \text { On Farms } \\ & \text { in } \\ & \text { Canada } \end{aligned}$ | Prairie Provinces |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | On Farms | In Country 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 |
| 1945. | 258,072,830 | 238,480,041 | 209,830, 041 | 28,650,000 | 27,000,000 | 62,050,936 |
| 1946 | 73,600,209 | 73,466,209 | 46,263,209 | 27, 203,000 | 25,841,000 | 14,341,575 |
| 1947. | 86,141,289 | 86,054, 623 | 60,066, 623 | 25,988,000 | 24,487,000 | 17,134,906 |
| 1948. | 77,710,410 | 77,675,758 | 38,513,758 | 39,162,000 | 38,000,000 | 14,402,528 |
| 1949. | 102,411, 241 | 102,342,747 | 58,919,747 | 43, 423,000 | 41,000,000 | 15,563,944 |
| 1950........... | 112,199,543 | 112,199,543 | 99,810,543 | 12,389,000 | 11,000,000 | 24,054,149 |
| 1951p............ | 189,202,667 | 187,189,563 | 164,929,563 | 22,260,000 | 20,000,000 | 78,529,616 |
|  | OATS |  |  |  |  |  |
| Av. 1835-39. | 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 |
| 1945. | 98,255,162 | 94,749,878 | 29,924,878 | 64,825,000 | 54,500,000 | 5,460,089 |
| 1946. | 77,491,528 | 77,491,528 | 26,404,528 | 51,087,000 | 40,902,000 | 7,631,949 |
| 1947. | 69,483,926 | 69,392,926 | 16,826,926 | 52,566,000 | 39,812,000 | 5,712,431 |
| 1948 | 47, 891,059 | 47,065,974 | 9,472,974 | 37,593,000 | $32,000,000$ | 2,317,843 |
| 1949 | 60,506, 604 | 60,506,604 | 12,143,604 | 48,363,000 | 38,000,000 | 4,334,163 |
| 1950 | 44,904,579 | 44,904,579 | 11,325,579 | 33,579,000 | 26,000,000 | 3,483,376 |
| 1951p............ | $95,177,487$ | 94,526,622 | 35,045,622 | 59,481,000 | 43,000,000 | 14,922,787 |
|  | 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 |
| 1945. | 28,919,181 | 28,253,191 | 10,434, 191 | 17,819,000 | 17,000,000 | 4,258,071 |
| 1946 | 29,937,099 | 29,832,559 | 15,948,559 | 13,884,000 | 13,250,000 | 5,996,031 |
| 1947 | 28,764,387 | 28,764,387 | 12,272,387 | 16,492,000 | 15,453,000 | 3,519,955 |
| 1948. | 31,449,460 | 31,153,555 | 13,780,555 | 17,373,000 | 17,000,000 | 2,220,313 |
| 1949 | 29,669,143 | 29,556,799 | 11,074,799 | 18,482,000 | 18,000,000 | 3,216,933 |
| 1950 | 20,355,035 | 20,188,842 | 8,864,842 | 11,324,000 | 11,000,000 | 2,777,584 |
| 19510............ | 53,496, 371 | 53,496,371 | 35,642,371 | 17,854,000 | 17,000,000 | 11,584,103 |
|  | RYE |  |  |  |  |  |
| Av. 1935-39. | 2,236,368 | 1,940,370 | 1,763,390 | 176,980 | 149,000 |  |
| Av. 1940-44. | 6,897,205 | 4,942,647 | 3,260,247 | 1,682,400 | 1,617,800 | 1,172,857 |
| 1945 | 2,023,933 | 2,023,933 | 1,518,933 | 505,000 | 465,000 | 123,595 |
| 1946. | 768,149 | 2,768,149 | -515,149 | 253,000 | 215,000 | 269,878 |
| 1947. | 755, 163 | 732,163 | 452,163 | 280,000 | 212,000 | 132,217 |
| 1948. | 903,746 | 903,746 | -627,746 | 276,000 | 275,000 | 482,289 |
| 1949. | 11,917,893 | 11,189,867 | 7,002,867 | 4,187,000 | 4,100,000 | 1,714,200 |
| 1950............. | 6,431,085 | 5,307, 219 | 4,176,219 | 1,131,000 | 1,100,000 | -664,768 |
| 1951p............ | 3,298,681 | 2,624,988 | 1,774,988 | 850,000 | 800,000 | 226,523 |
|  | FLA XSEED |  |  |  |  |  |
| Av. 1935-39..... | 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 |
| 1945............ | 2,932,111 | 2,932,111 | 2,178,111 | 754,000 | 750,000 | 321,182 |
| 1946............ | 1,649,218 | 1,649,218 | 1,006,218 | 643,000 | 635,000 | 66,880 |
| 1947............ | 796,918 | 796,918 | 355,918 | 441,000 | 436,000 | 88,474 |
| 1948............ | 3,371,226 | 3,371,226 | 3,076,226 | 295,000 | 295,000 | 604,432 |
| 1949............ | 10,692,153 | 10,692, 153 | 10,501, 153 | 191,000 | 191,000 | 122,586 |
| $1950 \ldots . . . . . . . . . . . . . . . . ~$ | $4,467,771$ $1,203,778$ | $4,467,771$ $1,203,778$ | 4, 360,771 | 107,000 | 105,000 | 31,235 |
| 19510............ | 1,203,778 | 1,203,778 | 997,778 | 206,000 | 205,000 | 113,467 |

## Subsection 4.-Live Stock

The numbers of live stock on farms in the different provinces, as reported at the 1941 and 1951 Censuses, are given in Table 19 and the average value per head of farm live stock is given by provinces in Table 20. The annual estimates for intercensal years, as shown in Tables 19 and 20 of the 1951 Year Book, will be revised on the basis of the 1951 Census figures and will be published in the D.B.S. Quarterly Bulletin of Agricultural Statistics.

## 19.-Live Stock on Farms, by Provinces, at June 1, 1941 and 1951

| Province and Item | 1941 | 1951 | Province and Item | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland- | No. | No. | Manitoba- | No. | No. |
| Horses. | $\ldots$ | 2,874 | Horses. | 301,763 | 130.887 |
| Milk cows ${ }^{1}$ | $\ldots$ | 4,062 | Milk cows ${ }^{1}$ | 306,294 | 218,473 |
| Other cattle | ... | 3,882 | Other cattle | 399,043 | 452,710 |
| Sheep. | ... | 17,519 | Sheep.. | 246,169 | 65,481 |
| Swine. | ... | 1,712 | Swine.. | 503,407 | 337,953 |
| P. E. Island- |  |  | Saskatchewan- |  |  |
| Horses.. | 28,045 | 21,349 | Horses... | 800,693 | 303,853 |
| Milk cows ${ }^{1}$ | 46,404 | 38,909 | Milk cows ${ }^{1}$ | 437,674 | 306,896 |
| Other cattle | 47,973 | 59,015 | Other cattle | 803,471 | 967,953 |
| Sheep. | 44,269 | 34,386 | Sheep. | 330,034 | 136,136 |
| Swine. | 48,205 | 72,499 | Swine. | 943,711 | 533,263 |
| Nova Scotia- |  |  | Alberta- |  |  |
| Horses. | 36,172 | 25,975 | Horses. | 649,216 | 261,133 |
| Milk cows ${ }^{1}$ | 108,130 | 78,970 | Milk cows ${ }^{1}$ | 363, 626 | 277,598 |
| Other cattle | 96,764 | 87,232 | Other cattle | 978,504 | 1,285,421 |
| Sheep. | 138,209 | 95,396 | Sheep. | 674,918 | 330,503 |
| Swine. | 44,303 | 48,216 | Swine. | 1,705,528 | 930,714 |
| New Brunswick- |  |  | British Columbia- |  |  |
| Horses..... | 45,164 | 31,019 | Horses..... | 63,048 | 36,054 |
| Milk cows ${ }^{1}$. | 114,764 | 82,362 | Milk cows ${ }^{1}$. | 92,489 | 82,924 |
| Other cattle | 92,229 | 79,535 | Other cattle | 232,967 | 238,334 |
| Sheep.. | 92,556 | 55,223 | Sheep. | 125,931 | 67,474 |
| Swine. | 68,018 | 78,393 | Swine. | 78,188 | 49,441 |
| Quebec- |  |  | Yukon Territory- |  |  |
| Horses. | 332,734 | 232,863 | Horses.......... | 90 | 5 |
| Milk cows ${ }^{1}$ | 1,000,795 | 895,539 | Milk cows ${ }^{1}$ | 21 | 5 |
| Other cattl | 756,392 | 745,301 | Other cattle | 31 | 10 |
| Sheep. | 526,087 | 316,418 | Sheep.. | 72 | - |
| Swine. | 808,017 | 1,108,306 | Swine. | 72 | - |
| Ontario- |  |  | Totals- |  |  |
| Horses. | 531,960 | 260,627 | Horses. | 2,788,885 | 1,306,639 |
| Milk cows ${ }^{1}$ | 1,155, 849 | 922,116 | Milk cows ${ }^{1}$ | 3,626,046 | 2,907,854 |
| Other cat | 1,483,639 | 1,543,759 | Other cattle | 4,891,013 | 5,463,152 |
| Sheep. | 661,775 | 360,201 | Sheep | 2,839,948 | 1,478,737 |
| Swine. | 1,882,012 | 1,755,490 | Swine | 6,081,461 | 4,915,987 |

${ }^{1}$ Cows and heifers, two years or over, kept for milk purposes.
20.-Average Value per Head of Farm Live Stock, by Provinces, 1941 and 1951

| Province and Item | 1941 | 1951 | Province and Item | 1941 | 1951 | Province and Item | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundland- | \$ | \$ | P. E. Island- | \$ | \$ | Nova Scotla- | § | 8 |
| Horses........ | $\ldots$ | 216 | Horses..... | 99 | 88 | Horses...... | 102 | 116 |
| All cattle. | $\ldots$ | 259 | All cattle. | 28 | 160 | All cattle.......... | 30 | 142 |
| Milk cows ${ }^{1}$ | $\ldots$ | 350 | Milk cows ${ }^{1}$ | 40 | 226 | Milk cows ${ }^{1} . . .$. | 38 | 191 |
| Other cattl | $\ldots$ | 164 | Other cattl | 15 | 118 | Other ca | 21 | 98 |
| Sheep. | $\ldots$ | 33 52 | Sheep | 5 | 24 45 | Sheep.............. | 5 | 19 37 |

For footnote, see end of table.
20.-Average Values per Head of Farm Live Stock, by Provinces, 1941 and 1951-concluded

| Province and Item | 1941 | 1951 | Province and Item | 1941 | 1951 | Province and Item | 1941 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New Brunswick | \$ | \$ | Manitoba- | \$ | \$ | British Columbia- | \$ | \$ |
| Horses. | 111 | 117 | Horses | 54 | 53 | Horses. | 58 | 79 |
| All cattle. | 25 | 138 | All cattle. | 38 | 190 | All cattle. | 42 | 181 |
| Milk cows ${ }^{1}$ | 35 | 189 | Milk cows ${ }^{1}$ | 52 | 255 | Milk cows ${ }^{1}$ | 60 | 231 |
| Other cat | 14 | 87 | Other | 27 | 159 | Other cattl | 34 | 164 |
| Sheep.. | 5 | 16 | Sheep. | 6 | 23 | Sheep. | 7 | 26 |
| Swine. | 9 | 38 | Swine. | 8 | 35 | Swine. | 9 | 42 |
| Quebec- |  |  | Saskatchewan- |  |  | Yukon Territory- |  |  |
| Horses. | 112 | 125 | Horses. | 50 | 42 | Horses. | 24 | 80 |
| All cattle. | 33 | 152 | All cattle. | 35 | 189 | All cattle......... | 10 | 158 |
| Milk cows ${ }^{1}$ | 47 | 202 | Milk cows ${ }^{1}$ | 50 | 258 | Milk cows ${ }^{1}$ | 143 | 227 |
| Other cattl | 16 | 91 | Other ca | 27 | 178 | Other cattle | 71 | 118 |
| Sheep.. | 5 | 21 | Sheep. | 5 | 24 | Sheep. |  | - |
| Swine. | 9 | 36 | Swine | 7 | 32 | Swine | 17 |  |
| Ontario- |  |  | Alberta- |  |  | Totals- |  |  |
| Horses. | 86 | 86 | Horses. | 47 | 44 | Horses........... | 66 | 72 |
| All cattle. | 45 | 219 | All cattle.......... | 39 | 202 | All cattle.......... | 39 | 191 |
| Milk cows ${ }^{\text {d }}$. | 62 | 296 | Milk cows ${ }^{1}$ | 52 | 272 | Milk cows ${ }^{1}$...... | 53 | 249 |
| Other | 27 | 173 | Othe | 33 | 187 | Other cattle.... | 28 | 159 |
| Sheep. | 8 | 34 | Sheep. | 6 | 27 | Sheep............. | 6 | 26 |
| Swine. | 10 | 40 | Swine | 9 | 39 | Swine............ | 9 | 38 |

${ }^{1}$ 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 Goods Act. A statistical record is kept of these inspections and the figures appear in Table 21. 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 21 are fairly inclusive. The slaughtering and meat-packing industry is dealt with in its proper relation to all other manufacturing enterprises in Chapter XVI. 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.

## 21.-Live Stock Slaughtered at Inspected Establishments, 1936-51, and by Months, 1951

(Exclusive of Newfoundland)

| Year | Cattle | Calves | Sheep | Hogs | Year and Month | Cattle | Calves | Sheep | Hogs |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | 1951- | No. | No. | No. | No. |
| 1936. | 920,229 | 602, 616 | 830,975 | 3,562,534 | January. | 103,651 | 29,305 | 27,379 | 401, 612 |
| 1937. | 923,961 | 702,405 | 821,758 | 3, 802,141 | February... | 77,887 | 25,833 | 15,978 | 339,615 |
| 1938 | 859,260 | 676,579 | 801,679 | 3,137,203 | March | 78,391 | 44,662 | 16,630 | 364, 234 |
| 1939 | 873,660 | 679,117 | 783,828 | 3,623,645 | April. | 93,973 | 81,783 | 14,368 | 362,135 |
| 1940 | 890,919 | 703,918 | 765,165 | 5,457,083 | May. | 108,933 | 94,056 | 7,692 | 406,962 |
| 1941 | 1,003,691 | 727,829 | 828,603 | 6,280,345 | June. | 108,865 | 67,406 | 9,329 | 323,322 |
| 1942 | 970,415 | 666,672 | 825,368 | 6, 196,850 | July. | 97.368 | 52,924 | 17,636 | 285,430 |
| 1943. | 1,021,054 | 594,087 | 889,317 | 7,168,525 | August | 99,751 | 47,918 | 46,142 | 299,808 |
| 1944 | 1,354,121 | 661,245 | 959,169 | 8,766,417 | September.. | 94,672 | 39,671 | 73,051 | 280,713 |
| 1945 | 1,891,024 | 787,626 | 1,185, 161 | 5,681,629 |  | 116, 188 | 44,841 | 101,536 | 459,832 |
| 19 | 1,668,441 | 752,343 | $1,213,235$ | 4,252,591 | November.. | 107,087 | 35,270 | 83,444 | 528,562 |
| 19 | 1,291,759 | 665,311 | 900,766 | 4,452,816 | December. | 63,023 | 20,049 | 25.333 | 435,782 |
| 1948 | $1,489,883$ $1,439,489$ | 787,410 766,277 | $\begin{aligned} & 768,943 \\ & 609672 \end{aligned}$ | $\begin{aligned} & 4,487,649 \\ & 4,08 \end{aligned}$ |  |  |  |  |  |
| 1950 | 1,284,683 | 773,205 | 521,089 | 4, 405, 055 | Totals | 1,149,789 | 583,718 | 438,518 | 488,007 |

Wool.-Wool production in Canada (exclusive of Newfoundland) in 1951 was $9 \cdot 2$ p.c. below that in 1950 and was only $44 \cdot 1$ p.c. of the 1945 peak crop. The 1935-39 average was $16,022,000 \mathrm{lb}$. and the 1951 production only $8,653,000 \mathrm{lb}$. The shorn-wool production in $1951_{\lambda}{ }^{*}$ was ${ }_{2}^{r}$ lower, the result of a decrease in sheep population. Average fleece weight was $7 \cdot 5 \mathrm{lb}$. compared with $7 \cdot 7 \mathrm{lb}$. in 1950. The 27.4 p.c. reduction in wool pulled from domestic skins was partly accounted for by a decrease in inspected slaughterings of sheep and lambs; an increase in the special processing of skins may also have been a contributing factor.

Exports of wool in 1951 were down by nearly $1,700,000 \mathrm{lb}$. and imports by over $13,200,000 \mathrm{lb}$. as compared with 1950 . Thus, assuming there was no change in stocks, the domestic disappearance of wool was lower by $14 \cdot 2$ p.c. in 1951 than in 1950.

## 22.-Estimated Production, Exports, Imports and Apparent Consumption of Wool, 1942-51


#### Abstract

Note.-All estimates are on a 'greasy' basis. Comparable statistics of production for the years 1920-29 are given at p. 219 of the 1939 Year Book, for 1930-36 at p. 214 of the 1945 edition and for 1937-41 at p. 368 of the 1948-49 edition.


| Year | Shorn |  |  |  | Pulled | Total Production | Exports | Imports | Apparent Consumption |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Yield per Fleece | Total Yield Shorn | Price per <br> Pound | Total Value Shorn |  |  |  |  |  |
|  | lb. | '000 lb. | cts. | § | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| 1942. | $7 \cdot 7$ | 12,867 | 25.5 | 3,283,000 | 3,610 | 16,477 | 384 | 114,428 | 130,521 |
| 1943. | $7 \cdot 5$ | 13,929 | 27.0 | $3,761,000$ | 3,889 | 17,818 | 2,316 | 104,364 | 119,866 |
| 1944. | $7 \cdot 5$ | 15,128 | $27 \cdot 1$ | 4,106,000 | 4,151 | 19,279 | 15,520 | 52,690 | 56,449 |
| 1945. | $7 \cdot 6$ | 14,513 | $27 \cdot 7$ | 4,015,000 | 5,113 | 19,626 | 11,927 | 59,506 | 67,205 |
| 1946. | $7 \cdot 5$ | 11,457 | 28.0 | 3,208,000 | 5,290 | 16,747 | 6,409 | 100,042 | 110,380 |
| 1947. | $7 \cdot 4$ | 10,176 | 28.2 | 2,865,000 | 3,914 | 14,090 | 5,103 | 79,895 | 88,882 |
| 1948. | $7 \cdot 2$ | 8,423 | 28.9 | 2,437,000 | 3,492 | 11,915 | 4,929 | 95,181 | 102,167 |
| 1949. | $7 \cdot 4$ | 7,759 | $29 \cdot 4$ | 2,280,000 | 2,076 | 9,835 | 3,920 | 70,720 | 76,635 |
| 1950. | $7 \cdot 7$ | 7,904 | $54 \cdot 4$ | 4,302,000 | 1,627 | 9,531 | 4,328 | 82,241 | 87,444 |
| 1951. | $7 \cdot 5$ | 7,471 | 73.9 | 5,527,000 | 1,182 | 8,653 | 2,656 | 69,012 | 75,009 |

## Subsection 5.-Dairying

Milk Production.-Milk production in 1951 amounted to $16,391,998,000 \mathrm{lb}$. a considerable reduction from the high point of $17,628,610,000 \mathrm{lb}$. reached in 1945. During the five-year period, 1946-51, the milk-utilization pattern changed somewhat. In the later year less milk was used for butter (creamery and dairy) and for the manufacture of cheese. On the other hand, more milk was sold in fluid form and more was used for the production of concentrated milk products and ice cream. The proportion of total milk production used for factory-produced dairy products decreased from $52 \cdot 3$ p.c. in 1946 to $51 \cdot 1$ p.c. in 1951 and the proportion sold in fluid form increased from $25 \cdot 1$ p.c. to $25 \cdot 8$ p.c. Milk used for all purposes on farms (farm-home consumed, manufactured and fed) increased from $22 \cdot 6$ p.c. of the total in 1946 to $23 \cdot 1$ p.c. in 1951.

## 23.-Production and Utilisation of Milk, by Provinces, 1948-51, with Totals for 1944-51

Nors.-Figures for years prior to 1948 will be found in the corresponding tables of previous editions of the Year Book. Figures for 1949 have been revised since the publication of the 1951 Year Book; those for 1951 are subject to revision.

| Province and Year | Used in Manufacture |  | Milk Otherwise Used |  |  | Total Milk Production |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { On } \\ \text { Farms } \end{gathered}$ | $\underset{\text { Factories }}{\text { In }}$ | Fluid Sales | Farm-Home Consumed | Fed on Farms |  |
|  | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Newfoundland... | . | . | $\cdots$ | $\cdots$ | . | . |
| Prince Edward Island.. 1948 | 15,288 | 114,735 | 21,603 | 25,340 | 8,583 | 185,549 |
| Prince 1949 | 14,198 | 124,622 | 21,171 | 24,130 | 9,791 | 193,912 |
| 1950 | 10,192 | 119,053 | 22,209 | 23,630 | 11,880 | 186,964 |
| 1951 | 8,950 | 130,123 | 22,674 | 24,170 | 12,924 | 198,841 |
| Nova Scotia. . . . . . . . . 1948 | 68,551 | 170,942 | 127,461 | 48,000 | 14,110 | 429,064 |
| 1949 | 64,058 | 184,307 | 128,116 | 49,150 | 16,820 | 442,451 |
| 1950 | 62,839 | 173,104 | 132,166 | 47,330 | 19,824 | 435,263 |
| 1951 | 52,553 | 156,729 | 138,733 | 44,610 | 19,198 | 411,823 |
| New Brunswick. . . . . . 1948 | 124,622 | 192,912 | 77,252 | 58,960 | 11,530 | 465,276 |
| 1949 | 99,390 | 205,008 | 80,266 | 58,770 | 15,540 | 458,974 |
| 1950 | 88,214 | 194,526 | 80,606 | 60,690 | 19,530 | 443,566 |
| 1951 | 98,406 | 189,875 | 81,837 | 56,330 | 22,200 | 448,648 |
| Quebec. . . . . . . . . . . . 1948 | 234,025 | 2,754,975 | 1,286,069 | 337,000 | 163,700 | 4,775,769 |
| 1949 | 191,118 | 2,795,875 | 1,303,797 | 358,200 | 223,500 | 4,872,490 |
| 1950 | 200,092 | 2,639,871 | 1,336,469 | 367,900 | 295,800 | 4,840,132 |
| 1951 | 240,509 | 2,743,727 | 1,366,377 | 354,900 | 257,100 | 4,962,613 |
| Ontario................ 1948 | 233,203 | 3,118,668 | 1,552,820 | 487,900 | 180,100 | 5,572,691 |
| 1949 | 173,382 | 3,235,218 | 1,569,465 | 523,200 | 196,800 | 5,698,065 |
| 1950 | 137,722 | 2,971,223 | 1,585,005 | 541,800 | 229,800 | 5,465,550 |
| 1951 | 133,809 | 2,918,467 | 1,603,576 | 524,600 | 233,800 | 5,414,252 |
| Manitoba.............. 1948 | 158,192 | 648,330 | 190,998 | 132,200 | 63,630 | 1,193,350 |
| 1949 | 140,510 | 622,669 | 194, 186 | 129,900 | 73,160 | 1,160,425 |
| 1950 | 122,914 | 571,827 | 191,247 | 123,000 | 93,740 | 1,102,728 |
| 1951 | 111,808 | 570,325 | 189,312 | 121,600 | 104,130 | 1,097,175 |
| Saskatchewan......... 1948 | 375,959 | 823,505 |  | 285,800 |  |  |
| 1949 | 323,803 | 775,604 | 179,658 | 298,600 | 123,400 | 1,701,065 |
| 1950 | 289,759 | 707,974 | 181,712 | 300,800 | 131,600 | 1,611,845 |
| 1951 | 277,716 | 685,492 | 185,425 | 278,000 | 154,600 | 1,581,233 |
| Alberta................ 1948 | 232,862 | 846,528 | 267,812 | 180,300 | 145,100 | 1,672,602 |
| 1949 | 202,388 | 849,349 | 279,592 | 178,000 | 155,700 | 1,665,029 |
| 1950 | 162,792 | 827,929 | 293,036 | 188,800 | 222,900 | 1,695,457 |
| 1951 | 141,752 | 770,104 | 313,085 | 196,000 | 232,000 | 1,652,941 |
| British Columbia...... 1948 | 37,888 | 212,217 |  |  |  |  |
| 1949 | 29,475 | 227,677 | 327,502 | 39,700 | 26,580 | 650,934 |
| 1950 | 24,273 | 238,825 | 334,577 | 41,500 | 28, 180 | 667,355 |
| 1951 | 21,649 | 209,134 | 325,859 | 40,150 | 27,680 | 624,472 |
| Totals............ 1944 | 1,286,153 | 9,916,519 | 3,912,476 | 1,717,191 | 791,699 | 17,624,038 |
| 1945 | 1,256,769 | 9,851,624 | 4,007,858 | 1,716,296 | 796,123 | 17,628,610 |
| 1946 | 1,778,736 | 8,871,785 | 4,254,090 | 1,749,072 | 810,960 | 16,955,553 |
| 1947 | 1,327,236 | 9,210,818 | 4,162,539 | 1,722,923 | 817,272 | 17,240,788 |
| 1948 | 1,480,594 | 8,882,812 | 4,024,917 | 1,594,160 | 747,883 | 16,730,362 |
| 1949 | 1,238,3272 | 9,423,329 | 4,483,753 | 1,659,650 | 841,291 | 16,843,345 |
| 1950 1951 | 1, 098,797 | $8,444,332$ $8,373,976$ | 4,157,027 | 1,695,450 | 1,053,254 | $16,448,860$ $16,391,998$ |
| 1551 | 1,087,152 | 8,373,976 | 4,226,878 | 1,640,360 | 1,063,632 | 16,391,998 |

## 24.-Farm Values of Milk Production, by Provinces, 1948-51, with Totals for 1944-51

Note.-Figures for years prior to 1948 will be found in corresponding tables of previous editions of the Year Book. Figures for 1949 have been revised since the publication of the 1951 Year Book; those for 1951 are subject to revision.

| Province and Year | Value of Milk Used in Manufacture |  | Value of Milk Otherwise Used |  |  | Value of Total Milk Production ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \mathrm{On} \\ \text { Farms } \end{gathered}$ | $\xrightarrow[\text { Factories }]{\text { In }}$ | Fluid Sales | Farm-Home Consumed | Fed on Farms ${ }^{1}$ |  |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland.............. | . | . | . | . | . | . |
| Prince Edward Island.. 1948 | 430 | 3,018 | 709 | 755 | 597 | 5,509 |
| 1919 | 371 | 2,814 | 742 | 632 | 681 | 5,240 |
| 1950 | 244 | 2,464 | 783 | 565 | ${ }_{742}^{654}$ | 4,710 |
| 1951 | 238 | 3,048 | 827 | 650 | 742 | 5,505 |
| Nova Scotia........... 1948 | 1,983 | 4,620 | 4,717 | 1,555 | 1,045 | 13,920 |
| 1949 | 1,621 | 4,272 | 5,148 | 1,376 | 1,156 | 13,573 |
| 1950 | 1,470 | 3,750 | 5,442 | 1,264 | 1,245 1,176 | 13,171 13,716 |
| 1951 | 1,350 | 3,914 | 5,938 | 1,338 | 1,176 | 13,716 |
| New Brunswick...... 1948 | 3,691 2,583 | 5,033 4,473 | 3,032 3,142 | 1,881 1,581 | 1,197 1,191 | 14,834 12,970 |
| 1949 <br> 1950 | 2,583 2,101 | 4,473 3,911 | 3,142 3,215 | 1,581 1,529 | 1,191 1,296 | 12,970 12,052 |
| 1951 | 2,621 | 4,404 | 3,546 | 1,600 | 1,432 | 13,603 |
| Quebec................ 1948 | 6,811 | 73,861 | 46,985 | 9,975 | 10,417 | 148,049 |
| Quebec............... 1949 | 4,919 | 64,327 | 46,978 | 9,170 | 11,010 | 136,404 |
| 1950 | 4,765 | 57,035 | 47,741 | 8,756 | 11,767 | 130,064 |
| 1951 | 6,395 | 69,001 | 51,230 | 9,937 | 13,945 | 150,508 |
| Ontario................ 1948 | 6,830 | 83,368 | 56,554 | 13,759 | 9,126 | 169,637 |
| Ontario.............. 1949 | 4,595 | 71,655 | 56,751 | 11,877 | 8,339 | 153,217 |
| 1950 | 3,321 | 62,573 | 58,207 | 12,245 | 8,502 | 144,848 |
| 1951 | 3,615 | 73,386 | 62,972 | 13,902 | 10,490 | 164,365 |
| Manitoba.............. 1948 | 4,322 | 15,725 | 6,527 | 3,543 | 3,838 | 33,955 |
| Mantoba........... 1949 | 3,556 | 12,845 | 6,300 | 3,014 | 3,700 | 29,415 |
| 1950 | 2,770 | 10,741 | 6,154 | 2,620 | 3,733 | 26,018 |
| 1951 | 2,820 | 12,663 | 6,674 | 3,101 | 4,907 | 30,165 |
| Saskatchewan......... 1948 | 9,989 | 19,934 | 5,965 | 7,659 | 7.000 | 50,547 |
| Saskatcher 1949 | 7,656 | 15,867 | 5,759 | 6,868 | 5,871 | 42,021 |
| 1950 | 6,443 | 13,007 | 5,985 | 6,287 | 5,381 | 37,103 41,775 |
| 1951 | 6,970 | 14,961 | 6,504 | 6,839 | 6,501 | 41,775 |
| Alberta................ 1948 | 6,167 | 20,610 | 9,415 | 4,922 | 6,772 | 47,886 |
| 1949 | 4,777 | 18,074 | 9,685 | 4,272 | 6,436 7,354 | 43,244 42,402 |
| 1950 | 3,599 | 16,228 | 11,030 | 4,191 | 7,354 8,433 | 42,402 47,258 |
| 1951 | 3,479 | 17,657 | 12,613 | 5,076 | 8,433 | 47,258 |
| British Columbia...... 1948 | 1,032 | 6,234 |  |  |  | 21,805 21,948 |
| 1949 1950 | 712 548 | 6,072 6,220 | 13,250 12,972 | 1,060 1,029 | 854 867 | 21,948 21,636 |
| 1950 1951 | 548 555 | 6,220 6,474 | 12,972 14,850 | 1,029 1,120 | 889 | 23,888 |
| Totals............. 1944 | 19,770 | 165,400 | 98,109 | 29,008 | 28,823 | 341,110 |
| Tolal. 1945 | 18,915 | 163,265 | 102,981 | 30,680 | 29,805 | 345,646 |
| 1946 | 21,306 | 163,407 | 118,624 | 34,513 | 30,526 | 368,376 |
| 1947 | 28,217 | 186,796 | 131,409 | 38,393 | 36,087 49,868 | 420,902 |
| 1948 | 41,255 | 232,403 | 146,446 | 45,170 39850 | 40,868 39,238 | 506,142 458,032 |
| 1949 | 30,790 | 200,399 | 147,755 | 39,850 38,486 | 39,238 40,799 | 458,032 |
| 1950 1951 | 25,261 28,043 | 175,929 $\mathbf{2 0 5 , 5 0 8}$ | 151,529 $\mathbf{1 6 5 , 1 5 4}$ | 38,486 43,563 | 40,799 $\mathbf{4 8 , 5 1 5}$ | 432,004 490,783 |
| 1951 | 28,043 | 205,508 | 165,154 | 43,563 | 48,515 | 490,783 |

${ }^{1}$ Includes values of skim milk, buttermilk and whey retained on farms.
Butter and Cheese Production.-Total butter production in 1951 amounted to $305,964,000 \mathrm{lb}$., of which $257,604,000 \mathrm{lb}$. was creamery butter, $46,400,000 \mathrm{lb}$. dairy or farm-made butter and $1,960,000$ whey butter. This output may be compared with the peak production of $371,000,000 \mathrm{lb}$. reached in 1941 which was made up of $286,000,000 \mathrm{lb}$. of creamery butter, $83,000,000 \mathrm{lb}$. of dairy butter and about
$2,000,000 \mathrm{lb}$. of whey butter. The decline from the 1941 total was not continuous in the intervening years. The total for 1943 was $2,000,000 \mathrm{lb}$. lower than that for 1941 , followed by declines for the next two years to $328,194,000 \mathrm{lb}$. in 1946, increases for two years to $350,317,000 \mathrm{lb}$. in 1948 and then decreases again to 1951, the lowest production since 1930. The loss in butter production, however, was more than covered by margarine output which amounted to $105,151,000 \mathrm{lb}$. in 1951.

Factory cheese production in 1951 was estimated at $90,615,000 \mathrm{lb}$. a decrease of $12,044,000 \mathrm{lb}$. or 11.7 p.c. from the 1950 estimate and a $56 \cdot 3$ p.c. decline from the peak production of $117,000,000 \mathrm{lb}$. reached in 1942. Total cheese production, including factory and farm-made cheese, amounted to $208,218,000 \mathrm{lb}$. in 1942. The total manufactured in 1951, on the other hand, was the lowest on record. Indeed, judging from early estimates of farm-made cheese production and cheese exports, it is apparent that the 1951 output was the lowest since the mid-1880's. After the peak output was recorded in 1942, production fell to $167,218,000 \mathrm{lb}$. in 1943 and rose again to $189,000,000 \mathrm{lb}$. in 1945 . However, from 1945 to 1948 factory output was cut approximately in half as a result of the restrictions placed on the importation of cheese into the United Kingdom. Lower creamery butterfat prices in 1949 and the uncertainties resulting from the introduction of margarine in that year induced farmers to sell more of their milk to the cheese factories, but this recovery proved temporary and in the two succeeding years a decline of about $30,000,000 \mathrm{lb}$. occurred.

## 25.-Production of Butter and Cheese, by Provinces, 1948-51, with Totals for 1944-51

Note.-Figures for years prior to 1948 will be found in corresponding tables of previous editions of the Year Book. Figures for 1949 have been revised since the publication of the 1951 Year Book; those for 1951 are subject to revision.

| Province and Year | Butter |  |  |  | Cheese |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Creamery | Dairy | Whey | Total | Factory ${ }^{1}$ |
|  | '000 lb. | '000 lb, | '000 lb. | '000 lb. | '000 lb. |
| Newfoundland.... | . | .. | $\cdots$ | . | . |
| Prince Edward Island.............. 1948 | 4,472 | 652 | 二 | 5,124 | 709 |
| 1949 1950 | 4,852 4,626 | 606 435 | - | 5,458 5,061 | 746 707 |
| 1951 | 5,012 | 382 | - | 5,394 | 840 |
| Nova Scotia. . . . . . . . . . . . . . . . . . 1948 | 6,053 | 2,912 | - |  | - |
| 1949 | 6,283 | 2,734 | - | 9,017 | - |
| 1950 1951 | 5,927 $\mathbf{5 , 0 7 7}$ | 2,682 2,243 | - | 8,609 7,320 | - |
|  |  |  |  |  |  |
| New Brunswick. . . . . . . . . . . . . . . . 1948 | 7,329 | 5,317 | - | 12,646 | 757 |
| 1949 | 7,674 | 4,242 | - | 11,916 | 873 |
| 1950 | 7,320 | 3,765 | - | 11,085 | 856 |
| 1951 | 6,783 | 4,200 | - | 10,983 | 1,303 |
| Quebec............................. 1948 | 96.783 | 9,974 | 76 | 106,833 | 16,479 |
| 1949 | 93,623 | 8,157 | 259 | 102,039 | 27,106 |
| 1950 | 87,488 | 8,540 | 215 | 96,243 | 23,379 |
| 1951 | 92,034 | 10,265 | 193 | 102,492 | 18,210 |
| Ontario. ......................... 1948 |  |  | 1,701 | 86,308 | 70,160 |
| 1949 | 74,597 | 7,400 | 2,074 | 84,071 | 86,788 |
| 1950 1951 | 68,699 66,892 | 5,878 | 1,925 | 76,502 | 72,388 |
| 1951 | 66,892 | 5,711 | 1,708 | 74,311 | 65,788 |
| Manitoba. . . . . . . . . . . . . . . . . . . . . 1948 | 25,402 | 6.697 | 41 | 32,140 | 2,569 |
| 1949 | 24,419 | 5,997 | 37 | 30,453 | 1,839 |
| 1950 | 22,522 | 5,246 | 30 | 27,798 | 1,447 |
| 1951 | 22,277 | 4,772 | 28 | 27,077 | 1,457 |

For footnote, see end of table, p. 426.
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25.-Production of Butter and Cheese, by Provinces, 1948-51, with Totals for 1944-51-concluded

| Province and Year | Butter |  |  |  | Cheese |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Creamery | Dairy | Whey | Total | Factory ${ }^{1}$ |
|  | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Saskatchewan...................... 1948 | 34,116 | 15,980 | - | 50,096 | 275 |
| 1949 | 31,750 | 13,820 | - | 45,570 | 393 |
| 1950 1951 | 28,972 | 12,367 | - | 41,339 | 373 |
| 1951 | 27,903 | 11,853 | - | 39,756 | 376 |
| Alberta............................ 1948 | 32,421 | 9,834 | 16 | 42,271 |  |
| 1949 | 31,996 | 8,638 | 16 | 40,650 | 2,787 |
| 1950 | 31,238 | 6,948 | 22 | 38,208 | 2,944 |
| 1951 | 28,960 | 6,050 | 24 | 35,034 | 2,084 |
| British Columbia.................. 1948 | 4,326 | 1,599 | 9 | 5,934 | 431 |
| 1949 | 4,611 | 1,258 | 9 | 5,878 | 498 |
| 1950 | 4,672 | 1,036 | 10 | 5,718 | 565 |
| 1951 | 2,666 | 924 | 7 | 3,597 | 557 |
| Totals....................... 1944 | 298,77\% | 54,580 | 2,656 | 356,013 | 181,897 |
| 1945 | 293,811 | 53,283 | 2,805 | 349,899 | 188,729 |
| 1946 | 271,491 | 54,225 | 2,478 | 328,194 | 148,884 |
| 1947 | - 290,952 | 56,295 | 2,225 | 349,472 | 124,831 |
| 1948 | 285,629 279,805 | 62,845 52,852 | 1,843 $\mathbf{2 , 3 9 5}$ | 350,317 335,052 | 93,948 |
| 1950 | 261,464 | 46,897 | 2,202 | 310,563 | 122,659 |
| 1951 | 257,604 | 46,400 | 1,960 | 305,964 | 90,615 |

${ }^{1}$ Factory-made cheese includes cheddar and other cheese made from whole milk. The latter amounted to $4,923,000 \mathrm{lb}$. in $1948,4,115,000 \mathrm{lb}$. in $1949,5,005,000 \mathrm{lb}$. in 1950 and $5,355,000 \mathrm{lb}$. in 1951, produced principally in Quebec and Ontario.

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 1951 increased 16 p.c. over 1950 production while concentrated milk by-products increased by 5 p.c.

## 26.-Production of Concentrated Milk Products, 1948-51

(Exclusive of Newfoundland)
Note.-Figures for 1949 have been revised since the publication of the 1951 Year Book; those for 1951 are subject to revision.

| Product | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: |
| Concentrated Whole-Milk Products- | '000 lb. | '000 lb. | '000 lb. | '000 Ib. |
| Evaporated milk. | 250,058 | 231,306 | 256,484 | 293,411 |
| Condensed milk. | 35,102 | 23,543 | 14,541 | 18,818 |
| Whole-milk powder | 17,726 | 13,160 | 15,679 | 17,444 |
| Miscellaneous whole-milk product | 4,539 | 5,020 | 7,742 | 12,406 |
| Totals, Concentrated Whole-Milk Products.. | 307,425 | 273,029 | 294,446 | 342,079 |
| Concentrated Milk By-Products- |  |  |  |  |
| Condensed skim milk. | 4,911 | 4,279 | 4,366 | 4,621 |
| Evaporated skim milk | 6,278 | 10,354 | 12,407 | 10,994 |
| Skim-milk powder...il | 64,021 2,753 | 64,312 3,417 | 12,263 3,020 | 52,735 4,107 |
| Buttermilk powder..................................... | 4,883 | 5,485 | 5,006 | 5,151 |
| Casein......... | 4,922 | 3,538 | 4,309 | 6,163 |
| Totals, Concentrated Milk By-Products ${ }^{\mathbf{1}} \ldots .$. | 91,762 | 98,313 | 87,924 | 92,445 |
| Grand Totals | 399,187 | 371,342 | 382,370 | 434,524 |

[^142]Ice-Cream Production.-The output of ice cream in Canada in 1951 was higher by 7 p.c. than in 1950; compared with 1941 there was an increase in production amounting to 80 p.c. The per capita disappearance of ice cream in 1951 amounted to 1.8 gal.
27.-Production of Ice Cream, by Provinces, 1948-51

| Province | 1948 | 1949 | 1950 | 1951 | Province | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 gal. | '000 gal. | '000 gal. | '000 gal. |  | '000 gal. | '000 gal. | '000 gal. | '000 gal. |
| N'f'ld. . |  |  |  |  | Man. | 1,645 | 1,650 | 1,496 | 1,719 |
| P.E.I. | 144 | 150 | 155 | 185 | Sask | 1,470 | 1,556 | 1,383 | 1.519 |
| N.S. | 1,520 | 1,538 | 1,420 | 1,578 | Alta | 1,891 | 1,978 | 1,967 | 2,076 |
| N.B. | 893 | 885 | 749 | 913 | B. | 2,492 | 2,416 | 2,451 | 2,892 |
| Ont. | r $\begin{array}{r}4,924 \\ \hline\end{array}$ | 4,715 $\mathbf{9 , 9 0 2}$ | 4,762 9,439 | 5,227 $\mathbf{9 , 3 4 9}$ | Totals | 25,206 | 24,790 | 23,822 | 25,458 |

Domestic Disappearance of Dairy Products.-The estimated consumption of fluid milk and cream, on a milk basis, amounted to $4,450,000,000$ pt. in 1951, $10,000,000 \mathrm{pt}$. higher than the 1950 consumption and $596,000,000 \mathrm{pt}$. above that of 1942. The average daily consumption per capita was 0.89 pt . in 1951 compared with 0.91 pt., in 1950 . The peak daily per capita consumption of 1.01 pt . was reached in 1945 and 1946 when subsidies were in effect.
28.-Estimated Consumption of Milk and Cream (expressed as Milk), by Provinces, 1948-51, with Totals for 1944-51

| Province and Year | Estimated Consumption | $\begin{gathered} \text { Daily } \\ \text { Per } \\ \text { Capita } \\ \text { Consump- } \\ \text { tion } \end{gathered}$ | Province and Year | Estimated Consumption | Daily Per Capita Consump- tion |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 pt. | pt. |  | '000 pt. | pt. |
| Newfoundland................. | .. | . | Saskatchewan...... 1948 | 357,290 | $1 \cdot 14$ |
| Prince Edward Island. . . 1948 | 35,887 | $1 \cdot 05$ | 1949 1950 | 366,564 369,814 | 1.17 1.16 |
| Priata | 34.624 | 1.01 | 1951 P | 354,932 | $1 \cdot 17$ |
| 1950 | 35,017 | $1 \cdot 00$ |  |  |  |
| 1951p | 35,786 | 1.00 | Alberta............. . 1948 | 341,146 | $1 \cdot 10$ |
| Nova Scotia.............. 1948 | 133,052 | $0 \cdot 57$ | 1949 | 348,221 | $1 \cdot 10$ |
| OVA......... 1949 | 134,437 | $0 \cdot 57$ | 1950 | 366,701 387,359 | $1 \cdot 12$ |
| 1950 | 136,071 | 0.57 | 1951 p | 387,359 |  |
| 1951p | 138,900 | 0.59 | British Columbia... 1948 | 270,876 | $0 \cdot 68$ |
| New Brunswick. ......... 1948 | 103,794 | 0.56 | 1949 | 277,036 | $0 \cdot 68$ |
| 1949 | 105,913 | 0.56 | 1950 | 283,752 | $0 \cdot 68$ |
| 1950 | 107,657 | 0.57 | 1951p | 276, 150 | $0 \cdot 65$ |
| 1951p | 105,203 | 0.56 |  |  |  |
| Quebec.................... . 1948 | 1,228,284 | 0.89 | Totals............... 1944 | 4,281,392 | 1.01 |
| 1949 | $1,258,049$ | 0.89 | 1945 | 4,344,122 | 1.02 |
| 1950 | 1,290, 136 | 0.89 |  |  |  |
| 1951p | 1,302,547 | 0.88 | 1946 | 4,547,637 | 1.01 |
| Ontario.................. 1948 | 1,545,841 | 0.98 | 1947 | 4,465,570 | 0.97 |
| 1949 | 1,585,721 | 0.98 |  |  |  |
| 1950 | 1,611,826 | 0.98 | 1948 | 4,262,270 | 0.91 |
| 1951 D | 1,612,456 | 0.96 | 1949 | 4,357,279 | 0.90 |
| Manitoba. . . . . . . . . . . . 1948 | 246,100 | 0.89 |  | 4,357,375 |  |
| 1949 | 246,714 | 0.87 | 1950 | 4,440,128 | 0.90 |
| ${ }_{1951} 1950$ | $\xrightarrow{239,154}$ | 0.82 0.84 | 1951p | 4,449,948 | 0.89 |

Domestic disappearance of butter (creamery, dairy and whey) was approximately $317,251,000 \mathrm{lb}$. in 1951 , compared with $325,755,000 \mathrm{lb}$. in 1950 and $336,671,000$ lb . in 1943. Per capita figures for these years were 23.25 lb ., 24.38 lb . and 23.25 lb ,, respectively. The per capita consumption of margarine for 1951 and 1950 was 7.44 lb . and 6.76 lb ., respectively.

Total cheese consumption was about $65,561,000 \mathrm{lb}$. in 1951, an average of 4.80 lb . per capita. There was little change from the per capita consumption of the previous year.

The domestic disappearance of concentrated whole-milk products increased from 19.77 lb . per capita in 1950 to 20.58 lb . in 1951, and milk by-products from 6.05 lb . to 6.56 lb . in the same comparison.

Disappearance of all dairy products represented the equivalent of approximately $1,080 \mathrm{lb}$. of milk per capita in 1951 compared with $1,129 \mathrm{lb}$. in 1950.

## 29.-Domestic Disappearance of Dairy Products, 1948-51

(Exclusive of Newfoundland)

| Product | 1948 |  | 1949 |  | 1950 |  | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Disappearance | Per Capita | Disappearance | Per Capita | Disappearance | Per Capita | Disappearance | $\left\lvert\, \begin{gathered} \text { Per } \\ \text { Capita } \end{gathered}\right.$ |
| Fluid Milk and Cream- | '000 lb. | lb. | '000 lb. | lb. | ' 000 lb . | lb . | '000 lb. | lb. |
| Milk. <br> Cream as product. <br> Cream as milk | 4,669,820 | $364 \cdot 18$ | 4,788, 617 | $365 \cdot 49$ | 4,870,295 | $364 \cdot 52$ | 4,883,975 | 357.85 |
|  | 178,399 | 13.91 | 181,482 | 13.85 | 181,759 | 13.60 | 178,270 | 13.06 |
|  | 828,509 | $64 \cdot 61$ | 832,273 | 63.52 | 857,471 | $64 \cdot 18$ | 856,457 | 62.75 |
| Totals, Milk and Cream. | 5,498,329 | 428.79 | 5,620,890 | 429.01 | 5,727,766 | $428 \cdot 69$ | 5,740,432 | $420 \cdot 61$ |
| Butter- |  |  |  |  |  |  |  |  |
| Creamer | 305,553 | 23.83 | 261,186 | $19 \cdot 93$ | 276,671 | 20.71 | 268,978 | $19 \cdot 71$ |
| Dairy. | 62,852 | 4.90 | 52,854 | $4 \cdot 03$ | 46,897 | $3 \cdot 51$ | 46,401 | $3 \cdot 40$ |
| Whey. | 1,748 | 0.14 | 2,581 | $0 \cdot 20$ | 2,187 | 0.16 | 1,872 | $0 \cdot 14$ |
| Totals, But | 370,153 | 28.87 | 316,621 | $24 \cdot 17$ | 325,755 | $24 \cdot 38$ | 317,251 | 23.25 |
| Cheere - |  |  |  |  |  |  |  |  |
| Other. | 45,347 5,847 | 3.53 0.46 | 54,8971 | 4.19 0.49 | 56,833 8,597 | 4.25 0.64 | 55,104 10,457 | 4.04 0.77 |
| Farm-mad | 730 | 0.06 |  |  |  |  |  | - |
| Totals, Cheese | 51,884 | $4 \cdot 05$ | 61,263 | $4 \cdot 68$ | 65,430 | 4.90 | 65,561 | 4.81 |
| Concentrated Whole-Milk Products- |  |  |  |  |  |  |  |  |
| Evaporated............. | 198,431 | 15.47 | 197,777 | $15 \cdot 10$ | 239,408 | 17.92 | 253,394 | 18.57 |
| Condensed | 13,309 | 1.04 | 9,412 | $0 \cdot 72$ | 10,976 | 0.82 | 9,989 | 0.73 |
| Powdered. | 8,983 | $0 \cdot 70$ | 8,499 | $0 \cdot 65$ | 6,038 | 0.45 | 5,040 | $0 \cdot 37$ |
| Totals, Concentrated Whole-Milk Products ${ }^{1}$. . | 225, 255 | 17.57 | 220,706 | 16.85 | 264,167 | 19.77 | 280,827 | $20 \cdot 58$ |
| Concentrated Milk By-products- |  |  |  |  |  |  |  |  |
| Evaporated. | 6,063 | 0.47 | 10,337 | 0.79 | 11,942 | $0 \cdot 89$ | 9,729 | 0.71 |
| Condensed. | 4,550 | $0 \cdot 35$ | 4,328 | 0.33 2.85 | 4,574 | $0 \cdot 34$ | 4,426 | 0.32 3.86 |
| Powdered. | 31,898 | $2 \cdot 49$ | 37,308 | 2.85 | 46,817 | $3 \cdot 50$ | 52,691 | $3 \cdot 86$ |
| Totals, Concentrated Milk By-Products ${ }^{2}$.... | 56,279 | $4 \cdot 39$ | 70,108 | 5•35 | 80,779 | 6.05 | 89,475 | 6.56 |
| All Dairy Products in Terms of Milk- |  |  |  |  |  |  |  |  |
| Butter.................. | 9,631,729 | 673.11 | 7,357,957 | 561.59 | 7,581,199 | 567.41 | \%,389,330 | 541.42 |
| Cheese. | 577,988 $\mathbf{5 4 8 , 0 8 7}$ | 4.9 <br> 49.74 | 681,411 535,052 | 520.08 40.84 | 726,655 619.011 | 543.86 463.30 | 733,069 $\mathbf{6 5 5 , 3 5 0}$ | $\begin{aligned} & 537 \cdot 13 \\ & 480 \cdot 18 \end{aligned}$ |
| Grand Totals ${ }^{3}$. | 15,620,377 | 1,218-15 | 4,634,228 | 1,116.95 | 15,085, 158 | 1,129.04 | 14,982,764 | 1,697.80 |

Grand Totals ${ }^{3}$.
$|15,620,377| 1,218 \cdot 15|14,634,228| 1,116 \cdot 95|15,085.158| 1,129 \cdot 04|14,982,764| 1,697 \cdot 80$

[^143]
## Subsection 6.-Poultry and Eggs

The numbers of poultry on farms as reported at the Censuses of 1941 and 1951 are given in Table 30. Estimates for individual years between these censuses are being revised on the basis of 1951 Census data. At the time of preparation of this Chapter, 1951 Census figures were not available on production, utilization and values of farm eggs, and on domestic disappearance of poultry and eggs. Estimates shown in Tables 31 and 32 are subject to revision on the basis of the 1951 Census.

Egg production in 1951 decreased slightly, the effects of fewer birds being offset to some extent by higher production per hen. The price of eggs averaged 50.9 cents per doz. in 1951, about 13 cents higher than in 1949. The per capita disappearance amounted to $23 \cdot 1$ doz. in 1951 compared with $22 \cdot 0$ doz. in 1950.

Farm production of poultry meat in 1951 was $2 \cdot 7$ p.c. above production in 1950.

> 30.-Numbers and Values of Poultry on Farms, by Provinces, as at June 1,1941 and 1951

| Province and Year | $\begin{gathered} \text { Hens } \\ \text { and } \\ \text { Chickens } \end{gathered}$ | Turkeys | Geese | Ducks | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | NUMBERS |  |  |  |  |
| Newfoundland............................ 1941 | 73,714 | -1,553 | ${ }^{* *} 548$ | ${ }^{*} 614$ | $\ddot{76,429}$ |
| Prince Edward Island $\qquad$ | 807,352 978,019 | 14,683 16,003 | 18,960 20,348 | 10,146 15,325 | $\begin{array}{r} 851,141 \\ 1,029,695 \end{array}$ |
| Nova Scotia............................. 1941 | $1,113,218$ $1,630,305$ | 14,504 30,714 | 6,136 5,257 | 4,105 3,947 | $\begin{aligned} & 1,137,963 \\ & 1,670,223 \end{aligned}$ |
| New Brunswick........................ 1941 | $\begin{aligned} & 1,101,921 \\ & 1,230,565 \end{aligned}$ | 33,370 41,532 | 8,611 5,921 | 4,194 4,866 | $\begin{aligned} & 1,148,096 \\ & 1,282,884 \end{aligned}$ |
| Quebec................................... 1941 | $\begin{array}{r} 8,062,991 \\ 10,090,003 \end{array}$ | 172,549 423,104 | 46,474 13,765 | 36,113 49,527 | $\begin{array}{r} 8,318,127 \\ 10,576,399 \end{array}$ |
| Ontario $\qquad$ | $\begin{aligned} & 21,763,568 \\ & 23,767,391 \end{aligned}$ | $\begin{aligned} & 678,076 \\ & 666,465 \end{aligned}$ | $\begin{aligned} & 295,721 \\ & 139,324 \end{aligned}$ | $\begin{aligned} & 319,247 \\ & 164,961 \end{aligned}$ | $\begin{aligned} & 23,056,612 \\ & 24,738,141 \end{aligned}$ |
| Manitoba................................. 1941 | $\begin{aligned} & 5,747,907 \\ & 6,457,849 \end{aligned}$ | 601,172 311,008 | $\begin{aligned} & 63,633 \\ & 54,943 \end{aligned}$ | $\begin{aligned} & 57,278 \\ & 64,771 \end{aligned}$ | $\begin{aligned} & 6,469,990 \\ & 6,888,571 \end{aligned}$ |
| Saskatchewan........................... 1941 | $\begin{aligned} & 9,731,038 \\ & 8,587,281 \end{aligned}$ | $\begin{aligned} & 991,731 \\ & 399,878 \end{aligned}$ | $\begin{aligned} & 87,382 \\ & 33,923 \end{aligned}$ | $\begin{aligned} & 70,600 \\ & 51,270 \end{aligned}$ | $\begin{array}{r} 10,880,751 \\ 9,072,352 \end{array}$ |
| Alberta.................................... 1941 | $\begin{aligned} & 7,953,306 \\ & 8,347,509 \end{aligned}$ | $\begin{aligned} & 655,991 \\ & 395,376 \end{aligned}$ | $\begin{array}{r} 116,120 \\ 64,716 \end{array}$ | $\begin{aligned} & 95,340 \\ & 61,977 \end{aligned}$ | $\begin{aligned} & 8,820,757 \\ & 8,869,578 \end{aligned}$ |
| British Columbia...................... 1941 | $\begin{aligned} & 2,713,192 \\ & 3,452,389 \end{aligned}$ | $\begin{array}{r} 42,493 \\ 243,401 \end{array}$ | $\begin{array}{r} 6,969 \\ 13,657 \end{array}$ | $\begin{aligned} & 24,526 \\ & 20,373 \end{aligned}$ | $\begin{aligned} & 2,787,180 \\ & 3,729,820 \end{aligned}$ |
| Totals $\qquad$ | $\begin{aligned} & \mathbf{5 8 , 9 9 4}, 493 \\ & \mathbf{6 4 , 6 1 5 , 0 2 5} \end{aligned}$ | $\begin{aligned} & \mathbf{3 , 2 0 4 , 5 6 9} \\ & 2,529,034 \end{aligned}$ | $\begin{aligned} & 650,006 \\ & 352,402 \end{aligned}$ | $\begin{aligned} & \mathbf{6 2 1 , 5 4 9} \\ & \mathbf{4 3 7 , 6 3 1} \end{aligned}$ | $\begin{aligned} & 63,470,617 \\ & 67,934,092 \end{aligned}$ |

## 30.-Numbers and Values of Poultry on Farms, by Provinces, <br> as at June 1, 1941 and 1951-concluded

| Province and Year |  | $\begin{gathered} \text { Hens } \\ \text { and } \\ \text { Chickens } \end{gathered}$ | Turkeys | Geese | Ducks | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | VALUES |  |  |  |  |
|  |  | \$ | \$ | \$ | 8 | \$ |
| Newfoundland. | $\begin{array}{r} 1941 \\ 1951 \end{array}$ | 202,611 | 11,652 | 2,740 | -1,842 | 218,845 |
| Prince Edward Island. | 1941 | $\begin{array}{r} 395,620 \\ 1,174,695 \end{array}$ | 12,195 68,173 | 18,137 64,503 | 5,486 23,601 | $\begin{array}{r} 431,438 \\ 1,330,972 \end{array}$ |
| Nova Scotia. | $\begin{array}{r} 1941 \\ 1951 \end{array}$ | $\begin{array}{r} 604,882 \\ 2,291,678 \end{array}$ | 16,675 141,284 | 8,263 21,235 | 2,592 8,172 | $\begin{array}{r} 632,412 \\ 2,462,369 \end{array}$ |
| New Brunswick | $\begin{array}{r} 1941 \\ . \\ 1951 \end{array}$ | $\begin{array}{r} 609,234 \\ 1,639,008 \end{array}$ | 26,176 221,362 | 10,897 23,981 | 2,607 9,585 | $\begin{array}{r} 648,914 \\ 1,893,936 \end{array}$ |
| Quebec. | 1941 | $\begin{array}{r} 4,332,593 \\ 13,738,383 \end{array}$ | 134,385 $1,895,498$ | 46,716 44,868 | 30.794 90,626 | $\begin{array}{r} 4,544,488 \\ 15,769,375 \end{array}$ |
| Ontario | $\begin{array}{r} 1941 \\ 1951 \end{array}$ | $\begin{aligned} & 10,011,642 \\ & 32,865,259 \end{aligned}$ | $\begin{array}{r} 516,319 \\ 3,512,266 \end{array}$ | $\begin{aligned} & 284,722 \\ & 528,030 \end{aligned}$ | $\begin{aligned} & 150.037 \\ & 298,579 \end{aligned}$ | $\begin{aligned} & 10,962,720 \\ & 37,204,134 \end{aligned}$ |
| Manitoba. | $\begin{array}{r} 1941 \\ .1951 \end{array}$ | $\begin{aligned} & 1,778,218 \\ & 6,303,324 \end{aligned}$ | $\begin{array}{r} 345,498 \\ 1,247,142 \end{array}$ | 42,281 151,093 | 22,866 96,510 | $\begin{aligned} & 2,188,863 \\ & 7,798,069 \end{aligned}$ |
| Saskatchewan. | 1941 | $\begin{aligned} & 2,773,935 \\ & 6,716,480 \end{aligned}$ | $\begin{array}{r} 547,671 \\ 1,555,523 \end{array}$ | 59,839 90,911 | $\begin{aligned} & 28,754 \\ & 77,417 \end{aligned}$ | $\begin{aligned} & 3,410,199 \\ & 8,440,331 \end{aligned}$ |
| Alberta. | $\begin{array}{r} 1941 \\ 1951 \end{array}$ | $\begin{aligned} & 2,382,689 \\ & 8,153,343 \end{aligned}$ | $\begin{array}{r} 399,741 \\ 1,731,744 \end{array}$ | 79,756 184,438 | 37,703 94,202 | $\begin{array}{r} 2,899,889 \\ 10,163,727 \end{array}$ |
| British Columbia. | $\begin{array}{r} 1941 \\ 1951 \end{array}$ | $\begin{aligned} & 1,616,404 \\ & 4,857,596 \end{aligned}$ | $\begin{array}{r} 51,879 \\ 1,226,742 \end{array}$ | $\begin{array}{r} 9,811 \\ 58,586 \end{array}$ | $\begin{aligned} & 15,579 \\ & 36,060 \end{aligned}$ | $\begin{aligned} & 1,693,673 \\ & 6,178,984 \end{aligned}$ |
| Totals. | $\begin{array}{r} 1941 \\ 1951 \end{array}$ | $\begin{aligned} & 24,505,217 \\ & 77,942,377 \end{aligned}$ | $\begin{array}{r} 2,050,539 \\ 11,611,386 \end{array}$ | $\begin{array}{r} 560,422 \\ 1,170,385 \end{array}$ | $\begin{array}{r} \mathbf{2 9 6 , 4 1 8} \\ \mathbf{7 3 6}, 594 \end{array}$ | $\begin{aligned} & 27,412,596 \\ & 91,460,742 \end{aligned}$ |

## 31.-Production, Utilization and Value of Farm Eggs, by Provinces, 1949-51

Note.-Figures subject to revision on the basis of 1951 Census data, not available at time of preparation of this Chapter.

| Province and Year | Average Number of Layers | Average Production Per 100 Layers | Net Eggs Laid ${ }^{1}$ | Sold | $\begin{gathered} \text { Used } \\ \text { on } \\ \text { Farms }{ }^{2} \end{gathered}$ | Value Per Dozen ${ }^{2}$ | Total <br> Value Sold and Used |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 | No. | '000 doz. | '000 doz. | ${ }^{\prime} 000 \mathrm{doz}$. | cts. | \$'000 |
| $\begin{aligned} & \text { Newfoundland-- } \\ & 1951 . . . . . . . . . . . . . . . . . . . . . \end{aligned}$ | .. | .. | .. | .. | .. | . | .. |
| Prince Edward Island- |  |  |  |  |  |  |  |
| 1949........ 1950...... | 485 | 14,354 14,025 | 5,607 <br> $\mathbf{5 , 5 5 9}$ | 4,778 4,762 | 800 810 | $43 \cdot 1$ $35 \cdot 5$ | 2,415 1,981 2,705 |
| 1951. | 430 | 16,063 | 5,725 | 4,825 | 882 | $47 \cdot 4$ | 2,705 |
| Nova Scotia- |  |  |  |  |  |  |  |
| 1949... | 924 | 16,198 | 12,146 12,989 | 8,904 9,732 | 3,216 3,256 | $48 \cdot 4$ $45 \cdot 2$ | 5,883 5,866 |
| 1950. | 914 879 | 17,124 19,476 | 12,989 14,200 | 8,98 10,998 | 3,256 3,117 | $45 \cdot 2$ $54 \cdot 8$ | 7,733 |
| New Brunswick- |  |  |  |  |  |  |  |
| 1949. | 554 | 14,942 | 6,786 | 4,937 | 1,850 | $49 \cdot 1$ | 3,332 |
| 1950. | 541 | 15,502 | 6.964 | 5,034 | 1,918 | $44 \cdot 8$ 56.1 | 3,117 3,795 |
| 1951. | 511 | 16,013 | 6,776 | 5,027 | 1,738 | $56 \cdot 1$ | 3,795 |

For footnotes, see end of table.

## 31.-Production, Utilization and Values of Farm Eggs, by Provinces, 1949-51-concluded

| Province and Year | Average Number of Layers | Average Production Per 100 Layers | $\begin{gathered} \text { Net } \\ \text { Eggs } \\ \text { Laid }^{1} \end{gathered}$ | Sold | $\begin{gathered} \text { Used } \\ \text { on } \\ \text { Farms }{ }^{2} \end{gathered}$ | Value Per Dozen ${ }^{3}$ | Total Value Sold and Used |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 | No. | '000 doz. | '000 doz. | '000 doz. | cts. | \$'000 |
| Quebec- |  |  |  |  |  |  |  |
| 1949. | 4,510 4,123 | 15,615 <br> 15,531 | 56,929 52,992 | 44,220 40,805 | 12,740 12,285 | $46 \cdot 2$ 41.3 | 26,295 |
| 1951. | 3,671 | 16,780 | 50,974 | 38,730 | 12,176 | $55 \cdot 1$ | 28,047 |
| Ontario- |  |  |  |  |  |  |  |
| 1949. | 9,035 | 15,868 | 116,972 | 102,475 | 14,309 | $43 \cdot 4$ | 50,765 |
| 1950. | 9,013 | 16,254 | 121,334 | 105,793 | 15,544 | $39 \cdot 5$ | 47,889 |
| 1951. | 8,358 | 16,792 | 116,036 | 101,926 | 13,781 | $53 \cdot 0$ | 61,294 |
| Manitoba- |  |  |  |  |  |  |  |
| 1949. | 2,266 | 13,726 | 24,956 | 20,211 | 4,635 | $37 \cdot 9$ | 9,459 |
| 1950. | 1,980 | 13,647 | 22,330 | 18,201 | 4,230 | 31.0 | 6,960 |
| 1951... | 1,677 | 15,029 | 20,804 | 16,959 | 3,635 | $44 \cdot 1$ | 9,091 |
| Saskatchewan- |  |  |  |  |  |  |  |
| 1949. | 3,061 | 12,838 | 31,930 | 24,352 | 7,543 | $35 \cdot 1$ | 11,201 |
| 1950. | 2,824 | 12,193 | 28,433 | 21,076 | 7,380 | $29 \cdot 9$ | 8,504 |
| 1951. | 2,461 | 13,326 | 27,031 | 19,532 | 7,113 | $41 \cdot 6$ | 11,085 |
| Alberta- |  |  |  |  |  |  |  |
| 1949. | 3,145 | 13,537 | 34,309 | 26,424 | 7,834 | 36.8 | 12,609 |
| 1950. | 3,029 | 13,065 | 32.652 | 24,492 | 8,151 | $31 \cdot 9$ | 10,405 |
| 1951. | 2,842 | 14,345 | 33,652 | 25,299 | 7,969 | $44 \cdot 2$ | 14,699 |
| British Columbia- |  |  |  |  |  |  |  |
| 1949. | 1,806 | 16,882 | 24,853 | 22,382 | 2,456 | $46 \cdot 5$ | 11,567 |
| 1950. | 1,537 | 17,234 | 21,920 | 20,019 | 1,865 | $44 \cdot 7$ | 9,779 |
| 1951. | 1,632 | 19,044 | 25,703 | 23,510 | 1,922 | $54 \cdot 4$ | 13,840 |
| Totals-4 |  |  |  |  |  |  |  |
| 1949. | 25,786 | 14,746 | 314,488 | 258,683 | 55,383 | 42.5 | 133,526 |
| 1950 | 24,438 | 15,090 | 305,173 | 249,914 | 55,439 | 38.2 | 116,422 |
| 1951 | 22,461 | 16,206 | 300,901 | 246,806 | 52,333 | 50.9 | 152,289 |

${ }^{1}$ Total laid less loss. This figure is not equal to "Sold" and "Used on Farms" because of the carryover on farms at beginning and end of the year. ${ }^{2}$ Includes eggs used for hatching. ${ }^{3}$ Average value at farms for all purposes.

4 Figures for Newfoundland not available prior to the Census of 1951.
32.-Domestic Disappearance of Poultry and Eggs, 1949-51

| Type of Poultry and Year | Farm Production | Produced Elsewhere | Total Production | Total Supply | Domestic Disappearance | Per Capita Consumption |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. | lb . |
| Fowl and Chickens- |  |  |  |  |  |  |
| 1949............... | 235,955 | 20,241 | 256,196 | 269,605 | 233,730 | $17 \cdot 7$ r |
| 1950. | 223,566 | 19,112 | 242,678 | 263,730 | $245,135{ }^{\text {r }}$ | 18.3 |
| 1951... | 269,988 | 23,271 | 293, 259 | 297,790 | 269,066 | 19.7 |
| Turkeys- |  |  |  |  |  |  |
| $1949 \ldots . .$ | 41,029 |  |  |  |  |  |
| 1950.. | 39,241 | 2,078 | 41,319 | 47,425 | 41,049 ${ }^{\text {r }}$ | $3 \cdot 1$ |
| 1951. | 42,470 | 2,251 | 44,721 | 46,421 | 39,537 | 2.9 |
| Geese- |  |  |  |  |  |  |
| 1949.. | 3,879 | 124 | 4,003 | 4,046 | 3,858 | $0 \cdot 3$ r |
| 1950. | 4,634 | 155 | 4,789 | 4,883 | 4,633 | $0 \cdot 3$ |
| 1951. | 4,501 | 137 | 4,638 | 4,638 | 4,375 | $0 \cdot 3$ |

32.-Domestic Disappearance of Poultry and Eggs, 1949-51-concluded

| Type and Year | Farm Production | Produced Elsewhere | Total Production | Total Supply | Domestic <br> Disappearance | Per Capita Consumption |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ducks- | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. | lb . |
| 1949. | 3,368 | 117 | 3,485 | 3,743 | 3,578 | $0 \cdot 3 \mathrm{r}$ |
| 1950 | 3,166 | 93 | 3,259 | 3,672 | 3,468 | $0 \cdot 3$ |
| 1951. | 3,340 | 139 | 3,479 | 3,900 | 3,586 | $0 \cdot 3$ |
| Totals, Poultry- |  |  |  |  |  |  |
| 1949 | 284,231 | 22,481 | 306,712 | 324,283 | 280,435 ${ }^{\text {r }}$ | $21 \cdot 3$ r |
| 1950. | $\begin{aligned} & 270,607 \\ & 320,299 \end{aligned}$ | 21,438 $\mathbf{2 5 , 7 9 8}$ | 292,045 346,097 | 319,710 352,749 | 294,285 316,564 | 22.0 23.2 |
|  | '000 doz. | '000 doz. | '000 doz. | '000 doz. | '000 doz. | doz. |
| Totals, Eggs-1 |  |  |  |  |  |  |
| 1949. | 314,488 |  |  |  |  |  |
| 1950. | 305,173 300,901 | 28,398 28,618 | 333,571 329,519 | 341,459 342,795 | ( ${ }^{318,0655^{2}}{ }^{\text {r }}$ | ${ }_{23 \cdot 13}$ |

${ }^{1}$ Figures for Newfoundland not available prior to the Census of 1951.
${ }^{2}$ Includes hatching eggs.
${ }^{3}$ Excludes 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, although substantial shipments of apples are ordinarily made to the United Kingdom and to other overseas countries. 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 these 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.
33.-Estimated Commercial Production and Shipping-Point Values of Fruit, 1946-51 with Five-Year Averages, 1941-45

| Kind of Fruit and Year | Quantity | Weight | Value | Average Value per Unit of Quantity | Kind of Fruit and Year | Quantity | Weight | Value | Average Value per Unit of Quantity |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 bu. | '000 lb. | \$'000 | \$ |  | '000 bu. | '000 lb. | \$'000 | \$ |
| Apples- <br> Av 1941-45. | 12,417 | 558,765 | 15,223 | $1 \cdot 23$ | Cherries- Av. 1941-45... | 290 | 14,500 | 1,636 | 5.64 |
| Av. 1946.... | 19,282 | 867,690 | 27,165 | 1.41 | Av. 1946..... | 337 | 16,850 | 2,113 | $6 \cdot 27$ |
| 1947. | 15,619 | 702,855 | 22,840 | 1.46 | 1947. | 299 | 14,950 | 2,128 | $7 \cdot 12$ |
| 1948. | 13,404 | 603,180 | 22,631 | 1.69 | 1948. | 392 | 19,600 | 2,863 | $7 \cdot 30$ |
| 1949. | 18,151 | 816,795 | 19,684 | 1.08 | 1949 | 491 | 24,550 | 3,436 | $7 \cdot 00$ |
| 1950. | 16,166 | 727,470 | 19,493 | $1 \cdot 21$ | 1950 | 359 | 17,950 | 2,168 | $6 \cdot 04$ |
| 1951. | 13,724 | 617,580 | 19,379 | 1.41 | 1951. | 428 | 21,400 | 2,488 | $5 \cdot 81$ |
| Pears- |  |  |  |  | Strawberries- | '000 qt. |  |  |  |
| Av. 1941-45... | 723 | 36,150 | 1,523 | $2 \cdot 11$ | Av. 1941-45... | 17,158 | 21,448 | 2,819 | $0 \cdot 16$ |
| 1946...... | 951 | 47,550 | 2,278 | $2 \cdot 40$ | 1946. | 17,412 | 21,765 | 4,498 | 0.26 |
| 1947..... | 966 | 48,300 | 2,178 | $2 \cdot 25$ | 1947. | 25,659 | 32,074 | 5,404 | 0.21 |
| 1948. | 789 | 39,450 | 2,185 | $2 \cdot 77$ | 1948. | 32,950 | 41,188 | 6,821 | 0.21 |
| 1949. | 1,058 | 52,900 | 2,436 | $2 \cdot 30$ | 1949. | 26,251 | 32,814 | 5,662 | 0.22 |
| 1950. | 864 | 43,200 | 2,136 | $2 \cdot 47$ | 1950 | 27, 121 | 33,901 | 6,885 | $0 \cdot 25$ |
| 1951. | 1,190 | 59,500 | 3,057 | $2 \cdot 57$ | 1951. | 25,309 | 31,636 | 5,579 | 0.22 |
| $\begin{gathered} \text { Plums and } \\ \text { Prunes- } \end{gathered}$ |  |  |  |  | Raspberries- |  |  |  |  |
| Av. 1941-45... | 460 | 23,000 | 1,067 | $2 \cdot 32$ | Av. 1941-45... | 10,197 | 12,746 | 2,271 | 0.22 |
| 1946..... | 811 | 40,550 | 1,755 | $2 \cdot 16$ | 1946.... | 13,240 | 16,550 | 3,364 | $0 \cdot 25$ |
| 1947..... | 779 | 38,950 | 1,472 | 1.89 | 1947 | 18,212 | 22,765 | 4,354 | $0 \cdot 24$ |
| 1948. | 671 | 33,550 | 1,889 | $2 \cdot 82$ | 1948...... | 15,657 | 19,571 | 3,279 | 0.21 |
| 1949. | 827 | 41,350 | 1,387 | $1 \cdot 68$ | 1949 | 10,931 | 13,664 | 2,614 | 0.24 |
| 1950. | 600 | 30,000 | 1,278 | $2 \cdot 13$ | 1950. | 11,964 | 14,955 | 2,967 | 0.25 |
| 1951. | 673 | 33,650 | 1,428 | $2 \cdot 12$ | 1951..... | 12,829 | 16,036 | 3,014 | $0 \cdot 23$ |
| Peaches- |  |  |  |  | Loganberries- | '000 lb. |  |  |  |
| Av. 1941-45... | 1,496 | 74,800 | 3,495 | $2 \cdot 34$ | Av. 1941-45... | 1,677 | 1,677 | 159 | 0.09 |
| 1946.... | 2,145 | 107,250 | 5,356 | $2 \cdot 50$ | 1946..... | 1,637 | 1,637 | 222 | $0 \cdot 14$ |
| 1947. | 1,681 | 84,050 | 4,128 | 2.46 | 1947..... | 1,413 | 1,413 | 213 | 0.15 |
| 1948.. | 1,760 | 88,000 | 4,953 | $2 \cdot 81$ | 1948..... | 2,261 | 2,261 | 340 | -0.15 |
| 1949. | 2,011 | 100,550 | 4,987 | $2 \cdot 48$ | 1949 | . 877 | , 877 | 124 | 0.14 |
| 1950. | 1,222 | 61,100 | 2,822 | $2 \cdot 31$ | 1950..... | 1,197 | 1,197 | 177 | $0 \cdot 15$ |
| 1951. | 1,766 | 88,300 | 4,699 | $2 \cdot 66$ | 1951...... | 1,887 | 1,887 | 142 | 0.16 |
| Apricots- |  |  |  |  | Grapes- |  |  |  |  |
| Av. 1941-45... | 86 | 4,300 | 258 | 3.00 | Av. 1941-45... | 60,540 | 60,540 | 1,954 | 0.03 |
| 1946..... | 147 | 7,350 | 446 | 3.03 | 1946..... | 67,321 | 67,321 | 3,160 | 0.05 |
| 1947. | 116 | 5,800 | 327 | $2 \cdot 82$ | 1947..... | 73,803 | 73,803 | 3,568 | 0.05 |
| 1948. | 152 | 7,600 | 629 | $4 \cdot 14$ | 1948...... | 57,623 | 57,623 | 2,559 | 0.04 |
| 1949. | 181 | 9,050 | 810 | 4.48 | 1949. | 51, 194 | 51, 194 | 2,012 | 0.04 |
| 1950. | 18 | 900 | 93 | $5 \cdot 17$ | 1950. | 109, 189 | 109, 189 | 3,543 | 0.03 |
| 1951...... | 49 | 2,450 | 185 | $3 \cdot 78$ | 1951..... . | 88,303 | 88,303 | 2,801 | 0.03 |

34.-Values and Weights of Commercial Fruit Produced, by Provinces, 1946-51, with Five-Year Averages, 1941-45

| Value, Weights and Year | Nova Scotia | New <br> Brunswick | Quebec | Ontario | British Columbia | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Value | \$ | \$ | \$ | $\$$ | \$ | \$ |
| Av. 1941-45. | 3,450,000 | 485,000 | 1,782,000 | 9,891,000 | 14,797,000 | 30,405,000 |
| 1946 | 5,901,000 | 666,000 | 2,022,000 | 14,636,000 | 27,132,000 | 50,357,000 |
| 1947 | 2,851,000 | 631,000 | 3,548,000 | 14, 182,000 | 25, 400,000 | 46,612,000 |
| 1948 | 2,151,000 | 765,000 | 3,605,000 | 15,018,000 | 26,610,000 | 48,149,000 |
| 1949 | 2,515,000 | 584,000 | 4,108,000 | 12,645,000 | 23, 300,000 | 43,152,000 |
| 1950 | 1,778.000 | 570,000 | 3,822,000 | 14,305,000 | 21,087,000 | 41.562,000 |
| 1951 | 1,489,000 | 551,000 | 5,122,000 | 14,547,000 | 21,063,000 | 42,772,000 |
| Welghts- | lb. | lb. | 1 l . | lb. | 1 l . | lb. |
| Av. 1941-45. | 170,000,000 | 12,599,000 | 40,835,000 | 238,790,000 | 345,692,000 | 807,916,000 |
| 1946 | 273,916,000 | 15,956,000 | 48, 862,000 | 281,854,000 | 573,925,000 | 1,194,513,000 |
| 1947 | 166,258,000 | 16,805,000 | $63,100,000$ | 298,854,000 | 479,943,000 | 1,024,960,000 |
| 1948 | 105,551,000 | 16,056,000 | 60,775,000 | 267,468,000 | 462, 173,000 | 912,023,000 |
| 1949 | 170,507,000 | 18,119,000 | 99,750,000 | 331, 894,000 | $523,473,000$ | 1,143,743,000 |
| 1950 | 103,955,000 | 17,450,000 | 91,148,000 | 360,669,000 | 466,641,000 | 1,039,863,000 |
| 195 | 76,728,000 | 17,331,000 | 148,719,000 | 393, 179,000 | $323,786,000$ | 959,743,000 |

## Subsection 8.-Special Crops

Tobacco.-The chief tobacco-growing area is located in southern Ontario in the counties adjacent to Lake Erie. Most of the cigarette tobacco comes from this district. In 1950, 87,330 acres of flue-cured or Bright Virginia type tobacco and 4,652 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 1950, 4,630 acres of flue-cured tobacco, 3,212 acres of cigar tobacco and 1,321 acres of pipe tobacco were harvested in that Province.

A study of Department of National Revenue reports of 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 1.26 lb ., plug tobacco 1.14 lb . and snuff about 1.25 oz . By 1951 , the annual per capita consumption of cigarettes had increased to 1,118 , cigars had dropped to $12 \cdot 1$, cut tobacco went up to 1.95 lb . and plug declined considerably.

## 35.-Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, 1946-50, with Five-Year Averages, 1941-45

Note.-Figures for years prior to 1946 will be found in the corresponding tables of previous editions of the Year Book.

| Year | Harvested Area | Average Yield per Acre | Total Production | Average Farm Price per lb. | Gross <br> Farm Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | acres | lb. | lb. | cts. | \$ |
| Av. 1941-45. | 80,440 | 1,121 | 90,149,000 | $27 \cdot 1$ | 24,429,000 |
| 1946. | 110,358 | 1,281 | 141,384,000 | $35 \cdot 0$ | 49,472,000 |
| 1947. | 125, 267 | 852 | 106,688,000 | $35 \cdot 1$ | 37,460,000 |
| 1948. | 110,590 | 1,145 | 126, 629,000 | $39 \cdot 7$ | 50,272,000 |
| 1949 | 109,053 | 1,282 | 139,820,000 | $39 \cdot 7$ | $55,453,000$ |
| 1950. | 101,839 | 1,182 | 120,298,000 | $42 \cdot 6$ | 51,292,000 |

## 36.-Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, by Provinces, 1946-50, with Five-Year Averages, 1941-45

Note.-Figures for the years 1934-38 will be found at p. 229 of the 1939 Year Book and for the years 1939-45 at p. 387 of the 1948-49 edition.

| Year | Quebec |  |  | Ontario |  |  | British Columbia |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Harvested | Pro-duction | Value | Harvested Area | Pro-duction | Value | Harvested Area | Pro-duction | Value |
|  | acres | '000 lb. | 8 | acres | '000 lb. | 8 | acres | '000 lb. | \$ |
| Av. 1941-45... | 9,916 | 8,763 | 1,872,000 | 70,224 | 81,045 | 22,483,000 | 300 | 341 | 74,000 |
| 1946. | 11,821 | 11,695 | 3,383,000 | 98,386 | 129,519 | 46,034,000 | 151 | 170 | 55,000 |
| 1947. | 11,918 | 8,940 | 2,313,000 | 113,231 | 97,627 | 35,116,000 | 118 | 121 | 31,000 |
| 1948. | 12,932 | 13,753 | 3,977,000 | 97,634 | 112,857 | 46,287,000 | 24 | 19 | 8,000 |
| 1949. | 9,790 | 8,016 | 1,992,000 | 99,182 | 131,717 | 53,432,000 | 81 | 87 | 29,000 |
| 1950.. | 9,163 | 9,556 | 2,732,000 | 92,556 | 110,610 | 48,505,000 | 120 | 132 | 55,000 |

## 37.-Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, by Main Types, 1946-50, with Five-Year Averages, 1941-45

Note.-Figures for years prior to 1946 will be found in corresponding tables of previous editions of the Year Book.

| Type of Tobacco and Year | Harvested Area | Average Yield per Acre | Total Production | Average Farm Price per lb. | Gross <br> Farm Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | acres | lb. | lb. | cts. | \$ |
| Flue-cured. . . . . . . . . . . Av. 1941-45 | 66,073 | 1,114 | 73,581,000 | 28.9 | 21,264,000 |
| 1946 | 91,432 | 1,302 | 119,027,000 | 36.6 | 43,554,000 |
| 1947 | 103,694 | 838 | 86,863,000 | $37 \cdot 1$ | $32,210,000$ |
| 1948 | 90,874 | 1,127 | 102,442,000 | $42 \cdot 5$ | 43,546,000 |
| 1949 | 90,733 | 1,286 | 116,668,000 | $42 \cdot 1$ | 49,099,000 |
| 1950 | 92,080 | 1,175 | 108,202,000 | 44-5 | 48,144,000 |
| Burley.................Av. Av. 1941-45 | 8,064 | 1,223 | 9,866,000 | $20 \cdot 4$ | 2,012,000 |
| 1946 | 10,478 | 1,151 | 12,058,000 | 27.0 | 3,260,000 |
| 1947 | 13,200 | 958 | 12,640,000 | $25 \cdot 6$ | 3,613,000 |
| 1948 | 10,706 | 1,199 | 12.841,000 | $30 \cdot 5$ | 3,917,000 |
| 1949 | 11,385 | 1,357 | 15,452,000 | 30.5 | 4,708,000 |
| 1950 | 4,652 | 1,217 | 5,660,000 | $30 \cdot 0$ | 1,700,000 |
| Cigar leaf...............Av. 1941-45 | 3,151 | 1,068 | 3,366,000 | 16.3 | 548,000 |
| 1946 | 4,165 | 1,305 | 5,435,000 | 25.8 | 1,405,000 |
| 1947 | 4,238 | 880 | 3,729,000 | $22 \cdot 6$ | 844,000 |
| 1948 | 6,463 | 1,300 | 8,402,000 | $25 \cdot 2$ | 2,114,000 |
| 1949 | 3,590 | 1,032 | 3,706,000 | 22.5 | 834,000 |
| 1950 | 3,212 | 1,300 | 4,175,000 | 22.0 | 919,000 |

Sugar Beets and Beetroot Sugar.-In 1950 the Canadian sugar-beet crop exceeded $1,000,000$ tons for the first time. Sugar beets are grown commercially 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 1950, about 147,000 tons were harvested from 12,000 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. The wartime reduction in acreage, caused by labour shortage and competition from other crops, has been overcome and in 1950 Ontario factories processed about 386,000 tons harvested from over 34,000 acres.

Processing of sugar beets in Manitoba began in 1940 when 95,000 tons were handled. In 1950 the factory processed 150,000 tons from 20,000 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 1950 the three Alberta factories, located in the south of the Province at Raymond, Picture Butte and Taber, handled 445,000 tons of beets from a harvested area of over 36,000 acres. Twenty-five years earlier the Alberta crop amounted to only 41,000 tons from about 5,000 acres.

## 38.-Acreages, Yields and Values of Sugar Beets, and Quantities and Values of Refined Beetroot Sugar Produced, 1946-50, with Five-Year Averages, 1941-45

Note.-Figures for years prior to 1946 will be found in corresponding tables of previous editions of the Year Book.

| Year | Sugar Beets |  |  |  |  | Refined Beetroot Sugar Produced |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Harvested Area | Yield per Acre | Total Yield | Average Price per Ton | Total Value | Quantity | Value | Price per 1 l . |
|  | acres | tons | tons | 8 | \$ | lb. | \$ | cts. |
| Av. 1941-45.. | 59,000 | 10.46 | 617,000 | $9 \cdot 49$ | 5,858,000 | 172,674,000 | 10,840,000 | $6 \cdot 3$ |
| $1946{ }^{\text {r }}$. | 67,000 | 11.05 | 736,000 | 12.50 | 9,196,000 | 205,780,000 | 14,023,000 | 6.8 |
| 1947 \%. | 58.000 | 10.37 | 606,000 | 14.34 | 8,686,000 | 156,263,000 | 13,209,000 | 8.5 |
| $1948{ }^{\text {r }}$. | 60,000 | 10.48 | 629,000 | $14 \cdot 62$ | 9,202,000 | 175,641,000 | 15,664,000 | 8.9 |
| 1949. | 84,000 | 10.20 | 859,000 | $13 \cdot 68$ | 11,750,000 | 224,854,000 | 20,232,000 | $9 \cdot 0$ |
| 1950......... | 102,000 | $11 \cdot 10$ | 1,128,000 | 16.28 | 18,367,000 | 300,185,000 | 30,845,000 | $10 \cdot 3$ |

Apiculture.-Honey is produced commercially in all provinces of Canada, Ontario being the largest producer. There is a considerable movement of honey particularly from the Prairie Provinces to other parts of Canada and to other countries, although the export trade in this commodity has been sharply reduced in recent years due to strong competition and to import restrictions imposed by many countries.

The 1951 crop was the largest since 1948, in spite of a reduction in the number of bee colonies. The higher-than-average 1951 yield was the result of unusually favourable weather conditions during the summer, particularly in Ontario.

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.

As a matter of interest it is noted that bees are kept in some of the fruit-growing and greenhouse districts of the country chiefly for purposes of pollination.

## 39.-Beekeepers and Bee Colonies, Production and Values of Honey and Beeswax, 1946-51, with Five-Year Averages, 1941-45

Note.-Figures for years prior to 1946 will be found in corresponding tables of previous editions of the Year Book.

| Year | Beekeepers | Bee Colonies | Honey |  |  |  | Beeswax |  | Value of Honey Wax |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Average Production per Hive | Total Production | Average Price per lb. to Producers | Total Value | Production | Value |  |
|  | No. | No. | lb. | lb. | cts. | \$ | lb. | \$ | \$ |
| 1941-45 | 34,800 | 463,500 | 73 | 34,009,000 | 14.5 | 4,933,000 | 508,000 | 227,000 | $5.160,000$ |
| 1946. | 43,200 | 541,800 | 43 | 23,185,000 | 18.0 | 4,149,000 | 328,000 | 158,000 | $4,307,000$ $9,360,000$ |
| 1947.... | 39,200 | 588,700 | 63 | 37,078,000 | $25 \cdot 0$ | 9,160,000 | 425,000 | 200,000 | 9,360,000 |
| 1948.... | 32,100 | 569,800 | 79 | $45,145,000$ | 21.0 | 9,336,000 | 666,000 | 295,000 |  |
| 1949.... | 25,900 | 473,400 | 66 | 31,481,000 | 13.0 15.0 | $4,200,000$ $4,282,000$ | 466,000 425,000 | 186,000 166,000 | $4,386,000$ $4,448,000$ |
| 1950. | 22,200 | 430,000 | ${ }_{101}^{66}$ | $28,351,000$ $40,909,000$ | $15 \cdot 0$ 15.0 | $4,282,000$ $6,294,000$ | 425,000 590,000 | 166,000 294,000 | $4,448,000$ $6,588,000$ |
| 1951.... | 18,900 | 406,300 | 101 | 40,909,000 | $15 \cdot 0$ | 6,294,000 | 590,000 | 294,000 | 6,588,000 |

## 49.-Honey Production, by Provinces, 1946-51, with Five-Year Averages, 1941-45

Nore. -Figures for the years prior to 1946 will be found in the corresponding tables of previous editions of the Year Book.

| Province | Av.1941-45 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | lb. | lb. | lb. | lb. | 1 l . | lb. | lb. |
| Newfoundland <br> Prince Edward Island | 34,000 | 15,000 | 57,000 | 64,000 | 63,000 | 46,000 | 71,000 |
| Nova Scotia. | 77,000 | 65,000 | 112,000 | 125,000 | 103,000 | 81,000 | 143,000 |
| New Brunswi | 174,000 | 109,000 | 142,000 | 200,000 | 140,000 | 68,000 | 151,000 |
| Quebec. | 4,291,000 | 1,900,000 | 5,399,000 | 4,831,000 | 3,709,000 | 3,041,000 | 5,044,000 |
| Ontario | 14,565,000 | 5,685,000 | 12,290,000 | 15,736,000 | 9,086,000 | 8,350,000 | 20,500,000 |
| Manitob | 4,549,000 | 4,810,000 | 5,180,000 | 6,525,000 | 5,586,000 | 5,891,000 | 5,400,000 |
| Saskatchew | 4,996,000 | 3,953,000 | 6,232,000 | 6,492,000 | 6,000,000 | 4,881,000 | 3,600,000 |
| Alberta | 4,110,000 | 6,192,000 | 6,507,000 | 10,254,000 | 5,830,000 | 4,851,000 | 4,500,000 |
| British Columbia | 1,213,000 | 456,000 | 1,159,000 | 918,000 | 964,000 | 1,142,000 | 1,500,000 |
| Totals. | 34,009,000 | 23,185,000 | 37,078,000 | 45,145,000 | 31,481,000 | 28,351,000 | 40,909,000 |

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 which is 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. In $1950-51,11,300,000 \mathrm{lb}$. of maple products were exported, representing about 54 p.c. of the total crop. This was the largest volume of maple products to be exported in recent years.

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.
41.-Estimated Production of Maple Sugar and Maple Syrup, by Provinces, 1946-51, with Five-Year Averages, 1941-45

| Province and Year | Maple Sugar |  |  | Maple Syrup |  |  | Total <br> Value, <br> Sugar and Syrup |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Average Price per lb. | Value | Quantity | Average Price per gal. | Value |  |
| Nova Scotia- |  |  |  |  |  |  | § |
| Av. 1941-45...... | 33,000 | $33 \cdot 3$ | 11,000 | 7,000 | $2 \cdot 86$ | 20,000 | 31,000 |
| 1946.............. | 20,000 | $42 \cdot 0$ | 8,000 | 6,000 | 3.50 | 21,000 | 29,000 |
| 1947.............. | 14,000 | $52 \cdot 0$ | 7,000 | 9,000 | $3 \cdot 94$ | 35,000 | 42,000 |
| 1948. | 16,000 | 46.0 | 7,000 | 8,000 | 4.08 | 33,000 | 40,000 |
| 1949. | 13,000 | $45 \cdot 0$ | 6,000 | 6,000 | 4.07 | 24,000 | 30,000 |
| 1950.............. | 13,000 | $47 \cdot 0$ | 6,000 | 7,000 | $3 \cdot 76$ | 26,000 | 32,000 |
| 1951............. | 15,000 | $52 \cdot 0$ | 8,000 | 5,000 | $4 \cdot 18$ | 21,000 | 29,000 |
| New Brunswick- |  |  |  |  |  |  |  |
| Av. 1941-45...... | 84,000 | 34.5 | 29,000 | 12,000 | $2 \cdot 83$ | 34,000 | 64,000 |
| 1946............ | 68,000 | 42.0 | 29,000 | 10,000 | $3 \cdot 77$ | 38,000 | 67,000 |
| 1947............ | 93,000 | $50 \cdot 0$ | 46,000 | 23,000 | $4 \cdot 25$ | 98,000 | 144,000 |
| 1948. | 124,000 | $49 \cdot 0$ | 61,000 | 12,000 | 4.28 | 51,000 | 112,000 |
| 1949. | 81,000 | 43.0 | 35,000 | 7,000 | $4 \cdot 26$ | 30,000 | 65,000 |
| 1950.............. | 86,000 | 43.0 | 37,000 | 14,000 | 4.00 | 56,000 | 93,000 |
| 1951.............. | 90,000 | $46 \cdot 0$ | 41,000 | 10,000 | $4 \cdot 27$ | 43,000 | 84,000 |
| Quebec- |  |  |  |  |  |  |  |
| Av. 1941-45..... | 2,382,000 | 22.2 | 528,000 | 1,805,000 | $2 \cdot 31$ | 4,163,000 | 4,692,000 |
| 1946......... | 2,448,000 | 27.0 | 661,000 | 1,638,000 | $2 \cdot 92$ | 4,783,000 | 5,444,000 |
| 1947. | $3,260.000$ | 37.0 | 1,206,000 | 2,831,000 | $3 \cdot 48$ | 9,852,000 | 11,058,000 |
| 1948. | 2,187,000 | 34.0 | 744,000 | $1,750,000$ | $3 \cdot 49$ | 6,108,000 | 6,852,000 |
| 1949. | 1,651,000 | 36.0 | 598,000 | 1,894,000 | $3 \cdot 61$ | 6,829,000 | 7,427,000 |
| 1950 | 1,692,000 | 37.0 39.0 | 626,000 585,000 | 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 |

41.-Estimated Production of Maple Sugar and Maple Syrup, by Provinces, 1946-51, with Five-Year Averages, 1941-45-concluded

| Province and Year | Maple Sugar |  |  | Maple Syrup |  |  | Total Value, Sugar and Syrup |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Average Price per lb. | Value | Quantity | Average Price per gal. | Value |  |
| Ontario- | lb. | cts. | \$ | gal. | \$ | \$ | \$ |
| Av. 1941-45...... | 35,000 | 28.6 | 10,000 | 411,000 | $2 \cdot 72$ | 1,119,000 | 1,130,000 |
| 1946............. | 7,000 | $35 \cdot 0$ | 2,000 | 235,000 | $3 \cdot 15$ | 740,000 | 742,000 |
| 1947.............. | 67,000 | 41.0 | 27,000 | 717,000 | $4 \cdot 00$ | 2,868,000 | 2,895,000 |
| 1948. | 23,000 | $35 \cdot 0$ | 8,000 | 389,000 | $3 \cdot 93$ | 1,529,000 | $1,537,000$ |
| 1949. | 42,000 | 40.0 | 17,000 | 399,000 | $3 \cdot 98$ | 1,587,000 | 1,604,000 |
| 1950. | 33,000 | $40 \cdot 0$ | 13,000 | 507,000 | $4 \cdot 05$ | 2,053,000 | 2,066,000 |
| 1951. | 44,000 | $43 \cdot 0$ | 19,000 | 379,000 | $4 \cdot 29$ | 1,626,000 | 1,645,000 |
| Totals- |  |  |  |  |  |  |  |
| Av. 1941-45...... | 2,534,000 | 22.8 | 579,000 | 2,236,000 | $2 \cdot 39$ | 5,337,000 | 5,916,000 |
| 1946. | 2,543,000 | $27 \cdot 5$ | 700,000 | 1,889,000 | 2.96 | 5,582,000 | 6,282,000 |
| 1947. | 3,434,000 | 37.4 | 1,286,000 | 3,580,000 | $3 \cdot 59$ | 12,853,000 | 14,139,000 |
| 1948 | 2,350,000 | 34.9 | 820,000 | 2,159,000 | $3 \cdot 58$ | 7,721,000 | 8,541,000 |
| 1949 | 1,787,000 | 36.7 | 656,000 | 2,306,000 | $3 \cdot 67$ | 8,470,000 | 9,126,000 |
| 1950 | 1,824,000 | 37.4 | 682,000 | 2,801,000 | $3 \cdot 55$ | 9,954,000 | 10,636,000 |
| 1951. | 1,649,000 | 39.6 | 653,000 | 2,144,000 | $3 \cdot 69$ | 7,902,000 | 8,555,000 |

Fibre Flax.-The demand for fibre flax was heavy during the war years when exports increased to many times the pre-war volume. After World War II, however, exports of fibre flax to Canada's principal market, the United Kingdom, dropped sharply and acreage devoted to this crop decreased and in 1950 was at the lowest level since 1931. Flax is now grown commercially only in Ontario and Quebec.
42.-Acreages, Yields and Values of Flaxseed, Fibre and Tow, 1946-50, with Five-Year Averages, 1941-45

Note.-Figures for the years prior to 1946 will be found in the corresponding tables of previous editions of the Year Book.

| Year | Area | Production |  |  | Values |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Seed | Fibre | Green Tow | Seed | Fibre | Green <br> Tow | Total |
|  | acres | bu. | 1 b . | tons | 8 | 8 | \$ | \$ |
| Av. 1941-45.... | 37,499 | 137,000 | 7,960,000 | 822 | 480,000 | 2,014,000 | 43,000 | 2,537,000 |
| 1946........... | 15,762 | 81,000 | 1,786,000 | - | 405,000 | 452,000 | - | 857,000 |
| 1947............ | 11,003 | 50,000 | 1,852,000 | - | 300,000 | 482,000 | - | 782,000 |
| 1948........... | 14,116 | 50,000 | 3,700,000 | - | 275,000 | 1,055,000 |  | 1,330,000 |
| 1949............ | 7,518 | 36,000 ${ }^{\text {r }}$ | 1,948,000 | 29 | 179,000 | 350,000 | 2,000 | 531,000 |
| 1950............ | 4,569 | 25,000 | 900,000 |  | 133,000 | 193,000 |  | 326,000 |

## Subsection 9.-Prices of Agricultural Produce

During 1951, the monthly index numbers of farm prices of agricultural products were consistently and substantially higher than corresponding figures for 1950 . Increasing live-stock prices were largely responsible for the almost uninterrupted
rise in the index from $273 \cdot 9$ in January to 307.2 in July. From this all-time high, the index declined steadily to $276 \cdot 0$ in December, a result mainly of smaller advance payments for grain delivered by western farmers after Aug. 1, 1951, and lowering prices for live stock, poultry and eggs. The annual average for the year at a record high of $287 \cdot 2$ was about 10 p.c. above the previous high of $260 \cdot 5$ reached in 1950.
43.-Average Index Numbers of Farm Prices of Agricultural Products, by Provinces, 1942-51, and by Months, 1950 and 1951

$$
(1935-39=100)
$$

Norg.-A description of this index, its coverage and the methods used will be found in D.B.S. Quarterly Bulletin of Agricultural Statistics for October-December, 1946.

| Year and Month | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1942 Averages. | 156.2 | $144 \cdot 1$ | $160 \cdot 4$ | 153.4 | 147.8 | 122.2 | $110 \cdot 5$ | 121.7 | 140.4 | 133.1 |
| 1943 Averages. | 190-3 | $169 \cdot 1$ | $181 \cdot 4$ | 172.6 | 165.0 | $151 \cdot 3$ | 139.9 | 149.9 | 175.8 | 157-8 |
| 1944 Averages. | 172.7 | 173-3 | 171.9 | 171.7 | 169.1 | $173 \cdot 1$ | $171 \cdot 4$ | 176.9 | 179.5 | 172.4 |
| 1945 Averages. | 196.7 | 180.8 | $195 \cdot 3$ | 179.5 | 174.6 | 188.4 | 192.6 | 196-2 | 187-8 | 185-7 |
| 1946 Averages. | $194 \cdot 2$ | 191.1 | $207 \cdot 7$ | 196.9 | 187.9 | $209 \cdot 4$ | $217 \cdot 3$ | 219.9 | 199.2 | 204-1 |
| 1947 Averages. | 180-1 | 184.6 | $199 \cdot 6$ | 213.7 | 202-1 | $225 \cdot 9$ | 226.1 | 231.9 | 207-1 | 215.8 |
| 1948 Averages. | 236-6 | $214 \cdot 1$ | $250 \cdot 4$ | $265 \cdot 6$ | $258 \cdot 6$ | $259 \cdot 6$ | $247 \cdot 1$ | 262.9 | 240.2 | 255.8 |
| 1949 Averages. | 204-1. | $210 \cdot 5$ | 220.5 | $261 \cdot 3$ | 257.8 | 262.8 | $248 \cdot 8$ | $265 \cdot 6$ | $245 \cdot 1$ | 255-4 ${ }^{1}$ |
| 1950 |  |  |  |  |  |  |  |  |  |  |
| January | 175.9 | $195 \cdot 4$ | $201 \cdot 2$ | $249 \cdot 1$ | 242.8 | $260 \cdot 4$ | $243 \cdot 8$ | $257 \cdot 6$ | 224.7 | $244 \cdot 8$ |
| Februar | $174 \cdot 7$ | $196 \cdot 7$ | $203 \cdot 7$ | $250 \cdot 3$ | 248.7 | $264 \cdot 8$ | 246.7 | $261 \cdot 9$ | $230 \cdot 8$ | $248 \cdot 9$ |
| March | $180 \cdot 1$ | $199 \cdot 6$ | $208 \cdot 7$ | 251.8 | $252 \cdot 8$ | $267 \cdot 9$ | $249 \cdot 4$ | 266.9 | 232.9 | 252.4 |
| April. | 189.9 | 197.4 | $209 \cdot 1$ | 253.4 | $254 \cdot 4$ | $272 \cdot 4$ | $252 \cdot 1$ | $270 \cdot 7$ | 231.8 | $254 \cdot 7$ |
| May. | $176 \cdot 2$ | $197 \cdot 2$ | 207-2 | $252 \cdot 6$ | $257 \cdot 6$ | 269.8 | 252.7 | $270 \cdot 9$ | $234 \cdot 4$ | $255 \cdot 5$ |
| June | 207.9 | $205 \cdot 7$ | $217 \cdot 7$ | 259.7 | 268.7 | $277 \cdot 4$ | $257 \cdot 0$ | $280 \cdot 7$ | $242 \cdot 3$ | 264-1 |
| July. | $200 \cdot 7$ | $208 \cdot 8$ | $229 \cdot 5$ | $264 \cdot 5$ | $274 \cdot 3$ | $280 \cdot 9$ | $259 \cdot 5$ | $282 \cdot 9$ | $249 \cdot 0$ | $268 \cdot 1$ |
| August | 217.5 | $217 \cdot 2$ | $230 \cdot 5$ | 265.4 | $274 \cdot 6$ | $286 \cdot 1$ | 268.5 | $296 \cdot 5$ | 256.9 | $274 \cdot 0$ |
| Septemb | $199 \cdot 3$ | 208.7 | 228.3 | 267 -2 | $275 \cdot 4$ | 283.7 | $250 \cdot 6$ | $289 \cdot 8$ | 258.5 | 268.8 |
| October | $183 \cdot 3$ | $206 \cdot 6$ | 225.8 | $263 \cdot 8$ | 269-4 | $274 \cdot 5$ | 243.9 | $275 \cdot 5$ | $255 \cdot 8$ | $261 \cdot 3$ |
| November | $172 \cdot 5$ | $203 \cdot 1$ | $213 \cdot 3$ | $268 \cdot 7$ | $277 \cdot 1$ | $276 \cdot 1$ | $243 \cdot 9$ | $276 \cdot 5$ | 257.0 | $264 \cdot 1$ |
| December | 181-3 | 204.7 | $217 \cdot 7$ | 278.0 | $280 \cdot 3$ | 279.0 | 248.9 | 281.7 | $259 \cdot 2$ | 268.8 |
| 1950 Averages. | 188.3 | $203 \cdot 4$ | 216.1 | $260 \cdot 4$ | 264.7 | 274.4 | 251.4 | 276.0 | 244-4 | $260 \cdot 51$ |
| 1951 |  |  |  |  |  |  |  |  |  |  |
| January. | $184 \cdot 6$ | 208.5 | 220.9 | 279.4 | $284 \cdot 6$ | $283 \cdot 3$ | 251.9 | 296.0 | 254.0 | 273.9 |
| February | 199.9 | 216.7 | $224 \cdot 1$ | 291.9 | $301 \cdot 4$ | $292 \cdot 2$ | 258.7 | 301.7 | $267 \cdot 5$ | $284 \cdot 7$ |
| March | $203 \cdot 2$ | $220 \cdot 6$ | $230 \cdot 3$ | $302 \cdot 0$ | $313 \cdot 1$ | $302 \cdot 2$ | $265 \cdot 5$ | $309 \cdot 6$ | $273 \cdot 0$ | $293 \cdot 7$ |
|  | $207 \cdot 5$ | 224.2 | $227 \cdot 1$ | 301-2 | 309-6 | $299 \cdot 3$ | $265 \cdot 1$ | 306-3 | 273.4 | 291.6 |
| May | 207.9 | $227 \cdot 2$ | $229 \cdot 4$ | $302 \cdot 4$ | 311.0 | $298 \cdot 6$ | $265 \cdot 1$ | $307 \cdot 7$ | 271.9 | 292.4 |
|  | 216.9 | $227 \cdot 5$ | $227 \cdot 2$ | $309 \cdot 6$ | $320 \cdot 6$ | 308.3 | $272 \cdot 6$ | $316 \cdot 2$ | 272.6 | $300 \cdot 3$ |
| July. | $225 \cdot 4$ | 236.9 | 238.7 | 318.8 | $332 \cdot 1$ | $310 \cdot 9$ | $273 \cdot 5$ | $319 \cdot 5$ | 292.7 | 307-2 |
| August | $244 \cdot 0$ | 238.5 | $242 \cdot 9$ | $310 \cdot 4$ | 321.5 | $280 \cdot 1$ | 235.9 | $278 \cdot 8$ | 287.9 | $284 \cdot 9$ |
| Septemb | 242.9 | 244.6 | $253 \cdot 6$ | 308.0 | 319.4 | $272 \cdot 5$ | $234 \cdot 9$ | 276.7 | 309.8 | $284 \cdot 0$ |
| October | 256.8 | 247.9 | $267 \cdot 2$ | 304.8 | 313.9 | 264.8 | $229 \cdot 9$ | 267 -4 | $310 \cdot 1$ | 278.9 |
| Novembe | $312 \cdot 8$ | $269 \cdot 2$ | $320 \cdot 4$ | 307.5 | 313.9 | $260 \cdot 3$ | $223 \cdot 3$ | 259 -2 | 318.9 | 278.4 |
| Decembe | $327 \cdot 3$ | $270 \cdot 3$ | $320 \cdot 4$ | $311 \cdot 3$ | 309.8 | 259.8 | 218.5 | $255 \cdot 1$ | 318.0 | $276 \cdot 0$ |
| 1951 Averages | 235.8 | 236.0 | $250 \cdot 2$ | 303.9 | 312.6 | 286.0 | 249.6 | $291-2$ | 287.5 | 287.21 |

[^144]Monthly prices of grain and monthly prices of live stock are shown in D.B.S. Quarterly Bulletin of Agricultural Statistics.

## 44.-Yearly Average Cash Prices per Bushel of Canadian Cereals-Basis, in Store at Fort William and Port Arthur-Crop Years Ended July 31, 1942-51

Nore.-Statistics for 1926 to 1941 are given in the corresponding tables of previous editions of the Year Book.

| Year Ended July 31- | Averages in Cents and Eighths of a Cent per Bushel |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Wheat, ${ }^{1}$ <br> No. 1 N. | Oats, ${ }^{2}$ $\text { No. } 2 \text { C.W. }$ | Barley, ${ }^{2}$ No. 2 C.W. -6 Row | Rye, ${ }^{3}$ <br> No. 2 C.W. | Flaxseed, ${ }^{3}$ No. 1 C.W. |
|  | cts. | cts. | cts. | cts. | cts. |
| 1942. | 76/5 | 49/1 | 61/4 | 60/1 | 158/14 |
| 1943. | 94/4 | 49/2 | 64/2 | 68/4 | $225{ }^{5}$ |
| 1944. | 135 | 67/3 | 79/6 | 115/4 | 2505 |
| 1945. | 143/6 | $61 / 4$ | 87/3 | 126/2 | 2755 |
| 1946. | 183/3 | $61 / 4$ | 84/6 | 223/7 | $275{ }^{5}$ |
| 1947. | 183/3 | $66 / 2$ | 93/4 | 287/6 | 3255 |
| 1948.. | 183/3 | 90 | 119/7 | 374/5 | $550{ }^{6}$ |
| 1949.. | 183/3 | 78/1 | 124/3 | 140 | 403/17 ${ }^{7}$ |
| 1950.. | $183 / 3$ $185 / 4$ | $90 / 4$ $95 / 4$ | 158/7 | 146 | $371 / 6$ $441 / 4$ |
|  |  | 95/4 | 147/4 | 184/5 | 441/4 |

[^145]
## 45.-Yearly Average Prices per 100 Ib . of Canadian Live Stock at Principal Markets, 1947-51

Nore.-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 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1947 | 1948 | 1949 | 1950 | 1951 | 1947 | 1948 | 1949 | 1950 | 1951 |
|  | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Steers, up to $1,050 \mathrm{lb}$., good. | $14 \cdot 28$ | 18.25 | 20.45 | 24.74 | $32 \cdot 60$ | 14.35 | 18.57 | 20.99 | 26.67 | 32.75 |
| Steers, up to 1,050 lb., medium | $13 \cdot 38$ | 17.76 | 19.26 | 23.45 | 31.51 | 12.96 | $17 \cdot 73$ | 18.75 | 24.63 20.66 | $31 \cdot 04$ 27.18 |
| Steers, up to 1,050 lb., common | $12 \cdot 21$ | $16 \cdot 35$ | $17 \cdot 29$ | 22.06 | ${ }_{33}^{29 \cdot 46}$ | $10 \cdot 64$ | 13.90 21.14 | 16.07 21.28 | 20.66 26.83 | $27 \cdot 18$ $33 \cdot 00$ |
| Steers, over $1,050 \mathrm{lb}$., good | 14.63 | 19.40 | 21.29 | 26.72 | 33.49 | 14.38 | 21-14 | 21.28 19 | ${ }_{25}^{26.83}$ | $33 \cdot 00$ 31.45 |
| Steers, over 1,050 lb., medium | 13.88 12.85 | $19 \cdot 47$ 19 | 20.51 19.26 | 22.80 | 31.04 | 10.68 | 13.17 | 17.19 | ${ }_{22} \cdot 15$ | $31 \cdot 45$ 27 |
| Steers, over $1,050 \mathrm{lb}$. , Heifers, good......... | 13.85 | 18.32 | 19.99 | $24 \cdot 35$ | 31.85 | 13.04 | 18.06 | 19.58 | $25 \cdot 04$ | 31-38 |
| Heifers, medium | 13.23 | $17 \cdot 66$ | 18.84 | 23.78 | 30.94 | 11.73 | 15.43 | 16.82 | $22 \cdot 64$ | 28.01 |
| Calves, fed, good | $14 \cdot 50$ | $19 \cdot 10$ | 21.71 | 25.44 | $32 \cdot 84$ | 14.35 | 18.06 | 21.37 | ${ }_{23}^{27.33}$ | $33 \cdot 41$ |
| Calves, fed, medium | $13 \cdot 62$ | 18.63 | $20 \cdot 15$ | 23.78 | 31.19 | 12.12 | 16.75 | 19.30 | 23.78 | $31 \cdot 26$ 26.55 |
| Cows, good. | 11.10 | $15 \cdot 18$ | 15.77 | 20.07 | 26.95 | 10.95 9.76 | 14.74 13 | $15 \cdot 64$ 14 | 20.21 17.82 | $26 \cdot 55$ 24.51 |
| Cows, medium | $10 \cdot 18$ | $14 \cdot 11$ | $14 \cdot 55$ | 18.59 | $25 \cdot 43$ | $9 \cdot 76$ <br> 11.3 | 13.06 15.08 | 14.07 16.63 | $17 \cdot 82$ 21.44 | ${ }_{28}^{24 \cdot 51}$ |
| Buils, good. | 11.40 | $16 \cdot 53$ | $17 \cdot 76$ | 21.93 | ${ }_{33}^{29} \cdot 30$ | $11 \cdot 32$ 1 | $15 \cdot 08$ 1 | 16.63 | 21.44 | 28.31 |
| Stocker and feeder steers, good | $12 \cdot 58$ | 17.17 | 18.45 16.37 | ${ }_{23} 26.61$ | 33.65 30.99 | 1 | 1 | 1 | 1 | 1 |
| Stocker and feeder steers, com Stock cows and heifers, good. | 11.01 7 | $15 \cdot 78$ 12.01 | 16.37 14 | $2{ }_{1}$ | $30 \cdot 99$ <br> 1 | 1 | 1 | 1 | 1 | 1 |
| Stock cows and heifers, common | 8.23 | 9.50 | 14.00 | 16.66 | 23.92 | ${ }^{1}$ | ${ }^{1}$ | ${ }^{1}$ | 1 |  |
| Calves, veal, good and choice... | $16 \cdot 24$ | $23 \cdot 66$ | $25 \cdot 51$ | $29 \cdot 61$ | $36 \cdot 55$ | 15.41 | 22.22 | 24.04 | 27.11 | 36.60 33.48 |
| Calves, veal, common and mediun | $13 \cdot 58$ | 19-10 | 20.89 | $24 \cdot 20$ | 31.96 | $12 \cdot 65$ | 16.65 | 20.09 | $22 \cdot 28$ | $33 \cdot 48$ 32.95 |
| Hogs, Grade B-1, dressed. | 22.04 | $29 \cdot 96$ | $30 \cdot 20$ | 28.98 | $32 \cdot 85$ | 22.29 14 | 30.02 21.76 | $30 \cdot 30$ 22 | 29.03 27.86 | $32 \cdot 95$ 32.60 |
| Lambs, good handy weight | $15 \cdot 63$ | 22.53 | 23.75 | 28.33 | $33 \cdot 95$ 30.28 | 14.83 10.15 | 21.76 16 | $22 \cdot 50$ 16.31 | 27.86 22.18 | $32 \cdot 60$ 26 |
| Lambs, common, all weights | 12.05 8.33 | $\left\lvert\, \begin{gathered}15.71 \\ 9.33\end{gathered}\right.$ | 18.21 10.87 |  | $30 \cdot 28$ 19.77 | 10.15 7.38 | 16.26 8.29 | 16.31 9.40 | 13.78 | 19.82 |
| Sheep, good handy weights. | $8 \cdot 33$ | 9-33 | $10 \cdot 8$ | $14 \cdot 32$ | 19.77 | 7-38 | 8-29 | $9 \cdot 40$ | 13.78 | 19.82 |

[^146]45.-Yearly Average Prices per 100 lb . of Canadian Live Stock at Principal Markets, 1947-51-concluded

| Item | Winnipeg |  |  |  |  | Edmonton |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1947 | 1948 | 1949 | 1950 | 1951 | 1947 | 1948 | 1949 | 1950 | 1951 |
|  | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Steers, up to 1,050 lb., good. | 13.55 | 18.39 | 20.06 | 24-55 | 31.70 | 13.01 | 18.01 | 19.03 | $24 \cdot 30$ | 31.75 |
| Steers, up to 1,050 lb., medium | 11.79 | 16.05 | 17.86 | $22 \cdot 37$ | 29-42 | 11.59 | 16.06 | 17.54 | $23 \cdot 18$ | $30 \cdot 18$ |
| Steers, up to 1,050 lb., common | 10.06 | 14.40 | $15 \cdot 58$ | $19 \cdot 84$ | $26 \cdot 60$ | 9.01 | 12.50 | 14.84 | $19 \cdot 96$ | 26.76 |
| Steers, over $1,050 \mathrm{lb}$., good | 13.44 | 18.29 | 20.01 | $24 \cdot 38$ | 31.82 | 13.26 | 17.33 | $19 \cdot 31$ | 24.39 | 31.84 |
| Steers, over $1,050 \mathrm{lb}$., mediu | $11 \cdot 65$ 10.17 | 16.46 14.44 | $17 \cdot 60$ $15 \cdot 37$ | 22.94 | 29.40 26.65 | 11.78 | 15.04 | 17.78 | 23.21 | 30.12 |
| Heifers, good................ | 11.96 | $17 \cdot 10$ | $17 \cdot 77$ | $22 \cdot 43$ | 29-24 | 11-42 | 16.58 | 16.73 | 21.92 | 27.00 29.94 |
| Heifers, medium | 10-40 | $15 \cdot 01$ | 16.00 | $20 \cdot 90$ | 26.82 | $10 \cdot 13$ | $13 \cdot 69$ | $15 \cdot 19$ | $21 \cdot 65$ | 27.77 |
| Calves, fed, good | 13.44 | 17-64 | 20.27 | 24-64 | 32.03 | $13 \cdot 33$ | 16.20 | 19.01 | $23 \cdot 51$ | $31 \cdot 45$ |
| Calves, fed, medi | 11.96 | 15-29 | 18.29 | 22.35 | 29.79 | 11.87 | 15.79 | 17-48 | 21.38 | 29-46 |
| Cows, good. . | 10-11 | 14-54 | 14.54 | 18.91 | 25.74 | $9 \cdot 64$ | 13.97 | $13 \cdot 50$ | 18-47 | $25 \cdot 51$ |
| Cows, medium | $8 \cdot 85$ | $13 \cdot 26$ | 13.04 | $17 \cdot 20$ | 23.79 | 8.41 | 12.18 | 12.55 | $17 \cdot 15$ | 23.84 |
| Bulls, good. | 10.77 | 16-10 | 16.71 | 21.32 | 28.24 | $9 \cdot 43$ | 14.96 | $15 \cdot 35$ | $20 \cdot 49$ | 27.70 |
| Stocker and feeder steers, good | 10.95 | 17.91 | 17.46 | $24 \cdot 56$ | $30 \cdot 45$ | $10 \cdot 59$ | $15 \cdot 80$ | 16.07 | $24 \cdot 34$ | $30 \cdot 60$ |
| Stocker and feeder steers, commo | 8.72 | $13 \cdot 84$ | 14.75 | 21.18 | 27-24 | 8.89 | 12.79 | 13.26 | $20 \cdot 34$ | $26 \cdot 13$ |
| Stock cows and heifers, good. | $9 \cdot 22$ | 14.40 | 14.23 | $19 \cdot 69$ | 26.84 | 8.76 | 11.77 | 12.56 | 18.88 | 26.22 |
| Stock cows and heifers, comm | 7.35 | 11.20 | 11.96 | $16 \cdot 67$ | $23 \cdot 23$ | 7.22 | 10.50 | 11.44 | 16.22 | 22.91 |
| Calves, veal, good and choise | 14.82 | 21.35 | 23.71 | 29.00 | 35-45 | 12.72 | $19 \cdot 53$ | 19.76 | 27.24 | 36.30 |
| Calves, veal, common and mediu | $10 \cdot 80$ | 14.99 | 17.56 | 22.04 | 28.81 | 9.78 | 14.09 | $15 \cdot 69$ | 22.74 | 28.75 |
| Hogs, Grade B-1, dressed. | $20 \cdot 61$ | 27.94 | 28.49 | 27.76 | $30 \cdot 85$ | $20 \cdot 21$ | 27.87 | 29.86 | 28.40 | 32.70 |
| Lambs, good handy weight | 13.96 | 20.86 14.85 | 21.89 16.82 | $26 \cdot 62$ | 32.05 | 13.01 | 18.32 | 20.53 | 24.06 | $31-45$ |
| Lambs, common, all weigh | $10 \cdot 05$ | 14.85 | 16.82 | $20 \cdot 64$ | 26.56 | 9.13 | 12.73 | 15.73 | 20.91 | 26.87 |
| Sheep, good handy weights | $6 \cdot 34$ | 7-11 | 7.86 | 10.28 | 12.53 | 6.69 | 8.54 | 7-63 | 11.52 | 15.43 |

## 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. While data on total consumption of certain commodities such as wheat, alcoholic beverages, meats, etc., have 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 meats for which the figures are worked out at the wholesale stage. The amounts 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, as for example: milk solids (dry weight) in the case of the dairy-products group; fat content in the case of fats and oils; and fresh equivalent in the case of 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 46 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 1949,1950 and 1951.
46.-Per Capita Supplies of Food Moving into Consumption, 1949, 1950 and 1951,
with Averages, 1935-39

| Food | Pounds <br> per Capita per Annum |  |  |  | Percentages of 1935-39 Average |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1935-39 | 1949 | 1950 | 1951p | 1949 | 1950 | 1951p |
| Cereals- |  |  |  |  |  |  |  |
| Flour (including rye flour) ${ }^{1}$..... Retail wt . | 184.8 | 149.7 | 154.9 | 153.3 | 81.0 | 83.8 | 83.0 |
| Oatmeal and rolled oats........ | $7 \cdot 3$ | 6.6 | $6 \cdot 0$ | $6 \cdot 3$ | 90.4 | 82.2 | 86.3 |
| 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........... | $1 \cdot 4$ | $0 \cdot 7$ | $0 \cdot 8$ | 0.8 | $50 \cdot 0$ | 57.1 | $57 \cdot 1$ |
| Buckwheat flour................ | $0 \cdot 2$ | $0 \cdot 1$ | $0 \cdot 1$ | $0 \cdot 1$ | 50.0 | 50.0 | 50.0 |
| Rice. | $4 \cdot 3$ | $3 \cdot 6$ | 4.0 | 4.8 | $83 \cdot 7$ | $93 \cdot 0$ | 111.6 |
| Breakfast food................. | $7 \cdot 4$ | $6 \cdot 5$ | $6 \cdot 7$ | $7 \cdot 0$ | $87 \cdot 8$ | $90 \cdot 5$ | $94 \cdot 6$ |
| Totals, Cereals. | $205 \cdot 7$ | 167.5 | 172.8 | 172.6 | 81.4 | 84.0 | 83.9 |
| Potatoes- |  |  |  |  |  |  |  |
| Potatoes, white ${ }^{2} \ldots \ldots . . . . . .$. Retail wt . | 192.3 | 208.4 0.4 | 236.1 0.7 | 200.3 0.7 | 108.4 66.7 | 122.8 116.7 | 104.2 116.7 |
|  |  |  |  |  |  |  |  |
| Totals, Potatoes. | 192.9 | 208.8 | 236.8 | 201.0 | 108.2 | 122.8 | 104-2 |
| Sugars and Syrups- |  |  |  |  |  |  |  |
| Sugar, ................... Refined wt. | 94.7 1.8 | 99.5 1.1 | 101.1 1.4 | 96.2 1.1 | 105.1 61.1 | 106.8 77.8 | $101 \cdot 6$ 61.1 |
| Other........................... | 8.2 | $9 \cdot 2$ | 8.9 | $9 \cdot 1$ | $112 \cdot 2$ | 108.5 | 111.0 |
| Totals, Sugars and Syrups......Sugar content | 101.7 | $106 \cdot 6$ | 108.3 | 103.2 | 104.8 | $106 \cdot 5$ | 101.5 |
| Starch........................... Retail wt. | $2 \cdot 5$ | $1 \cdot 6$ | 1.6 | 1.6 | 64.0 | 64.0 | $64 \cdot 0$ |
| Pulses and Nuts- |  |  |  |  |  |  |  |
| Dry beans................. Retail wt. | $3 \cdot 7$ | ${ }_{4}^{4 \cdot 7}{ }^{3}$ | ${ }_{4}^{4 \cdot 7}{ }^{3}$ | $5 \cdot 2^{3}$ | 113.5 47.4 | 127.0 40.4 | 140.5 38.6 |
| Dry peas. . . . . . . . . . . . . . . ${ }_{\text {Seanuts }}$ | $5 \cdot 7$ | $2 \cdot 5$ $2 \cdot 5$ | $2 \cdot 3$ $3 \cdot 2$ | $2 \cdot 7$ | $113 \cdot 6$ | 145.5 | 122.7 |
| Peanuts................... shelled wt. | $1 \cdot 1$ | $1 \cdot 3$ | $1 \cdot 2$ | $1 \cdot 1$ | 118.2 | 109.1 | 100.0 |
| Cocoa...................... Green beans | $3 \cdot 7$ | $3 \cdot 1$ | $3 \cdot 4$ | $2 \cdot 4$ | 83.8 | 91.9 | 64.9 |
| Totals, Pulses and Nuts.... Retall wt. incl. shelled wt. of nuts | $14 \cdot 5$ | 12.2 | 13.0 | 12.4 | $84 \cdot 1$ | 89.7 | $85 \cdot 5$ |
| Fruit- |  |  |  |  |  |  |  |
| Tomatoes and Citrus Fruit- Retail wt |  |  |  |  |  | $116 \cdot 2$ | 118.8 |
| Tomatoes, fresh............ Retail wt. | 15.4 10.0 | 17.8 | 17.9 16.0 | $15 \cdot 5$ | 141.0 | $160 \cdot 0$ | 155.0 |
| Citrus fruit, fresh............. Retail wt. | 25.1 | 31.9 | 29.9 | 34.4 | 127 -1 | $119 \cdot 1$ | 137.1 |
| Citrus fruit, canned....... Net wt. canned | 0.5 | 6.8 | 5.8 | 6.5 | 1,360.0 | 1,160.0 | 1,300.0 |
| Other Fruit- ${ }_{\text {Fresh................... Retail wt. }}$ | $40 \cdot 5$ | 52.8 | 54.7 | 63.5 | $130 \cdot 4$ | $135 \cdot 1$ | 156.8 |
| Canned.................Net wt. canned | 6.3 | $10 \cdot 2$ | 11.9 | 11.3 | 161.9 | 188.9 | 179.4 |
| Dried................... Processed wt. | $8 \cdot 3$ | $6 \cdot 4$ | $6 \cdot 6$ | $6 \cdot 8$ | $77 \cdot 1$ | 79.5 | 81.9 |
| Juice................. Net wt. canned |  | 2.9 0.2 | 3.2 0.4 | 3.6 0.3 |  |  |  |
| Frozen.......................Retail wt. | 0.2 | $0 \cdot 2$ | $0 \cdot 4$ | 0.3 | $100 \cdot 0$ | $200 \cdot 0$ | $150 \cdot 0$ |
| Totals, Fruit. . . . . . . . . . Fresh equiv. | 138.7 | 177-7 | 182.9 | 199.0 | 128.1 | 131.9 | 143.5 |
| Vegetables- |  |  |  |  |  |  |  |
| Fresh- Cabbage and greens..........Retail wt. | $16 \cdot 2$ | $19 \cdot 5$ | $20 \cdot 5$ | $19 \cdot 3$ | $120 \cdot 4$ | 126.5 | 119.1 |
| Carrots...................... ${ }^{\text {C/ }}$ / | 15.4 | $10 \cdot 7$ | 13.1 | $13 \cdot 6$ | 69.5 | $85 \cdot 1$ | 88.3 |
| Legumes....................... | 6.2 | $2 \cdot 6$ | 3.2 30.6 | 4.5 38.9 | 41.9 117.8 | 51.6 132.9 | $72 \cdot 6$ 130.5 |
| Other... | 29.8 | 35.1 | $39 \cdot 6$ 17.6 | 38.9 18.5 | $117 \cdot 8$ 166.7 | $132 \cdot 9$ 163.0 | 171 |
| Canned................ Net wt. canned | $10 \cdot 8$ | 18.0 0.5 | 17.6 0.5 | 18.5 0.5 | $166 \cdot 7$ | 163.0 | 171 |
| Totals, Vegetables. . . . . . Fresh equiv. | 78.4 | 86.4 | 94.5 | $95 \cdot 3$ | 110.2 | 120.5 | $12 \mathrm{t} \cdot 6$ |

46.-Per Capita Supplies of Food Moving into Consumption, 1949, 1950 and 1951, with Averages, 1935-39-concluded

| Food | Pounds <br> per Capita per Annum |  |  |  | Percentages <br> of 1935-39 Average |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1935-39 | 1949 | 1950 | 1951p | 1949 | 1950 | 1951 ${ }^{\text {P }}$ |
| Oils and Fats- |  |  |  |  |  |  |  |
| Margarine...................... Retail wt. | - | $5 \cdot 5$ | $6 \cdot 8$ | $7 \cdot 4$ | - | - | - |
| Lard......................... " | $3 \cdot 9$ | $7 \cdot 5$ | $8 \cdot 1$ | $8 \cdot 1$ | $192 \cdot 3$ | 207.7 | 207.7 |
| Shortening. ................... " | $10 \cdot 6$ | $8 \cdot 5$ | $9 \cdot 3$ | $8 \cdot 2$ | $80 \cdot 2$ | $87 \cdot 7$ | $77 \cdot 4$ |
| Salad and cooking oil | 1.8 | $3 \cdot 0$ | $3 \cdot 0$ | $2 \cdot 4$ | 166.7 | 166.7 | $133 \cdot 3$ |
| Butter................ | 31.0 | 23.5 | $23 \cdot 5$ | $22 \cdot 6$ | $75 \cdot 8$ | $75 \cdot 8$ | 72.9 |
| Totals, Oils and Fats.....Fat content | 41.4 | $42 \cdot 4$ | 44.8 | 42.9 | 102.4 | 108.2 | 103.6 |
| Meat- |  |  |  |  |  |  |  |
| Pork. . . . . . . . . . . . . . . . . .Carcass wt. | $39 \cdot 8$ | 59.2 | $60 \cdot 8$ | $67 \cdot 8$ | $148 \cdot 7$ | 152.8 | $170 \cdot 4$ |
| Beef. . . . . . . . . . . . . . | $54 \cdot 7$ | 56.5 | $50 \cdot 3$ | $44 \cdot 1$ | $103 \cdot 3$ | $92 \cdot 0$ | $80 \cdot 6$ |
| Veal.......................... " | $10 \cdot 5$ | $9 \cdot 1$ | $9 \cdot 2$ | $7 \cdot 7$ | 86.7 | $87 \cdot 6$ | $73 \cdot 3$ |
| Mutton and lamb | $5 \cdot 6$ | $3 \cdot 0$ | $2 \cdot 5$ | $2 \cdot 6$ | 53.6 | $44 \cdot 6$ | 46.4 |
| Offal......................... Edible wt. | 5.8 | $5 \cdot 6$ | $5 \cdot 6$ | $5 \cdot 2$ | $96 \cdot 6$ | $96 \cdot 6$ | 89.7 |
| Canned.................. Net wt. canned | 1.4 | $3 \cdot 8$ | $4 \cdot 0$ | $4 \cdot 9$ | 271.4 | $285 \cdot 7$ | $350 \cdot 0$ |
| Totals, Meat ...........Carcass wt. | 118.3 r | 138.5 | 133.7 | 133.9 | 117 -1 | $113 \cdot 0$ | 113-2 |
| Poultry and Fish- |  |  |  |  |  |  |  |
| Hens and chickens..... Retail wt., dressed | $15 \cdot 6$ | 17.74 | $18 \cdot 34$ | 19.74 | 113.5 | $117 \cdot 3$ | $126 \cdot 3$ |
| Otherpoultry........ Fresh " | 2.8 | $3 \cdot 54$ | $3 \cdot 74$ | $3 \cdot 54$ | 125.0 | $132 \cdot 1$ | 125.0 |
| Shell fish............Fresh, edible wt. | $0 \cdot 4$ | $0 \cdot 4$ | $0 \cdot 4$ | 0.4 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |
| and cured $\qquad$ Filleted wt. | 8.8 | $7 \cdot 8$ | $8 \cdot 6$ | $8 \cdot 7$ | 88.6 | 97.7 | 98.9 |
| Fish, canned............. Net wt. canned | $2 \cdot 7$ | $4 \cdot 5$ | $4 \cdot 6$ | $4 \cdot 7$ | $166 \cdot 7$ | $170 \cdot 4$ | 174-1 |
| Totals, Poultry and Fish.Edible wt. | 22.4 | $24 \cdot 7$ | 26.5 | 26.9 | $110 \cdot 3$ | 117.0 | 120-1 |
| Eggs....................Fresh egg equiv. | $30 \cdot 7$ | $33 \cdot 44$ | $34 \cdot 54$ | $34 \cdot 64$ | 108.8 | 112.4 | 112.7 |
| Milk and Cheese- |  |  |  |  |  |  |  |
| Cheddar cheese................ Retail wt. | $3 \cdot 5$ | $4 \cdot 1$ | $4 \cdot 1$ | $3 \cdot 9$ | $117 \cdot 1$ | $117 \cdot 1$ | 111.4 |
| Other cheese.................... " | $0 \cdot 2$ | 0.5 | $0 \cdot 6$ | 0.7 | $250 \cdot 0$ | $300 \cdot 0$ | $350 \cdot 0$ |
| Cottage cheese................. " | $0 \cdot 2$ | $0 \cdot 5$ | $0 \cdot 6$ | 0.7 | $250 \cdot 0$ | $300 \cdot 0$ | $350 \cdot 0$ |
| Evaporated whole milk | $6 \cdot 1$ | $14 \cdot 7$ | 17.3 | 18.1 | 241.0 | $283 \cdot 6$ | 296.7 |
| Condensed whole milk | 0.6 | 0.7 | 0.8 | 0.7 | 116.7 | $133 \cdot 3$ | 116.7 |
| Whole milk powder. | $0 \cdot 1$ | $0 \cdot 6$ | $0 \cdot 4$ | $0 \cdot 4$ | $600 \cdot 0$ | $400 \cdot 0$ | $400 \cdot 0$ |
| Condensed skim milk | $0 \cdot 4$ | $0 \cdot 3$ | $0 \cdot 3$ | $0 \cdot 3$ | $75 \cdot 0$ | $75 \cdot 0$ | $75 \cdot 0$ |
| Skim milk powder. | 1.8 | $2 \cdot 8$ | $3 \cdot 4$ | $3 \cdot 8$ | $155 \cdot 6$ | 188.9 | $211 \cdot 1$ |
| Evaporated skim milk. | $0 \cdot 1$ | 0.8 | 0.9 | 0.7 | $800 \cdot 0$ | $900 \cdot 0$ | $700 \cdot 0$ |
| Condensed buttermilk. | $0 \cdot 1$ | $0 \cdot 2$ | $0 \cdot 2$ | $0 \cdot 3$ | $200 \cdot 0$ | $200 \cdot 0$ | $300 \cdot 0$ |
| Milk in ice cream. | 10.9 | $32 \cdot 2$ | 30.7 | $32 \cdot 7$ | $295 \cdot 4$ | 281.7 | $300 \cdot 0$ |
| Powdered buttermilk | 0.2 | $0 \cdot 4$ | $0 \cdot 4$ | $0 \cdot 3$ | $200 \cdot 0$ | $200 \cdot 0$ | $150 \cdot 0$ |
| Fluid whole milk ${ }^{5}$... | 408.5 | $425 \cdot 8{ }^{4}$ | 424.64 | $420 \cdot 64$ | 104-2 | 103.9 | 103.0 |
| Totals, Milk and Cheese. ..Milk solids | 52.0 | 63.7 | 64.5 | $64 \cdot 7$ | 122.5 | $124 \cdot 0$ | 124.4 |
| Beverages- <br> Tea. <br> Primary |  |  |  |  |  |  |  |
| distribution wt. | $3 \cdot 5$ | $3 \cdot 2$ | 4.0 | $3 \cdot 0$ | 91-4 | 114-3 | $85 \cdot 7$ |
| Coffee...................Green beans | $3 \cdot 7$ | $7 \cdot 3$ | 6.0 | $6 \cdot 3$ | $197 \cdot 3$ | 162 -2 | $170 \cdot 3$ |
| Totals, Beverages.... $\begin{gathered}\text { Primary } \\ \text { distribution } \\ \text { wt. }\end{gathered}$ | 7-2 | 10.5 | $10 \cdot 0$ | $9 \cdot 3$ | $145 \cdot 8$ | 138.9 | 129.2 |

[^147]
## 47.-Supply, Distribution and Consumption of Meats and Lard, 1948-51, with Five-Year Averages, 1935-39

| Meats |  | $\begin{gathered} \text { Average } \\ 1935-39 \end{gathered}$ | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Beef- |  |  |  |  |  |  |
| Animals slaughtered in Canada. | '000 | 1,347.0 | 1,953.5 | 1,904-5 | 1,729-3 | 1.472 .0 |
| Estimated dressed weight ${ }^{1}$. | '000 lb. | 618,556 | 891,688 | 866,844 | 790,395 | 712,682 |
| On hand. Jan. 1..... |  | 22,684 | 43,154 | 35,313 | 23,415 | 22,174 |
| Imports ${ }^{2}$..... |  | $158{ }^{3}$ | 8 | 9,335 | 10,587 | 10,112 |
| Totals, Supply | " | 641,398 | 934,850 | 911,492 | 824,397 | 744,968 |
| Exports ${ }^{\text {a }}$... | " | 10,899 | 133,822 | 105,121 17 | 90,740 14 | 96,605 |
| Used for canning | " | 1,406 24,040 | 25,480 35,313 | 17,415 23,415 | 14,582 22,174 | 11,701 19,370 |
| Totals, Consumption... | lb. | $\begin{array}{r} 605,053 \\ 54 \cdot 7 \end{array}$ | 740,235 $57 \cdot 5$ | 765,541 56.5 | 696,901 $50 \cdot 3$ | 617,292 $44 \cdot 1$ |
| Veal- |  |  |  |  |  |  |
| Animals slaughtered in Canada. | '000 | 1,333.6 | 1,554•1 | 1,287-1 | 1,387-4 | 1,166-3 |
| Estimated dressed weight ${ }^{1}$. ... | '000 lb. | 116,372 | 142,390 | 124,303 | 125,958 | 110,407 |
| On hand, Jan. 1..... |  | 3,452 | 6,624 | 6,894 | 6,327 | 3,356 |
| Imports......... |  |  |  |  |  |  |
| Totals, Supply | " | 119,824 | 149,014 | 131,197 | 132,285 | 113,763 |
| Exports. | " | - 22 | 1527 | 1554 |  |  |
| Used for canning | " | . 22 | 1,527 | 1,554 | 1,605 3,356 | 1,182 |
| On hand, Dec. 31 |  | 3.785 | 6,894 | 6,327 | 3,356 | 4,102 |
| Totals, Consumption. | " | 116,017 | 140,593 | 123,316 | 127,324 | 108,479 |
| Consumption per Capita, | lb. | $10 \cdot 5$ | 10.9 | $9 \cdot 1$ | $9 \cdot 2$ |  |
|  |  |  |  |  |  |  |
| Animals slaughtered in Canada. | '000 | 5,165-1 | 7.441.1 | $7,169.5$ 910.568 | $7,650 \cdot 4$ 963,757 | $7,961 \cdot 6$ |
| Estimated dressed weight ${ }^{5}$ | 000 lb b | 620,522 34,511 | 941,406 57,585 | 910,568 32,439 | 963,745 35,445 | $1,005,560$ 31,292 |
| On hand, Jan. 1. | " | 34,511 7,394 | 57,885 1,562 | 32,439 6,685 | 35,445 5,733 | 31,45 22,456 |
| Totals, Supply | " | 662,427 | 1,000,553 | 949,692 | 1,004,935 | 1,059,308 |
| Exports ${ }^{2}$. | " | 179,630 | 229,496 | 76,060 | 85,099 | 21,382 |
| Used for carning | " | 4,602 | 44,661 | 35,494 | 46,835 | 48,754 |
| On hand, Dec. 31 | " | 37,863 | 32,439 | 35,445 | 31,292 | 38,939 |
| Totals, Consumption. | " | 440,332 | 693,957 | 802,693 | 841,709 | 950,233 |
| Consumption per Capita | lb. | $39 \cdot 8$ | 53.9 | $59 \cdot 2$ |  |  |
|  |  |  |  |  |  |  |
| Animals slaughtered in Canada. | , 0000 | $1,543 \cdot 0$ 61,417 | 1,148•1 | 1,023.1 | 35,691 | 35,973 |
| Estimated dressed weight ${ }^{1}$ On hand, Jan. 1........... | , 000 lb . | 61,417 6,190 | 17889 $\mathbf{9 , 1 5 3}$ | 13,641 6,346 | 35,023 5,048 | 3,978 3,894 3 |
| Imports ${ }^{\text {a }}$....... | " | 6,122 | 1 | 29 | 486 | 3,499 |
| Totals, Supply........................... |  | 68,029 | 56,648 | 50,016 | 41,200 | 43,366 |
|  | * |  |  |  |  |  |
| Exports ${ }^{2}$.......... | " | ${ }^{248}$ | ${ }^{579}$ | , 246 | 220 | 205 |
| On hand, Dec. 31 | " | 5,965 | 6,346 | 5,023 | 3,894 | 4,136 |
| Totals, Consumption.......................... " Consumption per Capita........................ lb. |  |  | 44,867 | 40,841 | 34,325 | 36,288 |
|  |  | $5 \cdot 6$ | $3 \cdot 5$ | $3 \cdot 0$ | $2 \cdot 5$ | $2 \cdot 6$ |
| Canned Meats- |  |  |  |  |  |  |
| Estimated production. | ${ }^{\prime} 000 \mathrm{lb}$. | 5,624 12,292 |  | 11,099 | 10,969 | 23,977 |
| Imports............ | " | 12,292 | -2,014 | -3,850 | +94 | +879 |
| Totals, Supply. |  | 17,916 | 65,353 | 60,922 | 64,360 | 77,643 |
| Exports |  | 1,999 | 32,390 | 10,009 | 8,430 | 9,258 |
| Totals, Consumption.. <br> Consumption per Capita. |  | 15,917 | 32,963 | 50,913 | 55,930 | 68,385 |
|  |  | $1 \cdot 4$ | $2 \cdot 6$ | $3 \cdot 8$ | $4 \cdot 0$ | $4 \cdot 9$ |

For footnotes, see end of table.

## 47.-Supply, Distribution and Consumption of Meats and Lard, 1948-51, with Five-Year Averages, 1935-39-concluded

| Meats and Lard |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |

[^148]
## Section 5.-International Grop Statistics

Tables 48 and 49 are based on official estimates published in March 1952, by the Office of Foreign Agricultural Relations, United States Department of Agriculture, and give the acreages and production of wheat and the production of oats and barley for the harvests of 1950 and 1951, with averages for the years 1940-44, in the leading countries of the world.
48.-Estimated Acreages and Production of Wheat Harvested in 1950 and 1951 in Specified Countries, with Averages, 1940-44

| Continent and Country | Acreages |  |  | Production |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average 1940-44 | 1950 | 1951 | $\begin{aligned} & \text { Average } \\ & 1940-44 \end{aligned}$ | 1950 | 1951 |
| North America-Canada........Mexico.......United States... | '000 acres | '000 acres | '000 acres | '000 bu. | '000 bu. | '000 bu. |
|  | 22,466 | 27,021 | - 25,731 | 422,559 | 461,664 | 562,395 |
|  | 1,394 | 1,485 | 1,260 | 15,624 | 20,210 | 13,500 |
|  | 54,017 | 61,610 | 61,424 | 925,984 | 1,019,389 | 987,474 |
| Totals, North America ${ }^{1}$. | 77,930 | 90,170 | 88,470 | 1,365,000 | 1,502,000 | 1,564,000 |
| Europe- |  |  |  |  |  |  |
| Albania................... | 123 |  |  | 1,381 |  |  |
| Austria.................... | 545 | 585 |  | 11,800 | 15,000 | 15,800 |
| Bulgaria................... | 3,330 | .. ${ }^{429}$ | 391 | 17,820 53,500 | 20,100 | 18,830 |
| Czechoslovakia. | 2,175 | $\cdots$ |  | 50,000 | . |  |

For footnotes, see end of table, p. 448.

## 48.-Estimated Acreages and Production of Wheat Harvested in 1950 and 1951 in

 Specified Countries, with Averages, 1940-44-concluded| Continent and Country | Acreages |  |  | Production |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Average } \\ 1940-44 \end{gathered}$ | 1950 | 1951 | $\begin{gathered} \text { Average } \\ 1940-44 \end{gathered}$ | 1950 | 1951 |
| Europe-concluded | '000 acres | '000 acres | '000 acres | '000 bu. | '000 bu. | '000 bu. |
| Denmark......... | 151 | 209 | 202 | 6,264 | 10,950 | 10,178 |
| Finland. | 322 | 480 | 480 | 6,134 | 11,200 | 9,500 |
| France................... | 11,300 | 11,150 | 10,900 | 240,000 | 283,000 | 265,000 |
| Western Germany......... |  | 2,500 | 2,550 |  | 96,000 | 107,500 |
| Greece.................... | 2,250 | 2,142 | 2,357 | 21,500 | 31,230 | 34,200 |
| Hungary $\ldots . . . . . . . . . . . . . . . . . . . . . . ~$ | 4,080 499 | 375 | 290 | 79,762 16,735 | 12,230 | 9,500 |
| Italy.. | 12,464 | 12,100 | 12,125 | 245,812 | 285,000 | 260,000 |
| Luxembourg. ........... | 41 | 44 | 42 | . 904 | 1,200 | 1,200 |
| Netherlands. | 352 | 236 | 200 | 12,639 | 12,000 | 10,500 |
| Norway. | 108 | 78 | 60 | 2,832 | 2,510 | 1,800 |
| Portugal. |  | 1,692 | 1,736 |  | 19,470 | 21,830 |
| Roumania. | 5,600 |  |  | 80,000 |  |  |
| Spain.. | 9,300 | 10,100 | 10,380 | 103,000 | 125,000 | 175,000 |
| Sweden. | 700 | 838 | 810 | 16,834 | 27,200 | 18,000 |
| Switzerland. | 225 | 216 | 219 | 7,929 | 8,360 | 8,750 |
| United Kingdom | 2,655 | 2,479 | 2,131 | 95,656 | 97,290 | 82,240 |
| Yugoslavia...... | 4,900 | .. | .. | 77,000 | .. | .. |
| Totals, Europe ${ }^{1}$ | 70,020 | 70,870 | 71,310 | 1,350,000 | 1,525,000 | 1,580,000 |
| Union of Soviet Socialist Republics (Europe and Asia) $\qquad$ | . | 107,000 | .. | .. | 1,110,000 | .. |
| Asia - |  |  |  |  |  |  |
| Iran. | 3,283 |  | . | 52,880 | 74,000 | 66,000 |
| Iraq. | 1,737 | 1,606 |  | 14,697 | 20.000 | 19,100 |
| Lebanon | 166 | 173 | 161 | 1,572 | 2,020 | 1,650 |
| Syria. | 1,216 | 2,100 |  | 16,357 | 27,560 | 20,200 |
| Turkey | 10,214 | 10,500 | 12,000 | 135,747 | 150,000 | 200,000 |
| China | 47,400 | 53,200 | .. | 782,000 | 775,000 | .. |
| Manchuria. | 1,955 | 2,400 |  | 22,923 | 25,500 |  |
| Indian Union | 24,227 | 24,100 | 24,000 | 253,600 | 235,200 | 246,400 |
| Pakistan. | 10,028 | 10,715 | 10,830 | 131,369 | 147,800 | 147,600 |
| Japan. | 2,044 | 1,882 | 1,814 | 52.228 | 49,180 | 54,750 |
| Korea | 801 | .. | .. | 10,203 | .. | .. |
| Total, Asial. | 105,830 | 113,300 | 114,610 | 1,500,000 | 1,535,000 | 1,610,000 |
| Africa- |  |  |  |  |  |  |
| Algeria. | 3,965 | 3,820 | 3,960 | 29,442 | 40,500 | 33,000 |
| Egypt. ......... | 1.693 | 1,424 | 1,554 | 43,973 | 41,000 | 45,000 |
| French Morocco. | 3,555 | 3,150 | 3,025 | 25,447 10 | 29,000 17,000 | 30,000 12,120 |
| Tunisia............ | 1,747 2,514 | 1,720 3,660 | 1,500 3,400 | 10,509 15,597 | 17,000 26,050 | 12,120 24,600 |
| Totals, Africa ${ }^{1}$ | 14,710 | 15,450 | 15,400 | 134,000 | 166,000 | 158,000 |
| South America- |  |  |  |  |  |  |
| Argentina................... | 13,776 677 | 13,680 | 7,500 | 234,585 6,935 | 213,000 15,500 | 85,000 15,800 |
| Chile. | 1,908 | 2,034 | 1,968 | 31,873 | 36,000 | 35,000 |
|  | 287 |  |  | 3,504 |  |  |
| Uruguay | 945 | 1,225 | 1,300 | 10,161 | 15,970 | 16,100 |
| Totals, South America ${ }^{1}$. | 18,250 | 19,070 | 13,150 | 293,000 | 290,000 | 165,000 |
| Oceania- |  |  |  |  |  |  |
| Australia.... New Zealand | 10,053 241 | 11,663 140 | 10,434 100 | 113,455 8,199 | 184,240 6,250 | 165,380 4,000 |
| Totals, Oceania. | 10,294 | 11,803 | 10,534 | 121,654 | 190,490 | 169,380 |
| World Totals ${ }^{1}$. | 387,830 | 427,660 | 428,470 | 5,740,000 | 6,320,000 | 6,500,000 |

[^149]49.-Estimated Production of Oats and Barley Harvested in 1950 and 1951 in Specified Countries, with Averages, 1940-44

| Continent and Country | Oats |  |  | Barley |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average 1940-44 | 1950 | 1951 | $\begin{gathered} \text { Average } \\ 1940-44 \end{gathered}$ | 1950 | 1951 |
|  | '000 bu. | '000 bu. | '000 bu. | '000 bu. | '000 bu. | '000 bu. |
| North America- |  |  |  |  |  |  |
| Canada. | 463,944 | 419,930 | 492,683 | 176,850 | 171,393 | 252,795 |
| Mexico. | 1,699 | 4,075 |  | 5,171 | 7,440 |  |
| United States | 1,212,146 | 1,410,464 | 1,316,396 | 340,464 | 303,533 | 254,668 |
| Totals, North America ${ }^{1}$. | 1,678,000 | 1,835,000 | 1,813,000 | 523,000 | 482,000 | 515,000 |
| Europe - |  |  |  |  |  |  |
| Austria. | 21,000 | 16,500 | 25,150 | 11,520 | 11,500 | 13,800 |
| Belgium. | 27,367 | 34,900 | 32,400 | 6,525 | 12,000 | 12,400 |
| Bulgaria. | 8 8,586 | .. | .. | 10,200 |  | .. |
| Czechoslovakia............. | 75,800 64,112 | 57,460 | 57,110 | 48,000 55,084 | 74, 180 | $\ddot{80}, 280$ |
| Finland.. | 32,027 | 51,000 | 54,000 | 6,373 | 9,200 | 9,500 |
| France.. | 225,000 | 227,690 | 248,160 | 42,000 | 72,200 | 76,560 |
| Western Germany........ |  | 175,000 | 195,000 |  | 67,600 | 77,500 |
| Greece................... | 7.025 | 8,200 | 9,500 | 6,640 | 9,190 | 10,000 |
| Hungary . . . . . . . . . . . . | 24,000 52,535 | 38,000 | 40,360 | 30,000 7,417 | 6,000 | 8,200 |
| Italy. | 34,400 | 38,120 | 35,000 | 10,200 | 13,510 | 12,400 |
| Luxembourg. | 2,572 | 2,440 | 2,500 |  |  |  |
| Netherlands. | 18,287 | 26,300 | 33,750 | 5,642 | 10,700 | 10,000 |
| Norway. | 11,094 | 12,390 | 12,610 | 4,299 | 4,890 | 6,100 |
| Portugal. |  | 8,900 | 9,500 |  | 5,920 | 6,080 |
| Roumania................ | 32,400 |  |  | 24.800 |  |  |
| Spain.................... | 38,000 | 38,000 | 40,000 | 75,000 | 78,000 | 82,500 |
| Sweden.. | 58,136 | 55,600 | 56,500 | 8,956 | 9,650 | 11,500 |
| Switzerland. . . . | 5,505 | 3,850 | 4,340 | 2,136 | 2,150 | 2,160 |
| United Kingdom | 219,926 | 188,440 | 173,800 | 66,183 | 79,850 | 84,233 |
| Yugoslavia............... | 19,100 | .. | .. | 16,600 | .. | .. |
| Totals, Europe ${ }^{1}$. | 1,465.000 | 1,355,000 | 1,430,000 | 610,000 | 695,000 | 750,000 |
| Union of Soviet Socialist Republies (Europe and Asia)......................... | . | 750,000 | .. | .. | 325,000 | .. |
| Asla- |  |  |  |  |  |  |
| Iran.. | $\cdots$ | $\cdots$ | . | 33,735 | 36,740 | 33,000 |
| Iraq. | . | .. | .. | 27,100 | 37,000 | 36,000 |
| Syria... |  | $\cdots$ | $\cdots$ | 1,234 11.589 | 9,200 | 5,000 |
| Turkey | 18,779 | 21,740 | 24,100 | 85,017 | 94,020 | 120,000 |
| China...... | . |  | , | 308,200 | .. | .. |
| Manchuria.... | .. | . | .. | 5,300 |  |  |
| Pakistan..... | $\cdots$ | . | $\cdots$ | 90,552 7,588 | 100,470 7,200 | 105,650 7,500 |
| Japan. | 9,838 | 9,230 | 9,650 | 73,311 | 80,200 | 100,000 |
| Korea. | .. | .. | .. | 54,000 | .. | .. |
| Totals, Asia ${ }^{\text {L }}$ | 104,000 | 96,000 | 103,000 | 720,000 | 725,000 | 775,000 |
| Africa- |  |  |  |  |  |  |
| Algeria.................... | 10,470 | 10,450 | 8,910 | 23,836 | 38,000 | 26.000 |
| Egypt. $1 . . . . . . . . . . . . . . .$. |  |  |  | 11,662 | 4,500 | 4,800 |
| French Morocco.......... | 2,339 | 3,050 | 4,550 | 50,189 | 50,000 | 67,000 |
| Tunisia............. | 1,390 | 1,720 | 1,600 | 5,695 | 9,200 | 3.220 |
| Union of South Africa. | 7,238 | .. | .. | 1,946 | .. | .. |
| Totals, Africa ${ }^{1} \ldots \ldots \ldots \ldots$ | 22,000 | 24,000 | 25,000 | 107,000 | 122,000 | 121,000 |

[^150]49.-Estimated Production of Oats and Barley Harvested in 1950 and 1951 in Specified Countries, with Averages, 1940-44-concluded

| Continent and Country | Oats |  |  | Barley |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Average } \\ & 1940-44 \end{aligned}$ | 1950 | 1951 | $\begin{gathered} \text { Average } \\ 1940-44 \end{gathered}$ | 1950 | 1951 |
|  | '000 bu. | '000 bu. | '000 bu. | '000 bu. | '000 bu. | '000 bu. |
| South America- |  |  |  |  |  |  |
| Argentina................. Chile................ | 49,507 5,900 | 50,500 6,030 | 31,000 | 24,805 3,453 | 35,040 4,150 | 18,400 4,760 |
| Uruguay................... | 2.790 | 2,400 | 2,940 | 693 | 1,130 | 900 |
| Totals, South America ${ }^{1}$. | 59,000 | 60,000 | 42,000 | 39,000 | 53,000 | 38,000 |
| Oceania- |  |  |  |  |  |  |
| Australia. | 20,179 | 31,400 | 38,500 | 9,590 | 23,820 | 24,500 |
| New Zealand. | 3.853 | 2.700 | 2,500 | 1,175 | 2,100 | .. |
| Totals, Oceania. | 24,032 | 34,100 | 41,000 | 10,765 | 25,920 | 27,000 |
| World Totals ${ }^{1}$ | 4,305,000 | 4,155,000 | 4,270,000 | 2,335,000 | 2,430,000 | 2,580,000 |

${ }^{1}$ Estimated totals include allowances for any missing data for countries shown and for other producing countries not shown.

## CHAPTER XI.-FORESTRY*

| 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.

Land is the basis of the Canadian economy and wise use of the land is the foundation of good forestry. Good forestry will aid in maintaining agricultural lands against drought and erosion; will continuously protect water catchment areas and assure supplies of water; will furnish good cover for game and fur-bearing animals; and will give Canadians and their tourist guests opportunities for recreation which only the forests can provide.

A Special Article dealing with Canada's forest economy appears in the Year Book 1951, pp. 425-437.

## 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 the Boreal, Great Lakes-St. Lawrence, Acadian, Deciduous, Subalpine, Columbia, Montane, and Coast Forest Regions, as illustrated on the accompanying map. The relative proportion of the total area of all-forest regions occupied by each is as follows:-


[^151]The Boreal Forest Region.-This forest region, covering the greater part of Canada, stretches unbrokenly from eastern Newfoundland westward to the boundary of Alaska. Along its southern border, it follows the limits of the Great LakesSt. Lawrence Region and then skirts the grasslands of the Prairies to the foothills of the Rocky Mountains and northwestward into Yukon Territory. The northern limits of tree growth form its boundary to the north. White and black spruce, trembling aspen, balsam, poplar, tamarack, white birch and jack pine comprise the principal trees of the Region.

Within the Region are two sections which are quite distinctive: the Northern Transition and the Aspen Grove Sections. The Northern Transition Section lies between the merchantable forests on the south and the arctic tundra on the north. White and black spruce, tamarack and white birch, stunted in growth, are the characteristic trees. The Aspen Grove Section, lying as a transition zone between the true forest region to the north and the open grasslands to the south, has trembling aspen as its dominant tree species. Bur oak, white elm and green ash are found in certain localities.

The Great Lakes-St. Lawrence Forest Region.-This Region lies south of the Boreal Forest in the eastern part of Canada. It is situated in southwestern Newfoundland and westward from the drainage basin of the Great Lakes-St. Lawrence River System to southeastern Manitoba. Some of the earliest centres of settlement are within the Region and in many portions the forest has been largely cleared and remains now only in woodlots and patches on poor soils. The area is characterized by the occurrence of white pine and yellow birch. A large number of species occur, including red pine, jack pine, white spruce, black spruce, balsam fir, cedar, hemlock, white birch, the maples and elms.

The Acadian Forest Region.-This Region includes Prince Edward Island, Nova Scotia, and all but the northwest corner of New Brunswick. Red spruce is the characteristically dominant conifer, and is usually associated with balsam fir, white and black spruce, hemlock, yellow birch and sugar-maple.

The Deciduous Forest Region.-The Deciduous Region of Canada consists of a small northerly portion of the temperate forest of the same type as in the United States. The Region occupies the Sarnia-Niagara peninsula of southern Ontario. Beech and sugar-maple, associated with basswood, red maple and several oaks are the characteristic trees. Many broad-leaved species such as hickory, black walnut, tulip-tree, cucumber-tree, mulberry, sycamore, sassafras, and a number of other species find their northern limit in this Region.

The Subalpine Forest Region.-This is essentially a coniferous forest region, occupying the upper slopes of the Cordilleran System east of the Coast ranges, and lying between the Alpine Tundra formation and the Montane Forest Region. Generally, the Region lies between altitudes of 3,000 and 6,000 feet. The dominant tree species are Englemann spruce, alpine fir, lodgepole pine and trembling aspen.

The Columbia Forest Region.-The forests of this Region, often referred to as the interior wet belt of British Columbia, comprise stands in the valleys of the Columbia and Fraser Rivers that lie between altitudes of 2,500 and 4,000 feet. These forests are somewhat similar in composition to those of the Coast Region.


Forest Information supplied by the Forestry Broach, Deportment of Resources and Development, 1951

The principal tree species are Englemann spruce, western red cedar, western hemlock and Douglas fir. Associated with these are grand fir, western white pine and western larch. Black cottonwood is found on rich alluvial soils.

The Montane Forest Region.-This Region forms part of the interior dry belt of British Columbia and is found generally at elevations below the Columbia Region. It covers an extensive series of plateaux, valleys and ranges in the interior of the Province. Typical of the Region are ponderosa pine, Douglas fir, lodgepole pine and trembling aspen. Towards the northern half of the Region, ponderosa pine disappears, leaving Douglas fir and lodgepole pine as characteristic species.
*The Coast Forest Region.-The western slopes of the Coast and Cascade Mountains and the islands along the coast comprise this Region. It produces the largest trees and heaviest stands in Canada. The dominant trees are western hemlock and western red cedar. Associated with these are Douglas fir in the south and Sitka spruce in the north. Also occurring in the Region are yellow cedar, western white pine and amabilis fir. Black cottonwood and red alder are the most important hardwood species in the Region.

## 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, about 10 p.c. is of any great commercial value to the wood-using industry. About 77 p.c. of the volume of merchantable timber is made up of softwood species.

A short description of the individual tree species is given at pp. 384-387 of the 1947 Year Book. More detailed information on Canadian trees is given in Forestry Branch Bulletin No. 61, Native Trees of Canada,* published by the Department of Resources and Development.

## Section 3.-Forest Resources

The forested area of Canada (exclusive of Labrador) is estimated at 1,299,759 sq. miles, or 36 p.c. of the total land area. In comparison, only 15 p.c. of the land area is considered to be of present or potential value for agriculture and 4 p.c. is classed as "improved and pasture".

Almost one-half of the total forested area of Canada is classified as "nonproductive", 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" half of the forested area, 484,000 sq. miles are considered to be now accessible for commercial operations. For further details see Table 1, p. 19, in Chapter I. 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 less than that of the accessible areas now being logged.

[^152]98452-29 $\frac{1}{2}$

The strong tendency on the part of many people to evaluate Canada's forest resources in terms of timber alone is understandable. Timber is the most obvious product of forest land and commonly the chief marketable commodity. The nontimber values of the forests, while of great economic importance, have been relatively neglected. However, increasing recognition of these great national assets is developing a broader concept of forestry.

Forest resources are inventoried periodically by provincial forest authorities and, with their co-operation, the Forestry Branch of the Department of Resources and Development compiles the National Forest Inventory. The latest estimates of accessible and total forest stands in the ten provinces and in the Yukon and Northwest Territories appear in Table 1. These estimates are subject to constant revision as more accurate and complete inventories are prepared.

## 1.-Estimate of Total Stand of Timber, by Type and Size, and by Provinces and Regions

| Province and Region | Conifers |  |  | Broad-leaved |  |  | Totals |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\left\|\begin{array}{c} \text { Saw } \\ \text { Material } \end{array}\right\|$ | Small Material | Total Equivalent Volume | Saw Material | Small Material | Total Equivalent Volume | Saw Material | Small Material | Total Equivalent Volume |
| Accessible | Million <br> ft. b.m. | $\begin{aligned} & \text { '000 } \\ & \text { cords } \end{aligned}$ | Million <br> cu. $\mathrm{ft}^{1}{ }^{1}$ | Million ft. b.m. | '000 <br> cords | Million cu ft. ${ }^{1}$ | Million ft. b.m. | '000 cords | Million $\mathrm{cu} . \mathrm{ft} .{ }^{1}$ |
| Newfoundland ${ }^{2}$. | 3,127 | 31,902 | 3,337 | - | - | - | 3,127 | 31,902 | 3,337 |
| Prince Edward Island... |  | 560 | 61 | 40 | 240 | 28 | 105 | 800 | 89 |
| Nova Scotia. | 4,849 | 23,167 | 2,939 | 1,261 | 5,363 | 708 | 6,110 | 28,530 | 3,647 |
| New Brunswick | 5,000 | 60,000 | 6,100 | 1,500 | 30,000 | 2,850 | 6,500 | 90,000 | 8,950 |
| Totals, Atlantic Provinces ${ }^{2}$. | 13,041 | 115,629 | 12,437 | 2,801 | 35,603 | 3,586 | 15,842 | 151,232 | 16,023 |
| Quebec. | 38,181 | 450,495 | 45,928 | 14,019 | 176, 108 | 17,773 | 52,200 | 626,603 | 63,701 |
| Ontario. | 42,775 | 261,515 | 30,784 | 11,529 | 300,380 | 27,838 | 54,304 | 561,895 | 58,622 |
| Totals, Central Provinces..... | 80,956 | 712,010 | 76,712 | 25,548 | 476, 488 | 45,611 | 106,504 | 1,188,498 | 122,323 |
| Manitoba | 815 | 9,900 | 1,005 | 1,630 | 19,090 | 1,949 | 2,445 | 28,990 | 2,954 |
| Saskatchewan | 580 | 3,200 | 388 | 1,010 | 50,130 | 4,463 | 1,590 | 53,330 | 4,851 |
| Alberta. | 7,000 | 74,400 | 7,724 | 2,080 | 36,000 | 3,476 | 9,080 | 110,400 | 11,200 |
| Totals, Prairie Provinces.... | 8,395 | 87,500 | 9,117 | 4,720 | 105,220 | 9,888 | 13.115 | 192,720 | 19,005 |
| British ColumbiaCoast. | 76,108 | 13,922 | 14,502 | - | - | - | 76,108 | 13,922 | 14,502 |
| Interior | 33,630 | 172,364 | 21,377 | - | - | - | 33,630 | 172,364 | 21,377 |
| Totals, British Columbia. | 109,738 | 186,286 | 35,879 | - | - | - | 109,738 | 186,286 | 35,879 |
| Totals, Accessible ${ }^{2}$.... | 212,130 | 1,101,425 | 134,145 | 33,069 | 617,311 | 59,085 | 245,199 | 1,718,736 | 198,230 |
| Totals, Inaccessible ${ }^{2}{ }^{3}$.. | 169,834 | 844,609 | 103,782 | 3,385 | 124,582 | 11,267 | 173,219 | 969,191 | 115,049 |
| Grand Totals ${ }^{2},{ }^{3}$. | 381,964 | 1,946,034 | 237,927 | 36,454 | 741,893 | 70,352 | 418,418 | 2,687,927 | 308,279 |

${ }^{1}$ Cubic volumes do not include wood in stumps and unusable tops. ${ }^{2}$ Exclu
Forest Land Tenure.-Private individuals or corporations own 7 p.c. of Canada's total forest land. The remaining 93 p.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.

The distribution of occupied Crown forest lands and privately owned forest lands, by provinces, appears in Table 2.

Farm woodlots on the 623,000 farms across Canada cover over $22,780,000$ acres (Census of 1951)- 13 p.c. of the total farm area and over 7 p.c. of the total accessible productive forest. These small wooded tracts, ranging in size from three or four acres to 200 acres or more, 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 which are considerably higher in quality than those typical of the northern forests.
2.-Tenure of Occupied Forest Lands, by Provinces, 1951
(Square Miles)

| Province | Private Forest Land |  |  | Crown Forest Land |  |  |  |  | Total Occupied Forest Land |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Farm Woodlots | Other <br> Private Lands | Total | $\begin{gathered} \text { Pulp- } \\ \text { wood } \\ \text { Licences } \end{gathered}$ | Saw Timber Licences | Timber | Permit <br> Berths | Total |  |
| Newfoundland ${ }^{1} \ldots$ | - | 4,082 | 4,082 | 15,923 | 1,193 | - | - | 17,116 | 21,198 |
| P.E. Island....... | 493 | 115 | ${ }^{6} 608$ | - | 1, | - | - | - | 608 |
| Nova Scotia...... | 3,243 | 5,222 | 8,465 | 700 | - 012 | 44 | - | 744 | 9,209 |
| New Brunswick... | 3,455 | 7.685 | 11,140 | 3,833 | 6,912 | - | - | 10,745 | 21,885 |
| Quebec.. | 9,317 | 17,588 | 26,905 | 68,039 | 10,485 | - | - | 78,524 | 105,429 |
| Ontario.. | 6,039 | 8,201 | 14,240 | 66,254 | 12,095 | - | - | 78,349 | 92,589 |
| Manitoba......... | 1.821 | 5,142 | 6,963 | 2,620 | 328 | 460 | 29 | 3,437 | 10,400 |
| Saskatchewan.... | 3,347 | 4,000 | 7,347 |  | 125 | 50 | - | 175 | 7,522 |
| Alberta.......... | 3,295 | 5.743 | 9,038 | ${ }_{7}$ | 1,076 | 236 | 145 | 1,457 | 10,495 |
| British Columbia. | 1,584 | 6,336 | 7,920 | 756 | 2,921 | 2,379 | 617 | 6,673 | 14,593 |
| Totals ${ }^{1}$ | 32,594 | 64,114 | 96,708 | 158,125 | 35,185 | 3,169 | 791 | 197,220 | 293,928 |

${ }^{1}$ Exclusive of Labrador.

## Section 4.-Forest Depletion and Increment

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 and insect pests, are dealt with in Section 5, Forest Administration.

Depletion.-The average annual rates and cause of depletion of reserves of merchantable timber during the ten years 1940-49, are given in Table 3. Of the total depletion, 79 p.c. was utilized and 21 p.c. was destroyed by fire, insects and disease. The utilization of $2,776,128,0 C 0 \mathrm{cu}$. feet comprised 39 p.c. logs and bolts, 31 p.c. pulpwood, 26 p.c. fuelwood, and the remaining 4 p.c. miscellaneous products. Approximately 6 p.c. of the wood utilized was 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 logs was discarded. Changes of great significance have been taking place in the uses of wood, permitting the utilization of sizes and qualities unmerchantable as sawn lumber. The development of the manufacture of rayon, cellophane and numerous other products in the cellulose industry is rapidly extending the use of
wood. Plastic-wood products, fibre board and laminated wood are providing an increasing demand for the so-called inferior classes of wood resulting in more complete utilization of the forest resources and in the elimination of much waste.
3.-Average Annual Forest Depletion during the Period 1940-49

| Item | Usable Wood | Utilization or Wastage | Depletion |
| :---: | :---: | :---: | :---: |
| Products Utilized- | M cu. ft . | p.c. | p.e. |
| Logs and Bolts- |  |  |  |
| Domestic use. | 1,063,158 | 38.3 | $30 \cdot 3$ |
| Exported. | 21,837 | 0.8 | $0 \cdot 6$ |
| Pulpwood-- ${ }_{\text {Domestic use. }}$ |  |  |  |
| Exported..... | 151,943 | 25.3 5.5 | 20.0 4.4 |
| Fuelwood....... | 732,285 | 26.4 | 20.8 |
| Hewn railway ties | 7,238 | $0 \cdot 3$ | $0 \cdot 2$ |
| Pit props. | 23,672 | 0.8 | 0.7 |
| Poles, posts, rails. | 36,145 | $1 \cdot 3$ | 1.0 |
| Miscellaneous product | 36,100 | $1 \cdot 3$ | 1.0 |
| Annual Utilization | 2,776,128 | $100 \cdot 0$ | 79.0 |
| Wastage- |  |  |  |
| By forest fires. | 239,159 | 32.4 | 6.8 |
| By insects and disease. | 500,000 | $67 \cdot 6$ | 14.2 |
| Annual Wastage | 739,159 | $100 \cdot 0$ | 21.0 |
| Annual Depletion.. | 3,515,287 | $\cdots$ | $100 \cdot 0$ |

Increment.-The area of occupied forests in the country totals about 294,000 sq. miles, or $188,000,000$ acres. This area includes some land that cannot be classified as productive forest land as well as some water. While precise information is not yet available, the net land area of occupied productive forest is estimated to be not more than 70 p.c. of the total occupied area, or $132,000,000$ acres.

Almost all of Canada's primary forest products are obtained from these occupied productive regions. During the post-war period the average annual rate of felling on this area exceeded 25 cu . feet per acre. When an allowance for losses caused by fire, insects and disease is added, the average annual rate of depletion for the whole area approaches 30 cu . feet per acre. In many localities, however, this rate has been greatly exceeded; in others, it has been considerably less. Complete estimates of the rates at which the forests of Canada grow are not yet available. The vast size of the country, the diversity of growing conditions and the complex character of the forests place great difficulties in the way of estimating growth. However, the results of numerous studies indicate that over considerable tracts growth exceeds 25,30 or even 40 cu . feet per acre per annum, but in other areas classed as productive the growth is much less. It seems probable, therefore, that considerable portions of Canadian forests are being cut too heavily at present. Large areas of productive forest still remain unoccupied and, while some unoccupied forests may prove to be quite as productive as those now occupied, a large proportion is difficult of access and is of relatively low productivity. The general situation emphasizes the urgent need for more intensive sustained-yield forest management.

## Section 5.-Forest Administration

## Subsection 1.-Administration of Federal and Provincial Timber-Lands

The major proportion 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 other federal lands such as National Parks and Forest Experiment Stations. About 97,000 sq. miles are privately owned by individuals or corporations.

The Federal Government's chief responsibility in the field of forestry is to carry out research in problems affecting Canada's forests and their development, conservation and more effective utilization. The Canada Forestry Act, 1949, provides that the Federal Government may enter into agreements with provincial governments, corporations and individuals to develop and conserve Canada's forest resources. Agreements under negotiation provide that during the next five years the Federal Government will pay one-half the cost, to the provinces, of making and maintaining their forest inventories, and one-fifth of the cost of reforesting provincial unoccupied Crown lands.

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, 8 p.c.; Ontario, 6 p.c.; Manitoba, 7 p.c.; Saskatchewan, 9 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. More detailed information regarding forest administration in each of the provinces, except Newfoundland, is given in the Year Book 1942 at pp. 234-236.

About 1,600 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.

## 4.-Forest Reserves in Canada, by Provinces, 1950

Note.-Areas of National and Provincial Parks (which are also forest reserves) are not included in this table, but will be found in Table 3, at p. 23.

| Province | Federal Forest Experiment Stations | Provincial <br> Forest <br> Reserves | Total |
| :---: | :---: | :---: | :---: |
|  | sq. miles | sq. miles | sq. miles |
| Newfoundland. | - | 93.40 | $93 \cdot 40$ |
| Prince Edward Island. | 二 | - | - |
| Nova Scotia..... | 35.16 |  | $306 \cdot 16$ |
| New Brunswick | $35 \cdot 16$ | 271.00 | $306 \cdot 16$ |
| Quebec.. | $7 \cdot 25$ $97 \cdot 10$ | $5,612 \cdot 0$ $19,526.00$ | $5,619 \cdot 25$ $19,623 \cdot 10$ |
| Manitoba. | $25 \cdot 25^{1}$ | 4,598-46 | 4,598-46 |
| Saskatchewan. |  | 141,037.002 | 141,037.00 |
| Alberta. | $62 \cdot 60$ | 8,585.54 | 8,648-14 |
| British Columbia | - | 37,912.05 | 37,912-05 |
| Totals.. | $202 \cdot 11$ | 217,635-45 | 217,837.56 |

${ }^{1}$ Under National Park reservation and therefore not included in total. ${ }^{2}$ In Saskatchewan, the Northern Forest, established in 1950 with an area of $136,869.73$ sq. miles, is comprised of all unalienated lands in the northern part of the Province and includes a number of provincial forests formerly listed separately.

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 demonstrated the necessity for 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 by which the Minister of Lands and Forests of British Columbia may enter into long-term timber agreements. 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. One company in British Columbia has recognized the need for long-term planning by the establishment of an experimental demonstration forest to study the problems involved in thinning, selective cutting and reforestation in stands of immature timber.

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 might 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.

Another aspect of forest management receiving active attention is the collection of more accurate inventory records of forest resources. The provinces, under the stimulus of the Canada Forestry Act, are embarking on programs designed to inventory adequately their forest areas.

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. 461). By the use of such photographs the Forestry Branch of the Federal Department of Resources and Development has been continuing its work on the aerial forest mapping of federally administered lands and other territories of direct concern to Canada. Forest inventory maps are, for example, being prepared from air photographs of the Eastern Rockies Forest Conservation Area. Data are being collected on the ground to support the interpretation of the photographs and the development of instrumental aids 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 measures 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 timberlands.

In each province, with the exception just mentioned, provincial legislation regulates the use of fire for clearing and other legitimate purposes, and provides for close seasons 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 money grants 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 and 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 detection and for the transportation of fire-fighters
and their equipment to fires in remote areas. In Western Canada, equipment and supplies are sometimes dropped by parachute to isolated fire crews, or parachutists are employed to fight fires difficult of access by other means.

Fire detection in more settled areas is carried out by means of lookout towers fitted with telephone or radio for reporting and field staffs and equipment are maintained at strategic points. These staffs, when not engaged on fire-control duties, are employed on the construction and maintenance of roads, trails, telephone lines, fire guards and other improvements.

Portable gasoline pumps and linen hose are important equipment and may be carried by canoe, motor-boat, automobile, aircraft, pack-saddle or back-pack. They can 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 found effective. Bulldozers or ploughs are commonly used for fire-line construction while trucks fitted with water tanks and power pumps are employed for the control of fires adjacent to roads.

The various governmental forest authorities conduct forest conservation publicity work independently and in co-operation with the Canadian Forestry Association. Since its beginning in 1900, that Association 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 as to the value of the forests, the devastation caused by fire and the means of preventing such destruction.

Forest Fire Statistics.-The total number of 5,310 forest fires in 1950 was slightly lower than the previous ten-year average of 5,431 , although the total area burned, $2,226,765$ acres, was 10 p.c. higher than the average loss for the previous 10 years. Fire-fighting costs did not approach the record-breaking totals of 1949, but they did represent an increase of 50 p.c. compared with the average for the preceding ten-year period. The weather in Newfoundland and Nova Scotia was quite dry for the greater part of the fire season, although temperatures were not excessive, and the seriousness of the fire danger conditions in the latter Province necessitated forest closure to travel during June, July and most of August. New Brunswick also experienced a few days of serious fire danger in the spring but, in general, the fire season was considered favourable in the Province as a whole. The forests of Quebec and Ontario were generally drier than normal in the spring but nearly average conditions obtained for the remainder of the season. Manitoba and Saskatchewan had a very favourable fire season. Serious fire dangers occurred in the northern and central portions of Alberta during May, June and October, but better-than-average conditions obtained elsewhere throughout the Province. In British Columbia, the Yukon and Northwest Territories, in the spring, wet weather prevailed generally and during the remainder of the fire season there were only a few isolated instances of the fire danger reaching serious proportions.

## 5.-Summary Statistics of Forest-Fire Losses, 1949 and 1950, with Ten-Year Averages, 1910-49

| Item |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: |

[^153]6.-Forest-Fire Losses, by Provinces, 1949 and 1950, with Ten-Year Averages, 1940-49

| Item |  |  |
| :--- | :--- | ---: | ---: | ---: |

6.-Forest-Fire Losses, by Provinces, 1949 and 1950, with Ten-Year Averages, 1940-49concluded

| Item |  |
| :---: | ---: | ---: | ---: |
|  |  |

7.-Forest Fires, by Causes, 1949 and 1950, with Ten-Year Averages, 1940-49

| Cause | Annual <br> Average <br> 1940-491 |  | Provinces ${ }^{2}$ |  |  |  | Yukon and Northwest Territories, 1950 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1949 |  | 1950 |  |  |  |
|  |  | p.c. | No. | p.c. |  |  |  | p.c. |
| Camp-fires. | 855 | 16 | 1,138 | 16 | 965 | 18 | 42 | 33 |
| Smokers... | 1,094 | 20 | 1,452 | 21 | 1,234 | 23 | 11 | 9 |
| Settlers. | 648 | 12 | 752 | 11 | . 661 | 12 | 3 | 2 |
| Railways. | 561 | 10 | 792 | 11 | - 562 | 11 | - | 3 |
| Lightning. | 1,036 | 19 | 1,362 | 19 | 608 | 12 | 45 | 36 |
| Industrial operations. | 193 | 4 | 242 | 4 | 262 | 5 | 3 | 2 |
| Incendiary .... | 162 57 | 3 <br> 1 | 209 155 | 3 2 2 | 161 97 | 3 2 | - 2 | 2 |
| Miscellaneous known. | 454 | 8 | 579 | 8 | 499 | 9 | 7 | 6 |
| Unknown... | 371 | 7 | 365 | 5 | 261 | 5 | 13 | 10 |
| Totals. | 5,431 | 100 | 7,046 | 100 | 5,310 | 100 | 126 | 100 |

${ }^{1}$ Newfoundland not included.
${ }^{2}$ Includes Newfoundland and federal lands within the provinces.

## Subsection 3.-Research in Forestry

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 Resources and Development conducts research in silviculture, management, forest air-surveys, forest-fire protection and forest economics. District offices and forest experiment stations are maintained in Newfoundland, New Brunswick, Quebec, Ontario, Manitoba and Alberta. 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 co-operation with provincial authorities and industry.

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 cutover and burned lands and has been followed by more intensive work to assess the factors responsible for the success or failure of regeneration and to devise practical methods of obtaining reproduction. Studies are made of growth and succession in the most important forest types and of development of a satisfactory basis for classifying forest sites for effective growth and productivity. Research in tree breeding is also carried on for artificial propagation by selection and development of superior strains. Research in forest management devises methods of applying the knowledge of silviculture, regulation of cut and protection in order to manage the forest at its highest production level. A management plan has been prepared for a 300 sq. mile area to be operated by a large pulp and paper company as a demonstration sustained-yield unit.

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 federal-owned forest lands such as the National Parks, the forest experiment stations, and those 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 on privately owned forest land in Nova Scotia and British Columbia. In the field of forest-fire research, the Federal Forestry Branch is working towards full co-operation with the provincial forest services in achieving the best methods of forest-fire protection. The leading contributions of the Branch to date have been in the field of fire-hazard research and in the development of equipment and techniques for fire fighting. Increasing attention, however, is being given to research in such fields as fire-control planning, visible area mapping, detection and communications equipment, and the training of fire crews. 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 air-surveying is of considerable importance because aerial photography provides an excellent means of obtaining reliable information on the extent, character and volume of forest resources. Data from air-photographs are correlated with field work to develop techniques of timber estimating. Statistical formulæ based on stratification and sampling are used for volume determination. Research is being continued in methods for measuring tree images and tree shadows to determine heights, crown widths, crown closure and other data from photographs taken in different seasons of the year under various conditions. Studies are
also being made in the identification of species and subtypes and the classification of forest sites by the use of air photographs. Construction of suitable photogrammetric and other scientific apparatus include the forestry tri-camera method of air photography, which has been developed to provide maximum forestry information at minimum cost; the use of photo-lithographic methods for the reproduction of general forest inventory maps in full colour; and the Shadow Height Calculator, constructed to facilitate the determination of tree heights from shadows in air photographs.

Research in forest economics includes studies and analyses of forest taxation (federal and provincial) and land tenure. A study of the economics of forest management was undertaken on a julpwood limit in Quebec with a view to the development of a technique for calculating the costs relating to the management of a forest area on a sustained-yield basis and thus provide a model for estimating the cost factors involved for similar forest areas.

Forest Products Research.-Two Forest Products Laboratories conduct forest products research, one at Ottawa, Ont., and the other at Vancouver, B.C. The purpose of this research is to supply the basic and practical knowledge required for the best possible utilization of Canada's forest resources and includes studies of the factors affecting the quality of wood and of manufactured wood products; the factors causing wood waste in logging and manufacturing; the mechanical, physical and chemical properties of wood and their relation to adaptability in use; the treatment of wood and its use in the manufacture of fibre products, alcohol, turpentine, etc.; new and more valuable uses for woods; and the application of laboratory findings to the standardization of lumber grades and the improvement of timber specifications in the building codes of Canadian cities. The Forest Products Laboratories co-operate with similar organizations in other countries, with the provinces and with industry.

The Pulp and Paper Research Institute of Canada at Montreal, Que., a corporation supported by the Federal Government, the Canadian Pulp and Paper Association and McGill University, carries out research in the field of pulps and papers. The program of work includes studies of the structure and properties of wood and bark and their chemical components; the improvement of pulping processes; studies for the improved utilization of waste products; and the improvement in the design of industrial equipment.

The Forest Insects Control Board.-The Forest Insects Control Board operates under the Federal Department of Resources and Development and is composed of nine members representing the Federal and Provincial Governments and the pulp and paper industry. Its purpose is to advise the Minister of Resources and Development concerning methods for control and destruction of insects injurious to the forests of Canada and for the prevention of loss and damage from the attacks of such insects.

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 affecting forest and shade trees and forest products. Ten regional laboratories are maintained at strategic points across the country. The Forest Pathology Unit operates four branch laboratories, one of which, recently established at Sault Ste. Marie, Ont., was designed particularly for fundamental research on virus, fungus and bacterial diseases of insects.

A special article dealing with Noxious Forest Insects and Their Control appears in the Year Book 1947, pp. 389-400. A detailed account of the activities in forest pathology in Canada may be found in the Year Book 1948-49, pp. 416-417.

## Section 6.-Forest Utilization

Forest utilization is concerned with the many industries employed in the hewing down of timber in the forest and the transforming of it 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 that have to be 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 that they 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 go to 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 1949 gave employment amounting to. $37,836,000$ man days, and distributed $\$ 321,000,000$ in wages and salaries.
8.-Values of Woods Operations, by Products, 1944-49

| Product | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 5 | \$ | \$ | \$ | \$ | \$ |
| Logs and bolts. | 115, 788,036 | 120,682,306 | 150,933,681 | 205,259,855 | 215, 108,932 | 207,789,335 |
| Pulpwood. | 124,363,926 | 146, 172, 701 | 183,085,359 | 237,488,741 | 284,656,819 | 270,697,980 |
| Fuelwood | 44,332,748 | 45, 193, 219 | 49,544,756 | 46, 206,338 | 49,535,855 | 48,816,965 |
| Hewn railway ties | 1,289,165 | 1,339,920 | 1,131,951 | 1,177,806 | 1,303,596 | 917,033 |
| Poles | 5,217,255 | 5,663,793 | 5,3)2,324 | 8,404,809 | 13,116,480 | 11,485,488 |
| Round mining timber. | 3,509,015 | 6,437,074 | 12,149,767 | 10,082,458 | 10,268,435 | 10,376,305 |
| Fence posts. | 2,216,585 | 2. 690.569 | 3,091,268 | 2,832,783 | 2,489, 286 | 2,640,576 |
| Wood for distillation | 887,260 | 687,102 | 452,196 | 544,746 | 497.286 | 467,997 |
| Fence rails. | 513,135 | 367,741 | 605,503 | 628,804 | 591,484 | 644,844 |
| Miscellaneous products | 3,453,698 | 5,090,476 | 6,972,509 | 7,177,790 | 8,726.895 | 7.575539 |
| Totals | 301,570,823 | 334,324,901 | 413,269,314 | 519,804,128 | 586,295,068 | 561,412,062 |

## 9.-Wood Cut in Operations in the Woods, Equivalent in Merchantable Wood, by Production and Consumption of Chief Products, 1948 and 1919, with Comparative Totals, 1940-47.

Nore.-Details by chief products and by provinces for the years $1926-49$ will be found in the D.B.S. Bulletin Annual Estimate of Operations in the Woods, 1949.

| Year and Product | Production |  |  | Consumption |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity <br> Reported or <br> Estimated | Equivalent <br> Volume of Merchantable Wood ${ }^{1}$ | Total Value | Quantity <br> Reported <br> Estimated | Equivalent Volume of Merchantable Wood ${ }^{1}$ | Total Value |
|  |  | M cu. ft. | § |  | M cu.ft. | \$ |
| Totals, 1940. | $\cdots$ | 2,676,814 | 194,567,875 | ... | 2,464,193 | 171,389,830 |
| 1941. | ... | 2,683,731 | 213,163,089 | ... | 2,441,932 | 187,838,019 |
| 1942. | ... | 2,608,605 | 234,371,891 | ... | 2,391,342 | 207,017,934 |
| 1943. | ... | 2,475,506 | 268,615,283 | ... | 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. | $\cdots$ | 3,091,086 | 519,804,128 | ... | 2,854,481 | 466, 722,041 |
| 1948 |  |  |  |  |  |  |
| Logs and bolts.... M ft. b.m. | 6,561,186 | 1,250,416 | 215,108,932 | 6,529,947 | 1,245,293 | 212,701,800 |
| Pulpwood. . . . . . . . . . cord | 12,497,926 | 1,062,324 | 284, 656,819 | 10,256,549 | 1,871,807 | 242, 338,302 |
| Fuelwood............. " | 9,529,510 | 762,361 | 49,535, 855 | 9,506,480 | 760,518 | 49, 199, 302 |
| Hewn railway ties.... No. | 968,476 | 4,842 | 1,303,596 | 968,476 | 4,842 | 1,303,596 |
| Poles and piling....... " | 1,029,158 | 15,437 | 13,116,480 - | - 719.616 | 10,794 | 10,110,303 |
| Round mining timber..cu. it. | 37,728,802 | 37,729 | 10, 268,435 | 9,354,202 | 9,354 | 2,656,143 |
| Fence posts.......... No. | 15,970,223 | 19,164 | 2,489,286 | 14,754,045 | 17,705 | 2,247,063 |
| Wood for distillation.. cord | 45,359 | 3,629 | 497,286 | -45,359 | 3,629 | 497,286 |
| Fence rails.......... No. | 5,039,529 | 5,039 | 591,484 | 5,039,529 | 5,039 | 591,484 |
| Miscellaneous products...... |  | 37,238 | 8,726,895 | $\cdots$ | 8,633 | 2,023,230 |
| Totals, 1948. | ... | 3,198,179 | 586,295,068 | ... | 2,937,614 | 523,668,509 |
| 1949 |  |  |  |  |  |  |
| Logs and bolts.... M ft. b.m. | 6,418,489 | 1,222,980 | 207, 789, 335 | 6,420,946 | 1,224,000 | 206, 678, 229 |
| Pulpwood............ cord | 11,850, 254 | 1,007,272 | 270,697,980 | 10,243,467 | 870,695 | 240,379,337 |
| Fuelwood.............. " | 9,927,432 | 794,194 | 48,816,965 | 9,908, 806 | 792,704 | 48,560,692 |
| Hewn railway ties... No. | 747,136 | 3,735 | 1917,033 | 747, 136 | 3,735 | 917,033 |
| Poles and piling...... " | 978,890 | 14,683 | 11,485,488 | + 774.346 | 11,615 | 8,969,235 |
| Round mining timber.cu. ft . | 36,919,312 | 36,919 19 19 | 10,376,305. | 10,480,527 | 10,480 | $3,126,212$ $2,452,247$ |
| Fence posts...il..... Wood for distilation.. cord | $15,973,298$ 48,058 | 19,188 <br> 3,845 | 2,640,576 | 15,089, 192 | 18,107 3,845 | 2,452,247 |
| Fence rails........... | 5,164,016 | 5,164 | 644, 844 , | 5,164,016 | 5,164 | 644,844 |
| Miscellaneous products...... |  | 32,177 | 7,575,539 | ... | 14,109 | 3,129,003 |
| Totals, 1949 . . . . . . | ... | 3,140,137 | 561,412,062 | ... | 2,954,454 | 515,324,829 |

${ }^{1}$ 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 1.2 and wood for distillation 80 . A change in computing the converting factor was introduced in 1944-45 and is described at pp. 265-266 of the 1946 Year Book.

## 10.-Equivalent Volumes of Solid Wood Cut and Values of Products of Woods Operations, by Provinces, 1947-49

| Province | Equivalent Volumes of Solid Wood |  |  | Values of Products |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1947 | 1948 | 1949 | 1947 | 1948 | 1949 |
|  | M cu. ft. | $\mathrm{M} \mathrm{cu} . \mathrm{ft}$. | M cu. ft. | \$ | \$ | \$ |
| Newfoundland . ${ }^{\text {Prince }}$ Edward |  |  | 87,436 13,433 |  |  | $18,114,275$ $1,210,360$ |
| Prince Edward Island | 13,808 140,706 | 13,251 129,989 | 13,433 117,669 | 1,159,278 | $1,190,989$ $19,141,364$ | 17,210,360 |
| New Brunswic | 247,912 | 249,982 | 225,927 | 46, 165,557 | 48,820,188 | 43,256,801 |
| Quebec. | 1,114,018 | 1,117,130 | 1,069,977 | 200, 870,414 | 218,347.191 | 201,948,530 |
| Ontario | 613,919 | 654,268 | 632,202 | 109,528, 181 | 130,922,910 | 125,912,035 |
| Manitoba | 73,463 | 74,379 | 76,147 | 7,492,875 | 7,115,628 | 7,680,752 |
| Saskatchew | 93,638 | 89,096 | 86,390 | $6.321,605$ | 6,171,443 | 6,494,857 |
| Alberta | 127,480 | 146,009 | 136,028 | 8,618,182 | 11,710,495 | 10,496,313 |
| British Columbia | 666,142 | 724,075 | 694,928 | 120, 149,681 | 142,874,860 | 129,098,690 |
| Totals | 3,091,086 | 3,198,179 | 3,140,137 | 519,804,128 | 586,295,068 | 561,412,062 |

## 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 1949 was 7,460 , as compared with 7,035 for 1948; the increase is attributable to the inclusion of the Province of Newfoundland in the later year. Mills sawing less than $15,000 \mathrm{ft}$. b.m. are excluded but account for less than one-half of one percent of the total lumber production. Employees numbered 55,032 and wages and salaries amounted to $\$ 97,449,091$. The logs, bolts and other materials and supplies of the industry were valued at $\$ 205,935,217$, the gross value of production was $\$ 396,415,201$ and net value $\$ 186,120,981$.

Lumber production in Canada reached its maximum in 1949 at 5,915,443,000 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, increases took place each year from 1933 to 1949.
11.-Quantities and Values of Lumber and All Sawmill Products, by Provinces, 1948 and 1949

| Province or Territory | Lumber Production |  |  |  | Values of All Sawmill Products |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantities |  | Values |  |  |  |
|  | 1948 | 1949 | 1948 | 1949 | 1948 | 1949 |
|  | M ft. b.m. | M ft. b.m. | \$ | \$ | \$ | 5 |
| Newfoundland Prince Edward Island | 11,035 | 34,060 9,872 | 491, 035 | 1,586,747 | 551,491 | 2,080,842 |
| Nova Scotia.... | 319,403 | 262,963 | 15, 180,381 | 12,345, 754 | 16,743, ${ }^{581}$, 491 | 13,562,282 |
| New Brunswic | 290,434 | 294,225 | 15, 131,423 | $15,130,833$ | 17,510,574 | 17,858,803 |
| Quebec. | 1,095,719 | 1,128,076 | 58,920,212 | 59, 100,719 | 69, 957, 892 | 69,624,009 |
| Ontario | 760,198 | 793,039 | 46,937,848 | 49, 806,861 | 58,827,577 | 62,739,000 |
| Manitoba | 60,846 | 56,689 | 2,780,968 | 2, 821,479 | 3,017,291 | 3,064,696 |
| Alberta. | 91,228 339,574 | 74,760 306,353 | $3,558,784$ $12,649,919$ | 3,253,700 | 3,825,161 | 3,562,128 |
| British Columbia | 2,937,410 | 2,951,183 | 184,998,056 | 177, 708,047 | 224,664,156 | 13,500,571 |
| Yukon and N.W.T | 2,951 | 4,223 | 201,912 | 307,953 | 205,277 | 308,768 |
| Canada | 5,908,798 | 5,915,443 | 340,850,538 | 334,789,873 | 409,267,472 | 396,415,201 |

## 12.-Quantities and Values of Lumber Cut, by Kinds, 1948 and 1949

| Kinds of Wood | Quantities |  | Values |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1948 | 1949 | 1948 | 1949 |
|  | M ft. b.m. | M it. b.m. | \$ | \$ |
| Spruce. | 1,982,084 | 1,898,281 | 93,431, 024 | 91,322,503 |
| Douglas fir | 1,514,118 | 1,593,556 | 96,765,791 | 94, 268,443 |
| Hemlock. | 651,476 | 630,900 | 39,284,255 | 35,384,094 |
| White pine. | 379,316 | 391,900 | 26,005,580 | 27,610,529 |
| Cedar. | 308,889 | 304,418 | 26,833,095 | 26,162,358 |
| Yellow birch. | 180,611 | 192, 103 | 11,269,188 | 12,514,019 |
| Jack pine and lodgepole pin | 252,781 | 263,634 | 12,543,201 | 12,534.000 |
| Maple.... .............. | 111,911 | 111,620 | 7,540,317 | 7,622,728 |
| Balsam fir | 137,495 | 151,465 | 6,447,851 | 7,019,391 |
| Red pine. | 65,567 | 67,411 | 4,175,019 | 4,357,919 |
| Other kinds | 324,550 | 310,155 | 16,555,217 | 15,993,889 |
| Totals. | 5,908,798 | 5,915,443 | 340,850,538 | 334,789,873 |

## 13.-Quantities and Values of Lumber, Shingles and Lath Produced, 1940-49

Note.- Figures for the years 1908-28, inclusive, will be found at p. 300 of the 1931 Year Book, for 1929-30
at p. 262 of the 1943-44 edition and for 1931-39 at p. 415 of the 1947 edition.

| Year | Lumber Cut |  | Shingles Cut |  | Lath Cut |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | M ft. b.m. | \$ | Squares | \$ | M | \$ |
| 1940. | 4,629,052 | 105,991, 217 | 3,823,251 | 9,597,497 | 216,465 | 688,167 |
| 1941. | 4,941,084 | 129,287,703 | 4,160,772 | 12,309,632 | 204,991 | 731,227 |
| 1942. | 4,935,145 | 149,854,527 | 3,720,482 | 13,191,084 | 181,994 | 737,874 |
| 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 | $3,078,215$ r | 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 |

Lumber Exports.-For exports of planks, boards and square timber see Chapter XXI, Foreign Trade.

## Subsection 3.-The Pulp and Paper Industry

Most of the textual information and the tables normally appearing under this heading have been incorporated, in this edition, in the Special Article on "The Pulp and Paper Industry in Canada". The exceptions are wood-pulp statistics of leading countries and the world newsprint statistics which are given in the following paragraphs.

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 1950 in Table 14. It is estimated that these countries produce approximately three-quarters of the world supply of pulp.
14.-Production, Exports and Imports of Wood Pulp, by Leading Countries, 1950
(Source: United States Pulp Producers Association)

| Country | Production | Exports | Imports |
| :---: | :---: | :---: | :---: |
|  | '000 tons | '000 tons | '000 tons |
| Canada. | $8,371{ }^{1}$ | 1,846 | 37 |
| United States. | 14,811 | 1.96 | 2,385 |
| Finland... | 2,109 | 1,142 | - |
| Norway. | 1,185 | 608 | 23 |
| Sweden. | 3,488 | 2,305 | 1 |

${ }^{1}$ Slightly lower than Dominion Bureau of Statistics figures given in Table 2, p. 469, owing to the exclusion of certain types of pulp by the Association.

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 15; 1939 figures are included for comparative purposes. The six countries listed accounted for 81 p.c. of the estimated world production in 1950, Canada contributing over 54 p.c.
15.-Estimated World Newsprint Production and Exports, by Leading Countries, 1939, 1949 and 1950
(Source: Newsprint Association of Canada)

| Country | Production |  |  | Exports |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1939 | 1949 | 1950 | 1939 | 1949 | 1950 |
|  | '000 tons | '000 tons | '000 tons | '000 tons | '000 tons | '000 tons |
| Canada (including Newfoundland). | 3,175 | $5,176{ }^{1}$ | 5,2791 | 2,935 | 4,8291 | 4,936 44 |
| United States.... | 939 848 | 900 529 | 5,015 609 | 13 <br> 42 | 39 68 | 44 115 |
| Finland.. | 550 | 423 | 460 | 433 | 391 | 416 |
| Sweden. | 306 | 345 | 358 | 199 | 233 | 226 |
| Norway. | 222 | 171 | 175 | 188 | 158 | 148 |

${ }^{1}$ Slightly lower than Dominion Bureau of Statistics figures given in Tables 4 and 7 at pp. 471 and 474 owing to the exclusion of certain paper not classed as newsprint by the Association.

## THE PULP AND PAPER INDUSTRY IN CANADA*

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 for over one-half 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.

Paper was first manufactured in Canada early in the eighteenth century, but it was not until the 1860's, when wood-pulp began to supplement rags as a raw material, that the development of the industry began. The happy conjunction

[^154]of Canada's extensive pulpwood and hydro-electric power resources, together with an ever-increasing demand for pulp and paper, have been mainly responsible for the growth of the industry.

The first Canadian paper mill was located at St. Andrews in Lower Canada and began to produce in 1805. By 1851 there were five mills in Upper and Lower Canada. The first chemical wood-pulp was produced in a soda pulp mill at Windsor Mills, Quebec, in 1864. By 1881 there were 35 paper mills and five pulp mills in Canada with a total of 1,586 employees and an annual output valued at $\$ 2,500,000$. The growth of the industry continued at an accelerated pace and from 1900 to 1920 the value of production of the pulp and paper mills increased thirty-fold. After weathering the depression years at a low production level, the pulp and paper industry was again at a 95 p.c. production capacity in 1938. The heightened demand during the War and post-war period added impetus to expansion of the industry, until in 1950 there were 123 pulp and paper establishments in Canada producing $8,473,014$ tons of wood-pulp, valued at $\$ 502,583,925$ and 428,461 tons of pulp made from rags, straw and other fibres, valued at $\$ 13,073,199$. Paper production totalled $6,812,035$ tons valued at $\$ 710,153,826$. The gross value of production of the mills in 1950 was $\$ 954,137,651$, and in 1951 it totalled approximately $\$ 1,200,000,000$.

Woods Operations.-Vast forest resources and abundant sources of power, together with the low cost of transporting logs to the mills by a broad network of rivers and streams, have brought about the rapid development of the pulp and paper industry. This industry is the largest tenant of the forest, holding $158,125 \mathrm{sq}$. miles in 1951 or almost 33 p.c. of the accessible productive forest area of Canada. The industry also owns some timber lands outright, but these remain a minor factor in pulpwood supply.

The pulpwood consumption of the mills in 1950 amounted to some $11,000,000$ cords of which 67 p.c. was cut on the leased or freehold limits of the industry. The remaining 33 p.c. of the wood was purchased. Two-thirds of the purchased wood came from farmers and other small holdings.
1.-Production, Consumption, Exports and Imports of Pulpwood, 1941-50

| 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 ${ }^{1}$ | $\left\lvert\, \begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \\ \text { Pro- } \\ \text { duction } \end{gathered}\right.$ | Quantity ${ }^{1}$ | $\left\lvert\, \begin{gathered} \text { P.C. } \\ \text { of } \\ \text { Total } \\ \text { Pro- } \\ \text { duction } \end{gathered}\right.$ | Quantity ${ }^{1}$ | $\begin{aligned} & \text { P.C. of } \\ & \text { Total } \\ & \text { Con- } \\ & \text { sump- } \\ & \text { tion } \end{aligned}$ |
|  | cords | \$ | \$ | cords |  | cords |  | cords |  |
| 1941.. | 9,544,699 | 88,193,045 | 9-24 | 7,688,307 | $80 \cdot 6$ | 1,856,392 | $19 \cdot 4$ | 81 | - |
| 1942.. | 9,653,574 | 103,619,151 | 10.73 | 7,665,724 | 79.4 | 1,987, 850 | $20 \cdot 6$ | 1,714 |  |
| 1943.. | $8.801,368$ | 110,844,790 | 12.59 | 7,260,776 | $82 \cdot 5$ | 1,540,592 | 17.5 | 2,379 | 0.1 |
| 1944.. | 8,668,566 | 124,363,926 | 14.35 | 7,169,430 | $82 \cdot 7$ | 1,499,136 | $17 \cdot 3$ | 8,209 | 0.1 |
| 1945.. | 9,145, 673 | 146.172,701 | 15.98 | 7,474,375 | 81.7 | 1,671,298 | $18 \cdot 3$ 17.6 | 4,133 16,881 | 0.2 |
| 1946.. | 10,523, 256 | 183, 885.359 | 17.40 20.65 | $8,667,875$ $9,500,542$ | 82.4 82.7 | $1,855,381$ $-1,983,980$ | $17 \cdot 6$ 17.3 | 16,881 50,508 | 0.2 0.5 |
| 1947. | 11.48t.522 | $237.488,741$ $284,656,819$ | 20.65 <br> 22.78 <br> 2.85 | $9,500,542$ $10,180.580$ | $82 \cdot 7$ 81.5 | - $\begin{array}{r}1,983,980 \\ 2,317,346\end{array}$ | 17.3 18.5 | 50, 508 75,969 | 0.5 0.7 |
| 1948. | $12,497,926$ $11,850,254$ | $284,656,819$ $270,697,980$ | 22.78 22.84 | $10,180.580$ $10,237,976$ | 81.5 86.4 | 2,317,346 <br> $1,612,278$ | 18.5 13.6 | 75,969 5 5 | 0.7 |
| $1950{ }^{2}$. | 12,873,476 | 285,762,620 | 22.20 | 11,138,578 | 86.5 | 1,734,898 | 13.5 | 28,220 | $0 \cdot 3$ |

[^155]${ }^{2}$ Includes Newfoundland.

The nature of the topography, climate and forests of Eastern Canada are such that the cutting and hauling of logs can be carried out most economically during the autumn and winter months. Spruce, balsam fir, jack pine, poplar and other species are felled and the logs are hauled to the nearest streams where they are piled on the ice. Many operations use trucks and tractors and there has been a general increase in the use of mechanical logging methods in Eastern Canada. When the ice breaks up in the spring, the logs are floated down the river to the mills. In British Columbia larger Douglas fir, western hemlock and Sitka spruce logs are assembled by donkey engines, cable systems and tractors, and are transported to the mill, to tide water or to lakes by heavy-duty trucks and trailers or by logging railway. Logs taken to lakes or tide water are assembled into booms and towed to the mills. Logging operations on the west coast are carried out in most instances throughout the year. A great deal of the material used by the pulp mills is sawmill waste such as slabs and edgings.

## 2.--Pulp Production, Mechanical and Chemical, 1941-50

Nors.-Figures for earlier years will be found in the corresponding tables of previous Year Books.

| Year | Mechanical Pulp ${ }^{1}$ |  | Chemical Fibre |  | Total Production ${ }^{\text {l }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | tons | \$ | tons | \$ | tons | \$ |
| 1941. | 3,494,922 | 61,327,268 | 2,122,292 | 113,128.794 | 5,720,847 | 175,439.551 |
| 1942. | $3,260,097$ | 64,801,837 | 2,246,438 | 126,208,457 | 5,606,461 | 192,145,062 |
| 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 | 231,873,122 |
| 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 |
| 19492 | 4,718,806 | 166,591,741 | 2,891,418 | 272,355,430 | 7,852.998 | 445,138,494 |
| 19502 | 4,910,803 | 173,035,433 | 3,314,250 | 323,330,963 | 8,473,014 | 502,583,925 |

3.-Pulp Production, by Chief Producing Provinces, 1941-50

Nors.-Figures for earlier years will be found in the corresponding tables of previous Year Books.

| Year | Quebec |  | Ontario |  | Canads ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | tons | \$ | tons | 5 | tons | \$ |
| 1941. | 2,971,386 | 89,103,399 | 1,507,324 | 46,908,967 | 5,720,847 | 175,439,551 |
| 1942. | 2,896,440 | 97,632,408 | 1,518.967 | 51,936,704 | 5,606,461 | 192, 145,062 |
| 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 ${ }^{\text {a }}$ | 502,583,925 ${ }^{2}$ |

[^156]Wood is made into paper by first converting it into pulp. Two pulping methods are used, one mechanical and the other by cooking with chemicals. The mechanical process produces groundwood pulp, which is exactly what its name implies. Wood is reduced to fibre by pressing against large revolving grindstones. Hence large quantities of power are required. The yield of groundwood or mechanical pulp approximates 97 p.c. of the weight of the wood.

In the chemical process small chips of wood, about three-quarters of an inch in length, are cooked at high temperatures and under pressure in a chemical liquor. The cooking, requiring several hours, dissolves virtually everything in the wood other than the cellulose. The yield of pulp is therefore reduced to from 45 to 50 p.c. of the weight of the wood. Three such chemical pulping processes are employed to produce sulphite, sulphate, or soda pulp which obtain their names from the acid or alkali employed in the cooking process.

Paper is made from pulp which, thinly mixed in water, travels in a wide stream on to the wet end of the paper-making machine. As the pulp and water move ahead on a travelling screen, the water is removed from the pulp, which then passes over a series of heated revolving drums in the dry end of the machine where the paper emerges. Thus, the paper is the result of a process of felting and drying the cellulose fibres of the original wood. Machine speeds vary with design as well as the type and weight of the paper made. Some machines produce newsprint at the rate of close to $2,000 \mathrm{ft}$. a minute. About 250 tons of water may be used to produce one ton of paper.

The type of mixture of pulp employed determines the character of the paper produced. Newsprint is composed of about 85 p.c. groundwood and 15 p.c. unbleached sulphite pulp. Bleached sulphite pulp is the raw material from which is made the better grades of book, writing and tissue papers. When pulp is made for use as the raw material for rayon, cellophane, photographic film, nitro-cellulose and plastics, it is known as "dissolving pulp". Sulphate, or kraft pulp, in its unbleached form is used to produce wrapping and bag papers, container boards and other products in which strength is the prime requisite. When bleached, this pulp is used to manufacture white printing, tissue, tag, envelope and other papers and products in which strength is also essential. Soda pulp is made by pulping shortfibred, broad-leaved species such as poplar, but relatively small quantities are produced in Canada. The raw material of paper-board may include anything from waste paper and pulp screenings (the pulp rejected for paper manufacture) to the finest grades of chemical pulp. Its components vary with the quality and type desired. Canada produces also some pulp made from rags and other fibrous material. Rag pulp goes into the highest grades of paper.

Virtually all papers and paper boards made to-day contain ingredients other than cellulose fibres. Before the pulp goes to the paper machine, dye is added to produce the colour desired. A filler such as china clay, or a size such as resin, or both, may also be added-filler to improve printability, opacity and appearance and size to increase resistance by liquids. To improve the surface of some high-
grade papers and paper boards, the finished sheet is coated by spreading a mixture of mineral matter, adhesives, waxes or waterproofing agents on the surface of the sheet.

Between 1913 and 1930 the Canadian newsprint industry experienced a rapid and spectacular growth; by 1925 it had become the world's largest producer. Following the period of high prices and wide prosperity during the 1920 's, the effect of the depression on the industry was devastating. Thus, between 1929 and 1932, when new Canadian mills and machines were still being completed and searching for business, the output of Canadian newsprint dropped by almost 30 p.c. In 1935 demand began to show improvement and in 1937 the industry was operating at 95 p.c. capacity. In the eight succeeding years which included World War II, newsprint production figures and values were relatively stable. After the War, tonnages and values rose rapidly, and during the six-year period 1945 to 1950 output increased by 60 p.c.

## 4.-Paper Production, by Type, 1941-50

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 | \$ |
| 1941. | 3,519,733 | 158,925, 310 | 117,444 | 18,476,397 | 162,581 | 16,744,806 |
| 1942. | 3,257,180 | 147, 074, 109 | 121,419 | 19,181,665 | 165,991 | 17,221,769 |
| 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 | 355,540,669 | 210.762 | 39,727,187 | 188,742 | 26,009,996 |
| 1948. | 4,640,336 | 402,099,718 | 231,608 | 45,178,968 | 207,128 | 31,036,805 |
| 19491. | 5,187,206 | 467,976,343 | 199,317 | 40,598,820 | 195,585 | 30,033,478 |
| 19501. | 5,318,988 | 506,968,207 | 214,097 | 47,356,410 | 222,840 | 37,776,291 |
|  | Paper Boards |  | Tissue and <br> Miscellaneous Paper |  | Totals |  |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | tons | $\$$ | tons | \$ | tons | \$ |
| 1941. | 649,840 | 40,214,658 | 75,178 | 7,089,121 | 4,524,776 | 241,450,292 |
| 1942. | 609,175 | 38,641,867 | 78,002 | 8,150,102 | 4,231,767 | 230,269,512 |
| 1943. | 568,101 | 37,528,257 | 84,082 | 8,883,535 | 3,966,344 | 234, 036, 152 |
| 1944 | 588,348 | 39,091,667 | 104,026 | 10,399,036 | 4,044,376 | 255,545,841 |
| 1945. | 595,131 | 40,100,872 | 116,039 | 11,686,045 | 4,359,576 | 282,837,614 |
| 1946. | 683,643 | 50,213,833 | 136,630 | 15,140,721 | 5,347,118 | 396,956,390 |
| 1947. | 744,377 | 66,126,302 | 156,937 | 19,697,123 | 5,775,082 | 507,101,277 |
| 1948. | 817,432 | 80,864,700 | 167,142 | 23,166,651 | 6,063,646 | 582,346 842 |
| $1949{ }^{1}$. | 797,023 | 80,632,075 | 160,838 | 22,219,122 | 6,539,969 | 641,459,838 |
| 19501. | 876.894 | 92,531,711 | 179,216 | 25,521, 207 | 6,812,035 | 710,153,826 |

[^157]
5.-Paper Production, by Provinces, 1949 and 1950

| Province | 1949 |  | 1950 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value |
|  | tons | \$ | tons | \$ |
| Quebec. | 3,222,063 | $310,752,857$ | 3,315,631 | 339,748,513 |
| Ontario. | 1,817,933 | 189,616,876 | 1,903,721 | 211,416,005 |
| British Columbia | 471,619 | 46,478,981 | 498,286 | $52,845,416$ |
| Nova Scotia, New Brunswick, Manitoba and Newfoundland. | 1,028,354 | 94,611,124 | 1,094,397 | 106, 143,892 |
| Totals. | 6,539,969 | 641,459,838 | 6,812,035 | 710,153,826 |

The industry's output of products; other than newsprint, has expanded in a spectacular fashion in the past thirty years. The production of pulp for sale increased two and one-half times; paperboard production increased to nearly eight times its 1922 total; wrapping paper production almost trebled; book and writing paper more than trebled; the output of tissue paper increased to almost twenty times its 1922 level, and all other paper grades, excluding newsprint, increased five-fold.

High tariffs, both in the United States and overseas, have limited the markets for paperboard and fine papers and output goes chiefly to the domestic market. The manufacturers have steadily increased the number of standard and specialty grades which they have produced, and have developed a wide variety of industrial papers for use in the electrical industry and in the manufacture of paperboard containers, paper cups, towels and grease-proof papers for food.

External Trade.-The level of domestic trade, the national income, and the standard of living in Canada depend largely on the flow of Canadian exports abroad. During the 15 years from 1927 to 1941, pulp and paper accounted for from 14 to 24 p.c. of the total value of Canadian exports. From 1920 to 1941 pulp and paper exports were never less than 12 p.c. of total exports. In the post-war years, 1947 to 1951 , pulp and paper has accounted for from 20 to 25 p.c. of the total value of all Canadian exports.

Because of the high level of munitions production during the war years, pulp and paper occupied a less dominant position in the export market. Nevertheless, from 1943 to 1945 pulp and paper comprised between 8 and 10 p.c. of total Canadian exports. With the return of peace, the industry immediately climbed back to its position as Canada's largest single exporter.

During the years 1925 to 1946 , about 75 p.c. of Canadian pulp and paper production moved abroad. Of the pulp produced for sale, more than 85 p.c. was exported. In 1950 about 77 p.c. of the entire production of pulp and paper was exported, accounting for nearly one-quarter of all Canadian exports.

The chief market for Canadian newsprint and pulp is in 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 71 p.c. and 83 p.c., respectively, and in 1950,80 p.c. and 96 p.c., respectively.
6.-Exports of Pulp to the United Kingdom, United States and All Countries, 1941-50

| Year | United Kingdom |  | United States |  | All Countries |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | tons | \$ | tons | $\delta$ | tons | \$ |
| 1941. | 265,977 | 15,412,380 | 1,108,845 | 68,161,163 | 1,411,724 | 85,897,736 |
| 1942.. | 294,056 | 17,950,527 | 1,197,425 | 76,087,788 | 1,510,746 | 95,266,873 |
| 1943. | 263,392 | 17,349, 975 | 1,269,043 | 80,969, 868 | 1,556,457 | 100,012,775 |
| 1944. | 292,808 | 21,393, 993 | 1,077,811 | 77,081,637 | 1,408,081 | 101,563,024 |
| 1945. | 290,885 | 22,276,514 | 1,093,631 | 79,589,366 | 1,434,527 | 106, 054,911 |
| 1946. | 119,973 | 10,122,012 | 1,252,648 | 99,972,972 | 1,418,558 | 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 |
| $1950{ }^{1}$. | 117,921 | 13,128,894 | 1,694,444 | 191,005,507 | 1,846,143 | 208,555, 549 |

[^158]
## 7.-Exports of Newsprint Paper to the United Kingdom, United States and All Countries, 1941-50

| Year | United Kingdom |  | United States |  | All Countries |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | tons | \$ | tons | \$ | tons | \$ |
| 1941. | 94,082 | 4,492,699 | 2,762,241 | 129,162,253 | 3,262,012 | 154,356,543 |
| 1942. | 35,123 | 1,704,069 | 2,792,181 | 130,519,094 | $3,005,291$ | 141,065,618 |
| 1943. | 30,427 | 1,773,834 | 2,544,691 | 129,787,019 | 2, 810,288 | 144,707,065 |
| 1944. | 41,908 | 2,557,791 | 2,408,960 | 133,398,723 | 2,805,776 | 157, 190, 834 |
| 1945. | 105,648 | 6,564,645 | 2,533,564 | 146,507,805 | 3,058,946 | 179,450,771 |
| 1946. | 82,888 | 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 | 383,122,743 |
| $1949{ }^{1}$. | 108,213 | 9,930,070 | 4,346,414 | 395, 259,575 | 4,789.296 | 440,054,067 |
| 19501. | 19,095 | 1,861,980 | 4,724,937 | 463,155,927 | 4,938,069 | 485,746,314 |

${ }^{1}$ Includes Newfoundland.
Importance of the Industry in the Canadian Economy.-The pulp and paper industry is one of the larger contributors to the public purse in Canada. Taxes and payments of all kinds to governments run to $\$ 135,000,000$ annually, but the extent to which the industry contributes to the national welfare cannot be assessed solely on this basis. Its operations create vast additional sources of government revenue including: hydro-electric facilities built to meet the power requirements of the industry; almost $\$ 300,000,000$ paid out annually in wages; a freight traffic alone involving the loading of more than 1,000 freight cars daily; and the operation of many converting industries ranging from the publishing trades to the manufacture of cartons, plastics and rayons. The significance of the industry in the economy may be judged also from the fact that it accounts for about one-third of all the power used by industry and in mining; that it accounted for almost one out of every eight revenue freight cars loaded in Canada in 1951; that the value of its output exceeds the mineral production of Canada including gold and all metallics, coal, gas, and petroleum; that its exports are close to twice the value of wheat and all other exports of grain; and that it expends annually $\$ 72,000,000$ for chemicals and mill supplies, $\$ 44,000,000$ for fuel, and $\$ 100,000,000$ for other purchases. Indeed, the gross value of the production of the industry exceeds 5 p.c. of the gross national product of Canada.

The pulp and paper industry uses the products and services of other Canadian industries on a wide scale, from agriculture to insurance and from retailing to railroading. Many branches of the national economy derive revenues or benefits from pulp and paper operations. The industry is a larger buyer of goods and services than any other manufacturing industry in Canada.

Including woods-workers, close to 280,000 Canadians received pay from the pulp and paper industry in 1950, which means that about $1,000,000$ Canadians depend directly on the industry, in whole or in part, for their livelihood. Sums paid to workers in 1950 ran to an estimated $\$ 270,000,000$. Employees in the mills received in salaries and wages $\$ 169,246,531$, and workers in the woods an estimated $\$ 101,000,000$. In that year the industry, in the mills alone, employed 52,343 people.

In addition, the industry provides seasonal work in the woods for about another 225,000 workers. Except in British Columbia, woods-workers are employed chiefly on a seasonal basis. While the industry is the largest exporter of manufactured goods in Canada, the products that it manufactures for home consumption loom large in domestic trade.

Outlook.-To-day there is an urgent need throughout the world for pulp and paper products of all kinds. Pulp, formerly used merely for paper, is in increasing demand as raw material for the fabrication of rayon, cellophane, plastics, building and packaging materials and many other products.

The main pulpwood sources of the world lie in the forests of the Union of Soviet Socialist Republics, the United States, Canada and Scandinavia. In the United States, pulp and paper consumption far exceeds that country's production of pulpwood. Production of wood-pulp in Scandinavia appears to have reached the productive capacity of the forests in that area. No extensive development for pulpwood of the tropical forests of the world appears imminent, and any considerable increase in pulp and paper production in the Soviet Union could be absorbed within that country. Thus, it is apparent that for some time to come the task of supplying a major portion of the pulp and paper demand of the free world must fall to Canada. In meeting this need, the pulp and paper industry can contribute in no small measure to the stability of the Canadian economy, particularly in the years that lie immediately ahead.

With vast supplies of wood, streams to float the logs to the mills, and abundant electric power for their conversion into pulp and paper, the resources of the industry are unsurpassed anywhere and from these resources flow an essential commodityone which is the very currency of civilization. All these advantages and qualities would be meaningless, however, if the industry could not dispose of its products. So far as Canada is concerned, it is largely an export industry and, as such, must depend for its existence on its ability to secure and maintain export markets.

## CHAPTER XII.-MINES AND MINERALS*

## 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.

## Section 1.-Canada's Mineral Resources

The mineral resources of the provinces of Canada are dealt with in some detail in the 1951 Year Book, pp. 486-495. The following Special Article, together with the article on pp. 524-527, gives an account of the tremendous expansion that has taken place in the development of those resources since the end of World War II.

## POST-WAR EXPANSION IN CANADA'S MINERAL INDUSTRY $\dagger$

In the light of its remarkable growth since World War II, mining in Canada can well be described as an industry on the march. True, inflationary prices have accounted for much of the increase in the value of its output from $\$ 498,755,181$ in 1945 to a record $\$ 1,228,000,000$ in 1951 for, like that of practically every other commodity, the price of almost every metal and mineral produced in Canada has risen sharply since the War. However, the total volume of mineral production has also increased, the figure for 1951 being about 65 p.c. higher than that for 1950.

In any event these volume and value increases provide only part of the record of the expansion that has taken place. The real story lies in the many outstanding developments that have occurred in the past seven years and that have literally transformed much of the Canadian mining landscape. The article entitled "Canadian Crude Petroleum Situation", at pp. 524-527, gives a descriptive account of what is, beyond question, the greatest of these developments.

Next in importance-in fact equally as important in many respects-are the iron ore developments, and here, too, the before and after contrasts are sharp. Prior to 1939, Canada produced little or no iron ore. The requirements of the

[^159]Canadian steel industry were met by imports, mainly from the United States, and from Newfoundland, which entered Confederation in 1949. From 1939 until 1944 the entire Canadian output came from the Helen mine of Algoma Ore Properties Limited in the Michipicoten area of Ontario.

Meantime, two events occurred which were to change the outlook completelythe discovery of large deposits of hematite in the Steep Rock area 140 miles west of Port Arthur in Ontario, and the disclosure of large deposits of this ore in the Quebec-Labrador region. In both cases the discoveries were made just prior to World War II. Currently, both areas are sharing the limelight and, in addition, the huge Wabana deposits in Newfoundland now comprise a part of Canada's wealth of iron ore.

From here on, the order of importance of the outstanding post-war developments in mineral production would be difficult to appraise. Whether it be the disclosure of large quantities of natural gas in Alberta or the discovery of deposits of titanium ore in eastern Quebec, the discoveries of asbestos in British Columbia and Ontario, the huge aluminum project at Kitimat in British Columbia, or a number of other enterprises of varying importance that could be mentioned, it is evident that Canada has been witnessing the greatest wave of mineral resources development in its history.

Actually, this expansion developed somewhat slowly at first. There was an abrupt slackening in the demand for most mine products during 1946 when the industry in Canada and elsewhere was in the process of readjustment to a peacetime basis. Soon, however, the effects of the curtailment in the output of civilian goods during six years of war became evident in a demand for such goods far in excess of any ever experienced.

The setting for an expansion of the country's mineral economy was close to ideal. Prices were rising, there was every reasonable assurance of a prolonged demand for mine products and industry as a whole in Canada was expanding rapidly, thus adding to the demand for mineral raw materials. If more were needed in the way of incentive it was provided in the discovery of the Leduc oil field in Alberta in February 1947. That event perhaps more than any other single post-war development brought Canada's mineral possibilities sharply into focus and caused Canadians and others to gain a new conception of the country's mineral estate, a conception that would have been regarded as visionary if not extravagant even 25 years ago.

The effects have been cumulative. The Leduc discovery has brought the whole Prairie region of several hundred thousand square miles into perspective as holding possibilities of further important discoveries and of resultant disclosures of natural gas; the high base-metal prices have brought within economic range several deposits of these metals in various parts of Canada which would otherwise have remained undeveloped, and have caused attention to turn to the re-examination of many long-dormant properties; the high prices for other mine products, coupled with the steadiness of the demand, have encouraged the establishment of new enterprises and the large-scale expansion of existing enterprises.

A cross-sectional survey of the nature and scope of this post-war expansion and of the more important developments follows, on a regional basis.

British Columbia.-This Province, whose mining history dates back to the discovery of gold in the gravels of the lower Fraser River close to a century ago and whose contribution to Canada's mineral output up to the end of 1951 has
amounted to upwards of $\$ 3,000,000,000$, has been experiencing a tremendous upsurge of mining and related activity. Practically every favourable section of the great expanse of Cordilleran rocks which underlie most of the Province has been receiving attention in the belief that these rocks contain much hidden wealth, a belief supported by encouraging results up to date. Modern means of transportation permit easier access to many areas that were formerly difficult to reach, and road improvements, power development and cheaper processing and extractive methods, coupled with high prices, make the development of prospects and properties in these areas feasible. Mineral discoveries made 30 to 50 or more years ago when primitive methods of transportation proved an effective barrier to their development, are now being reappraised.

From the outset the production of metals has been the mainstay of the Province's mineral economy and in 1951 accounted for 85 p.c. of the total value of the mineral output in that year. Lead, zinc, copper, gold and silver are the chief metals produced, the Province being the leading world producer of lead and zinc and well to the fore in silver production. Chief source of these three metals is the great Sullivan mine of the Consolidated Mining and Smelting Company of Canada Limited at Kimberley in the East Kootenay area. This Company, with its operations at Kimberley, its sprawling metallurgical plants at Trail, and its various other activities, forms the hard core of British Columbia's mineral industry. In addition to ores of the Sullivan mine the Company treats ores from over 100 properties in the Province on a custom basis and is the sole Canadian producer of tin and bismuth and a leading producer of cadmium and antimonial lead, and of fertilizer and other chemical products.

Practically all of British Columbia's output of copper has come from deposits in the western Cordilleran Region and in recent years mainly from Granby Consolidated Mining Smelting and Power Company's operations at Allenby and from those of Britannia Mining and Smelting Company at Britannia Beach. The output is in the form of copper concentrates which are shipped to the smelter at Tacoma, Washington, for recovery of the copper. The output in 1951 was 21,905 tons valued at $\$ 12,096,306$.

Placer gold mining has dwindled in importance over the years and much the greater part of the gold output now comes from gold-quartz mines in the Bridge River, Atlin, Hedley, and other areas. This production, too, has been declining sharply, the output of $202,130 \mathrm{oz} \mathrm{t}$. in 1951 being less than one-half that of 1941. Base-metal operations account for the remainder of the output.

Iron ore and tungsten concentrates round out the list of metallic ores produced in British Columbia. Production of the former was never large and has been intermittent but, as noted later, there has been a revival of interest in the development of deposits. The tungsten concentrates come from operations in the Salmo area, to which reference is also made later. The Province accounted for all the Canadian output of $20,000 \mathrm{lb}$. of tungsten ore in 1951.

Though small in comparison with that of the metals, the Province's output of the non-metallic minerals has been increasing, a trend which seems likely to continue in view of recent developments, including the discovery of crude oil in the Peace River area near the end of 1951; the commencement of production from asbestos deposits discovered in the McDame area in 1950, and the expansion in the cement industry. Coal is the chief single contributor to the output of nonmetallic minerals. Bituminous coking coal ranging from high to low volatile is
mined on Vancouver Island and in the Crowsnest, Telkwa, and Nicola areas. Lesser quantities of sub-bituminous coal are produced, mainly in the Princeton field. In 1951 coal was followed in order of production by sand and gravel, cement, stone, and clay products.

Foremost among post-war developments is the huge project of the Aluminum Company of Canada Limited at Kitimat, in the Prince Rupert area. This project involves the development of over $2,200,000 \mathrm{~h} . \mathrm{p}$. of hydro-electric energy through the construction of a dam on the Nechako River and includes also the construction of an aluminum smelter at Kitimat with a planned capacity of 500,000 short tons of aluminum a year. Output is expected to commence in 1954 at an initial rate of 100,000 tons a year. As in the case of Canada's present output of the metal, all the aluminum from the Kitimat project will be produced from imported ore. Cost of the project when completed is estimated at $\$ 600,000,000$.

Next in importance is the $\$ 65,000,000$ expansion program by the Consolidated Mining and Smelting Company. This includes modernization of the lead smelter at Trail at an estimated cost of $\$ 12,000,000$; construction of an addition to the electrolytic zinc refinery at Trail at a cost of $\$ 3,200,000$, mainly to handle increasing tonnages of custom ore as well as concentrates from the Bluebell and other properties the Company is preparing for production; construction of a fertilizer plant at Kimberley to have a capacity of 70,000 tons a year and to cost an estimated $\$ 9,000,000$ with completion scheduled early in 1953 ; construction of a $\$ 30,000,000$ power plant on Pend d'Oreille River, also scheduled for completion in 1953; and rehabilitation of the Company's Tulsequah Chief, H.B., Bluebell, and Big Bull mines.

Though other developments are on a smaller scale they are nevertheless impressive. The recent disclosure of large tonnages of much-needed tungsten ore in the Canadian Exploration Company's Dodger property in the Salmo area has resulted in great activity. The Company has been treating the tungsten ore of the Emerald mine for the Federal Government, which owns the tungsten section of the property, and capacity has been increased to 500 tons a day to permit handling of the Company's tungsten ore also. As a result, Canadian production of tungsten will be well in excess of domestic requirements by the end of 1952. The Company's nearby Jersey lead-zinc mine is also developing into a major operation and ore is being milled at a rate of 300,000 tons annually. In the same area, the Reeves MacDonald lead-zinc property which entered production in 1949 has since doubled its output of ore and is now handling about 1,000 tons a day. In the northern coast area the Tulsequah Chief and Big Bull copper-lead-zinc mines were brought into production by Consolidated Mining and Smelting Company in 1951, and preparations to start production of lead and zinc concentrates at the Company's Bluebell mine on Kootenay Lake at 500 tons a day and at its H.B. mine near Salmo at 1,000 tons a day are well advanced. A property near Spillimacheen, one at Ainsworth, and another near Cranbrook entered production in 1951 and a zinclead mine in the Revelstoke area is nearing production. As a result of these developments, a sizable increase can be expected in the Province's output of lead and zinc.

Most of the iron ore developments are on a small scale as yet but interest in the search for deposits and in the re-examination of properties has been increasing. Argonaut Company Limited, which took an option on the Iron Hill mine near Quinsam Lake on the east coast of Vancouver Island in 1949, commenced shipments of magnetite concentrate from the property in September 1951. The ore is mined
by open-pit methods and is beneficiated to raise the iron content to 58 p.c. Production is now at a rate of 50,000 tons a month and known reserves are estimated at $1,700,000$ tons. On Texada Island, Texada Iron Mines Limited has been conducting a drilling program on its magnetite deposits and commenced the shipment of ore in the spring of 1952. Quatsino Copper-Gold Mines Limited has been drilling its Elk River property in the Quatsino area and has disclosed proven and probable reserves estimated at 922,000 tons.

It should be noted in connection with these developments that many deposits of magnetite and a few of hematite and limonite are known in British Columbia. The deposits vary widely in size, shape and attitude and close exploration is required to determine their contained tonnage. Among the larger known occurrences are those of Zeballos River, Iron Hill and Iron River, and Texada Island, all of which are well located with respect to coal deposits, transportation and important industrial centres.

British Columbia's production of the non-metallic minerals has increased in annual value from $\$ 13,613,972$ in 1945 to $\$ 25,178,185$ in 1951 , the chief minerals in order of value of output in 1951 being coal, sand and gravel, cement, sulphur (content of sulphuric acid), stone and peat moss. The chief developments in the non-metallic minerals since the War are the discovery of chrysotile asbestos in the McDame Creek area in northern British Columbia and, more recently, the discovery of natural gas with distillate in the Peace River District, this being the first commercial discovery of natural gas with oil in the Province. Cassiar Asbestos Corporation Limited was formed in 1951 to acquire the asbestos deposits and a mill is under construction for the initial production of fibre. The oil discovery was made in Pacific Allied's Fort St. John No. 1 well, five miles south of Fort St. John and the oil was reached at a depth of $5,635 \mathrm{ft}$. As a result of this discovery exploration permits for oil and gas in the Province at June 15, 1952, covered $33,601,456$ acres, principally in northeastern British Columbia but also in the New Westminster, Kootenay, Cariboo and Flathead districts.

Alberta.-The discovery of crude petroleum in the Leduc field in February 1947 has proved to be the most outstanding development in Alberta's industrial history. The succession of events that followed has focussed world-wide attention on the Province's potentialities as a major source of crude oil supply. They account also for the increase in the value of Alberta's mineral production from $\$ 51,753,237$ in 1945 to a record $\$ 173,230,766$ in 1951.

Aside from the oil developments (see pp. 524-527) the most important development has been the disclosure of huge reserves of natural gas, most of which has been found in the course of drilling for oil. Only to a limited extent so far has natural gas been made the primary objective of exploratory work and it is generally agreed that much larger quantities remain undiscovered. Most estimates of present reserves range as high as $10,000,000,000 \mathrm{Mcf}$., though some estimates are much higher.

The question of export of natural gas from Alberta has been under consideration for several years. It involves the problem of preserving a volume of gas sufficient for Alberta's needs for an extended period of years, and of proving a reserve in excess of this amount that will be large enough to justify the expenditures necessary to construct long-distance transmission lines. Recently the Alberta Government decided against the adoption of a policy permitting the general export of gas, the basis for the decision being that sufficient reserves have not been disclosed
to warrant such a policy at this time. However, the Government has granted the West Coast Transmission Company Limited permission to export a stipulated volume of gas from the Peace River area over a period of years and the Company plans to construct a pipe line from the area to Vancouver.

About 95 p.c. of Alberta's output of natural gas comes from five fields-Turner Valley, Viking-Kinsella, Leduc, Jumping Pound and Medicine Hat-Redcliff-all of which are connected by pipe line to local markets. Discoveries of commercial importance were made here and there throughout the Province in 1951, some of which resulted in important extensions to previously known fields, particularly around Medicine Hat, Provost and Bonneyville, while others resulted in the establishment of potential new gas areas. Many of the discoveries were capped pending market outlets. Production in 1951 reached a record 64,112,000 Mcf., compared with $58,604,000 \mathrm{Mcf}$. in 1950.

In some of the fields the natural gas has a relatively high content of hydrogen sulphide and this has led to the construction of plants by two companies to recover elemental sulphur from the gas in these fields. One of these, Royalite Oil Company Limited, has a $\$ 350,000$ sulphur plant at Turner Valley which will have a capacity of about 10,000 tons of elemental sulphur a year. Shell Oil Company of Canada Limited brought a plant of the same capacity into operation early in 1952 at Jumping Pound.

Besides being by far the leading Canadian producer of crude oil and natural gas, Alberta is well in the lead also in the production of coal and in 1951 contributed about 41 p.c. of the total Canadian output. About 60 p.c. of the output of $7,750,000$ tons was bituminous and 39 p.c. sub-bituminous and lignite, mainly the former.

Strip mining of the coal is being practised to an increasing extent and at present about 40 p.c. of the output is so mined. The reduced labour requirements for this method are apparent from the fact that the average output from strip-mining operations per man-day in 1951 was 9 tons compared with 3.49 tons from underground mining. The continued development and improvement of the machinery used in strip mining has greatly increased the available coal for stripping and has increased the ratio of coal that may be stripped within economic limits.

In Alberta, as elsewhere in Canada, the coal industry has been continuing its efforts to improve the quality of its products. To this end, fluidized dryers for drying fine coal have been successfully introduced in the Province, with three such units in the Crowsnest area and one in the Mountain Park area. Pneumatic cleaning plants have been installed in the Coalspur and Drumheller areas, and in the Nordegg area a complete new plant has been constructed to clean all sizes retained on a quarter-inch screen. All the output of the plant is briquetted for railway locomotive and domestic use.

In value, crude petroleum, coal and natural gas, in that order, accounted for close to 95 p.c. of Alberta's mineral output in 1951 and cement, sand and gravel, and clay products for most of the remainder. The ordinary red-burning brick and structural and drain tile are produced from clays and shales obtained within the Province; the higher grade products such as sewer pipe, pottery and stoneware are made from Saskatchewan clays.

Saskatchewan.-Mining and related developments have also been active in Saskatchewan, particularly in connection with uranium and crude petroleum. As a result of the numerous discoveries of uranium ores, Saskatchewan bids strong to become a leading world source of these much-needed ores. The discoveries are in
three distinct areas. Two of these lie in the Lake Athabaska region in a belt that extends from the vicinity of Goldfields easterly along the north shore of the Lake and beyond to Charlebois Lake. Those near Goldfields cover an area of approximately 20 sq. miles, the other discoveries being in the vicinity of Sucker Bay, in the Middle Lake-Black Lake area, and in a fairly large area north of the east end of Black Lake to Spreckley Lake. The third area lies north of Lac La Ronge, which is linked to Prince Albert by a 175 -mile gravel highway. Although Eldorado holds most of the ground being explored at present, a number of other companies are active in each of the areas. An estimated $\$ 10,000,000$ was spent in Saskatchewan in 1951 on the exploration and development of uranium deposits and indications are that expenditures in 1952 will be much higher.

The uranium developments are highlighted by the multi-million dollar construction program of the Crown-owned Eldorado Mining and Refining (1944) Limited at its Ace Property in the Goldfields area. The mill being erected is expected to enter production early in 1953 and, in addition to treating the ore from the property, is designed to serve as a custom plant for ores from other properties, one purpose of this being to encourage the development of uranium prospects. Use will be made of a new acid leaching process which gives a higher recovery and which was developed in the laboratories of the Federal Department of Mines and Technical Surveys.

Exploration for crude oil in the southern part of the Province has reached record levels and, in 1951 alone, close to $\$ 20,000,000$ was spent in the search for new sources of supply, an amount more than double that spent in 1950 on similar work. There was comparatively little activity in connection with natural gas in Saskatchewan until 1951 when four important discoveries were made in the west-central portion of the Province in the vicinities of Brock, Coleville, Dodsland and Elrose, and some wells have been added since. To encourage the search for natural gas the Provincial Government has announced that a year from the date a total of $200,000,000 \mathrm{Mcf}$. has been disclosed in these areas it will buy the production for delivery.

Saskatchewan is increasing steadily in importance as a producer of metals and minerals, the chief contributors to its mineral production being copper, zinc, gold, silver, coal, sodiutm sulphate, and sand and gravel. Much the greater part of its production from the value viewpoint comes from the large copper-zinc deposits of Hudson Bay Mining and Smelting Company Limited that straddle the ManitobaSaskatchewan boundary. In 1951 the Company's production accounted for about 77 p.c. of the total value of Saskatchewan's mineral output which in that year reached a record $\$ 50,907,504$.

In the production of coal, the almost complete changeover during the past 15 years from underground operations to strip mining is a major development, particularly in view of the marked reduction in cost and of the close to fourfold increase in productivity per man-day. Both these factors are especially important under the competitive conditions arising from the crude oil and natural gas developments in Western Canada. In 1951 about 98 p.c. of the coal produced was from stripmining operations. All the coal mined is lignite and most of it comes from the Estevan area in southeastern Saskatchewan. Nearly 65 p.c. of the output is shipped to Manitoba for domestic and industrial use. Recent estimates place the recoverable reserves of lignite at $12,000,000,000$ tons.

Demand for Saskatchewan's output of sodium sulphate, particularly by the pulp and paper industry, has been outstripping supply despite a production increase of 45 p.c. in 1951 compared with 1950. In line with increased demand, prices at Saskatchewan plants moved upward on non-contract sales during the year. Exports showed an increase of 97 p.c. to 56,000 tons. Sources of the output are the large reserves of sodium sulphate that occur in highly concentrated brines and in alkali lakes in southwestern Saskatchewan, the only Canadian producer of the mineral.

The Province is also abundantly supplied with stoneware, fireclays, and ballclays. However, its production of clay products is relatively small, amounting to only $\$ 573,000$ in 1951 . There are various reasons for this, the main being that because of transportation costs the market is largely limited to the Prairie region. Stoneware clay is selectively mined in the Eastend area and is shipped to Medicine Hat, Alta., where, owing to the availability of cheap natural gas, it is used extensively to make a wide variety of stoneware articles, sewer pipe and pottery. The Provincial Government has undertaken an extensive program of exploration of the ball and other clay resources, in the hope that markets for such clays will develop in Eastern Canada and in the United States.

Manitoba.-Much of the post-war interest in mineral developments in Manitoba has been centred in the operations at Lynn Lake, 500 miles north of Winnipeg, where Sherritt Gordon Mines Limited has been busily engaged in preparing its large deposits of copper-nickel ore for production, which is expected to commence by the end of 1953. Development of the power sites on the Laurie River to supply hydro-electric energy to the Lynn Lake operations is well advanced and construction by the Canadian National Railways of the 147 -mile railroad from Sherridon to Lynn Lake is progressing. The line is being built at an estimated cost of about $\$ 15,000,000$. Work on the design of the chemical metallurgical plant which is to be located at Fort Saskatchewan, 15 miles northeast of Edmonton, has been commenced and construction is scheduled to begin during the second quarter of 1952. The plant will be within easy reach of an adequate supply of water and natural gas. Present plans call for the treatment of 2,000 tons of ore a day with an estimated output of 8,500 tons of nickel and 4,500 tons of copper annually. Ore reserves in excess of $14,000,000$ tons have been outlined. Meantime the Sherritt Gordon operations at Sherridon have come to an end and the mining plants, concentrator, and employees' houses are being moved to Lynn Lake.

The main development at the Flin Flon operations of Hudson Bay Mining and Smelting Company Limited has been the bringing of the new slag-fuming plant into continuous operation. This will enable the Company to increase its production of zinc to 65,000 tons a year from the present 50,000 tons and at the same time reduce the tonnage of ore mined, as the compensating production will come from the zinc plant residue. This Company in 1950 accounted for about 15 p.c. of Canada's output of zinc and about 15 p.c. of the output of copper and is also an important producer of cadmium, selenium, gold and silver, which are recovered as by-products. Aside from the slag-fuming plant, its facilities include a concentrator with a capacity of 6,300 tons a day, an electrolytic zinc refinery and a copper smelter. The Company ships its blister copper to Canadian Copper Refiners Limited, at Montreal East, for refining. It has been carrying out underground development work at its nearby Schist Lake mine and has a number of other
operations within a 20 -mile radius of Flin Flon, including the Cuprus mine which is producing on a small scale, and several properties where exploratory work is proceeding.

There have been few major changes since the War in Manitoba's gold industry, one of the main developments being the entry into production of the Nor-Acme mine in the Snow Lake area in March 1949. The property is being operated on a lease basis by Howe Sound Exploration Company Limited, and is equipped with a 2,000ton mill. This Company and San Antonio Gold Mines Limited, in the Rice Lake area, are the only quartz-gold producers in the Province at present, output from the Ogama-Rockland mine having ceased in June 1951. Gold production reached a peak of $191,725 \mathrm{oz} \mathrm{t}$. in 1950 , but declined to $162,257 \mathrm{oz}$ t. in 1951 . Over 78 p.c. of the 1951 output was from quartz gold mines, the remainder being recovered as a byproduct of the base-metal operations at Flin Flon.

Little of interest has occurred since the War in connection with the large deposits of chromite in the Bird River area. Federal Government and other metallurgists have worked out methods of treating the ore that would be applicable in the event of an emergency, but would possibly not prove economical under present competitive conditions. The high iron content poses a difficult metallurgical problem. However, the deposits are not being overlooked and several companies have been active in the area.

Metal production accounted for about 75 p.c. of Manitoba's total 1951 output of minerals valued at $\$ 28,398,000$. The chief non-metallics produced, in order of value of output, were: cement, sand and gravel, clay products, stone, gypsum and salt.

Ontario.-Ontario has held first position in Canadian mineral production for close to half a century and still holds this lead by a wide margin. The value of its mineral production has increased from a lowly $\$ 86,000,000$ in 1932 to $\$ 217,000,000$ in 1945 , and to a record $\$ 437,000,000$ in 1951.

Gold, nickel and copper accounted for over 71 p.c. of the total value of its mineral output in 1951 and metals as a whole for about 83 p.c. Sand and gravel, clay products, cement, gypsum, salt, quartz, mica and, since 1950, asbestos are the principal non-metallic minerals produced. Ontario produces all of Canada's output of nickel, the platinum metals, cobalt and nepheline syenite, most of the copper, gold, iron ore, salt and mica, and large percentages of several other metals and minerals.

Most of the major developments in the mineral industry since World War II have been in connection with iron-ore operations in the Steep Rock area, 140 miles west of Port Arthur, and in the Michipicoten area, and with nickel-copper operations in the Sudbury area. Of great importance also has been the establishment of an asbestos industry in the Matheson.area in northern Ontario.

The importance of the iron-ore developments requires little comment, especially when it is realized that for many years prior to the War Ontario produced no iron ore and that at no time was the production large. The discovery of large deposits of hematite ore in the Steep Rock area has changed the picture completely, for Ontario now shows promise of becoming a major world source of iron ore.

The first shipments were made from the deposits in 1944, but at that time comparatively little was known of their extent or potentialities. Much of this knowledge has since been gained and, as the Steep Rock Iron Mines Limited
states in its recent annual report, it has become increasingly evident that the several ore deposits on its properties are extensive in area and that they are likely to persist to great depths. Ore potential has been estimated at as much as $500,000,000$ tons per 1,000 feet of depth.

All the output from the deposits to date has come from open-pit operations at the Errington mine, but the Company is currently making a complete changeover to underground operations at this mine and is preparing its Hogarth mine for openpit operations. Discussing the outlook, the Company expresses the view that full exploration of its deposits will justify production in excess of $10,000,000$ long tons annually over a period of many decades. Practically all of the output, which amounted to $1,486,000$ long tons in 1951, is exported to the United States.

Developments in the Michipicoten area also point to a substantial increase in iron-ore production in the years ahead. The Helen mine of Algoma Ore Properties Limited continues to be the only producer, but there are several other properties in the area available for development. Indicated reserves on some of these are in excess of $100,000,000$ tons. The ore in the area is siderite and requires sintering to bring it up to commercial grade. The Helen ore is relatively high in manganese and accordingly is much in demand. About two-thirds of the output is exported to the United States and the remainder is used by Algoma Steel Corporation, the parent company. Production of sinter from the Helen mine increased from 504,534 long tons in 1945 to $1,188,842$ long tons in 1951.

Meantime, the search for iron ore has spread to eastern and central Ontario, portions of which are underlain by iron-bearing rocks. The most advanced operation is at Marmora about 40 miles east of Peterborough where Bethlehem Steel Corporation has been preparing for production a magnetite deposit that was discovered in 1949 as a result of an airborne magnetometer survey conducted by the Geological Survey of Canada at the request of the Ontario Department of Mines. Production is scheduled to commence in 1954 at an initial rate of 400,000 tons of concentrate a year. The concentrate will be shipped to the Company's plant near Buffalo via Picton on Lake Ontario.

During the past ten years, the International Nickel Company of Canada Limited, long the source of over 80 p.c. of the world's output of nickel and a leading producer of copper, has been pushing forward its major program of changing over entirely to underground mining from the present open-pit and underground operations in the Sudbruy area. This program is scheduled for completion by the end of 1953 and will enable the Company to hoist $13,000,000$ tons of ore a year which is $5,200,000$ more than the record tonnage hoisted from underground in 1951. In a related major development, the Company in 1951 brought into regular production the lower grade portion of its Creighton mine, employing new low-cost caving methods. This has involved the sinking of a shaft, construction of a crushing plant and concentrator, and construction of the pipe line to carry the resultant concentrate to Copper Cliff.

On the metallurgical side, the Company has completed the construction of a special type of smelting furnace which will use oxygen for the flash smelting of its copper concentrates in place of pulverized coal. This will permit not only a considerable reduction of cost but will also make possible a greater utilization of sulphur in the form of liquid sulphur dioxide from the smelter gases. The International

Nickel Company of Canada has also held first position as a producer of the platinum metals for the past several years and has spent in excess of $\$ 100,000,000$ since the War in conversion and expansion programs.

Falconbridge Nickel Mines Limited, Canada's only other producer of nickel, has also been expanding its operations. The Company obtains most of its coppernickel ore from its Falconbridge mine and the remainder from its McKim mine, which was brought into production a few years ago. It is now preparing its Hardy mine for production at a 1,000 -ton-per-day rate. Matte from the smelter at Falconbridge is shipped to the Company's refinery in Norway for recovery of the metals.

Rising costs of labour, supplies, equipment and services have had an adverse effect on Ontario's gold industry. However, production of the metal increased from $1,625,368 \mathrm{oz} \mathrm{t}$. in 1945 to $2,445,902 \mathrm{oz} \mathrm{t}$. in 1951, but the latter was slightly lower than in 1950 and was far below the peak production of 1940. In comparison with 1945, output from the Porcupine camp in 1951 increased by approximately 27 p.c.; from the Kirkland Lake camp by approximately 23 p.c.; Larder Lake, 226 p.c.; Matachewan, 19 p.c.; Patricia, 149 p.c.; and Thunder Bay, 177 p.c. Production of gold from base-metal operations totalled $40,640 \mathrm{oz} \mathrm{t}$. in 1951.

Comparatively few new gold producers have been added to the list during the past six years and production of some of the established producers has been curtailed to a varying degree. Federal Government cost-aid, which came into effect at the commencement of 1948, has been a stabilizing influence and by Dec. 31, 1951, had reached a total of $\$ 19,140,486$ for Ontario. This assistance has been of chief benefit, of course, to the higher cost and marginal mines.

Of special interest is the recent activity in the Cobalt-Gowganda area both in relation to silver and cobalt. This once-famous area, which in 1911, the peak year, recorded a silver output of $31,507,791 \mathrm{oz} \mathrm{t}$., appeared for a time to have faded from the picture as an important contributor to Ontario's mineral output. But the urgent need for cobalt in post-war industry and for defence purposes, coupled with the rising price of silver, caused attention to turn again to the camp and there has been a steady increase in activity since 1949. Production of silver from the camp increased from $476,335 \mathrm{oz}$ t. in 1945 to approximately $4,000,000 \mathrm{oz} \mathrm{t}$. in 1951.

The production of cobalt in the area is closely linked with that of silver. Cobalt became one of the scarcest of metals in 1951 owing to its increasing use in jet engine alloys, armour plating, as a binder in the manufacture of cemented carbide tools, in high operating temperature engines and in permanent reagents for electronic use. As a means of stimulating production, the Federal Government raised substantially the price of cobalt contained in cobalt ores. Cobalt occurs in minor amounts in the copper-nickel ores of the Sudbury area and is recovered from the residues of the electrolytic refining of nickel.

The addition of asbestos to the list of non-metallic minerals produced in the Province is a major post-war development. The main discoveries of this mineral have been in the Matheson area and exploratory work indicates that they are extensive. Output commenced in 1950 and in 1951, the first full year of operation, amounted to 26,100 tons. The asbestos is of a type well suited to the manufacture of asbestos cement now in great demand in Canada.

Nepheline syenite, salt, quartz, gypsum, mica, fluorspar, clay products, cement, lime, stone and crude petroleum round out the list of minerals produced in Ontario. The Province has the distinction of being the only present-known source of nepheline
syenite outside of the U.S.S.R. The output in Ontario is obtained from extensive deposits in Peterborough County. Most of Ontario's large output of salt is used to supply its expanding chemical industries and is obtained from wells drilled 800 to $1,500 \mathrm{ft}$. below the surface at Goderich, Sarnia, Warwick and Sandwich.

Quebec.-Mining in Quebec has been forging ahead at a feverish pace during the past number of years. Mineral production has climbed in value from $\$ 86,313,491$ in 1940 to $\$ 91,518,120$ in 1945 and to an all-time high of $\$ 250,000,000$ in 1951. In value the output in 1951 was almost evenly divided between the metallic and the non-metallic minerals, the latter being in the lead. Quebec was an important producer of the non-metallic minerals long before it had acquired any prominence as a producer of metals. In fact, metal output was relatively small prior to 1927, when the Noranda mine was brought into production, but has increased from a value of $\$ 13,914,000$ in 1932 to a record $\$ 120,201,000$ in 1951. However the indications are that, in value of output, the metals will soon overtake the nonmetallic minerals mainly as a result of the iron-ore developments in the QuebecLabrador region. Production from these iron-ore deposits is scheduled to commence in 1954. At present, asbestos is the chief single contributor to Quebec's mineral output.

The record of mining expansion in Quebec since the War is largely a record of pace-setting developments in connection with iron ore and titanium. These have gained an international prominence and thus stand out in relation to the others, several of which are also of importance.

The story of the iron-ore developments is by now fairly familiar to most Canadians. The discovery of the Sawyer Lake deposit in 1937 and of that at Burnt Creek in 1938 marked a major turning point in Quebec's mining history. Close to $420,000,000$ tons of hematite ore has been proved to date in the deposits that have been explored and much ground still remains to be explored. Already over $\$ 50,000,000$ has been spent in preparing the deposits for production and a further estimated $\$ 150,000,000$ will be spent to bring the work to completion. Construction of the 360 -mile railway has been started at both ends, and will be about half completed by the end of 1952. Work is proceeding on two hydro-electric power sites, one on the Menihek River about 30 miles south of the deposits and the other on Marguerite River about 20 miles north of the ore terminus. Altogether about 3,800 men are employed on the various construction and other projects, 2,300 of whom are engaged on the railroad construction.

Initially, production from the deposits will be at an annual rate of $10,000,000$ tons which may eventually be extended to $20,000,000$ tons. In any case there will be a large surplus of ore beyond Canadian needs. The marketing of this surplus is not likely to prove difficult in view of the steadily increasing demand for iron ore throughout the world and of the rapid rate of depletion of the high-grade ore in the Mesabi Range.

In the meantime the production of titanium ore in Quebec has become an established industry. In 1950, the first year of operation, 100,000 tons were shipped and in 1951 shipments increased to 372,000 tons. The deposits, discovered in 1946, are in the Allard Lake area 27 miles north of Havre St. Pierre on the north shore of the Gulf of St. Lawrence and, so far as is known, are the largest of their kind in the world. They are owned by Quebec Iron and Titanium Corporation which ships the ore to its smelter at Sorel, Que., where it is treated to produce lowcarbon iron and a titanium dioxide slag. The iron is desulphurized, cast into ingots,
and is sold as high-grade iron. At present only one furnace is in operation in the plant but two others are nearing completion and two more are to be built. The smelter, when completed, will have a rated daily capacity of 500 tons of iron and 700 tons of titanium dioxide slag.

Not so many years ago Noranda Mines Limited accounted for all but a small part of the output of base metals in Quebec. However, a few other mines in that section began contributing and then, with the sharp rise in the prices of copper and zinc, more followed, each in turn expanding its operations. The high prices also caused attention to turn to the Eastern Townships and to other areas that had remained largely inactive for years.

Recently, large deposits of zinc and silver have been disclosed at the Barvue mine east of Amos in Barraute township. Close to $18,000,000$ tons of zinc-silver ore has been outlined at the property to a depth of 700 ft . and a mill capable of handling over 5,000 tons of ore a day is scheduled to enter production by the middle of 1952. This development appears to be shaping up as one of the largest zinc operations in the country, with an anticipated output of more than 35,000 tons of zinc annually when full operation is reached.

A number of other properties have also appeared in the picture: the East Sullivan and Quemont mines in western Quebec, which entered production in 1949; the Moulton Hill and Suffield mines in the Eastern Townships, both of which are operated by Ascot Metals Corporation Limited; the Anacon mine about 70 miles west of Quebec city; and Noranda's copper property in Gaspe Peninsula which its subsidiary, Gaspe Copper Mines Limited, is now developing toward production. The latter, located across the St. Lawrence from the port of Seven Islands, appears also to be developing into a major enterprise. The grade of the ore is relatively low but the reserves are presently estimated to be in excess of $70,000,000$ tons, which would be sufficient to maintain operation for many years. Plans call for production of 5,000 tons of ore daily, commencing in about five years; when in full production this property will increase Quebec's copper output by about 25,000 tons a year. An estimated $\$ 8,000,000$ will be required to bring the mine into production.

The revival of interest in the Chibougamau area, 210 miles northeast of Noranda, is also of considerable significance. Earlier development of this area was handicapped by lack of suitable transportation and low metal prices, but these obstacles have been overcome and there is also reasonable assurance of a supply of hydroelectric power needed for the various operations. Several companies are engaged in exploring copper-gold deposits here and there throughout the area and work on some of the prospects is sufficiently advanced to warrant consideration of mill construction.

What the future may bring in the way of further important discoveries will depend largely upon the continuance or otherwise of the present demand. The consideration being given currently to the erection of a zinc refinery in the Province is indicative of the optimism that prevails in reference to the outlook for the base metals. One of the largest copper refineries in the British Commonwealth and Empire is located at Montreal East, but it is only recently that the production of zinc has reached the point where a zinc refinery seems warranted.

In terms of value of output, and exclusive of the fuels, Quebec in 1951 accounted for approximately half of Canada's production of the non-metallic minerals, and asbestos in turn accounted for 58 p.c. of the Province's output of these minerals. Quebec's output of 941,268 tons of asbestos valued at $\$ 75,000,000$ was about 95 p.c. of the Canadian total for 1951 and about 70 p.c. of the world total.

Quebec's asbestos industry, located in the Eastern Townships, has shown great expansion since the War as a result of widespread demand. Present plans call for extensive expenditures for the enlargement of plants and for the exploration and development of deposits. Canadian Johns-Manville Company Limited, the leading producer, is rebuilding the mill at its Jeffrey mine at an estimated cost of $\$ 14,000,000$; Asbestos Corporation is developing its new Normandie mine in the Black Lake area toward production in a program that will ultimately cost in the neighbourhood of $\$ 10,000,000$; and Johnson's Company also has a large expansion program on hand, including plans for the construction of a new mill at its Black Lake property at an estimated cost of $\$ 16,000,000$.

Few changes of outstanding importance have occurred since World War II in reference to the other industrial minerals produced in Quebec. The demand for most of these minerals has been exceptionally strong, particularly for cement, clay products, sand and gravel, and stone of which Quebec is a leading Canadian producer. Most plants have been operating at or near capacity.

New Brunswick.-Although the value of mineral production in New Brunswick increased from $\$ 4,182,100$ in 1945 to $\$ 10,282,408$ in 1951 , few changes of outstanding importance have occurred since the War in the general mining picture. Coal mining has long been the core of the Province's mineral industry, and coal the principal mineral product. Output comes from the Minto-Chipman field in the south-central part of the Province, the field's single seam lying close to the surface over a large area.

The output of coal has been rising steadily during the past few years, reaching a new high of 650,000 tons in 1951. Much of this has been due to the increased use of heavy strip-mining equipment and in 1951 about 68 p.c. of the coal produced was strip mined. Over 90 p.c. of the total output is used locally by the railways and other industry.

Structural materials, including clay products and gypsum, peat moss, natural gas, and a minor output of crude petroleum, comprise the remainder of the Province's mineral output. Gypsum is produced in the Hillsborough area of Albert County where Canadian Gypsum Company Limited, the only producer, operates two quarries and a mine and manufactures wallboard, gypsum lath, plaster and allied products. The Maritime Provinces realized their first production of cement when the new plant of Maritime Cement Company Limited, a subsidiary of Canada Cement Company Limited, entered production at Havelock in New Brunswick early in 1952. The plant has a capacity of $800,000 \mathrm{bbl}$. a year.

Large areas of granite of suitable grain and colour for both structural and monumental purposes are found in the Province. Red granite is produced in the St. George and Bathurst districts, black granite in the Bocabec district, and grey and bluish-grey granite in the Hampstead area.

For a number of years natural gas and crude petroleum have been produced from the Stony Creek field in the southeastern part of the Province, and Moncton, Hillsborough, and other localities in Albert and Westmorland Counties obtain their supplies of natural gas from this source. Production of these two fuels has declined steadily, however, during the past few years.

Considerable interest has been shown recently in some of the base-metal occurrences and over 20 companies are engaged in the search for these metals. Most of the activity has been in Gloucester and Restigouche Counties, and particularly in the Rocky Brook-Millstream field where there are known occurrences of copper, lead, zinc and silver.

Nova Scotia.-The marked growth of interest and activity in the various fields of mineral endeavour across Canada has been reflected within the mineral industry in Nova Scotia in the extensive mechanization and modernization under way in the mining of coal, the principal mineral product, and in the expansion in production of industrial minerals, particularly gypsum and barytes. Interest has also been revived in the Province's base-metal deposits which have as yet remained largely undeveloped. Mineral production as a whole increased in value from $\$ 32,220,659$ in 1945 to $\$ 59,387,855$ in 1951 , coal accounting for over 83 p.c. of the value of output in 1951.

Coal mining has long been a major industry in the Province and has been carried on for over 200 years. The main fields are those at Sydney and Inverness in Cape Breton Island, and at Pictou and Cumberland on the mainland. The coal comes from Pennsylvanian strata and is all of bituminous rank. Much of it is suitable for the production of coke and gas and, in addition, is a good steam coal. Production ordinarily supplies the railroads of the area, the local steel industry and the domestic market, as well as part of the fuel requirements of the Province of Quebec.

Mechanization of the coal mines has proceeded rapidly, the chief mines being now fully mechanized, except in certain cases, for loading coal into mine cars. The Dominion Steel and Coal Corporation Limited has developed a coal-cutting and loading machine designed to dig and load 500 tons of coal in eight hours. This Company is carrying out a $\$ 7,000,000$ mechanization and mine development program. Bras d'Or Company Limited, which was the first company in the Province to complete the mechanization of its workings, has installed a coal-cleaning plant, the only one of its kind in Canada.

Extensive research on coal is being carried out in Nova Scotia by the Federal and Provincial Governments. A thorough scientific study of coal has been undertaken as well as studies of rope haulage and methods of rope socketing in the coal mines.

Industrial minerals are playing an increasingly important role in the Province's mineral production. Nova Scotia is the leading Canadian producer of barytes and gypsum, producing in 1951 over 98 p.c. and 84 p.c., respectively, of the entire Canadian output of these minerals. Canadian Industrial Minerals Limited accounts for practically all of the barytes produced in the Province from its deposit at Walton, Hants County. Production consists of crude barytes for the chemical trade and ground barytes for industrial filler and drilling mud. Ground white barytes will be added to the output upon completion of the mill of Maritime Barytes Limited
on its deposit at Brookfield in Colchester County. The Province's output of barytes in 1951 totalled 83,270 short tons valued at $\$ 813,640$ compared with the peak production of 125,760 short tons valued at $\$ 1,353,705$ in 1947.

Gypsum is produced in Victoria County on Cape Breton Island and in Hants County on the mainland where Canadian Gypsum Company Limited, the largest Canadian producer, operates large quarries at Wentworth near Windsor. Production in 1951 totalled $2,829,336$ short tons valued at $\$ 3,926,465$. Approximately 5,000 tons of the Province's output is processed locally and the remainder is exported in crude form, mainly to the United States.

Nova Scotia is next to Ontario in the production of salt and its output consists of both mined rock salt and fine vacuum salt. The only salt mine in Canada is operated at Malagash in Cumberland County by Malagash Salt Company Limited. The mined rock salt is sold chiefly as a de-icing salt for roads and railways. Fine salt from vacuum pan evaporators is produced near Amherst by Dominion Salt Company Limited from a brine obtained from massive salt beds which come within 860 feet of the surface at this point. Salt production reached a peak of 125,236 short tons valued at $\$ 1,223,253$ in 1951.

Other industrial minerals produced include granite, sandstone, limestone, dolomite, diatomite, silica rock and clay products.

There is no base metal production at present in Nova Scotia, but Mindamar Metals Corporation Limited is preparing the old copper-lead-zinc Stirling mine in Richmond County for production in 1952. Geophysical surveys and extensive diamond drilling are under way on lead occurrences at Smithfield in Colchester County, and at McAdam Lake in Cape Breton County, and copper and lead occurrences in other parts of the Province are being investigated.

Newfoundland.*-Comparatively little is as yet known of what Newfoundland has to offer in the way of mineral wealth. Until entry into Confederation in 1949, only a minimum of exploration had been carried on and whole areas remained unexplored despite the fact that operations at the Province's only two metalproducing properties, the zinc-lead-copper mine of Buchans Mining Company Limited and the Bell Island iron mines of Dominion Wabana Ore Limited, have proven highly successful over the past several years.

Exploratory activity is now fairly widespread; it is greatest in central Newfoundland and in the region extending through to Notre Dame Bay on the east. coast. Falconbridge Nickel Mines Limited, with headquarters at Gull Lake in the centre of the Island, where it plans to sink a shaft on a copper property, is coutinuing the exploration of its copper holdings at Tilt Cove and at Rambler and Springdale. Buchans Mining Company Limited is carrying out extensive drilling on its concessions in the central and southwestern sections of the Province. In Notre Dame Bay, Pilleys Island Copper Pyrites Limited is continuing development work on its holdings on Pilleys Island. Over on the west coast, Independent Mining Corporation is re-examining the old York Harbour copper-zinc mine on Bay of Islands, while Cape Copper Company Limited is continuing to drill its holdings at Gregory River. North of Port au Port interesting results have been obtained on an asbestos property at Bluffhead.

[^160]Production of iron ore from the Wabana mines reached a peak of $1,788,000$ tons in 1951. Dominion Wabana Ore Limited is a subsidiary of Dominion Steel and Coal Corporation Limited and approximately 50 p.c. of its production is shipped to that Company's steel mills at Sydney, N.S. The high sulphur and phosphorus content of the ore prohibits its use in other Canadian steel mills and the remaining production goes to the United Kingdom, western Germany and the United States. The Company, in 1950, contracted to supply the United Kingdom with $1,200,000$ tons and Germany with 560,000 tons each year for five years until 1956, and to meet these commitments a $\$ 6,000,000$ expansion and modernization program has been undertaken which will double the Wabana productive capacity by late 1952. It involves interconnecting the Company's four mines and hoisting ore through one slope only, by means of a continuous belt-conveyor system.

Buchans Mining Company Limited is busily engaged in developing its new Rothermere orebodies on its property five miles north of Red Indian Lake in central Newfoundland. Output, which is scheduled for late in 1952, is expected to add considerably to the Company's production, which in 1951 amounted to 324,000 tons and from which 58,910 tons of zinc concentrate, 28,070 tons of lead concentrate, and 12,424 tons of copper concentrate were produced.

Newfoundland has extensive reserves of fluorspar and accounts for almost 93 p.c. of Canadian production. All the commercial fluorspar veins occur in the vicinity of St. Lawrence, a town on the south coast. Over 24 veins have been located, and fluorite mineralization is known to extend as far as three miles longitudinally and to depths of over 500 feet with no significant changes being noted in grade and width.

Since the initial development of the deposits in 1932, output has increased steadily, multiplying tenfold since 1937 to over 80,654 short tons in 1951. St. Lawrence Corporation Limited, by far the larger of the two producers, turns out one of the highest grade concentrates in the world, selling its output to the steel and chemical industries of Canada and United States. Remaining production comes from Newfoundland Fluorspar Limited, a subsidiary of Aluminum Company of Canada Limited, and is used mainly in the manufacture of aluminum.

Other mineral production is confined to limestone and structural materials, including clay products. Limestone is quarried at Aguathana on the north side of St. George's Bay. Part of the production is shipped to Sydney, N.S., where it is used as a flux in the steel industry and part is used locally for building and agricultural purposes. Brick clay deposits are worked on Trinity Bay, while granite is quarried on the south coast at La Poile and Rose Blanche. There are numerous occurrences of marble along the west coast and in the region of White Bay on the east coast where it is quarried at Purbeck Cove and Sops Arm.

Gypsum suitable for quarrying occurs along the west coast and in 1951 the Provincial Government, as part of its development program, erected two factories at Humbermouth for the production of gypsum plaster and plaster board and lath, the raw material to come from a deposit at St. George's Bay. The plaster plant has a capacity of 200 tons daily while the wallboard and plaster lath plant is capable of turning out $250,000 \mathrm{sq}$. ft. of wallboard a day or $285,000 \mathrm{sq} . \mathrm{ft}$. of plaster lath.

Yukon Territory.-Interest in mining in Yukon has turned sharply upwards and since 1947, when production from the deposits commenced, the Territory has been witnessing a new wave of mineral exploration and development. The

Noranda Mines Limited and Hudson Bay Mining and Smelting Company Limited have been playing important roles in this development, particularly in connection with the exploration of lead-zinc deposits.

For a number of years prior to 1947, mining had been decreasing rapidly and, although placer gold operations in the Klondike area were maintained at a high level, lack of suitable transportation and of a supply of hydro-electric energy had all but discouraged the outlay of capital in the exploration and development of properties in other areas. The success of operations in the Mayo area pointed up the need for a highway to connect Whitehorse and Mayo, the construction of which was completed by the Federal Government a few years ago. Thus, improved transportation, together with power prospects contingent upon the development of a power site on the Mayo River which is scheduled for completion before the end of 1952, and high metal prices have provided much of the incentive needed to encourage capital expenditures in the search for and development of mineral deposits.

At present, the Mayo area is exceptionally active and a number of companies are engaged in appraising the mine-making possibilities of their holdings. From the commencement of its operations until the end of 1951, United Keno Hill had produced concentrates containing about $39,000,000 \mathrm{lb}$. of lead, $16,000,000 \mathrm{lb}$. of zinc, and close to $11,000,000 \mathrm{ozt}$. of silver. The Hector mine has been the principal source of ore, but the Company has been carrying out considerable preproduction development on its Onek mine about four miles east of the Hector and plans to build a 300 -ton mill on this property. The silver-lead-zinc concentrates are shipped to Trail, B.C., for smelting and recovery of the three metals and of cadmium which occurs in association with the ores. United Keno Hill accounts for practically all the production from the area but several other properties show promise.

Although the glamorous days of the far-famed Klondike rush have long since passed, placer gold operations in Yukon Territory seem likely to continue. Recent estimates place Yukon Consolidated Gold Corporation gravel reserves well in excess of $100,000,000 \mathrm{cu} . \mathrm{yd}$., sufficient for many years of operation on the present scale. In 1951 it had seven dredges in operation compared with eight in the previous year, which accounts for the decline in the value of its gold output from $\$ 2,540,000$ in 1950 to $\$ 1,907,000$ in 1951. The Company is by far the largest producer of placer gold in the Territory.

Coal is the only other mineral produced in Yukon where the output is small, amounting to only 3,470 tons in 1951, all of it being from the Carmacks area. However, some shipments of wolframite, an ore of tungsten, are expected to be made during the summer of 1952 by Yukon Tungsten Corporation, which acquired ground in 1951 along the Alaska Highway about five miles north of Mile 701.

Northwest Territories.-Considering that as recently as 1932 the value of mineral production from this vast region with a land area of $1,253,438 \mathrm{sq}$. miles was only slightly more than $\$ 21,000$, the increase in the value of output to $\$ 8,229,681$ in 1951 is truly impressive, the latter amount being exclusive of pitchblende products, which are not reported. Aside from these products, the mineral output consists entirely of gold, crude petroleum, silver and natural gas, the value of the gold output in 1951 being about 94 p.c. of the total. It is interesting to note that the value of mineral production in the Northwest Territories in 1945 was only $\$ 471,000$, exclusive of pitchblende products.

Although early explorers reported the occurrence of minerals in various sections of the Northwest Territories, it was not until 1920 when crude oil was discovered at Norman Wells, about 100 miles west of Great Bear Lake, that much serious attention was given to the possibilities of the Territories as a source of mineral wealth. This development aroused considerable interest for a time but little of importance happened until 1930 when Gilbert La Bine reported the discovery of pitchblende deposits at Echo Bay on the east shore of Great Bear Lake. This historic event actually gave mining its start in the Territories and, along with the advent of the aeroplane, paved the way for the developments that have followed.

Attention soon turned to gold and before long various discoveries of this metal were made in the Yellowknife area. The first gold brick was poured in 1938 and gold mining has since become a well-established industry in the area, being the main source of livelihood for the 2,724 persons of Yellowknife Settlement. By 1945 production of gold from the area had reached an annual value of $\$ 333,218$, and in 1951 had increased to $\$ 7,755,119$. Giant Yellowknife Gold Mines Limited with an output of $107,000 \mathrm{oz} \mathrm{t}$. in 1951, is by far the largest producer, the others being Con, Rycon, Negus and Discovery Yellowknife.

Exploratory interest in the Territories is at present concentrated on the search for base metals, petroleum, natural gas and uranium. In connection with the base metals, the search is centred in the Pine Point area on the south shore of Great Slave Lake where the Consolidated Mining and Smelting Company of Canada Limited has been doing exploratory drilling on a large zinc-lead deposit to determine whether there is sufficient ore to warrant further development of the property. There has been considerable prospecting for base metals also in the O'Connor Lake area where American Yellowknife Gold Mines Limited has outlined a mediumsized deposit reported to contain 15 p.c. combined lead and zinc.

The present interest in crude petroleum constitutes a spreading of activity from Alberta northward. Most of the activity is in the Fort Providence area west of Great Slave Lake where some test holes have been drilled and the drilling of others is planned. Some exploratory work is in progress between longitudes $119^{\circ}$ and $122^{\circ}$ along the Alberta-Northwest Territories boundary and there should be considerable activity in both areas in 1952 as applications have been made for permits to explore several million acres of territory.

The Norman Wells area has been comparatively quiet since World War II and production has been maintained only at a level sufficient to meet the requirements of the various mining operations. Output from wells in the area in 1951 amounted to $215,000 \mathrm{bbl}$.

Production of uranium ore at the property of the Crown-owned Eldorado Mining and Refining (1944) Limited, at Fort Radium on Echo Bay, which was interrupted by destruction of the mill by fire in November 1951, was resumed in May 1952 with the completion of a new gravity mill and crushing plant. The new leaching unit and related acid plant, which will effect a marked increase in the recovery of uranium, were completed at the same time.

Much of the Northwest Territories still remains unexplored and its outlook as a potential producer of minerals would be difficult to appraise. Most of the mainland portion is underlain by rocks of the Canadian Shield that have proved so highly productive in other parts of Canada. However, except along the western fringes, relatively little geological work has been done in the Shield area. In this connection it should be noted that the Geological Survey of Canada is undertaking a
large project in 1952 that includes the mapping of an approximate 100,000 -square-mile-portion of the Shield for about 100 miles from Chesterfield Inlet southwesterly to Selwyn Lake on the southern boundary of Northwest Territories. This is being done to provide a preleminary survey of the mineral potentialities of the area.

Conclusion.-At the time of writing (June 1952), the tempo of mining activity throughout Canada continues to increase and new developments are occurring here and there in the industry-a group of five oil firms has acquired a 50,000 -acre Crown permit in the bituminous sands area of northeastern Alberta and is to start a core-drilling campaign shortly; Saskatchewan's third oil-strike in 1952 has been made in the Hoosier area about six miles east of the Alberta border; a staking rush has started in an area 20 miles south of Sudbury; milling of lead-zinc ore is to commence shortly at a property in northern Ontario; and a new gold mine has entered production in western Quebec. Week by week news-making events are occurring and, though the prices of some of the metals have receded from the high levels reached in 1951, there is little indication of a general decline.

Much of the present activity in the industry is the outcome of huge capital outlays in plant, railway, power development and other constructional projects, the Kitimat project and the Quebec-Labrador iron ore development being two outstanding examples. Such expenditures are characteristic of a rapidly growing industry and, though there may be a considerable scaling down from current levels when the present projects are completed, there seems to be every assurance that the flow of funds into mineral development will continue at a high level for some time to come. Quite apart from their beneficial influence on the economy of the country, the accomplishments of the past few years have emphasized the fact that Canada has much greater potentialities as a mineral producer than was ever before realized.

## Section 2.-Government Aid to the Mining Industry*

## Subsection 1.-Federal Government Aid

The Department of Mines and Technical Surveys.-The Federal Department of Mines and Technical Surveys, which came into being on Jan. 20, 1950, as a result of a departmental reorganization at Ottawa, continues the services, but in larger measure, rendered to the mining industry by the former Department of Mines and Resources. The Department has five branches-Geological Survey of Canada, Mines Branch, Surveys and Mapping Branch, Dominion Observatories, and Geographical Branch.

Geological Survey.-The chief function of the Geological Survey is to map and report on the geology of Canada. It carries out geological studies in the field and office to promote the discovery and development of mineral resources and underground water resources; contributes geological information as an aid in the construction of such public works as dams, bridges, tunnels, foundations, etc.; and makes mineralogical and palæontological studies in the field and office that assist in promoting the study and development of mineral resources; collects minerals and materials for study, exhibition and distribution; and makes geophysical

[^161]surveys. The types of reports issued by the Geological Survey comprise the following: 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 to a few hundred feet to one inch to eight or more miles, the common standard scales being one inch to one mile and one inch to four miles. Preliminary blue-line prints, on which the geology is shown in pattern, are issued shortly after the field season ends of those areas where the search for metals or minerals is active.

Since its establishment in 1842, the Survey has mapped over 30 p.c. of the total area of Canada. In 1952, 78 parties were assigned to field work compared with 88 in 1951. The work undertaken in 1952 included the continued study of metalliferous and potentially metalliferous areas of Canada; the investigation of the Quebec-Labrador iron belt; the geological air reconnaissance of $100,000 \mathrm{sq}$. miles of territory lying west of Hudson Bay between latitudes $60^{\circ}$ and $64^{\circ}$; the mapping of areas favourable to the accumulation of oil and gas in Western Canada and in Ontario; and the examination of occurrences of radioactive minerals, particularly in northern Saskatchewan.

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.

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 of 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 Radioactivity 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, which information is incorporated in a confidential inventory.

The Pleistocene and Engineering Geology Division is engaged in the study of the unconsolidated materials which 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 the view to directing 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, thus providing information of aid in predicting the type of coal which may be expected in advance of actual workings.

Mines Branch.-The Mines Branch is primarily concerned with the technological problems of the mineral industry and maintains well-equipped ore testing, mineral dressing, fuel research, ceramic, radioactivity, industrial minerals and physical metallurgy laboratories to handle these problems.

The Mineral Dressing and Process Metallurgy Division assists new mining ventures by aid in determining the most efficient method of recovering metal contained in ore, assists mine operators in solving problems in milling practice, and develops new procedures to extend the use of mineral resources. Its laboratory facilities are utilized at various times by mining companies for working out some particular process, employing their own staff with the co-operation and guidance of the Division staff.

The Radioactivity Division is concerned with investigations of radioactive ores, in particular with the development and application of methods whereby marketable concentrates may be produced from individual uranium ores. The primary functions 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 the Crown-owned Eldorado Mining and Refining (1944) Limited.

The Industrial Minerals Division is concerned with matters relating to the development and processing of Canada's industrial minerals, including water used for industrial purposes and studies of ores of such alloying metals as cobalt, manganese, molybdenum, tungsten and chromium. To encourage and assist in the development of domestic resources, the Division makes field studies of deposits of industrial minerals, examines industrial processes utilizing them, and carries out research into methods of beneficiating minerals from deposits of marginal and sub-marginal quality to bring them up to the standards demanded by modern industry.

The Fuels Division is engaged in the study of the type, quality and uses of all fuels and of production methods, largely as a means of devising cheaper and more efficient methods of mining, preparation, processing and utilization of coals. Work in the field or in its laboratories includes, for example: the investigation of methods of mining, particularly of rock pressures in relation to the economic mining of coal at depth, and of coal preparation, as, for instance, 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 bituminous sands of Alberta; and analyses of crude oils and natural-gas products.

There is much inter-relation of federal and provincial activities in regard to fuels. A current illustration of this is the establishment of a joint federal and Nova Scotia office and laboratory at Sydney, N.S., to investigate the nature and extent of the coal seams in Cape Breton; another concerns the pilot-plant project, recently terminated, for separating bitumen from Alberta bituminous sands by a method devised in the Mines Branch.

The Physical Metallurgy Division aids in the growth of the metal industries through the development of new alloys, new manufacturing techniques, and new applications; in the improvement of present practices in metal fabrication industries; and in the more effective use of metallic products by the consumer. Close co-operation is maintained with the National Research Council, particularly in the metallurgical work associated with the development of the atomic energy project at Chalk River, Ont.

The Mineral Resources Division-through the wealth of data amassed over many years on mineral properties and operating mines, mineral exploration and development, processing and production, new research development, uses and marketing of minerals and their products, world sources of minerals and new discoveries, and on mining laws and taxation-provides a general 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 has been established of all known occurrences and mines, both active and potential, special attention being given to occurrences of those minerals in which Canada is deficient.

The Division makes specific economic studies of various 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 the administration also 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.

Surveys and Mapping Branch.-The Surveys and Mapping 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 all 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.

New developments in mapping equipment and new techniques in mapping practice make it possible to increase the output of maps and charts, and to cover areas, such as northern Yukon Territory where lack of transport facilities and shortness of field season previously had made the cost of mapping prohibitive.

The Geodetic Survey provides the original surveys which form the framework or basic control for mapping throughout Canada and for engineering and surveying projects related to natural resources development. The control is provided by establishing survey stations at fairly regular intervals across Canada. These stations 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 recently developed adaptation of radar is meeting with success. During the 1951 and 1952 field seasons geodetic control was thus extended to the Far North many years in advance of the time that would have been required by conventional methods.

The Topographical Survey provides base 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 field surveys; and the Air Survey Section plots and produces maps from aerial photographs, with control provided by field surveys. The Map Editing Section and Compilation Section are responsible, respectively, for map editing and finishing, and mathematical computations. The National Air Photographic Library is responsible for indexing, preserving and distributing prints for all air photography done by or for the Federal Government, and the Survey administers and provides funds for the Canadian Board on Geographic Names.

In 1952, 57 parties including 14 Army Survey Establishment parties were placed in the field to carry out original ground surveys for control of mapping from aerial photographs over widely distributed areas. The field program included the projected helicopter operations in Newfoundland, to complete the topographic mapping of that Province and in northwest Yukon Territory. With the development of technique, instruments and mechanical aids to plotting maps from air photographs, topographical mapping practice has so changed that it is now held to be essential to have photographs of any area to be mapped. These are provided by the Royal Canadian Air Force and by commercial companies.

The Legal Surveys Division makes and records legal surveys of lands belonging to Her Majesty in the right of Canada or of which the Government of Canada has power to dispose, that are situated in the Yukon and Northwest Territories and the National Parks, and that are Indian lands or reserves; prepares and maintains aeronautical charts and flight manuals; prepares electoral maps; plots planimetric base maps from tri-camera aerial photographs; records and indexes survey returns and plans; and distributes plans, maps and aeronautical charts.

The Canadian Hydrographic Service is primarily 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. Lawrence-Great Lakes waterway. The resultant data are published in the form of official navigation charts, volumes of Sailing Directions, Tide Tables, and Water Level Bulletins.

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 Ottawa and Victoria; at Seven Falls and Shawinigan Falls, Que.; Halifax, N.S.; Saskatoon, Sask.; and at Resolute Bay, N.W.T.

The Dominion Observatory at Ottawa is responsible for the time service of Canada, which involves nightly astronomical observations of accurate 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 not only to study interesting and economically important aspects of the earth's crust in Canada, but also as part of 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 economic minerals.

The Dominion Astrophysical Observatory at Victoria is devoted to fundamental research into the physical characteristics of the sun, stars, planets and the material of interstellar space. The 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 primary function of the Geographical 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. Work undertaken by the Branch is of two kinds-the compilation of geographical material of national significance, and geographical surveys in the field. An important project currently in hand is the compilation of an Atlas of Canada.

The Dominion Coal Board.-The Dominion Coal Board was created in October 1947 ( 11 Geo. VI, c. 57), the functions and duties of which are clearly defined in the Act. The Board is charged with the responsibility of implementing the recommendations of the Royal Commission on Coal and the Act specifically states that it may undertake researches 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 this Act.

Transportation assistance to extend the markets for Canadian coal was made available to the amount of $\$ 3,018,189$ in the year ended Mar. 31, 1951, and 2,699,615 tons of coal were moved under this subvention during the year. Expenditures under the Coke Bounty Act providing a subsidy on Canadian coal used in the manufacture of coke for metallurgical purposes amounted to $\$ 424,725$. The amount of coal bonused was 858,031 tons.

The Board continued its studies on problems relating to coal research and of other organizations engaged in the production and distribution of solid fuels.

## Subsection 2.-Provincial Government Aid*

Nova Scotia.-Under the provisions of the Mines Act (14 Geo. VI, S.N.S., 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

[^162]or revenue. Mining machinery and equipment that may be used in searching for and testing and mining of minerals is 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 Federal Government in carrying out federal regulations made to secure increased production and economical distribution of coal from the mines of the Province.

New Brunswick.-The Mines Branch of the New Brunswick Department of Lands and Mines examines mineral and rock specimens for prospectors and makes preliminary examinations of mineral prospects where requested. Four diamond drills, which may be used for mineral exploration work on an "at-cost" basis, are made available by the Government.

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. In certain cases, 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. Quantitative and mineralogical determinations are made free, but quantitative analyses are made for a fee according to a tariff schedule. The Mining Act provides 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 wishing to establish mill-flow sheets. At Thetford Mines, in the heart of the asbestos district, the Department maintains a laboratory where classification of the 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. The individual sheets of the compiled geology 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-graduates 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 becomes available, maps are revised in line 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 areas 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, 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 a section 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 Temiskaming Testing Laboratieswituated 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 the Northern Ontario at Schumacher.

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 departmental reference only 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 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, whereas 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.-Since the transfer, in 1930, of the natural resources of Manitoba from the Government of Canada to the Province, the Mines Branch of the Manitoba Department of Mines and Natural Resources has offered four main services of assistance to the mining industry: (1) maintenance, by the Mining Recorders' offices 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, initiation 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 professional man alike in the classification of rocks and minerals and the evaluation of mineral occurrences.

Saskatchewan.-The assistance given to the mining industry by the Saskatchewan Provincial Government consists of the following: (1) the maintenance of a Geological Department under a Chief Geologist; (2) resident geologists stationed in or near the principal mining areas; (3) geological survey parties and reports; (4) prospecting concessions; (5) Prospectors' Assistance Plan; and (6) Native Trainees Plan.

The Chief Geologist and a staff are available at all times to give information or any other possible help to interested parties. The Geological Department has headquarters at Regina, with a branch at Saskatoon where a Petroleum Examination Laboratory is located.

Resident geologists are stationed at Goldfields and Prince Albert for the same purpose as that of the main Geological Department and also to give any assistance they can to prospectors in those areas.

During the summer months geological survey parties study and map attractive areas and prepare reports which are made available to interested persons.

Prospecting concessions are granted to companies and individuals of integrity in areas remote from present mining districts. The purpose of this is to encourage the prospecting of such remote areas. It is to be noted that a concession is for prospecting only and any title to mineral rights is secured by the ordinary method of staking claims.

The Prospectors' Assistance Plan is intended to encourage prospecting, and assists bona fide prospectors by way of equipment, food, transportation and technical advice to prospect favourable areas, geologically speaking.

The Native Trainees Plan has a twofold purpose: (1) to train the Indians 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 anything of value they might observe; (2) to train them to a point where they may be used as prospectors for the exploration companies and, in so doing, extend their means of livelihood beyond that of hunting and trapping.

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 also 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 of their particular chemical and physical properties, the use of coals in generation of power, the upgrading and cleaning of coal and has studied briquetting, blending, abrasion loss, shatter and crushing strength, asphalt binders and dust-proofing of coal. The Council's work with bituminous sands has helped with the development of the hotwater separation process and the operation of pilot plants. 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. In a recent move, the Province, together with the Canadian Association of Oil Well Drilling Contractors and the Western Canada Petroleum Association, has maintained 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 bona fide prospectors registered with the Department; (3) assistance in the field to the prospector by departmental engineers and geologists; (4) grubstakes, limited to $\$ 500$, 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 and Northwest Territories as well as those within Indian Reserves and in National Parks.

Mining laws and regulations covering the Yukon and Northwest Territories are administered by the Northern Administration and Lands Branch, Department of Resources and Development. Titles issued for federal lands, the property of the Federal Government, in these regions reserve to the Crown the mines and minerals that may be found on or under such lands, together with the right of operation.

Mining rights on vacant and certain other federal lands may be acquired by 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 in Indian Reserves is, with the exception of gold and silver, subject to the consent of the Indians owning the Reserve.

The Acts and regulations governing mining and quarrying on federal lands are summarized in Report No. 828 issued by the Mines Branch, Department of Mines and Technical Surveys, Ottawa, and entitled Mining Laws of Canada. This publication also lists all the laws and regulations pertaining to mining on federal lands, and copies of these individual laws 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 same source is entitled Summary Review of Dominion Tax and Other Legislation Affecting Mining Enterprises in Canada.

Provincial Mining Laws and Regulations. $\dagger$-All 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, 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. 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

[^163]veined minerals and bedded minerals), fuels (coal, petroleum, gas) and quarrying. Under these divisions of the provincial mining industry, regulations may be 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 quariz, 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, with the payment of recording fees, except in Quebec where nofees 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 work must be performed to a specified number of man-days with no time limit, when a grant or lease of the mining rights may be obtained, subject to agreement to develop as well as the payment of fees or an annual rental. The taxation applied most frequently is a percentage of net profits of producing mines or royalties. In the case 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 and no other form of taxation or royalties 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, but stakings for combustible natural gas, salt, coal, mineral oil or naphtha, or iron'sands may "cover 1,280 acres per claim. In some cases royalties are provided for. Acts or regulations govern methods of production. In the cases of petroleum and natural gas, an exploration permit or reservation is usually required. However, in Alberta no such permit or reservation is necessary and the applicant usually takes out a lease, whether or not any discovery "is made, because exploration costs are applicable in part on his first year's rental. In other provinces, except Manitoba, the discovery of 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.

## Section 4.-Statistics of Mineral Production

The importance of mineral production, as compared with other primary industries in Canada, is indicated in Chapter IX, while its part in the foreign trade of Canada is dealt with in Chapter XXI, Part II, Section 4.

## 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, minor changes having 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.

## 1.-Value of Mineral Production, 1886-1951

| Year | Total Value | $\begin{gathered} \text { Value } \\ \text { per } \\ \text { Capita } \end{gathered}$ | Year | Total Value | Value per Capita | Year | Total Value | Value per Capita |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | 8 |  | \$ | \$ |
| 1886 | 10,221,255 | $2 \cdot 23$ | $1931{ }^{1}$. | 230,434, 726 | 22.21 | 1942. | 566,768,672 | $48 \cdot 63$ |
| 1890. | 16,763,353 | 3.51 | 1932. | 191, 228,225 | $18 \cdot 19$ | 1943 | 530,053, 966 | 44.94 |
| 1895. | 20,505,917 | 4.08 | 1933 | 221,495, 253 | 20.83 | 1944 | 485, 819, 114 | $40 \cdot 67$ |
| 1900 | 64,420,877 | $12 \cdot 15$ | 1934 | 278,161,590 | 25.90 | 1945. | 498,755,181 | $41 \cdot 32$ |
| 1905 | 69,078,999 | 11.51 | 1935 | 312,344,457 | 28.80 | 1946 | 502,816,251 | $40 \cdot 91$ |
| 1910 | 106,823,623 | 15.29 | 1936. | 361,919,372 | 33.05 | 1947 | 644,869,975 | $51 \cdot 38$ |
| 1915 | 137,109,171 | $17 \cdot 18$ | 1937. | 457,359,092 | 41.41 | 1948. | 820,248,865 | 63.97 |
| 1920. | 227, 859,665 | 26.63 | 1938 | 441, 823,237 | $39 \cdot 62$ | 19492 | 901,110.026 | 67.01 |
| 1925. | 226,583,333 | $24 \cdot 38$ | 1939. | 474,602,059 | $42 \cdot 12$ | 1950 | 1,045,450,073 | $76 \cdot 24$ |
| 1929 | 310,850,246 | 31.73 | 1940 | 529,825,035 | $46 \cdot 55$ | 1951P. | 1,228,005,479 | $87 \cdot 66$ |
| 193 | 279,873,578 | $27 \cdot 42$ |  | 560,241,290 | $48 \cdot 69$ |  |  |  |

[^164]Current Production.-Canada's mineral production in 1951 reached a record value of $\$ 1,228,000,000$. This was 17 p.c. above the total for 1950 , twice the value reported for 1947 and four times that for 1935. Higher prices accounted for a large share of this increase in values but the physical quantity of mineral production seems to have been about 11 p.c. greater than in 1950, nearly 45 p.c. greater than in 1947 and about double that of 1935. Most of the gain in physical volume in the post-war years was in non-metallic minerals, including fuels and structural materials. For metal production, the index for 1951 was about 2 p.c. over 1950 but it was 15 p.c. below that for 1941, the year of maximum output.

The value of metals in 1951 was estimated at $\$ 733,000,000$, or $18 \cdot 7$ p.c. more than in 1950. Copper was up $2 \cdot 4$ p.c. in quantity and 21 p.c. in value; tonnage of nickel was higher by 11 p.c. and the value advanced 34 p.c.; and zinc rose 6.6 p.c. in quantity and 36 p.c. in value. The tonnage of lead was lower by 8 p.c., but the value was higher by 17 p.c. The tonnage of iron ore was 31 p.c. greater than in 1950 .

Gold was again the leading mineral in terms of output value in 1951. The price of gold in Canadian dollars ranged from $\$ 37.50$ to $\$ 35 \cdot 80$ per oz t., the nominal average being $\$ 36.82$ per oz t. compared with $\$ 38.05$ in 1950 . The lower price, combined with lower volume, resulted in a drop of nearly $\$ 10,000,000$ in the total value of the 1951 output.

The gain of 18 p.c. in the value of mineral fuels to $\$ 238,000,000$ was due almost entirely to the tremendous increase in production of crude petroleum in Alberta. The output of crude oil totalled $48,000,000$ bbl. compared with $29,000,000 \mathrm{bbl}$. for 1950 , and the value was up 43 p.c. to $\$ 121,000,000$. Coal production was slightly lower than in 1950.

Structural materials were in greater demand throughout 1951. Output of cement totalled $16,900,000 \mathrm{bbl}$. valued at $\$ 40,200,000$, a new record in tonnage and value. Lime production was up 16 p.c. in value to $\$ 14,200,000$ from 1950 ; clay products, which include brick, tile, sewer pipe, etc., were valued at $\$ 23,600,000$, a gain of 8 p.c. over 1950. Stone for buildings, monuments, railway ballast, etc., was valued at $\$ 24,600,000$ in 1951 and sand 'and [gravel, mainly for highway construction, totalled $\$ 43,000,000$.

In the non-metallic mineral group in 1951, the output of asbestos, the principal item, was up 10 p.c. in tonnage and 20 p.c. in value to 967,000 tons at $\$ 78,800,000$. Production of salt increased 12 p.c. to 962,000 tons, a large part being for use in making chemicals. Sulphur in the form of pyrites and sulphuric acid totalled 368,000 tons, a gain of 22 p.c. over 1950; no elemental sulphur was made in 1951. Fluorspar, mostly from Newfoundland, totalled 87,000 tons, a gain of 35 p.c. Gypsum production was about the same as in 1950.

Capital expenditures in the mining industries increased to $\$ 228,000,000$ in 1951 from \$182,000,000 in 1950.

During the past few years, the direction of Canadian exports of the principal base metals has been drastically altered. In 1939 the United States took only 3 p.c. of the aluminum production but took 48 p.c. in 1950; the corresponding rise for copper was from 1 p.c. to 38 p.c., for lead from zero to 91 p.c., and for zinc from 4 p.c. to 74 p.c. In 1951 there was a partial swing back again, but the over-all change is still quite a radical one. The fact appears to be that the United States has become for the first time a substantial importer of these metals to meet a steeply rising consumption as well as for strategic stockpiling.
2.-Quantities and Values of Minerals Produced, 1946, 1949 and 1950

| Mineral | 1946 |  | 19491 |  | 19501 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
| Metallics |  | \$ |  | \$ |  | \$ |
| Antimony........... lb. | 642,145 | 96,322 | 158,288 | 61,020 | 643,540 | 215,586 |
| Arsenic ( $\mathrm{As}_{2} \mathrm{O}_{3}$ ) ....... " | 745,885 | 38,264 |  | - |  |  |
| (erylium ore........ ton | 240,504 | 336,706 | 102,913 | 210,972 | 191,621 | 431,147 |
| Cadmium............ | 802,648 | 979,230 | 846,541 | 1,735,409 | 848,406 | 1,968,302 |
| Calcium............... | 53,548 | 68,720 | 520,609 | 1,041,218 |  | ${ }^{2}$ |
| Chromite............ ton | 3,110 | 61,123 | 361 | 7,148 |  |  |
| Cobalt............... 1 l . | 73,900 | 70,215 | 619,065 | 952,469 $104,719,151$ | 583,806 $528,418,296$ | 123,211,407 |
| Copper.............. ${ }_{\text {Gold }}$ ". ${ }^{\text {a }}$. | $367,936,875$ $2,832,554$ | $46.632,093$ $104,096,359$ | $526,913,632$ $4,123,518$ | 104,719,151 | $528,418,296$ $4,441,227$ | $123,211,407$ $168,988,687$ |
| Indium................. oz ${ }^{\text {t. }}$ | 832, | 104,096 | 4,123,589 | 148,446,658 | , 4,952 | -12,083 |
| Iron ore............ , ton | 1,549,523 | 6,822,947 | 3,675,096 | 21,203,907 | 3,605,261 | 23,413,547 |
| Iron ingots............. " | 1,510,523 | 6,822,017 | 3,675,09 |  | 1,697 | 138,284 |

For footnotes, see end of table.
2.-Quantities and Values of Minerals Produced, 1946, 1949 and 1950-concluded

| Mineral | 1946 |  | 19491 |  | $1950{ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
| Metallics-concluded |  | \$ |  | \$ |  | \$ |
| Lead................. Ib. | 353,973,776 | 23,893,230 | $319,549,865$ | 50,488,879 | 331,394,128 | 47,886,452 |
| Magnesium | 320,677 | 75,538 | , | , |  | 1,545,0114 |
| Molybdenite.......... | 676,844 | 295,640 |  |  | 103,550 | 60,059 |
| Nickel. . . . . . . . . . . | 192,124,537 | $45,385,155$ | 257,379,216 | 99,173,289 | 247,317,867 | 112,104,685 |
| Palladium, rhodium, iridium, etc..........oz t. | 117,566 | 5,162,801 | 182,233 | 8,289,915 | 148,741 | 7,578,144 |
| Platinum............ "' | 121, 771 | 7,672,791 | 153,784 | 11,603,002 | 124,571 | 10,255,929 |
| Pitchblende products. |  |  |  |  |  | ${ }^{3}$ |
| Selenium............ 1 lb . | 521,867 | -949,798 | 318,225 | 652,361 | 261,973 | 633,975 |
| Silver...............oz t . | 12,544,100 | 10,493,139 | 17,641,493 | 13,098,808 | 23,221,431 | 18,767,561 |
|  | 15,848 874,186 | 24,405 507 | 11,692 619,117 | 21,046 633,047 | 10,075 796,403 | 19,143 828,259 |
| Titanium ore......... , ton | $\begin{array}{r}1,406 \\ \hline\end{array}$ | 50,735 | -540 | 2,892 | 1,253 | 7,706 |
| Tungsten concentrates. 1 lb . |  |  | 252,380 | 252,380 | 284,078 | 160,343 |
| Zinc.................. | 470,620,360 | 36,755,450 | 576,524,097 | 76,372,147 | 626,454,598 | 98,040,145 |
| Totals, Metallics........ <br> Non-Metallics (Excluding Fuels) | ... | 290,424,689 | ... | 538,967,258 | ... | 617,238,340 |
|  |  |  |  |  |  |  |
| Arsenious oxide...... lb. | $\square 181$ |  | 526,645 | 26,332 | 794,091 | 52,029 |
| Asbestos............ ton | 558,181 | 25,240,562 | 574,906 | 39,746,072 | 875,344 | 65,854,568 |
| Barite................ " | 120,419 | 1,006,473 | 47,138 | 557,662 | 77,177 | 750,378 |
| Corundum | 742 | 102,340 |  |  |  |  |
| Diatomite | 90 | 2,532 | 60 | 1,703 | 49 | 1,665 |
| Feldspar. | 35,243 | 384,677 | 36,948 | 428,502 | 35,548 | 428,401 |
| Fluorspar | 8,042 | 237,491 | 64,477 | 1,592,908 | 64,213 | 1,553,004 |
| Garnets roc |  | 1,200 |  |  |  | 240 |
| Graphite. | 1,975 | 180,405 | 2,147 | 212,496 | 3,586 | 390,815 |
| Grindston | 295 | 17,450 | 195 | 12,450 | 100 | 10,000 |
| Gypsum. | 1,810,937 | 3,671,503 | 3,014,249 | 5,423,690 | 3,666,336 | 6,707,506 |
| Iron oxide. ........... | 12,695 | 152,268 | 13,625 | 207,887 | 13,696 | 262,632 |
| Magnesitic dolomite, brucite. |  | 1,225,593 |  | 1,536,200 |  | 1,717,879 |
| Mica. . . . . . . . . . . . ${ }_{\text {l }}^{\text {lb }}$ | 8,720,669 | 199,039 | 3,490,556 | 108,458 | 3,879,209 | 252,611 |
| Mineral water ... . .imp. gal. | 217, 842 | 122,404 | 306,691 | 146,240 | 318,829 | 158,897 |
| Nepheline syenite..... ton | 61,261 | 229,198 | 78,783 | 623,002 | 65,638 | 842,886 |
| Peat moss........... " | 96,839 | 2,395,649 | 80,249 | 2,376,849 | 75,195 | 2,256,870 |
| Phosphate rock | 57 | - 869 | 20 | , 291 | 129 | 1,069 |
| Quartz... | 1,413,378 | 1,554,798 | 1,722,476 | 1,588,531 | 1,730,695 | 1,740,268 |
| Salt................ . " | 537,985 | 3,626,165 | 749,015 | 5,566,725 | 858,896 | 7,011,306 |
| Silica brick.......... M | 2,902 | 197, 804 | 3,663 | 453,797 | 3.126 | 408,813 |
| Soapstone and talc.... ton | 29,353 | 303,684 | 26,922 | 320,793 | 32,604 | 364,635 |
| Sodium carbonate.... " |  |  | 47 | 513 |  |  |
| Sodium sulphate.... | 105,919 | 1,117,683 | 120,259 | 1,614,731 | 130,730 | 1,615,867 |
|  | 234,771 | 1,784,666 | 261,871 | 2,039,384 | 301, 172 | 2,189,660 |
| Titanium dioxide. |  |  |  |  | 1,596 | 149,565 |
| Totals, Non-Metallics Fuels | ... | 43,754,453 | ... | 64,585,216 | ... | 94,721,564 |
|  |  |  |  |  |  |  |
| $\begin{aligned} & \text { Coal..................... ton } \\ & \text { Natural gas........... ton } \\ & \text { Peat................. bid. } \\ & \text { Petroleum, crude..... bbl. } \end{aligned}$ | 17,806,450 | 75,361,481 | 19,120,046 | 110,915,121 | 19,139,112 | 110,140,399 |
|  | 47,900,484 | 12,165,050 | 60,457,177 | 11,620,302 | 67,822,230 | 6,433,041 |
|  | 7 145 | 1, 1,305 | , 56 | 1, 560 | - 58 | - 580 |
|  | 7,585,555 | 14,989,052 | 21,305,348 | 61,118,490 | 29,043,788 | 84,619,937 |
| Totals, Fuels.............. | ... | 102,516,888 | ... | 183,654,473 | ... | 201,193,957 |
| Struetural Materials |  |  |  |  |  |  |
| Clay products, brick, tile, etc. |  | 12,207,367 |  | 17.981,709 |  | 21,790,888 |
| Cement. . . . . . . . . . . bbl. | 11,560,483 | 20,122,503 | 15,916,564 | 32,901,936 | 16,741, 826 | 35, 894, 124 |
| Lime............... ton | 840,799 | 7,074,940 | 1,018,823 | 11,309,820 | 1,124,188 | 12,281,084 |
| Sand and grave | 39,949,994 | 15.529,700 | 63,356,308 | 31,181,541 | 73,095,163 | 36,434,759 |
| Stone... | 8,056,260 | 11,185,711 | 13,928,039 | 20,528,073 | 18,087,064 | 25,895,357 |
| Totals, Structural Materials. | ... | 66,120,221 | ... | 113,903,079 | ... | 132,296,212 |
| Grand Totals | ... | 502,816,251 | ... | 901,110,026 | ... | 1,045,450,073 |

[^165]Analysis of Current Value and Volume.-In order to interpret more clearly and simply the trends in mineral production in Canada over the past ten years, Table 3 gives the percentage of the total value contributed by each principal mineral in each year. 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.-Percentages of the Total Value Contributed by Principal Minerals, 1941-50

| Mineral | 1941 | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Metallics | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Copper | 11.5 | $10 \cdot 7$ | 12.7 | 13.4 | 11.9 | $9 \cdot 3$ | $14 \cdot 2$ | $13 \cdot 1$ | 11.6 | 11.8 |
| Gold. | 36.7 | 32.9 | 26.5 | 23.2 | $20 \cdot 8$ | 20.7 | $16 \cdot 7$ | $15 \cdot 1$ | 16.5 | 16.2 |
| Lead | $2 \cdot 8$ | $3 \cdot 0$ | $3 \cdot 1$ | 2.8 | $3 \cdot 5$ | 4.8 | 6.9 | $7 \cdot 3$ | $5 \cdot 6$ | $4 \cdot 6$ |
| Nickel | $12 \cdot 3$ | $12 \cdot 4$ | 13.5 | $14 \cdot 2$ | $12 \cdot 4$ | $9 \cdot 0$ | 11.0 | $10 \cdot 6$ | 11.0 | $10 \cdot 7$ |
| Pitchblende prod | $0 \cdot 2$ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Platinum metals. | 1.5 | $3 \cdot 4$ | $2 \cdot 6$ | 1.7 | $5 \cdot 4$ | $2 \cdot 6$ | 1.5 | 2.0 | $2 \cdot 2$ | 1.7 |
| Silver | 1.5 | 1.5 | 1.5 | 1.2 | 1.2 | $2 \cdot 1$ | 1.4 | 1.5 | 1.5 | 1.8 |
| Zinc. | $3 \cdot 1$ | $3 \cdot 5$ | $4 \cdot 6$ | 4.9 | $6 \cdot 7$ | 7-3 | $7 \cdot 2$ | 8.0 | $8 \cdot 5$ | 9.4 |
| Totals, Metallics ${ }^{2}$. | $70 \cdot 6$ | 69.2 | $67 \cdot 3$ | 63.5 | $63 \cdot 6$ | 57.8 | $61 \cdot 3$ | 59.6 | 59.8 | 59.0 |
| Coal. | $10 \cdot 4$ | 11.1 | 11.9 | 14.5 | $13 \cdot 5$ | $15 \cdot 0$ | 12.0 | 13.0 | 12.3 | 10.5 |
| Natural gas | $2 \cdot 2$ | 2.4 | $2 \cdot 5$ | $2 \cdot 3$ | $2 \cdot 5$ | $2 \cdot 4$ | $2 \cdot 1$ | 1.9 | 1.3 | 0.6 |
| Petroleum. | $2 \cdot 6$ | 2.8 | $3 \cdot 1$ | $3 \cdot 2$ | $2 \cdot 7$ | $3 \cdot 0$ | $3 \cdot 0$ | $4 \cdot 6$ | 6.8 | $8 \cdot 1$ |
| Totals, Fuels. | $15 \cdot 2$ | 16.3 | 17-5 | 20.0 | 18.7 | 20.4 | 17.1 | 19.5 | 20.4 | $19 \cdot 3$ |
| Non-Metallics (Excluding Fuels) |  |  |  |  |  |  |  |  |  |  |
| Asbestos........................... | 3.8 0.4 | 4.0 0.2 | 4.4 0.3 | 4.2 0.3 |  | 5.0 0.7 | $5 \cdot 1$ 0.7 |  |  |  |
| Gypsum | 0.4 0.2 | 0.2 0.3 | 0.3 0.3 | 0.3 0.3 | 0.4 0.3 | 0.7 0.3 | 0.7 0.3 | 5.1 0.7 0.3 | $0 \cdot 6$ 0.2 | 0.6 0.2 |
| Salt. | 0.6 | 0.7 | 0.8 0.8 | 0.8 | 0.8 | $0 \cdot 7$ | 0.7 | 0.6 | 0.6 | 0.7 |
| Sulphur. | $0 \cdot 3$ | $0 \cdot 4$ | $0 \cdot 3$ | $0 \cdot 4$ | 0.4 | $0 \cdot 4$ | $0 \cdot 3$ | 0.2 | 0.2 | $0 \cdot 2$ |
| Totals, Non-Metallics ${ }^{2}$. | $6 \cdot 1$ | $6 \cdot 5$ | $7 \cdot 3$ | 7-7 | $8 \cdot 0$ | $8 \cdot 7$ | $8 \cdot 5$ | $8 \cdot 2$ | 7-1 | $9 \cdot 0$ |
|  | $1 \cdot 4$ | $1 \cdot 2$ | 1.2 | $1 \cdot 4$ | 1.8 | $2 \cdot 4$ | $2 \cdot 2$ | $2 \cdot 1$ | 2.0 | $2 \cdot 1$ |
| Cement.... | $2 \cdot 3$ | $2 \cdot 5$ | $2 \cdot 2$ | $2 \cdot 4$ | 2.9 | $4 \cdot 0$ | $3 \cdot 4$ | $3 \cdot 4$ | $3 \cdot 6$ | $3 \cdot 4$ |
| Lime. | $1 \cdot 1$ | $1 \cdot 2$ | $1 \cdot 3$ | 1.4 | 1.3 | 1.4 | $1 \cdot 3$ | $1 \cdot 3$ | $1 \cdot 3$ | 1.2 |
| Sand and gra | 1.9 | 1.6 | 1.7 | $2 \cdot 1$ | $2 \cdot 1$ | $3 \cdot 1$ | $3 \cdot 6$ | $3 \cdot 7$ | $3 \cdot 5$ | $3 \cdot 5$ |
| Stone...... | $1 \cdot 4$ | 1.5 | 1.5 | 1.5 | 1.6 | $2 \cdot 2$ | $2 \cdot 6$ | $2 \cdot 2$ | $2 \cdot 3$ | $2 \cdot 5$ |
| Totals, Structural Materials.. | 8.1 | $8 \cdot 0$ | 7.8 | 8.8 | $9 \cdot 7$ | 13.1 | 13.1 | 12.7 | 12.7 | 12.7 |
| Grand Totals. | 100-0 | 100.0 | 100.0 | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |

${ }^{1}$ Not released for publication.
${ }^{2}$ Includes minor items not specified.
Although the year 1926 was not a normal year in mineral production to the same extent as in some other productive fields, the rapid changes that have resulted from circumstances arising since then can be seen more clearly by using 1926 as a base year. Table 4 shows the indexes of volume of mineral production by principal minerals, for the years 1941-50.

## 4.-Indexes of Volume of Mineral Production, by Principal Minerals, 1941-50

( $1926=100$ )

| Mineral | 1941 | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Metalics |  |  |  |  |  |  |  |  |  |  |
| Cobalt. | $39 \cdot 6$ | $12 \cdot 6$ | 26.5 | $5 \cdot 5$ | 16.4 | $11 \cdot 1$ | 86.1 | 232-4 | 93.1 | 87.8 |
| Copper | $483 \cdot 4$ | $453 \cdot 6$ | $432 \cdot 2$ | 411.0 | $356 \cdot 8$ | $276 \cdot 4$ | $339 \cdot 4$ | 361.7 | 395-9 | 397.0 |
| Gold. | 304-7 | $276 \cdot 0$ | $208 \cdot 1$ | $166 \cdot 6$ | $153 \cdot 7$ | $161 \cdot 5$ | $175 \cdot 0$ | $201 \cdot 2$ | $235 \cdot 1$ | 253.2 |
| Lead | 162 -1 | $180 \cdot 5$ | 156.5 | $107 \cdot 3$ | 122.3 | $124 \cdot 7$ | 113.9 | 117.9 | $112 \cdot 6$ | $115 \cdot 8$ |
| Nickel. | 429.5 | $434 \cdot 0$ | $43 \cdot 8$ | 417.9 | 373.0 | 292.4 | 361.0 | 400.9 | 391.7 | 376.4 |
| Platinum meta | $1134 \cdot 6$ | $2598 \cdot 1$ | 1768.8 | $1025 \cdot 6$ | $3412 \cdot 2$ |  |  | $1380 \cdot 1$ | 1719.2 78.9 | 1398.3 103.8 |
| Silver | 97.2 | 92.5 | 77.5 | 60.9 367.4 | 57.9 345.0 | $56 \cdot 1$ 313.9 | $55 \cdot 9$ $277 \cdot 3$ | $72 \cdot 0$ $312 \cdot 3$ | 78.9 384 | 103.8 417.8 |

4.-Indexes of Volume of Mineral Production, by Principal Minerals, 1941-50-concluded

| Mineral | 1941 | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fuels |  |  |  |  |  |  |  |  |  |  |
| Coal | $110 \cdot 6$ | 114.5 | 108.4 | $103 \cdot 3$ | $94 \cdot 1$ | $108 \cdot 1$ | 96.3 | 111.9 | 116.0 | $116 \cdot 1$ |
| Natural gas | $226 \cdot 4$ | 237.9 | $230 \cdot 5$ | $234 \cdot 6$ | 252.0 | $249 \cdot 4$ | 274 -1 | $305 \cdot 1$ | 314.7 | $353 \cdot 1$ |
| Petroleum. | 2780-6 | $2844 \cdot 0$ | 2758-3 | 2771 -2 | 2327-6 | $2081 \cdot 4$ | $2110 \cdot 7$ | $3371 \cdot 3$ | $5846 \cdot 0$ | $7969 \cdot 3$ |
| Non-Metallics (Excluding Fuels) |  |  |  |  |  |  |  |  |  |  |
| Asbestos | 171.0 | $157 \cdot 3$ | 167-2 | 150-1 | $167 \cdot 1$ | 199.8 | 236.9 | $256 \cdot 5$ | $205 \cdot 8$ | $313 \cdot 3$ |
| Gypsum | $180 \cdot 3$ | $64 \cdot 1$ | $50 \cdot 6$ | 67.5 | 95.0 | $204 \cdot 9$ | $282 \cdot 6$ | $364 \cdot 0$ | 341 -1 | 414.9 |
| Quartz.. | 884.5 | 748.9 | $765 \cdot 6$ | $749 \cdot 8$ | $652 \cdot 2$ | $609 \cdot 0$ | $791 \cdot 3$ | $869 \cdot 2$ | 742.2 | 745-7 |
| Salt. | $213 \cdot 6$ | $249 \cdot 0$ | $261 \cdot 9$ | $264 \cdot 8$ | 256.4 | 204-9 | 277.5 | $282 \cdot 3$ | $285 \cdot 3$ | $327 \cdot 1$ |
| Sulphur ${ }^{1}$ | 673.8 | 787.0 | $667 \cdot 3$ | 642-9 | $648 \cdot 1$ | $608 \cdot 4$ | 574-7 | $536 \cdot 4$ | $678 \cdot 6$ | $780 \cdot 5$ |
| Structural Materlals |  |  |  |  |  |  |  |  |  |  |
| Cement | $96 \cdot 1$ | 104.8 | 83.9 | $82 \cdot 6$ | 97-3 | $132 \cdot 8$ | $137 \cdot 1$ | 162.2 | $182 \cdot 8$ | $192 \cdot 3$ |
| Lime. | $208 \cdot 0$ | $213 \cdot 8$ | $219 \cdot 3$ | 213.9 | 201 -1 | $203 \cdot 1$ | $236 \cdot 1$ | $254 \cdot 5$ | $246 \cdot 2$ | 271.6 |
| Sand and gravel | 184-7 | 154.0 | $150 \cdot 4$ | $166 \cdot 0$ | 173.9 | $233 \cdot 4$ | $331-9$ | 401-3 | $370 \cdot 2$ | $427 \cdot 1$ |
| Stone.. | 124-1 | 124-7 | 112.9 | 93.7 | 97.0 | $125 \cdot 9$ | $170 \cdot 2$ | $182 \cdot 8$ | $217 \cdot 7$ | $282 \cdot 7$ |

${ }^{1} 1928=100$, previous years not being comparable.

## Subsection 2.-Provincial Distribution of Mineral Production

Since 1907, Ontario has been the principal mineral-producing province of Canada. In 1942 that Province accounted for 46 p.c. of Canada's total, but its share declined steadily to 36 p.c. in 1951. Alberta's share of the total showed the greatest increase in the ten-year period, rising from 8 p.c. to 14 p.c., and accounted for by the tremendous increase in the crude petroleum output of that Province. The proportion contributed by Quebec increased in the same period from 18 p.c. to 20 p.c. British Columbia, Saskatchewan and Manitoba remained about the same with 14 p.c., 4 p.c., and 2 p.c., respectively, while Nova Scotia decreased from 6 p.c. to 5 p.c. Newfoundland produced 4 p.c. of the total mineral production of Canada in 1951. As compared with 1950, gains in value were registered for all provinces except Nova Scotia, New Brunswick and Manitoba.

## 5.-Mineral Production, by Provinces, 1942-51

Nots.-Figures for the years 1899-1910, inclusive, will be found at p. 345 of the 1933 Year Book; for 1911-28 at p. 323 of the 1939 edition; and for 1929-41 at p. 323 of the 1946 edition.

| Year | Newfoundland | Nova Scotia | New <br> Brunswick | Quebec | Ontario | Manitoba |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | $\delta$ | \$ | \$ | \$ | \$ |
| 1942. | ... | 32,783,165 | 3,609,158 | 104,300,010 | 259,114,946 | 14,345,046 |
| 1943 | $\ldots$ | 29,979,837 | 3,676,834 | 101, 610,678 | 232, 948,959 | 13,412,266 |
| 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. | ... | 34, 255, 560 | 5,812,943 | $115,151,635$ | 249,797,671 | 18,236,763 |
| 1948 |  | 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 |
| 1951D............. | 32,828,771 | 59,387,855 | 10,282,408 | 249,553,652 | 437,085, 123 | 28,397,223 |
|  | Saskatchewan | Alberta | British Columbia | Yukon Territory | Northwest Territories | Canada |
|  | \$ | 8 | \$ | \$ | 8 | \$ |
| $1942 .$ | 20,578,749 | 47,359,831 | 77,247,932 | 3,453,568 | 3,976,267 | 566,768,672 |
| $\begin{aligned} & 1943 . \\ & 1944 . \end{aligned}$ | $26,735,984$ $22,291,848$ | 48,941,210 | 68,442,386 | 1,625,819 | 2,679,993 | 530,053,966 |
| 1945 | 22,336,074 | 51,753,237 | 64, ${ }^{5633,842}$ | $1,939,319$ $1,239,058$ | $1,440,069$ 470,812 | $485,819,114$ $498,755,181$ |
| 1946. | 24,480,900 | $60,082,513$ | 74,622,846 | 1,693.904 | 1,039,525 | 502,816,251 |
| 1947. | 32, 594,016 | $67,432,270$ | 116,772, 621 | 2,095,508 | 2,720,988 | 644,869,975 |
| 1948. | 34,517, 208 | 93,211,229 | $148,223,614$ | $4,265,910$ | 4.267 .485 | 820,248,865 |
| 1948. | 36,054, 536 | 113,728,425 | ${ }^{136}, 385,911$ | $5,099,176$ | 6,801.729 | 901,110,026 |
|  | 35,983,923 | 135,758,940 | 138,888, 205 | 9,035,696 | 8,050,899 | 1,045,450,073 |
| 1851 D | 50,907,504 | 173,230,766 | 168,293,273 | 9,809,223 | 8,229,681 | 1,228,005,479 |

Note．－Detailed figures for the year 1949 have not been published in the Year Book，but are available from the Dominion Bureau of Statistics．

| Mineral | New－ foundland | Nova Scotia | New <br> Brunswick | Quebec | Ontario | Manitoba | Saskat－ chewan | Alberta | British Columbia | North－ west Terri－ tories | Yukon Territory | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Metals ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Antimony．．．．．．．．．．．．．．．．lb． | － | － | － | － | － | $\rightarrow$ | － | － | 643，540 | － | － | 643，540 |
|  | － | － | － | 二 | 29 | － | － | 二 | 215，586 | － | － | $215,586$ |
| Beryllium ore．．．．．．．．．．．．．．．ton | － | － | 二 | － | 7，882 | － | － | 三 | － | － | － | 29 7,882 |
| Bismuth．．．．．．．．．．．．．．．．．．．．．lb． | － | － | － | 29，005 | 7，882 | － | － | － | 162，616 | － | － | 191，621 |
| \＄ | － | － | － | 65,261 | － | － | － | － | 365，886 | － | － | 431，147 |
| Cadmium．．．．．．．．．．．．．．．．．lb． | － | － | － | － | － | 69，954 | 71，502 | － | 650，540 | － | 56，410 | 848，406 |
| Cobalt | － | － | － | － | 583.806 | 162，293 | 165，885 | － | 1，509， 253 | － | 130，871 | 1，968，302 |
| Cobalt．．．．．．．．．．．．．．．．．．．lb． | － | $\square$ | 二 | － | 583，806 | － | － | － | － | － | － | 583，806 |
| Copper ．．．．．．．．．．．．．．．．．．． 1 lb ． | 6，442， $\mathbf{B}^{25}$ | － | － | 145，$\overline{81}$ ， 371 |  | 634 | 963，500 | － | 175，359 | － | － | 964,003 $528,418,296$ |
| Copper．．．．．．．．．．．．．．．．．．．．．．．．．． | 1，508，910 | － | － | 34，141，997 | 234，411，033 | 9，750，846 | 13，575，052 | － | $4,823,569$ | － | － | 123，211，407 |
| Gold．．．．．．．．．．．．．．．．．．．．ozt． | 9，254 | －65 | － | 1，094，645 | 2，481， 110 | 191，725 | －79，784 | 152 | 290，490 | 200，663 | 93，339 | 4，441，227 |
| \％ | 352，115 | 2，473 | － | 41，651，242 | 94，406，236 | 7，295，136 | 3，035，781 | 5，784 | 11，053，144 | 7，635，227 | 3，551，549 | 168，988，687 |
| Indium．．．．．．．．．．．．．．．．．．．．．oz． ， | ， | － | － | － | － | － | － | － | 4，952 | － | － | 4．952 |
| Iron ore．．．．．．．．．．．．．．．．．．．．．．．ton | 169，545 | － |  | － |  | － | － | － | 12，083 | － | － | 12，083 |
| \＄ | 5，851， 488 | － | － | － | 17，562，059 | － | － | － | 二 | 二 |  | $3,605,261$ $23,413,547$ |
| Iron ingots．．．．．．．．．．．．．．．．．．ton | 5，851，488 | － | － | 1，697 | － | － | － | － | － | － | － | 1，697 |
| \＄ | － $\overrightarrow{-}$ | － | － | 138，284 | － | － | － | － | － | － | － | 138，284 |
| Lead．．．．．．．．．．．．．．．．．．．．．．．．．．lb． | 35，836，124 | － | － | 15，352，770 | － | － | － | － | 267，319，716 | － | 12，885，518 | 331，394，128 |
| Magnesium and calcium \％ | $5,178,320$ | － | － | 2，218， 475 | 1， $\overrightarrow{45}, 011$ | － | － | － | 38，627，700 | － | 1，861，957 | 47，886，452 |
| Magnesium and calcium．．．．．．\％ | 5， | － | － | 103，550 | 1，545， 011 | － | － | － | ， | － | 1，861，857 | 1，545， 011 |
| Molybdenite．．．．．．．．．．．．．．．．． 1 lb ． | － | － | － | 103，550 | 1，515，01 | － | － | － | － | － | － | 103，550 |
| Nickel ${ }^{8}$ | － | － | － | 60，059 | － | － | － | － | － | － | － | 60，059 |
| Nickel．．．．．．．．．．．．．．．．．．．．．lb． | － | － | － | － | 247，317，867 | － | － | － | － | － | － | 247，317，867 |
| Palladium，rhodium，iridium \＄ | － | － | － | － | 112，104，685 | － | － | － | － | － | － | 112，104， 685 |
| etc．．．．．．．．．．．．．．．．．．．．．．．．．．．．oz t． | － | － | － | － | 148，730 | － | － | － | 11 | － | － | 148，741 |
| Platin 8 | － | － | － | － | 7，576，528 | － | － | － | 1，616 | － | － | 7，578，144 |
| Platinum．．．．．．．．．．．．．．．oz t ． | － | － | － | － | 124，453 | － | － | － | 118 | － | － | 124，571 |
|  | － | － | － | － | 10，246，215 | － | － | － | 9，714 | － | － | 10，255，929 |
| Selenium．．．．．．．．．．．．．．．．．．lb． | － | － | 二 | 46，245 | $\begin{array}{r}63,709 \\ 154 \\ \hline\end{array}$ | 40，543 | 111，476 | － | － | － | － | 261，973 |
| Silver．．．．．．．．．．．．．．．．．oz ${ }_{\text {t }}^{\mathbf{t}}$ ． |  | 2 |  | ＋ 111,913 | ＋154，176 | 98，114 | 269，772 | 14 |  | － 111 |  | 633，975 |
| 退 | 465， 138 | 2 | 二 | 4，510，319 | 4，408，020 | 891，893 | 1，207，796 | 11 | 8，528，107 | 62， 111 | $3,202,779$ | 23，221，431 |
| Tellurium．．．．．．．．．．．．．．．．． lb ． | 6， | － | － | 510，310 | － 6,010 | 1，084 | 2，981 | － | － | 50， | － | 18，10，075 |
| Tin ${ }^{8}$ | － | － | － | － | 11，419 | 2，060 | 5，664 | － | － | － | － | 19,143 |
| Tin．．．．．．．．．．．．．．．．．．．．．．．．． $\mathrm{lb}_{8}$ | 二 | － | － | － | － | － | － | $\cdots$ | 796，403 | － | － | 796，403 |


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| Mineral | New－ foundland | Nova Scotia | New Brunswick | Quebec | Ontario | Manitoba | Saskat－ chewan | Alberta | British Columbia | North－ west Terri－ tories | Yukon | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Non－Metallics <br> （Excluding Fuels）－concluded |  |  |  |  |  |  |  |  |  |  |  |  |
| Soapstone and talc．．．．．．．．．ton | － | － | － | 17，209 | 15，263 | － | － | － |  | － | － | 32，604 |
|  | 二 | $\underline{\square}$ | 二 | 181，263 | 182，048 | － |  | － | 1，324 | － |  | 364，635 |
| Sodium sulphate．．．．．．．．．．．．ton |  |  | 二 | － | － | － | 130,730 $1,615,867$ | － | － | － |  | $1,615,867$ |
| Sulphur．．．．．．．．．．．．．．．．．．．．．ton | － | － | － | 144， 675 | 13，154 |  | 1，615，86 |  | 143，343 |  |  | 1，301，172 |
| Titanu diocide | － | － | － | 627，594 | 131，540 | － | － | － | 1，430，526 | － |  | 2，189，660 |
| Titanium dioxide．．．．．．．．．．ton | 二 |  |  | 1,596 149.565 | － |  | － |  | － |  |  | 1,596 149,565 |
| Totals，Non－Metallies．．．．．．\＄ | 1，290，361 | 5，852，709 | 550，206 | 68，823，391 | 10，450，939 | 1，438，376 | 2，078，565 | 541，987 | 3，695，030 | － | － | 94，721，564 |
| Fuels |  |  |  |  |  |  |  |  |  |  |  |  |
| Coal．．．．．．．．．．．．．．．．．．．．．．ton | － | 6，478，405 | 607，116 | － | － | － | 2，203，223 | 8，116，220 | 1，730，445 | － | 3，703 | 19，139， 112 |
| Netural ${ }^{\text {ces }}$ |  | 50，256，367 | 4，371，076 |  | 8 ， 000 |  | 4，044，697 | 41，687， 211 | 9，740，088 |  | 40，960 | 110，140，399 |
| Natural gas．．．．．．．．．．．．．M cu．ft． |  | － | 361，877 |  | 8，009，488 |  | 813，554 | $58,603,976$ | － | 33，335 |  | 67，822，230 |
|  | 二 | － | 214，665 | － | 3，203，795 | － | 71，564 | 2，930，199 | － | 12，818 | － | 6，433，041 |
| Peat．．．．．．．．．．．．．．．．．．．．．．．ton | ＝ | － | 二 | － |  | 二 | 二 | 二 | － | － |  | 58 580 |
| Petroleum，crude ．．．．．．．．．bbl． | － | － | 17，137 | － | 250,655 | － | 1，041，098 | 27，548，169 | － | 186，729 | － | 29，043，788 |
| Petroleum，crade ．．．．．．．．．．．bb． |  |  | 23，992 |  | 892，000 |  | 1，134，797 | 82，216，492 | －－ | 352，656 |  | 84，619，937 |
| Totals，Fuels． | － | 50，256，367 | 4，609，733 | － | 4，096，375 | － | 5，251，058 | 126，833，902 | 9，740，088 | 365，474 | 40，960 | 201，193，957 |
| Clay products，brick，tile，etc \＆ |  |  |  |  |  |  |  |  |  |  |  |  |
| Clay products，brick，tile，etc．$\delta$ Cement． $\qquad$ | 31，089 | 1，126，969 | 681，139 | $6,324,387$ $6,920,413$ | $9,323,263$ $5,313,521$ | 690,730 $1,642,312$ | 581，506 | $1,950,309$ $1,589,713$ | ${ }_{1}^{1,081,496}$ | 二 | 二 | $21,790,888$ $16,741,826$ |
|  | － | － |  | 14，523，855 | 10，953，896 | 3，963，464 | 二 | 3，364，613 | 3，088， 296 | － | － | 35，894， 124 |
| Lime．．．．．．．．．．．．．．．．．．．．．．ton | 396 | － | 23，694 | 393．905 | 571，490 | 49，281 | － | 33，564 | 51，858 | － |  | 1，124，188 |
|  | 20，436 |  | 387，431 | 3，823，901 | 6，030，228 | 673，070 |  | 435，342 | 910，676 | － |  | 12，281，084 |
| Sand and gravel．．．．．．．．．．．．ton | 1， 619,389 | 1，600，932 | 4，789，585 | 20，313，415 | 30，271，214 | 2，720，951 | 2，104，797 | 3，866，662 | 5，808，218 | － | － | 73，095，163 |
|  | 780,315 | 1，488， 593 | 2，997，779 | 7，172，632 | 15，551，406 | 721，494 | 1，439，870 | 2，572，795 | 3，709，875 | － | － | 36，434，759 |
| Stone． | $\begin{aligned} & 469,651 \\ & 787,228 \end{aligned}$ | $\begin{aligned} & 254,797 \\ & 755,060 \end{aligned}$ | $\begin{aligned} & 3,060,942 \\ & 3,530,687 \end{aligned}$ | $\begin{array}{r} 6,726,729 \\ 10,741,698 \end{array}$ | $\begin{aligned} & 5,716,059 \\ & 7,843,124 \end{aligned}$ | $\begin{aligned} & 239,859 \\ & 459,059 \end{aligned}$ | 二 | $\begin{aligned} & 12,894 \\ & 54,197 \end{aligned}$ | $\begin{aligned} & 1,606,13 \\ & 1,724,304 \end{aligned}$ | 二 |  | $\begin{aligned} & 18,087,064 \\ & 25,895,357 \end{aligned}$ |
| Totals，Structural Materials \％ | 1，619，068 | 3，370，622 | 7，597，036 | 42，586，473 | 49，701，917 | 6，507，817 | 2，021，376 | 8，377，256 | 10，514，647 | － | － | 132，296，212 |
| Grand Totals，1950．．．．\＆ | 25，824，047 | 59，482，173 | 12，756，975 | 220，176，517 | 366，801，525 | 32，691，173 | 35，983，923 | 135，758，940 | 138，888，205 | 8，050，899 | 9，035，696 | 1，045，450，073 |
| 1949．．．．．\＄ | 27，583，615 | 56，092，830 | 7，134，009 | 165，021，513 | 323，368，644 | 23，839，638 | 36，054，536 | 113，728，425 | 136，385，911 | 6，801，729 | 5，099，176 | 901，110，026 |

## Subsection 3.-Production of Metallic Minerals

The metals of chief importance in Canada are copper, gold, iron, lead, nickel, those of the platinum group, silver and zinc. 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).

Copper.-Copper production increased about $2 \cdot 4$ p.c. in 1951 to 270,500 tons. This was the largest tonnage reported in the post-war period but it was less than the amount recovered in each of the years from 1938 to 1944, inclusive, and was about 16 p.c. below the record of 321,700 tons in 1941.

According to the preliminary figures, the output in Ontario, which usually accounts for about one-half of the total, was approximately 10 p.c. greater in 1951 than in 1950. In British Columbia and in the Manitoba-Saskatchewan producing area there were small advances over the previous year but in Quebec there was a decline of about 4 p.c. and in Newfoundland a decrease of more than 14 p.c.

About 48 p.c. of Canada's copper comes from the nickel-copper mines in the Sudbury district of Ontario. Converter copper is produced and further treated at Copper Cliff, and nickel-copper matte produced at Falconbridge is exported to Norway for refining. Mines in northern Quebec account for 26 p.c. of Canada's copper production. These ores are treated at Noranda to produce copper anodes which are shipped to Montreal, Que., for refining. Ores from the Flin Flon-Sherritt Gordon area in northern Manitoba, and extending over the border into Saskatchewan, are also treated at Noranda and the blister copper recovered is shipped to Montreal for refining. Mines in this area account for 17 p.c. of production. British Columbia mines account annually for about 8 p.c. of Canada's copper, and concentrates produced in this area are exported to the United States for treatment. Concentrates from Newfoundland, that amount to about 1 p.c. of the total, are exported to Belgium and to the United States.

Output of refined copper was slightly greater in 1951 than in 1950, amounting to 246,000 tons. A larger percentage was channelled into Canadian industry, the amount being 134,000 tons or 54 p.c. of production compared with 107,000 tons or 45 p.c. of the total in 1950. Exports dropped off accordingly to 102,000 tons from 134, 000 tons. About 51 p.c. of the 1951 exports went to the United Kingdom compared with 48 p.c. in the previous year while only 28 p.c. went to the United States as against 38 p.c. in 1950. About 37,000 tons of copper were exported in the form of ores and concentrates or in nickel-copper matte.

## 7.-Copper Production, by Provinces, with Total Values, 1942-51

Nore.-Figures for the years 1866-1910, inclusive, will be found at p. 272 of the 1916-17 Year Book; for the years 1911-28 at p. 335 of the 1939 edition; and for 1929-41 at p. 331 of the 1946 edition.

| Year | Newfoundland | Quebec | Ontario | Manitoba | Saskatchewan | British Columbia | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Quantity | Value |
|  | tons | tons | tons | tons | tons | tons | tons | \$ |
| 1942. | ... | 70,456 | 154,141 | 23,798 | 28,391 | 25,008 | 301, $831{ }^{1}$ | 60,417,372 ${ }^{1}$ |
| 1943 | ... | 65,582 | 138,920 | 18,007 | 42,974 | 21,112 | 287,595 | 67,170,601 |
| 1944. | ... | 54,027 | 142,654 | 21,939 | 36,757 | 18,152 | 273,535 ${ }^{\text { }}$ | 65, 257, $172^{1}$ |
| 1945. | ... | 51,342 | 119,726 | 20,563 | 32,950 | 12.876 | 237,457 | 59,322, 261 |
| 1946. | $\ldots$ | 34,899 | 89,712 | 19,250 | 31,356 | 8,750 | 183,968 | 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 | 263,457 | 104,719,151 |
| 1950 | 3,221 | 72,891 | 117,210 | 20,817 | 28,982 | 21,086 | 264, 209 | 123,211,407 |
| 1951 P | 2,755 | 69,896 | 128,889 | 15,460 | 31,577 | 21,906 | 270,483 | 149,313,083 |

[^166]MINERAL PRODUCTION I925-5I
(QUANTITY AND VALUE OF LEADING METALLICS)








Gold.-The gradual increase in gold production in recent years in the face of rising costs was reversed in 1951 when there was a decline of about 2.5 p.c. to $4,329,000 \mathrm{oz} \mathrm{t}$. Had it not been for the prolonged strike at the Hollinger mine, there probably would have been little difference in the figures for 1950 and 1951. The present rate of production is greater than at any other time except the fiveyear period from 1938 to 1942, inclusive. The record output was in 1941 at $5,345,000 \mathrm{oz} \mathrm{t}$.

The cancellation in September 1950 of the officially controlled rates of foreign exchange and the subsequent rise of the Canadian dollar in terms of the United States dollar brought about a decline in the average price of gold to $\$ 36 \cdot 82 \mathrm{per} \mathrm{oz} \mathrm{t}$. in 1951, in terms of Canadian currency, from $\$ 38 \cdot 05$ in 1950. On the other hand, the decision of the Government early in October 1951 to permit sales of industrial gold in the premium market, while not of much advantage in 1951, should be of considerable benefit in the future particularly to the mines receiving little help from the Emergency Gold Mining Assistance Act.

Ontario's mines accounted for over 56 p.c. of the 1951 output and Quebec's mines for nearly 25 p.c. Only the Northwest Territories and Saskatchewan showed higher figures than in 1950 but declines in other provinces were not great.

Gold still leads all other mine products in annual value of production and the gold-mining industry holds first place in Canada's mineral economy. With regard to employment, it is nearly the same as coal mining and considerably ahead of other mining industries. It spends about $\$ 40,000,000$ annually on mine and mill supplies, electricity and fuels.

## 8.-Quantities and Values of Gold Produced, by Provinces, 1942-51

Note.-Values are calculated at world prices in Canadian funds. Figures for the years 1862-1910, inclusive, will be found at pp. 268-270 of the 1916-17 Year Book; for the years 1911-28 at pp. 336-37 of the 1939 edition; and for 1929-41 at p. 332 of the 1946 edition.

| Year | Newfoundland |  | Nova Scotia |  | Quebec |  | Ontario |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
|  | ozt. | \$ | ozt. | \$ | ozt. | 8 | ozt. | \$ |
| 1942. | $\ldots$ | ... | 12.989 | 500,076 | 1,092,388 | 42,056,938 | 2,763,819 | 106,407,032 |
| 1943. | ... | ... | 4,129 | 158,967 | 922,533 | 35,517,521 | 2,117,215 | 81,512,777 |
| 1944. | ... | ... | 5,840 | 224,840 | 746,784 | 28,751, 184 | 1,731,836 | 66,675,686 |
| 1945. | $\ldots$ | ... | 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 |
| 1951D.... | 8.070 | 297,480 | 17 | 626 | 1,061,113 | 39,102,088 | 2,445,902 | 90,131,489 |
|  | Manitoba |  | Saskatchewan |  | Alberta |  | British Columbia |  |
|  | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
|  | ozt. | \$ | ozt. | \$ | ozt. | \$ | ozt. | \$ |
| 1942. | 136,226 | 5,244,701 | 178,871 | 6,886,533 | 34 | 1,309 | 474,339 | 18,262,052 |
| 1943. | 91,775 | 3,533, 337 | 174,090 | 6,702,465 | 21 | , 808 | 241,346 | 9,291,821 |
| 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 | 1269 | 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 |
| 1951P. | 162,257 | 5,979,170 | 113,967 | 4,085,717 | 97 | 3,574 | 252,015 | 9,286,753 |

8.-Quantities and Values of Gold Produced, by Provinces, 1942-51-concluded

| Year | Yukon Territory |  | Northwest Territories |  | Canada |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value |
|  | ozt. | \$ | ozt. | \$ | ozt. | 8 |
| 1942. | 83,246 | 3,204,971 | 99,394 | 3,826,669 | 4,841,306 | 186,390,281 |
| 1943. | 41,160 | 1,584,660 | 59,032 | 2,272,732 | 3,651,301 | 140,575, 088 |
| 1944. | 23,818 | 916,993 | 20,775 | 799,838 | 2,922,911 | 112,532,073 |
| 1945. | 31,721 | 1,221,258 | 8.655 | 333,218 | 2,696,727 | 103,823,990 |
| 1946. | 45,286 | 1,664,260 | 23,420 | 860.685 | 2,832,554 | 104,096,359 |
| 1947. | 47,745 | 1,671,075 | 62,517 | 2,188,095 | 3,070,221 | 107,457,735 |
| 1948. | 60,614 | 2,121,490 | 101,625 | 3,556,875 | 3,529,608 | 123,536,280 |
| 1949. | 81.970 | 2,950,920 | 177,493 | 6,389,748 | 4,123,518 | 148,446,648 |
| 1950. | 93,339 | 3,551,549 | 200,663 | 7,635, 227 | 4,441,227 | 168,988,687 |
| 1951P. | 75,042 | 2,765,298 | 210,451 | 7,755,119 | 4,328,931 | 159,407,314 |

Iron Ore.-Production of iron ore in 1951 at $4,700,000$ tons was the largest on record being about 31 p.c. over the 1950 figure. This tonnage is also close to the country's present requirements but the premium quality ores from northern Ontario are in demand by the steel makers in the United States, so that there is an exchange of more than $3,000,000$ tons annually.


Developments now under way in the iron-ore industry give promise of greatly increased production within the next few years. The Wabana mine in Newfoundland is being completely mechanized and output will be stepped up next year; the Helen mine in the Michipicoten district in northern Ontario has changed over to underground operations; and Steep Rock in northwestern Ontario is proceeding steadily with its expansion program. Near Marmora, in southeastern Ontario, the Bethlehem

Steel Corporation has outlined a large body of magnetite ore and is now preparing to bring the property into production. In Quebec-Labrador, the 360 -mile railway from Seven Islands on the St. Lawrence River.is being speeded up, additional reserves of ores have been established and initial shipments are expected in 1954.

## 9.-Iron-Ore Shipments and Production of Pig-Iron, Ferro-Alloys and Steel Ingots and Castings, 1942-51

Notr.-Figures for the years 1886-1910, inclusive, will be found st p. 373 of the 1936 Year Book; for the years 1911-28 at p. 340 of the 1939 edition; and for $1929-41$ at p. 333 of the 1946 edition.

| Year | Iron-Ore Shipments from Canadian Mines | Production of Pig-Iron |  |  | Production of FerroAlloys | Production of Steel Ingots and Castings |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Nova Scotia | Ontario | Canada |  |  |
|  | short tons | short tons | short tons | short tons | short tons | short tons |
| 1942. | 545,306 r | 467,951 | 1,507,063 | 1,975,014 | 209,017 | 3,109,851 |
| 1943 | 641,294 | 345,722 | 1,412,547 | 1,758,269 | 197, 094 | 3,004, 124 |
| 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 | 1,682,309 | 2,125,739 | 232,734 | 3,200,480 |
| 1949 | 3,675,096 | 472,885 | 1,681,600 | 2,154,485 | 202,092 | 3,190,377 |
| 1950. | 3,605,261 | 513,029 | 1,804,092 | 2,317,121 | 180,499 | 3,383,575 |
| 1951 D | 4,736,190 | 485,900 | 2,066,796 | 2,552,696 | 250,930 | 3,567,361 |

${ }^{1}$ Includes production of 1,272 tons in British Columbia.
Lead.-Output of lead at 152,500 tons in 1951, was the smallest recorded since 1944 and it was 8 p.c. ${ }^{\text {below }} 1950$ and 40 p.c. under the record production of 256,071 tons in 1942. In British Columbia, which is the principal producing area, output decreased by 11,000 tons or 8 p.c. from the 1950 figure and in Newfoundland it declined nearly $\mathbf{2 , 0 0 0}$ tons or 10 p.c. In Yukon Territory and in Quebec recoveries were maintained at about the same level as for 1950.

Production of refined lead, including some made at the Trail smelter from imported ores, totalled 163,000 tons of which about 60,000 tons or 37 p.c. were retained for home consumption. Here again there was a marked shift in the direction of exports with 33 p.c. going to the United Kingdom compared with only 7 p.c. in 1950, and 57 p.c. to the United States as against 91 p.c. in the previous year.

## 10.-Quantities and Values of Lead Produced from Canadian Ores, 1942-51

Nors.-Figures for the years 1887-1910, inclusive, will be found at p. 367 of the 1929 Year Book; for 1911-28 at p. 341 of the 1939 edition; and for 1929-41 at p. 333 of the 1946 edition.

| Year | Quantity | Value | Year | Quantity | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | \$ |  | tons | \$ |
| 1942.. | 256,071 | 17,218,233 | 1947. | 161,668 | 44,200,124 |
| 1943. | 222,030 | 16,670,041 | 1948...................... | 167,251 | 60,344,146 |
| 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 ${ }^{\text {b }}$ | 152,500 | 56,119,829 |

Nickel.-About 90 p.c. of the world's nickel comes from the Sudbury area in northern Ontario. There are two large operators in this district, the International Nickel Company of Canada Limited which has a smelter at Copper Cliff and a nickel refinery at Port Colborne, Ont., and the Falconbridge Nickel Mines Limited which operates a smelter at the mine site but exports the matte to Norway for refining. Some nickel was recovered in the form of oxides and salts from cobalt ores treated at the Deloro smelter of the Deloro Smelting and Refining company.

A gain of 11 p.c. in 1951 brought the output of nickel to 137,000 tons, almost 5 p.c. below the record of 144,000 tons attained in 1943. Expansion programs are under way by both major producers in the Sudbury area. Sherritt-Gordon Mines Limited is constructing a refinery, to process Lynn Lake concentrates, at Edmonton which should be ready for operation in 1954.

Consumption of refined nickel by Canadian users was only about 2,000 tons in 1951, while exports totalled 72,357 tons. Exports of nickel in matte and oxide aggregated 58,826 tons.

## 11.-Quantities and Values of Nickel Produced, 1942-51

Nots.-Figures for the years 1889-1910, inclusive, will be found at p. 368 of the 1929 Year Book; for 1911-28 at p. 342 of the 1939 edition; and for 1929-41 at p. 333 of the 1946 edition.

| Year | Quantity | Value | Year | Quantity | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | \$ |  | tons | \$ |
| 1942. | 142,606 | 69,998,427 | 1947. | 118,626 | 70,650,764 |
| 1943. | 144,009 | 71,675,322 | 1948. | 131,740 | 86,904, 235 |
| 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 | 1951P. | 137,268 | 150,647,472 |

Metals of the Platinum Group.-This group of metals includes palladium, rhodium, ruthenium, osmium and iridium, with platinum and iridium as the most important. These metals occur in the nickel-copper ore of the Sudbury district and are recovered in the tank residues from the nickel refinery at Port Colborne, Ont. The crude residues are sent to the refinery at Acton, England, for refining. The large increase in the output of nickel-copper ores has made Canada the leading producer of platinum since 1934, when it displaced the U.S.S.R. The industrial uses of the platinum metals have expanded considerably in recent years, particularly in electrical and chemical equipment, jewellery and in medical and dental appliances. Canada produced $317,000 \mathrm{oz} \mathrm{t}$. of platinum metals with a total value of $\$ 22,536,000$, in 1951.

## 12.-Quantities and Values of Platinum and Iridium ${ }^{1}$ Produced, 1942-51

Note,-Records of the platinum production in Canada 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 the years 1921-39 will be found at p. 340 of the 1940 Year Book and for 1940-41 at p. 513 of the 1951 edition.

| Year | Platinum |  | Iridium ${ }^{1}$ |  | Year | Platinum |  | Iridium ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | t. | \$ | ozt. | \$ |  | oz t. | \$ | Ozt. | \$ |
| 1942 | 285,228 | 10,898,561 | 222,573 | 8,279,221 | 1947.. | 94,570 | 5,582,467 | 110,332 | 4,387,740 |
| 1943 | 219,713 | 8,458,951 | 126,004 | 5,233,068 | 1948.. | 121,404 | 10,622,850 | 148,343 | 6,295,132 |
| 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 | $8,017,010$ $7,672,791$ | 458,674 117,566 | $18,671,074$ $5,162,801$ | 1950. | 124,571 154,956 | $10,255,929$ $14,681,796$ | 148,741 162,480 | $7,578,144$ $7,854,083$ |

[^167]Silver.-Silver production in 1951 at $24,245,000$ oz t . was the greatest since 1930 and except for that one year it was better than at any time since the period from 1909 to 1916, when operations in the Cobalt district were at their height. The renewed activity in this area brought about a further increase of 21 p.c. in Ontario's output which totalled $5,357,000 \mathrm{oz} \mathrm{t} .\mathrm{in} \mathrm{1951}. \mathrm{Saskatchewan's} \mathrm{output}$ increased by 24 p.c. over that of 1950 and in Yukon Territory there was an advance in production of nearly 13 p.c.; in other areas the recoveries were slightly less than in 1950.

Silver mining is not a distinct industry in Canada as the silver-bearing minerals occur in association with other metals of economic value. Most of the metal is obtained from the treatment of base-metal ores although substantial amounts are recovered from gold-quartz ores and from alluvial gold deposits. In 1951, approximately 35 p.c. of Canada's silver came from British Columbia, 22 p.c. from Ontario, 17 p.c. from Quebec, nearly 15 p.c. from the Yukon and Northwest Territories, and about 6 p.c. from Saskatchewan.

The average price of silver at $94 \cdot 6$ cents per oz t. in Canadian funds in 1951 was the highest since 1920.

## 13.-Quantities of Silver Produced, by Provinces, with Total Values, 1942-51

Note.-Figures for the years 1887-1910, inclusive, will be found at p. 271 of the 1916-17 Year Book; for the years 1911-28 at p. 345 of the 1939 edition; for 1929-41 at p. 334 of the 1946 edition.

| Year | Average <br> Price per ozt. <br> (Canadian funds) | Newfoundland | Nova Scotia | Quebec | Ontario | Manitoba |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | cts. | ozt. | ozt. | ozt. | ozt. | oz t. |
| 1942. | $42 \cdot 17$ |  | 446 | 1,655,042 | 4,452,787 | 821,824 |
| 1943. | 45.84 | $\ldots$ | 144 | 2,212,115 | 2,671,320 | 587,279 |
| 1944. | 43.00 | ... | 188 | 2,500,681 | 3,143,275 | 569,873 |
| 1945. | $47 \cdot 00$ | ... | 112 | 2,149,570 | 3, 185,369 | 533,883 |
| 1946. | $83 \cdot 65$ | $\ldots$ | 146 | 1,916,453 | 2,485, 215 | 528,017 |
| 1947. | 72.00 | ... | 97 | 2,134,189 | 2,342,032 | 424,365 |
| 1948. | 75.00 | $\cdots$ | 8 | 2,376,754 | $3,210,107$ | 737,298 |
| 1949. | $74 \cdot 25$ | 585, 966 | 3 | 3,250,578 | 2,562,859 | 554,266 |
| $1950 . \ldots .$. | 80.82 | 575,524 | 2 | $4,343,379$ | $4,408,620$ | 893,099 |
| 1951P.......... | 94.59 | 513,039 | - | 4,201,879 | 5,357,440 | 579,840 |
|  | Saskatchewan | British Columbia | Yukon Territory | Northwest Territories | Canada ${ }^{\text {1 }}$ |  |
|  | ozt. | ozt. | ozt. | ozt. | ozt. | oz t. |
| 1942. | 2,664,132 | 10,596,204 | 482,133 | 22,531 | 20,695,101 | 8,726,296 |
| 1943. | 2,812,624 | 8,995,488 | 52,348 | 13,250 | 17,344,569 | 7,849,111 |
| 1944. | 1,735,773 | 5,631,572 | 32,066 | 13,677 | 13,627,109 | 5,859,656 |
| 1945 | 1,426,457 | 5,620,323 | 25,158 | 2,033 | 12,942,906 | 6,083, 166 |
| 1946 | 1,498,496 | 6.078,419 | 31,230 | 6,112 | 12,544,100 | 10,483,139 |
| 1947. | 1,282,546 | 5,903,367 | 372,051 | 45,355 | 12,504,018 | 9,002,893 |
| 1948 | 1,323,900 | 6,717,908 | 1,718,618 | 25,382 | 16,109,982 | 12,082,487 |
| 1949. | 1,482,009 | 7,573,506 | 1,562,730 | 70,505 | 17,641,493 | 13,098,808 |
|  | 1,207,796 | 8,528,107 | 3,202,779 | 62,111 | 23,221,431 | 18,767,561 |
| 1951D. | 1,494,239 | 8,424,935 | 3,612,900 | 60,668 | 24,244,949 | 22,933,074 |

${ }^{1}$ Includes relatively small quantities produced in Alberta.
Zinc.-In contrast to copper, lead and nickel, the 1951 output of zinc was higher than in the peak war years and exceeded the former record year 1950 by about $6 \cdot 6$ p.c. or 334,000 tons. In British Columbia and in the Manitoba-Saskatchewan area there were production gains of about 10 p.c., and there was also a
substantial increase in Newfoundland. Quebec, which is second among the provinces in zinc production, accounted for about 26 p.c. of the Canada total, the output being practically the same as in 1950.

About 65 p.c. of the total zinc is refined in Canada and a considerable tonnage of zinc is recovered at Trail, B.C., from the treatment of imported ores. Output totalled 219,000 tons in 1951 of which about 61,000 tons were shipped to Canada users. Exports of refined zinc totalled 146,000 tons, including 84,000 tons to the United States and 55,000 tons to the United Kingdom. The percentage shipped to the United Kingdom rose to 38 p.c. from 24 p.c. in 1950 while that for the United States dropped to 58 p.c. from 74 p.c.

## 14.-Quantities and Values of Zinc Produced, 1942-51

Note.-Figures for the years 1911-28 are given at p. 347 of the 1939 Year Book; for 1929-41 at p. 335 of the 1946 edition.

| Year | Quantity ${ }^{\text { }}$ | Value | Average Price per lb. | Year | Quantity ${ }^{1}$ | Value | Average Price per lb. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | \$ | cts. |  | tons | \$ | cts. |
| 1942. | 290,129 | 19,792,579 | $3 \cdot 411$ | 1947.. | 207,863 | 46,686,010 | $11 \cdot 230$ |
| 1943. | 305,377 | 24,430, 174 | 4.000 | 1948. | 234,164 | 65, 237, 956 | 13.930 |
| 1944. | 275,412 | 23.685,405 | $4 \cdot 300$ | 1949. | 288,262 | 76,372,147 | 13.247 |
| 1945. | 258,607 | 33,308,556 | 6.440 | 1950. | 313,227 | 98,040,145 | $15 \cdot 650$ |
| 1946. | 235,310 | 36,755,450 | 7-810 | 1951P | 333,936 | 132,906,483 | $19 \cdot 900$ |

${ }^{1}$ Estimated foreign smelter recoveries and refined zinc produced in Canada.

## Subsection 4.-Production of Non-Metallic Minerals (Excluding Fuels)

The most important minerals in this group are asbestos, salt, gypsum and sulphur, but it also includes numerous other items such as feldspar, graphite, iron oxide, magnesitic dolomite, mica, nepheline syenite, peat moss, silica brick, sodium sulphate, soapstone and talc (see Tables 2 and 6).

Asbestos.-The 1951 figures indicate a gain of almost 11 p.c. over 1950 in output of asbestos to 967,000 tons, including 941,000 tons from Quebec and 26,000 tons from Ontario. Except for 1949, when a labour dispute kept the mines idle for an extended period, there has been a remarkable growth in this industry in recent years and further expansion is under way involving expenditures of about $\$ 35,000,000$, mostly in Quebec. The Munro mine near Matheson, Ont., has worked at capacity since it started in 1950. At present the Cassian property in British Columbia is being made ready for production.

## 15.-Quantities and Values of Asbestos Produced, 1942-51

Note.-Figures for the years 1896-1910, inclusive, will be found at p. 424 of the 1911 Year Book; for the years 1911-28 at p. 354 of the 1939 edition; and for $1929-41$ at p. 353 of the 1946 edition.

| Year | Quantity | Value | Year | Quantity | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | \$ |  | tons | \$ |
| 1942. | 439,459 | 22,663,283 | 1947. | 661,821 | 33,005, 748 |
| 1943. | 467,196 | 23,169,505 | 1948. | 716,769 | 42,231,475 |
| 1944. | 419,265 | 20,619,516 | 1949. | 574,806 | 39,746,072 |
| 1945. | 466,897 | 22,805,157 | 1950. | 875,344 967,375 | $65,854,568$ $78,792,067$ |
| 1946.. | 558,181 | 25,240,562 | 1951P. | 967,375 | 78,792,007 |

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. In 1951, Ontario produced about 80 p.c. of the Canada total.

## 16.-Quantities of Salt Produced, by Provinces, with Total Values, 1942-51

Note.-Figures for the years 1926-41 are given at p. 354 of the 1946 Year Book.

| Year | Nova Scotia | Ontario | Manitoba | Saskatchewan | Alberta | Canada |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | tons | tons | tons | tons | tons | \$ |
| 1942. | 50,199 | 558,407 | 22,706 | - | 22,360 | 653,672 | 3,844,187 |
| 1943. | 47,775 | 594,889 | 27.523 | - | 17,499 | 687.686 | 4,379,378 |
| 1944. | 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 |
| 1947. | 40.107 | 633,766 | 24,974 | - | 29,698 | 728,545 | 4,436,930 |
| 1948. | 61,799 | 619,598 | 25,251 | - | 34,613 | 741,261 | 4,836,028 |
| 1949. | 86,612 | 607,206 | 18,734 | 8,103 | 28,359 | 749,015 | 5,566,725 |
| 1950. | 101,930 | 696,582 | 16,592 | 18,186 | 25,606 | 858,896 | 7,011,306 |
| 1951P. | 125,236 | 770,992 | 16,800 | 29,138 | 20,000 | 962,166 | 7,694,063 |

Gypsum.-The use of gypsum in the building trades has increased rapidly and Canada has extensive deposits of gypsum favourably situated for commercial developments. A production peak was reached in 1950 at $3,666,336$ tons, the 1951 output being slightly lower. About 85 p.c. of the output is exported each year, mainly in crude form to the United States.
17.-Quantities and Values of Gypsum Produced, by Provinces, 1942-51

Note.-Figures for the years 1926-41 are given at p. 321 of the 1943-44 Year Book.

| Year | Nova Scotia | New Brunswick | Ontario | Manitoba | British Columbia | Canada |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Quantity | Quantity | Quantity | Quantity | Quantity | Value |
|  | tons | tons | tons | tons | tons | tons | \$ |
| 1942. | 394,216 | 36,623 | 82,796 | 29,218 | 23,313 | 566,166 | 1,254,182 |
| 1943 | 255,736 | 36,263 | 92,448 | 37,989 | 24,412 | 446,848 | 1,381,468 |
| 1944. | 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 |
| 1951p. | 2,829,336 | 100,000 | 225,000 | 115,000 | 104,989 | 3,374,325 | 5,576,093 |

Sulphur.-Sulphur production statistics given in Table 18 represent the quantity and value of sulphur contained in iron pyrites shipped, plus the quantity and value of sulphur reclaimed for acid manufacture, etc., from smelter fumes. The Shell Oil Company and the Royalite Oil Company have recently completed plants in Alberta to recover elemental sulphur from natural gas. These units have a capacity of nearly 20,000 tons annually. Canadian Industries Limited has a plant under construction at Copper Cliff, Ont., to make liquid sulphur dioxide, utilizing the smelter gases from International Nickel's smelter at that point.

## 18.-Quantities and Values of Sulphur Produced, 1942-51

Nots.-Figures for the years 1926-41 are given at p. 355 of the 1946 Year Book.

| Year | Quantity | Value | Year | Quantity | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | \$ |  | tons | 8 |
| 1942. | 303,714 | 1,994,891 | 1947. | 221,781 | 1,822,867 |
| 1943. | 257,515 | 1,753,425 | 1948. | 229,463 | 1,836,358 |
| 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 | 1951D. | 368,529 | 3,005,714 |

## Subsection 5.-Production of Fuels

Information on the coal reserves of Canada is given in the Year Book 1950, pp. 516-518.

## CANADIAN CRUDE PETROLEUM SITUATION*

The mineral industry in Canada has shown a rapid and very substantial expansion during the past few years but no part of it has quite equalled the spectacular developments that have resulted from the major discoveries of petroleum and natural gas in Western Canada. During World War II the tempo of exploration was speeded up by the need for oil products and by the encouragement given to the search for new supplies through tax concessions granted by the Federal Government. At that time Turner Valley in the foothills of the Rockies, 35 miles southwest of Calgary, was the main producing field, a peak production of about $29,000 \mathrm{bbl}$. a day having been reached in 1942. This was not sufficient to supply the military and restricted civilian requirements of the Prairie Provinces, where light oil was needed particularly for refining into products required by the Commonwealth air-training project. However, some small fields were found and, in the light of present events, two occurrences were of major significance although not recognized as such at the time. The first of these was the discovery in 1944 of light crude oil in the Devonian limestones at Princess, on the plains, 100 miles east of Calgary. This was the first discovery of Devonian oil in Alberta. The second was the development, through the Canol project, of the Norman Wells field in the Mackenzie River Valley, 50 miles south of the Arctic circle. This field was found in 1920 also in Devonian rocks but, owing to lack of markets for the oil, there had been no significant development. Under the Canol project many wells were drilled and it was recognized that the productive horizon was a coral reef. The Princess field is 1,150 miles distant from Norman Wells and although both were yielding oil from the Devonian, no special significance was attached to this fact at that time.

The discovery of the Leduc field southwest of Edmonton in 1947 completely changed the whole oil aspect in Western Canada. The oil at Leduc, like that at Norman Wells, was found in a Devonian coral reef. United States oil companies in particular were very familiar with coral-reef production in the Permian basin of West Texas and New Mexico and quickly recognized the significance of the new Leduc discovery. Consequently, the Leduc discovery, both from its character and the size of the possible productive area, attracted more than usual attention

[^168]
and a number of companies began to study the situation with respect to the acquisition of lands and the right to explore for oil. The discovery of the Redwater field in 1948 followed by the discovery of the Woodbend extension of the Leduc field, by Imperial Oil Limited, led to increased exploration activity by many companies, which, as new finds have been made, has been quickly expanded to cover not only the desirable prospective oil lands in Alberta, Saskatchewan and Manitoba but has been extended northwestward involving much of the northeastern corner of British Columbia east of the mountains and embracing large areas within the Northwest Territories south and west of Great Slave Lake.

In Alberta there have been numerous oil fields discovered in a tract of land extending from Edmonton to Drumheller. Development began with the discovery of the Stettler field in 1949, followed by such finds as Duhamel, Big Valley, Caprona, New Norway, Bashaw and Drumheller. To the west of Edmonton there is the Acheson-Stony Plain field and west of Leduc the Golden Spike field. To the south of Leduc there are a number of small oil fields-Wizard Lake found in 1951 and Bonnie Glen found early in 1952 are major discoveries in this area. Golden Spike, Wizard Lake and Bonnie Glen are of particular importance in that, although their real extent may not be large in comparison with some of the other fields, the thickness of oil-saturated coral formation is exceptional, in all three exceeding 500 ft ., and in Bonnie Glen reaching the phenomenal thickness of 688 ft . This means that production per acre will be very large in comparison with some of the other fields where, as for example at Leduc, there are two oil zones in the Devonian each with a thickness of approximately 35 ft . The search for these pools of small surface extent, therefore, must be very intense, with no small area neglected in the promising oil territory.

In addition to the discoveries in the area of Edmonton and the southern part of Alberta, there have been two recent discoveries of oil in Saskatchewan of a quality considerably lighter than the oil being produced from the Lloydminster and Coleville fields. Southern Saskatchewan and southwestern Manitoba are occupied by the northward part of the Williston basin of North Dakota. In the Williston basin in United States there have recently been two very important oil discoveries, so that the finding of oil in Saskatchewan and small but significant discoveries in southwestern Manitoba have had a very stimulating effect in encouraging development in this part of Western Canada. To the northwest of Edmonton in the Peace River area of Alberta, there have been two oil discoveries and a number of very significant gas discoveries. In the St. John area of British Columbia there has also been a light oil discovery, which, although not large, is very important as indicative of excellent oil prospects, while recent gas discoveries give promise of large production.

Some indication of the amount of exploration being done in Western Canada in the search for oil and gas can be obtained from the drilling record. In 1951, 1,371 wells were completed in the four western provinces. The main part of this development was in Alberta where 1,228 completed wells accounted for more than $500,000 \mathrm{ft}$. of drilling in each of the last seven months of the year. These wells consisted of 757 oil wells, of which 35 were new discoveries and the remainder were development wells in oil fields, and 166 gas wells, of which 63 were new discoveries and 355 dry holes. Recoverable reserves of petroleum in Alberta are now estimated at about $1,500,000,000 \mathrm{bbl}$. In Saskatchewan, 112 wells were completed consisting of 53 oil wells, of which 2 were new discoveries, and 6 gas wells, of
which 3 were new discoveries and the remainder dry holes. Manitoba produced its first oil from the southwestern part of the Province where two oil discoveries were made out of 16 wells drilled, of which all but 5 were dry holes. British Columbia also had its first crude oil discovery and, of 15 wells completed, one is an oil well, 3 are gas wells and 11 failed to find commercial production of either oil or gas.

Production of petroleum in Western Canada is now largely governed by the outlets and, at present, potential capacity exceeds actual output by a considerable amount. In 1951, production in Alberta showed a phenomenal increase of 68 p.c. over 1950 and amounted to $46,403,000 \mathrm{bbl}$. This was largely due to the opening up of Ontario markets through the building of the 1,126 -mile interprovincial pipe line from Edmonton to Superior, Wis., U.S.A., at the head of the Great Lakes. At the end of 1951, Alberta had a total of 2,747 wells producing or capable of producing oil compared with 1,988 at the end of 1950 and 1,220 at the end of 1949. Peak production was reached during the week of Aug. 20, 1951, when the daily average was $189,423 \mathrm{bbl}$. Output during the winter months, however, is much lower. and dropped to approximately $82,000 \mathrm{bbl}$. a day during the week ended Dec. 31 , 1951. Potential production, however, is said to be around $200,000 \mathrm{bbl}$ a day and, owing to an expected increase, plans are now under way to build a pipe line from Edmonton to Vancouver via Yellowhead Pass, Kamloops, Merritt, Hope and Chilliwack to Burnaby. Initially this pipe line will supply only the needs of the Canadian west coast market and thus is designed for about $75,000 \mathrm{bbl}$. a day. By increasing the number of pumping stations, however, the pipe line will be capable of transporting $200,000 \mathrm{bbl}$. a day and it is hoped that part of the market in the Pacific northwest area of United States may be opened to this outlet. In addition to this western outlet, which will not be completed until 1953, the interprovincial pipe line outlet to Superior is being increased by looping the line around the highpressure parts of the first line. Additional storage is also being built at Superior, Wis., and two new tankers, each with a capacity of $115,000 \mathrm{bbl}$., will be put into service on the Great Lakes during the 1952 shipping season. In conjunction with this the Imperial Oil refinery at Sarnia is being increased to a capacity of $71,000 \mathrm{bbl}$. a day and Canadian oil companies have built a new 20,000 -bbl.-a-day refinery at nearby Froomfield. Imperial Oil Limited also has under construction a products line from Sarnia to Toronto via London and Hamilton, Ont.

The discoveries of oil in Western Canada have been accompanied by greatly increased gas supplies and the problem of the export of gas is now before the Alberta Government. The availability of large amounts of natural gas as well as gaseous products from additional refineries has led to a great development of petro-chemical industries in Alberta, principally in the Edmonton area. There are, however, large shut-in gas supplies and these have been increased enormously during the past few years.

The greatly accelerated pace of activity in exploration during 1951, when $\$ 200,000,000$ was spent, and the announcement by various oil companies of even greater expenditures in 1952 indicate continued rapid growth of the petroleum and natural gas industries in Western Canada. It is hoped, even though Western Canada's oil cannot reach the markets in the far parts of Eastern Canada on account of transportation difficulties, that production will soon reach the point of self-sufficiency on balance where exports are equal to imports. Prairie selfsufficiency was reached in 1950 and, with the building of the trans-mountain pipe line, Western Canada may be wholly supplied by 1953 by Canadian oil although,
to do this, refining capacity on the west coast must be sufficient in amount and properly adapted to meet the market demands. It is not unlikely that Ontario will continue to receive increasingly large amounts of crude oil from Western Canada. However, the interrupted shipping season on the Great Lakes during the winter season is a great handicap to easy transportation and, for this reason, it is not at present clear how large a part of the Ontario or Quebec markets can be supplied from Western Canada, particularly as about one-third of the refining capacity of Canada is now centred in the Montreal area which is supplied by pipe line from Portland, Maine, with oil largely from Venezuela. But even though Western Canada's oil may be at some disadvantage in reference to easy markets of large size, there can be no doubt that, as a result of developments now under way, Canada will continue to enjoy the benefits that come with large new oil and gas discoveries.

Coal Production.-More coal was produced by Canadian mines in 1950 than in any other year, the total of $19,139,112$ tons being slightly above the 1949 production. In 1951, increases were reported for New Brunswick, Saskatchewan and British Columbia, but output elsewhere decreased considerably; total production was lower in Nova Scotia, Alberta and Yukon Territory as compared with 1950.
19.-Coal Production, by Provinces, 1942-51

Norg.-Figures for the years 1874-1910, inclusive, will be found at p. 419 of the 1911 Year Book; for the years 1911-28 at p. 348 of the 1938 edition; and for 1929-41 at p. 347 of the 1946 edition.

| Year | Nova Scotia | New Brunswick | Manitoba | Saskatchewan | Alberta | British Columbia | Yukon <br> Territory | Canads |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | Quantity | Value |
|  | tons | tons | tons | tons | tons | tons | tons | tons | \$ |
| 1942. | 7,204,852 | 435,203 | 1,265 | 1,301,116 | 7,754,053 | 2,168,541 | - | 18,865,030 | 62,897,581 |
| 1943. | 6,103,086 | 372,873 | - 999 | 1,665,972 | 7,676,726 | 2,039,402 | - | 17,859,057 | 62, 877,549 |
| 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. | 5,452,898 ${ }^{\text {r }}$ | 366,735 | - | 1,523,786r | 8,826,239 ${ }^{\text {r }}$ | 1,636,792 | - | 17,806,450r | 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. | 6,430,891 | 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 | 3,156 | 19,120,046 | 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 |
| 1951D. . | 6,370,000 | 650,000 | - | 2,230,000 | 7,750,000 | 1,746,530 | 3,470 | 18,750,000 | 110,050,000 |

Coal Consumption.-The sources of coal consumed in Canada in the years 1942-51 are shown in Table 22 and detailed figures of coal made available for consumption in 1951 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, since coal is landed at Canadian ports and re-exported 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.

## 20.-Imports ${ }^{1}$ of Anthracite, Bituminous and Lignite Coal, 1942-51

Note.-Anthracite dust is included under anthracite coal. Figures for the years 1868-1910, inclusive, will be found at p. 420 of the 1911 Year Book; for the year. 1911-28 at p. 349 of the 1939 edition; and for 1929-41 at p. 348 of the 1946 edition.

| Year | Anthracite |  | Bituminous ${ }^{2}$ |  | Lignite |  | Totals ${ }^{2}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | 8 | tons | \$ | tons | \$ | tons | \$ |
| 1942 | 4,911,625 | 31,506,629 | 20,025,483 | 50,343,442 | 239 | 1,148 | 24,937,347 | 81,851,219 |
| 1943 | 4,480,285 | 30,918,555 | 23,628,300 | 70,325,413 | 337 | 1,487 | 28, 108,922 | 101,245,455 |
| 1944. | 4,452,991 | 33,417,990 | 24,270,692 | 79, 718,988 | 171 | 1,038 | 28,723,854 | 113.138,016 |
| 1945. | 3,412,739 | 27,568,369 | 21,648,350 | 74,861,376 | 467 | 2,229 | 25,061,556 ${ }^{3}$ | 102,431, 974 ${ }^{3}$ |
| 1946 | 4,631,387 | 41,987, 460 | 21,475,040 | 78,366, 184 | 172 | 776 | 26,106,5993 | 120,354,420 ${ }^{3}$ |
| 1947. | 4,281,682 | 41,012,759 | 24,610,045 | 97, 935, 771 | 203 | 1,255 | $28,891,930^{3}$ | 138,949,785 ${ }^{3}$ |
| 1948 | 5,244,837 | 56,380,098 | 25,614,443 | 129,929,580 | 14,632 | 78,073 | 30,873,912 ${ }^{3}$ | 186,387,751 ${ }^{3}$ |
| 1949 | 3,945,135 | 45,656,328 | 18,233,528 | 95,403, 106 | 16,547 | 89,629 | $22,195,210^{3}$ | $141,149,063{ }^{3}$ |
| 1950 | 4,286,383 | 54, 285,320 | 22,660,969 | 120,443,963 | 7,471 | 34,848 | 26,954,8233 | 174,764, $131^{3}$ |
| 1951 P | 3,853,431 | 51,244,639 | 22,938,824 | 116,802,323 | 9,150 | 42,486 | 26, 801, $405{ }^{3}$ | 168,089,448 ${ }^{3}$ |


#### Abstract

${ }^{1}$ Entered for consumption. ${ }^{2}$ Includes coal ex-warehoused for ships' stores. ${ }^{3}$ 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 $1948,186,971$ tons valued at $\$ 2,185,707$ in $1949,191,134$ tons valued at $\$ 2,316,570$ in 1950 , and 170,157 tons valued at $\$ 2,061,798$ in 1951.


## 21.-Exports of Coal Produced in Canada, 1942-51

Note.-Figures for the years 1868-1910, inclusive, will be found at p. 421 of the 1911 Year Book; for the years 1911-28 at p. 349 of the 1939 edition; and for 1929-41 at p. 348 of the 1946 edition.

| Year | Quantity | Value | Year | Quantity | Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | \% |  | tons | \$ |
| 1942. | 815,585 | 4,278,345 | 1947. | 714,549 | 5,440,788 |
| 1943. | 1,110,101 | 5,428,362 | 1948. | 1,273,262 | 11,555,985 |
| 1944. | 1,010,240 | 5,984,827 | 1949. | 432,043 | 3,563,892 |
| 1945. | 840,708 | 5,303,543 | 1950. | 394,961 | $3,198,040$ |
| 1946.. | 862,489 | 5,946,224 | 1951p. | 435,083 | 3,495,664 |

## 22.-Consumption of Canadian and Imported Coal in Canada, by Quantities and Percentages, 1942-51

Note.-Figures for the years 1886-1910, inclusive, will be found at p. 354 of the 1921 Year Book; for the years 1911-28 at p. 350 of the 1939 edition; and for 1929-41 at p. 349 of the 1946 edition.

| Year | Canadian Coal ${ }^{1}$ |  | Imported Coal 'Entered for Consumption' |  |  |  | Grand Total | Con-sumption Per Capita |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | From U.S.A. | From United Kingdom | Total ${ }^{2}$ |  |  |  |
|  | tons | p.c. | tons | tons | tons | p.c. | tons | tons |
| 1942. | 17,725,761 | 42.0 | 24,140,841 | 388,948 | 24,529,361 | 58.0 | 42, 255,122 | $3 \cdot 626$ |
| 1943. | 16,321,006 | $37 \cdot 1$ | 27,303, 776 | 391,475 | 27,695,098 | $62 \cdot 9$ | 44,016,104 | $3 \cdot 732$ |
| 1944. | 15,660,808 | $35 \cdot 7$ | 27,948,008 | 218,511 | 28,166,201 | $64 \cdot 3$ | 43,827, 009 | $3 \cdot 669$ |
| 1945. | 15,227,819 | $38 \cdot 3$ | 24,505, 241 | 28,388 | 24,521,528 | $61 \cdot 7$ | 39,749,347 | 3.293 |
| 1946 | 16.502,508 | $39 \cdot 0$ | 25, 639, 541 | 101,580 | 25,740,704 | $61 \cdot 0$ | 42,243,212 | 3.437 |
| 1947. | 14,673,967 | $34 \cdot 0$ | 28,410, 149 | 52,777 | 28,462,242 | $66 \cdot 0$ | 43,136.209 | $3 \cdot 437$ |
| 1948 | 16,928.028 | $36 \cdot 0$ | 30,295, 841 | 162,550 | 30,454,917 | $64 \cdot 0$ | 47,382,945 | $3 \cdot 695$ |
| 1949. | 18,104,626 | $45 \cdot 3$ | 21,501,583 | 331,457 | 21,833,057 | $54 \cdot 7$ | 39.937,683 | 2.970 |
| 1950 | 18,224,944 | $40 \cdot 6$ | 26, 224,893 | 423,874 |  |  | 44,873,993 |  |
| 1951p. | 17,571, 154 | $39 \cdot 8$ | 26,233,312 | 291,656 | 26,523,921 | $60 \cdot 2$ | 44,095, 075 | 3.148 |

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## 23.-Coal Output, Exports, Imports and Coal made available for Consumption in Canada, 1950 and 1951

Notg.-For details by provinces, see D.B.S. Annual Report, The Coal Mining Industry.

| Grade of Coal | Canadian Coal |  |  |  | Imported Coal ${ }^{1}$ |  | Coal, <br> Made Available for Consumption |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Output |  | Exported |  |  |  |  |  |
|  | 1950 | 1951 | 1950 | 1951 | 1950 | 1951 | 1950 | 1951 |
|  | tons | tons | tons | tons | tons | tons | tons | tons |
| Anthracite. |  | - | - 870 | - | 4,467,111 | 3,891,832 | 4,467,111 | 3,891,832 |
| Bituminous....... | 13,614,316 | 13,363, 488 | 380,879 | 303,667 | 22,593,468 | 22,459,357 | 35, 826, 905 | 35,519,178 |
| Sub-bituminous... | 3,321,573 | $3,000,017$ $2,223,318$ | $\overline{14}, 082$ | 294 957 |  |  | $3,321,573$ $2,189,141$ | $2,999,723$ $2,222,361$ |
| Lignite............. | 2,203,223 | 2,223,318 | 14,082 | 957 | 2 | - | 2,189,141 | 2,222,361 |
| Totals. | 19,139,112 | 18,586,823 | 394,961 | 304,918 | 27,060,579 | 26,351,189 | 45,804,730 | 44,633,094 ${ }^{3}$ |

${ }^{1}$ Coal reaching Canadian ports whether or not it is cleared through customs. $\quad{ }^{2}$ Lignite coal included with bituminous.
${ }^{3}$ Excludes 168,224 tons of imported briquettes in 1950 and 134,928 tons in 1951.

Grude Petroleum Production.-Output of crude oil totalled over 48,000,000 barrels for Canada in 1951, 96 p.c. of which came from Alberta wells. The rapid expansion of the crude petroleum industry in Western Canada is outlined in the Special Article on pp. 524-527.
24.-Quantities and Values of Crude Petroleum Produced, by Provinces, 1942-51

Norz.-Figures for the years 1936-41 will be found at p. 476 of the 1948-49 edition of the Year Book.

| Year | New Brunswick | Ontario | Alberta | Saskatchewan | Northwest Territories | Canada |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | QUANTITIES |  |  |  |  |  |
|  | bbl. | bbl. | bbl. | bbl. | bbl. | bbl. |
| 1942 | 28,089 | 143,845 | 10,117,073 | - | 75,789 | 10,364,796 |
| 1943. | 24,530 | 132,492 | 9,601,530 | - | 293,750 | 10,052,302 |
| 1944. | 23,296 | 125,067 | $8,727,366$ | $\overline{14}$ | 1,223,675 | 10,099,404 |
| 1945. | 30,140 | 113,325 | 7,979,786 | 14,374 | 345, 171 | 8,482,796 |
| 1946. | 28,584 | 123,082 | 7,137,921 | 118,686 | 177,282 | 7,585, 555 |
| 1947. 1948 | 23,129 21,372 | 131.295 176.989 | $6,770,477$ $10,888,592$ | 540,117 849,166 | 227,474 350,541 | $7,692,492$ $12,286,660$ |
| 1949. | 19,544 | 260,670 | 20,087,418 | 782,188 | 155,528 | 21,305,348 |
| $1950 \ldots$ | 17,137 | 250,655 | 27,548, 169 | 1,041,098 | 186,729 | 29,043,788 |
| 1951D...... | 15,000 | 201,800 | 46,403,000 | 1,250,000 | 215,000 | 48,096,800¹ |
|  | VALUES |  |  |  |  |  |
|  | \$ | \$ | \$ | \$ | \$ | 8 |
| 1942. | 39.467 | 306,242 | 15,514,665 | - | 108,477 | 15,968, 851 |
| 1943 | 34,342 | 311,356 | 15,724,518 | - | 400, 201 | 16,470,417 |
| 1944. | 32,832 | 296,420 | 14.468,061 | - | 632,587 | 15,429.900 |
| 1945. | 42,413 | 268,478 | 13, 169,692 | 15,362 | 136,303 | 13,632.248 |
| 1946 | 40,018 | 291,719 | 14,347,933 | 135,990 | 173,392 | 14,989,052 |
| 1947. | 32,381 | 350,000 | 18,078, 907 | 614,156 | 500,238 | 19.575,682 |
| 1948. | 29,920 | 608,109 | 35, 127,751 | 976,541 | 676,574 | 37,418,895 |
| 1950. | 27,362 | 901, 143 | 58,999,936 | 836,941 | 353,108 | 61,118,490 |
| 1951D. | 21,000 | 706,000 | -118,634,350 | $1,134,797$ $1,562,000$ | 352,656 404,200 | $84,619,937$ $121,407,5501$ |

${ }^{1}$ Includes Manitoba production of $12,000 \mathrm{bbl}$. valued at $\$ 30,000$.
Natural Gas Production.-Alberta accounts for about 87 p.c. of Canada's production of natural gas. It is estimated that the total output for all provinces was almost $74,000,000,000 \mathrm{cu} . \mathrm{ft}$. in 1951, of which $64,000,000,000 \mathrm{cu}$. ft. was from Alberta's wells. Ontario's production amounted to almost $9,000,000,000 \mathrm{cu} . \mathrm{ft}$.
in 1951. (See also pp. 480-481.)

## 25.-Quantities and Values of Natural Gas Produced, by Provinces, 1942-51

Nore.-For the years 1892-1919, see the Annual Report, Mineral Production of Canada, 1988, p. 188; for the years 1920-28 see p. 347 of the 1940 Year Book; and for 1929-41, p. 350 of the 1946 edition.

| Year | New Brunswick |  | Ontario |  | Alberta |  | Canada ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M cu. ft. | $\$$ | $\mathrm{Mcu} . \mathrm{ft}$. | \$ | M cu. ft. | \$ | M cu. ft. | \$ |
| 1942. | 619,380 | 299,688 | 10,476,770 | 6,809,901 | 34,482,585 | 6,146,146 | 45,697,359 | 13,301,655 |
| 1943 | 675,029 | 327,787 | 7,914,408 | $6,543,913$ | 35,569,078 | 6,241,815 | 44,276,216 | 13,159,418 |
| 1944 | 702.464 | 341,636 | 7,082,508 | 4,694,097 | 37,161,570 | $6,339,817$ | $45,067,158$ | 11,422,541 |
| 1945 | 653,230 | 317,568 | 7,199,970 | 4,837,586 | 40,393,061 | 7,095,910 | 48,411,585 | 12,309,564 |
| 1946 | 541,010 | 262,441 | 7.051,309 | 4,656,528 | 40,097,096 | 7,184,006 | 47,900,484 | 12,165, 050 |
| 1947 | 489,810 | 279,790 | 7,785,921 | 5,334,991 | 44, 106,643 | 7,745,886 | 52,656,567 | 13,429,558 |
| 1949. | 375,035 | 287,446 | 8,590,429 | 6,958,247 | 48,965, 217 | 8,324,087 | $58,603,269$ | 15,632,507 |
| 1950. | 361,877 | 214,665 | 8,009,488 | $8,826,634$ $3,203,795$ | 51, 179,779 $58,603,976$ | $2,558,989$ $2,930,199$ | 60,457,177 | 11,620,302 |
| 1951P | 257,700 | 191.417 | 8,603,517 | 3,011,220 | 64,112,000 | 3,205,600 | 73,838,217 | $6,433,041$ $6,504,237$ |

${ }^{1}$ Includes small amounts produced in Saskatchewan and the Northwest Territories.

## Subsection 6.-Production of Structural Materials

Production of structural materials is dependent upon the activity of the construction industry; output in 1951 reached a record value of $\$ 145,496,000$. This group includes clay and clay products (brick, drain tile, sewer pipe, etc.), cement, lime, sand, gravel and stone.

## 26.-Values of Structural Materials Produced, by Provinces, 1942-51

Note.-Figures for the years 1926-41 are given at p. 355 of the 1946 Year Book.

| Year | New- <br> foundland | Nova Scotia | New <br> Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ |
| $1942{ }^{1}$ | $\cdots$ | 1,980,912 | 1,305,343 | 17,723,293 | 16,557,804 |
| 1943. | ... | 1,597, 791 | , 911.121 | 15,430,999 | 15,020,990 |
| 1944. | $\ldots$ | 1,081,805 | 1,637,409 | 14,597,540 | 15,716,361 |
| 1945 | ... | 1,310,214 | 1,489,210 | 17,051,353 | 17,437,552 |
| 1946. | ... | 1, 671,504 | 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 |
| 1951P. | 1,616,282 | 3,602,271 | 4,950,491 | 48,641,066 | 57,000,816 |
|  | Manitoba | Saskatchewan | Alberta | British Columbia | Canada |
|  | \$ | \$ | \& | \$ | \$ |
| 19421. | 2,317,933 | 707,123 | 2,836,160 | 3,564,405 | 46,992,973 |
| 1943. | 2,288,339 | 932,412 | 2,661,834 | 3,166,768 | 42,010, 254 |
| 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, 8120.221 |
| 1947. | $4,772,908$ $6,050,453$ | $1,632,625$ $1,426,836$ | 4,726,752 $7,089,427$ | $8,639,872$ $10,060,246$ | $84,576,785$ $105,127,246$ |
| 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 P | 6,534,580 | 2,587,648 | 9,543.734 | 11.019,387 | 145, 496,275 |

${ }^{1}$ Includes value of cement containers.
Clay Products.-The sales value of clay products in 1951 was the highest recorded, increasing over 1950 values in all provinces except Manitoba, Saskatchewan and Alberta. 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 largely produced 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 some of which is used for pottery though it
has not been developed extensively for ceramic use. 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 clay deposits yielding a high-grade of 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 occur in the White Mud beds of southern Saskatchewan but have not been developed to any extent.
27.-Values (Total Sales) of Clay Products Produced, by Provinces, 1942-51

Nore.-Figures for the years 1926-41 are given at p. 356 of the 1946 Year Book.

| Year | Newfoundland | Nova Scotia | New <br> Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | $\leqslant$ | \$ | 8 | \$ |
| 1942. | ... | 618.441 | 246,041 | 1,741,297 | 2,549,486 |
| 1943. | ... | 478,571 | 216,446 | 1,504.428 | 2,453,829 |
| 1944. | ... | 402.694 | 207,051 | 1,881,781 | 2,347,396 |
| 1945. | $\ldots$ | 433,455 | 232,783 | 2,534,630 | 3,107,189 |
| 1946. | $\ldots$ | 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 | $9,323,263$ |
| 1951D............... | 32,536 | 1,292,200 | 782.846 | 7,127,749 | 9,940,879 |
|  | Manitoba | Saskatchewan | Alberta | British Columbia | Canada |
|  | \$ | \$ | \$ | \$ | \$ |
| 1942. | 80,890 | 271,325 | 1,013,497 | 560,746 | 7,081,723 |
| 1843. | 132,382 | 348,725 | 1978,649 | 495,163 | 6,608,193 |
| 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 |
| 1951P.. | 669,160 | 573,000 | 1,949,265 | 1,222,747 | 23,590,382 |

Cement.-The production of cement has increased greatly since the end of World War II. The largest production is in Quebec and Ontario although there are active plants in Manitoba, Alberta and British Columbia. The imports of cement have also been relatively high during the same period. New plants are under construction at Havelock, N.B., and at Humbermouth, N'f'ld., which will increase the country's capacity by about $1,500,000 \mathrm{bbl}$. per year.

## 28.-Quantities and Values of Production (Sales), Imports and Exports and Apparent Consumption of Portland Cement, 1942-51

Note.-Figures for the years 1910-28 are given at p. 356 of the 1939 Year Book; and for 1929-41 at p. 356 of the 1946 edition.

| Year | Production ${ }^{1}$ |  | Imports |  | Exports |  | Apparent Consumption |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Value | Quantity | Value | Quantity | Value | Quantity | Value |
|  | bbl. ${ }^{2}$ | \$ | bbl. ${ }^{2}$ | \$ | bbl. ${ }^{2}$ | \$ | bbl. ${ }^{2}$ | \$ |
| 1942. | 9,126,041 | 14.365.237 | 26,320 | 116,126 | 273.880 | 476.284 | 8,878,481 | 14,005,079 |
| 1943. | 7,302,289 | 11,599,033 | 18,577 | 83,975 r | 172,601 | 344,004 | 7,148,265 | 11,339,004r |
| 1944. | 7,190,851 | 11,621,372 | 14,004 | 76,838 r | 210,449 | 377, 434 | 6,994,406 | 11,320,778 ${ }^{\text {r }}$ |
| 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 |
| 1948 | 15,916,564 | 32,901,936 | 2,284.001 | 6,877,939 | 19,212 | 51,733 | 18,181,353 | 39.728,142 |
| 1951 D | $16.741,826$ $16.927,607$ | $35,894,124$ $40,208,863$ | $1,386,219$ $2,327,431$ | 3,788,981 | 23,909 2,590 | 111.351 12.386 | 18, 104, 136 | 39,571,754 |
| $\underline{1951}$ | 16,927,607 | 40,208,863 | 2,327,431 | 7,447,859 | 2.590 | 12,386 | 19,252, 448 | 47,644, 336 |

[^170]${ }^{2}$ 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 76 p.c. of the total quantity of sand and gravel in 1951. 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 1950 totalled $\$ 25,895,357$ as compared with $\$ 20,528,073$ in 1949.

## 29.-Quantities and VaIues of Sand, Sand and Gravel, and Stone Produced, in 1949 and 1950, compared with 1946

| Material and Purpose | 1946 |  | 1949 |  | 1950 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quantity | Gross Value | Quantity | Gross Value | Quantity | Gross Value |
|  | tons | \$ | tons | \$ | tons | \$ |
| Moulding sand. For building, concrete, roads, etc. Other $\qquad$ |  |  |  |  |  |  |
|  | 3,421,830 | 61,419 | 6, ${ }^{70,693}$ | 3, 595.130 | 6, $\begin{array}{r}40,274 \\ \hline\end{array}$ | 4,151,672 |
|  | 61,801 | 19,117 | 118,566 | -29,121 | 127,867 | 41,475 |
| Sand and Gravel- |  |  |  |  |  |  |
| For railway ballast. . | $3,968,123$ $26,640,116$ | 867,616 $10,530,718$ | 5, 322,728 | $1,358,523$ <br> $19,758,109$ | 5, 132,371 | $1,361,439$ $24,512,834$ |
| For concrete, roads, | $26,640,116$ $2,024,029$ | $10,530,718$ 426,063 | $42,086,698$ $2,157,346$ | $19,758,109$ 530,185 | 49,768,234 | $24,512,834$ 800,988 |
| For mine filling. Crushed gravel. | $2,024,029$ $3,801,720$ | 1, 426,063 | $2,157,346$ $6,668,403$ | 530,185 $5,849,805$ | $3,385,384$ $7,790,694$ | 5,457,496 |
| Totals, Sand, Sand and Gravel.... | 39,949,994 | 15,529,760 | 63,356,308 | 31,181,541 | 73,095, 163 | 36,434,759 |
| Stone- |  |  |  |  |  |  |
| Building.................... |  |  |  |  |  | $\begin{aligned} & 3,266,937 \\ & 1,073,681 \end{aligned}$ |
| Monumental and ornamental .......... | 22,233 480,639 | 1,129,046 | 22,946 649,470 | $1,370,856$ $1,303,191$ | 13,799 568,280 | $\begin{aligned} & 1,073,681 \\ & 1,256,094 \end{aligned}$ |
| Limestone for agriculture Chemical Uses- | 480,639 |  | 649,470 | 1,303,191 |  |  |
| Flux...... | 415,389 | 370,074 | 976,766 | 1,190,128 | 937,625 | 1,184,113 |
| Pulp and pape | 247.388 | 478,074 | 323,098 | 821,090 | 381,513 | 955,066 <br> 145 <br> 198 |
| Other.. | 208,371 | 215,917 | -82,691 | 157,071 | 1.845,081 | 145,198 $2,009,971$ |
| Rubble and riprap | 326.265 $6,073,451$ | 286,142 $5.340,831$ | $2,152,969$ $9,438,685$ | $2,412,995$ $9,649,872$ | 13,844,649 | $2,009,971$ $14,713,321$ |
| Totals, Stone ${ }^{1}$ | 8,056,260 | 11,185,711 | 13,928,039 | 20,528,073 | 18,087,064 | 25,895,357 |

[^171]
## Section 5.-Industrial Statistics of the Mineral Industries

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 capital employed, 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 case, 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, in the case of copper, lead, zinc and silver, the 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.-Principal Statistics of the Mineral Industries, by Provinces, 1950

| Province or Territory | Plants or Mines | Employees | Salaries and Wages | Purchased Fuel, <br> Electricity and Process Supplies ${ }^{1}$ | Net Value of Shipments ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | 8 | \$ | 8 |
| Newfoundland. | 880 | 3,558 | 7,763,217 | 7,784,138 | 20,162,905 |
| Nova Scotia. | 663 | 13,364 | 34,698,277 | 9,633,894 | 50,160,271 |
| New Brunswick | 435 | 1,804 | 3,631,388 | 1,247,322 | 11,567,032 |
| Quebec. | 3,935 | 27,909 | 74,652,149 | 249,645,062 | 237, 957,690 |
| Ontario. | 6,719 | 39,549 | 114,370,430 | 199,588, 152 | 298,002,994 |
| Manitoba | 168 | 2,776 | 8,569,746 | 22,220,350 | 23,499,082 |
| Saskatchewan. | 524 | 2,729 | 8,605,454 | 25,582,035 | 29,834, 220 |
| Alberts. | 2,626 | 12,135 | 32,755,745 | 8,876,175 | 127, 271,937 |
| British Columbia | 1,044 | 15,076 | 42,562,240 | 110,731,298 | 102,530,283 |
| Northwest Territories. | 80 | 884 | 3,249,770 | 1,645,321 | 6,377,212 |
| Yukon Territory | 22 | 604 | 2,586,281 | 1,786.502 | 7,597,298 |
| Canada. | 17,095 ${ }^{3}$ | 120,388 | 333,444,697 | 638,740,249 | 914,960,924 |

[^172]A summary of the industrial statistics of the principal mineral industries operating in Canada in the years 1946 to 1950 is presented in Table 31.
31.-Principal Statistics of the Mineral Industries, 1946-50


For footnotes, see end of table, p. 536.
31.-Principal Statisties of the Mineral Industries, 1946-50-continued

| Industry and Year | Plants or Mines | Employees | Salaries and Wages | Purchased Fuel, <br> Electricity and Process Supplies ${ }^{1}$ | Net Value of Shipments ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Non-Metallics (Excluding Fuels) -concluded | No. | No. | \$ | \$ | \$ |
| Feldspar, quartz and nepheline |  |  |  |  |  |
| syenite......................... 1946 | 36 39 | 517 | $\begin{array}{r}876.034 \\ \hline 1.134 .107\end{array}$ | 440,701 719 | 1,727,972 |
| 1947 1948 | 39 36 | 593 562 | $1,134,107$ $1,184,257$ | 719.986 666,906 | 1,921,871 |
| 1949 | 31 | 442 | 1,946,268 | 465,253 | 2,184,782 |
| 1950 | 36 | 476 | 1,056,129 | 467,968 | 2,553,587 |
| Gypsum.......................... 1946 | 14 | 753 | 1,246,673 | 806,571 | 2,890,156 |
| Gypsu. 1947 | 13 | 908 | 1,695,711 | 1,049,297 | 3,733,132 |
| 1948 | 14 | 995 | 2,272,358 | 1,871,868 | 3,771,013 |
| 1949 | 14 | .925 | 2,226,703 | 1,481,874 | 3,943,171 |
| 1950 | 13 | 1,004 | 2,412,698 | 1,775,427 | 4,935,137 |
| Iron oxides....................... 1946 | 5 | 60 | 77,727 | 36,017 | 116,251 |
| 1947 | 6 | 54 | 82,369 | 40,904 | 217,418 |
| 1948 | 7 | 55 | 84,559 | 38,265 | 165,126 |
| 1949 | 8 | 44 | 73,111 | 40.406 | 167,481 |
| 1950 | 6 | 44 | 70,404 | 37,360 | 225,272 |
| Mica. . . . . . . . . . . . . . . . . . . . . 1946 | 27 | 129 | 153,616 | 38,086 | 160,953 |
| 1947 | 38 | 118 | 147,351 | 28,595 | 172,308 |
| 1948 | 34 | 109 | 118,982 | 32,850 | 187,098 |
| 1949 | 34 | 96 | 115,667 | 20,516 | 87,942 |
| 1950 | 26 | 100 | 136,727 | 47,388 | 205,223 |
| Peat (moss and fuel).............. 1946 | 41 | 1,391 | 1,562,689 | 671,161 | 2,249,651 |
| 1947 | 42 | 1,224 | 1,602,265 | 672,144 | 2,136.495 |
| 1948 | 41 | 1,032 | 1,532,977 | 810,071 | 2,597,754 |
| 1949 | 43 | 1,129 | 1,510,105 | 700,260 | 2,287,072 |
| 1950 | 39 | 1,118 | 1,530,866 | 767,110 | 2,101,092 |
| Salt............................... 1946 | 9 | 713 | 918,566 | 1,590,416 | 2,890,423 |
| 1947 | 10 | 700 | 1.399,693 | 1,872,839 | 3,493,193 |
| 1948 | 11 | 673 | 1,367,353 | 2,062,682 | 3,765,785 |
| 1949 | 12 | 698 | 1,565,210 | 1,904,760 | 4,716,723 |
| 1950 | 13 | 643 | 1,521,593 | 2,180,610 | 5,919,503 |
| Talc and soapstone.............. 1946 |  | 87 | 117,551 | 63,568 | 240,116 |
| 1947 | 5 | 73 | 110,527 | 41,690 | 224,687 |
| 1948 | 5 | 58 | 102.087 | 29,250 | 280,573 |
| 1949 | 3 | 59 | 105,736 | 64,252 | 256,541 |
| 1950 | 6 | 58 | 116,547 | 66,775 | 297,860 |
| Miscellaneous ${ }^{3}$................... 1946 |  | 911 | 1,582,846 | 1,389,098 | 2,859,009 |
| 1947 | 42 | 1,038 | 2,004,489 | 1,651,544 | 3,479,428 |
| 1948 | 40 | 1,161 | 2,497,918 | 1,977,985 | 4,056,367 |
| 1949 | 37 | 1,160 | 2,632,808 | 1,774,881 | 4,461,930 |
| 1950 | 42 | 1,121 | 2,640,013 | 1,888,255 | 4,821,324 |
| Totals, Non-Metallics . . . . . . . . . 1946 | 192 | 9,108 | 14,307,623 | 10,011,510 | 33,404,218 |
| 1947 | 207. | 9,593 | 17,341,962 | 12,901,464 | 41,570,032 |
| 1948 | 203 | 9,604 | 21,297,106 | 15,346,779 | 51,843,694 |
| 1949 | 199 | 8,606 | 19,744,679 | 12,620,510 | 51,721,985 |
| 1950 | 200 | 10,116 | 25,333,806 | 17,498,480 | 76,699,807 |
| Fuels |  |  |  |  |  |
| Coal. . . . . . . . . . . . . . . . . . . . . 1946 | 365 | 25,487 | 51,343,975 | 12,637, 105 | 59,607,029 |
| 1947 | 350 | 22,227 | 46,312,295 | 11,701,500 | 61,617,921 |
| 1948 | 351 | 24,319 | 58,503,607 | 16,226,321 | 85,624, 145 |
| 1949 | 328 | 24,230 | 61, 204,632 | 15,496,981 | 95,418, 140 |
| 1950 | 363 | 23,418 | 60,938,980 | 14,464,916 | 95, 675,483 |
| Natural gas..................... 1946 | 3,825 | 1,655 | 2,491,361 | 248,437 | 10,339,738 |
| 1947 | 3,799 | 1,784 | 3,057,249 | 240,319 | 12,093,013 |
| 1948 | 3,833 | 1,831 | 2,918,941 | 67,065 | 14,622,672 |
| 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 |

For footnotes, see end of table, p. 536.
31.-Principal Statisties of the Mineral Industries, 1946-50-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. | $\delta$ | \$ | $\delta$ |
| Fuels-concluded |  |  |  |  |  |
| Petroleum........................ 1946 | 2,314 | 1,563 | 3,260,571 | 1,024,106 | 13,701,033 |
| 1947 | 2,296 | 1,296 | 3,055,108 | 876,592 | 18,666,709 |
| 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 |
| Totals, Fuels................. 1946 | 6,504 | 28,705 | 57,095,907 | 13,909,648 | 83,647,800 |
|  | 6,445 | 25,307 | 52,424,652 | 12,818,411 | 92,377,643 |
|  | 6,765 | 27,791 | 65,814,477 | 18,346,194 | 135,582,984 |
|  | 7,421 | 28,595 | 72,222,499 | 16,546,200 | 173,042,561 |
|  | 8,203 | 28,453 | 74,491,043 | 16,365,197 | 184,815,362 |
| Structural Materials |  |  |  |  |  |
| Clay products................... . 1946 | 119 | 3,437 | 5,115,962 | 2,643,677 | 9,563,690 |
| 1947 | 124 | 3,552 | 6,204,705 | 3,219,256 | 11,266,933 |
| 1948 | 117 | 3,746 | 7,505,765 | 4,026,603 | 13,602,445 |
| 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 |
| Cement........................ 1946 | 8 | 1,524 | 2,929,020 | 8,793,963 | 12,930,058 |
|  | 8 | 1,650 | 3,679,446 | 10, 132,574 | 13,449,437 |
|  | 8 | 1,723 | 4,356,086 | 12,857, 198 | 17,704, 519 |
|  | 8 | - 1,721 | 4,754,611 | 13,987,830 | 21,077,322 |
|  | 8 | 1,781 | 5,235,735 | 15,109,409 | 23,091,104 |
| Lime.......................... 1946 | 41 | 918 | 1,616,839 | 2,412,041 | 4,910,127 |
|  | 42 | 1,038 | 2,052,801 | 3,086,779 | 5,763,244 |
|  | 42 | 1,121 | 2,459,299 | 3,790,233 | 7,284,638 |
|  | 42 | 1,060 | 2,485,601 | $3,572,730$ | 8,223,272 |
|  | 43 | 1,133 | 2,760,960 | 4,052,688 | 8,774,233 |
| Sand and gravel................ 1946 | 5,252 | 2,793 | 3,600,797 | 579,489 | 14,950,211 |
|  | 5,458 | 3,430 | 4,941,148 | 813,027 | 22,301, 404 |
|  | 6,102 | 4,197 | 7,057,193 | 1,101,024 | 29,528,572 |
|  | 6,952 | 3,863 | 7,491,081 | 1,500, 164 | 29,681,377 |
|  | 7,348 | 4,120 | 8,712,440 | 1,907,445 | 34,527,314 |
| Stone........................ 1946 | 486 | 2,720 | 3,970,404 | 1,691,598 | 9,494,113 |
|  | 483 | 3,166 | 5,380,259 | 2,255,930 | 14, 208, 819 |
|  | 554 | 3,082 | 5,990,922 | 2,617,663 | 15,330,890 |
|  | 549 | 3,728 | 7,615,572 | 3,399,603 | 17,128,470 |
|  | 589 | 3,562 | 7,548,241 | 3,614,585 | 22,280,772 |
| Totals, Structural Materials.... 1946 | 5,906 | 11,392 | 17,233,022 | 16,120,768 | 51,848,199 |
|  | 6,115 | 12,836 | 22,258,359 | 19,507,566 | 66,989,837 |
|  | 6,823 | 13,869 | 27,369,265 | 24,392,721 | 83,451,064 |
|  | 7,675 | 13,975 | 30,271,706 | 26,365,294 | 90,187,183 |
|  | 8,122 | 14,259 | 32,841,288 | 29,339,381 | 105,809,057 |
| Grand Totals................ 1946 | 13,457 | 99,196 | 196,748,691 | 332,312,119 | 422,074,303 |
|  | 13,495 | 104,519 | 229,560,604 | 458,333,786 | 552,309,949 |
|  | 14,315 | 112,855 | 282,001,582 | 571,756,719 | 727,950,430 |
|  | 15,808 | 116,507 | 309,647,178 | 584,083,511 | 800,217,336 |
|  | 17,095 | 120,388 | 333,444,697 | 638,740,249 | 914,960,924 |

${ }^{1}$ Includes freight and smelter charges and cost of ores treated. cost of process supplies, fuel, electricity, freight and smelter charges.

[^173]
## CHAPTER XIII.-POWER GENERATION AND UTILIZATION

\author{

CONSPECTUS <br> | Section 1. Water-Power Rebources and Their Development.......... | Page 537 | Subsection 1. Statistics of Central Electric Stations. $\qquad$ | Page |
| :---: | :---: | :---: | :---: |
| Subsection 1. Available and Developed Water Powers in Canada. | 538 | Ownership and Regula- |  |
| Subsection 2. Water - Power Developments in 1950 and 1951, by Provinces and Territories. | 542 | Section 3. Total Development of | 551 |
| tion 2. The Central Electric tion Industry. | 54 | Electric Power from all Avail- | 569 |

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.-Water-Power Resources and Their Development*

Canada, 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 potential 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, the precipitation is moderately heavy and the rivers, while 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 countries $\dagger$ is not possible owing to incomplete world statistics and differing bases of tabulation. However, from available figures as of the end of 1950, it appears that Canada ranks second among the countries of the

[^174]world in total installed capacity, being exceeded only by the United States; in installation per thousand population, Canada is exceeded only by Norway. Canada is in approximately sixth place in potential power resources but those resources are, on the whole, more readily available to prospective markets than is the case in 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 Powers in Canada

Table 1 gives a summary of the water-power resources of Canada and their development as at Dec. 31, 1951.
1.-Available and Developed Water Power, by Provinces, as at Dec. 31, 1951

| Province or Territory | Available 24-Hour Power at 80 p.c. Efficiency |  | Turbine Installation |
| :---: | :---: | :---: | :---: |
|  | At Ordinary Minimum Flow | At Ordinary Six-Montbs Flow |  |
|  | h.p. | h.p. | h.p. |
| Newfoundland. | 1,135,000 | 2,585,000 | 279,160 |
| Prince Edward Island. | 1,500 | 3,000 | 2,299 |
| Nova Scotia..... | 25,500 | 156,000 | 150,960 |
| New Brunswick | 123,000 | 334,000 | 132,911 |
| Quebec.. | $10,898.000$ $5,407,000$ | $20,219.000$ $7,261.000$ | $6,755,351$ $3,718,505$ |
| Manitoba. | 3,333,000 | 5,562,000 | -596,400 |
| Saskatchewan | 550,000 | $1,120.000$ | 111.835 |
| Alberta. | 508,000 | 1.258 .000 | 207,825 |
| British Columbia | 7,023,000 | 10,998.000 | 1,358.808 |
| Yukon and Northwest Territories. | 382,500 | 814.000 | 28,450 |
| Canada | 29,385,500 | 50,310,000 | 13,342,504 |

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. Under a 1951 revision following a review of stream-flow records, the estimates of potential power, particularly in the Province of Quebec, were appreciably increased, principally as a result of the use of higher run-off factors in computing or estimating available flows. The increase was also influenced by changed flow conditions on controlled rivers and to higher heads at new developments. However, tabulations of potential power in Canada are still not complete as many unrecorded rapids and falls of undertermined power capacity exist on rivers and streams throughout the country, particularly in the less-explored northern districts. Apart from cases 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 created by the construction of dams. Thus the figures in Table 1 of available power, under the two conditions of stream flow, represent only the minimum waterpower possibilities of Canada.

The third column 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 water-wheel installation averages 30 p.c. greater than the corresponding calculated maximum available power at the same sites. The figures of Table 1, therefore, indicate that the at present recorded water-power resources will permit of a turbine installation of more than $65,000,000$ h.p., and that the turbine installation at Dec. 31, 1951, represents approximately only 20 p.c. of recorded water-power resources.

## AVAILABLE AND DEVELOPED WATER POWER

(AS AT DECEMBER 31,1951)


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 long-distance transmission of electricity, Canada's economy was based largely on agriculture and the total of hydraulic installations, mostly small mills, was only $173,000 \mathrm{~h} . \mathrm{p}$. With 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.

Table 2 shows clearly the consistent growth in capacity since the beginning of the century as well as the heavy increases in installation during the war years 1942 and 1943 and during the later post-war years 1948 to 1951. In 1951 more than $780.000 \mathrm{~h} . \mathrm{p}$. was added to the total capacity of the country and at the end of the year many new plants and additions were under construction.

## 2.-Hydraulic Turbine Horse-Power Installed, by Provinces, as at Dec. 31, 1900-51

Nore.-Figures for each year 1900-30 are given at p. 361 of the 1939 Year Book; for 1931-39 at p. 362 the 1946 edition.

| Year | Newfoundland | Prince Edward Island | Nova Scotia | New Brunswick | Quebec | Ontario |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | h.p. | h.p. | h.p. | h.p. | h.p. | h.p |
| 1900. | $\cdots$ | 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 |
| 1941. | $\cdots$ | 2,617 | 139,217 | 133,347 | 4,556,943 | 2, 817,495 |
| 1942 | ... | 2,617 | 143,717 | 133,347 | 4,839,543 | 2,684,395 |
| 1943. | ... | 2,617 | 133,384 | 133,347 | 5,847,322 | 2,673,443 |
| 1944. | ... | 2,617 | 133,384 | 133,347 | 5,848,572 | 2,673,443 |
| 1945. | ... | 2,617 | 133,384 | 133,347 | 5,848,572 | 2,673,290 |
| 1946. | $\cdots$ | 2,617 | 133,384 | 133,347 | 5,848,572 | 2,679,740 |
| 1947. | ... | 2,617 | 133,384 | 133,347 | 5,878,872 | 2,749,740 |
| 1948. |  | 2,617 | 140,884 | 133,347 | 5,939,697 | 2,894,240 |
| 1949 | 262,050 | 2,617 | 145,384 | 133,347 | 6,130,097 | 2,896,540 |
| 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 |
|  | 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 | - | 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 |
| 1941. | 420,925 | 90,835 | 71,997 | 788,763 | 22,899 | 8,845,038 |
| 1942 | 420,925 | 90,835 | 94,997 | 792,563 | 22,899 | 9,225,838 |
| 1943 | 422,825 | 90,835 | 94,997 | 796,024 | 19,719 | 10.214,513 |
| 1944 | 422,825 | 90,835 | 94,997 | 864,024 | 19,719 | 10,283,763 |
| 1945. | 422,825 | 90,835 | 94,997 | 864,024 | 19,719 | 10,283,610 |
| 1946 | 446,825 | 90,835 | 93,060 | 864,024 | 19,719 | 10,312,123 |
| 1947 | 458,825 | 90,835 | 106,560 | 917,024 $1,009,769$ | 19,719 28,069 | $10,490,923$ |
| 1948 | 503,700 557,700 | 111,835 111,835 | 106,560 107,225 | $1,009,769$ $1,238,069$ | 28,069 28,469 | $10,870,718$ $11,613,333$ |
| 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 |

The availability of large amounts of hydro-electric energy has so fostered the economic utilization of the natural products from land, forest and mine that Canada has become a highly industrialized nation. 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 economic 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 service, too, contributes in no small measure to the high standard of living enjoyed in Canada.

With a total capacity of $13,342,504$ h.p., present water-power plants in Canada, if operated at full load, would produce energy at the rate corresponding to the output of more than $133,000,000$ 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.

## 3.-Developed Water Power, by Provinces and Industries, as at Dec. 31, 1951

| Province or Territory | Turbine Installation |  |  | Total ${ }^{4}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | In Central Electric Stations ${ }^{1}$ | $\begin{gathered} \text { In Pulp } \\ \text { and } \\ \text { Paper Mills }{ }^{2} \end{gathered}$ | $\begin{gathered} \text { In } \\ \text { Other } \\ \text { Industries }{ }^{3} \end{gathered}$ |  |
|  | h.p. | h.p. | h.p. | h.p. |
| Newfoundland. | 50,950 | 224,900 | 3,310 | 279,160 |
| Prince Edward Island. | 707 |  | 1,592 | 2,299 |
| Nova Scotia. | 135,282 | 10,270 | 5,408 | 150,960 |
| New Brunswick | 104,060 | 22,060 | 6.791 | 132,911 |
| Quebec. | 6,420,152 | 248,610 | 86,589 | 6,755,351 |
| Ontario. | 3,410,247 | 225,937 | 82,321 | 3,718.505 |
| Manitobs. | 594,500 | - | 1,900 | 596,400 |
| Saskatchewan. | 108,500 | - | 3,335 | 111,835 |
| Alberta. | 205,765 |  | 2,060 | 207,825 |
| British Columbia..... | 836,801 | 134,400 | 387,607 | 1,358,808 |
| Yukon and Northwest Territories | 8,750 | - | 19,700 | 28.450 |
| Canada. | 11,875,714 | 866,177 | 600,613 | 13,342,504 |
| Percentages of total installation.. | $89 \cdot 0$ | $6 \cdot 5$ | $4 \cdot 5$ | $100 \cdot 0$ |

${ }^{1}$ Includes only hydro-electric stations that develop power for sale. $\quad{ }^{2}$ Includes only water power actually developed by pulp and paper companies. ${ }^{3}$ Includes only water power actually developed by industries other than central electric stations and the pulp and paper industries. and hydraulic torbines installed in Canada.

The central electric station classification totalling $11,875,714 \mathrm{~h} . \mathrm{p}$. represents 89 p.c. of the total developed water power as at Dec. 31,1951 . 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 nearly 97 p.c. of all electricity sold in or exported from Canada during 1951.

The pulp and paper turbine installation total of $866,177 \mathrm{~h} . \mathrm{p}$. 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 17 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 $600,613 \mathrm{~h} . \mathrm{p}$. 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, $13,342,504$ h.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, 1951, by the inclusion of new installations completed during the year and by deletion of those old units which were dismantled. The somewhat similar figures reported by the annual Census of Industry are compiled on a different basis and represent only the sum of the units actually in operation during the year in those plants from which reports were received.

## Subsection 2.-Water-Power Developments in 1950 and 1951, by Provinces and Territories

Construction of power plants proceeded vigorously during 1950' and 1951, keeping pace with the expansion of general industrial activity throughout Canada and the consequent increasing demand for electric power. Following the usual trend, the larger part of this construction was concerned with water-power plants, although the building of thermal plants also was active. In the two years, a total of $1,843,525 \mathrm{~h} . \mathrm{p}$. of new hydro-electric capacity was brought into operation and, at the end of the period, about $1,700,000 \mathrm{~h} . \mathrm{p}$. was under active construction for operation in 1952-53. Approximately the same amount was in the preliminary stages of construction, with operation planned for 1954-55. One striking feature of the present program of development is the number of new projects that are being undertaken in rather remote regions, with the power to be used locally; this fact tends to accentuate the potential value of those undeveloped sites which at present may appear to be so remotely located as to be of little economic importance. The progress of water power developments in each province is outlined below.

Atlantic Provinces.*-During 1950, the Nova Scotia Power Commission completed a development of $12,800 \mathrm{~h} . \mathrm{p}$. in two units on the Mersey River at Deep Brook. In 1951, the Commission had under construction, for operation in 1952, a plant of $8,600 \mathrm{~h} . \mathrm{p}$. on the Bear River. The Nova Scotia Light and Power Company brought into operation its new Paradise Brook development of $5,000 \mathrm{~h} . \mathrm{p}$. and had under construction a new plant of $4,000 \mathrm{~h} . \mathrm{p}$. on the Gaspereau River at White Rock. The New Brunswick Electric Power Commission has under construction, for 1953 operation, a development of $27,000 \mathrm{~h} . p$. in two units on the Tobique River. The Newfoundland Light and Power Company in 1951 completed its new plant of $13,000 \mathrm{~h}$. p. on the Mobile River and also a new unit of $3,350 \mathrm{~h}$.p. in its Tors Cove plant; the Company also has under construction a plant of $7,500 \mathrm{~h}$. p. at Cape

[^175]Broyle for 1952 operation and one of the same capacity on the Horse Chops River for 1953. The Anglo-Newfoundland Development Company Limited is undertaking the modernization of its Grand Falls and Bishop Falls plants on the Exploits River and will increase the capacity of each by $6,000 \mathrm{~h} . \mathrm{p}$. In Labrador, the Iron Ore Company began preliminary construction on a development of 12,000 horsepower on the Ashuanipi River for 1954 operation to serve Burnt Creek and Knob Lake.

Quebec.-In Quebec, a total of $703,500 \mathrm{~h} . \mathrm{p}$. of new hydro-electric capacity was brought into operation during 1950 and 1951. The largest single addition was that of $333,000 \mathrm{~h} . \mathrm{p}$. in six units in the Beauharnois No. 2 power-house of the Quebec Hydro-Electric Commission on the St. Lawrence River; ultimate capacity, which may be reached in 1953 , is $666,000 \mathrm{~h} . \mathrm{p}$. The Commission also has under construction, for 1953 operation, a development of $16,000 \mathrm{~h} . \mathrm{p}$. at Rapid II on the upper Ottawa River. The Shawinigan Water and Power Company completed its $325,000-\mathrm{h} . \mathrm{p}$. La Trenche plant on the St. Maurice River; two of its $65,000 \mathrm{~h} . \mathrm{p}$. units were brought into operation in 1950 and the other three in 1951. Work has begun towards raising the firm output of the plants on the St. Maurice River by about $30,000 \mathrm{~h} . \mathrm{p}$. by diverting water from the head-waters of the Megiscane and Susie Rivers into the St. Maurice basin. In 1951, the Northern Quebec Power Company completed the installation of a new unit of $35,000 \mathrm{~h} . \mathrm{p}$. in its Quinze plant on the upper Ottawa River, bringing capacity to 85,000 h.p. The Pembroke Electric Light Company Limited, in 1951, added two units each of $3,000 \mathrm{~h} . \mathrm{p}$. to its plant on the Black River at Waltham and the Cie Electrique de Mont Laurier, two units each of $1,350 \mathrm{~h} . \mathrm{p}$. to its plant on the Lièvre River. Early in 1950, the city of Rivière-du-Loup replaced a $500-\mathrm{h} . \mathrm{p}$. unit with one of $1,800 \mathrm{~h} . \mathrm{p}$. The Aluminum Company of Canada has under construction two developments on the Peribonka River, one at Chute-du-Diable and one at Chute-a-la-Savanne, each of $275,000 \mathrm{~h} . \mathrm{p}$. in five units under 110 -foot head; initial operation is scheduled for May and September 1952, respectively, and completion of both plants is expected in 1953. Price Brothers and Company Limited began construction in June 1951 of two plants on the Shipshaw River; the main development at Chute-des-Georges will be of $70,000 \mathrm{~h} . \mathrm{p}$., in two units under 348 -foot head, while the second plant, located below Lake Brocket, will contain one 9,000 -h.p. unit under 47 -foot head; operation is planned for 1953 and the output will be used in the Company's paper mills. The Manicouagan Power Company began construction in 1951 of a development near the mouth of the Manicouagan River to comprise initially two units, each of $50,000 \mathrm{~h} . \mathrm{p}$. , for operation in 1953 but with provision for an ultimate installation of $300,000 \mathrm{~h} . \mathrm{p}$. The Ste. Marguerite Power Company begun construction of a development of $17,000 \mathrm{~h} . \mathrm{p}$. in two units on the Ste. Marguerite River for 1954 operation, principally to serve the Iron Ore Company at Seven Islands. While not increasing their generating capacity, the Gatineau Power Company and the Southern Canada Power Company carried out extensive additions to their transmission and distribution systems. The Quebec Streams Commission carried out storage and power studies on a number of rivers; its storage dam operations were continued with good results in stream regulation on controlled rivers.

Ontario.*-As a result of the particularly heavy increase in power demand in southern Ontario, the large current construction program of the Hydro-Electric Power Commission of Ontario was vigorously expedited. The Des Joachims and Chenaux developments on the Ottawa River were completed in 1951, the final and eighth unit of $62,000 \mathrm{~h} . \mathrm{p}$. being added at the $496,000-\mathrm{h} . \mathrm{p}$. Des Joachims plant and the remaining six units each of $21,000 \mathrm{~h} . \mathrm{p}$. at Chenaux, bringing total capacity to $168,000 \mathrm{~h} . \mathrm{p}$. At the La Cave development, also on the Ottawa River and now designated "Otto Holden Generating Station", initial operation commenced in June 1952 and completion of the plant of eight units totalling $272,000 \mathrm{~h} . \mathrm{p}$. scheduled for December. On the Nipigon River, the Pine Portage development of $82,000 \mathrm{~h} . \mathrm{p}$. in two units was completed in 1950, with provision for an ultimate capacity of $164,000 \mathrm{~h} . \mathrm{p}$. The development of the "Tunnel" site on the Mississagi River near Thessalon, $58,000 \mathrm{~h} . \mathrm{p}$. in two units, was also completed in 1950; this plant has been designated the "George W. Rayner Generating Station". On the Niagara River at Queenston, preliminary construction was actively begun in 1951 for the Sir Adam Beck-Niagara Generating Station No. 2 which will contain seven units totalling $735,000 \mathrm{~h} . \mathrm{p}$. with initial operation scheduled for 1954 . The water from the upper river will be conveyed by a tunnel 45 feet in diameter with a length of 28,600 feet and by a canal 200 ft . wide and 11,800 feet long. Excavation for the power-house, for the canal, and for the access shafts to the tunnel were well advanced at the end of 1951.

In addition to the activities of the Hydro-Electric Power Commission of Ontario, the town of Orillia completed its development of $3,750 \mathrm{~h} . \mathrm{p}$. on the south branch of the Muskoka River near Mathiasville. The Great Lakes Power Company brought into operation a new unit of $13,200 \mathrm{~h} . \mathrm{p}$. in its High Falls plant on the Michipicoten River and had under construction for operation in 1952 a new plant of $15,000 \mathrm{~h} . \mathrm{p}$. to be located at Scott Falls, a short distance downstream from the present station. The Abitibi Power and Paper Company had under way for some time a modernization program in its Iroquois Falls plant on the Abitibi River which resulted in an increase in capacity of $4,350 \mathrm{~h} . \mathrm{p}$.; the plant is now rated at $32,350 \mathrm{~h} . \mathrm{p}$.

Prairie Provinces. $\dagger$-The Manitoba Hydro-Electric Board made good progress on its Pine Falls development on the lower Winnipeg River-two units, each of 19,000 h.p., were brought into operation in December 1951 and the plant of 114,000 h.p. was scheduled for completion in 1952. The Winnipeg Electric Company brought into operation, in August 1950, the fifth unit of 37,500 h.p. in its Seven Sisters plant and had under installation, for operation in 1952, the sixth and final unit; to allow efficient operation of this plant, the Pinawa channel was being closed

[^176]
and the Company's Pinawa plant of $37,800 \mathrm{~h}$. p. dismantled. Sherritt-Gordon Mines Limited was proceeding with the development of $7,000 \mathrm{~h} . \mathrm{p}$. on the Laurie River to serve the Lynn Lake area and operation of the two-unit plant was scheduled for the summer of 1952. During 1950 and 1951, the Manitoba Power Commission extended service to about 10,000 farms and to an additional 70 rural communities.

No new developments were made in Saskatchewan but, in Alberta, installed capacity of water-power plants was practically doubled in 1951 with the completion by Calgary Power Limited of the Spray Lakes storage and diversion scheme which involved three new plants: Three Sisters, 3,600 h.p.; Spray, $62,000 \mathrm{~h} . \mathrm{p} . ;$ and Rundle, $23,000 \mathrm{~h} . \mathrm{p}$. A new unit of $12,000 \mathrm{~h}$. p. was also installed in the Kananaskis plant on the Bow River, as flow conditions were improved by Spray storage.

British Columbia.-The British Columbia Power Commission brought into operation a new development of $33,000 \mathrm{~h} . \mathrm{p}$. in two units under 710 -foot head on the Whatshan River, provision being made for an ultimate capacity of $66,000 \mathrm{~h} . \mathrm{p}$. The Commission has under construction for operation in 1952 a plant of $4,000 \mathrm{~h} . \mathrm{p}$. on the Clowhom River, is extending its John Hart plant on the Campbell River for 1953 operation by two units, each of $28,000 \mathrm{~h} . \mathrm{p}$., and is planning a development on the Quesnel River. The British Columbia Electric Company Limited completed the installation of a third unit of $47,000 \mathrm{~h} . \mathrm{p}$. in its Ruskin plant and remodelled its Lake Buntzen No. 1 plant by replacing its seven old units with one new unit of $70,000 \mathrm{~h} . \mathrm{p}$. , an increase of $41,800 \mathrm{~h} . \mathrm{p}$. The Company has under construction for operation in 1952 a new development of $82,000 \mathrm{~h}$. . in one unit under 2,000 -foot head on Wahleach Lake, about 15 miles east of Chilliwack; it is also adding a fourth unit of $62,000 \mathrm{~h} . \mathrm{p}$. in its Bridge River plant for 1953 operation and is undertaking the modernization of its Jordan River plant, with an increase in capacity of about $4,000 \mathrm{~h} . \mathrm{p}$. The Aluminum Company of Canada in 1951 began preliminary construction on its Nechako-Kitimat development which involves the diversion of the head-waters of the Fraser River by tunnel through the coastal range; present plans call for an installation of $420,000 \mathrm{~h} . \mathrm{p}$. by 1954, with provision being made for a total installation of about $1,000,000 \mathrm{~h} . \mathrm{p}$. The Consolidated Mining and Smelting Company of Canada Limited has commenced construction of a development of $205,000 \mathrm{~h} . \mathrm{p}$. in two units under 210 -foot head on the Pend d'Oreille River, near its junction with the Columbia River; operation is scheduled for early 1954. The following smaller developments were completed: Mastodon Zinc Mines Limited, 1,000 h.p. on La Forme Creek near Revelstoke; Western Uranium-Cobalt Mines Limited, 800 h.p. on Juniper Creek near Skeena Crossing; Ashcroft Water and Electric Company, 325 h.p. on Bonaparte River; Gilley Brothers Limited, replacement of an old $500-\mathrm{h} . \mathrm{p}$. water wheel by a $550-\mathrm{h} . \mathrm{p}$. hydro-electric unit.

Yukon Territory.-In Yukon, the Northwest Territories Power Commission is constructing, for 1952 operation, a development of $3,000 \mathrm{~h}$. p. on the Mayo River to serve the mines in the Keno Hill and Galena Hill areas.

## 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 provincial 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 87 p.c. of the total capacity of hydro installations in all industries in Canada. The generators driven by this hydraulic equipment generate 97 p.c. of the total output of all central electric stations.

## 4.-Electric Energy Generated, by Type of Station, 1941-50, and by Provinces, 1949 and 1950



## 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. Minor hesitations in output occurred in years of recession but the general movement has been strongly upward and, based on monthly data, the output of central stations during 1951 was more than ten times that of 1919. Ample electric power at reasonable rates has been a principal factor in the transformation of Canada over the past half century from a predominantly agricultural to an industrial nation.

The central electric station industry is one that is particularly suited to largescale operation because of the huge outlay of capital necessary. Capital invested and total horsepower installed increased almost continuously even during the

[^177]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. 554-569). Installed capacity of the industry in hydro and thermal units is now about equal to one horsepower for every Canadian.


## 5.-Summary Statistics of Central Electric Stations, 1941-1950

Note.-Figures for the years 1917-31 will be found at p. 369 of the 1940 Year Book; f or 1932-40 figures see p. 564 of the 1950 edition.

| Year | Stations | Capital Invested | Revenue from Sale of Power ${ }^{1}$ | Power Equipment Capacity ${ }^{2}$ | Kilowatt Hours Generated | Customers |  | Salaries and Wages |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | 8 | h.p. | '000 | No. | No. | \$ |
| 1941... | 607 | 1,641,460,451 | 186,080,354 | 8,157,585 | 33,317,663 | 2,081,270 | 19,880 | 31,647,952 |
| 1942. | 616 | 1,747,891,798 | 203,914,608 | 8,613,696 | 37,355, 179 | 2,125,558 | 19,764 | 34, 285, 870 |
| 1943.. | 622 | 1,778,224,640 | 204, 801,508 | 9,602,794 | 40,479,593 | 2,169,148 | 19,120 | 35,785,932 |
| 1944.. | 626 | 1,778, ${ }^{3}$ | 215,246, 391 | 9,713,791 | 40,598,779 | 2,238,023 | 19,770 | 36.945, 296 |
| 1945. | 600 | 3 | 215,105,473 | 9,666,947 | 40,130, 054 | $2,333,230$ | 21, 283 | 39,521,365 |
| 1946. | 600 | 3 | 226,096,273 | 9,825,459 | 41,736,987 | 2,476,830 | 24,577 | $52,380,686^{\text {r }}$ |
| 1947. | 607 | 3 | 243,705, 976 r | 9,601,157 | 43,424,799 | 2,643,327 | 26,704 | 67,417,317 |
| 1948 | 635 | 3 | 257,377,490 | 10,038,541 | 42,389,681 | 2,822,027 | 29,349 | 68,765,222 |
| 19494 | 650 | 3 | 280,311,624 | 10,637,798 | 44,418,573 | 3, 776,369 | 31.746 32 | 78,272,815 |
| 19504. | 665 | 3 | 323,833,465 | 11,703,161 | 48,493,718 | 3,269,824 | 32,873 | 88,988,681 |

[^178]6.-Electric Energy Generated in Central Electric Stations, by Provinces, 1946-50

| Province or Territory | 1946 | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 kwh. | '000 kwh. | 'c00 kwh. | '000 kwh. | '000 kwh. |
| ${ }_{\text {Newfoundland. }}^{\text {Prince Edward Island }}$ |  |  |  | 200,610 | 147,470 |
| $\xrightarrow{\text { Prince Edward Island }}$ | 16,702 590,492 | 20,382 617,111 | 21,932 | 24,950 | 29,050 |
| New Brunswick | 590,492 592,923 | 617,111 | 677,661 | 717,473 | 762,339 |
| Quebec. | 23,597,321 | 25,930,171 | 591,636 $24,566,682$ | 651,253 $25,530,923$ | 27, $\begin{array}{r}696,519 \\ 32311\end{array}$ |
| Ontario | 10,778,135 | 11,191,693 | 24,566,682 | 25,530,923 | 27,323,311 |
| Manitoba. | 2,389,375 | 2,031,754 | 2,055,709 | $1,324,407$ $2,159,998$ | $12,718,518$ $2,449,383$ |
| Saskatchewan | 270,691 | 762,882 | 804,994 | 858,088 | -903,144 |
| Alberta. | 602,048 | 641,331 | 724,498 | 800,729 | 869,064 |
| British Columbia | 2,899,300 | 1,637,017 | 1,820,271 | 2,105,186 | 2,535,412 |
| Yukon and N.W.T | 1 | 1 | 30,690 | 44,956 | 59,508 |
| Canada | 41,736,987 | 43,424,799 | 42,389,681 | 44,418,573 | 48,493,718 |

[^179]Domestic Service.-The 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 enjoyed in Canada.
7.-Summary Statistics of Domestic Consumption of Electricity, 1941-50

| Year | Customers | Consumption | Average Consumption per Customer | Average Charge per Annum | Average Charge per kwh. |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | '000 kwh. | kwh. | 8 | cts. |
| 1941. | 1,755,917 | 2,582,405 | 1,471 | $27 \cdot 73$ | 1.89 |
| 1942. | 1,803,708 | 2,716,895 | 1,506 | 28.11 | 1.87 |
| 1943. | 1,852,367 | 2,843,612 | 1,535 | 27.70 | $1 \cdot 80$ |
| 1944. | 1,906,452 | 3,046,980 | 1,598 | $27 \cdot 96$ | 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 | $29 \cdot 85$ | 1.62 |
| 1947. | 2,246,253 | 4,383,222 | 1,951 | 31.28 | $1 \cdot 60$ |
| 1948. | 2,398,847 | 4,984,280 | 2,078 | $33 \cdot 32$ | $1 \cdot 60$ |
| 1949. | 2,619,831 | 5,678,847 | 2,168 | 34.47 38.97 | 1.59 1.61 |
| 1950. | 2,797,378 | 6,750,303 | 2,413 | 38.97 | $1 \cdot 61$ |

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 1950. Rural electrification has made considerable progress since the end of World War II. Farm customers added during 1950, totalled 52,861 and the national total at 303,727 increased by $21 \cdot 1$ p.c. over 1949. The relatively large number 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 over 48 p.c. of the farms in Canada now enjoy the benefits oi power-line service. Many additional farms generate their own electricity by the use of engines, windmills, etc.

## 8.-Farm Service Furnished by Central Electric Stations, 1949 and 1950

Note.-Farm service was not reported separately in Newfoundland, Yukon Territory or the Northwest Territories.

| Year and Province | Customers | Consumption of Electric Energy |  | Revenue Received |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total Kilowatt Hours | Average kwh. per Customer | Total | Average per Customer | Average per kwh. |
| 1949 | No. | No. | No. | \% | \$ | ets. |
|  |  |  |  |  |  |  |
| Prince Edward Island. | 3,860 | 2,514,369 | 651 | 161,243 | 41.77 | 6.4 |
| Nova Scotia. | 13,533 | -11,486,027 | 849 | 484,008 | 35.77 | $4 \cdot 2$ |
| New Brunswick. | 28,490 | 20,181,747 | 708 | 1,000,490 | $35 \cdot 12$ | $5 \cdot 0$ |
| Quebec.. | 74,857 | 62,382,972 | 833 | 2,089,400 | 27.91 | $3 \cdot 3$ |
| Ontario. | 106,134 | 293,267,952 | 2,763 | 4,806,085 | $45 \cdot 28$ | $1 \cdot 6$ |
| Manitoba. | 11,155 | 23,570,763 | 2,113 | 780,295 | 69.95 | $3 \cdot 3$ |
| Saskatchewan. | 2,299 | 2,022,198 | 880 | 146,742 | 63.83 | $7 \cdot 3$ |
| Alberta. | 5,017 | 10,677,838 | 2,128 | 437,336 | $87 \cdot 17$ | $4 \cdot 1$ |
| British Columbia. | 5,521 | 13,466,446 | 2,439 | 309,720 | $56 \cdot 10$ | $2 \cdot 3$ |
| Totals, 1949 | 250,866 | 439,570,312 | 1,752 | 10,215,319 | 40.72 | $2 \cdot 3$ |
| 1950 |  |  |  |  |  |  |
| Prince Edward Island. | 4,916 | 4,445,837 | 904 | 273,508 | 55.64 | 6.2 |
| Nova Scotia.. | 18,371 | 13,788,320 | 751 | 545, 182 | 29.68 | $4 \cdot 0$ |
| New Brunswick. | 31,721 | 23,381,425 | 737 | 1,160,836 | 36.60 | $5 \cdot 0$ |
| Quebec.. | 83,618 | 78,472,220 | 938 | 2,654,548 | 31.75 | $3 \cdot 4$ |
| Ontario. | 119,018 | 371, 217,464 | 3,119 | 6,848,172 | 57.54 | $1 \cdot 8$ |
| Manitoba. | 16,964 | 40,017,358 | 2,359 | 1,238,866 | 73.03 | $3 \cdot 1$ |
| Saskatchewan. | 4,057 | 3,571,983 | 880 | 247, 133 | 60.92 | 6.9 |
| Alberta. | 7,866 | 17,698,835 | 2,250 | 598,608 | $76 \cdot 10$ | $3 \cdot 4$ |
| British Columbia | 17,196 | 34, 155,084 | 1,986 | 748,781 | $43 \cdot 54$ | $2 \cdot 2$ |
| Totals, 1950. | 303,727 | 586,748,526 | 1,932 | 14,315,634 | 47-13 | $2 \cdot 4$ |

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. The number of thermal engines increased from previous years. Equipment data were not included for small industries or firms, mainly in Saskatchewan and Alberta, whose output was largely consumed by their own plants.

## 9.-Main-Plant Equipment of Central Electric Stations, by Provinces, and Total Auxiliary Equipment, 1949 and 1950

Note.-Kva. means kilo-volt-amperes.

| Year, Type of Equipment, Province or Territory | Generating Power Plants | Water Wheels and Turbines |  |  | Thermal Engines |  |  | Generators |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | Capacity | Average Capacity | No. | Capacity | Average Capacity | No. | Capacity | Average Capacity |
| 1949 | No. |  | h.p. | h.p. |  | h.p. | h.p. |  | kva. | kva. |
| Main-Plant <br> Equipment |  |  |  |  |  |  |  |  |  |  |
| N'f'ld. | 18 | 28 | 54,715 | 1,954 | 4 | 264 | 66 | 33 | 46,308 | 1,403 |
| P.E.I. | 8 | 6 | , 387 | 1,65 | 15 | 9,640 | 643 | 20 | 7,640 | 1,482 |
| N.S. | 49 | 60 | 126,158 | 2,103 | 39 | 118,044 | 3,027 | 99 | 208,505 | 2,106 |
| N.B. | 18 | 14 | 104,260 | 7,447 | 30 | 82,381 | 2,746 | 44 | 161,080 | 3,661 |
| Que. | 99 | 281 | 5,718,507 | 20,351 | 17 | 2,840 | 167 | 300 | 4,875,585 | 16,252 |
| Ont. | 130 | 322 | 2,574,500 | 7,995 | 11 | 46,650 | 4,241 | 334 | 2,097,119 | 6,279 |
| Man. | 13 | 42 | 466,800 | 11,114 | 12 | 2.242 | 187 | 52 | 377,501 | 7,260 |
| Sask. | 135 | 6 | 106,500 | 17,750 | 188 | 204,686 | 1,089 | 191 | 252,079 | 1,320 |
| Alta. | 89 | 11 | 105,300 | 9,573 | 140 | 171,526 | 1,225 | 149 | 239,853 | 1,610 |
| B.C.......... | 86 | 70 | 706,548 | 10,094 | 84 | 25,433 | 303 | 152 | 615,421 | 4,049 |
| $\begin{aligned} & \text { Yukon and } \\ & \text { N.W.T.... } \end{aligned}$ | 5 | 3 | 9,730 | 3,243 | 6 | 687 | 115 | 9 | 9,201 | 1,022 |
| Canada. | 650 | 843 | 9,973,405 | 11,831 | 546 | 664,393 | 1,217 | 1,383 | 8,890,292 | 6,428 |
| AuxminryPlant Equipment | $\cdots$ | $\ldots$ | ... | ... | 128 | 245,478 | 1,918 | 123 | 213,410 | 1,735 |
| Grand Totals, 1949 | 650 | 843 | 9,973,405 | 11,831 | 674 | 909,871 | 1,350 | 1,506 | 9,103,702 | 6,045 |
| 1950 |  |  |  |  |  |  |  |  |  |  |
| Main-Plant Equipment |  |  |  |  |  |  |  |  |  |  |
| N'f'ld. | 18 | 28 | 54,715 | 1,954 | 4 |  | 66 | 33 | 46,308 | 1,403 |
| P.E.I. | 7 | 5 |  |  | 16 | 11,240 | 703 | 20 | 9,035 | 452 |
| N.S. | 50 | 63 | 143,958 | 2,285 | 36 | 117,849 | 3,274 | 99 | 222,851 | 2,251 |
| N.B. | 19 | 14 | 104,260 | 7,447 | 32 | 82,636 | 2,582 | 46 | 161,330 | 3,507 |
| Que. | 99 | 281 | 5,904,389 | 21,012 | 17 | 2,840 | 167 | 298 | 5, 031,893 | 16,886 |
|  | 139 | 360 | 3,248,752 | 9,024 | 9 | 47,205 | 5,245 | 370 | 2,636,072 | 7,125 |
| Man. | 9 | 44 | 594,300 | 13,507 | 10 | 2.182 | 218 | 53 | 442,488 | 8,349 |
| Sask | 139 | 6 | 106,500 | 17,750 | 201 | 206,625 | 1,028 | 205 | 253,488 | 1,237 |
| Alta. | 92 | 11 | 105,300 | 9,573 | 135 | 173,096 | 1,282 | 143 | 241,039 | 1,686 |
| B.C. | 86 | 71 | 757,526 | 10,669 | 95 | 27,993 | 295 | 164 | 671,081 | 4,092 |
| Yukon and N.W.T. | 7 | 3 | 9,730 | 3,243 | 13 | 1,432 | 110 | 16 | 9,808 | 613 |
| Canada... | 665 | 886 | 11,029,799 | 12,449 | 568 | 673,362 | 1,185 | 1,447 | 9,725,393 | 6,721 |
| AuxiliaryPlant Equipment | ... | $\ldots$ | ... | ... | 141 | 273,080 | 1,937 | 136 | 234,824 | 1,727 |
| Grand <br> Totals, 1950 | 665 | 886 | 11,029,799 | 12,449 | 709 | 946,442 | 1,335 | 1,583 | 9,960,217 | 6,292 |

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, 1948 to 1950 , were $\$ 470,627, \$ 435,867$ and $\$ 431,895$, respectively.

Exports for the years 1948-51 are shown in Table 10. There are also large interprovincial movements of electric energy from Quebec to Ontario, and smaller movements from 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 $5,000 \mathrm{cu} . \mathrm{ft}$. 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 1948 and 1949 increased demands from domestic consumers and low water reduced the surplus energy available for export but exports increased again in 1950 and 1951.
10.-Electric Energy Exported from Canada, by Companies, and Imported from the United States, 1948-51

| Company | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: |
|  | '000 kwh. | '000 kwh. | '000 kwh. | '000 kwh. |
| Exports to United States- |  |  |  |  |
| Hydro-Electric Power Commission of |  |  |  |  |
| Ontario............................. | 380,704 | 301,037 | 361,458 | 392,036 |
| Hydro-Electric Power Commission of Ontario (surplus) | 231,290 | 335,141 | 347,246 | 717,387 |
| Canadian Niagara Power Company........ | 325,000 | 267,802 | 264,955 | 303,660 |
| Canadian Niagara Power Company (surplus) | 73,191 | 39,560 | 35,171 | 37,966 |
| Ontario and Minnesota Power Company .... | 30,225 | 22,069 | 36,867 | 39,340 |
| Maine and New Brunswick Electric Power Company | 24,530 | 34,126 | 36,830 | 39,129 |
| Maine and New Brunswick Electric Power Company (surplus) | 1,841 | 3,491 | 4,086 | 2,113 |
| British Columbia Electric Railway Company | 14,208 | 93,898 | 191,878 | 188,186 |
| Southern Canada Power Company .......... | 2,247 | 2,109 | 2,308 | 2,976 |
| Quebec Hydro-Electric Commission......... | 650,291 | 648,904 | 639,464 | 644,017 |
| Canadian Cottons, Limited, Milltown, N.B. | 60 9,121 | -8,251 | - 5,212 | -8,319 |
| Northport Power and Light Company...... | 38 | 47 | 52 | 43 |
| Northern B.C. Power Company............ | 36 | 36 | 22 | 19 |
| Detroit and Windsor Subway Compan | 327 | 320 | 317 | 325 |
| Manitoba Power Commission. | - | - | 1 | 6 |
| Totals, Exports. | 1,743,109 | 1,756,791 | 1,925,867 | 2,375,522 |
| Imports from United States ${ }^{1}$ | 84,994 | 26,099 | 1,434 | 7,776 |

${ }^{1}$ Mainly by British Columbia Electric Railway Company.

## 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.

[^180]11.-Summary Statistics of Publicly Owned Central Electric Stations, 1941-50

| Year | Power Plants | Customers | Electric Energy Generated | Power Equipment (Main plant only) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Water Wheels and Turbines | Total |
|  | No. | No. | '000 kwh. | h.p. | h.p. |
| 1941. | 183 | 1,126,364 | 8,523,915 | 2,031,250 | 2,240,425 |
| 1942. | 188 | 1,140,499 | 9,177,792 | 2,134,845 | 2,344,310 |
| 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, 676 | 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 |
| $1949{ }^{1}$. | 259 | 2,033,418 | 17,686,684 | 3,784,484 | 4,208,495 |
| $1950{ }^{1}$. | 270 | 2,200,957 | 20,061,314 | 4,558,449 | 4,987,095 |

## ${ }^{1}$ Includes Newfoundland.

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 provinces, for 1949 and 1950. Table 14 shows comparable statistics for commercial stations.
12.-Publicly Owned Central Electric Stations, by Provinces, 1949 and 1950

| Year andProvince or Territory | Generating <br> Power Plants | Customers | Electric <br> Energy Generated | Power Equipment (main plant only) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Water <br> Wheels and Turbines | Total |
| 1949 | No. | No. | '000 kwh. | h.p. | h.p. |
| Newfoundland. | 1 | 189 | 97 | - | 264 |
| Prince Edward Island | 1 | 1,867 | 5,572 | $\overline{84}$ | 2,590 |
| Nova Scotia. | 28 | 47,226 | 273,998 | 84,080 | 91.855 |
| New Brunswick.. ... . . ....... | 12 | 77,392 | 215,105 | 12,860 | -94,241 |
| Quebec............... ... ....... | 23 | 410,586 | 6,001,323 | 1,133,435 | 1,133,615 |
| Ontario.. | 85 | 1,112,185 | 9,557,798 | 2,213,289 | 2,213,874 |
| Manitoba. | 5 | 114,894 | 812.625 | 201,000 | 202, 270 |
| Saskatchewan. | 58 | 102,192 | 292,943 | - | 171,628 |
| Alberta........ | 10 | 94,709 | 325,175 | - | 138,211 |
| British Columbia............... | 35 1 | 72,175 3 | 186,221 15,827 | 132,090 7.730 | 152,217 7,730 |
| Yukon and Northwest Territories.. |  |  | 15,827 | 7.730 | 7,730 |
| Canada, 1949. | 259 | 2,033,418 | 17,686,684 | 3,784,484 | 4,208,495 |
| 1950 |  |  |  |  |  |
| Newioundland. | 1 | ${ }_{2} 230$ |  | - | 264 |
| Prince Edward Island | 1 | 2,227 | 7,083 |  | 4,190 |
| Nova Scotia | 28 | 56,356 84,307 | 263,661 | 96,880 12 | 104,460 |
| New Brunswick Quebec........ | 12 | 84,307 416,052 | 233,718 $6,676,885$ | 1, $\begin{array}{r}12,860 \\ 1,835\end{array}$ | 194,241 $1,248,015$ |
| Ontario | 93 | 1,223,460 | 11,031,003 | 2,853,304 | 2,853,784 |
| Manitoba. | 4 | 128.513 | 832,399 | 201,000 | 202,270 |
| Saskatchewan. | 59 | 109,387 | 337,149 | - | 173, 013 |
| Alberta... | 9 | 103,136 | 369,055 |  | 138, 126 |
| British Columbia.............. | 37 | 77,203 86 | 283.329 26,859 | 138,840 7,730 | 160,482 8,250 |
| Yukon and Northwest Territories. | 2 | 86 | 26,859 | 7,730 | 8,250 |
| Canada, 1950. | 270 | 2,200,957 | 20,061,314 | 4,558,449 | 4,987,095 |

Summary statistics of privately owned central electric stations are given for the years 1941 to 1950 in Table 13.
13.-Summary Statistics of Privately Owned Central Electric Stations, 1941-49

| Year | Generating <br> Power Plants | Customers | Electric Energy Generated | Power Equipment (main plant only) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Water <br> Wheels and Turbines | Total |
|  | No. | No. | '000 kwh. | h.p. | h.p. |
| 1941. | 424 | 954,906 | 24,784,691 | 5,753,150 | 5,917,160 |
| 1942. | 428 | 985,059 | 28,177, 387 | 6,099,440 | 6,269,386 |
| 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 ${ }^{1}$...... | 395 | 1,068,867 | 28,432.404 | 6,471,350 | 6,716,066 |

${ }^{1}$ Includes Newfoundland.
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 1950, 43 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.

In 1950, all stations in Ontario produced less than one-half as much power as the Quebec stations and only 13 p.c. of the total for Ontario stations was produced by privately owned stations.

## 14.-Privately Owned Central Electric Stations, by Provinces, 1949 and 1950

| Year and Province or Territory | Generating Power <br> Plants | Customers | Electric Energy Generated | Power Equipment (main plant only) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Water Wheels and Turbines | Total |
| 1949 | No. | No. | '000 kwh. | h.p. | h.p. |
| Newfoundland. | 17 | 31,590 | 200,513 | 54,715 | 54,715 |
| Prince Edward Island............... | 7 | 9.010 | 19,378 | , 387 | 7,437 |
| Nova Scotia. | 21 | 84,237 | 443,475 | 42.078 | 152,347 |
| New Brunswic Quebec...... | 6 | 24,934 | 436,148 | 91,400 | 92,400 |
| Ontario | 45 | 77,090 | 19,56, 1,609 | 4,585,072 | 4,587,732 |
| Manitoba | 8 | 48,570 | 1,347,373 | 265,800 | - 266,772 |
| Saskatchewan | 77 | 11,903 | 565,145 | 106,500 | 139,558 |
| Alberta... | 79 | 62, 236 | 475,554 | 105,300 | 138.615 |
| British Columbis................. | 51 | 243,580 | 1,918,965 | 574,458 | 579,764 |
| Yukon and Northwest Territories. . | 4 | 2,006 | - 29,129 | 2,000 | 2,687 |
| Canada, 1949 | 391 | 1,042,951 | 26,731,889 | 6,188,921 | 6,429,303 |
| Newfoundland 1950 |  |  |  |  |  |
| Prince Edward Island. | 176 | 33,396 10,140 | 147,297 21,967 | 54,715 369 | 54,715 |
| Nova Scotia......... | 22 | - 89,143 | 498,678 | $\begin{array}{r}\text { 47,078 } \\ \hline\end{array}$ | 157,347 |
| New Brunswic | 7 | 26,308 | 462,801 | 91,400 | 92,655 |
| Quebec. | 75 | 484,412 | 20,646,426 | 4,656,554 | 4,659,214 |
| Ontario. | 46 | 38,207 | 1,687,515 | 395,448 | 442,173 |
| Sankatch | 5 | 50,750 | 1,616,984 | 393,300 | 394,212 |
| Alberta. | 80 83 | 12,266 | 565,995 | 106,500 | 140.112 |
| British Columb | 49 | -253,219 | 500,009 $2,252,083$ | 105,300 | 140,270 625.037 |
| Yukon and Northwest Territories.. | 5 | 2,164 | 32,649 | 2,000 | 2,912 |
| Canada, 1950... | 395 | 1,068,867 | 28,432,404 | 6,471,350 | 6,716,066 |

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. In certain cases, privately owned utilities are also covered.

Newfoundland.-There are no publicly owned hydro-electric systems in Newfoundland. Of the total installed turbine capacity of $292,890 \mathrm{~h} . \mathrm{p}$. at the end of $1951,245,550$ h.p. was utilized by the two large pulp and paper companies-Anglo-Newfoundland Development Company Limited and Messrs. Bowater's Newfoundland Pulp and Paper Mills Limited-for their own manufacturing requirements and for the provision of light and power to the municipalities in their vicinities. The remainder was distributed among four other privately owned companies, the largest being the Newfoundland Light and Power Company which supplies the City of St. John's and the town of Bell Island together with the mining operations there. This Company has a turbine installation of $37,900 \mathrm{~h} . \mathrm{p}$. at five plants all on the eastern side of the Avalon Peninsula to which a proposed development at Horse Chops River, Cape Broyle, will add 8,500 h.p. One municipally owned steam plant, with a capacity of 264 h.p., operates at the town of Lewisporte.

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 initiating 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, 1950, showed total fixed assets of $\$ 29,266,677$, including work in progress amounting to $\$ 4,638,804$. Current assets amounted to $\$ 325,550$. Liabilities are shown as follows: fixed $\$ 23,088,483$; current $\$ 1,927,044$; contingency and renewal reserves $\$ 2,884,464$; sinking fund reserves $\$ 4,566,241$; and general reserves and special reserves $\$ 1,595,944$.

The initial development of the Commission was an $800 \mathrm{~h} . \mathrm{p}$. installation on the Mushamush River which went into operation in 1921 and delivered $192,000 \mathrm{kwh}$. in the first complete year of operation. Succeeding years showed a marked growth in installed capacity, reaching $92,450 \mathrm{~h} . \mathrm{p}$. in hydraulic turbines, $2,012 \mathrm{~h} . \mathrm{p}$. in diesel units and $1,125 \mathrm{kw}$. in steam turbines by Nov. 30, 1950, with a total generation for that year of $253,058,860 \mathrm{kwh}$.

The territory of the Commission extends the entire length of the Province and embraces nine systems which include 22 generating stations and 3,426 miles of transmission and distribution lines, through which 44 wholesale and 21,919 retail customers received $242,467,861 \mathrm{kwh}$. during the year ended Nov. 30, 1950.

The installed capacity and annual output of the various systems of the Nova Scotia Power Commission are given in Table 15. The Commission had under construction a plant of $8,600 \mathrm{~h} . \mathrm{p}$. on the Bear River scheduled for operation in 1952.
15.-Capacity and Output of the Nova Scotia Power Commission, 1950


New Brunswick.-The New Brunswick Electric Power Commission was incorporated under the Electric Power Act, 1920. Generating stations owned and operated by the Commission are as follows:-

| Plant | Type | Capacity | Plant | Type | Capacity |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | h.p. |  |  | h.p. |
| Musquash | Water power | 10,000 | St. Stephen . ....... | Diesel. | 2,500 |
| Grand Lake. | Steam. | 43,550 | Campobello......... | Diesel | 335 |
| Saint John. | Steam. | 25,500 | Andover............. | Diesel.. | 535 |
| Chatham. | Steam. | 16,750 | Shippegan........... | Diesel. | 2,680 |
| Grand Manan. | Diesel. | 1,045 |  |  |  |
| St. Quentin. | Diesel. | 950 | Total Capacity.. |  | 103,845 |

The Musquash, Grand Lake, Saint John and Chatham plants are interconnected and operate in parallel at all times. The St. Stephen and Shippegan plants also may be paralleled with the system as required.

A new steam plant was placed in operation at Grand Lake in the autumn of 1951 , adding $16,750 \mathrm{~h} . \mathrm{p}$. to the Commission's generating capacity. A $\mathbf{2 5 , 0 0 0} \mathrm{h} . \mathrm{p}$. unit will be in service in this same plant late in 1952.

High-voltage transmission was increased from 646 miles in 1949 to 694 miles in 1951. Power is sold "en bloc" to the cities of Saint John, Moncton and Fredericton and to the town of Sussex.

The statistical information given in Table 16 shows the growth of the Commission's undertakings since 1924.

## 16.-Growth of the New Brunswick Electric Power Commission, Years Ended Oct. 31, 1924, 1945 and 1948-51

| Item | 1924 | 1945 | 1948 | 1949 | 1950 | $1951{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| High-voltage trans- |  |  |  |  |  |  |
| mission line ....... miles | 138 | 348 | 476 | 566 | 646 | 694 |
| Distribution line...... " | 67 | 2,326 | 3,428 | 4,334 | 5,255 | 5,623 |
| Indirect customers.... No. | 11,561 |  |  |  |  | 40,393 ${ }^{2}$ |
| Direct customers...... " | 1,129 | 24,166 | 38,908 | 44,822 | 52,255 | 53,777 |
| Plant capacities...... h.p. | 11,100 | 37,590 | 87,295 | 87,295 | 87,295 | 87,095 |
| Power generated...... kwh. | 15,500,000 | 122,508,320 | 195,878,655 | 222,951,910 | 242,302,755 | 114,373,065 |
| Capital invested. ..... \% | 3,780,000 | 11,509,962 | 22,286,778 | 27,175,441 | 31,357, 828 | 33, 857,407 |
| Revenue.............. \& | 310,000 | 2,024,468 | 3,544,717 | 4,073,979 | 4,768,746 | 2,385, 054 |

${ }^{1}$ Five months-Nov. 1, 1950, to Mar. 31, 1951-due to change in Commission's fiscal year-end from Oct. 31 to Mar. 31 . 2 Estimate.

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 head-waters, are: the St . Maurice, now developing $1,110,550 \mathrm{~h} . \mathrm{p}$. ; the Gatineau, $528,000 \mathrm{~h} . \mathrm{p}$; the Lièvre, 274,000 h.p.; the St. Francis, 100,000 h.p.; the Chicoutimi, 41,400 h.p.; the Au Sable, $33,200 \mathrm{~h} . \mathrm{p}$. ; and the Metis, $15,700 \mathrm{~h} . \mathrm{p}$. The Commission also operates nine reservoirs on Rivière du Nord, two in the watershed of the Ste. Anne-de-Beaupré River, and one at the outlet of Lake Morin, on Rivière-du-Loup (en bas).

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 Hydro-Electric Commission.

Power developments on the Saguenay River, benefiting from the Peribonca and Lake St. John reservoirs, amount to $1,950,000 \mathrm{~h} . \mathrm{p}$. since 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 or 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:-*


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 $1,500,000$. 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 rates of $100,000 \mathrm{~h} . \mathrm{p}$. to Massena, N.Y., and $250,000 \mathrm{~h} . \mathrm{p}$. to Ontario.

[^181]17.-Growth of the Quebec Power Systems, 1942-51

Norz.-Figures for the years 1935-41 will be found at p. 572 of the 1950 Year Book.

| Year | Municipalities Served | Customers Served | Power Distributed |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Total | Primary |
|  | No. | No. | h.p. | h.p. |
| 1942. | 61 | 289,038 | 1,032,000 | 827,000 |
| 1943. | 61 | 293,005 | 1,044,000 | 942,000 |
| 1945 | 61 | 298,767 | 1,060,000 | 897,000 |
| 1946. | 61 | 305,049 | 1,045.000 | 883,000 |
| 1947. | 61 | 309,022 318,984 | 1,085,000 | 947,000 |
| 1948. | 61 | 318,984 330,799 | $1,127,000$ $1,202,000$ | r 9880,000 |
| 1949. | 61 | 330,799 349,347 | 1, $1,233,000$ | $1,034,000$ $1,119,000$ |
| 1950. | 64 | 349,347 368,026 | $1,233,000$ 1,296 | 1,182,000 |
| 1951. | 66 | 387,218 | 1,312,000 | 1,312,000 |

## 18.-Distribution of Primary Power to Systems, 1946-51

(Coincident with Montreal System peak)

| System | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | h.p. | h.p. | h.p. | h.p. | h.p. | h.p. |
| Montreal System | 538,000 | 567,000 | 620,000 | 669,000 | 730,000 | 803,000 |
| Beauharnois Local System ..... $\quad \ldots \ldots$ | 34,000 | 35,000 | 36,000 | 70,000 | 65,000 | 171,000 |
| Beauharnois 25-cycle System (H.E.P.C. of Ontario) | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 | 250,000 |
| Massena System. | 125,000 | 128,000 | 128,000 | 130,000 | 137,000 | 80,000 |
| Shawinigan System | - | - | - | - | - | 8,000 |
| Totals. | 947,000 | 980,000 | 1,034,000 | 1,119,000 | 1,182,000 | 1,312,000 |

In addition to the ownership and operation of these generating and distributing systems, the Quebec Hydro-Electric Commission administers the $64,000 \mathrm{~h} . \mathrm{p}$. Upper Ottawa River plant at Rapid VII and also the Dozois Reservoir. Average primary power statistics for this Northern Quebec System (Cadillac-Noranda district) are as follows: 1946, 15,750 h.p.; 1947, 18,140 h.p.; 1948, 21,270 h.p.; $1949,34,790$ h.p.; $1950,35,500 \mathrm{~h} . \mathrm{p}$.; and $1951,30,550 \mathrm{~h} . \mathrm{p}$.

Ontario.-The Hydro-Electric Power Commission of Ontario is a corporate body administering a province-wide co-operative enterprise to produce and distribute electric power. The members of the Commission, a Chairman and two Vice-Chairmen, are appointed by the Lieutenant-Governor in Council to hold office during pleasure. 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 which 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 (S.O. 7 Ed. 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 by the Power Commission Act with broad powers to produce, buy and distribute electricity, and to perform certain regulatory functions with respect to the activities of the electrical utility commissions of the member municipalities. The enterprise represented by the Commission is generally known and referred to as the Ontario Hydro.

The Year Book 1940 contains a general article on the Ontario Hydro, to which reference has been made in succeeding editions. It deals with the early history of The Hydro-Electric Power Commission of Ontario from its founding in 1906 and sketches the later development of the Commission both in organization and resources which followed the lines so well established by the first Chairman, Sir Adam Beck.

The undertaking initially proposes 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 thirteen municipalities which had signed the original contracts with the Commission to take power at cost. In 1909 the task of constructing a transmission system to distribute power to the member municipalities was begun, and, by the end of the following year, power was being supplied to several of them. Similarly,
and at about the same time, the Commission built a short transmission line and a substation to serve Port Arthur with power purchased from the Kaministiquia Power Company. These two pioneer systems eventually grew into the Southern Ontario and Thunder Bay Systems, respectively.

In 1911 the Severn System was established and, in the years following, other systems were established to serve groups of municipalities in various sections of the Province. By 1919 the number of systems had reached eleven, where it remained until 1924 when the Severn and two other systems were consolidated to form the Georgian Bay System. In 1929-30 a further consolidation of four systems created the Eastern Ontario System. During the 1930's the Commission undertook to operate, in trust for the Provincial Government, what have been known as the Northern Ontario Properties. These were a group of systems which mainly served mining and pulp and paper industries but which were not interconnected. In 1944 the Southern Ontario System came into being through the consolidation of the former Niagara, Georgian Bay and Eastern Ontario Systems.

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 Wasdells Falls, also on the Severn River, was placed in service. The program of purchase and construction of generating stations thus launched reached its climax between 1917 and 1925 in the construction of the great Queenston-Chippawa development, recently renamed Sir Adam Beck-Niagara Generating Station No. 1, which first delivered power early 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 demand.

During the three decades between 1921 and 1951 the population of Ontario, as measured at decennial censuses, increased by 17 p.c., $10 \cdot 4$ p.c. and 21.4 p.e. Measured against these very satisfactory rates of increase, the growth of Ontario Hydro has been phenomenal. In 1921 the capital investment of the Commission and its member municipalities was about $\$ 151,000,000$. By 1931 , it had more than doubled; by 1941 , it exceeded $\$ 481,000,000$; and by 1951 , midway in the current program of expansion, it exceeded $\$ 1,200,000,000$. In 1931, the Commission generated and purchased $4,600,000,000 \mathrm{kwh}$. of electric energy. Corresponding totals for 1941 and 1951 were $10,700,000,000 \mathrm{kwh}$. and $18,800,000,000 \mathrm{kwh}$. The dependable peak capacity of the generating stations owned or operated by the Commission rose from $314,400 \mathrm{kw}$. in 1921, to $820,500 \mathrm{kw}$. in 1931, to $1,054,800 \mathrm{kw}$. in 1941, and to $2,237,550 \mathrm{kw}$. in 1951.

June 1, 1951, was the thirtieth anniversary of the coming into force of the Rural Hydro-Electric Distribution Act. Since 1921 the Commission has vigorously pressed its rural electrification program, assisted by Provincial Government grants in aid of construction of rural distribution facilities. In 1931 the Commission served 54,280 rural customers, in 1941 it served 131,254 and at the close of 1951 it served 318,606. The introduction in 1944 of a uniform rate plan for rural service throughout the Province was a significant event in the latter decade. The number of farms served during 1951 was 85 p.c. of the total number of Ontario farms as calculated on 1951 Census returns. In 1951 the Commission spent $\$ 20,300,000$ on its rural program, of which the Provincial Government's share was $\$ 10,000,000$.

The rapid growth in power demand that has marked the past decade has taxed the power resources of the Commission to the full. It has been matched by remarkable achievements in the construction of new, and the extension of existing
generating stations. Among recent notable hydro-electric developments have been three major generating stations on the Ottawa River-Des Joachims, Chenaux, and Otto Holden-Pine Portage serving Thunder Bay, and George W. Rayner Generating Station in Ontario's northeastern mining area. The construction of two major fuel-electric generating stations at Toronto and Windsor, named for Richard L. Hearn and J. Clark Keith, respectively, marks a departure from the Commission's virtually complete reliance on hydraulic resources. A summary of the Commission's power development program appears in Table 20.

At present the major capital undertaking, made possible by the Niagara Treaty of 1950, is the construction of the Sir Adam Beck-Niagara Generating Station No. 2 near Queenston on the Niagara River. Plans call for an ultimate installation of $900,000 \mathrm{kw}$. in 12 units. The first stage, seven units, is expected to be completed in 1955. The best answer to the need for power beyond that year is the St. Lawrence power project.

In 1949 the Commission embarked on a complex program of standardizing at 60 cycles the frequency of the Southern Ontario System. Approximately 33 p.c. of the area comprising the so-called " 25 -cycle island" had been standardized by 1951. A comprehensive article on this subject appears in the Year Book 1951, pp. 540-548.

The basic principle governing the financial operations of the Commission is that electrical service is provided to the municipalities, and by the municipalities to the customers, at cost. Cost includes not only all operating and maintenance charges interest on capital investment, and reserves for depreciation, for contingencies and obsolescence, and for stabilization of rates, but also a reserve for a sinking fund to retire the Commission's capital debt.

From its inception, the undertaking has been entirely self-supporting with the exception that the Provincial Government, through grants-in-aid, provides for 50 p.c. of the capital cost of the rural distribution lines. This is done in pursuance of the Province's 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.

With a few exceptions all townships and 150 of the smaller villages are now served as an amalgamated rural division of Hydro service with a uniform rate structure. Thus, no matter where rural service is supplied in Ontario by Hydro, all rural customers pay the same amount for the same class of service with the same consumption of electricity.

The undertaking as a whole involves two distinct phases of operations. 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 individual municipal utilities, to large industrial customers and to rural power districts. This phase of the operations is performed by The HydroElectric Power Commission of Ontario. The second phase of operations is the retail distribution of electric energy to customers within the limits of the areas served by the various municipal utilities and throughout the rural areas of the

Province. For the consolidated rural power districts, the Commission not only provides the power wholesale but also, on behalf of the respective townships, attends to all physical and financial operations connected with the retail distribution of energy to the customers within the rural operating areas into which the consolidated rural power districts are divided for administrative purposes.

In cities, towns, many villages, and certain thickly populated areas of townships, retail distribution of electric energy provided by the Commission is, in general, 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.

The total assets of the Commission at Dec. 31, 1951, amounted to \$1,036,029,755. This is the sum of the assets of the Commission in the Southern Ontario and Thunder Bay Systems and the Northern Ontario Properties after deducting accumulated depreciation of $\$ 116,945,857$. Rural assets under administration at the end of the year amounted to $\$ 127,227,145$, of which $\$ 63,015,165$, provided by the Province of Ontario in the form of grants-in-aid, is excluded from the total assets figure given above. The municipal electrical commissions had assets amounting to $\$ 329,051,074$, of which $\$ 118,269,171$ represented an equity in the Commission's systems.

The following tables give statistics of resources generated and purchased, development program, distribution and service of the Commission. In 1950 the Commission changed its fiscal year (formerly ended Oct. 31) to coincide with the calendar year. Thus, data shown for the year 1950 cover the 14 months ended Dec. 31, 1950, while those for the year 1951 were for the 12 months of that year. All year-end statistics for 1950 and 1951 relate to the months of December for the respective years while those for years previous to 1950 are for the month of October of the given year. Demands for primary power usually reach their seasonal maxima in December.

## 19.-Resources Generated and Purchased-Aul Systems, as at December 1950 and 1951

| 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 1950- |  |  |  |  |  |  |
| Southern Ontario System....... | 1.363,900 |  | 53,000 | 71,046 | 764, 100 | 1,024,263 |
| Thunder Bay System........... | 232,000 316,200 | 310,992 423,861 | -500 | 670 |  |  |
| Totals, Resources. | 1,912,100 | 2,563,137 | 53,500 | 71,716 | 764,700 | 1,025,067 |
| December 1951- |  |  |  |  |  |  |
| Southern Ontario System....... | 1,484,150 | 1,989,477 |  | 270,778 |  | 942,493 |
| Thunder Bay System........... | $\begin{array}{r} 234,000 \\ 317,100 \end{array}$ | $\begin{array}{r} 313,673 \\ 425,067 \end{array}$ | $-_{300}$ | ${ }_{-402}$ | 1,100 | 1,475 |
| Totals, Resources. | 2,035,250 | 2,728,217 | 202,300 | 271,180 | 704,200 | 943,968 |

[^182]
## 20.-Summary of Development Program of The Hydro-Electric Power Commission of Ontario (1945 to 1955), as at Dec. 31, 1951

| 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 | 22,500 |
| Emergency fuel-electric units.................. | January 1949-April 1950 | 63,0001 |
| 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................. $(88,000)$ January 1952-February 1953... $(288,000)$ | $376,000^{2}$ |
| J. Clark Keith-Windsor. | November 1951.................. $(66,000)$ | $264,000^{3}$ |
|  | January 1952-November 1953. . $(198,000)$ January 1952-November 1952...... | 264,000 ${ }^{3}$ |
| Sir Adam Beck-Niagara No. 2 - ${ }^{\text {- }}$ iagara | January 1952-November 1952........... | 204,000 |
| River... | 1954-1955. | $525,000^{3}$ |
| Thunder Bay System- |  |  |
| Aguasabon-Aguasabon River | October 1948. | 40,000 |
| Pine Portage-Nipigon River. | July 1950. | 60,000 |
| Northern Ontario Properties- |  |  |
| Ear Falls (Extension)-English River. | June 1948. | 6,000 |
| George W. Rayner-Mississagi River. | July 1950. | 42,000 |

${ }^{1}$ Including $10,000 \mathrm{kw}$, not available October-December. $\quad{ }^{2}$ Installed capacity of generating station after conversion of first and third units to 60 -cycle operation, $400,000 \mathrm{kw}$. ${ }^{3}$ Installed capacity.

## 21.-Growth of The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1941-49, and Dec. 31, 1950-51

Note.-Figures for the years 1931-40 will be found at p. 574 of the 1950 Year Book.

| Year | Municipalities Served | Customers Served | Total Power Distributed ${ }^{1}$ | Capital of Commission and Assets of Municipal Utilities |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | kw. | \$ |
| 1941. | 900 | 771,681 | 1,724,915 | 481,929,585 |
| 1942. | 902 | 785,564 | 1,690,284 | 496,576,881 |
| 1943. | 903 | 797,258 | 1,738,781 | 496,142,306 |
| 1944. | 904 | 818,085 | 1,802,454 | 500, 251,656 |
| 1945. | 922 | 869,712 | 1,939,505 | 539,148,757 |
| 1946. | 924 | 910,563 | 1,935, 972 | 563,541,722 |
| 1947. | 944 | 952,853 | $2,003,139$ | 623,106,873 |
| 1948. | 970 | 1,004,127 | 1,887,317 | 717,290,117 |
| 1949. | 1, 17 | 1,078,221 | 2,150, 231 | 898, 274,752 |
| $1950{ }^{2}$ | 1,132 | 1,187,117 | 2,714,565 | 1,073,562,037 |
| 1951. | 1,175 | 1,249,366 | 2,945,990 | 1,246,811,658 |

${ }^{1}$ Maximum 20 -minute coincident peak loads (primary plus secondary) of each of the three systems operated by the Commission, given in terms of net output of the sources of supply to each system. ${ }^{2}$ Due 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.
22.-Distribution of Power to Systems of The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1947-49, and Dec. 31, 1950-51
Note.-Peak load generated and purchased, primary and secondary, in terms of generation.

| System | 1947 | 1948 | 1949 | 19501 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Southern Ontario System $\qquad$ <br> Thunder Bay System <br> Northern Ontario Properties $\qquad$ <br> Totals. $\qquad$ | kw. | kw. | kw. | kw. | kw. |
|  | 1,684,269 | 1,542,975 | 1,743,973 | 2,210,929 | 2,425,909 |
|  | 112,585 | 132,210 | 171,380 | 224,710 | 222,013 |
|  | 206,285 | 212,132 | 234,878 | 278,926 | 298,068 |
|  | 2,003,139 | 1,887,317 | 2,150,231 | 2,714,565 | 2,945,990 |

${ }^{1}$ Due 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.
23.-Electrical Service to Rural Power Districts Operated by The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1947-49, and Dec. 31, 1950-51

| Item | 1947 | 1948 | 1949 | 19501 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rural operating areas............ No. | 92 | 97 | 96 | 103 | 103 |
| Townships served................... | 473 | 497 | 540 | 624 | 669 |
| Customers.......................... | 196,506 | 230,760 | 262,859 | 292,811 | 318,606 |
| Primary distribution lines......... miles | 24,374 | 29,532 | 33,127 | 34,793 | 38,198 |
| Power supplied (maximum)........ kw. | 145,854 | 169,439 | 202,073 | 234,752 | 271,354 |
| Revenues from customers........... | 8,451,058 | 9,762,049 | 11,370,166 | 18,908,343 | 20,163,439 |
| Total expenses..................... § | 8,360,570 | 9,763,736 | 13,346,962 | 19,117,406 | 20,475, 980 |
| Net surpluses....................... | 90,488 | -1,687 | $-1,976,796$ | -209,063 | -312,542 |
| Capital invested................. \$ | 55,126,269 | 67,596,984 | 89,331,733 | 106,843,231 | 127,227,145 |
| Provincial grants-in-aid............. \$ | 27,192,870 | \$8,580,778 | 44,085, 329 | 52,948,561 | 69,015,166 |

[^183]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) and amendments.

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 urban centres of 20,000 or over population, is now virtually complete and currently serves 419 such 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. Shortages of materials restricted the size of these programs until 1948 when the set goal of 5,000 farm connections was reached. The program has since continued on an areacoverage basis and the Commission now serves over 27,000 farms and has plans for further coverage.

Saskatchewan.-The 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, succeeds the Saskatchewan Power Commission which operated from Feb. 11, 1929, to Jan. 31, 1949. During the years 1929-49, the Commission purchased a number of generating plants and constructed and purchased transmission lines and also distribution systems in certain urban centres.

In 1945 it purchased the assets of Prairie Power Company Limited and in 1947 purchased the assets of Canadian Utilities Limited in Saskatchewan. It absorbed into its system the assets in Saskatchewan of Dominion Electric Power Limited, which for a time had been operated by the Commission as a wholly owned subsidiary.

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, but as yet has not exercised its powers in relation to gas.

Particulars of the operations of the Saskatchewan Power Commission from 1929 to 1948 and of the operations of the Saskatchewan Power Corporation during 1949 are given in the 1951 Year Book and earlier editions.

At the end of 1951, the Corporation owned and operated 8,757 miles of transmission line and distribution systems at 537 urban centres. It also owned and operated steam-generating plants at Estevan, North Battleford, Prince Albert and Saskatoon with a total installed capacity of $76,950 \mathrm{kw}$., and diesel-generating plants at Assiniboia, Biggar, Canora, Davidson, Hudson Bay, Humboldt, Kindersley, Leader, Maple Creek, Meadow Lake, Melfort, Melville, Moosomin, Nipawin, Shaunavon, Shellbrook, Swift Current, Tisdale, Unity, Watrous, Wynyard and Yorkton, with a total installed capacity of 30,053 h.p. During 1950 and 1951, the Corporation purchased blocks of power from the City of Regina and the National Light and Power Company Limited, Moose Jaw. During the same years the Corporation sold electric energy in bulk to the Cities of North Battleford, Saskatoon and Swift Current, and to the Town of Battleford. The number of customers served by these municipalities was 21,223 at the end of 1951. All the other urban centres on the Corporation's system were supplied on a retail basis, the number of customers so served by the Corporation being 72,700. At the end of 1951, the Corporation purchased the distribution system owned by the City of North Battleford and now supplies that city and its inhabitants on a retail basis.

In 1950 and 1951 the Corporation installed additional capacity in its steam and diesel plants, and constructed a large mileage of transmission lines. The main additions to plant capacity were the installation of a $15,000-\mathrm{kw}$. turbo-generator in the Estevan plant, and a $1,200-\mathrm{h} . \mathrm{p}$. gas-diesel unit in the Unity plant. The $69,000-$ volt lines constructed were: Prince Albert-Beatty-Melfort-Tisdale; Beatty-Watrous; Tisdale-Nipawin; and one line of 33,000 volts (Saskatoon-Perdue-Biggar-Rosetown) was built. The principal 24,000 -volt lines constructed were: Montmartre-Kipling; Melville-Kelliher; Trossachs-Ogema-Bengough-Viceroy; Tisdale-Weeks; PlatoKyle; Willow Bunch-Rockglen-Coronach; and Dodsland-Herschel.

The Power Corporation has continued its program of rural electrification under the provisions of the Rural Electrification Act 1949 as amended. The number of rural customers supplied by the Corporation was 2,608 at the end of 1949, 4,600 at the end of 1950 , and 7,600 at the end of 1951.

The Cities of Regina and Weyburn, as well as certain towns and villages, own and operate their own municipal plants and distribution systems. In Moose Jaw and in a number of small towns and villages, local plants and distribution systems are owned and operated by private companies or individuals.

# 24.-Growth of the Saskatchewan Power Corporation (formerly Commission), 1942-51 

Nors.-Figures for the years 1929-1933 will be found at p. 499 of the 1947 Year Book; and for the years. 1934-1941, at p. 578 of the 1950 edition.

| Year | Municipalities Served |  | Customers Served |  | Total Power Generated | Total Power Purchased | Capital |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In Bulk | Directly | In Bulk | Directly |  |  |  |
|  | No. | No. | No. | No. | kwh. | kwh. | \$ |
| 1942. | 4 | 139 | 15,413 | 11,450 | 70,084,762 | 2,100,225 | 8,617,455 |
| 1943. | 4 | 139 | 16,677 | 12,197 | 79,565,860 | 1,921,440 | 8,748,856 |
| 1944. | 4 | 143 | 15,982 | 12,989 | 85, 118,625 | 1,808,586 | 8,939,920 |
| 1945. | 4 | 203 | 16,341 | 18,034 | 87, 248,840 | 3,098,450 | 10,661,321 |
| 1946. | 4 | 211 | 17,481 | 20,654 | 88,111,619 | 12,050,544 | 11,841,658 |
| 1947. | 4 | 343 | 18,718 | 45,087 | 145,049,416 | 15,371,443 | 20,305,068 |
| 1948. |  | 375 | 19,772 | 51,237 | 165,671, 184 | 21,163, 121 | 23,280,528 |
| 1949. | 4 | 422 | 20,534 | 57,855 | 193,770,591 | 21,684,086 | 26,796,036 |
| 1950. | 4 | 453 | 20,761 | 63,600 | 212,945,978 | 22,980,678 | 33, 101, 168 |
| 1951. | 4 | 537 | 21,223 | 72,700 | 252,020,623 | 26,806,296 | 41,203,403 |

Control and regulatory powers regarding franchises for the supply of electric energy and the rates to be charged therefor are conferred upon the Local Government Board by Part III of the Public Utilities Companies Act (R.S.S. 1940, c. 118). Control and regulatory powers regarding the construction, extension and operation of generating plants, distribution systems and transmission lines are conferred upon the Saskatchewan Power Commission by the Power Commission Act 1950 (Statutes of Sask. 1950, c. 9).

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 Nortbland 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. These plants are: Horseshoe Falls; Kananaskis Falls; Ghost River; Cascade; Barrier; Spray; Rundle and Three Sisters. At Dec. 31, 1951, the Company's total plant capacity was 206,550 horsepower. Barrier plant, completed in 1947, was the Company's first plant to be operated by remote control. Recently, Cascade, Three Sisters, Spray and Rundle plants were linked to a central control room at Kananaskis. The remaining plants will be remote-controlled as soon as the installations can be made. The Company has reservoirs at Lake Minnewanka (180,000 acre-feet), Interlakes (Kananaskis Lakes) ( 90,000 acre-feet), Spray Lakes ( 200,000 acre-feet), and forebay storage of 74,000 acre-feet at Ghost.

Power from these plants, together with that received under interchange agreements with the Cities of Lethbridge and Edmonton, is fed into a transmission network which supplies the entire electrical requirements of the Cities of Calgary and Red Deer and 235 smaller urban centres in central and southern Alberta. At Dec. 31, 1951, over 1,000 oil wells were being supplied with electric pumping service-
not to mention all the other loads directly related to the oil industry, such as gathering stations, refineries, pipe-line pumping, and the many large industrial plants recently located near Edmonton.

Calgary Power Limited transmission system, comprising over 4,100 miles of lines of all voltages, extends from Westlock in the north to Milk River in the south and from Macklin (Saskatchewan), Chauvin, Brooks and Taber in the east to Nordegg, Banff and Crowsnest Pass in the west. An eastern extension will soon be completed to link a new $30,000 \mathrm{kw}$. power plant at Medicine Hat with the system. The Cities of Calgary and Red Deer and the Towns of Ponoka, Macleod and Cardston are supplied on a wholesale basis and own their own distribution systems. All other points on the system are supplied on a retail basis. The Company has 3,529 miles of main transmission lines and 600 miles of distribution lines.

An extensive farm electrification program is in progress in Alberta and at Dec. 31, 1951, the Company was serving approximately 10,500 farms over 7,500 miles of the farmer-owned Rural Electrification Co-operative Association rural transmission lines. The program calls for the addition of from 2,500 to 3,000 farms each year for the next several years. Calgary Power does all 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. Expenditures during the next five years for additional plant capacity, transmission lines and distribution systems will amount to an estimated $\$ 50,000,000$.

Canadian Utilities Limited.-Towns and villages northeast of Drumheller are supplied from a $13,500 \mathrm{kw}$. steam plant in that city by Canadian Utilities Limited, while towns and villages north and east of Vegreville are served from a new gas-fired $7,500 \mathrm{kw}$. steam plant at Vermilion. There are tie lines with the Calgary Power Limited system at Vermilion, Vegreville and Drumheller. This utility also serves the areas around Grande Prairie from a $2,300 \mathrm{~h} . \mathrm{p}$. diesel-engine plant located at that centre. The Company serves over 22,700 customers, in approximately 180 towns, villages and hamlets, including 48 Rural Electrification Associations in the Province, through a network of approximately 1,700 miles of transmission lines, and 1,375 miles of Rural Association lines.

In 1949, the Company embarked on a program of extending its lines to farmers on a co-operative basis. The system is constructed and operated at cost for the farmer.

Northland Utilities Limited.-This Company, with headquarters at Edmonton, supplies electric energy to 4,750 consumers in 25 northern communities. Dieselgenerating plants are located at Jasper, Mayerthorpe, Athabaska, High Prairie, McLennan, Peace River, Lac La Biche, Manning, Fairview, Wildwood, and Hay River, N.W.T. Low-voltage transmission lines extending from these generating stations supply electricity to 200 farms and 14 villages. In addition, in 1948 the Company constructed a 665 kva. hydro plant on the Astoria River in Jasper National Park for the Department of Mines and Resources.

The Northland Utilities Limited also serves 1,000 consumers at Dawson Creek, B.C., with natural gas.

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". Actual operations,
however, 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 1952:-

| Year Ended <br> Mar. 31- | Services Acquired | Services Installed |  | 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 |
| $1952 . . . . . . .$. | $\begin{array}{r}103 \\ -325 \\ \hline\end{array}$ | 2,600 -640 | ${ }^{2,703}$-965 $\}$ | 45,912 |
| Nold June 195. |  |  | -905) |  |
| Totals.. | 27,189 | 18,723 | 45,912 | 45,912 |

This growth has been accompanied by a corresponding increase in generating capacity which, at Mar. 31, 1946, totalled $8,285 \mathrm{kw}$. By March 1952 this capacity had been increased to $123,845 \mathrm{kw}$. The number of power districts rose in that period from 12 to 25 and there was also a large increase in the line mileage in operation.

In 1946 the Commission established a promotional rate structure designed to "permit and encourage the maximum use of power" as required by the Act. This rate structure has been extended as fast as increased plant capacity and distribution systems were installed to take care of the growth in load anticipated through its introduction. By February 1952, promotional rates had been adopted in all 25 operating power districts.

The Commission's main development on Vancouver Island-the John Hart plant-is being enlarged for the third time. This plant, now comprising four turbines of $28,000 \mathrm{~h} . \mathrm{p}$. each, the equivalent electrical rating being $20,000 \mathrm{kw}$., is being augmented by the addition of the final group of two units of the same size. By the spring of 1953 , this plant will have a capacity of $168,000 \mathrm{~h} . \mathrm{p}$. or $120,000 \mathrm{kw}$.

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. 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 all main portions of Vancouver Island. The plant has brought two major industrial loads to the area with a third (at Duncan Bay) scheduled to commence operation in the summer of 1952.

On the mainland another major power project, the Whatshan Development on the west side of Lower Arrow Lake, has been completed. It is designed for an ultimate $66,000 \mathrm{~h} . \mathrm{p}$. capacity and the first two turbines of $16,500 \mathrm{~h} . \mathrm{p}$., generating $11,250 \mathrm{kw}$. each, began operation in May 1951. Power from this plant is transmitted 75 miles at 138,000 volts to Vernon in the Okanagan Valley. Through an interconnection with Kamloops in the north and the West Kootenay Power and Light Company Limited lines to the south, a large area in the interior of the Province can be served by this project.

A third hydro-electric power development has been undertaken by the Commission. This is the Clowhom Falls plant, consisting initially of two $1,500 \mathrm{kw}$. generating units which began operation in May 1952. This construction will serve the Sechelt Peninsula, northwest of Vancouver.

Despite these large undertakings in the more populated areas of southwestern British Columbia, it is in the scattered and isolated communities of the Province that the people may have benefited most by the formation of the Commission. In less than seven years the diesel capacity of generating stations has increased from 880 to $12,295 \mathrm{kw}$., chiefly in these more remote and thinly populated areas.
25.-Growth of the British Columbia Power Commission, Years Ended Mar. 31,

| Item | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: |
| Customers........................ . No. | 31,619 | 39,626 | 44,174 | 45,912 |
| Installed plant capacity ............... kw. | 55,670 | 97,640 | 100,350 | 123,845 |
| Circuit Miles of Line- |  |  |  |  |
| Transmission (high yoltage).......... Miles | 388 | 458 | 550 | 570 |
| Distribution primaries............... " | 1,389 | 1,958 | 2,393 | 2,541 |
| Power Requirements- |  |  |  |  |
| Generated..................... kwh . | $129,464,276$ $3,221,236$ | $157,946,073$ $10,737,665$ | $255,556,217$ $11,932,279$ | $375,935,761$ $2,817,547$ |
|  |  |  |  |  |
| Totals, Power Requirements..... kwh. | 132,685,512 | 168,683,738 | 267,488,496 | 378,753,308 |
| Annual revenue....................... § | 2,550,263 | 3,267,469 | 4,064,641 | 4,895, 230 |
| Average revenue per kwh. sold......... cts. | $2 \cdot 3$ | $2 \cdot 3$ | 1.8 | 1.5 |
| Capital Investment- |  |  |  |  |
| Generation plant..................... ${ }_{\text {\% }}$ | $10,634,242$ $4,733,438$ | $18,081,014$ $5,484,615$ | $18,384,774$ $5,760,593$ | $24,748,127$ $8,206,878$ |
| Distribution and general plants........ \& | 5,612,301 | 7,843,076 | 9,945,223 | 12,359,770 |
| Totals, Capital Investment....... \$ | 20,979,981 | 31,408,705 | 34,090,590 | 45,314,775 |

Sources of power for the year ended Mar. 31, 1952, were as follows:-

| Source of Power | kwh. | p.c. |
| :---: | :---: | :---: |
| Hydro-electric energy. | 344,700,577 | 91.6 |
| Diesel.electric energy. | 30,928,309 | $7 \cdot 6$ |
| Steam-electric energy. | 306,875 | $0 \cdot 1$ |
| Purchased power....... | 2,817,547 | 0.7 |
| Totals. | 378,753,308 | $100 \cdot 0$ |

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 $\dot{p}$ oints 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 $1,500,000 \mathrm{sq}$. miles. The Commission is continually investigating power needs in this large area and stridying reports on hydro-electric power sites that are available.

The Commission has in operation a hydro-electric power development on the Snare River some 94 miles northwest of Yellowknife, N.W.T. Power has been supplied from this plant since the autumn of 1948 to the mines in the Yellowknife area and, in the summer of 1949, a 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 Resources and Development, Transport, National Defence (R.C.C.S.), Health and Welfare, and Public Works as well as the Royal Canadian Mounted Police and private commercial consumers and residents of the settlement.

In 1951, construction was commenced on a Commission-owned hydro-electric development on the Mayo River, approximately six miles north of Mayo Landing, Yukon Territory. It is expected that this plant will be delivering power to the Keno Hill and Galena Hill mining areas and to the settlement of Mayo Landing in the autumn of 1952.

The Commission conducts investigations throughout the Northwest Territories and the Yukon Territory wherever requests are made for power installations or where the Commission considers investigations should be made.

The total capital investment of the Commission as at Dec. 31, 1951, was approximately $\$ 6,000,000$.

## 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. 546. 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 26 total electric power generated by central electric stations in 1950 was $48,493,718,000 \mathrm{kwh}$. 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 $12,764,200 \mathrm{kwh}$. in 1950. This production has been taken into the annual total shown in Table 26. 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. The following table gives available data separately and as a combined total. Of the total electric power generated in Canada in 1950, $88 \cdot 1$ p.c. is shown to have been developed in central electric stations and, of this, $3 \cdot 9$ p.c. was generated by thermal engines (see Table 4, Sect. 2), the remainder having been produced hydraulically. Of the 11.9 p.c. generated by industry for its own use, 11.4 p.c. was developed by the manufacturing industries and 0.5 p.c. by the mining industry.

## 26.-Total Power Generated by Central Electric Stations, Manufacturing and Mining Industries, 1941-50

Note.-Figures for the years 1927-40 will be found at p. 516 of the 1948-49 edition of the Year Book.

| Year | Central Electric Stations |  | Manufacturing Industries |  | Mining <br> Industries |  | Total ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 kwh. | p.c. | '000 kwh. | p.c. | '000 kwh. | p.c. | '000 kwh. |
| 1941. | 33,317, 663 | $91 \cdot 3$ | 2.840, ${ }_{3} \mathbf{3 4 1}$ | 7.8 8.2 | 299, 119 | 0.8 0.7 | $36,479,140$ <br> 41,007 |
| 1942. | $37,355,179$ $40,479,593$ | $91 \cdot 1$ 92.1 | $3,345,444$ $3,211,610$ | 8.2 $7 \cdot 3$ | 296,734 248,848 | 0.8 0.7 0.6 | $41,007,482$ $43,951,190$ |
| 1944. | 40,598, 779 | $93 \cdot 2$ | 2,752,125 | $6 \cdot 3$ | 210,554 | $0 \cdot 5$ | 43,571,276 |
| 1945. | 40,130, 054 | $93 \cdot 9$ | 2,362,260 | $5 \cdot 5$ | 201,765 | 0.5 | 42,720,374 |
| 1946. | 41,736,987 | $93 \cdot 4$ | 2,714,261 | $6 \cdot 1$ | 199,950 | $0 \cdot 4$ | 44,662,916 |
| 1947. | 43,424,799 | $92 \cdot 1$ | 3,467,535 | $7 \cdot 4$ | 269,412 | $0 \cdot 6$ | 47,174,384 |
| 1948 | 42,389,681 | $89 \cdot 7$ | 4,590,677 | 9.7 | 270,522 | $0 \cdot 6$ | 47,262,060 |
| 1949. | 44,418,573 | $87 \cdot 8$ | 5,898,390 | $11 \cdot 7$ | 263,835 | 0.5 | 50,592,990 |
| 1950. | 48,493,718 | $88 \cdot 1$ | 6,266,051 | $11 \cdot 4$ | 264, 232 | $0 \cdot 5$ | 55,036,765 |

[^184]
## CHAPTER XIV.-THE FISHERIES

## CONSPECTUS

|  | Page | Section 2. Fishery Statistics. | $\begin{array}{r} \text { PAGE } \\ 585 \end{array}$ |
| :---: | :---: | :---: | :---: |
| Section 1. Governments and the |  |  |  |
| Fisheries.................... | 571 571 | Subsection 1. Primary Production..... | 585 |
| Subsection 2. The Provincial Governments. | 576 | Subsection 2. The Fish-Processing Industry. | 590 |

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 prolific seafishing 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 XXI for fisheries exports.)

Fishing is Canada's oldest industry and although its relative importance in the nation's economy has diminished through the years, the industry has shown considerable expansion and is still of paramount consequence in the coastal provinces and in the inland areas adjacent to waters where commercial fishing is pursued. Of particular importance is the fishing industry of Newfoundland where, from the standpoint of number of people directly employed in the catching and processing of fish and those indirectly affected, it ranks first among the industries. In Prince Edward Island and in Nova Scotia, fish-curing and packing is the leading manufacturing industry and in New Brunswick and British Columbia it ranks third.

An account of the Canadian Fishing Grounds is given in the 1951 Year Book, pp. 472-475.

## 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, while 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.

[^185]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, Prince Edward Island and Newfoundland 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 working force is stationed in the field in the four above-mentioned areas, and is comprised mainly of a protection staff and an inspection staff. The Protection Officers, including those on the Department's 64 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.

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 federally administered.

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 who operate a test kitchen at Ottawa 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 keeps the public informed 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 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. Restrictions against trawlers have been eased to permit the licensing of new trawlers built in Canada or the United Kingdom. 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. A bona fide applicant wanting only one trawler can import a used one from the United Kingdom without having to lay down a new keel in Canada.

The Department also provides assistance in the education of fishermen by making payments to educational institutions that have agreed to carry out adult educational work among fishermen.

The Fisheries Research Board.-Under the Fisheries Research Board of Canada Act, 1937 (c. 37), the Board has charge of all federal fishery research stations in Canada. It consists of 15 members appointed for five-year terms by the Minister of Fisheries. Nine of the members are scientists from universities or other institutions engaged in research work bearing on fishery problems; four members represent the fishing industry; and two members are from the Department of Fisheries.

The general types of work of the Board are biological and technological and are 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, shellifish and sea mammals. Special investigations are undertaken as problems arise. A few years ago the Board conducted a survey of the fisheries resources of the Northwest Territories and, at present, it is exploring the fisheries resources of Canada's Eastern Arctic.

Fundamentally, the object of the Board's technological investigations is to eliminate waste in the fishing industry. To attain this objective it is necessary to utilize not only all fishery products that come out of the waters but to put 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 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, 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 most recent prices support action by the Board resulted from marketing problems in respect of Newfoundland salted codfish.

The Board maintains a small staff at Headquarters for those administrative and research activities essential to operation. The work of the staff is closely integrated with that of the Department's Markets and Economics Service and, where possible, all services required by the Board are carried out by Departmental 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.-Because fisheries regulation is sometimes needed on the high seas in international waters, international treaties have had to be made. Canada's obligations under a number of international fishery treaties with the United States and other countries are administered by the Department of Fisheries.

Canada and the United States for years have led the world 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 Commissions' 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 case 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 and the herd, once reduced almost to extinction by uncontrolled slaughter, is now believed to consist of more than $3,000,000$ seals.

In 1949, the Government of Canada became a signatory, along with ten 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 will 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. The first meeting of the Commission was held at Washington, D.C., in April 1951. At that time the Treaty had been ratified by Canada, Denmark, Iceland, the United Kingdom and the United States. Other signatories to the Treaty are France, Italy, Norway, Portugal and Spain. Temporary headquarters of the Commission is at the Fisheries Research Board Biological Station, St. Andrews, N.B.

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. A draft convention was drawn up and referred to the three Governments for acceptance but it has not as yet (November 1952) received final ratification. The Convention 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. It provides also for the establishment of a commission representing the three parties. The commission 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.

Under existing principles of international law, all nations have an equal right to exploit the fishery resources of the high seas. Problems have arisen when attempts have been made to conserve certain resources and the Convention is the first attempt to meet these problems. By joint agreement, Canada, the United States and Japan are prepared to waive some of these international rights and, under certain conditions, to abstain from fishing stocks that are under conservation by one or more of the other parties. Halibut, salmon and herring off the British Columbia coast meet the conditions of the Convention and Japan has agreed to abstain from fishing these resources.

Canada is a member of the International Whaling Commission and was represented at the third annual'meeting of the Commission in 1951 at Capetown, Union of South Africa. Canada is obligated to collect additional biological data. Whaling operations are carried out off Newfoundland and the British Columbia coast.

## 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 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.

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 with 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

[^186]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, as a whole, 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. With such favourable conditions for reproduction the problem is to increase the production of trout of a size attractive to anglers. 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.

The angling pressure in this Province is continuing to increase but many of the fertile and highly productive ponds have disappeared. During 1951, the Department, with a view to readjusting this situation, has repaired dams and restored many ponds and thus opened to the public, subject to the prevailing fishery regulations, many angling areas.

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 sections: development, 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 Department's assistance has included provision of utilities such as water lines and rail sidings and the operation of 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 from Canadian Vocational Training, Federal Department of Labour, under the provisions of the Vocational Training Co-Ordination Act.

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 plants and
fish buyers to obtain annual licences 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 Department of Trade and Industry to handle commercial and other inquiries in respect of the fisheries industry and to issue informational publications, such as the Nova Scotia Fisheries Year Book and directories of fish-packers and processors.

Research.-Provincial fisheries research activities have been confined largely to the inland fisheries for trout and salmon. The Department of Trade and Industry has carried out a four-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.

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 Reconstruction, now the 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 this Board has loaned over $\$ 1,150,000$ of which over $\$ 700,000$ has been recovered to date. It has modernized the deep-sea fishing fleet by the introduction of a most effective small dragger 25 units of which are operating in the area of the Gulf of St. Lawrence.

Quebec.-The Minister of Game and Fisheries administers both the sea and 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 crection 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 for the administration of fishery legislation and the application of new techniques to 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, while the Superior School of Fisheries at Ste. Anne-de-la-Pocatière trains technologists in a four-year course. The encouragement given to the co-operative associations of fishermen through the Social Economic Service of this same institution constitutes another phase of the work.

Another form of assistance is the maritime credit system whereby fishermen are enabled 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 (small trawlers) and long-liners and assumes the building costs on a fiveyear 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 at fairs and exhibits.

Hydrographical research in the Gulf of St. Lawrence and the location of new fishing grounds as well as experiments of all kinds on sea-fish biology are being conducted by the Marine Biological Station at Grande Rivière and the two substations of the North Shore and Magdalen Islands. This research has brought into use new types of modern fishing vessels recommended to fishermen.

Inland Fisheries.-The Division of Fish and Game exercises jurisdiction over the inland waters. Protection of the fish and game is in the hands of 300 full-time wardens. Residents are required to purchase a licence for sport-fishing and hunting and the proceeds are applied to the improvement of fishing and hunting conditions. Commercial, non-resident, tourist and club sport-fishing licences are also issued.

Five hatcheries are maintained at strategic points throughout the Province: St. Faustin, Lachine, Baldwin's Mills, Tadoussac and Gaspe. These establishments distributed nearly $9,000,000$ fry, fingerlings and older fish, during the year ended Mar. 31, 1950, the species being speckled trout, Atlantic salmon and grey trout.

The Department administers four parks or reserves in which excellent fishing can be found. The Gaspe 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 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.-Prior to 1946, the fishery resources of Ontario were administered by the Ontario Department of Game and Fisheries. That Department has since been incorporated into the Ontario Department of Lands and Forests as the Division of Fish and Wildlife and, in dealing with fishery matters, 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 to about 4,000 persons directly and to many more indirectly, and produces an annual harvest of between $25,000,000 \mathrm{lb}$. and $35,000,000 \mathrm{lb}$. of fish. The landed value revenue to licensed fishermen for the production of fish was $\$ 7,034,000$ for the year ended Mar. 31, 1951.

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 in Ontario are: lake trout, 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 Ontario and careful management of these lakes is essential to ensure continued production.

Fishing boats vary from small craft to $60-\mathrm{ft}$. tugs, and types of gear used also vary from the most common gill net, pound and trap nets, seines and baited hooks to small hand-operated seines and dip nets.

Recent Developments.-Modern fishing methods and equipment have rapidly entered the fisheries industry in Ontario in the past few years. Diesel-driven steelhull tugs have replaced the steam-driven wooden tug. New aids to fishing methods have been developed, such as depth-sounding devices, radar, ship-to-shore and ship-to-ship communications, and a better knowledge of the fish and their movements has been established from biological research findings. Modern icing facilities and transportation methods also are in use, as are new types of fishing gear. Nylon gill net is replacing cotton and linen nets and a very efficient and economical trapnet is gradually replacing the pound-net in Lake Erie and other waters.

With the use of these up-to-date fishing methods and equipment in Ontario's fresh-water fishing industry, the administration and management, through excellent co-operation and understanding of the complex problems involved by both the Government and the fishermen, through their local associations and the Ontario Federation of Commercial Fishermen, are working out the best practices in the interest of all concerned and of the industry as a whole.

Angling.-In Ontario, with its estimated water area of 49,300 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.

Sport fishing may be considered one of the chief factors concerned with the increase and development of the tourist trade and, while it is difficult to measure the value of this resource, a revenue of $\$ 1,450,180$ for the year ended Mar. 31, 1950, was obtained from the sale of angling licences, mainly to non-residents as residents require a licence for Provincial Parks only.

In order to maintain Ontario's reputation for excellent game-fishing, the 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.

Fisheries Research.-In 1947, the South Bay Experiment, under an Advisory Committee composed of representatives of the Fisheries Research Board of Canada, the Ontario Government, the Ontario Federation of Commercial Fishermèn, the Ontario Federation of Anglers and Hunters and the Northern Ontario Outfitters Association, was begun on Manitoulin Island in Lake Huron to determine the benefits to the yield of the more valuable fish by exerting equal fishing pressure on the less valuable or worthless fish.

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.

Other fields of fishery research include those carried out at the Ontario Fisheries Research Laboratory in Algonquin Park and at the Southern Research Station at Maple which was established in 1948 by the Provincial Government in co-operation with the University of Toronto.

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.

Provincial Hatcheries.-In order to supplement natural restocking, Ontario has 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. The distribution for the year ended Mar. 31, 1950, numbered 583,368,799, comprising whitefish, herring, pickerel, trout (including lake, speckled, brown and Kamloops), maskinonge, bass and ouananiche.

Two of the finest trout-rearing stations on the Continent are found in Ontario at Dorian, near Port Arthur and at Hill Lake, near Englehart.

Manitoba.-The commercial fisheries of Manitoba, where there are 26,789 sq. miles of lakes and rivers, yield an annual harvest of fish in excess of $30,000,000 \mathrm{lb}$. This huge catch is worth approximately $\$ 5,000,000$ annually and the greater part is shared by the commercial fishermen who number over 7,000 . About 90 p.c. of the Manitoba fishery production is exported to the United States, assisting materially the national balance of trade. In recent years the main efforts of the industry have been directed toward improvement in quality. Adequate cold storage facilities are available in the large centres; freighting boats are equipped with mechanical refrigeration, packing sheds are provided with cooling rooms and fishermen are allowed an unlimited amount of crushed ice so that the catch may be placed in ice as soon as removed from the nets. During the winter fishing seasons the fish is rushed to railhead by modern rapid transportation, including aeroplane, bombardier-snowmobile and tractor trains. The filleting industry has expanded
significantly and much of the catch is now prepared ready to cook and attractively packed in cartons. Lakes producing whitefish are surveyed annually to ascertain the quality of fish therein. Catch limits on most of the commercially fished lakes are set and rigidly enforced but an experiment is now in progress in a commercially fished lake to improve quality by intensive fishing. In two of the larger summer fishing operations, individual catch limits were set and have been found satisfactory.

The Province of Manitoba operates four fish hatcheries and two spawn-taking camps on commercially fished lakes. In the Provincial Park areas one sportfish hatchery is in operation and one egg-collecting camp. From these hatcheries $81,550,000$ whitefish eyed eggs and fry were planted on natural spawning grounds in Lake St. Martin and Lake Winnipeg. In Lake Manitoba and Lake Winnipegosis $107,300,000$ pickerel eyed eggs and fry were distributed. In $1951,616,660$ trout fingerlings from the Whiteshell Trout Hatchery were liberated in sport-fishing waters of the Whiteshell Provincial Park and in the Duck Mountain area and lakes north of The Pas. A program of introducing adult fish into lakes is being carried out. Emphasis is also being placed on the poisoning of lakes and restocking with rainbow trout.

Sport fishing in Manitoba is increasing in importance, judging by the annual demand for non-resident angling licences in summer, and for resident and nonresident angling licences in winter.

Saskatchewan.-The administration of fisheries in the Province of Saskatchewan comes under the Fisheries Branch of the Provincial Department of Natural Resources with its 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 trader, trapper, prospector and the Cree and Chipewyan Indians who inhabit the area, and also provide food and supplementary income to the settler and homesteader on the agricultural fringe.

The Province of Saskatchewan has $13,725 \mathrm{sq}$. miles of water and the principal species of fish include lake trout, whitefish, pickerel, northern pike, sturgeon, cisco, Arctic grayling, goldeye, mullet, perch and burbot.

There are approximately 110 commercially fished lakes in the Province. In the year ended Mar. 31, 1951, the total commercial production of fish of all species amounted to $8,731,292 \mathrm{lb}$. with a railhead value of $\$ 1,360,114$. Since 1945 the growth of the filleting industry has been of particular significance and 15 filleting plants have been established. Annual production of fillets is now over $1,000,000 \mathrm{lb}$. Total sales of fish in the Province in $1950-51$ were $1,986,776 \mathrm{lb}$., which represents a considerable increase over the past number of years. The fishery resources are also important to domestic fishermen and to mink ranchers in the Province. In 1950-51, 65 fur-farm fishing licences were issued and a total of $25,774 \mathrm{mink}$ were fed under these licences; 637 domestic licences and 1,463 free licences to Indians were also issued.

There has been marked development recently in sport fishing. For the fiscal year 1950-51 there were 33,336 resident and 5,366 non-resident angling licences sold, compared with 6,000 resident and 1,500 non-resident licences sold in 1945. The recreational value of sport fishing in the Province has a great potential.

The main endeavour in the fish cultural activities in the Province in recent years has been to extend the range of the Arctic grayling species from the Far North into the Churchill River area, and the introduction of Eastern brook
trout and certain warm water species into areas where preliminary study seems to indicate that the environment was suitable. To a large extent the indiscriminate planting of fish has been discontinued. A fish hatchery is operated at Fort Qu'Appelle for the hatching-out of pickerel, rainbow, brown and lake trout, and two experimental ponds have been built. The purpose of these ponds is to study, under controlled conditions, 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 spawncamp 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 has been placed 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 Amisk Lake, a creel census has been established and the annual harvest is recorded. A Fisheries Laboratory was established in 1949 at the University of Saskatchewan and a permanent biologist was added to the staff. Approximately 12 graduate and undergraduate biological students of the University are employed each summer on biological surveys.

Progress has also been made on technological research. At Prince Albert a pilot plant was established where experimental smoking and canning is conducted. As a result of this research work, the sales of smoked fish in the Province has increased very considerably. A Research Committee was established at the University of Saskatchewan to study certain aspects of the canning of inland fish, particularly the problem of the muddy flavour which appears to be present in the summer-caught fish from Last Mountain and Primrose Lakes.

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. Under the scientific program, three 16 mm . colour and sound films have been made on sport fishing during the past three years.

Alberta.-Commercial and game fishing are administered by the Fisheries Branch of the Department of Lands and Forests.

Regulations under the Fishery Act (Alberta) designed for improvement in 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 good-quality fish, lakes in which whitefish are infected with the pike tapeworm and do not meet the quality standard have been closed to commercial fishing.

Biological surveys of many lakes and streams over the past ten years have provided an opportunity to observe the result of past 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 featuring the 'fallowing' of smaller tributary
streams, abolition of the legal size minimum, except in the case of lake trout, and a continuous open season on large streams and rivers, is being conducted. In addition, there is no close-season angling 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.

A long-term experiment to test the effectiveness of the Canyon Creek whitefish hatchery was begun in 1941 by planting "eyed" eggs in a series of lakes in alternate years. The evidence gathered from a series of five lakes, 12 to 462 sq. miles in area indicated that the hatchery-supported year classes were no stronger than those not supported. Observations on the efficiency of natural reproduction indicated that about 10 p.c. of the eggs survive to become fry, which is sufficient to produce about one hundred times the number of adult fish a lake can support. Thus, although eyed eggs introduced by the hatchery also survived and produced fry, as evidenced by the successful re-stocking of several lakes formerly without whitefish, natural reproduction was found to be sufficient and can provide more than additional stock from the hatchery and thus, would not change the ultimate result. The whitefish hatchery was, therefore, closed.

British Columbia.-The Provincial Department of Fisheries was organized in 1901-02 and shortly 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 Department of Fisheries is charged with the administration of the Fisheries Act and with such other duties as may be assigned to it by the Lieutenant-Governor in Council. The Act provides for the taxation of the fisheries and, under civil and property rights, for the regulation and control of the various fish-processing plants under a system of licensing. Provision is also made in the Provincial Fisheries Act 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 in conformity with regulations made under the Act. The collection and publication of certain statistics and other pertinent data relative to the industry are also the responsibility of the Provincial Department of Fisheries.

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 commercial fisheries of Canada (exclusive of the Province of Newfoundland) yielded $\$ 151,982,000$ in marketed value in 1950, an increase of nearly 16 p.c. over the 1949 figure of $\$ 131,138,000$. Although the total quantity of fish landed in 1950 reached a new peak of $1,491,222,000 \mathrm{lb} ., 4$ p.c. higher than the previous record of $1,431,660,000 \mathrm{lb}$. in 1948, the increase in marketed value was due mainly to higher average selling prices for many species and the development of those products that command higher prices, particularly in foreign markets.

The data for Newfoundland are excluded from the following tables as no attempt was made to collect the comparable information. Steps were taken in 1952 to collect the principal statistics from all the important fish-processing firms in that Province and these data will be included in the tables for 1951.

| 1.-Marketed Values of All Products of the Fisheries, 1870-1950 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Value | Year | Value | Year | Value | Year | Value |
|  | \$'000 |  | \$'000 |  | \$'000 |  | \$'000 |
| 1870. | 6,577 | 1920. | 49,241 | 1933.. | 27,497 |  | 75,117 |
| 1875. | 10,530 14500 | 1925. | 47,942 | 1934. | 34.022 | 1943. | 85,595 |
| 1880. | 14,500 17,723 | 1926 | 56,361 | 1935. | 34,428 39 | 1944. | 89,440 113,871 |
| 1890. | 17,723 | 1928 | 49,124 | 1936. | 39,165 38,976 | 1945. | 1121,125 |
| 1895 | 20,199 | 1929 | 53,519 | 1938. | 40,493 | 1947. | 123,900 |
| 1900 | 21,558 | 1930 | 47,804 | 1939. | 40,076 | 1948 | 139,749 |
| 1905. | 29,480 | 1931 | 30,517 | 1940 | 45,119 | 19491 | 131,138 |
| 1910. | 29,965 35,861 | 1032 | 25,957 | 1941 | 62,259 | $1950{ }^{1}$ | 151,982 |

${ }^{1}$ Newfoundland figures not included.
98452-38

The three leading provinces, by marketed value of fisheries products, accounted for 82 p.c. of the total for Canada in 1950; British Columbia's share was 45 p.c., a substantial increase over previous years, followed by Nova Scotia with 25 p.c. and New Brunswick with 12 p.c.
2.-Marketed Values of All Products of the Fisheries, by Provinces, 1947-51

| Province or Territory | 1947 |  | 1948 |  | 1949 |  | 1950 |  | 1951p |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. |
| Newfoundland. |  |  |  |  |  |  |  |  | 29,000 | 14 |
| Prince Edward Island | 2,897 | 2 | 3,634 | 3 | 2,705 | 2 | 3,321 | 2 | 3,213 | 2 |
| Nova Scotia | 26,659 | 22 | 36,091 | 26 | 35,040 | 27 | 38,165 | 25 | 37.500 | 19 |
| New Brunswick | 17,132 | 14 | 20,122 | 14 | 17,428 | 13 | 18,053 | 12 | 19,320 | 10 |
| Quebec. | 5,317 | 4 | 5,943 |  | 5,112 | 4 | 5,563 | 4 | 5,700 | 3 |
| Ontario. | 5,404 | 4 | 6,394 | 5 | 6,184 | 5 | 7,034 | 5 | 8,000 | 4 |
| Manitoba | 5,329 | 4 | 5,415 | 4 | 4,800 | 4 | 6,600 | 4 | 8,000 | 4 |
| Saskatchewa | 1,171 | 1 | 1,282 | 1 | 1,026 | 1 | 1,360 | 1 | 1,500 | 1 |
| Alberta | 857 | 1 | 636 | $\cdots$ | 562 | -- | 768 | $\cdots$ | 862 |  |
| British Columbia | 58,596 | 48 | 58,704 | 42 | 56,120 | 42 | 68,821 | 45 | 83,813 | 42 |
| Yukon and Northwest Territories | 538 | -- | 1,528 ${ }^{1}$ | 1 | 2,161 ${ }^{1}$ | 2 | 2,297 ${ }^{1}$ | 2 | 2,262 ${ }^{1}$ | 1 |
| Grand Totals | 123,900 | 100 | 139,749 | 100 | 131,138 | 160 | 151,982 | 100 | 199,170 | 100 |
| Totals, Sea Fish | 110,274 | 89 | 123,991 | 89 | 115,921 | 88 | 133,445 | 88 | 177,996 | 89 |
| Totals, Inland Fish | 13,626 | 11 | 15,758 | 11 | 15,217 | 12 | 18,537 | 12 | 21,174 | 11 |

${ }^{1}$ Northwest Territories only.


## 3.-Quantities of Sea and Inland Fish Landed, by Provinces, 1946-50

Nore.-Figures for the years 1918-45 are given at p. 432 of the 1947 Year Book.

| Province or Territory | 1946 | 1947 | 1948 | 19491 | $1950{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | '000 lb. | '000 lb. | '000 lb. | '000 lb. | '000 lb. |
| Prince Edward Island. | 35,117 | 31,682 | 30,682 | 27,525 | 29,225 |
| Nova Scotia. | 417, 663 | 324,136 | 376,609 | 364,332 | 378,484 |
| New Brunswic | 222,076 | 216,740 | 225,317 | 189,235 | 239,671 |
| Quebec. | 127,163 | 96,354 | 101,414 | 106,114 | 117,459 |
| Ontario. | 32,997 | 24,919 | 29,101 | 34,060 | 32,754 |
| Manitobs. | 28,696 | 29,939 | 31,529 | 29,503 | 31,468 |
| Saskatchewan | 7,797 | 8,020 | 8,076 | 7,473 | 8,731 |
| Alberta. | 11,070 | 9,899 | 7,224 | 6,302 | 7,067 |
| British Columbia | 429,388 | 475,630 | 613,903 | 546,312 | 638,497 |
| Yukon and Northwest Territories | 6,667 | 3,516 | 7,805 ${ }^{2}$ | 9,1012 | 7,866 ${ }^{2}$ |
| Grand Totals | 1,318,634 | 1,220,835 | 1,431,660 | 1,319,957 | 1,491,222 |
| Totals, Sea Fish | 1,227,359 | 1,141,256 | 1,344,132 | 1,229,749 | 1,399,262 |
| Totals, Inland Fish | 91,275 | 79,579 | 87,5\% | 90,208 | 91,960 |
| ${ }^{1}$ Newfoundland figures not available. | ${ }^{2}$ Nor | Wwest Ter | es only. |  |  |

In 1950, salmon retained the position it has held for more than fifty years as the leading fish, on the basis of marketed value; cod maintained the second place while lobsters took over third position from herring. Notable advances in order of value were shown by halibut, clams, blue pickerel and plaice, while grayfish dropped completely out of contention in 1950.

Table 4 shows the quantities landed (primary products only) in thousands of pounds, and values marketed (primary and secondary products) in thousands of dollars, of the main species of the commercial fisheries. 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, 1946-50

Nors.-The quantity landed excludes the weight of livers, but the value of liver products is included in the value for the species concerned.

${ }^{1}$ Newfoundland figures not available.

## 4.-Quantities Landed and Values of All Marketed Products of the Chief Commercial Fisheries, 1946-50-concluded

| Item | 1946 | 1947 | 1948 | 19491 | $1950{ }^{1}$ | Increase or Decrease 1950 <br> Compared with 1949 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sardines.......................... '000 ${ }_{\$ \prime}^{\prime} 000$ | 100,441 4,210 | 101,640 6,617 | 92,535 7,248 | 62,097 4,438 | 68,092 4,981 | $\begin{array}{r} +5,995 \\ +543 \end{array}$ |
| Haddock......................... ${ }^{\prime} 000 \mathrm{lb}$ ' | $\begin{array}{r} 34,738 \\ 2,468 \end{array}$ | $\begin{array}{r} 31,558 \\ 2,479 \end{array}$ | 56,789 4,536 | 46,580 3,769 | 47,319 4,246 | $\begin{array}{r} +739 \\ +477 \end{array}$ |
| Pickerel (dore)............... '000 lb. | $\begin{array}{r} 13,754 \\ 3,149 \end{array}$ | $\begin{array}{r} 14,463 \\ 3,519 \end{array}$ | $\begin{array}{r} 15,980 \\ 3,742 \end{array}$ | $\begin{array}{r} 13,535 \\ 2,850 \end{array}$ | 13,877 3,638 | +342 +788 |
| Mackerel. . . . . . . . . . . . . . . . . . '000 ${ }^{\prime}$ lb. | 29,518 2,147 | 26,263 1,719 | 25,876 2,252 | 33,523 2,518 | 27,120 2,192 | $-6,403$ -326 |
| Lake trout. . . . . . . . . . . . . . . . '000 lb. | $\begin{aligned} & 7,342 \\ & 1,683 \end{aligned}$ | $\begin{aligned} & 4,858 \\ & 1,222 \end{aligned}$ | 5,492 1,644 | $\begin{aligned} & 6,149 \\ & 1,806 \end{aligned}$ | $\begin{aligned} & \mathbf{5 . 6 5 7} \\ & 1,682 \end{aligned}$ | $\begin{aligned} & -492 \\ & -124 \end{aligned}$ |
| Clams............................. '000 ${ }^{\prime} \mathrm{lb}$. | $\begin{array}{r} 20,327 \\ 1,061 \end{array}$ | 24,163 1,211 | 16,554 961 | 25,826 1,386 | 27,964 1,660 | $+2,138$ +274 |
| Blue pickerel. .................... '000 lb. | 1,972 398 | 1,753 390 | 5,868 991 | 9,831 998 | $\begin{aligned} & 8,665 \\ & 1,559 \end{aligned}$ | $-1,166$ +561 |
| Pollock......................... '000 lb. | 28,280 1,263 | 20,860 835 | 24,033 1,648 | 18,583 1,284 | 28,984 1,363 | $\begin{array}{r} +10,401 \\ +79 \end{array}$ |
| Smelts. . . . . . . . . . . . . . . . . . . . . 000 lb (b. | $\begin{array}{r}5,452 \\ \hline 987\end{array}$ | 5,545 1,239 | 7,988 1,599 | 6,876 1,212 | $\begin{aligned} & 7,154 \\ & 1,317 \end{aligned}$ | +278 +105 |
| Hake............................. 000 lb . | $\begin{array}{r} 25,883 \\ 1,602 \end{array}$ | $\begin{array}{r} 22,426 \\ 1,268 \end{array}$ | 30,636 1,644 | 26,578 1,522 | 24,789 1,260 | $-1,789$ -262 |
| Saugers........................... . $\begin{array}{r}000 \mathrm{lb} \\ \${ }^{\prime} 000\end{array}$ | $\begin{array}{r} 4,948 \\ 895 \end{array}$ | 4,286 880 | 4,810 732 | $\begin{aligned} & 7,658 \\ & 1,032 \end{aligned}$ | $\begin{aligned} & 5,464 \\ & 1,196 \end{aligned}$ | $\mathbf{- 2 , 1 9 4}$ +164 |
|  | 9,563 848 | 6,105 515 | 12,854 1,171 | 6,964 580 | 10,471 914 | $+3,507$ +334 |
| Tuna.......................... $\begin{array}{r}000 \mathrm{lb} \\ 8^{\prime} 000 \\ \mathbf{y}^{\prime}\end{array}$ | $\begin{array}{r} 2,252 \\ 483 \end{array}$ | 2,504 588 | 2,956 1,224 | 3,190 879 | 2,907 859 | -283 -20 |
| Plaice. . . . . . . . . . . . . . . . . . . . $\begin{array}{r}000 \\ \$^{\prime} 000 \\ \text { lb. }\end{array}$ | $\begin{array}{r} 2,833 \\ 160 \end{array}$ | 1,667 123 | 4,269 253 | 3,784 $\mathbf{2 2 5}$ | 9,938 | $\begin{array}{r} +6,154 \\ +609 \end{array}$ |
| Oysters............... ..... bbl. | 66,652 708 | 64,559 715 | 74,144 859 | 77,810 876 | 78,801 830 | +991 -46 |
| Swordfish...................... ${ }^{\prime} 000 \mathrm{lb}$ 每 000 | $\begin{aligned} & 2,776 \\ & 1,230 \end{aligned}$ | 1,792 845 | 2,363 1,047 | 2,237 805 | 2,156 821 | -81 +16 |
| Alewives........................ . 000 lb . | $\begin{array}{r} 17,201 \\ 654 \end{array}$ | 11,775 457 | 17,255 679 | 17,002 | 20,917 712 | $+3,915$ +19 |
| Pike........................... $\begin{array}{r}\prime 000 \mathrm{lb} \\ \S^{\prime} 000\end{array}$ | 4,749 495 | 6.008 611 | 6,780 717 | $\begin{array}{r} 6,673 \\ 541 \end{array}$ | 6,122 688 | -551 +147 |
|  | $\begin{array}{r} 4,499 \\ 733 \end{array}$ | 3,875 688 | 3,390 467 | 3,406 473 | 3,430 619 | $\begin{array}{r} +24 \\ +146 \end{array}$ |
| Ling cod........................ ${ }^{\prime} 000 \mathrm{lb}$. | $\begin{aligned} & 7,383 \\ & 1,065 \end{aligned}$ | 3,875 597 | 6,586 879 | 7,263 871 | 4,638 523 | -2.625 -348 |
| $\text { Tullibee. .......................... . . . }{ }_{8}{ }^{\prime} 000 \mathrm{lb} \text {. }$ | $\begin{array}{r} 10,479 \\ 447 \end{array}$ | $\begin{array}{r} 12,653 \\ 785 \end{array}$ | $\begin{array}{r} 10,805 \\ 903 \end{array}$ | $\begin{array}{r} 6,199 \\ 346 \end{array}$ | 7,838 453 | $+1,639$ +107 |
| Scallops...................... ${ }^{\text {gal }}$, | 87,897 541 | 93,173 576 | 87,067 501 | $\begin{array}{r} 43,650 \\ 217 \end{array}$ | $\begin{array}{r} 76,966 \\ 424 \end{array}$ | $\begin{array}{r} +33,316 \\ +207 \end{array}$ |
| Other. . . . . . . . . . . . . . . . . . . ${ }^{\text {8/000 }}$ | 6,631 | 6,480 | 7,186 | 7,252 | 5,575 | -1,677 |
| Total Values........ $\$ \mathbf{\$ 0 0 0}$ | 121,125 | 123,900 | 139,826 | 131,138 | 151,982 | +20,844 |

The value of the equipment used in primary operations of the commercial fisheries in 1950 increased by $\$ 10,700,000$ over the 1949 figure. A rise in the total estimated value of craft of all types, especially vessels, accounted for a good proportion of the increase. 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, 1949 and 1950

| Kind of Equipment | 19491 |  | $1950{ }^{\text {t }}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ 000 | No. | \$'000 |
| Steam trawlers and vessels. | 6 | 975 | Sea Fisheries- | 775 |
| Draggers. | 128 | 3,045 | 138 | 3,905 |
| Vessels-gasoline, diesel and sail. | 2,009 | 17,776 | 2,089 | 22,175 |
| Boats-gasoline, diesel, sail and row | 28,163 | 16,151 | 27,858 | 17,877 |
| Packers, carrying bosts and scows. | 1,209 | 2,251 | 1,183 | 2,234 |
| Herring nets.. | 45,161 | 1,137 | 44,938 | 1,148 |
| Mackerel nets. | 28,118 | 753 | 29,014 | 794 |
| Salmon nets, traps and seine | 14,947 | 3,949 | 15,459 | 4,344 |
| Smelt nets....... | 16,491 | 588 | 16,226 | 605 |
| Other nets, weirs and seine | 6,306 | 2,792 | 6,678 | 2,873 |
| Tubs of trawl, skates of gear, hand lines | 92,638 | 1,384 | 87,882 | 1,760 |
| Lobster traps and pounds................ | 2,354,279 | 5,968 | 1,910,316 | 6,526 |
| Other gear.............. | ... | 268 | ... | 337 |
| Premises-piers, wharves, freezers, ice-houses, small fish- and smoke-houses. | 7,887 | 2,865 | 7,698 | 3,471 |
| Total Values, Sea Fisheries Equipment. | ... | 59,902 | ... | 68,824 |
| Inland Fisherles- |  |  |  |  |
| Fish carriers and tugs. ............................ | 157 | 1,631 | 207 | 1,731 |
| Boats (gasoline and diesel), skiffs, canoes | 6,591 | 2,055 | 7,119 | 2,343 |
| Gill nets. |  | 3,400 |  | 4,505 |
| Other nets, weirs and seines | 7,454 | 1,164 | 7,033 | 1,196 |
| Other gear.............. |  | 316 |  | 315 |
| Premises - piers, wharves, freezers, ice-houses, small fish- and smoke-houses | 2.019 | 1,126 | 1,909 | 1,359 |
| Total Values, Inland Fisheries Equipment. | ... | 9,692 | ... | 11,449 |
| Grand Totals. | ... | 69,594 | ... | 80,273 |

${ }^{1}$ Figures for Newfoundland not available.

## 6.-Persons Employed in the Primary Fishing Industry, 1946, 1949 and 1950

| Item | Sea Fisheries |  |  | Inland Fisheries |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1946 | $1949{ }^{1}$ | 19501 | 1946 | 18491 | $1950{ }^{1}$ |
|  | No. | No. | No. | No. | No. | No. |
| Persons Employed in- |  |  |  |  |  |  |
| Steam trawlers and vessels............. | 162 | 132 | 112 | - | - | - |
| Vessels...................................... | 7.809 | 9, ${ }^{1312}$ | 112 8.769 | - | - | - |
| Boats............................... | 38,097 | -33,953 | 35,427 | 10,402 | 9,459 | 10,974 |
| Packers, carrying boats and scows.... | , 693 | -681 | $\begin{array}{r}3,427 \\ \hline 6.00\end{array}$ | 117 | 130 | 128 |
| Fishing, not in boats................... | 4,761 | 2,982 | 3,000 | 11,034 | 7,859 | 7,303 |
| Totals. | 51,961 | 47,595 | 48,647 | 21,553 | 17,448 | 18,405 |

[^187]
## Subsection 2.-The Fish-Processing Industry

The products of the fish-processing industry were valued at $\$ 118,968,000$ in 1950, an increase of $\$ 7,049,000$ over the 1949 figure. A total of 597 firms were in operation in Canada (not including Newfoundland); most of these establishments were engaged in at least two or more of the different phases of processing which include canning, curing, freezing, reduction and selling of fresh fish.
7.-Summary Statistics of Fish-Processing Establishments, 1946-50

| Item | 1946 | 1947 | 1948 | 19491 | $1950{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Establishments- |  |  |  |  |  |
| Prince Edward Island. . . . . . . . . . . . . . . . No. | 68 | 68 | 65 | 62 | 57 |
| Nova Scotia.............................. ${ }^{\text {a }}$ | 192 | 191 | 203 | 212 | 208 |
| New Brunswick | 148 | 153 | 162 | 153 | 170 |
| Quebec. | 105 | 112 | 107 | 104 | 94 |
| British Columbia | 73 | 70 | 63 | 68 | 68 |
| Totals, Establishments............. No. | 586 | 594 | 600 | 599 | 597 |
| Employees- |  |  |  |  |  |
| Male...................................... No. | 11,454 | 10,793 | 10,329 | 10,417 | 10.176 |
| Female | 7,942 | 7,838 | 6,168 | 5,670 | 5,748 |
| Totals, Employees................. " | 19,396 | 18,631 | 16,497 | 16,087 | 15,924 |
| Salaries and wages...................... \$'000 | 14,745 | 16,613 | 17,041 | 16,970 | 18,622 |
| Fuel and electricity used..................... | 1,104 | 1,411 | 1,782 | 1,731 | 1,729 |
| Materials used................................. | 68,013 | 62,780 | 74,588 | 69,090 | 74,446 |
| Value of Products.......................... " | 100,124 | 105,206 | 115,821 | 111,919 | 118,968 |

${ }^{1}$ Figures for Newfoundland not available.

## CHAPTER XV.-FURS

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CONSPECTUS <br> | Section 1. The Fur Industry | Page | Section 3. Marketing of Furs. . . . . . . | $\begin{array}{r} P_{\triangle G E} \\ 596 \end{array}$ |
| :---: | :---: | :---: | :---: |
|  | 591 |  |  |
| Subsection 1. Fur Trapping | 591 |  |  |
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| Section 2. Statistics of Fur Production | 593 | DUSTR | 598 |

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.-The Fur Industry

## Subsection 1.-Fur Trapping

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 wild-caught and although fur-farming has developed rapidly during the present century, trapping continues to provide much more than 50 p.c. of the income from raw furs produced in Canada.

Wild fur-bearers are still taken in moderate numbers, 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 change in style has resulted in serious hardship but it is obvious that the problems thus created cannot be solved by wildlife-management practices.

Conservation and management of fur-bearers are, however, receiving increasing attention from federal and provincial authorities. Scientific studies of many species are being made to determine the principal factors controlling their numbers, the optimum annual harvest that should be taken, and the best methods of increasing this harvest. Among the controlling factors being studied are food, shelter, weather, diseases, parasites, and predators.

In certain fur-producing districts, provincial and territorial authorities have instituted a registration system in accordance with which trap-lines or trapping areas are assigned to individuals on a constant basis. This system puts the responsibility on the registered trapper for the conservation of fur-bearers in his own area and has, in general, proved highly successful.

Forest fires frequently wipe out wild-fur production for some time over large areas. Provincial forest services combat this menace by well-organized fire-fighting systems, including the use of aircraft and parachute-dropped fire-fighters and equipment, and by public education. Beaver dams also help to level off the effects of floods and drought, natural catastrophes that seriously affect fur-bearers and other wildlife. Beavers are, in fact, so useful as assistants to wildlife-management services that numbers of them are often transplanted, by air or otherwise, from areas where they are too numerous to areas where their activities will improve habitat for themselves and for other species.

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 true 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.

## Subsection 2.-Fur Farming

Although early developments in raising fur-bearing animals on farms took place first in Prince Edward Island around 1887 and in Quebec in 1898, fur farming to-day is carried on in all the 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 many 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, with a period of more rapid growth from 1920 to 1938 when the number had reached 10,435 . After the outbreak of hostilities in 1939 and the loss of the London and European markets, prices declined and 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 1950 only 3,492 reported but, despite this decrease in number, volume of production has gradually increased over the period.

While 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 317,000 animals on fur farms at Dec. 31, 1950, showed 11 p.c. in British Columbia, 47 p.c. in the Prairie Provinces, 25 p.c. in Ontario, 11 p.c. in Quebec and 6 p.c. in the Maritime Provinces.

Furs have for centuries been used for clothing and adornment and, with the demands of fashion, the development of new colour phases in fox and mink has 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. Only by breeding under protection could these strange animals be increased in number and variety. Starting with wild-caught mink, breeders have, by cross-breeding, produced mink furs in a
multitude of colours and patterns. By selective breeding the original reddishbrown mink has become a beautifully furred animal with a thick coat of soft velvety texture and rich blue-black colour, set off by a background of blue or slateshaded under-fur.

Among the earliest mutations to appear was an attractive bluish-gray mink which became known as "Platinum" mink. Mink mutations began to appear in ever-increasing numbers on farms from coast to coast and later, as breeders again cross-bred these new mutations, a still greater profusion of colour combinations appeared. An excellent example of this cross-breeding of mutations is 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.

It has long been known that the mink produces an extremely versatile fur and the industry is now setting great emphasis on this quality, thus gaining for mink a place among the high-quality furs of the world.

## Section 2.-Statistics of Fur Production*

Total Fur Production Statistics.-Early records of raw-fur production are confined to the decennial censuses, when account was taken of the numbers and values of pelts obtained by trappers. In 1920 the Dominion Bureau of Statistics commenced an annual survey of raw-fur production, basing its statistics on information supplied by the licensed fur traders. This survey was continued 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 Percentages Sold from Fur Farms, Years Ended June 30, 1932-51
(Exclusive of Newfoundland)

| Year | Pelts |  | Percentage of Value Sold from Fur Farms ${ }^{1}$ | Year | Pelts |  | Percentage of Value Sold from Fur Farms ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Value |  |  | Number | Value |  |
|  |  | \$ |  |  |  | 5 |  |
| 1932... | 4,449, 289 | 10, 189,481 | 30 | 1942... | 19,561, 024 | 24,859,869 | 19 |
| 1933. | 4,503,558 | 10,305,154 | 30 | 1943.. | 7,418,971 | 28,505,033 | 24 |
| 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. | $4,596,713$ $6,237,640$ | $15,464,883$ $17,526,365$ | 40 40 | 1946. | 7,593,416 | $43,870,541$ $26,349,997$ | 30 37 |
| 1938. | 4,745,927 | 13,196,354 | 43 | 1947. | $7,486,914$ $7,952,146$ | $26,349,997$ $32,232,992$ | 37 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 | 7,479,272 | 31, 134,400 | 36 |

${ }^{1}$ Approximste.
Ontario leads the provinces in value of fur production, accounting for 26 p.c. of the total in the 1950-51 season. The numbers of pelts taken in both Alberta and Manitoba were higher than in Ontario, but in these provinces muskrat and squirrel, which are lower-priced furs, made up the major portion of the total. In Ontario the more valuable mink, beaver and fox pelts brought the total value to a higher level.

[^188]
## 2.-Pelts of Fur-Bearing Animals Produced, by Provinces, Years Ended June 30, 1950 and 1951

| Province or Territory | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pelts | Value | Percentage of Total Value | Pelts | Value | Percentage of Total Value |
|  | No. | $\$$ |  | No. | \$ |  |
| Newfoundland......... |  |  |  |  |  |  |
| Prince Edward Island... | 25,501 | 258,440 | 1.1 | 11,772 | 176,153 | 0.6 |
| Nova Scotia...... | 88,000 | 309, 872 | 1.3 | 356,827 | 611,979 | 2.0 |
| New Brunswick. | 55,315 | 394,905 | 1.7 | 27,814 | 170,670 | 0.5 |
| Quebec... | 528,411 | 2,814,846 | $12 \cdot 1$ | 465,893 | 3,370,829 | $10 \cdot 8$ |
| Ontario.. | 936,313 | 6,199,228 | $26 \cdot 8$ | 1,042,208 | 8,210,658 | 26.4 |
| Manitoba.... | 1,257,532 | 4,276,630 | $18 \cdot 5$ | 1,302,010 | 5,370,335 | $17 \cdot 2$ |
| Saskatchewan | 1,050,766 | 2,359,444 | $10 \cdot 2$ | 875,901 | 2,805,972 | 9.0 |
| Alberta. | 2,191,979 | $3,830,095$ | 16.5 | 1,861,860 | 5,280,952 | 17.0 |
| British Columbia. | 528,700 | 1,631,983 | 7.0 | -662,792 | 2,736,544 | 8.8 |
| Yukon Territory. | 153,574 | 199,086 | $0 \cdot 9$ | 228,616 | 361,969 | 1.2 |
| Northwest Territories. | 561,400 | 909,504 | $3 \cdot 9$ | 643,579 | 2,038,339 | 6.5 |
| Canada | 7,377,491 | 23,184,033 | $100 \cdot 0$ | 7,479,272 | 31,134,400 | $100 \cdot 0$ |

The average prices of the main kinds of pelts taken in 1950-51 were higher than in 1949-50. Fox pelts of all types increased, silver fox rising from $\$ 10 \cdot 63$ per pelt to $\$ 13 \cdot 06$. Mink rose from $\$ 16 \cdot 68$ to $\$ 20 \cdot 57$ and mutation mink from $\$ 14 \cdot 15$ to $\$ 21 \cdot 60$. The average value of beaver pelts was $\$ 23 \cdot 58$ in 1950-51 as compared with $\$ 20.99$ in the previous year; muskrat rose from $\$ 1.70$ to $\$ 2 \cdot 25$ and squirrel from 35 cents to 66 cents.

## 3.-Pelts of Fur-Bearing Animals Taken, by Kinds, Years Ended June 30, 1950 and 1951

(Exclusive of Newfoundland)

| Kind | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Pelts | Total Value | Average Value | Pelts | Total Value | Average Value |
|  | No. | § | $\$$ | No. | \$ | 8 |
| Badger. | 1,125 | 600 | 0.53 | 702 | 743 | 1.06 |
| Bear, white | 297 | 7,515 | 25.30 | 377 | 9,525 | $25 \cdot 27$ |
| Bear, unspecified | 760 | 1,629 | $2 \cdot 14$ | 410 | 1,308 | $3 \cdot 19$ |
| Beaver.......... | 157,416 | 3,304,923 | 20.99 | 180,817 | 4,262,977 | 23.58 |
| Coyote or prairie wolf..... | 15,686 | -39,644 | $2 \cdot 53$ | 32,721 | 142,584 | $4 \cdot 36$ |
| Ermine (weasel)............ | 627,531 | 933,626 | 1.49 | 377,088 | 805,770 | $2 \cdot 14$ |
| Fisher.................... | 2,710 | 78,456 | 28.95 | 3,707 | 91,931 | 24.80 |
| Fitch. | 155 | 182 | 1.17 | 76 | . 86 | $1 \cdot 13$ |
| Fox, blue................... | 1,954 | 19,589 | 10.03 | 2,063 | 21,647 | 10.49 |
| Fox, cross................... | 2,777 | 7,897 | 2.84 | 6,514 | 21, 041 | 3.23 |
| Fox, red.................... | 27,015 | 31,784 | 1.18 | 36,576 | 64,788 | 1.77 |
| Fox, silver. | 59,029 | 627, 204 | $10 \cdot 63$ | 38,561 | 503,658 | 13.06 14.61 |
| Fox, new-type | 21,923 | 271,950 | 12.40 8.45 | 11,749 | 171,684 | $14 \cdot 61$ |
| Fox, white................. | 19,775 | 167,044 252 | 8.45 4.20 | 52,566 40 | 684,272 199 | 13.02 4.98 |
| Fox, other................. | 60 3,734 | 38,027 | 4.20 10.18 | 9,662 | -108,919 | 4.98 11.27 |
| Marten. | 14,428 | 271,360 | 18.81 | 21,109 | 539,065 | 25.54 |
| Mink, standard | 564,409 | 9,416,007 | 16.68 | 598,008 | 12.300,312 | 20.57 |
| Mink, mutation | 103,278 | 1,461,034 | 14.15 | 107,288 | 2,317,723 | 21.60 |
| Muskrat... | 3,138,609 | 5,334,160 | 1.70 | 2,958,662 | 6,645,903 | $2 \cdot 25$ |
| Nutria. | 29 |  | 1.48 |  | ${ }^{18}$ | $1 \cdot 13$ |
| Otter | 11,555 | 242,465 | 20.98 | 13,567 | 374,007 | 27.57 |
| Rabbit. | 67,951 | 25,901 | $0 \cdot 38$ | 48,123 | 22,487 | 0.47 |
| Raccoon | 15,906 | 20,922 | 1.32 | 24,384 | 60,697 | $2 \cdot 49$ |
| Skunk. | 10,085 | 4,914 | $0 \cdot 49$ | 16,389 | 12,872 | 0.79 |
| Squirrel. | 2,507,436 | 870,809 | $0 \cdot 35$ | 2,935,520 | 1,943,103 | $0 \cdot 66$ |
| Wild cat | 2, 781 | 725 | $0 \cdot 93$ | ${ }^{6} 649$ | ${ }^{888}$ | 1.37 |
| Wolf... | 766 | 2,437 | $3 \cdot 18$ | 1,148 | 7,342 | 6.40 |
| Wolverine | 311 | 2,934 | 9.43 | 780 | 18,851 | $24 \cdot 17$ |
| Totals | 7,377,491 | 23,184,033 | ... | 7,479,272 | 31,134,400 | ... |

Fur Farm Statistics.-In 1950 the number of fur farms continued the decrease occurring each year since 1946, dropping from 4,049 in 1949 to 3,492 in 1950. The value of fur animals on farms at Dec. 31, 1950, was slightly higher than at the end of 1949 and the revenue from operations was also higher amounting to $\$ 11,800,000$ compared with $\$ 9,500,000$.

The number of farms reporting foxes in 1950 decreased since 1949 by 26 p.c. to 985 , while the number of animals on these farms was lower by 21 p.c., totalling 23,811 valued at $\$ 641,828$. Mink farms showed a smaller decline from 2,798 in 1949 to 2,557 in 1950, but the number of animals on the farms reached a record total of 286,152 valued at $\$ 8,400,000$ in 1950 , which was 22,479 more in number and $\$ 1,900,000$ higher in value than in 1949. Fox pelts produced decreased by 38 p.c., while mink pelts increased by 1 p.c.

4.-Fur Farms and Values of Fur-Bearing Animals, by Provinces, 1948-50

| Province | Fur Farms |  |  | Values of Fur-Bearing Animals on Fur Farms |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1948 | 1949 | 1950 | 1948 | 1949 | 1950 |
|  | No. | No. | No. | \$ | \$ | \$ |
| Newfoundland Prince Edward Island....... | 246 | 179 |  | 172.68 |  |  |
| Nova Scotia................ | 219 | 163 | 130 | 172, 973 | 158,108 | 146,908 |
| New Brunswick. | 205 | 136 | 105 | 131,056 | 109,319 | 125,469 |
| Quebec. | 1,058 | 718 | 561 | 1,345, 593 | 1,179,718 | 1,306,429 |
| Ontario. | 1.306 | 1,104 | 952 | 2,696,060 | 2,540,036 | 2,977,794 |
| Manitobs..... | 581 | 509 | 489 | 1,210,580 | 1,236,157 | 1,686,174 |
| Saskatchewan. | 285 | 253 | 203 | 1477,627 | 510,402 | 564,484 |
| Alberta. | 793 | 657 | 601 | 1,600,248 | 1,576,938 | 1,978,989 |
| British Columbia | 347 | 330 | 324 | 1,099,710 | 1,277,560 | 1,473,988 |
| Totals.............. | 5,040 | 4,049 | 3,492 | 8,909,535 | 8.743,225 | 10,444,286 |

## 5.-Fur-Bearing Animals on Fur Farms, as at Dec. 31, 1947-50

(Exclusive of Newfoundland)

| Kind of Animal | 1947 |  | 1948 |  | 1949 |  | 1950 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Value | No. | Value | No. | Value | No. | Value |
|  |  | \$ |  | $\$$ |  | \$ |  | \$ |
| Chinchilla. | 4,040 | 1,578,400 | 4,339 | 1,088,900 | 5,685 | 1.428.708 | 6,053 | 1,350,860 |
| Foyote. | $\stackrel{2}{8}$ | 17, 271 | 83 | - 10 |  | 10,600 | - 09 |  |
| Fitch. | 112 | 17840 | 90 | 10,473 | ${ }_{85}$ | 10,600 | 49 | 9,860 |
| Fox, blue. | 2,344 | 82,665 | 985 | 40,103 | 738 | 28,220 | 557 | 21,359 |
| Fox, cross. | 186 | 3,110 | 102 | 1,476 |  |  |  |  |
| Fox, new-type | 25,040 | 1,031,060 | 15,442 | 485, 170 | 9,734 | 265,694 | 6,857 | 187, 574 |
| Fox, red. | 197 | 1,402 | ${ }_{26} 111$ | 1,115 |  |  |  |  |
| Fox, silver | 36,685 | 1,048,991 | 26,166 | 690,911 | 19,578 | 504,799 | 16,279 | 431,267 |
| Fox, othe | 72 | 4,095 | 61 | 1,800 | 150 | 1,839 | 118 | 1,628 |
| Lynx... | $4{ }_{4}$ | 21250 | 4 | 200 | ${ }^{1}$ | 1 | - |  |
| Marten | 344 | 31,489 | 427 | 39,690 | 371 | 30,790 | 327 | 31,020 |
| Mink. | 285, 128 | 10,311,507 | 262,827 | 6,544,333 | 263,673 | 6,469,273 | 286,152 | 8,408,379 |
| Nutria | 208 | 3,238 | 130 | 4,167 | ${ }^{67}$ | 1,650 | 38 | 1,430 |
| Raccoon............ | 156 | 1,001 | 163 | 922 | 147 | 1,009 | 114 | 623 |
| Skunk Other fur animals...... | - $\quad 2$ | 10 | - 3 | 15 | 8 | ${ }^{1} 124$ | ${ }^{1} 9$ | 61 |
| Totals | 354,668 | 14,115,949 | 310,935 | 8,909,535 | 300,352 | 8,743,225 | 316,646 | 10,444,286 |

${ }^{1}$ Included in "Other fur animals". ${ }^{2}$ Included in "Fox, other".

## 6.-Values of Fur-Bearing Animals and of Pelts Sold from Fur Farms, 1947-50.

(Exclusive of Newfoundland)

| Kind of Animal | 1947 |  | 1948 |  | 1949 |  | 1950 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Animals | Pelts | Animals | Pelts | Animals | Pelts | Animals | Pelts |
|  | \$ | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Chinchilla. | 238,820 | 2125 | 201,557 | 1.267 | 404,161 | 150 | 518,750 |  |
| Fisher | 7,150 | 2,125 | 1,200 90 | 1,267 | 975 75 | 177 280 | 1 | 1 1 |
| Fitch..... | 4, 113 | [ 6786 | 2,030 | 1,422 94,053 | 75 210 | 37,802 | ${ }^{1} 185$ |  |
| Fox, blue.. | 4,210 160 | 52,740 4,490 | 2,030 105 | 94,053 2,436 | $2{ }^{210}$ | 37,802 | ${ }_{8}^{185}$ | 20,277 |
| Fox, cross......... | 38,451 | 1,389,998 | 9,459 | 1,015,612 | 2,642 | 427,964 | 4,287 | 283,573 |
| Fox, red.......... | 25 | 1, 2,203 | 2 |  |  |  |  |  |
| Fox, silver......... | 43.779 | 1,482,328 | 33,882 | 977,690 | 16,615 | 505,404 | 14,567 | 463,181 |
| Fox, other......... | 276 | 618 | 50 | 1,416 | 6, 92 | 1,788 1 |  | 1830 2.841 |
| Marten............ | 2.370 | 1,479 | 2,870 | -877 | 6,081 | 7 $\begin{array}{r}1,210\end{array}$ | 2,754 | - ${ }_{10,084}$ |
| Mink | 1,039,379 | 8,780,456 | 537, 643 | 5, ${ }^{\text {575, }} 3788$ | 288,411 | 7,820,747 | 431,212 | 10,064,005 |
| Natria.. | 140 84 |  |  |  | 42 |  | 1 | 1 |
| Other fur animals. . | - | - | - | - | 300 | - | 730 | 700 |
| Totals | 1,374,957 | 11,717,496 | 789,485 | 7,970,552 | 719,684 | 8,795,550 | 972,498 | 10,835,507 |

${ }^{1}$ Included with "Other fur animals".
${ }^{2}$ Included in "Fox, other"

## Section 3.-Marketing of Furs

The first Canadian fur auction sale was held in 1920 at Montreal, Que., and although that city has always been the leading Canadian fur mart, auction sales are now held at Vancouver, B.C., Edmonton, Alta., Regina, Sask., and Winnipeg, Man. The Saskatchewan Government maintains a Fur Marketing Service at Regina to assist the producers in that Province.

Grading.-The grading of furs was introduced in 1939 by the Federal Department of Agriculture to secure uniformity 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.-Prior to World War II, Canada marketed fur pelts mainly in the United Kingdom but, since that market was practically dormant during the war years, the fur trade was carried on mainly with the United States. A definite revival of trade with the United Kingdom was shown between 1946 and 1948 but decreases of 39 p.c. and 18 p.c., respectively, in exports of furs to that market were shown in 1949 and 1950.

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 making up a comparatively small proportion of the total. Exports consist largely, of course, 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.

Total exports and imports of all furs to and from the United States, the United Kingdom and all countries are given for the years 1947-49 in Part I, Section 4, of the Foreign Trade Chapter XXI, Tables 13 and 14.
7.-Exports and Imports of Furs, by Kinds, 1950

| $\begin{aligned} & \text { Kind of } \\ & \text { Fur } \end{aligned}$ | Exports |  |  | $\begin{aligned} & \text { Kind of } \\ & \text { Fur } \end{aligned}$ | Imports |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { United } \\ \text { Kingdom } \end{gathered}$ | United States | $\xrightarrow{\text { All }}$ |  | United Kingdom | United States | All Countries |
|  | \$ | \$ | \$ |  | \$ | \$ | \$ |
| UndressedBesver |  |  |  | Undressed- |  |  |  |
| Ermine | 191,218 | $3,306,790$ 496,452 | 3,986,172 | mink. | - | 288,238 | 310,886 |
| Fisher. | 31,816 | 89,561 | 132,767 | Fox... | 884 | 68,686 | 69,570 |
| Fox, all typ | 472,569 | 680,565 | 1,383,743 | Kolinsky | - | 141.426 | 141,426 |
| Lynx... | 7,571 | 86,070 | 93,985 | Marine. |  | 31,022 | 31,022 |
| Marten | 47,582 | ${ }_{12} 253,225$ | ${ }_{13} 304,807$ | Mink | 28,011 | 1,514,575 | 1,544,381 |
| Muskra | 883,835 | 1,627,280 | $13,368,028$ $2,539,657$ | Muskrat. | 9,361 | 4,689,444 | 4,698,805 19,052 |
| Otter | 28,102 | 207,336 | 235, 438 | Persian lan | 235,844 | 6,456,027 | 7,415,647 |
| Rabbit | 476 | 30,681 | 31,157 | Rabbit. | - | 446,987 | 755,435 |
| Raccoo | 3,797 | 56,416 | 60,288 | Raccoon.. | - | 273,295 | 273,295 |
| Seal. | 13,035 | 4,669 | 17,704 | Sheep and lamb.. |  | 507,651 | 971,812 |
| Skunk | 3,184 | 5,918 | 9,895 | Squirrel........... | 15,732 | 857,762 | 889,964 |
| Squirr | 661,528 | 13,277 | 676,807 | Other. | 14,878 | 1,568,936 | 1,640,287 |
| Wolf | 1,290 | - 26,828 | 191,118 | Dressed- |  |  |  |
| Other | 2,411 | 36,873 | 45,012 | Astrakhan, Rus- |  |  |  |
| Dressed- |  |  |  | sian hare.. Rabbit | 13,346 | 2,859 | 2,859 67,564 |
|  | , | 5180 | 1,993 | Sheep skins | 3,484 | 82,878 | 89,465 |
| Other.. | 9,771 | 513,282 | 630,514 | Other | 62,830 | 603,233 | 692,408 |
| Manufactured | 700 | 848,388 | 873,496 | Manufacture | 331,327 | 552,571 | 936,255 |
| Totals | 4,009,635 | 24,807,744 | 25,298,256 | Totals | 718,232 | 18,109,423 | 20,550,133 |

[^189]
## Section 4.-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, while the latter is a manufacturing industry that actually 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 on dyes, chemicals and other materials used of $\$ 162,013$ and on salaries and wages to 539 employees of $\$ 561,233$. 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. By 1950 the number of skins treated had increased to $13,639,110$, muskrat accounting for 34 p.c., rabbit for 29 p.c. and squirrel for 13 p.c. Other types of skins treated fluctuated very widely over the past quarter-century, the numbers being affected not only by climatic conditions under which trapping is carried on but also by the development of fur farming and, above all, by the vagaries of fashion. Principal statistics of the fur-dressing industry for the years 1948, 1949 and 1950 are given in Table 8.

## 8.-Principal Statistics of the Fur-Dressing Industry, 1948-50

| Item | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: |
| Establishments.................................... . . . | 21 | 21 | 22 |
| Employees on Salaries- |  |  |  |
|  | 123 37 | 109 42 | 120 44 |
| Employees on Wages - |  |  |  |
|  | 1,124 318 | 1,224 | 1,187 282 |
| Salaries paid......................................... | 596,035 | 628,890 | 653,615 |
| Wages paid........................................... \$ | 2,523,432 | 2,858,743 | 2,766,881 |
| Cost of materials used (dyes, chemicals, etc.).......... \$ | 1,135,650 | 1,215,541 | 1,294,259 |
| Pelts treated....................................... . . . | 14, 137,455 | 13,933,261 | 13,639,110 |
| Amount received for treatment of furs............... \$ | 6,126,532 | 6,691,418 | 6,514,772 |

Statistics for the fur-goods industry, on a comparable basis, are available from 1921, when 219 establishments reported a gross value of production of $\$ 13,639,609$, with employees numbering 2,621 who received $\$ 3,013,706$ in salaries and wages. Cost of materials used in the manufacturing process totalled $\$ 8,118,833$. Principal statistics for the industry for the years 1948, 1949 and 1950 are given in Table 9.

[^190]
## 9.-Principal Statistics of the Fur-Goods Industry, 1948-50

| Item |  |  |
| :--- | :--- | ---: | ---: | ---: |

Changes in living habits and standards that have taken place 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 1948, there were 225,711 ladies' fur coats made; the number dropped to 207,816 in 1949, and to 191,915 in 1950. The manufacture of men's fur coats, however, showed a decided reversal in the market as there were 4,655 men's fur coats and 1,037 men's fur-lined coats manufactured in 1921 but a total of only 329 such coats in 1950. In 1921 horse-drawn sleighs were still reasonably plentiful and 4,461 fur robes were produced but, by 1950 , production had dropped to virtually none.

## CHAPTER XVI.-MANUFACTURES

## CONSPECTUS

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Part II.-Provincial and Local Distribution of Manufacturing Production.

Section 1. Provincial Distribution
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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 deals with manufacturing industries in Canada in two Parts. Part I gives general analyses including: the historical development of manufacturing; 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 II deals with the provincial and local distribution of manufacturing production.

It is impossible to give absolutely comparable statistics 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.

Canada now ranks among the important manufacturing countries of the world and holds a dominant position in the export of many manufactured products. The forward movement in development has been the result of three great influences: firstly the opening of the west at the beginning of the present century which greatly increased the demand for manufactured goods of all kinds, especially construction materials; secondly, World War I which left a permanent imprint upon the variety and efficiency of Canadian plants; and thirdly, World War II with its insatiable demands for food and manufactured products of all kinds. More especially during
the second world war the situation created as a result of Canada's strategic position as a source of food and armaments had far-reaching effects on the magnitude and diversification of Canadian manufacturing production, with the result that Canada, with greatly increased skills and plant capacity, has now entered a new era in manufacturing development.

Outstanding economic factors of 1950 , such as the record gross national product of $\$ 18,029,000,000$, the level of capital investment at $\$ 3,791,000,000$ and foreign trade at $\$ 6,000,000,000$, are the immediate manifestations of trends over the past decade. With a labour force less than 14 p.c. larger than in 1939, the Canadian economy has shown remarkable growth. Production of durable goods has expanded the most, especially automobiles, trucks and electrical apparatus. Electric power output has doubled and aluminum has advanced five times. Steel production is up two and one-half times. Mineral production has doubled. Canada's pulp and paper industry has continued its premier position with Canadian newsprint production leading the world.

The discovery of oil at Leduc, Alta., in February 1947, altered Canada's industrial destiny. Output of oil had been dwindling; more than 90 p.c. of the oil used in Canada was being imported and causing a heavy drain on holdings of United States currency. In the three years following the Leduc strike, Canada's oil reserves jumped from $35,000,000 \mathrm{bbl}$. to $1,500,000,000 \mathrm{bbl}$. and potential output rose to approximately $145,000 \mathrm{bbl}$. daily, or 40 p.c. of Canadian consumption. Developments in the oil industry of Alberta have been closely paralleled by developments in natural gas. Expansion in this industry, too, has been nothing short of spectacular. In the past five years, household, commercial and industrial sales of natural gas increased by about 55 p.c. Natural gas is the cheapest source of energy for many purposes and, when available in large quantities and at relatively low price, plays an important role in manufacturing production.

Another new source of industrial wealth lies in the huge iron deposits on the Quebec-Labrador boundary, 320 miles north of the St. Lawrence River. More than $400,000,000$ tons of ore have already been proven and plans call for production by 1955 at an annual rate of $10,000,000$ tons.

Oil, gas and iron will transform the base of Canadian industry and widen the horizon for manufactured goods. The gross value of manufactured products in Canada reached $\$ 12,480,000,000$ in 1949 and was approximately $\$ 13,817,526,000$ in 1950. About one-half of the 1950 total was accounted for by 15 leading industries based on the utilization of forest and food resources, iron and steel, and fuel and power. Development in these industries has been outstanding, but this advance must not be allowed to detract from the solid, steady growth of Canadian manufacturing as a whole. In the years 1946 to 1950, 1,031 entirely new companies began operations in manufacturing. These firms employed 41,000 people, paid salaries and wages of $\$ 70,000,000$ and had a gross value of production of $\$ 350,000,000$. Thus, nearly 4 p.c. of the jobs in manufacturing currently available to Canadians are the direct result of operations of new companies.

Two major changes were adopted in the compilation of manufacturing statistics starting with 1949. Figures for that year contained statistics for the Province of Newfoundland and a change was made in the system of classifying industries. Under the Standard Classification adopted, the industries are divided into 17 major groups instead of the nine groups under the component material classification.

For most purposes a classification of_manufacturing industries based on chief component materials has, in the past, proved very useful. Such classification was wholly applicable when the industry of the country was concerned with the early stages in the processing of primary materials, i.e., when final products were mainly such items as pig iron, lumber and processed fish. As manufacturing industries developed, however, turning out more and more goods for consumption, the combination of ingredients in such output became more and more complex. The modern automotive, aircraft, shipbuilding and electrical-apparatus industries are examples in which a wide variety of materials must be assembled for the completion of the final product.

In establishing the Standard Industrial Classification, the concept of "purpose" has been combined with that of "chief component material" in the framework of the classification of manufacturing industries. For the classification of consumer-goods industries the concept of "purpose" seems most applicable both in terms of common usage in referring to industries and in providing the type of data most often required. Hence, such major groups as food and beverages, clothing, transportation equipment, and electrical apparatus and supplies have been established.


## PART I.-GENERAL ANALYSES OF MANUFACTURING Section 1.-Growth of Manufacturing

This Section gives a picture of the growth of manufacturing, in general, as shown by comparable principal statistics, i.e., establishments, capital, employees, salaries and wages paid, cost of materials and values of products. Other useful comparisons are made in Table 4 and figures of consumption are given in Table 5.

## 1.-Summary Statistics of Manufactures, 1917-50

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 f $q$ r the first time.

| Year | Estab-lishments | Capital | Employees | Salaries and Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net Value of Products ${ }^{1}$ | Gross <br> Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | No. | \$ | \$ | \$ | \$ |
| 1917 | 21,845 | 2,333, 991, 229 | 606,523 | 497, 801, 844 | 1,539,678,811 | 1,281, 131,980 | 2,820,810,791 |
| 1918 | 21,777 | 2,518, 197,329 | 602,179 | 567,991, 171 | 1,827,631,548 | 1,399,794,849 | 3,227,426,397 |
| 1919 | 22,083 | 2,670,559,435 | 594,066 | 601,715,668 | 1,779, 056,765 | 1,442,400,638 | 3,221,457,403 |
| 1920 | 22,532 | 2,923,667,011 | 598,893 | 717,493,876 | 2,085, 271,649 | 1,621,273,348 | 3,706,544,997 |
| 1821. | 20,848 | 2,697, 858, 073 | 438,555 | 497, 399,761 | $1,365,292,885$ | $1,123,694,263$ | $2,488,987,148$ |
| 1922 | 21,016 | 2,667,493,290 | 456, 256 | 489, 397, 230 | 1,272, 651,585 | 1,103, 266, 106 | 2,375,917,691 |
| 1923 | 21,080 | 2,788,051,630 | 506,203 | $549,529,631$ | 1,456,595, 367 | 1,206, 332, 107 | 2,662,927, 474 |
| 1924. | 20,709 | 2,895, 317,508 | 487, 610 | 534,467, 675 | 1,422,573,946 | 1,075, 458, 459 | 2,570,561,931 |
| $1925{ }^{2}$ | 20,981 | $3,065,730,916$ | 522,924 | $569,944,442$ | 1,571,788,252 | 1,167,936,726 | 2,816,864,958 |
| $1926{ }^{2}$. | 21,301 | 3, 208, 071, 197 | 559,161 | 625,682,242 | $1,712,519,991$ | 1,305, 168,549 | $3,100,604,637$ |
| 19272 | 21,501 | 3,454,825,529 | 595, 052 | 662,705,332 | 1,741, 128,711 | 1,427,649,292 | 3,257,214,876 |
| $1928{ }^{2}$ | 21,973 | 3,804,062,566 | 631,429 | 721,471,634 | 1,894, 027,188 | 1,597, 887,676 | $3,582,345,302$ |
| 19292 | 22,216 | 4,004, 892,009 | 666,531 | 777, 291, 217 | 2,029,670,813 | 1,755, 386,937 | 3,883,446, 116 |
| $1930{ }^{2}$ | 22,618 | $4,041,030,475$ | 614,696 | 697,555, 378 | 1,664,787,763 | 1,522,737, 125 | 3,280,236,603 |
| 1931. | 23,083 | $3,705,701,893$ | 528,640 | 587, 566,990 | 1,221,911,982 | 1,252,017, 248 | 2,555, 126,448 |
| 1932 | 23,102 | 3,380,475,509 | 468,833 | 473,601, 716 | 954,381,097 | 955, 960,724 | 1,980,471,543 |
| 1933. | 23,780 | $3,279,259,838$ | 468,658 | 436,247, 824 | 967,788,928 | 919,671, 181 | 1,954,075,785 |
| 1934 | 24,209 | 3,249, 348,864 | 519,812 | 503,851, 055 | 1,229,513,621 | 1,087,301,742 | 2,393,692,729 |
| 1935 | 24,034 | 3,216, 403, 127 | 556,664 | 559,467, 777 | $1,419,146,217$ | 1,153,485, 104 | 2,653,911, 209 |
| 1936. | 24,202 | $3,271,263,531$ | 594,359 | 612,071, 434 | 1,624,213,996 | 1,289,592,672 | 3,002,403,814 |
| 1937 | 24,834 | 3, 465, 227, 831 | 660,451 | 721, 727, 037 | 2,006, 926,787 | 1,508,924,867 | 3,625,459,500 |
| 1938 | 25,200 | $3,485,683,018$ | 642,016 | 705,668,589 | 1,807, 478,028 | 1,428,286,778 | 3,337,681,366 |
| 1939. | 24,805 | 3,647, 024,449 | 658, 114 | 737, 811,153 | 1,836, 159,375 | 1,531, 051,901 | 3,474,783,528 |
| 1940 | 25,513 | 4, 095, 716,836 | 762, 244 | 920,872,865 | 2,449,721,903 | 1,942,471,238 | $4,529,173,316$ |
| 1941. | 26,293 | 4,905,503,966 | 961,178 | 1,264,862,643 | 3,296,547,019 | 2, 605, 119,788 | 6,076,308, 124 |
| 1942 | 27,862 | 5,488,785,545 | 1,152,091 | 1,682, 804, 842 | 4,037, 102, 725 | 3,309, 973,758 | 7,553,794,972 |
| 1943. | 27,652 | 6,317,166,727 | 1,241,068 | 1,987, 292, 384 | 4,690,493,083 | 3,816,413,541 | 8,732,860,999 |
| 1944 | 28,483 | 6,317,166,7 | 1,222,882 | 2,029,621,370 | 4, 832, 333,356 | 4,015,776,010 | 9,073,692,519 |
| 1945 | 29,050 | 3 , | 1,119,372 | 1,845,773,449 | $4,473,668,847$ | 3,564,315,899 | 8,250,368,866 |
| 1946 | 31,249 | 3 | 1,058,156 | $1,740,687,254$ | 4,358, 234,766 | $3,467,004,980$ | $8,035,692,471$ |
| $1947 .$ | 32,734 | 3 | 1,131,750 | 2,085,925,966 | 5,534, 280,019 | 4,292, 055,802 | 10,081, 026, 580 |
| $1948{ }^{\text {r }}$ | 33,420 | 3 ) | 1,155,721 | 2,409,368,190 | 6,632,881, 628 | $4,938,786,981$ | $11,875,169,685$ |
| 19494. | 35,792 | 3 3 | 1,171,207 | 2,591,890,657 | 6,843, 231, 064 | 5,330,566,434 | 12,479,593,300 |
| $1950{ }^{4}$. | 35,942 | 3 | 1,183,297 | 2,771,267,435 | 7,538, 534, 532 | $5,942,058,229$ | $13,817,526,381$ |

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## 2.-Summary Statistics of Manufactures, by Provinces, Significant Years, 1917-50

| Province and Year |  | Capital | Employees | Salaries and Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net Value of Products ${ }^{1}$ | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | No. | \$ | \$ | \$ | \$ |
| Newfoundland-$1949 \ldots \ldots . . . .$.$1950 . . . . . .$. |  |  |  |  |  |  |  |
|  | 793 | 2 | 6,934 | 15,486,336 | 31,228,173 | 32,918,776 |  |
|  | 850 | 2 | 6,682 | 16,246,252 | 31,505,623 | 36,712,377 | $71,062,850$ |
| Prince Edward Island- |  |  |  |  |  |  |  |
| 1917..... | 411 | 2,008,082 | 1,556 | 663,251 | 3,087,621 | 1,750,135 | 4,837,756 |
| 1920 | 370 | 2,328,686 | 1,287 | 855,210 | $4,164,223$ | 2,135,857 | 6,300,080 |
| 19293 | 263 | 2,646,354 | 2,074 | 727,286 | 2,862,725 | 1,466,446 | $4,408,608$ |
| 1933. | 249 | 2,256,307 | ,991 | 529,684 | 1,590, 834 | $1,126,826$ | 2,775.787 |
| 1939 | 222 | 2,682,900 | 1,088 | 617,945 | 2,239,117 | 1,243,979 | 3,543,681 |
| 1944 | 241 |  | 1,786 | 1,694,763 | 6,993,510 | 3,570,835 | 10,713,644 |
| 1946 | 246 | $\stackrel{2}{2}$ | 1,755 | 1,651,469 | 7,582,046 | 3,469,435 | 11,200,310 |
| 1949 | 251 | 2 | 1,747 | 2, $2,073,985$ | 12,634,785 | $4,217,680$ $4,338,320$ | 17,074,084 |
| 1950. | 244 | 2 | 1,786 | 2,342,180 | 15,243,042 | 4,284,417 | 19,811,023 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 1920. | 1,345 | 135, 679,188 | 23,425 | 25,625,089 | 85,724,785 | $61,371,243$ | 147,096,028 |
| 19293 | 1,094 | 118,951,398 | 19,986 | 16,905,885 | 50,725,562 | 35,676,421 | 89,787,548 |
| 1933 | 1,277 | 92,004,624 | 12,211 | 9,604,680 | 25, 354, 319 | 19,988, 257 | 47,912,432 |
| 1939 | 1,083 | 101,954, 082 | 17,627 | 16,651,685 | 43, 332, 195 | 35,885,563 | 83,139,572 |
| 1944. | 1,281 |  | 37,812 | 59, 940,411 | 103,463,123. | 93,376,638 | 204,421,664 |
| 1946 | 1,397 | 2 | 29,724 | $43,060,259$ | 100, 354,480 | 71,738,873 | 178,793,420 |
| 1948 | 1,440 | 2 | 30,348 | 52,553,200 | 140,761,593 | $95,774,483$ | 246,111,683 |
| 1949 | 1,480 | 2 | 29,311 | 54,686,577 | 135, 841,899 | 102,294,298 | 247,592,389 |
| 1950 | 1,482 | 2 | 28,479 | 54, 888,061 | 147,131,045 | 97,780,564 | 255, 887,499 |
| New Bruns- <br> Wick-     <br> 1917     |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 1920. | 901 | 101,216,395 | 19,007 | 19,266, 821 | 60,812,641 | 45, 803, 164 | 106,615,805 |
| 19293 | 803 | 91, 376,948 | 17,952 | 15, 127,716 | 39,800,366 | 26,640,786 | 68,145,012 |
| 1933 | 747 | $90,148,317$ | 11,336 | 9,308, 100 | 20,442,421 | 18,166,713 | 41,345,622 |
| 1939 | 803 | 91, 171,323 | 14,501 | 13,659,162 | 35,617,614 | 27,041,195. | 66,058,151 |
| 1944. | 937 |  | 23,164 | 32,345,080 | 83,993,599 | 62, 258,478 | 152, 106,577 |
| 1946. | 993 | $\stackrel{2}{2}$ | 22,732 | $33,151,919$ | 96,389,299 | 67,783,377 | 170,753,741 |
| 1948 | 1,067 | 2 | 24,325 | 43, 918,687 | 134,410,529 | 91,404,150 | 234,579,684 |
| 1949 | 1,060 | 2 | 23,446 | 44, 219,819 | 131,804, 253 | 91, 187, 375 | 231,506,191 |
| 1950. | 1,107 | 2 | 23,863 | 46,386, 069 | 148,066, 224 | 106, 204,409 | 263,753,067 |
| Quebec- |  |  |  |  |  |  |  |
| 1917. | 7,032 | 662,012,975 | 188,043 | 141,008, 616 | 385, 212,984 | 380, 882,409 | 766,095,393 |
| 1920. | 7,530 | 878,859,638 | 183,748 | 202,516,550 | 553,558,520 | 499,643,217 | 1,053,201,737 |
| 19293 | 6,948 | 1,246, 208,650 | 206,580 | 225,226,808 | 537, 270, 055 | 537,796,395 | 1,108,592,775 |
| 1933. | 7,856 | 1,035,339,591 | 157,481 | 134,696,386 | 292,560,568 | 288,504,782 | 604,496,078 |
| 1939 | 8,373 | 1,182,538,441 | 220,321 | 223,757,767 | 536,823,039 | 470,385, 279 | 1,045,757,585 |
| 1944. | 9,656 |  | 424,115 | 668, 156,053 | 1,494, 253,053 | 1,350,519,134 | 2,929,685, 183 |
| 1946. | 10,818 | 2 | 357,276 | 565, 986, 105 | 1,297,009,099 | $1,125,991,848$ | 2,497,971,521 |
| 1948 | 11,107 | 2 | 383,835 | 756,078,652 | 1,954,111,943 | 1,533,798,259 | 3,598,870,345 |
| 1949 | 11,579 | 2 | 390,275 | 809,579,270 | 2,027,793, 643 | 1,651,629,668 | 3,788,497,123 |
| 1950. | 11,670 | 2 | 390,163 | 851,334,700 | 2,225,476, 250 | 1,798, 320, 105 | 4,142,473,290 |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 1920 | 9,113 | 1,464,097,346 | 295, 674 | 362,941, 317 | 1,071,843,374 | 792, 267,562 | 1,864,110,936 |
| 19293. | 9,348 | 1,986,736,556 | 328,533 | 406, 622,627 | 1, 056, 530, 202 | 916,971,816 | 2,020,492,433 |
| 1933 | 9,542 | 1,587,947,947 | 224,816 | 220,530,088 | 464,544,563 | 465, 103, 842 | 958,776,858 |
| 1939 | 9,824 | 1,762,571,669 | 318,871 | 378, 376, 209 | 907,011,461 | 791,428,569 | $1,745,674,707$ |
| 1944 | 10,731 |  | 564,392 | 975, 038,060 | 2,310,347, 858 | 1,930, 043,913 | 4,339,797,784 |
| 1946 | 11,424 | 2 | 498,120 | 845, 216,547 | 2,001,900,592 | 1,659, 284,622 | 3,754, 523,701 |
| 1948 | 12,118 | $\stackrel{2}{2}$ | 551,556 | 1,210,438,044 | 3,118, 084, 345 | 2,486,007,774 | 5,742.269,854 |
| 1949 | 12,951 | ${ }_{2}^{2}$ | 557,190 | 1,305,544,434 |  | 2,708,554,013 | $6,103,804,834$ $6,822,953,981$ |
| 1950. | 12,809 |  | 566,513 | 1,412,999,146 | 3,598,821,4 | 3,068,141 | 6,822,953,981 |

For footnotes, see end of table.
2.-Summary Statistics of Manufactures, by Provinces, Significant Years, 1917-50
-concluded

| Province or Territory and Year | Estab-lishments | Capital | $\begin{gathered} \text { Em- } \\ \text { ployees } \end{gathered}$ | Salaries and Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net Value of Products ${ }^{1}$ | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | No. | \$ | \$ | \$ | \$ |
| Manitoba- |  |  |  |  |  |  |  |
| 1917 | 732 | 82,566,858 | 18,939 | 16,513,423 | 69,715,149 | 42,280, 801 | 111,995,950 |
| 1920 | 747 | 94,424,145 | 23,728 | 32,372,081 | 92,729, 271 | 62,776,912 | 155,506,183 |
| 19293. | 861 | 121,363,898 | 24,012 | 31,224,596 | 87, 832, 324 | 63,925,015 | 155,266,294 |
|  | 1,010 | 100,074,404 | 18,871 | 18,687,430 | 44,579,998 | 37,390, 275 | 83,934,777 |
| 1939. | 1,087 | 119,659,365 | 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 | 2 | 38,367 | $61,018,345$ | 223,096,935 | 122,780, 805 | 351,887,099 |
| 1948 | 1,399 | 2 | 40,522 | 79,230,931 | 296, 606,269 | 157,426, 179 | 461,974, 200 |
| 1949 | 1,520 | 2 | 41,956 | 86,088,380 | 299,101,498 | 167,335,495 | 474,681,912 |
| 1950. | 1,507 | 2 | 40,985 | 88,701, 601 | 300,384,707 | 177,051,583 | 485,906, 206 |
| Saskatchewan- |  |  |  |  |  |  |  |
| 1917............ | 560 | 24,372,585 | 6,230 | 5,403,332 | 22,040,674 | 13,894, 179 | 35,934, 853 |
| 1920. | 554 | 24,640,520 | 6,709 | 9,571,175 | 34,894,105 | 22,610,861 | 57,504,966 |
| 19293 | 594 | 43,925,797 | 7,025 | $9,105,597$ | 51,003,566 | 23,002,952 | $75,368,605$ |
| 1933. | 673 | 38,688,433 | 4,782 | 4,848,763 | 19,124,030 | 11,478, 634 | 31,559,387 |
| 1939. | 737 | 37,654,095 | 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 | 2 | 11,957 | 17,956,317 | 126,595,761 | 38,459,630 | 168,356, 619 |
| 1948 | 926 | 2 | 10,950 | 21, 038,911 | 172,423,275 | 45,053,786 | 221,363,603 |
| 1949 | 962 | 2 | 10.841 | 22,273,942 | 164,349,341 | 47,356,949 | 215,742,708 |
| 1950. | 887 | 2 | 10,596 | 23,010,469 | 164,557,306 | 49,494,641 | 218,079,955 |
| Alberta- |  |  |  |  |  |  |  |
| 1917. | 636 | 49, 146,241 | 9,461 | 8,662,417 | 42,632,212 | 23,883, 673 | 66,515, 885 |
| 1920. | 666 | 48,310,655 | 10,955 | 15,210,628 | 56, 139,646 | 29,812,891 | 85,952,537 |
| 19293 | 736 | 81,875,952 | 12,216 | 14,585, 734 | 62,500,175 | 36,824,969 | 100,966,196 |
| 1933. | 874 | 69,604, 563 | 9,753 | 9,573,468 | 29,425,975 | 18,876,929 | 49,395,514 |
| 1939. | 961 | 73,284,225 | 12,712 | 14,977,700 | 53,151, 149 | 32,618,153 | 87,474,080 |
| 1944 | 1,165 | 2 | 22,186 | 33,227,729 | 172,082,537 | 77,415,753 | 252,949,894 |
| 1946 | 1,315 | 2 | 22,649 | 34,939,088 | 169,425, 176 | 83,735,011 | 257,031,867 |
| $1948{ }^{\text {r }}$ | 1,567 | 2 | 25,690 | 49,735,336 | 253,754,967 | 107, 124,387 | 366,079,501 |
| 1949. | 1,685 | ? | 26.425 | 55.115, 554 | 251,364,059 | 114,681,296 | 371,995,120 |
| 1950. | 1,671 | 2 | 26,732 | 58, 416, 324 | 272,131, 049 | 123,892, 868 | 402,840,023 |
| British |  |  |  |  |  |  |  |
| Columbia- |  |  |  |  |  |  |  |
| 19174. | 1,133 | 171,375, 087 | 37,943 | 35,426,675 | 87,637,833 | 71,673,094 | 159,310,927 |
| 1920. | 1,306 | 174,110,438 | 34, 360 | 49,135,005 | 125,405,084 | 104,851,641 | 230, 256,725 |
| 19293.4 | 1,569 | 311,806,456 | 48,153 | 57,764,968 | 141, 145, 838 | 113,082, 137 | 260,418,645 |
| 19334 | 1,552 | 263.195, 652 | 28.417 | 28, 469, 225 | 70,166,220 | 59,034,923 | 133,879,330 |
| 1939 | 1,710 | 274,969,502 | 42,554 | 53,881,994 | 136,655, 872 | 103,263,292 | 247,948,600 |
| 1944. | 2,116 | ${ }_{2}$ | 96,062 | 178,639,118 | 303,560,016 | 337,137,197 | 655,844,689 |
| 1946. | 2,731 | 2 | 75,484 | 137,506,645 | 335, 708,533 | 293,352,652 | 644,527,898 |
| $1948{ }^{\circ}$ | 3,525 | ? | 86,599 | 193, 954, 224 | 549,275,003 | 417,600,758 | 985,516.621 |
| 1949. | 3.493 | ? | 82.934 | 196, 403,722 | 531, 112,329 | 409,665,348 | 959,008.088 |
| 1950 | 3,696 | 2 | 87,375 | 216,656,977 | 634, 177, 837 | 479,606, 261 | 1,133,016,956 |
| Yukon and N.W.T. |  |  |  |  |  |  |  |
| 1939.......... | 5 | 538,847 | 55 | 97,766 | 138,500 | 92,054 | 242,968 |
| 1944........... | 12 |  | 67 | 118,972 | 189,718 | 280,803 | 489,256 |
| 1946. | 13 | 2 | 92 | 200,560 | 172,845 | 408,727 | 646,295 |
| 1948. | 17 | 2 | 137 | 346,220 | 818.919 | 379,525 | 1,330,110 |
| 1949........... | 18 | 2 | 148 123 | 359,068 | ${ }^{643.807}$ | 604,896 | 1,377,453 |
| 1950. | 19 | 2 | 123 | 285,656 | 1,039,954 | 569,167 | 1,741,531 |

[^192]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, worked back to 1945, are given in Table 7, p. 611 .

## 3.-Summary Statistics of Manufactures, by Industrial Groups, Significant Years, 1917-50

| Industrial Group and Year | Estab-lishments | Capital | $\begin{gathered} \text { Em- } \\ \text { ployees } \end{gathered}$ | Salaries and Wages | Cost of Materials | Net Value of Products ${ }^{1}$ | Gross <br> Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | No. | § | \$ | \$ | \$ |
| Vegetable Products- |  |  |  |  |  |  |  |
| 1920 | 4,549 | 402,383, 047 | 74,241 | 77,750,189 | 536, 828,044 | 239,328,371 | 776, 156,415 |
| 19292 | 5,350 | 581, 820,861 | 91,032 | 95, 853, 121 | 431,595,751 | 341,688,938 | 783,706,883 |
| 1933 | 5,916 | 522,389,736 | 75,416 | $68,535,349$ | 226, 879,373 | 196,820,952 | 432,315,617 |
| 1939 | 5,872 | 539,446, 225 | 99,447 | 104, 248,785 | 356,726,153 | 292, 129,840 | 659,624,014 |
| 1944 | 5,941 | $3_{3}^{3}$ | 130,679 | 183, 943, 948 | 763,606,750 | 485, 551,491 | 1,270,518,297 |
| 1946 | 5,916 | ${ }^{3}$ | 137,170 | 206,893,681 | 871,436,061 | 575,963,454 | 1,649,914,130 |
| 1948 | 5,912 | 3 | 140,785 | 264,371,792 | 1,172,108,404 | 702,724,107 | 1,902,985,965 |
| 1949 | 5,903 | 3 | 143,032 | 285,536,723 | 1,236,409,496 | 754,329,727 | 2,020,565,833 |
| 1950 | 5,801 | 3 | 142, 895 | 301, 287, 533 | 1,318,098,571 | 834,723, 002 | 2,185,046,049 |
| Animal Products- |  |  |  |  |  |  |  |
|  | 5,486 | 207,165, 245 | 46,994 | 35,753,133 | 320,302,039 | 124,103,990 | 444,406,029 |
| 1920 | 4,823 | 221,792,457 | 48,687 | 54, 291, 606 | 400,496,354 | 152,995, 130 | 553,491,484 |
| 19292 | 4,490 | 243, 825, 065 | 67,670 | 62,081, 423 | 345, 351,882 | 127,929,857 | 477,761,855 |
| 1933 | 4,496 | 201, 993, 642 | 53,111 | 46,453,188 | 179,429,948 | 87,629,444 | 271, 068, 210 |
| 1939 | 4,362 | 250,335, 831 | 69,358 | 68,231,871 | 333, 447,306 | 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 | 3 | 102,844 | 151,517,837 | 849,242,804 | 271, 279, 430 | 1,132,233,759 |
| 194 | 4,323 | ${ }^{3}$ | 102,817 | 186,776, 617 | 1,203,694,769 | 342,913,582 | 1,562,378,976 |
| 1949 | 4,231 | 3 | 102,657 | 197, 189,519 | 1,158,872,220 | $369,545,771$ | 1,543,930,584 |
| 195 | 4,141 | 3 | 98,795 | 200,595, 193 | 1,210,657,408 | 372,535,320 | 1,599,723,667 |
| Textiles and Textile Products- |  |  |  |  |  |  |  |
|  | 1,067 | 191, 338,745 | 76,978 | 47,764,436 | 131, 225, 032 | 109,904,530 | 241,129,562 |
| 1920 | 1,304 | 302,758,185 | 87,730 | 84,433, 609 | 256,233,300 | 173,741,035 | 429,974, 835 |
| 19292 | 1,534 | 360,762,584 | 103,881 | 94,969,433 | 217,954,088 | 180,469,064 | 403,205,809 |
| 1933 | 1,740 | 298, 730, 436 | 95,707 | 72,813,424 | 143, 184, 861 | 131, 065,992 | 279,475, 267 |
| 1939 | 1,930 | 347, 248, 927 | 121,022 | 107,117,035 | 203, 618, 197 | 181, 927,898 | 392,657,759 |
| 194 | 2,481 |  | 153,122 | 195, 805, 681 | 419,988, 642 | 351,186,488 |  |
| 194 | 3,082 | ${ }^{3}$ | 164,737 | 228, 018,323 | 459,664, 221 | 418,263,665 | 888,658,943 |
| 1948 | 3,177 | 3 | 182, 123 | 314, 831,441 | $645,183,100$ $669,108,586$ | 576,997,482 $606,402,697$ | 1,236,508,635 |
| 1949 | 3,234 | 8 | 186,328 188,614 | $342,930,642$ $362,381,291$ | $669,108,586$ $750,631,525$ | $606,402,697$ $.639,958,673$ | 1,407,032,148 |
|  | 3,266 |  | 188,614 | 362,381,291 |  |  |  |
| Wood and Paper Products- |  |  |  |  |  |  |  |
| 1917........... | 7,263 | 536,320,247 | 152,277 | 113,359,997 | 148,277,935 | 245, 372,487 | 393,650,422 |
| 1920 | 7,881 | 774,937, 232 | 144,391 | 172,368,578 | 309,813,724 | 417,256,115 | 727,069,839 |
| 19292. | 7,392 | 1,151,463,962 | 164,572 | 192,088,948 | 313,797, 201 | 381,485,477 | 724,972,308 |
| 1933 | 7,891 | 892,652,622 | 105,080 | 102, 218,652 | 134,663,641 | 184, 233,540 | 341,336,701 |
| 1939 | 8,538 | 960,804,672 | 144,782 | 165,287,455 | 246,292,820 | 303,662,441 | - $579,892,183$ |
| 1944 | 10,452 |  | 189,674 | 284,436,559 | $497,656,158$ 679343 | 549,055, 011 | 1,484,436,122 |
| 194 | 11,994 | ${ }^{3}$ | 224,121 | 366,049,562 | 679,343,485 | 1,124,398,167 | 1,484,436,122 |
| 1948 | 13,806 | ${ }^{3}$ | 266,938 | $534,656,794$ $579,896,808$ | 1,061,229,176 | 1,184,539,519 | 2,325,304,849 |
| 1949. | 15,866 | ${ }_{3}^{2}$ |  | 631,185,730 |  |  | 2,665,764,505 |
| 1950 | 15,991 | 3 | 269,565 | 631,185,730 | 1,193,849,612 | 1,385,081,133 | 2,605,764,505 |
| Iron and Its <br> Products- |  |  |  |  |  |  |  |
| 1917. | 1,495 | 695, 677,552 | 161,745 | 161, 875,424 | 378, 193, 116 | 311, 7975,489 | 749,985, 7805 |
| 1920 | 1,789 | 726,371,335 | 164,087 142,772 | ${ }_{203}^{231,595,911}$ | 377,499,134 | 411,875,465,582 | 790,726,338 |
| 19292 | 1,224 | $826,063,942$ $614,632,403$ | 142,772 | $203,740,658$ $72,296,179$ | 405,818, ${ }^{\text {98, }}$ | 109,198,169 | 216, 828,992 |
| 1933. | 1,394 | $614,632,403$ $697,893,720$ | 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 | 3 | 249, 279 | 475, 812,983 | 635,344, 199 | 735,459,371 | 1,405,542,865 |
| 1948 | 2,548 | ${ }^{3}$ | 269,776 | 652,953,714 | 1,076,895,019 | $1,123,685,663$ | 2,253,777,033 |
| 1949 | 2,658 | 8 | 265,474 | 678,924,105 | 1,197,956,715 | $1,219,303,992$ | 2,748,215,232 |
| 1950 | 2,698 | 3 | 265,95 | 723,387,5 | 1,330,651, | ,360,21 | , $148,215,22$ |

3.-Summary Statistics of Manufactures, by Industrial Groups, Significant Years, 1917-50-concluded

| Industrial Group and Year | Estab-lishments | Capital | $\begin{gathered} \text { Em- } \\ \text { ployees } \end{gathered}$ | Salaries and Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net Value of Products ${ }^{1}$ | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | No. | \$ | \$ | \$ | \$ |
| Non-ferrous Metal Products- |  |  |  |  |  |  |  |
| 1917. | 296 | 69,421,911 | 18,220 | 15,898,890 | 46,445,469 | 41,039,351 | 87,484, 820 |
| 1920 | 324 | 109,382,033 | 23,162 | 27,895,343 | 48, 434, 120 | 52, 847, 178 | 101,281,298 |
| 19292 | 408 | 298,721, 106 | 39,867 | 54,501,806 | 124,900,632 | 150, 415, 215 | 283,545,666 |
| 1933. | 478 | 266, 266,443 | 25,273 | 28,099,026 | 71,990,608 | 88, 427,984 | 164,765,604 |
| 1939 | 526 | 346, 489,890 | 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 | 3 | 84, 853 | 150,366,178 | 413,022, 247 | 278,461, 262 | 719,191,106 |
| 1948 | 817 | 3 | 99,921 | 230,892, 260 | 736,583,447 | 489, 559,766 | 1,270,323,433 |
| 1949 | 897 | 3 | 100,614 | 251,869,627 | 749,678,627 | 558,467, 028 | 1,353,329,383 |
| 1950 | 918 | 3 | 104,912 | 274, 869,661 | 866,997,815 | 626,675,566 | 1,541,330,200 |
| $\begin{aligned} & \text { Non-metallic Mineral } \\ & \text { Products- } \end{aligned}$ |  |  |  |  |  |  |  |
|  | 1,075 | 145,423,082 | 20,795 | 18,224,724 | 36,994,392 | 58,092,396 | 95,086,788 |
| 1920 | 846 | 215, 281,921 | 25,500 | 32,351,764 | 69,856,558 | 80,205,472 | 150,062,030 |
| 19292 | 843 | 316,692,818 | 29,257 | 38,958,390 | 112,573, 103 | 99, 065,847 | 229,774,300 |
| 1933 | 770 | 295, 139,543 | 16,975 | 19,282,401 | 69,077,701 | 52,817,078 | 131,325,706 |
| 1939 | 809 | 290, 865, 285 | 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 |
| 194 | 910 | 3 | 36,493 | 63, 848,640 | $240,485,869$ | 173, 638,196 | 446,484,682 |
| 1948 | 1,009 | 3 | 40,956 | 93,582,722 | 441,612,794 | 231,961,750 | 724,110,218 |
| 1949 | 1,097 |  | 42,691 | 104,377,854 | 469,437,193 | 261,691,705 | 780,188,518 |
| 195 | 1,121 | 3 | 44,780 | 116,805,778 | 533,587,088 | 312,866,411 | 902,667,662 |
| Chemicals and Allied Products- |  |  |  |  |  |  |  |
| 1917. | 539 | 175, 836,690 | 56,153 | 51, 505,484 | 99,068,092 | 131,381,995 | 230,450,087 |
| 1920 | 464 | 122, 123,730 | 17,653 | 22,193,421 | 62, 644,608 | 65, 183,212 | 127,827,820 |
| 19292 | 554 | 165,886,912 | 16,694 | 22,639,449 | $55,184,337$ | 78,785,911 | 138,545, 221 |
| 1933. | 696 | 153,900,930 | 15,397 | 18,738,629 | 34,271,854 | $55,394,284$ | 92,820,761 |
| 1939 | 808 | 172,459,365 | 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 | 3 | 37,278 | 66,538,532 | 159,308,350 | 203,639,442 | 376,288, 264 |
| 1948 | 1,026 | 3 | 39,548 | 89,325,771 | 293,041, 874 | 268,818,222 | 579,827,509 |
| 1949 | 1,022 | ${ }^{3}$ | 40,499 | 98,568,559 | 238,377, 149 | 279,038, 860 | 536,156,674 |
| 195 | 1,018 | 3 | 40,683 | 104,639,318 | 267,492,443 | 310,877,528 | $599,843,963$ |
| Miscellaneous Industries- |  |  |  |  |  |  |  |
| 1917........ | 473 | 33,179,930 | 10,584 | 7,504,199 | 11,958,675 | 15,662, 241 | 27,620,916 |
| 1920 | 552 | 48,637,071 | 13,442 | 14,613,455 | 23,465, 807 | 27,841,778 | 51,307,585 |
| 19292 | 421 | 59,654,759 | 10,786 | 12,457,989 | 22,495,351 | 28,081,046 | 51,207,736 |
| 1933. | 459 | 33, 554,083 | 8,351 | 7,810,976 | 9,497,751 | 14,083, 738 | 24,138,927 |
| 1939. | 566 | 41,480,534 | 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 | ${ }^{3}$ | 21,381 | 31,641,518 | 50,387, 530 | $61,245,149$ | 112,942,600 |
| 1948 | 802 | 3 | 22,857 | 41, 977,079 | 49,919,929 | 77,728,242 | 129,272,854 |
| 1949. | 884 | 3 | 27,077 | 52,596,820 | 62,161,902 | 97, 247, 135 | 161,426, 636 |
| 1950. | 988 | 3 | 27,071 | 56,115,334 | 66,568,169 | 99,126,357 | 167,902,954 |

${ }^{1}$ See footnote 1, Table 1. ${ }^{2}$ See footnote 2, Table $1 . \quad{ }^{3}$ Not collected.
The figures in Table 4 show the trends of development in Canadian manufacturing industries since 1917. Interesting comparisons may be made of power employed, values added by the manufacturing process per employee, average salaries and wages paid, etc.
4.-Significant Statistics of Manufactures for Certain Years, 1917-50

| Item | 1917 | 1920 | 19291 | 1933 | 1939 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Establishments..................... No. | 21,845 | 22,532 | 22,216 | 23,780 |  |
| Totals, employees................ " | 606,523 | 598, 893 | 666,531 | 468,658 | 658,114 |
| Averages, per establishment....... | 27.8 | 26.6 | $30 \cdot 0$ | 19.7 | 26.5 |
| Totals, salaries and wages........... \% | 497,801, 844 | 717,493,876 | 777, 291,217 | 436, 247, 824 | 737, 811,153 |
| Averages, per establishment........ | 22,788 | 31,843 | 34,988 | 18,345 | 29,744 |
| Averages, per employee........... | 821 | 1,198 | 1,166 | 931 | 1,121 |

For footnotes, see end of table, p. 608.
4.-Significant Statistics of Manufactures for Certain Years, 1917-50-concluded

| Item | 1917 | 1920 | 19291 | 1933 | 1939 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Employees on salaries No. | 64,918 | 78,334 | 88,841 | 86,636 | 124,772 |
|  | 25, $353,3.0$ | $3 \cdot 5$ |  | $3 \cdot 6$ |  |
| Salaries. | 85,353,667 | 141, 837,361 | $175,553,710$ | 139,317,946 | 217,839,334 |
| Averages, per salaried employee... \$ Employees on wages | 541,605 | 1,811 520,559 | 1,976 577,690 | 1,608 382,022 | 1,746 533,342 |
| A verages, per establishment | 24.8 | $23 \cdot 1$ | 26.0 | $16 \cdot 1$ | 21.5 |
| ages | 412,448, 177 | 575,656,515 | 601,737,507 | 296,929,878 | 519,971,819 |
| Averages, per | 762 | 1,106 | 1,042 | 777 | 51, 975 |
| A of materials... | 1,539,678,811 ${ }^{2}$ | 2,085,271,649 | 2,029,670,813 | 967,788,928 | 1,836,159,375 |
| Averages, per estab | 70,482 | 92,547 | 91,361 | 40,698 | 74,024 |
| Averages, per employee.. | 2.539 | 3,482 | 3,045 | 2,065 | 2,790 |
| alues added in manufactures ${ }^{2} \ldots \ldots$. \& | 1,281,131,980 | 1,621,273,348 | 1,755,386,937 | 919,671,181 | 1,531,051,901 |
| Averages, per establishment ${ }^{2} \ldots \ldots$. \$ Averages, per employee ${ }^{2} \ldots . . . . .$. \& | 58,646 | 71,954 | 79,015 | 38,674 | 61,724 |
| Averages, per employee ${ }^{2} \ldots \ldots \ldots \ldots .$. \& ross value of products........... | 2,112 | 2,707 | 2,634 | 1,962 | 2,326 |
| Avess 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....... 8 Averages, per employee. | 129,128 | 164,501 | 174, 804 | 82,173 | 140,084 |
| Averages, per employee............ ${ }^{\text {\% }}$ | 4,6581 | 6.189 | 5,286 | 4,170 | 5,280 |
| Power employed...i..............p.p. Averages, per establishment...... | 1,658,475 | 2,068,875 | $3,855,648$ | 4,135,008 | ,045,287 |
| Averages, per wage-earner.......... " |  |  | 174 | 174 | 203 |
|  |  |  |  |  |  |
|  | 1944 | 1946 | 1948 | 1949 | 1950 |
| Establishments....................... | 28,483 | 31,249 | 33,420 | 35,792 | 35,942 |
| Totals, employees | 1,222,882 | 1,058,156 | 1,155,721 | 1,171,207 | 1,183,297 |
| Averages, per establishment....... " <br> Totals, salaries and wages. | 42.9 | 33.9 | , 34.5 | 1, $32 \cdot 7$ | 32.9 |
|  | 2,029,621,370 | 1,740,687,254 | 2,409,368,190 | 2,591,890,657 | 2,771,267,435 |
| Averages, per establishment........ \& | 71,257 | 1, 55,704 | 72,093 | 72,415 | 77,104 |
| Averages, per employee............ \$ | 1,660 | 1,645 | 2,084 | 2,213 | 2,342 |
| Employees on salaries. No. Averages, per establishment. $\qquad$ $\qquad$ " | 192,558 | 181,006 | 198, 230 | 221,551 6 | 231, 053 |
| Averages, per establishment........ ${ }_{\text {A }}$ | 418,065,594 | 410, 875,776 | 532,594,959 ${ }^{5 \cdot 9}$ |  | 692, 633,6449 |
| Employees on wages <br> Averages, per establishment......................... | - 2,171 | - 2,270 | 2, 2,686 | 628, 2,836 | 692, 23,998 |
|  | 030,324 | 877,150 | 957,491 | 949,656 | 952, 244 |
|  | 36-2 | 28.1 | $28 \cdot 6$ | $26 \cdot 5$ | $26 \cdot 5$ |
| Wages............................... § | 1,611,555,776 | 1,329,811,478 | 1,876,773,231 | 1,963,462,720 | 2,078,634,086 |
| Averages, per wa | 1,564 | 1,516 | 1,960 | 2,068 | 7 2,183 |
| Cost of materials. | 4,832,333,356 | 4,358,234,766 | 6,632,881,628 | 6,843,231,064 | 7,538,534,532 |
| Averages, per establishmen | 169,657 | 139,468 | 198,470 | 191,194 | 209, 742 |
| Averages, per employee........... 8 \% | 3,952 | 4,119 | 5,739 | 5,843 | 6,371 |
|  | 4,015,776,010 | 3,467,004,980 | 4,938,786,981 | 5,330,566,434 | 5,942,058,229 |
| Averages, per establishment ${ }^{2} \ldots . . .8$ | 140,989 | 110,948 | 147,779 | 148,932 | 165, 324 |
| Averages, per employeGross value of products. | 3,284 | 3,276 | 4,273 | 4,551 | 5,022 |
|  | 9,073,692,519 | 8,035,692,471 | 11,875,169,685 | 12,479,593,300 | 13,817,526,381 |
| Averages, per est | 318,565 | 257, 150 | 355, 331 | 348.670 | 384, 440 |
| Averages, per employee........... ${ }^{\text {8 }}$ 8Power employed................h.p. | 7,420 | 7,594 | 10,274 | 10,655 | 11,677 |
|  | 6,468,439 | 6,783,949 | 8,159,414 |  |  |
|  | 227 <br> $6 \cdot 28$ | 217 $7 \cdot 73$ | 244 8.52 | 3 <br> 3 | $\stackrel{3}{3}$ |

${ }^{1}$ The method of computing the number of wage-earners in 1925-30, inclusive, increased the number someiwhat over that which otherwise would have been given. There was, therefore, a proportionate reduction n the averages for 1925-30 per employee and wage-earner. In 1931 the method in force prior to 1925 was re-adopted.
${ }^{2}$ Net values of products; see footnote 1, Table 1.
${ }^{3}$ Not collected.
Value and Volume 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, especially when such variations have been as great as those in the period since the annual Census of Manufactures was begun in 1917. The index number of wholesale prices in Canada, on the 1926 base, compiled by the Dominion Bureau of Statistics, stood at $114 \cdot 3$ in 1917, 155.9 in 1920, $97 \cdot 3$ in 1922, $95 \cdot 6$ in 1929, $67 \cdot 1$ in 1933, $84 \cdot 6$ in 1937, $75 \cdot 4$ in 1939, $129 \cdot 1$ in 1947, $157 \cdot 0$ in 1949 and $166 \cdot 1$ in 1950. Index numbers of the prices of fully or chiefly manufactured goods on the same base were: $113 \cdot 5$ in 1917, 156.5 in 1920, $100 \cdot 4$ in 1922, $93 \cdot 0$ in 1929, $70 \cdot 2$ in 1933, $80 \cdot 5$ in 1937, $75 \cdot 3$ in 1939, $117 \cdot 4$ in 1947, $142 \cdot 3$ in 1949 and $148 \cdot 9$ in 1950.

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, not whether they are expending more dollars and cents.

Indexes of the volume of manufacturing production, according to component material and purpose classifications, are given for 1929-46 in the 1951 Year Book, p. 585 . The indexes for 1940 to 1946 are in process of revision and when this is completed indexes will be compiled for the later years.

Consumption of Manufactured Products.-The value of all manufactured products made available for consumption in 1949 was $\$ 12,506,121,614$, 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, textiles and animal products were, in that order, the leading groups in the value of finished products made available for consumption in 1949. 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 in the past imported large quantities of iron and steel, textiles, chemicals and non-metallic mineral products despite large home production, but the 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, 1929-49, and by Industrial Groups, 1919

| Year and Industrial Group | Value of Products Manufactured | Manufactured and Partly Manufactured Goods ${ }^{1}$ |  | Value of Manufactured Products Available for Consumption |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Value of Net <br> Imports | Value of Domestic Exports |  |
|  | 5 | 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 |
| 1945 | 8,250,368,866 | 1,117,544,874 | 2,352,441,796 | 7,015,471,944 |
| 1946 | 8,035,692,471 | 1,390,123,100 | 1,701,677,026 | 7,724,138,545 |
| 1947 | 10,081,026,580 | 1,928,250,119 | 2,124,740,343 | 9,884,536,356 |
| 1948 | 11,876,790,012 | 1,869,702,089 | 2,259,247,456 | 11,487,244,645 |
| Industrial Group, 19492 |  |  |  |  |
| Vegetable products.................... | 2,020,565,833 | 208,548,964 | 180,882,070 | 2,048,232,727 |
| Animal products. | 1,543,930,584 | 35,899, 847 | 127,515,056 | 1,452,315,375 |
| Textile and textile product | 1,290,314,474 | 235,421,446 | 23,857,906 | 1,501,878,014 |
| Wood and paper products. | 2,325, 304, 849 | 82,137,555 | 827,305,826 | 1,580,136,578 |
| Iron and its products. | 2,468,376,349 | 870,232,504 | 278,747,052 | 3, 059,861,801 |
| Non-ferrous metal products. | 1,353,329, 383 | 151,466, 135 | 347,147,113 | 1,157,648,405 |
| Non-metallic mineral products | 780,188,518 | 178,848,865 | 48.628,990 | 910,408,393 |
| Chemicals and allied products | 536,156,674 | 129,323,660 | 70,697,937 | 594,782,397 |
| Miscellaneous industries. | 161,426,636 | 151,704,953 | 112,273,665 | 200, 857,924 |
| Totals, 1949 | 12,479,593,300 | 2,043,583,929 | 2,017,055,615 | 12,506,121,614 |

[^193]
## Section 2.-Production by Industrial Groups and Individual Industries

As mentioned in the introduction to this Chapter, two major changes were adopted in the compilation of manufacturing statistics for 1949. In addition to containing statistics for Newfoundland for the first time, the system of classification was also changed. By the Standard Classification the industries are grouped under the 17 major headings listed in Table 6, 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 1945-50 in Table 7, while statistics for individual industries are presented in detail in Table 8. Table 10 gives the industries on the basis of the origin of the materials used.

## Subsection 1.-Manufactures Classified on the Standard Classification Basis

Table 6 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 number of employees in 1944 increased by 86 p.c. over 1939, salaries and wages paid were 175 p.c. higher and the gross value of production 161 p.c. higher.

Significant changes in the nature of manufacturing production have taken place since 1945. As was to be expected, industries engaged in war production have operated at a substantially lower level and industries producing consumer goods have increased their production. From the point of view of employment, the chemical and allied products group, with a reduction of 33 p.c., experienced the greatest decline in volume of production between 1945 and 1949. Transportation equipment, which includes aircraft and shipbuilding, was second with a decline of 32 p.c., followed by tobacco and tobacco products with 12 p.c., rubber goods 12 p.c. and iron and steel products 3 p.c. The non-metallic mineral group reported the greatest gain in employment with an increase of 39 p.c., followed by printing, publishing and allied trades 31 p.c., wood products 29 p.c., electrical apparatus and supplies 27 p.c., products of petroleum and coal 26 p.c., paper products 21 p.c., textiles (except clothing) 19 p.c., clothing (textile and fur) 18 p.c., food and beverages 8 p.c., leather products 2 p.c. and non-ferrous metal products 1 p.c. For manufacturing as a whole there was an increase of 4 p.c. in the number of employees with an increase of 39 p.c. in the amount of salaries and wages paid. Although there was an increase of 50 p.c. in the gross value of production, the increase in the physical volume was not marked. This was due to the rise in the wholesale prices of fully and partly manufactured products.

## 6.-Percentage Variations in Employment, Salaries and Wages, and Gross Value of Products in the Main Industrial Groups, 1949 Compared with 1945 and with 1948

| Industrial Group | $\begin{gathered} 1949 \\ \text { Compared } \\ 1945 \end{gathered} \text { with }$ |  |  | $\begin{gathered} 1949 \\ \text { Compared with } \\ 1948 \end{gathered}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employees | Salaries and <br> Wages | Gross Value of Products | Employees | Salaries and <br> Wages | Gross Value of Products |
|  | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Food and beverages ${ }^{1} \ldots \ldots . . . . . .$. | +8.1 | $+48.5$ | $+49.5$ | $+0.1$ | $+6.3$ | +1.2 |
| Tobacco and tobacco products.... | -12.2 | $+39.1$ | +42.3 | $+2 \cdot 2$ | +12.0 | $+12.0$ |
| Rabber products.. | -11.8 | +23.2 | $-1 \cdot 6$ | -4.5 | -0.2 | -8.0 |
| Leather products. | +2.3 | +38.0 | $+25.6$ | +1.8 | +8.3 | +3.5 |
| Textileproducts (except clothing).. | +18.9 | +78.6 | $+65.1$ | $+3 \cdot 2$ | +11.5 | +6.0 |
| Clothing (textile and fur).......... | $+17.8$ | +57.1 | +52.6 | $+2 \cdot 3$ | $+7.6$ | +2.5 |
| Wood products ${ }^{1}$.... | $+28.9$ | +86.7 | +83.9 | $-3 \cdot 3$ | +4-2 | -0.4 |
| Paper products ${ }^{\text {. }}$. | $+20.7$ | $+80 \cdot 5$ | +95.1 | -3.4 | $+0.2$ | -1.3 |
| Printing, publishing and allied trades ${ }^{2}$. | +31.2 | +81.2 | +84.1 | $+4.9$ | $+13.0$ | $+12.0$ |
| Iron and steel products............ | -3.4 | +31.6 | +49.0 | $-3 \cdot 8$ | +3.1 | +7.5 |
| Transportation equipment.......... | -32.4 | $-17 \cdot 1$ | +2.8 | +2.1 | $+5 \cdot 4$ | $+12 \cdot 3$ |
| Non-ferrous metal products.... | +1.1 | $+39.9$ | +58.0 | -1.9 | $+5 \cdot 3$ | +2.7 |
| Electrical apparatus and supplies.. | $+26.7$ | $+79.5$ | $+110 \cdot 9$ | $+3 \cdot 8$ | +12.4 | +14.2 |
| Non-metallic mineral products.... | $+38.8$ | +96.0 | $+88.6$ | $+3 \cdot 2$ | +9.8 | +6.2 |
| Products of petroleum and coal.... | +26.2 | +73.7 | $+97.6$ | $+6 \cdot 4$ | +14.4 | $+8.5$ |
| Chemical products...... | $-32 \cdot 6$ | -6.0 | +17.8 | $+4.5$ | $+12.7$ | $+1 \cdot 3$ |
| Miscellaneous industries ${ }^{3}$. | ... | ... | ... | ... |  |  |
| Averages, All Groups ${ }^{1,2}$. | +3.6 | +39.2 | $+50 \cdot 0$ | $+0.8$ | +6.9 | $+4 \cdot 5$ |

${ }^{1}$ Exclusive of Newfoundland. ${ }^{2}$ Includes "Publishing (only) of Periodicals". ${ }^{3}$ Due to the change of establishments from one industry to another, figures for 1949 are not comparable with previous years.

## 7.-Summary Statistics of Manufactures, by Industrial Groups, 1945-50

| Industrial Group and Year | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products | Gross <br> Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | \$ |
| Food ${ }^{1}$ and Beverages- |  |  |  |  |  |  |
|  | 8,872 | 156,396 | 224,908,882 | 1,336,820,028 | 558,247, 045 | 1,921,774,601 |
| 1946 | 8,862 | 160,821 | 241,769,865 | 1,408,818,069 | 604,120,647 | 2,040,708,650 |
| 1947 | 8,869 | 167,865 | 276, 245,015 | 1,656,529,086 | 695, 092, 932 | 2,383,975,675 |
| 1948 | 8,686 | 168,893 | 311,235, 818 | 2,034, 844,290 | 766,434,971 | $2,839,531,142$ |
| 1949 | 8,558 | 170,024 | 332,536,319 | 2,009,246,062 | 834,017,547 | 2,882,581,753 |
| 1950 | 8.401 | 167,664 | 346,714,443 | 2,102,437,260 | 885,322,008 | 3,029,810,604 |
| Tobacco and Tobacco Products- |  |  |  |  |  |  |
| 1945. | 86 | 12,164 | 15,738,041 | 79, 176, 519 | 42,985,992 | 122,543,932 |
| 1946 | 95 | 10,849 | 14,410,558 | 79, 255,405 | 39,981,625 | 119,634, 216 |
| 1947 | 91 | 10,880 | 16,234,772 | 97, 121,002 | 49,221,094 | 146,793,011 |
| 1948 | 79 | 10,459 | 19,550,563 | 95, 851,271 | 57,666,963 | 153,993,442 |
| 1948 | 72 | 10,686 | 21,896,378 | 113,357, 196 | 58,529,226 | 172,420,213 |
|  | 68 | 10,322 | 22,628,918 | 122,610,179 | $65,175,854$ | 188,330,523 |
| Rubber Products- |  |  |  |  |  |  |
| 1945. | 55 | 23,490 | 39,111,477 | 78,500,892 | 98, 836,225 | 181,413,226 |
| 1946 | 60 | 22,055 | 37,813,363 | $62,135,578$ | 93,451,248 | 159,408,113 |
| 1947 | 60 | 23,475 | 46,613,893 | 82,934,625 | 110,673,007 | 196,307,734 |
| 1948 | 56 | 21,703 | 48,273,015 | 84, 223,731 | 106,999,669 | 194,111, 934 |
| 1949 | 62 | 20,729 | 48,172,207 | 73, 895,718 | 101,705,513 | 178,503,559 |
| 1950 | 61 | 21,812 | 54,262,864 | 101,773,382 | 134,061,761 | 239,184.510 |
| Leather Products- |  |  |  |  |  |  |
| 1945. | 706 | 34,123 | 43,268, 635 | 95,006,015 | 71,297,713 | 167,888,463 |
| 1946 | 776 | 37,290 | 49,712,628 | 108,702,945 | 82,319,495 | 192,749,456 |
| 1947 | 792 | 35,724 | 52, 628,612 | 123,894, 474 | 86,646,061 | 212,430, 165 |
| 1948 | 757 | 34,291 | 55, 122,863 | 114, 819,233 | 86,947,703 | 203,758,501 |
|  | 747 747 | 34,900 | 59, 699,886 | 117, 869,462 | 91, 157,684 | 210, 804, 174 |
| 1950. | 747 | 32,990 | 57,809,677 | 121,217, 195 | 87,419,427 | 210,563, 013 |

[^194]7.-Summary Statistics of Manufactures, by Industrial Groups, 1945-50-continued

| 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 | Gross <br> Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | $\$$ | $\$$ |
| Textile Products (except Clothing) - |  |  |  |  |  |  |
| 1945. | 664 | 66,011 | 88,372,939 | 217,289,281 | 165,689,522 | 391,182,025 |
| 1946 | 720 | 67,366 | 95, 637,733 | 215, 853,616 | 178,852,730 | 402,966, 184 |
| 1947 | 747 | 73,979 | 116,228,736 | 289,986,732 | 215,170,493 | 514,844, 838 |
| 1948 | 722 | 75,816 | 141,002,245 | 331,943,622 | 261,774,544 | 604,946,333 |
| 1949 | 847 | 77,773 | 156,166,554 | 339,644, 950 | $285,641,367$ | 636,824, 130 |
| 1950 | 846 | 80,328 | 169,175, 142 | 412,682,853 | 315,556,761 | 741,262,685 |
| Clothing (Textile and Fur)- |  |  |  |  |  |  |
| 1945. | 2,676 | 99,959 | 131,478,496 | 251,899,847 | 222,307,384 | 476,754,319 |
| 1946 | 2,988 | 105,868 | 146,265, 152 | 285,568,957 | 263,018,398 | 551,331,576 |
| 1947 | 3,121 | 110,329 | 166,951,727 | 311,018,817 | 300,527,093 | 614,594,703 |
| 1948 | 3,100 | 115, 105 | 191, 866,371 | 361,216,438 | $345,028,807$ | 709,688,704 |
| 1949 | 3,058 | 117,752 | 206,512,782 | 371,128,833 | 352,741,236 | 727,498,836 |
| 1950 | 3,051 | 116,248 | 211,223,347 | 377,552,172 | 352, 889,623 | 734,214,334 |
| Wood Products- |  |  |  |  |  |  |
| 1945 | 7,656 | 93,209 | 119, 833,932 | 240,482, 275 | 208,979,657 | 454,447,165 |
| 1946 | 8,846 | 105,472 | 142,338,538 | 297, 923,979 | 256,436,946 | 560,341,251 |
| 1947 | 9,744 | 120,434 | 186,467,946 | 398,854, 196 | 365, 050,223 | 771,403,332 |
| 1948 | 10,495 | 124,306 | 214,741,924 | 428,913,571 | 401,401,795 | 839,045,068 |
| 1948 | 11, 191 | 121,632 | 224,902,644 | 436,637, 453 | 393, 928,758 | $840,355,634$ |
| 1950 | 11,301 | 126,169 | $246,325,125$ | 510,565, 003 | 463,853,510 | 985,859,493 |
| Paper Products- |  |  |  |  |  |  |
|  | 475 | 60,819 | 109,627,174 | 255, 265, 326 | 241, 121,150 | 536,859,861 |
| 1946 | 486 | 67,442 | 134,320,546 | 313,410,656 | 333,819,710 | 695,085,534 |
| 1947 | 502 | 73,445 | 168,632,394 | 410,456,570 | 443,374,435 | - $911,238,859,807$ |
| 1948 | 522 | 75,980 | 197, 397, 810 | 485, 237, 427 | $509,993,037$ $532,288,636$ | $1,061,359,807$ $1,093,060,326$ |
| 1949 | 524 528 | 76,471 | $208,348,621$ $225,197,438$ | $494,300,501$ $541,260,626$ | $532,288,636$ $638,111,352$ | $1,093,060,326$ $1,251,144,125$ |
| Printing, Publishing and |  |  |  |  |  |  |
| 1945 | 2,312 | 43,565 | 74,257,775 | 52,655,848 | $\begin{aligned} & 132,385,988 \\ & 154 \end{aligned}$ | $\begin{gathered} 186,945,134 \\ 2225 \end{gathered}$ |
| 1946 | 2,404 | 48,950 | 86,433,880 | $65,501,698$ $82,585,466$ | $154,951,731$ $178,667,051$ | 222,548,636 |
| 1947 | 2,458 | 52,096 | $101,611,652$ $119,087,977$ | 82,585,466 | $178,667,051$ $208,208,175$ | 263, $307,345,914$ |
| 19481 | 2,496 3,866 | 54,541 61,834 | $119,087,977$ $141,489,984$ | 96,384, $124,684,351$ | $208,208,175$ $250,162,704$ | 307, 308,182 |
| $1950{ }^{1}$ | 3,869 | 63,125 | 154,369,637 | 135,510, 227 | 274, 098,833 | 413,011,915 |
| Iron and Steel Products- |  |  |  |  |  |  |
| 1945. | 1,903 | 169,278 | 313,966, 173 | 395,624,098 | 527,473,688 | 952,482,150 |
| 1946 | 2,086 | 151,373 | 279,567,770 | 337,981, 814 | 461,501,765 | - 824,766,017 |
| 194 | 2,200 | 162,399 | 334,044, 246 | 451,289,335 | 580, 342,444 | 1,064, ${ }^{1} 3254,410$ |
| 1948 | 2,263 | 170,071 | 400, 878, 271 | 570, 290,989 | $709,347,226$ $760,934,249$ | $1,320,527,400$ |
| 1949 | 2,347 | 163,622 | 413,227,553 | $619,499,256$ $662,232,192$ | $760,934,249$ $817,060,278$ | $1,419,145,725$ |
| 19 | 2,390 | 164,528 | 438, 244, 749 | 662,232,192 | 817,060,278 | 1,524,384,478 |
|  |  |  |  |  |  |  |
|  | 539 | 100,745 | 200,097,765 | 301, 206,839 | 279,333,127 | 590, 128,311 |
| 1947 | 562 | 104,348 | 230, 898, 680 | 426,573, 091 | 366, 151, 761 | 803,611,372 |
| 1948 | 578 | 101,816 | 255,504,526 | 509,910, 825 | 419,133,597 | 941,483,906 |
| 1949 | 596 | 104,750 | 270, 852, 111 | 584, 064, 330 | 466, 529,164 | 1,063,211, 331 |
| 1950 | 601 | 104, 176 | 290,436,378 | 674,833,465 | 552,171,399 | 1,239,579,727 |
|  |  |  |  |  |  |  |
| 1946. | 474 | 40,855 | 75,855,699 | 311,082,975 | 148, 492,336 | 484,618,453 |
| 1947 | 503 | 43,344 | 91,046,568 | 434,517,197 | 201, 162,856 | 668, 074,514 |
| 1948 | 503 | 46,048 | 108,778,616 | 556,238,618 | 248, 225,806 | 844,598,154 |
| 1949 | 532 | 44,698 | 114,591,106 | 537,218, 214 | 289,125,045 | 867, 043,028 |
| 1950 | 536 | 44,680 | 119,535,596 | 606,691,788 | 311,539,390 | 960,751,814 |
| Electrical Apparatus and Supplies- |  |  |  |  |  |  |
| 1945. | 266 | 43,998 | 74,510,479 | 101,939,272 | 129,968,926 | 234,572,653 |
| 1947 | 296 | 52,736 | 103,891,016 | 162,131, 266 | 200,859,040 | 366,506,203 |
| 1948 | 314 | 53,873 | 122,113,644 | 180,344, 829 | 241, 333,960 | 425, 725,279 |
| 1949 | 365 | 55,916 | 137,278,521 | 212,460,413 | 269,341,983 | 486,286,355 |
| 1950. | 382 | 60,262 | 155,334,065 | 260,306,027 | 315,136, 176 | 580,578,386 |

[^195]7.-Summary Statistics of Manufactures, by Industrial Groups, 1945-50-concluded

| Industrial Group and Year | Estab-lishments | Employees | Salaries and <br> Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net <br> Value of Products | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | \$ |
| Non-metallic Mineral Products- |  |  |  |  |  |  |
| 1945. | 700 | 20,269 | 32,959,877 | 41,488,955 | 76,318,456 | 130,704,796 |
| 1946 | 833 | 24,387 | 39,651,286 | 49,957,966 | 94,591, 439 | 160,476,827 |
| 1947. | 863 | 26,443 | 50,456,143 | 66,266,546 | 115, 277,990 | 201,786,910 |
| 1948 | 934 | 27,278 | 58,816,381 | 72,577,633 | 134,897,744 | 232, 148, 324 |
| 1949 | 1,020 | 28,139 | 64, 594,354 | 78,401,065 | 143,872,615 | 246, 457, 799 |
| 1950 | 1,045 | 29,603 | 72,380,410 | $91,168,605$ | 168,377,747 | 286,541,363 |
| Products of Petroleum and Coal- |  |  |  |  |  |  |
| 1945............. | 80 | 11,532 | 22,904,418 | 188,899, 911 | 65, 637, 131 | 270,166,984 |
| 1946 | 77 | 12,106 | 24,197,354 | 190,527,903 | 79,046,757 | 286,007,855 |
| 1947 | 80 | 12,769 | 28,689,932 | 257,420,851 | 84,073,746 | 361,333,008 |
| 1948 | 75 | 13,678 | 34,766,341 | 369,035, 161 | 97,064,006 | 491,961,894 |
| 1949 | 77 | 14,552 | 39,783,500 | 391,036, 128 | 117, 819,090 | 533,730,719 |
| 1950 | 76 | 15,177 | 44,425,368 | 442,418, 483 | 144, 488, 664 | 616,126,299 |
| Chemicals and Allied Products- |  |  |  |  |  |  |
| 1945.. | 986 | 61,339 | 107,050,824 | 228,855,956 | 252,944,165 | 498,630,798 |
| 1946 | 1,031 | 38,012 | 67,842,339 | 179,749,719 | 208,399, 498 | 401,741,703 |
| 1947 | 1,046 | 39,237 | 78,993,517 | 238,310,157 | 234, 056,973 | 488,307, 293 |
| 1948 | 1,026 | 39,548 | 89,325,771 | 293,041,874 | 268,818,222 | 579,827,509 |
| 1949 | 1,037 | 41,328 | 100,690,662 | 280, 008, 945 | 288,171,551 | 587,398, 215 |
| 1950 | 1,033 | 41,475 | 106,794,403 | 307,705,741 | 317,166,711 | 646,870,510 |
| Miscellaneous Industries- |  |  |  |  |  |  |
| 1945. | 692 | 24,024 | 37,187,275 | 83,549,139 | 59,608,689 | 144,523,599 |
| 1946 | 706 | 20,567 | 30,262,299 | 48,617,375 | 58,718,602 | 108,607, 036 |
| 1947 | 800 | 22,247 | 36,291,117 | 44,390,608 | 65,708,603 | 111,532,447 |
| 1948 | 814 | 22,315 | 40,906,054 | 48, 007,617 | 75,510,756 | 125, 116, 374 |
| 1949 | 893 | 26,401 | 51, 147, 475 | 59,778, 187 | 94,600,066 | 156, 363, 321 |
| 1950. | 1,007 | 27,219 | 56,409,875 | 67,469,334 | 99,628,735 | 169,312,602 |

8.-Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1949

| Group and Industry | Estab-lishments | Em. ployees | Salaries and <br> Wages | Cost of Materials | Net <br> Value of Products | Gross <br> Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food and Beverages- | No. | No. | \$ | \$ | \$ | \$ |
| Bakery Producto- |  |  |  |  |  |  |
| Biscuits............... | 52 | 6,715 | 10,608,646 | 28,561,885 | 30,315,272 | 59,635,709 |
| Bread and other bakery products. | 2,730 | 31,763 | 57,552,745 | 102,555, 311 | 94,717, 220 | 203,720,116 |
| Beverages- |  |  |  |  |  |  |
| Aerated waters | 484 | 7,812 | 14,599, 204 | 32,069,188 | 51,716,093 | 85,656,395 |
| Breweries | 64 | 8,652 | 23,461,437 | 37,939,869 | 102,125,599 | 142,399,729 |
| Distilled liquors | 20 | 4,033 | 9,890,966 | 28,004,756 | 46,974,654 | 76,876,695 |
| Wines................. | 27 | 572 | 1,417,858 | 3,894,965 | 4,603,118 | 8,601,873 |
| Canning and ProcessingFish processing ${ }^{1}$........... | 599 | 11,856 | 16,969,825 | 69,090,041 | 41, 140,022 | 111,961,148 |
| Fruit and vegetable prep- |  | 11,856 | 16,508,825 | -0, 502,037 | 41,140,022 | 111,001,148 |
| Dairy Products-............ | 473 | 14,992 | 23,863,821 | 89,502,037 | 57,106,291 | 148,762,324 |
| Butter and cheese | 1,862 | 22,479 | 41,612,537 | 274, 298,757 | 74,705,184 | 355,004,031 |
| Cheese, processed | 22 | 825 | 1,673,818 | 16,083, 227 | 6,534,673 | 22,698,780 |
| Condensed milk...... | 36 | 1,752 | 3,460,171 | 41,931, 415 | 11,341,669 | 54,704,772 |
| Dairy products, other. . . . Grain Mill Products- | 42 | 750 | 1,404,077 | 4,880,772 | 3,694,567 | 8,816,590 |
| Feeds, stock and poultry, prepared | 485 |  |  |  |  |  |
| Feed mills. | 714 | 1,549 | 10,889,537 | $125,645,640$ $43,202,439$ | $24,361,413$ $4,820,592$ | 151,470,360 |
| Flour mills | 133 | 5,033 | 11,965,400 | $215,404,869$ | 28,342,755 | 245, 274, 202 |
| Foods, breakfast | 20 | 1,154 | 2,554,985 | 8,702,820 | 9,418,397 | 18,411,631 |

[^196]8.-Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1949-continued

| Group and Industry | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products | Gross <br> Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | \$ |
| Food and Beveragesconcluded <br> Meat Products- |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Sausage and sausage casings | 75 | 774 | 1,423,775 | $8,260,322$ | 2,730,967 | 11,140,598 |
| Slaughtering and meatpacking. | 157 | 20,586 | 52,136,180 | 586,241,637 | 108,059,068 | 697,950,039 |
| Miscellaneous Food Indus-tries- |  |  |  |  |  |  |
| Confectionery . . . . . . . . . . . | 206 | 10,317 | 17,107,649 | 51,001,165 | 47,401, 925 | 99,424,355 |
| Sugar refining | 11 | 3,587 | 8,842,783 | 90,172,181 | 23,703,295 | 116,767,430 |
| Macaroni and kindred prod- <br> ucts. | 16 | 552 | 1,104,316 | 3,423,153 | 2,382,376 | 5,903,133 |
| Malt and malt products.... | 13 | ${ }^{695}$ | 1,911,396 | 22,653,080 | 7,940,511 | 31,514,024 |
| Starch and glucose...... | 9 | 1,028 | 2,317,354 | 10,073, 726 | 5,646,150 | 16,519,219 |
| Miscellaneous foods, n.e.s.. | 297 | 6,978 | 13,319,291 | 114,717,702 | 43,386,636 | 158,974,544 |
| Totals, Food ${ }^{1}$ and Beverage. | 8,558 | 170,024 | 332,536,319 | 2,009,246,062 | 834,017,547 | 2,882,581,753 |
| Tobacco and Tobacco Prod-ucts- |  |  |  |  |  |  |
| Tobacco, cigars and cigarettes | 57 | 9,029 | 19,028,381 | 59,319,660 | 53,641,340 | 113,334,066 |
| Tobacco, processing and pack- ing........................ | 15 | 1,657 | 2,867,997 | 54,037,536 | 4,887, 886 | 59,086,147 |
| Totals, Tobacco and T0bacco Products. | 72 | 10,686 | 21,896,378 | 113,357,196 | 58,529,226 | 172,420,213 |
|  |  |  |  |  |  |  |
| Rubber goods (including footwear) | 62 | 20,729 | 48,172, 207 | 73,895,718 | 101,705,513 | 178,503,559 |
| Totals, Rubber Products. | 62 | 20,729 | 48,172,207 | 73,895,718 | 101,705,513 | 178,503,559 |
|  |  |  |  |  |  |  |
| Footwear, leather. | 284 79 | 22,290 | $36,733,243$ $2,766,459$ | $61,023,445$ $4,840,484$ | $54,956,420$ $4,495,482$ | $116,514,529$ $9,383,529$ |
| Leather tanning. . . . . . . . . . . | 70 | 4,573 | 10, 295,023 | 37,409,211 | 15,950,581 | 54,348,438 |
| Belting, leather.. | 16 | 208 | 388,127 | 1,049,869 | 591,117 | 1,661,882 |
| Boot and shoe findings, leather. | 26 | 417 | 785,288 | 1,638,472 | 1,260,720 | 2,940,713 |
| Miscellaneous leather goods. . | 272 | 5,361 | 8,731,746 | 11,907,981 | 13,903, 364 | 25,955,092 |
| Totals, Leather Products... | 747 | 34,900 | 59,699,886 | 117,869,462 | 91,157,684 | 210,804,174 |
| Textile Products (except Clothing)- |  |  |  |  |  |  |
| Cotton GoodsCotton thread. | 6 | 883 | 1,551,421 | 5,325,619 | 3,633,627 | 9,053, 634 |
| Cotton yarn and cloth. | 53 | 25,178 | 49,363,696 | 124,685,279 | 83,073,026 | 211,384,517 |
| Miscellaneous cotton goods. | 10 | ${ }_{6} 600$ | 1,391, 039 | 4,321,310 | 2,406,769 | $6,813,639$ $124,125,414$ |
| Synthetic textiles and silk.... | 48 | 16,828 | 36,121,584 | 45,217,912 | 75,578,244 | 124,125,414 |
| Woollen Goods- | 23 | 1,741 | 3,821,714 | 6,482,467 | 7,922,363 | 14,621,269 |
| Woollen cloth........ | 89 | 10,036 | 19,031,918 | 35, 701,320 | 31,983,486 | $68,985,257$ |
| Woollen yarn | 49 | 3,921 | 7,251,566 | 18,633,070 | 11,434,453 | 30,487, 847 |
| Miscellaneous woollen goods | 43 | 2,194 | 5,126,436 | 15,798,528 | 9,280,602 | 25,471,739 |
| Other Primary Textiles- |  |  |  |  |  |  |
| Dyeing and finishing of textiles. | 47 | 2,511 | 5,347,344 | 2,606,844 | 9,274,711 | 12,758, 888 |
| Narrow fabrics............ | 42 | 2,090 | 3,797,405 | 5,320,806 | 6,476,290 | 11,950,068 |
| Miscellaneous Textile Prod-ucts- $\quad$ |  |  |  |  |  |  |
| Awnings, tents and sails.... | 107 | 1,368 |  |  | 4,397,869 | 27,754,602 |
| Bags, cotton and jute...... | 34 10 | 1,262 1,302 | 2,805,837 | 10,732,750 | 5,999,147 | 16,917,938 |
| Cordage, rope and twine. Oilcloth, linoleum and other coated fabrics. $\qquad$ | 14 | 1,302 | 6,053,518 | 15,657,655 | 12,092,566 | 28,170,145 |

[^197]8.-Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1919 -continued

| Group and Industry | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net Value of Products | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \% | \$ | \$ |
| Textile Products (except Clothing) -concluded |  |  |  |  |  |  |
| Miscellaneous Textile Goods- |  |  |  |  |  |  |
| Automobile accessories, fabric $\qquad$ | 8 | 827 | 1,740,482 | 3,189,372 | 3,135,148 | 6,362,064 |
| Embroideries, pleating, hemstitching, etc. | 129 | 1,711 | 2,902,264 | 2,011,338 | 4,866,301 | 6,910,115 |
| Miscellaneous textiles, n.e.s. | 135 | 3,012 | 5,361,554 | 15, 817,146 | 10,452,712 | 26,469,346 |
| Totals, Textile Products (except Clothing). | 847 | 77,773 | 156,166,554 | 339,644,950 | 285,641,367 | 636,824,130 |
| Clothing (Textile and Fur)Knitted Goods- |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Hosiery..... . ............ | 113 | 11,353 | 20, 194,998 | 19,099, 844 | $35,079,759$ $41,592,041$ | 54,809,523 <br> $88,209,552$ |
| Other knitted goods. <br> Men's, Women's and Children's Clothing- | 177 | 15,089 | 23,754, 297 |  |  |  |
| Clothing, children's factory | 144 | 5,165 | 7,602,196 | 14,932,211 | 12,872,063 | 27,893,656 |
| Clothing, men's factory.... | 565 | 33,298 | $57,343,483$ | 121,485, 389 | 98,546,341 | 220,701, 259 |
| Clothing, women's factory, | 890 | 29,129 | 55, 424,392 | 105, 156, 893 | 96,791,010 | 202,412,558 |
| Clothing contractors, men's | 137 | 3,388 | 4,856,691 | 561,924 | 5,800,327 | 6,426,382 |
| Clothing contractors, women's. | 82 | 1,401 | 1,939,052 | 157,171 | 2,513,403 | 2,702,774 |
| Miscellaneous Clothing- $\quad 37$, 450 |  |  |  |  |  | 16,389,008 |
| Fur dressing | 21 | 1,670 | 3,487,633 | 1,215,541 | 5,355,844 | 6,691,418 |
| Fur goods.. | 642 | 6,700 | 14,520,579 | 37,260,284 | 23,488,914 | 60,955,010 |
| Gloves and mittens, fabric. | 15 | 647 | 718,650 | 1,581,144 | 1,329,571 | 2,927, 236 |
| Hats and caps. <br> Oiled and waterproofed clothing | 163 | 4,760 | 9,004,917 | 11,268,684 | 14,742,262 | 26,244,201 |
|  | 14 | 439 | 798,473 | 1,987,702 | 1,910,485 | 3,906,089 |
|  | 58 | 1,257 | 2,048,608 | 3,717,540 | 3,483,285 | 7,230,170 |
| Totals, Clothing (Textile and Fur) | 3,058 | 117,752 | 206,512,782 | 371,128,833 | 352,741,236 | 727,498,836 |
| Wood Products- |  |  |  |  |  |  |
| Furniture........ | 1,187 | 26,931 | 53,591, 185 | 70,147, 728 | 85,289,672 | 157,122,632 |
| Saw and Planing Mills- |  |  |  |  |  |  |
| Flooring, hardwood.......i. Sash, door and planing mills | 1,501 | 18,171 | $3,241,003$ $33,872,726$ | $6,637,585$ $80,408,276$ | $5,983,939$ $55,498,422$ | 13,762,908 |
| Sawmills............ | 7,460 | 55,032 | 97,449,091 | 205,935, 217 | 186,120,981 | 396,415,201 |
| Veneers and plywoods | 40 | 5,830 | 12,139,138 | 19,813,773 | 22,849,894 | 43,078,031 |
| Miscellaneous Wood Prod-ucto- |  |  |  |  |  |  |
| Boxes and baskets, wood. . | 188 | 4,276 | 6,986,658 | 10,393,079 | 10,988,513 | 21,709,944 |
| Coffins and caskets. | 60 | 1,352 | 2,432,473 | 3,067,483 | 3,873,892 | 7,030,475 |
| Other Miscellaneous Wood Industries- |  |  |  |  |  |  |
| Beekeepers' and poultrymen's supplies. | 12 | 81 | 121,801 | 228,827 | 313,535 | 559,411 |
| Cooperage. | 183 | 955 | 1,564,595 | 3,206,585 | 2,192,176 | 5,478,156 |
| Excelsior. | 11 | 184 | 273,619 | 289,981 | 420,338 | 731,371 |
| Lasts, trees and shoe findings. | 18 | 679 | 1,156,867 | 874,647 | 1,766,130 | 2,670,198 |
| Woodenware................ | 36 | 648 | 992,308 | 1,022,826 | 1,382,930 | 2,447,774 |
| Wood turning. | 84 | 1,482 | 2,413,037 | 2,673,113 | 3, 209,629 | 5,989,903 |
| Miscellaneous wood products, n.e.s. | 385 | 4,388 | 8,668,143 | 31,938,333 | 14,038,707 | 46,642,062 |
| Totals, Wood Products..... | 11,191 | 121,632 | 224,902,644 | 436,637,453 | 393,928,758 | 840,355,634 |
| Paper Products- |  |  |  |  |  |  |
| Boxes and bags, paper | 174 | 12,763 | 25,513,079 | 72,113,972 | 47,333,714 | 120,321, 918 |
| Pulp and paper | 123 | 52,050 | 157,703, 868 | 348,662,719 | 423,375,527 | 836,148, 393 |
| Roofing paper | 23 | 2,477 | 5,654,753 | 17,079,261 | 18,710,738 | 36,359,885 |
| Miscellaneous paper goods.... | 204 | 9,181 | 19,476,921 | 56,444,549 | 42,868,657 | 100,230,130 |
| Totals, Paper Products | 524 | 76,471 | 288,348,621 | 494,300,501 | 532,288,636 | ,693,050,326 |

8.-Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1949-continued


## 8.-Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1949-continued

| Group and Industry | Estab-lishments | Employees | $\begin{gathered} \text { Salaries } \\ \text { and } \\ \text { Wages } \end{gathered}$ | Cost of Materials | Net <br> Value of Products | Gross <br> Value of <br> Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Electrical Apparatus and Supplies- | No. | No. | \$ | \$ 18.509 | 8 | \$ |
| Batteries................. | 24 | 2,140 | 5,232,393 | 18,509,992 | 12,367,069 | 31,167,039 |
| Machinery, heavy electrical. . | 46 | 19,490 | 51, 522,690 | 63,755,040 | 92,767,507 | $158,150,426$ $51,466,388$ |
| Radios and radio parts...... | 61 | 7,363 | 16,555,750 | 23,941,389 | 27,157,841 | 51,466,383 |
| Refrigerators, vacuum cleaners and appliances. | 89 | 7,327 | 16,999,953 | 40,784,883 | 43,104,053 | 84,484,340 |
| Electrical apparatus and supplies, n.e.s | 145 | 19,596 | 46,967,735 | 65,469,109 | 93,945,513 | 161,008, 162 |
| Totals, Electrical Apparatus and Supplies. | 365 | 55,916 | 137,278,521 | 212,460,413 | 269,341,983 | 486,286,355 |
| Non-metallic Mincral Prod-ucts- |  |  |  |  |  |  |
| Abrasives, artificial. | 18 | 2,543 | 6,830,763 | 10,649,694 | 14,868,217 | 27,700,008 |
| Asbestos products. | 14 | 1,533 | 3,637,864 | 4,794,030 | 5,087,506 | 10,343,009 |
| Cement. | 8 | 1,731 | 4, 803,534 | 5,949,640 | 21,077,322 | 35, 065, 152 |
| Cement products. | 423 | 4,348 | 8,747,616 | 14,076,293 | 17,595, 233 | 32,693,645 |
| Clay products from domestic clay. | 124 | 3,717 | 8,331,127 | 557,622 | 14,076,742 | 17,981,709 |
| Clay products from imported clay.. | 40 | 2,356 | 5,332,757 | 3,526,190 | 10, 184, 375 | 14,457,162 |
| Glass and glass products | 102 | 5,854 | 13,126,027 | 16,607,403 | 22,932,161 | 42,398,329 |
| Gypsum products. | 10 | 997 | 2,221,775 | 7,351,280 | 7,596,596 | 15,699,763 |
| Lime | 42 | 1,07 | ,600,078 | 718,893 | 8,223,272 | 11 |
| Salt. | 12 | 715 | 1,613,072 | 1,205,317 | 4,716,723 | 6,621,483 |
| Sand-lime brick | 5 | 184 | 415,844 | 330,906 | 966,808 | 1,380,739 |
| Stone products. | 163 | 2,053 | 4,542,522 | 6,095,824 | 10,646,425 | 17,449,330 |
| Miscellaneous non-metallic mineral products. | 59 | 1,029 | 2,391,375 | 6,537,973 | 5,901,235 | 12,871,468 |
| Totals, Non-metallic Mineral Products. | 1,020 | 28,139 | 64,594,354 | 78,401,065 | 143,872,615 | 246,457,799 |
| Products of Petroleum and Coal- |  |  |  |  |  |  |
| Coke and gas products. | 30 47 | 5,139 9,413 | $13,641,224$ $26,142,276$ | $\begin{array}{r} 54,063,072 \\ 326 \end{array}$ | $\begin{aligned} & 34,847,993 \\ & 82,971,097 \end{aligned}$ | $\begin{array}{r} 96,934,506 \\ 436796 \end{array}$ |
| Totals, Products of Petroleum and Coal. | 77 | 14,552 | 39,783,500 | 391,036,128 | 117,819,090 | 533,730,719 |
| Chemicals and Alled Prod-ucts- |  |  |  |  |  |  |
| Acids, alkalies and salts. | 28 | 5,861 | 16,504,908 | 27,392,521 | 39,663,922 | 74,411,796 |
| Fertilizers. | 32 | 3,269 | 9,004,943 | 31,671,468 | 33,984, 199 | 67,428,067 |
| Medicinal and pharmaceutical preparations. | 218 | 7,658 | 16,116,592 | 22,900,555 | 48,008,393 | 71,502,135 |
| Paints, varnishes and lacquers | 112 | 6,035 | 14, 137, 815 | 42,427,832 | 39,810,432 | 82,860,500 |
| Primary plastics............ | 14 | 1,286 | 3,496,087 | 10,897, 184 | 9,663,717 | 21,022,219 |
| Soaps, washing compounds and cleaning preparations. | 143 | 3,637 | 9,373,882 | 31,029,359 | $30,405,120$ | $62,398,211$ |
| Toilet preparations............ | 94 | 1,720 | 3,008,556 | 7,088,024 | 11,885,321 | 19,047,435 |
| Vegetable oils. . ........ | 15 | 829 | 2,122, 103 | 41,631,796 | 9,132,691 | 51,241,541 |
| Miscellaneous Chemical Industries- |  |  |  |  |  |  |
| Adhesives.. | 25 | 749 | 1,727,848 | 4,218,359 | 3,266,366 | 7,824,564 |
| Coal tar distillation | 11 | 415 | 1,166,863 | 4,786.640 | 3,996,837 | 9,332,787 |
| Gases, compressed | 48 | 1,223 | $3,230,904$ | 1,979,160 | $9,680,161$ | 12,091,176 |
| Inks......... | 32 | 704 | 1,968,794 | 4,002,313 | 4,874, 039 | 8,939,638 |
| Polishes and dressings. | 57 | 797 | 1,655,980 | 5,918,662 | $5.868,884$ | 11,865,149 |
| Miscellaneous chemical products. | 208 | 7,145 | 17,175,387 | 44,065,072 | 37,931,469 | 87,432,997 |
| Totals, Chemicals and Allied Products. | 1,037 | 41,328 | 100,690,662 | 280,008,945 | 288,171,551 | 587,398,215 |

## 8.-Principal Statisties of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1949-concluded

| Group and Industry | Estab-lishments | Employees | Salaries and <br> Wages | Cost of Materials | Net <br> Value of Products | Gross <br> Value of <br> Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Miscellaneo | No. | No. | \$ | \$ | \$ | \$ |
| Brooms, brushes and mops. . | 86 | 2,420 | 4,232,249 | 6,327,016 | 8,389,198 | 14,831,989 |
| Fountain pens and pencils.... | 15 | 1,221 | 2,328, 167 | 2,972,524 | 6,657,965 | 9,673,710 |
| Musical instruments. | 27 | 1,180 | 2,413,584 | 2,223,920 | 3,968,516 | 6,279,970 |
| Plastic products.. | 90 | 2,901 | 5,178,760 | 8,091,506 | 8,833,277 | 17,145,586 |
| Scientific and professional equipment. | 91 | 4,781 | 10,984,607 | 13,895,560 | 19,003,378 | 33,188,093 |
| Sporting goods................ | 64 | 2,013 | 3,628,637 | $3,627,429$, | 4,926, 140 | 8,654,085 |
| Toys and games | 56 | 1,448 | 2,645,957 | 3,691,073 | $4,277,234$ | 8,050,733 |
| Typewriter supplies | 7 | 396 | 885, 086 | 1,916,789 | 1,921,239 | 3,864,264 |
| Miscellaneous IndustriesArtificial flowers and feathers. | 38 | 677 | 915,935 | 1,133,009, | 1,570,532 | 2,716,302 |
| Buttons, buckles and fasteners $\qquad$ | 34 | 1,682 | 3,374,644 | 3,115,444 | 4,821,028 | 8,006,070 |
| Candles.................... | 14 | 278 | 461,873 | 828,911 | 1,260,764 | 2,120,738 |
| Hair goods. | 17 | 151 | -291, 137 | 805,657 | 5 488, 079 | 1,298,749 |
| Ice, artificial............ | 69 | 894 | 1,810,364 | 173,687 | 5,116,274 | 5,802,435 |
| Lamps, electric, and lamp shades. | 45 | 1,078 | 1,828,258 | 2,761,502 | 3,187,711 | 5,993,189 |
| Pipes, lighters and other smokers' supplies. . | 13 | 449 | 857,228 | 1,491,100 | 2,334, 022 | 3,841,463 |
| Signs, electric, neon and other. | 49 | 1,369 | 3,146,480 | 2,119,144 | 6,156,257 | 8,432,229 |
| Stamps and stencils, rubber and metal. | 45 | 601 | 1,250,754 | 592,843 | 1,826,826 | 2,444,595 |
| Statuary, art goods and novelties. | 104 | 1,017 | 1,614,462 | 1,647,983 | 2,606,600 | 4, 292,853 |
| Umbrellas................. | , | 177 | 274,820 | 557,869 | 545,398 | 1,105,031 |
| Miscellaneous industries, n.e.s....................... | 23 | 1,668 | 3,024,473 | 1,805,221 | 6,709,628 | 8,621,237 |
| Totals, Miscellaneous Industries. | 893 | 26,401 | 51,147,475 | 59,778,187 | 94,600,066 | 156,363,321 |
| Grand Totals | 35,792 | 1,171,207 | 2,591,890,657 | 6,843,231,064 | 5,330,566,434 | 12,479,593,300 |

Table 9 gives the amount and value of each of the principal commodities produced by the manufacturing industries of Canada. Commodities produced in small quantities are not included but the list covers approximately 75 p.c. of total production.

## 9.-Quantities and Values of the Principal Commodities Produced by the Manufacturing Industries, grouped by Purpose, 1949

| Group and Commodity | Unit of Measure | Quantity | Value |
| :---: | :---: | :---: | :---: |
|  |  |  | 8 |
| Food- |  |  |  |
| Biscuits, all kinds | ... | . | $55,587,247$ $182,702,717$ |
| Bread, pies, cakes, etc | lib. |  | $182,702,717$ $166,095,638$ |
| Butter, factory made. | lib. | $282,197,364$ $161,662,295$ | $166,095,638$ $53,008,104$ |
| Confectionery, all kinds. |  |  | 76, 144,614 |
| Cream, sold in dairy factories | lb. |  | $\begin{array}{r} 31,668,026 \\ 68,225,087 \end{array}$ |
| Feed, chopped, grain......... | ton | $1,201,900$ $1,718,278$ | $\begin{array}{r} 68,225,087 \\ 127,479,149 \end{array}$ |
| Feeds, stock and poultry ......... | ton |  | 57,927,034 ${ }^{1}$ |
| Fish, canned and otherwise prepa | böl. | 20,302, 173 | 188,615,480 |
| Fruits and vegetables, canned. | l/ | 528,800, 625 | 57,930,983 |
| Fruits and vegetables, frozen. | gal. | $25,842,927$ $23,491,607$ | $4,728,257$ $34,585,662$ |
| Ice cream, factory made...... | gal. | 88,700,259 | 13,874,541 |
| Jams, jellies and marmalades | / | 74,954, 275 | 13,877,006 |
| Meats, canned, including poultry, pastes, | " | 59, 212,477 | 24,442,477 $20,457,828$ |
| Meats, cooked......... |  | 37,364,343 | 20,457,828 |

[^198]
## 9.-Quantities and Values of the Principal Commodities Produced by the Manufacturing Industries, grouped by Purpose, 1949-continued

| Group and Commodity | Unit of Measure | Quantity | Value |
| :---: | :---: | :---: | :---: |
|  |  |  | \$ |
| Food-concluded | lb. | 264,808,186 | 121,790,243 |
| Meats, sold fresh |  | 1,056,119,942 | 358, 810,842 |
| Meats, sold frozen | " | 67,891,456 | 21,293,881 |
| Milk, evaporated and condensed | " | 269,764,849 | 31,212,699 |
| Milk, sold in dairy factories. | gal. | 151,690,685 | 95,729,114 |
| Pickles, sauces and catsup. |  |  | 11,868,442 |
| Powders, edible. | lb. | 133,761,266 | 32,823,092 |
| Sausage, fresh and cured |  | 72,838,464 | 27,842,701 |
| Shortening........ | " | 125, 166,704 | 32,839,030 |
| Sugar, granulated (cane and beet). | " | 1,181,963,023 | 96,680,698 |
| Tea and coffee, roasted, blended and packed | " | 118, 128, 262 | 79,884,967 |
| Drink and Tobacco-1 |  |  |  |
| Aerated waters. | gal. | 101,387,544 | 73,343,394 |
| Beer, ale, stout and porter (sales) |  | 173,294,151 | 228,333,919 |
| Cigarettes.. | '000 | 17,053,442 | 255,713,618 |
| Cigars.... |  | 207,213 | 15,538,813 |
| Spirits, potable, sold (net sales) | Pr. gal. | 8,841,888 | 60,761,289 |
| Tobsacco, chewing, smoking and | lb. | 28,890, 160 | 52,669,914 |
| Tobacco, raw leaf, process |  | 113,178,509 | 59,091,614 |
| Wine, sold. | gal. | 4,287,181 | 9,267,210 |
| Clothing- |  |  |  |
| Coats and overcoats, men's, youths' and women's, cloth. | No. | 2,548,253 | 63,945,778 |
| Coats, fur and fur-lined.............................. |  | 222,347 | 47,689,374 |
| Coats, short (including windbreakers, mackinaws, par leather coats, etc.). | " | 216,076 | 18,291,812 |
| Dresses, women's and misses'......... | " | 13,460,574 | 70,891,779 |
| Footwear, leather. | pr. | 29,271,714 | 105,662,941 |
| Footwear, rubber. | c | 15,039,073 | 29,736,753 |
| Gloves and mittens, all kinds |  |  | 14,467,175 |
| Hats and caps, men's and boys | doz. | 590,647 | 10,551,496 |
| Hosiery, all kinds. | doz. pr. | 9,023,966 | $12,695,819$ $59,401,946$ |
| Shirts, fine, work and sport | doz. | 1,672,356 | 40,701,928 |
| Sport suits, slacks and other sport clothing, |  |  | 14,690,776 |
| Suits, men's and youths', fine woollen. | No. | 1,872,080 | 54,630,275 |
| Underwear. | doz. | 4,218,055 | 36, 102,947 |
| Personal Utilities- |  |  |  |
| Bags, hand and hand luggage | $\ldots$ | . | 12,193,474 |
| Jewellery.. | ... | $\ldots$ | 16,808,945 |
| Pianos, organs and parts | ... | . | 4,456,782 |
| Plated ware, all kinds. | ... |  | 15,582,977 |
| Radio sets and accessories | ... |  | 45,547,794 |
| Soap. |  |  | 38,617,370 |
| Sporting goods...... | ... |  | 10,212,349 |
| Toilet preparations and perfumes | ... |  | 21,245,160 |
| Toys and games. | $\cdots$ |  | 12,265, 836 |
| House Furnishings- |  |  |  |
| Blankets, all kinds. | ... |  | 11,380,124 |
| Brooms and brushes. | $\ldots$ |  | 12,774,138 |
| Carpets, mats and rus | ... |  | 14, 170,686 |
| Furniture, household, including beds and couches | ... |  | 82, 579, 434 |
| Kitchenware |  |  | 18,427,711 |
| Mattresses. | No. | 1,008,590 | 15,236,077 |
| Mops...................... |  |  | 1,969,475 |
| Springs, bed and other furniture.... | ... |  | 11,303,356 |
| Stoves, coal, wood, electric and gas. | ... | . | 43,358,950 |
| Books and Stationery- |  |  |  |
| Advertising matter, printed. | ... |  | 28,356,336 |
| Books and catalogues, printed.......... | ... |  | 20,467,464 |
| Periodicals, printed by publishers- $\quad . \quad \begin{aligned} & \text { a }\end{aligned}$ |  |  |  |
| Gross revenue from advertising. . | $\ldots$ |  | 117,853,102 |
| Subscriptions and sales......... |  |  | 52,986,028 |
| Periodicals, printed for publishers........ | $\ldots$ | $\because$ | 19,548,734 |
| Sheet forms, commercial, printed....... | ... | . | 28,907,313 |

${ }^{1}$ Includes excise taxes on tobacco products and prime cost of spirits.
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## 9.-Quantities and Values of the Principal Commodities Produced by the Manufacturing Industries, grouped by Purpose, 1949-concluded

| Group and Commodity | Unit of Measure | Quantity | Value |
| :---: | :---: | :---: | :---: |
| Transportation Equipment- |  |  | \$ |
| Aircraft, including parts and repairs. |  |  | 46,576, 036 |
| Automobile parts and accessories, including tires, | $\ldots$ | . | 303,693,064 |
| Automobiles, commercial. | No. | 98,331 | 136,747,124 |
| Automobiles, passenger |  | 183,999 | 271,391, 842 |
| Buses..................... | " | 725 | 10,072,680 |
| Railway locomotives and pa | $\ldots$ |  | 57,772,053 |
| Miscellaneous, including bicycles, boats, canoes, etc | ... | . | $80,414,899$ $8,452,375$ |
| Miscellaneous- |  |  |  |
| Abrasives, artificial |  |  | 7,628,832 |
| Bags, cotton and jute | doz. | 8,915,893 | 25,010,916 |
| Bags, paper........ |  |  | 25,898,156 |
| Bars, iron and steel, hot rol | ton | 532,092 | 49,414, 874 |
| Blooms, billets and slabs | net ton | 396,924 | 23, $23,603,686$ |
| Boilers, heating and power |  |  | 14,020,398 |
| Boxes, paper and wood. | ... |  | 104,332,544 |
| Calcium and sodium compo |  |  | 26,471,243 |
| Cans, metal, for food, etc. | ... |  | 48,090,098 |
| Castings, iron (made for sale) | ton | 239,365 | 39,579,120 |
| Coke. | ... |  | 54, 814,362 |
| Cotton fabrics | ... | . | 120,856, 409 |
| Enamels, lacquers and va | ... |  | 35,522,721 |
| Explosives. | ... |  | 14,397,376 |
| Farm implements and pa | ... |  | 169,617,000 |
| Forgings, steel and other |  |  | 10,131,340 |
| Gas, sold. | M cu. ft. | 24,687,925 | 27,205,696 |
| Gases, compressed and liquefi |  |  | 16,458,710 |
| Gasoline.. | imp.gal. | 1,440,466,532 | 234,153,039 |
| Glass, pressed and blown | ... |  | 27,443,102 |
| Hardware, builders' and o | $\ldots$ |  | $27,093,951$ |
| Leather, shoe.. |  |  | 40,529,653 |
| Lumber, rough and planed | M ft. b.m. | 6,992,829 | 410,007,684 |
| Machinery, industrial, household and business, and parts. | ... | . . | 360,891, 280 |
| Medicines and pharmaceutica |  |  | 63, 676,689 |
| Oil, fuel. | imp.gal. | 1,335,092,046 | 112,574,373 |
| Paints, mixed, ready for | gal. | 9,456,527 | 33,486,466 |
| Paper boards.. | ... |  | 91,273,938 |
| Paper, newsprint, wrapping and | ... | $\cdots$ | 513,293,455 |
| Pipes and fittings, iron and stee | ... | $\cdots$ | 51,837,227 |
| Plastics, primary............. |  |  | 21,022,218 |
| Pulp, wood, made for | short ton | 1,870,483 | 194,647, 859 |
| Refrigerators, electric. | No. | 210,988 | 38,434,554 |
| Rolled iron and steel forms, semi-finished (sold) | ton | 396,924 | 23,603,686 |
| Sash, doors and other millwork. | ... | . . | 52,867,525 |
| Scientific and professional equipment. |  |  | 33,188,093 |
| Sheets, hoops, bands, strips, etc., iron and stee | ton | 469,236 | 55, 384, 553 |
| Smelter and refinery products.... |  |  | 599, 188, 135 |
| Spun rayon fabrics and mixtures | yd. | 28,473,682 | 21,314, 131 |
| Steel ingots and castings (sold). | ton | 234,218 | 36,372,735 |
| Steel shapes erected, bridge, etc. |  |  | 44,350,155 |
| Steel shapes, structural, made in primary mills. | net ton | 177,314 | 13,940,920 |
| Synthetic yarn fabrics, continuous filament, including mixtures. | yd. | 84,914,625 | 60,362,591 |
| Tire fabrics. | lb. | 21, 164, 848 | 14,199,622 |
| Tools, hand, all kinds. | ... | . . | 21,990,548 |
| Twine and rope....... | $\cdots$ |  | $18,622,662$ $23,977,612$ |
| Wire, wire rope and cable, steel | $\cdots$ |  | 23,977,612 |
| Wires and cables, electrical |  |  | 85,775,125 |
| Woollen cloth, woven and other................. | yd. | 24,763,853 | $58,503,578$ 97 503,843 |
| Yarn, cotton, artificial silk, wool, etc. (made for sale). | lb. | 97,987,401 | 97,503,843 |

## 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 1949 employed the largest number of persons and paid out by far the highest amount in salaries and wages. The average salary and wage was $\$ 2,527$ for the mineral group and $\$ 1,946$ for the farm origin group.

## 10.-Principal Statistics of Manufacturing Industries, classified according to Origin of Material Used, by Main Groups, 1939, 1944, 1918 and 1949

| Year and Origin <br> of Materials Used | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net Value of Products | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1939 | No. | No. | \$ | \$ | \$ | \$ |
| 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 origi | 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. | $\begin{aligned} & 6,096 \\ & 4,107 \end{aligned}$ | $\begin{array}{r} 124,708 \\ 95,502 \end{array}$ | $\begin{array}{r} 126,311,033 \\ 91,413,932 \end{array}$ | $\begin{array}{r} 410,994,461 \\ 367,255,664 \end{array}$ | $\begin{aligned} & 335,287,457 \\ & 156,332,676 \end{aligned}$ | $\begin{aligned} & 759,964,866 \\ & 530,028,155 \end{aligned}$ |
| Totals, Farm | 10,203 | 220,210 | 217,724,965 | 778,250,125 | 491,620,133 | 1,289,993, 021 |
| Canadian origin Foreign origin. | 9,382 821 | 171,460 48,750 | $\begin{array}{r} 168,260,771 \\ 49,464,194 \end{array}$ | $\begin{aligned} & 630,779,223 \\ & 147,470,902 \end{aligned}$ | $\begin{aligned} & 366,146,937 \\ & 125,473,196 \end{aligned}$ | $\begin{array}{r} 1,011,294,132 \\ 278,698,889 \end{array}$ |
| 1944 |  |  |  |  |  |  |
| Farm origin | 10,329 | 287,756 | 394,716,309 | 1,781, 014, 374 | 870,995,104 | 2,688,731,415 |
| Mineral origi | 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 origi | 535 | 9,664 | 10,327,695 | 45,906,542 | 22,066,801 | 68,882,879 |
| Wildlife origi | 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 crops... From animal husbandry. | $\begin{aligned} & 6,307 \\ & 4,022 \end{aligned}$ | $\begin{aligned} & 164,514 \\ & 123,242 \end{aligned}$ | $\begin{array}{r} 226,751,705 \\ 167,964,604 \end{array}$ | $\begin{aligned} & 888,435,918 \\ & 892,578,456 \end{aligned}$ | $\begin{array}{r} 563,349,320 \\ 307,645,784 \end{array}$ | $\begin{aligned} & 1,477,008,962 \\ & 1,211,722,453 \end{aligned}$ |
| Totals, Farm O | 10,329 | 287,756 | 394,716,309 | 1,781,014,374 | 870,995,104 | 2,688,731,415 |
| Canadian origin. Foreign origin... | $\begin{array}{r} 9,493 \\ 836 \end{array}$ | $\begin{array}{r} 225,077 \\ 62,679 \end{array}$ | $\begin{array}{r} 303,293,749 \\ 91,422,560 \end{array}$ | $\begin{array}{r} 1,507,501,822 \\ 273,512,552 \end{array}$ | $\begin{aligned} & 668,958,344 \\ & 202,036,760 \end{aligned}$ | $\begin{array}{r} 2,202,655,904 \\ 486,075,511 \end{array}$ |
| 1948 |  |  |  |  |  |  |
| Farm origin. | 10,342 | 313, 807 | 574,721,083 | 2,689,671,528 | 1,270,479,815 | 4,009,814,910 |
| Mineral origi | 5,347 | 450,123 | 1,070,530,553 | 2,481,092,279 | 2,087,179,940 | 4,733,867,173 |
| Forest origin | 13,692 | 252,764 | 523,340,720 | 1,009,794,821 | 1, 108,347, 100 | 2,195,670,856 |
| Marine origin | 600 | 12,243 | 17,041,373 | 74,587,625 | 39,468,334 | 115,838,169 |
| Wildlife origi | 636 | 8,045 | 16,601,882 | 45,073,772 | 27,130,785 | 72,510,617 |
| Mixed origin. | 2,803 | 118,739 | 207,132,579 | 332,661,603 | 406,181,007 | 747,467,960 |
| Grand Totals, 1948. | 33,420 | 1,155,721 | 2,409,368,190 | 6,632,881,628 | 4,938,786,981 | 11,875,169,685 |

10.-Principal Statistics of Manufacturing Industries, classified according to Origin of Material Used, by Main Groups, 1939, 1944, 1948 and 1949-concluded

| Year and Origin of Materials Used | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net Value of Products | Gross <br> Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | \$ |
| 1948-concluded <br> Farm Origin Group- |  |  |  |  |  |  |
| From field crops.. | 6,331 | 177, 251 | 330,556, 836 | 1,414,340,575 | 829, 429, 377 | 2,276,770,345 |
| From animal husbandry. | 4,011 | 136,556 | 244, 164,247 | 1,275, 330,953 | 441,050,438 | 1,733,044,565 |
| Totals, Farm Origin..... | 10,342 | 313,807 | 574,721,083 | 2,689,671,528 | 1,270,479,815 | 4,009,814,910 |
| Canadian origi | 9,417 | 246,497 | 442,329, 220 | 2,297,021,848 | 984, 848,185 | 3,319,947, 808 |
| Foreign origin. | 925 | 67,310 | 132,391,863 | 392,649,680 | 285,631,630 | 689,867,102 |
| 1919 |  |  |  |  |  |  |
| Farm origin. | 10,023 | 312,573 | 608,297,050 | 2,664,102,189 | 1,327,990,992 | 4,042,745,891 |
| Mineral origin | 5,936 | 453,960 | 1,147,317,944 | 2,652,631,878 | 2,315,722,610 | 5, 133,084, 333 |
| Forest origin | 15,467 | 255, 671 | 562,316,999 | 1,051,100,174 | 1,158,202,397 | 2,288,386,108 |
| Marine origin | 599 | 11,856 | 16, 969,825 | $69,090,041$ | 41, 140,022 | 111,961, 148 |
| Wildlife origi | ${ }^{663}$ | 8,370 | 18,008,212 | 38,475, 825 | 28, 844,758 | 67, 646,428 |
| Mixed origin. | 3,104 | 128,777 | 238,980,627 | 367,830,957 | 458,665,655 | 835,769,392 |
| Grand Totals, 1949 | 35,792 | 1,171,207 | 2,591,890,657 | 6,843,231,064 | 5,330,566,434 | 12,479,593,300 |
| Farm Origin Group- |  |  |  |  |  |  |
| From field crops. | 6,165 3,858 | 175,715 136,858 | $348,944,897$ 259 | 1,414,938,794 | 863,950, 508 | $2,313,027,879$ $1,729,718,012$ |
| From animal husbandry. | 3,858 | 136,858 | 259,352,103 | 1,249,163,355 | 404,010,4 | 1,729,718,012 |
| Totals, Farm Origin. | 10,023 | 312,573 | 608,297,050 | 2,664,102,189 | 1,327,990,992 | 4,042,745,891 |
| Canadian origin | 9,204 | 247,762 | 473,274,682 | 2,289,435, 804 | 1,041, 245, 310 | 3,369,356,461 |
| Foreign origin | 819 | 64,811 | 135,022,368 | 374,666,385 | 286,745,682 | 673,389,430 |

## Subsection 3.-Manufactures Classified by Type of Ownership

Figures showing the classification of manufacturing establishments by type of ownership are available from 1946, though the figures for that year are not strictly comparable with those for succeeding years due to the later inclusion of the fish curing and packing industry.

Of the 35,792 establishments operating in 1949, 1,332 in the periodical publishing industry were not classifiable. Thus, the percentages for 1949 presented in Tables 11 and 12 are based on a total of 34,460 establishments.

As is to be expected, the smaller establishments, regardless of type of products manufactured, are 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 statement shows:-

| Group | Average Number of Employees per Establishment | Percentage of Individual Ownership Establishments to the Total |
| :---: | :---: | :---: |
| Leather products. | $4 \cdot 7$ | $32 \cdot 5$ |
| Wood products... | 10.9 | $63 \cdot 1$ |
| Food and beverages. | $19 \cdot 8$ | $49 \cdot 9$ |
| Printing, publishing and allied trad | 22.5 | $49 \cdot 0$ |
| Non-metallic mineral products. | $27 \cdot 6$ | $34 \cdot 7$ 31.4 |
| Miscellaneous manufacturing indust | $29 \cdot 6$ | $31 \cdot 4$ |
| Clothing (textile and fur).......... | 38.5 | $29 \cdot 0$ |
| Chemicals and chemical products. | 39.9 | $18 \cdot 4$ |
| Iron and steel products..... | $69 \cdot 7$ $84 \cdot 0$ | $\stackrel{27 \cdot 4}{ }$ |
| Non-ferrous metal products | 84.0 91.8 | 27.3 |
| Paper products........... | 145.9 | $9 \cdot 0$ |
| Tobacco and tobacco products. | $148 \cdot 4$ | $38 \cdot 9$ |
| Electrical apparatus and supplies | 153.2 | $13 \cdot 4$ |
| Transportation equipment...... | $175 \cdot 8$ | $34 \cdot 4$ |
| Products of petroleum and coal | $189 \cdot 0$ $334 \cdot 3$ | $8 \cdot 1$ |
| Rubber products........... | 334-3 | $8 \cdot 1$ |
| Ald Groups. | 32.7 | $\underline{46 \cdot 0}$ |

11.- Percentage Distribution of Establishments in Manufacturing Industries, classified by Type of Ownership, by Provinces and Industrial Groups, 1949, with totals for 1946-49.

| Province and Industrial Group | Individual Ownership | Partnerships | Incorporated Companies | Co-operatives | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1916 (estimated). | $47 \cdot 3$ | 16.0 | 33.4 | 3-3 | $100 \cdot 0$ |
| 1947. | 46.4 | 16.1 | 34.3 | $3 \cdot 2$ | $100 \cdot 0$ |
| 1948...................................... | 46.2 | 16.4 | 34-4 | $3 \cdot 0$ | $100 \cdot 0$ |
| 1949 |  |  |  |  |  |
| Province |  |  |  |  |  |
| Newfoundland......................... | 63.0 | 24.8 | 12.0 | 0.2 | $100 \cdot 0$ |
| Prince Edward Island. | $51 \cdot 4$ | 16.9 | 22.5 | $9 \cdot 2$ | $100 \cdot 0$ |
| Nova Scotia. | 52.8 | 17.4 | 27.5 | $2 \cdot 3$ | 100.0 |
| New Brunswick. | $54 \cdot 7$ | $12 \cdot 3$ | $30 \cdot 0$ | $3 \cdot 0$ | $100 \cdot 0$ |
| Quebec..................................... | 51.0 | $12 \cdot 3$ | $32 \cdot 2$ | $4 \cdot 5$ | $100 \cdot 0$ |
| Ontario. | 41.0 | $16 \cdot 6$ | $40 \cdot 7$ | 1.7 | $100 \cdot 0$ |
| Manitoba. | $40 \cdot 2$ | 16.6 | 40.8 | $2 \cdot 4$ | $100 \cdot 0$ |
| Saskatchewan. | 56.8 | 15.4 | 22.7 | $5 \cdot 1$ | $100 \cdot 0$ |
| Alberta. | $51 \cdot 7$ | $18 \cdot 1$ | $26 \cdot 5$ | $3 \cdot 7$ | $100 \cdot 0$ |
| British Columbia. | $34 \cdot 3$ | 21.7 | 42.5 | 1.5 | $100 \cdot 0$ |
| Yukon and Northwest Territories. | 72.2 | 11.1 | 16.7 | - | $100 \cdot 0$ |
| Canada, 1949.................... | 46.0 | 15.8 | $35 \cdot 3$ | 2.9 | $100 \cdot 0$ |
| Industrial Group |  |  |  |  |  |
| Food and beverages................... | $49 \cdot 9$ | $11 \cdot 6$ | $27 \cdot 5$ | 11.0 | $100 \cdot 0$ |
| Tobacco and tobacco products........... | 38.9 | 6.9 | $50 \cdot 0$ | 4-2 | $100 \cdot 0$ |
| Rubber products........................ | 8.1 | 12.9 | 79.0 | - | $100 \cdot 0$ |
| Leather products. | $32 \cdot 6$ | $15 \cdot 5$ | $51 \cdot 8$ | $0 \cdot 1$ | $100 \cdot 0$ |
| Textile products (except clothing)........ | 27.4 | 13.5 | 58.9 | 0.2 | $100 \cdot 0$ |
| Clothing (textile and fur). | 29.0 | 21.4 | $49 \cdot 6$ | - | $100 \cdot 0$ |
| Wood products. | 63.1 | 18.9 | $17 \cdot 8$ | 0.2 | $100 \cdot 0$ |
| Paper products........................ | 9.0 | 4.6 | 86.4 | - | $100 ; 0$ |
| Printing, publishing and allied industries ${ }^{1}$. | 49.0 | 15.8 | $34 \cdot 8$ | 0.4 | $100 \cdot 0$ |
| Iron and steel products. | $26 \cdot 1$ | 17.4 | 56.2 | $0 \cdot 3$ | $100 \cdot 0$ |
| Transportation equipment............... | $34 \cdot 4$ | $13 \cdot 3$ | $52 \cdot 3$ | - | $100 \cdot 0$ |
| Non-ferrous metal products.. | $27 \cdot 4$ | 17.2 | $55 \cdot 4$ | - | $100 \cdot 0$ |
| Electrical apparatus and supplies......... | 13.4 | 9.9 | 76.7 | - | $100 \cdot 0$ |
| Non-metallic mineral products.......... | 34.7 | $18 \cdot 6$ | 46.6 | 0.1 | $100 \cdot 0$ |
| Products of petroleum and coal........... | - | - | $100 \cdot 0$ | - | $100 \cdot 0$ |
| Chemical products. | 18.4 | 6.5 | $74 \cdot 7$ | $0 \cdot 4$ | $100 \cdot 0$ |
| Miscellaneous manufacturing industries... | $31 \cdot 3$ | 16.6 | $52 \cdot 1$ | - | $100 \cdot 0$ |

${ }^{1}$ 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. Establishments operating under individual ownership are not as important from the point of view of employment provided as their large numbers would seem to indicate.

## 12.-Percentage Distribution of Employment in the Manufacturing Industries, classified by Type of Ownership, by Provinces and Industrial Groups, 1949, with Totals for 1946-49.

| Province or Group | Individual Ownership | Partnerships | Incorporated Companies | Co-operatives | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1946 (estimated). | $7 \cdot 9$ | $4 \cdot 7$ | 86.5 | 0.9 | $100 \cdot 0$ |
| 1947. | $7 \cdot 5$ | $4 \cdot 5$ | 87.0 | $1 \cdot 0$ | $100 \cdot 0$ |
| 1948.. | $7 \cdot 1$ | $4 \cdot 4$ | 87.5 | 1.0 | 100.0 |
| 1949 |  |  |  |  |  |
| Provincr |  |  |  |  |  |
| Newfoundland. | $13 \cdot 1$ | $8 \cdot 0$ | 78.8 | $0 \cdot 1$ | $100 \cdot 0$ |
| Prince Edward Island. | $22 \cdot 3$ | $10 \cdot 6$ | $59 \cdot 6$ | $7 \cdot 5$ | $100 \cdot 0$ |
| Nova Scotia, | 11.9 | 4.7 | 82.2 | 1.2 | 100.0 |
| New Brunswick | 11.4 | $3 \cdot 8$ | $83 \cdot 1$ | 1.7 | $100 \cdot 0$ |
| Quebec. ........... | $8 \cdot 4$ | $4 \cdot 3$ | 86.4 | 0.9 | 100.0 |
| Ontario.... | $4 \cdot 9$ | $3 \cdot 7$ | 91.0 | $0 \cdot 4$ | $100 \cdot 0$ |
| Manitoba. | $6 \cdot 2$ | $4 \cdot 6$ | $87 \cdot 6$ | $1 \cdot 6$ | $100 \cdot 0$ |
| Saskatchewan. | $13 \cdot 4$ | $7 \cdot 7$ | $69 \cdot 9$ | $9 \cdot 0$ | $100 \cdot 0$ |
| Alberta. | $12 \cdot 4$ | $8 \cdot 1$ | $76 \cdot 5$ | $3 \cdot 0$ | $100 \cdot 0$ |
| British Columbia. | $5 \cdot 7$ | $5 \cdot 0$ | 86.6 | $2 \cdot 7$ | $100 \cdot 0$ |
| Yukon and Northwest Territories. | 31.1 | $3 \cdot 4$ | $65 \cdot 5$ |  | $100 \cdot 0$ |
| Canada, 1949 | 6.8 | 4-2 | 88.0 | 1.0 | $100 \cdot 0$ |
| Industrinl Group |  |  |  |  |  |
| Food and beverages. . . . . . . . . . . . . . . | 11.7 | $4 \cdot 6$ | 78.5 | $5 \cdot 2$ | $100 \cdot 0$ |
| Tobacco and tobacco products........... | 1.1 | $0 \cdot 4$ | $95 \cdot 7$ | $2 \cdot 8$ | $100 \cdot 0$ |
| Rubber products.......................... | $0 \cdot 3$ | 0.5 | $99 \cdot 2$ |  | $100 \cdot 0$ |
| Leather products.................... | $8 \cdot 5$ | $6 \cdot 2$ | $85 \cdot 3$ | - | $100 \cdot 0$ |
| Textile products (except clothing)........ | $2 \cdot 7$ | 1.8 | $95 \cdot 5$ | - | $100 \cdot 0$ |
| Clothing (textile and fur)................. | 8.8 | $10 \cdot 3$ | $80 \cdot 9$ | - | $100 \cdot 0$ |
| Wood products.e......................... | 21.0 | $10 \cdot 4$ | 68.2 | 0.4 | 100.0 |
|  | 0.5 | 0.4 | $99 \cdot 1$ | - | $100 \cdot 0$ |
| Printing, publishing and allied industries ${ }^{1}$. | 10.0 | $5 \cdot 7$ | 83.0 | $1 \cdot 3$ | $100 \cdot 0$ |
| Iron and steel products.................. | 2.9 | $2 \cdot 5$ | $94 \cdot 3$ | $0 \cdot 3$ | $100 \cdot 0$ |
| Transportation equipment................ | 0.9 3.2 | $0 \cdot 7$ 2.0 | 98.4 94.8 | 二 | $100 \cdot 0$ $100 \cdot 0$ |
| Non-ferrous metal products... ${ }_{\text {Electrical apparatus and supplies.......... }}$ | 3.2 0.9 | $2 \cdot 0$ 1.5 | 94.8 97.6 | - | $100 \cdot 0$ $100 \cdot 0$ |
| Electrical apparatus and supplies......... Non-metallic mineral products......... | $0 \cdot 9$ $6 \cdot 3$ | 1.5 5.6 | 97.6 88.0 | $0 \cdot 1$ | $100 \cdot 0$ $100 \cdot 0$ |
| Non-metallic mineral products........... Products of petroleum and coal. . . | $6 \cdot 3$ |  | $100 \cdot 0$ |  | $100 \cdot 0$ |
| Chemical products..................... | 1.5 | 0.7 | 97.5 | $0 \cdot 3$ | $100 \cdot 0$ |
| Miscellaneous manufacturing industries... | $7 \cdot 6$ | $5 \cdot 5$ | 86.9 | - | $100 \cdot 0$ |

${ }^{1}$ Four main categories of ownership only; the non-classifiable group is not included.
13.-Percentage Distribution of Employment in the Forty Leading Industries, by Type of Ownership, 1919

|  | Industry | Individual Ownership | Partnerships | Incorporated Companies | Co-operatives | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1 | Pulp and paper mills. | - | $0 \cdot 1$ | 99.9 | - | $100 \cdot 0$ |
|  | Slaughtering and meat packing....... | $2 \cdot 0$ | $2 \cdot 0$ | $92 \cdot 9$ | $3 \cdot 1$ | $100 \cdot 0$ |
|  | Non-ferrous metal smelting and refin- ing................................ | - | - | $100 \cdot 0$ | - | $100 \cdot 0$ |
| 4 | Motor-vehicles......................... | - | - | $100 \cdot 0$ | - | $100 \cdot 0$ |
| 5 | Petroleum products.................... | 31 | 12.7 | $100 \cdot 0$ 55.9 |  | $100 \cdot 0$ $100 \cdot 0$ |
| 6 |  | $31 \cdot 1$ | $12 \cdot 7$ | $55 \cdot 9$ 61.2 | 0.3 21.9 | $100 \cdot 0$ 100.0 |
| ${ }^{7}$ | Butter and cheese..................... | $12 \cdot 7$ | $4 \cdot 2$ | 61.2 100.0 | 21.9 | 100.0 |
|  | Primary iron and steel................. |  | - | $100 \cdot 0$ | 二 | 100.0 |
| 10 | Flour mills............................. | $2 \cdot 4$ | $3 \cdot 3$ | $92 \cdot 6$ | 1.7 | $100 \cdot 0$ |
| 11 | Clothing, men's factory................. | $4 \cdot 9$ | 8.5 | 86.6 | - | $100 \cdot 0$ |
|  | Cotton yarn and cloth. | $0 \cdot 1$ | $0 \cdot 1$ | 99.8 | - | $100 \cdot 0$ |
|  | Bread and other bakery products. | $29 \cdot 8$ | $8 \cdot 0$ | $61 \cdot 7$ | 0.5 | $100 \cdot 0$ |

13.-Percentage Distribution of Employment in the Forty Leading Industries, by Type of Ownership, 1949-concluded

|  | Industry | Individual Ownership | Partnerships | Incorporated Companies | Co-operatives | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | p.c. | p.c. | p.c. | p.c. | p.c. |
| 14 | Clothing, women's factory. | $9 \cdot 6$ | $12 \cdot 6$ | 77.8 | - | $100 \cdot 0$ |
|  | Rubber goods, including footwear. | $0 \cdot 3$ | 0.5 | $99 \cdot 2$ | - | $100 \cdot 0$ |
|  | Agricultural implements and machin- ery............................. | 0.9 | $1 \cdot 6$ | 96.2 | $1 \cdot 3$ | $100 \cdot 0$ |
| 17 | Motor-vehicle parts. . . . | $1 \cdot 6$ | $1 \cdot 1$ | $97 \cdot 3$ |  | $100 \cdot 0$ |
| 18 | Printing and publishing | $6 \cdot 6$ | $3 \cdot 6$ | 88.5 | $1 \cdot 3$ | $100 \cdot 0$ |
| 19 | Miscellaneous electrical products...... | $0 \cdot 5$ | $1 \cdot 2$ | 98.3 | - | $100 \cdot 0$ |
|  | Miscellaneous foods................... | $7 \cdot 1$ | $3 \cdot 9$ | 89.0 | - | $100 \cdot 0$ |
| 21 | Machinery, heavy electrical............ | - | 1.0 | 99.0 | - | $100 \cdot 0$ |
| 22 | Furniture.. | $10 \cdot 9$ | $9 \cdot 1$ | $80 \cdot 0$ | - | $100 \cdot 0$ |
| 23 | Sheet metal products................. | $3 \cdot 2$ | $2 \cdot 7$ | $94 \cdot 1$ |  | $100 \cdot 0$ |
|  | Feeds, stock and poultry, prepared.... | $12 \cdot 6$ | 6.7 | $65 \cdot 2$ | 15.5 | $100 \cdot 0$ |
|  | Fruit and vegetable preparations...... | $6 \cdot 9$ | $5 \cdot 8$ | $83 \cdot 3$ | 4.0 | $100 \cdot 0$ |
|  | Machinery, industrial................. | $2 \cdot 3$ | 1.5 | $95 \cdot 8$ | 0.4 | $100 \cdot 0$ |
|  | Malt liquors......................... | - | - | $100 \cdot 0$ | - | 100.0 |
|  | Planing mills, sash and door factories.. | $19 \cdot 1$ | $10 \cdot 4$ | $70 \cdot 5$ | - | $100 \cdot 0$ |
|  | Castings, iron......................... | $3 \cdot 3$ | $3 \cdot 5$ | 93.2 | - | $100 \cdot 0$ |
|  | Synthetic textiles and silk. | $0 \cdot 4$ | - | $99 \cdot 6$ |  | $100 \cdot 0$ |
| 31 | Printing and bookbinding. | 16.4 | 9.0 | 72.9 | 1.7 | $100 \cdot 0$ |
| 32 | Boxes and bags, paper... | $1 \cdot 6$ | 0.9 | $97 \cdot 2$ | $0 \cdot 3$ | $100 \cdot 0$ |
|  | Sugar refining............. | - | - | $100 \cdot 0$ | - | $100 \cdot 0$ |
|  | Boots and shoes, leather. . . . . | 8.2 | $3 \cdot 6$ | 88.2 | - | $100 \cdot 0$ |
|  | Brass and copper products. | 2.7 | 1.5 | $95 \cdot 8$ |  | $100 \cdot 0$ |
|  | Tobacco, cigars and cigarettes | 1.2 | $0 \cdot 6$ | 98.2 | - | $100 \cdot 0$ |
| 37 | Fish processing ${ }^{1}$. | 12.8 | $3 \cdot 9$ | 72.8 | $10 \cdot 5$ | $100 \cdot 0$ |
| 38 | Confectionery.. | $5 \cdot 0$ | $3 \cdot 5$ | 91.5 | - | $100 \cdot 0$ |
| 39 | Coke and gas products. | - | -7 | $100 \cdot 0$ |  | $100 \cdot 0$ |
| 40 | Miscellaneous paper goods............. | $2 \cdot 0$ | 1.7 | $96 \cdot 3$ | - | $100 \cdot 0$ |

${ }^{1}$ Excluding Newfoundland.

## Subsection 4.-Leading Manufacturing Industries

The rank of the ten leading industries in 1949, from the standpoint of gross value of production, is compared with their respective ranks in significant years since 1922 in the following statement:-

| Industry | Rank in- |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1982 | 1989 | 1939 | 1939 | 1944 | 1948 | 1949 |
| Pulp and paper. | 2 | 1 | 1 | 2 | 5 | 1 | 1 |
| Slaughtering and meat packing. | 3 | 2 | 3 | 3 | 1 | 2 | 2 |
| Non-ferrous metal smelting and refining....... | 1 | 9 | 2 | 1 | 2 | 3 | 3 |
| Motor-vehicles. | 6 | 4 | 11 | 5 | 7 | 6 | 4 |
| Petroleum products. | 9 | 10 | 6 | 6 | 14 | 7 | 5 |
| Sawmills.. | 4 | 5 | 14 | 8 | 11 | 5 | 6 |
| Butter and cheese. | 5 | 6 | 5 | 4 | 10 | 8 | 7 |
| Primary iron and steel. | 20 | 16 | 31 | 11 | 13 | 10 | 8 |
| Railway rolling-stock. | 24 | 7 | 23 | 16 | 16 | 11 | 9 |
| Flour mills. | 1 | 3 | 4 | 7 | 12 | 9 | 10 |

${ }^{1}$ Did not rank among the forty leading industries in 1922.
The depression of the 1930's resulted in a rearrangement in the ranking of many industries which in some cases 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. With one exception, the
industries in the lead in 1948 remained in the first ten places in 1949, although the order was changed slightly. The electrical apparatus and supplies industry, which for many years ranked among the first ten, dropped out of this class in 1949. This was not due to a change in its importance as a producer of manufactured goods, but to a change in its composition introduced by the Standard Classification which groups this industry, formerly classified as one, into five subdivisions: batteries; heavy electrical machinery; radios and radio parts; refrigerators, vacuum cleaners and appliances; and miscellaneous electrical products.

## 14.-Principal Statistics of the Forty Leading Industries, ranked according to Gross Value of Products, 1949

|  | Industry | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | No. | \$ | 8 | \$ | \$ |
|  | Pulp and pap | 123 | 52,050 | 157,703,868 | 348,662,719 | 423,375,527 | 836,148,393 |
|  | Slaughtering and meat packing.. | 157 | 20,586 | 52,136, 180 | 586, 241, 637 | 108,059,068 | 697,950,039 |
|  | Non-ferrous metal smelting and refining. | 16 | 19,150 | 55,133,065 | 380,275,977 | 181,907,847 | 599, 188, 135 |
|  | Motor-vehicles................. | 15 | 27,022 | 76,684,328 | 300, 705, 398 | 182,055,285 | 485,756, 877 |
|  | Petroleum pr | 47 | 9,413 | 26, 142,276 | 336,973, 056 | 82,971,097 | 436,796, 213 |
|  | Sawmills. | 7,460 | 55,032 | 97,449,091 | 205, 935, 217 | 186, 120,981 | 396,415,201 |
|  | Butter and ch | 1,862 | 22,479 | 41,612,537 | 274, 298,757 | 74,705,184 | 355, 004, 031 |
| 8 | Primary iron and steel | 55 | 29,097 | 82,958,229 | 147, 229, 391 | 136,152,628 | 305,734,984 |
|  | Railway rolling-stock | 39 | 32,410 | $82,135,159$ | 133, 053,860 | 109,228,718 | 246,754,026 |
| 10 | Flour mills ${ }^{1}$. | 133 | 5,033 | 11,965,400 | 215, 404,869 | 28,342,755 | 245, 274,202 |
|  | Clothing, men's factor | 565 | 33,298 | 57,343, 483 | 121,485,389 | $98,546,341$ | 220,701 259 |
| 12 | Cotton yarn and cloth | 53 | 25,178 | 49,363,696 | 124,685, 279 | 83,073,026 | 211,384,517 |
| 13 | Bread and other bakery prod- uets....................... | 2,730 | 31,763 | 57,552,745 | 102,555,311 | 94,717,220 | 203,720,116 |
| 14 | Clothing, women's factory ${ }^{1}$.... | 890 | 29,129 | 55, 424, 392 | 105, 156, 893 | 96,791,010 | 202,412,558 |
| 15 | Rubber goods incl. footwear.... | 62 | 20,729 | 48, 172, 207 | 73,895, 718 | 101,705,513 | 178,503,559 |
| 16 | Agricultural implements and machinery. | 79 | 16,588 | 44,219,589 | 95,685, 026 | 79,192,612 | 176,970,283 |
| 17 | Motor-vehicle parts............ | 150 | 17,898 | 45,662,602 | 88,040,691 | 81, 194, 554 | 171,590,042 |
| 18 | Printing and publishing | 784 | 26,272 | 63,550,242 | 48,877,899 | 118,825, 355 | 169,268, 479 |
| 19 | Electrical apparatus and supplies, n.e.s. ${ }^{1}$ | 145 | 19,596 | 46,967,735 | 65,469,109 | 93,945,513 | 161,008, 162 |
| 20 | Foods, miscellaneous........... | 297 | 6,978 | 13,319,291 | 114,717,702 | 43,386,636 | 158,974,544 |
| 21 | Machinery, heavy electrical | 46 | 19,490 | 51,522,690 | 63,755,040 | 92,767,507 | 158,150,426 |
| 22 | Furniture. | 1,187 | 26,931 | 53,591,185 | 70, 147,728 | 85, 289,672 | 157, 122,632 |
| 23 | Sheet metal products | 275 | 16,414 | 39,304,865 | 84,810,689 | 70,098,369 | 156,717,444 |
| 24 | Feeds, stock and poultry, prepared. | 485 | 5,356 | 10,889,537 | 125, 645,640 | 24,361,413 | 151,470,360 |
| 25 | Fruit and vegetable preparations | 473 | 14,992 | 23, 863,821 | 89,502,037 | 57, 106,291 | 148,762,324 |
| 26 | Machinery, industrial ${ }^{1} . . . . . . .$. . | 296 | 19,479 | 48, 248, 262 | 48,389,379 | 97, 927, 235 | 148, 156,612 |
| 27 | Breweries.. | 64 | 8,652 | 23,461,437 | 37,939, 869 | 102, 125,599 | 142,399,729 |
| 28 | Planing mills, sash and door factories. | 1,501 | 18,171 | 33,872,726 | 80,408,276 | 55,498, 422 | 137, 717,568 |
| 29 | Castings, iron. | 231 | 18,339 | $46,165,355$ | 55, 315,454 | $74,880,824$ | 133, 313,505 |
| 30 | Synthetic textiles and silk | 48 | 16,828 | 36,121,584 | 45, 217,912 | 75, 578, 244 | 124, 125,414 |
| 31 | Printing and bookbinding | 1,530 | 22,029 | 47,147,222 | 42,773,222 | 76,974,961 | 120,822,790 |
| 32 | Boxes and bags, paper. | 174 | 12,763 | 25, 513,079 | 72, 113, 972 | 47,333,714 | 120,321,918 |
| 33 | Sugar refining. | 11 | 3,587 | 8,842,783 | 90,172,181 | 23,703,295 | 116,767,430 |
| 34 | Boots and shoes, leather | 284 | 22,290 | 36,733,243 | 61,023,445 | 54, 956, 420 | 116,514,620 |
| $\begin{aligned} & 0 x \\ & 35 \end{aligned}$ | Brass and copper products. | 162 | 9,389 | 22,943,888 | $73,045,193$ | 40,700, 161 | 115,407,796 |
| 36 | Tobacco, cigars and cigarettes. . | 57 599 | 9,029 | 19,028,381 | 59,319,660 $69,090,041$ | $53,641,340$ $41,140,022$ | $113,334,066$ $111,961,148$ |
| 37 | Fish processing ${ }^{2}$. | 599 | 11,856 9,181 | 16,969,825 | $\begin{aligned} & 69,090,041 \\ & 56.444,549 \end{aligned}$ | $\begin{aligned} & 41,140,022 \\ & 48 \end{aligned}$ | $111,961,230,130$ |
| 38 39 | Miscellaneous paper good | 206 | 19,181 10,317 | $17,476,921$ $17,107,649$ | $\begin{aligned} & 56,444,549 \\ & 51,001,165 \end{aligned}$ | 47, 401,925 | 109,424,355 |
| 40 | Coke and gas produ | , | 5,139 | 13,641,224 | 54,063,072 | 34,847,993 | 96,934,506 |
|  |  | 23,525 | 779,933 | 1,759,941,792 | 5,199,528,422 | 3,603,498,934 | 9,029,210,393 |
|  | Totals, All Industries ${ }^{2}$ | 35,792 | 1,171,207 | 2,591,890,657 | 6,843,231,064 | 5,330,566,434 | 12,479,593,300 |
|  | Percentages of leading industries to all industries. | $65 \cdot 7$ | $66 \cdot 5$ | $67 \cdot 8$ | $76 \cdot 0$ | $67 \cdot 6$ | 72-3 |

## 15.-Principal Statistics of the Forty Leading Industries, ranked according to Gross Value of Products, 1950

| Industry | Eetab-lishments | $\underset{\text { ployees }}{\text { Em- }}$ | Salaries and Wages | Cost of Materials | Net Value of Products | Gross <br> Value of <br> Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | o. | 8 | 5 | \$ | 8 |
|  | 123 | 52,343 | 169, 246, 531 | 373, 882,762 | 511,142,983 | 954,137,651 |
| $2{ }^{2}$ Slaughtering and | 157 | ${ }^{20,522}$ | 54,532,037 | 645, 353,230 | 107,701,364 | 757,043,355 |
| ${ }_{4}^{3}$ Motor-vehicles........... | 19 | 29,355 | 94,414,819 | 388, 496,630 | 284,785,098 | 675,867,467 |
| refining. | 17 | 19,863 | 58,748,362 | 428, 697,787 | 202,711,781 | 669,882,806 |
| 5 Petroleu |  | 10,056 | 30,557, 596 | 384, 356,381 | 107,371,118 | 511,516,392 |
| 6 Sawmills | 7,551 | 58,722 | 111, 492,079 | 252,321,608 | 239, 225, 162 | 496.948, 398 |
| 7 Primary ir |  | 29,051 | 85,411,927 | 159,282,919 | 154,542,373 | 340, 540, 042 |
| 8 Butter and c | 51 | ${ }_{2}^{21,022}$ | 41,951,621 | 250,017,648 | 74,353, 823 | 350,709, 143 |
| 9 Cotton yarn | 51 | 26,967 | 55,220,043 | 157, 835, 813 | 95,309,562 | 257,393.892 |
| 10 Flour mills | 18 | ,903 | 11,917,625 | 213,755,757 | 31,836,800 | 247,107,775 |
| 11 Rubber goods, including wear | 61 | 21,812 | 54, 262,864 | 101,773,382 | 134,061,761 | 239,184,510 |
| 12 Clothing, men's f | 566 | 32,853 | 59,301,388 | 122,603,415 | 103, 346, 165 | 226,659,057 |
| 13 Motor-v | 151 | 19,719 | 56,092,273 | 122,088,705 | 101,516,705 | 226,539,375 |
| 14 Bread and other bakery ucts | 2,608 | 31,149 | 60,073, 998 | 109,213,199 | 98,412,581 | 214, 586,981 |
| 15 Clothing, women's fa | 914 |  | 55,864,122 | 102,712,875 | 91,419,056 |  |
| 16 Railway rolling-stock | 38 | 29,257 | 73,356, 659 | 110,373, 110 | 79,756,161 | 194,286,237 |
| 17 Machiner | 49 | 20,825 | 57,380,065 | 73,966,855 | 112,101,686 | 187,758,282 |
| 18 Printing and publishing | 787 | 26,743 | 68, 951,989 | 50, 628,704 | 129,018,312 | 181,361,391 |
| 19 Foods, m |  | 7,129 | 14,198, 293 | 132,139,535 | 46,505,787 | 179,607,764 |
| 20 Furniture. | 1,207 | 27,259 | 57,111,744 | 79, 803, | 90,624,200 | 172,331,144 |
| ${ }^{1}$ Sheet metal pr | 283 | 17,049 | 42,630,287 | 92,352,260 | 77,559,028 | 171,946,702 |
| Miscellaneous electrical atus and supplies, ${ }^{1}$ n.e.s. | 145 | 19,246 |  | 74,308,638 | 94, 667, 534 | 170,735,391 |
| 33 Fruit and vegetable preparations |  |  | 24,561,151 | 94,443,794 | 64,278,160 |  |
| 44 Sash, door and planing | 590 | 19,128 | 36,924,630 | 96,907, 258 | 61,711,765 | 160,719,698 |
| 25 Mschinery, industria | 303 | 19,389 | 51,447, 438 | 55,504, 674 | 102,901,482 | 160,391, 298 |
| 26 Feeds, stock and poultry, prepared. | 568 | 5,191 | 10,645,384 | 128,513,344 | 25,089,531 | 155,324, 874 |
| 27 Agricultural impl | 86 | 16,223 | 43, 284,686 | 79,123,750 | 68,356,009 | 149,500, 240 |
| Breweries | 63 | 8,311 | 23,888,605 | 42,018,271 | 105,073, 118 | 149,409,487 |
| 29 Synthetic text | 47 | 17,955 | 40,111,600 | 55,518,508 | 87,763,220 | 147,047,995 |
| ${ }^{3}$ Sugar r | 12 | 3,919 | 9.535.834 | 109,713, | 31,939, | 144,872,567 |
| 31. Castings, | ${ }^{218}$ | 17,567 | 47,718,307 | 60, 200,601 | 78,528,361 | 142,361,845 |
| oxes and | 177 | 13,302 | 28,551,880 | 83,841,035 | $55,813,16$ | 140,656,880 |
| Printing and | . 533 | 22,385 | 51,452, 604 | 48,228 | 84, 863 | 134, 277, 139 |
| 4 Fish processing ${ }^{2}$. | 591 | 11,842 | 18,722,240 | 79,959,218 | 46,691,63 | 128,423,853 |
| 35 Brass and copper product | 155 | 8.932 | 22,893,180 | 82,380,983 | 42,010, | 126, 200, 549 |
| 36 Tobacco, cigars and cig | 53 | 8,503 | 19,511,951 | 62,681,958 | 59,383,685 | 122,429,15 |
| 37 Refrigerators, vacuum |  |  |  |  | 60,470,530 |  |
| 38 Miscellaneous paper goods | 204 | 9,365 | 21,349,335 | 63,929,88 | 50,042,383 | 114,990,880 |
| 39 Footwear, leathe | 292 | 20,785 | 34,710,042 | 59,684,259 | 50,717,873 | 110,963,680 |
| 40 Co | 207 | 10,854 | 18,451,058 | 54, 520, 295 | 49,223,151 | 104,853,748 |
| Totals, Leading Industries ${ }^{2}$ | 23,689 | 792,88 | 1,888,827,04 | 5,742,705,093 | 4,092,827,07 | 10,075,220,543 |
| tals, All Industr | 35,942 | 1,183,292 | 2,771,267,435 | 7,538,534,532 | 5,942,058,22 | 13,817,526,381 |
| Percentages of leading industries to all industries. | 65.9 | 67.0 | 8.2 | $76 \cdot 2$ | 68.9 | 72.9 |

${ }^{1}$ Not comparable with years prior to 1949.
${ }^{2}$ Exclusive of fish processing in Newfoundland.

## 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 1949, the 35,792 manufacturing establishments employed 221,551 salaried employees and 949,656 wage-earners, a total of $1,171,207$ persons. Out of every 1,000 persons employed in these industries, 189 were classed as salary-earners and 811 as wage-earners; the former earned 24 p.c. and the latter 76 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 rose again to 73 in 1949.

## 16.-Total and Average Annual Salaries and Wages Paid in Manufacturing Industries, Significant Years, 1917-49

| Year | Annual Salaries |  |  |  | Annual Wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Salaried Employees |  | Total Salaries | Average Salaries | WageEarners |  | Total Wages | Average Wages |
|  | Male | Female |  |  | Male | Female |  |  |
|  | No. |  | \$ | \$ | No. | No. | \$ | \$ |
| 1917. | 64,9 |  | 85,353,667 | 1,315 | 541, |  | 412,448, 177 | 762 |
| 1920. | 78,3 |  | 141, 837,361 | 1,811 | 520, |  | 575, 656, 515 | 1,106 |
| 1922. | 71,5 |  | 129,836,831 | 1,814 |  | 670 | 359,560,399 | 935 |
| 1924. | 54,379 | 15,641 | 130,344, 822 | 1,862 | 322,719 | 94,871 | 404, 122,853 | 968 |
| $1926{ }^{1}$ | 58,245 | 17,092 | 142,353,900 | 1,890 | 374,244 | 109,580 | 483,328,342 | 999 |
| 19291 | 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 |
| 1939. | 98,165 | 26,607 | 217, 839,334 | 1,746 | 415, 488 | 117,854 | 519,971, 819 | 975 |
| 1940. | 104,267 | 31,493 | 241,599,761 | 1,780 | 491,439 | 135,045 | 679,273,104 | 1,084 |
| 1941. | 117,251 | 41,693 | 286, 336,861 | 1,801 | 626,825 | 175,409 | 978, 525,782 | 1,220 |
| 1942 | 123,125 | 54,062 | 334,870,793 | 1,890 | 732,319 | 242,585 | 1,347,934,049 | 1,383 |
| 1943 | 128,679 | 64,516 | 388,857,505 | 2,013 | 762,854 | 285,019 | 1,598,434, 879 | 1,525 |
| 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 | 141,082 | 57,197 | 532,702,476 | 2,687 | 738,956 | 218,771 | 1,877,107,315 | 1,960 |
| 1949. | 157,516 | 64,035 | 628,427,937 | 2,836 | 732,457 | 217, 199 | 1,963,462,720 | 2,067 |

[^199] seasonal industries.

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 to females is strikingly illustrated by the fact that, of all female wage-earners engaged in the manufacturing industries of Canada in 1949, $44 \cdot 6$ p.c. were found in the textile group, including furs.

The average salary in 1949 amounted to $\$ 2,836$ which was $\$ 1,090$ or 62 p.c. higher than in 1939. Salaried employees in Ontario with $\$ 2,990$ were the highest paid, those in Quebec second with $\$ 2,812$, followed by British Columbia with $\$ 2,758$ and Manitoba with $\$ 2,729$. The location of head offices of many large corporations at Montreal, Toronto, Winnipeg and Vancouver tends to raise the average salaries in the provinces in which these cities are located.

The average wage in 1949 amounted to $\$ 2,067$ which was $\$ 1,092$ or 112 p.c. higher than in 1939. The manufacturing industries of Newfoundland paid the highest average wage of $\$ 2,392$, displacing British Columbia which formerly occupied the premier position. British Columbia followed with $\$ 2,282$, Ontario with $\$ 2,187$, Saskatchewan with $\$ 2,042$ and Alberta with $\$ 2,025$. The high figures shown for the Yukon and Northwest Territories in regard to average wages are due to the unusual conditions under which industry is carried on in these regions and are not representative. Statistics of the distribution of employees by provinces and industrial groups, together with average annual earnings, are given in Table 17.

## 17.-Total and Average Annual Salaries and Wages Paid in Manufacturing Industries, by Provinces and Industrial Groups, 1949

| Province andIndustrial Group | Annual Salaries |  |  |  | Annual Wages |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Salaried Employees |  | Total Salaries | AverageSalaries | WageEarners |  | Total Wages | $\begin{aligned} & \text { Average } \\ & \text { Wages } \end{aligned}$ |
|  | Male | Female |  |  | Male | Female |  |  |
| Pro | No. | No. | \$ | \$ | No. | No. | \$ | s |
| Newfoundland | 1,604 | 252 | 3,336,775 | 1,797 | 4,278 | 800 | 12,149,561 | 2,392 |
| Prince Edward |  | 101 | ${ }^{685}, 087$ | ${ }_{2}^{1,418}$ | 894 |  | 1,448,468 | 1,145 |
| New Brunsw | ${ }_{2,663}^{3,463}$ | ${ }_{901}^{99}$ | 7,959,966 | 2,233 | 16,229 | ${ }_{3,653}^{3,543}$ | 36,259,853 | 1,823 |
| Quebec | 51,880 | 20,166 | 202, 605,273 | 2,812 | 227,536 | 90,693 | 606,973,997 | 1,907 |
| Ontario | 73,926 | 33,941 | 322,626,810 | 2,990 | 351,955 | 97,368 | 982,917,624 | 2,187 |
| Manitob | 5,656 | 1,991 | 20,870,715 | 2,729 | 26,118 | 8.191 | 65, 217,665 | 1,900 |
| Saskatch | 2,241 | 796 | 6,333, 357 | 2,085 | 6,778 | 1,026 | 15,940,585 | 2.042 |
| Alberta. | 4,287 | 1,311 | ${ }^{12,937,715}$ | 2,311 | 17,727 | 3,100 | 42,177,839 | 2,025 |
| British Colum | 11,366 | 3,615 | 41,320,807 | 2,758 | 59,505 | 8,448 | 155,082,915 | 2,282 |
| Territories | 42 | 12 | 123,813 | 2,292 | 87 |  | 235,255 | 2,502 |
| Canada | 157,516 | 64,035 | 628,427,93 | 2,836 | 732,457 | 217,199 | 1,963,462,72 | 2,06 |
| Foods and bever | 23,933 | 9,557 | 84,349, | 2,518 | 102, | 34,189 | 248,1 |  |
| Tobacco and tobacco prod- |  |  |  |  |  |  |  |  |
| ucts... | ${ }^{951}$ | ${ }_{323}^{503}$ | $4,521,508$ | 3, ${ }^{2} 109$ | 3,410 | 5,822 | 17, 374,870 | ${ }^{1,882}$ |
| Leather produc | 2,990 | 1,230 | 12,799,466 | 3,033 | 18,037 | 12,643 | -34,498,995 | 1,528 |
| Textile products |  |  |  |  |  |  |  |  |
| clothing). | 6,649 | 3,409 | 32, 181,548 | 3,199 | 41,447 | 26, 268 | 123,985,006 | 1.830 |
| Clothing (textile and fur) | 9,662 | ${ }^{6,004}$ | 49,071,646 | 3,132 | 31,577 | 70, 509 | 157,441, | 1,542 |
| Wood products | 18,862 | ${ }^{2,825}$ | 41, 307, 827 | 1,904 | 94,698 | 5,247 | 183,594, 817 | 1,836 2,535 |
| Paper products.... | 9,077 | 3,573 | 46,537,336 | 3,678 | 55,201 | 8,620 | 161,811,285 | 2,535 |
| Printing: publishing allied industries. . |  | 8,791 | 55, 198,009 |  | 29,530 | 8,997 | 86, 291,975 | 2,239 |
| Iron and steel products. | 21,541 | 7,749 | ${ }^{90,648,050}$ | 3,094 | 127,501 | 6,831 | 322,579,503 | $\stackrel{2,401}{ }$ |
| Transportation equipment. | 11,884 | 3,567 | 50,643,361 | 3,277 | 86,154 | 3,145 | 220, 208,750 | ${ }_{2}^{2,465}$ |
| Non-ferrous metal products | 5,893 | 2,476 | 26,695,908 | 3,189 | 32,938 | 3,391 | 87,895,198 | 2,419 |
| Electrical apparatus and supplies. | 9,152 | 105 | ,637 | 2,989 | 31,076 | 11,583 | 97,641,500 | ,28 |
| Non-metallic mineral prod- | , 88 | 1,073 | 12,648,921 |  | 21,728 | 1,953 | 51,945,433 | ,193 |
| Products |  |  |  |  |  |  |  |  |
| Chemicals and |  |  |  |  |  |  |  | ,602 |
| ucts.......... | 9,404 | 110 | ,842, 240 | 2,882 | 21,561 | 5,253 | 58,848,422 | 2,194 |
| ing industries | 3,382 | 1,871 | 14,797,513 | 2,816 | 12,647 | 8,501 | 36,349,962 | 1,71 |

Average Annual Earnings in the Forty Leading Industries.-In 1949 there were 20 industries in which the average salary was $\$ 3,000$ or over, compared with 16 industries in this range in 1948. The rapidly changing pattern of remuneration in manufacturing is shown by the fact that in 1945 the highest average salary paid was $\$ 2,935$ reported by the brewing industry. The highest average salary in 1949 was $\$ 3,977$ received by office and supervisory employees in the pulp and paper industry. In the remaining 20 leading industries, 13 had average salaries of between $\$ 2,500$ and $\$ 3,000$ and seven were below $\$ 2,500$. The sawmill and butter and cheese industries, with $\$ 1,283$ and $\$ 1,800$, respectively, paid the lowest salaries in the forty leading industries.

The increase in average wages since 1945 paralleled that of salaries. There were 23 industries averaging over $\$ 2,000$ in 1949 compared with only four in 1945. In 1945 the highest average annual wage was $\$ 2,365$ paid by the motor-vehicle industry while in 1949 the highest was $\$ 2,851$ paid by the pulp and paper industry. The highest wages are usually paid by industries in which the proportion of skilled workers is high and the proportion of female workers low. There were seven industries in 1949 with average wages of $\$ 2,500$ or over and 16 in which the average ranged between $\$ 2,000$ and $\$ 2,500$. In the other 17 industries of the forty leading
industry group average wages were below $\$ 2,000$. This latter group includes industries made up of a large number of small establishments in which the proportion of female workers is high, such as men's factory clothing, women's factory clothing, hosiery and knitted goods, leather boots and shoes, fruit and vegetable preparations, and fish curing and packing.

## 18.-Annual Salaries and Wages Paid in the Forty Leading Industries, 1949, with Comparative Figures of Annual Average Salaries and Wages Paid in 1948

Nore.-Industries ranked according to the aggregate salaries and wages paid.

|  | Industry | Annual Salaries |  |  |  |  | Annual Wages |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Salaried Employees |  | Total Salaries | Average Salaries |  | WageEarners |  | Total Wages | $\begin{gathered} \hline \text { Average } \\ \text { Wages } \\ \hline \end{gathered}$ |  |
|  |  | Male | Female |  | 1949 | 1948 | Male | Female |  | 1949 | 1948 |
|  |  | No. | No. | 8 | 8 | \$ | No. | No. | \$ | \$ |  |
|  | 1 Pulp and p | 6,231 | 2,012 | 32,784,295 | 3,977 | 3,776 | 43,126 | 681 | 124,919,573 | 2,851 | 2,764 |
|  | 2 Sawmills. | 10,661 | 611 | 14,462,022 | 1,283 | 1,129 | 43,304 | 456 | 82,987,069 | 1,896 | 1,802 |
|  | 3 Primary iron and stee | 2,365 | 812 | 11, 472,895 | 3,611 | 3,262 | 25,570 | 350 | 71,485,334 | 2,75 | 2,561 |
|  | 4 Railway rolling-stock | 1,930 | 245 | 7,290,827 | 3,352 |  | 30,137 | 98 | 74,844,332 | 2,475 | 2,440 |
|  | 5 Motor-vehicles | 3,673 | 1,288 | 17,994,690 | 3,627 | 3,415 | 21,856 | 205 | 58,689,638 | 2,66 | 2,639 |
|  | 6 Printing and publishing | 7,471 | 4,184 | $27,876,533$ | 2,391 | 2,206 | 12,542 | 2,075 | 35,673,709 | 2,440 | 2,255 |
|  | $7 \begin{gathered}\text { Bread and other bakery } \\ \text { products.......... }\end{gathered}$ |  | 1,180 |  |  | ,910 |  | 6,536 |  |  |  |
|  | 8 Clothing, men | 2,62 | 1,628 | 13, 369,459 | 2,314 | 3,114 | 8,746 | 20,304 | 43, 974,024 | 513 |  |
|  | Clothing, women's factory | 2, | 65 | 9 | 3 , |  | 3 | 18,610 | 3 | 57 | 52 |
|  | 0 Non - ferrous metal smelting and refining |  | 502 |  |  |  |  | 56 |  |  |  |
|  | Furniture | 3,089 | 77 | 11,454,076 | 2,8 | , 612 | 20,887 | 1,978 | 42, 137, 109 | 1,842 | 1,710 |
|  | 12 Slaughterin packing. | 3 , | 1,13 |  | 3,079 | 2,923 | 13,353 | 2,687 | 83 | 2,377 | 2,222 |
|  | $3 \begin{gathered} \text { Machinery } \\ \text { trical... } \end{gathered}$ |  |  |  |  |  |  |  |  |  |  |
|  | 4 Cotton yarn and clo | 1,342 | 759 | 6,176,505 | 2,940 | , 067 | 14,443 | 8,634 | 43,187, 191 | 1,87 | ,766 |
|  | 5 Machinery, industri | 3,882 | 1,534 | 15,987,842 | 2,951 |  | 13,660 | 403 | 32,260,420 | 2,293 |  |
|  | 6 Rubber goods, including footwear.. | 3,27 | 1,323 |  |  | 2,800 | 11,976 | 4,156 | 34,498,995 | 2,138 | 2,108 |
|  | Printing and book ing $\qquad$ |  |  |  |  |  |  |  |  |  | 23 |
|  | Electrical apparatus and supplies, n.e.s. . |  | 510 |  |  |  |  |  |  |  | ,125 |
| 19 | 9 Castings, | 1,509 | 606 | 6,567 | 3,104 | 3,013 | 15,879 | 345 | 39,598,348 | 2,440 | ,326 |
|  | 0 Motor-vehicle par | I,913 | 834 | 9,053,648 | 3,295 | 3,200 | 12,953 | 2,198 | 36,608,954 | 2,416 | 2,244 |
| 22 | 2 But | 3,894 | 1,738 | 10,138,229 | 1,800 | 1,693 | 15,649 | 1,198 | 31,474,308 |  | 753 |
| 23 | 3 Sheet metal produ | 2,298 | 855 | 9,738,176 | 3,088 | 2,768 | 11,545 | 1,716 | 29,566,689 | 2,22 | 2,020 |
|  | 4 Footwear, leathe | 1,706 | 743 | 7,322,734 | 2,990 | 2,815 | 11,023 | 8,818 | 29,410,509 | 1,482 | 1,363 |
|  | 5 Synthetic textiles silk. |  |  |  |  |  | 9, |  |  | 1,962 | 1,764 |
|  |  |  |  | 807 |  | , 2 | 14, | 179 |  |  |  |
|  | 7 Shipbuildi | 1,233 | 328 | 5,081,423 | 3,255 | 2,904 | 10,897 | 104 | 25, 827,887 | 347 | 2,394 |
| 28 | 8 Aircraft and parts | 2,522 | 721 | 9,496,511 | 2,928 | 2,884 | 7,237 | 245 | 17,946,987 | 2,398 | 2,285 |
|  | Hardware, tools cutlery. | 1,539 | 785 | , | 2,907 | 2,770 | 8,280 | ,622 |  | 2,082 | 2,041 |
| 30 | Petroleum products. | 2,031 | 525 | 8,268,487 | 3,234 | 3,099 | 6,774 | 83 | 17,873,789 | 60 | 2,467 |
|  | 1 Boxes and bags, paper | 1,281 | 2 | 6,420,425 | 3,287 | 3,0 | 5,950 | 4,860 | 19,092,654 | 1,766 | 1,614 |
| 32 | Fruit and |  | 828 |  |  |  |  | ,019 |  |  | 384 |
|  | Knitted goods, o | 864 | 675 | 4,598,965 | 2,988 |  | 3,905 | 9,645 | 19, 155, 332 | 173 |  |
|  | 4 Breweries. | 1,250 | 392 | 6,137,157 | 3,737 |  | 6,830 | 180 | 17,324, 280 | 2,471 | 2,292 |
|  | $5 \begin{aligned} & \text { Brass a } \\ & \text { ucts. } \end{aligned}$ | 1,23 | 536 | , |  | 3,117 |  | 643 |  | 2,28 | 2,111 |
|  | Machiner office a |  |  |  |  |  | 797 | 916 | 17,526,919 | 2,272 |  |
| 37 | Hosiery. | 1,741 | 549 | 4,060,763 | 3,14 |  | 3,944 | 6,119 | 16,134, 235 | 1,603 |  |
|  | Heating an apparatus. | 1,103 |  |  |  | 2,588 |  | 213 |  | 2,138 | 2,107 |
|  |  | 1,649 | 360 | 3,393,699 | 3,363 | 3,241 | 5,112 | 3,915 | 15,638, 219 | 1,73 | 1,642 |
|  | Tobacco, cigars and cigarettes. | 737 | 471 | 706,313 | 3,068 | 2. | 657 | 5,164 | 322,068 | 1,959 | 1,775 |
|  | Totals, Forty Leading Industries.. | 104,096 | 38,683 | 408,251,870 | 2,859 | 2,667 | 531,162 | 138,516 | 1,429,997,384 | 2,135 | 2,0091 |
|  | Grand Totals, All Industries. | 157,516 | 64,035 | 628, |  |  |  |  |  |  | 0 |

${ }^{1}$ A verage salaries and wages paid in the forty leading industries in 1948; the list of leading industries in that year was not the same as the list for 1949.

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 to that of weekly or hourly earnings since the factors of numbers of weeks worked per year and number of hours worked per week enter into the picture.

The figures for the years 1940 to 1945 given in Table 19 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 as in such case it coincides for a great number of firms engaged in the same industry. The figures for 1946 to 1949 are based on returns received from establishments employing 15 persons or over; figures for 1946 and 1947 refer to the last week in November, whereas those for later years refer to the last week in October.

Average weekly earnings of male wage-earners for manufacturing as a whole amounted to $\$ 47 \cdot 33$ in 1949, an increase of $\$ 25 \cdot 10$ or 113 p.c. as compared with 1939. Average hourly earnings advanced from $46 \cdot 2$ cents in 1939 to $\$ 1 \cdot 07$ in 1949, an increase of 132 p.c. Annual average earnings at $\$ 2,291$ were 113 p.c. higher.

Female wage-earners received an average of $\$ 27 \cdot 18$ per week in 1949, an increase of $\$ 14 \cdot 40$ or 113 p.c. over 1939 . Hourly earnings at $68 \cdot 3$ cents were 141 p.c. higher, and annual average earnings at $\$ 1,315$ were 112 p.c. higher.

## 19.-Average Annual, Weekly and Hourly Earnings of Male and Female Wage-Earners Employed in Manufacturing Industries, 1940-49



## 19.-Average Annual, Weekly and Hourly Earnings of Male and Female Wage-Earners

 Employed in Manufacturing Industries, 1940-49-concluded| Year | Average Earnings |  |  | Hours Worked per Week |
| :---: | :---: | :---: | :---: | :---: |
|  | Annual | Weekly | Hourly |  |
| Female Wage-Earners- | \$ | \$ | cents | No. |
| 1940.................. | 655 | $13 \cdot 52$ | $28 \cdot 6$ | 47-3 |
| 1941. | 736 | $15 \cdot 05$ | $31 \cdot 6$ | $47 \cdot 6$ |
| 1942. | 854 | 17.41 | 37.1 | 46.9 |
| 1943. | 987 | $19 \cdot 33$ | $43 \cdot 1$ | $44 \cdot 8$ |
| 1944. | 1,051 | 20.89 | 47.9 | $43 \cdot 6$ |
| 1945. | 984 | 19.84 | 46.5 | $42 \cdot 7$ |
| 19461. | 943 | 20.08 | $50 \cdot 2$ | $40 \cdot 0$ |
| 19471. | 1,067 | 23.11 | 58.2 | 39.7 |
| 19481. | 1,233 | 25.91 | $65 \cdot 1$ | $39 \cdot 8$ |
| $19491 .$. | 1,315 | 27-18 | $68 \cdot 3$ | $39 \cdot 8$ |
| All Wage-Earners- |  |  |  |  |
| 1940............. | 1,084 | 22.35 | 44-6 | $50 \cdot 1$ |
| 1941.. | 1,220 | 24.95 | $49 \cdot 4$ | $50 \cdot 5$ |
| 1942....... | 1,383 | 28.18 | $56 \cdot 1$ | $50 \cdot 2$ |
| 1943.. | 1,525 | 29.87 | 61.2 | $48 \cdot 8$ |
| 1944. | 1,564 | 31.05 | $65 \cdot 4$ | $47 \cdot 5$ |
| 1945. | 1,538 | 30.98 | 66.9 | $46 \cdot 3$ |
| 19461. | 1,516 | $32 \cdot 38$ | $74 \cdot 1$ | $43 \cdot 7$ |
| 19471. | 1,713 | $37 \cdot 19$ | $85 \cdot 1$ | $43 \cdot 7$ |
| $1948{ }^{1}$ | 1,960 | 41.25 | $94 \cdot 6$ | $43 \cdot 6$ |
| 19491. | 2,067 | $42 \cdot 61$ | 98.4 | $43 \cdot 3$ |

${ }^{1}$ Based on weekly earnings and hours worked in the last week of November for 1946 and 1947 and of October for 1948 and 1949 by establishments employing 15 persons or over.

## 20.-Average Annual, Weekly and Hourly Earnings of Wage-Earners in the Manufacturing Industries, by Provinces and Industrial Groups, 1919

| Province or Industrial Group | Annual | Weekly | Hourly | Hours <br> Worked per Week |
| :---: | :---: | :---: | :---: | :---: |
| Province | \$ | \$ | cents | No. |
| Newfoundland. | 2,392 |  |  |  |
| Prince Edward Island | 1,145 | $29 \cdot 76$ $39 \cdot 56$ | $62 \cdot 4$ 88.9 | 47.7 44.5 |
| Nova Scotia. | 1,810 | $39 \cdot 56$ 38.64 | $88 \cdot 9$ $85 \cdot 1$ | $44 \cdot 5$ $45 \cdot 4$ |
| New Brunswick | 1,823 1,907 | $38 \cdot 64$ $39 \cdot 61$ | $85 \cdot 1$ 89.0 | $45 \cdot 4$ 44.5 |
| Quebec. | 1,907 2,187 | $39 \cdot 61$ $44 \cdot 34$ | $89 \cdot 0$ $103 \cdot 6$ | 44.5 42.8 |
| Manitoba | 1,900 | 41.06 | 94.6 | $43 \cdot 4$ |
| Saskatchewan. | 2,042 | $41 \cdot 34$ | 97.5 | $42 \cdot 4$ |
| Alberta. | 2,025 | $43 \cdot 80$ | $100 \cdot 7$ | 43.5 |
| British Columbia. | 2,282 | 47-36 | 118.1 | $40 \cdot 1$ |
| Yukon and Northwest Territories. | 2.502 | .. |  | .. |
| Canada. | 2,067 | 42.61 | 98.4 | 43.3 |
| Industrial Grour |  |  |  |  |
| Food and beverages. | 1,817 | 38.45 | 86.8 | 44-3 |
| Tobacco and tobacco products. | 1,882 | 38.63 | $88 \cdot 6$ | $43 \cdot 6$ |
| Rubber products........... | 2,138 | $43 \cdot 36$ | $102 \cdot 6$ | $42 \cdot 3$ |
| Leather products... | 1,528 | $30 \cdot 84$ | 76.9 | $40 \cdot 1$ |
| Textile products (except clothing). | 1,830 | 36.93 | 82.8 | $44 \cdot 6$ 39.2 |
| Clothing (textile and fur). | 1,542 | $30 \cdot 46$ 40.40 | 77.7 91.6 | $39 \cdot 2$ $44 \cdot 1$ |
| Wood products....... | 1,836 | $40 \cdot 40$ 49.74 | 91.6 105.6 | $44 \cdot 1$ $47 \cdot 1$ |
| Paper products..................... | 2,535 2,239 | $49 \cdot 74$ $47 \cdot 19$ | $105 \cdot 6$ $115 \cdot 1$ | $47 \cdot 1$ 41.0 |
| Printing, publishing and allied trades | 2,239 2,401 | 48.05 | $110 \cdot 2$ | $43 \cdot 6$ |
| Transportation equipment | 2,465 | $50 \cdot 54$ | $117 \cdot 8$ | $42 \cdot 9$ |
| Non-ferrous metal products. | 2,419 | 48.26 | 108.7 | $44 \cdot 4$ |
| Electrical apparatus and supplies. | 2,288 | $46 \cdot 10$ | 109.5 | $42 \cdot 1$ 46.0 |
| Non-metallic mineral products.. | 2,193 | $45 \cdot 22$ | $98 \cdot 3$ | 46.0 41.9 |
| Products of petroleum and coal. | 2,602 | $52 \cdot 54$ | 125.4 | 41.9 44.3 |
| Chemicals and allied products. | 2,194 1,718 | $43 \cdot 28$ $35 \cdot 14$ | 97.7 82.1 | 44.3 42.8 |
| Miscellaneous industries....... | 1,718 | $35 \cdot 14$ | $82 \cdot 1$ | 42.8 |

21.-Average Annual, Weekly and Hourly Earnings of Male and Female Wage-Earners in the Manufacturing Industries, by Provinces and Industrial Groups, 1949

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{2}{*}{Province or Industrial Group} \& \multicolumn{4}{|c|}{Male} \& \multicolumn{4}{|c|}{Female} <br>
\hline \& Annual \& Weekly \& Hourly \& Hours Worked per
Week Week \& Annual \& Weekly \& Hourly \& Hours per
Week <br>
\hline \& \$ \& \$ \& cents \& No. \& \$ \& \$ \& cents \& No. <br>
\hline \multicolumn{9}{|l|}{Province} <br>
\hline Newfoundland.................... \& \& \& \& \& \& \& \& <br>
\hline Prince Edward Island. ............. \& 1,323 \& 33.96 \& $70 \cdot 6$ \& 48.1 \& 718 \& 18.45 \& $39 \cdot 6$ \& 46.8 <br>
\hline New Brunswick \& 1,983 \& $42 \cdot 18$ \& 90.9 \& 44.4 \& 1,114 \& ${ }_{23} 9.71$ \& 57.4 \& 41.3 <br>
\hline Quebec. \& 2,171 \& $45 \cdot 19$ \& $97 \cdot 6$ \& $46 \cdot 3$ \& 1,246 \& 25.93 \& 64.5 \& $40 \cdot 2$ <br>
\hline Ontario. \& 2,405 \& $48 \cdot 88$ \& $111 \cdot 6$ \& 43.8 \& 1,400 \& 28.45 \& 72.2 \& 39.4 <br>
\hline Manitobs \& 2,114 \& $45 \cdot 39$ \& $102 \cdot 0$ \& 44.5 \& 1,222 \& 26.24 \& $66 \cdot 1$ \& $39 \cdot 7$ <br>
\hline Saskatchewan. \& 2,142 \& $43 \cdot 33$ \& $101 \cdot 0$ \& 42.9 \& 1,384 \& 27.99 \& $71 \cdot 4$ \& $39 \cdot 2$ <br>
\hline Alberta. \& 2,137 \& 46.01 \& 104.8 \& 43.9 \& 1,385 \& 29.83 \& $73 \cdot 3$ \& $40 \cdot 7$ <br>
\hline British Columbia. \& 2,410 \& $48 \cdot 82$ \& $123 \cdot 0$ \& $40 \cdot 5$ \& 1,381 \& 28.57 \& 76.8 \& 37.2 <br>
\hline Yukon and Northwest Territories.. \& .. \& . \& .. \& .. \& .. \& .. \& . \& . <br>
\hline \multirow[t]{2}{*}{Canada..................

Industrinl
Grout} \& 2,291 \& 47-33 \& 106.6 \& 44.4 \& 1,315 \& 27-18 \& 68.3 \& 39.8 <br>
\hline \& \& \& \& \& \& \& \& <br>
\hline Food and beverages.............. \& 2,046 \& 43.98 \& $95 \cdot 2$ \& 46.2 \& 1,140 \& 24.51 \& 62.2 \& 39.4 <br>
\hline Tobacco and tobacco products..... \& 2,258 \& 46.74 \& $102 \cdot 5$ \& $45 \cdot 6$ \& 1,662 \& $34 \cdot 42$ \& $80 \cdot 8$ \& $42 \cdot 6$ <br>
\hline Rubber products....... \& 2,353 \& 47-68 \& 111.4 \& 42.8 \& 1,520 \& $30 \cdot 80$ \& $75 \cdot 3$ \& $40 \cdot 9$ <br>
\hline Leather products.................. \& 1,807 \& 36.39 \& 88.1 \& 41.3 \& 1,131 \& $22 \cdot 77$ \& 59.3 \& $38 \cdot 4$ <br>
\hline Textile products (except clothing).. \& 2,068 \& $41 \cdot 67$ \& 89.8 \& $46 \cdot 4$ \& 1,458 \& $29 \cdot 39$ \& $70 \cdot 3$ \& 41.8 <br>
\hline Clothing (textile and fur).......... \& 2,170 \& $43 \cdot 31$ \& $104 \cdot 1$ \& $41 \cdot 6$ \& 1,261 \& $25 \cdot 17$ \& $65 \cdot 9$ \& 38.2 <br>
\hline Wood products. . . . . . . \& 1,869 \& $41 \cdot 20$ \& 93.0 \& $44 \cdot 3$ \& 1,256 \& $27 \cdot 69$ \& $68 \cdot 2$ \& $40 \cdot 6$ <br>
\hline Paper products. \& 2,721 \& $53 \cdot 31$ \& $111 \cdot 3$ \& 47.9 \& 1,350 \& 26.44 \& $63 \cdot 1$ \& 41.9 <br>

\hline Printing, publishing and allied trades. \& 2,550 \& \multirow[t]{2}{*}{$$
53 \cdot 59
$$} \& 128.2 \& \multirow[t]{2}{*}{41.8

43.7} \& 1,221 \& \multirow[t]{2}{*}{$25 \cdot 66$
31.96} \& $67 \cdot 0$ \& \multirow[t]{2}{*}{38.3
41.5} <br>
\hline Iron and steel products............. \& 2,445 \& \& $112 \cdot 0$ \& \& 1,597 \& \& 77.0 \& <br>
\hline Transportation equipment......... \& 2,494 \& 51.08 \& 118.8 \& 43.0 \& 1,706 \& 34.93 \& 88.2 \& $39 \cdot 6$ <br>
\hline Non-ferrous metal products....... \& 2,521 \& 50.26 \& \multirow[t]{2}{*}{$112 \cdot 7$
$117 \cdot 7$} \& $44 \cdot 6$ \& \multirow[t]{2}{*}{1,740
1,740} \& 28.63 \& 68.5 \& 41.8 <br>
\hline Electrical apparatus and supplies... \& 2,493 \& 50.38 \& \& 42.8 \& \& $35 \cdot 18$ \& $87 \cdot 3$ \& $40 \cdot 3$ <br>
\hline Non-metallic mineral products. \& 2,252 \& \multirow[t]{2}{*}{46.45

52.58} \& \multirow[t]{2}{*}{$$
\begin{aligned}
& 100 \cdot 1 \\
& 125 \cdot 5
\end{aligned}
$$} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 46.4 \\
& 41.9
\end{aligned}
$$

\]} \& \multirow[t]{2}{*}{\[

$$
\begin{aligned}
& 1,540 \\
& 1,435
\end{aligned}
$$
\]} \& \multirow[t]{2}{*}{31.10} \& 74.4 \& \multirow[t]{2}{*}{41.8} <br>

\hline Products of petroleum and coal. \& 2,613 \& \& \& \& \& \& \& <br>
\hline Chemical and allied products... \& 2,404 \& $47 \cdot 40$ \& $105 \cdot 1$ \& $45 \cdot 1$ \& 1,334 \& 26.32 \& 64.5 \& 40.8 <br>
\hline Miscellaneous industries........... \& 2,006 \& $41 \cdot 38$ \& 93.4 \& 44-2 \& 1,292 \& $26 \cdot 66$ \& 65.5 \& $40 \cdot 7$ <br>
\hline
\end{tabular}

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 for the last week in October for 1948 and 1949. 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.
22.-Average Annual, Weekly and Hourly Earnings of Male and Female Salary-Earners Employed in Manufacturing Industries, 1946-49

| Year | Average Earnings |  |  | Hours Worked per Week |
| :---: | :---: | :---: | :---: | :---: |
|  | Annual | Weekly | Hourly |  |
|  | \$ | \$ | cents | No. |
| Male Salary-Earners- |  |  |  |  |
| 1946... | . | 53.21 | 126.7 | 42.0 |
| 1947. | . | 60.21 | $146 \cdot 1$ | 41.2 |
| 1948. | 3,147 | 63.47 | $154 \cdot 4$ | 41.1 |
| 1949. | 3,317 | $65 \cdot 37$ | $160 \cdot 2$ | 40.8 |
| Female Salary-Earners- |  |  |  |  |
| 1946....................... | .. | 25.91 | $65 \cdot 6$ | 39.5 |
| 1947.... | $\cdots$ | 28.68 | 73.7 | 38.9 |
| 1948.... | 1,551 | 31.26 | $80 \cdot 5$ | $38 \cdot 8$ |
| 1949..... | 1,655 | $32 \cdot 62$ | $84 \cdot 5$ | 38.6 |
| All Salary-Earners- |  |  |  |  |
| 1946................. |  |  | 106.7 | $41 \cdot 1$ |
| 1947... | $\cdots$ | 49.78 | $123 \cdot 2$ | $40 \cdot 4$ |
| 1948..................... | 2,687 | $52 \cdot 91$ 54.85 | $131 \cdot 3$ 136.8 | $40 \cdot 3$ $40 \cdot 1$ |
| 1949.............. | 2,836 | $54 \cdot 85$ | $136 \cdot 8$ | $40 \cdot 1$ |

23.-Average Annual, Weekly and Hourly Earnings of Salary-Earners in the
Manufacturing Industries, by Provinces and Industrial Groups, 1949

| Province or Industrial Group | Annual | Weekly | Hourly | Hours Worked per Week |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | cents | No. |
| Province |  |  |  |  |
| Newfoundland. |  |  |  |  |
| Nova Scotia. | 2,179 | $50 \cdot 47$ | $124 \cdot 6$ | 40.5 |
| New Brunswick | 2,233 | $48 \cdot 42$ | 113.1 | $42 \cdot 8$ |
| Quebec. | 2,812 | $54 \cdot 66$ | $135 \cdot 3$ | $40 \cdot 4$ |
| Ontario.. | 2,990 | $55 \cdot 32$ | $139 \cdot 3$ | $39 \cdot 7$ |
| Manitoba..... | 2,729 2,085 | $52 \cdot 98$ $45 \cdot 18$ | $128 \cdot 3$ $107 \cdot 0$ | $41-3$ $42 \cdot 2$ |
| Alberta....... | 2,311 | 51.80 | $122 \cdot 7$ | 42.2 |
| British Columbia. | 2,758 | 57.91 | $143 \cdot 3$ | $40 \cdot 4$ |
| Yukon and Northwest Territories | .. | .. | . |  |
| Totals. | 2,836 | 54.85 | 136.8 | $40 \cdot 1$ |
| Industrlal Group |  |  |  |  |
| Food and beverages. | 2,518 | $52 \cdot 31$ | 126.9 | 41.2 |
| Tobacco and tobacco products | 3,109 | $54 \cdot 17$ | $135 \cdot 4$ | $40 \cdot 0$ |
| Rubber products...... | 2,974 | 53.70 | 137.0 | 39.2 41.5 |
| Leather products............... | 3,033 3,199 | $48 \cdot 95$ 53.69 | 117.9 130.9 | $41 \cdot 5$ 41.0 |
| Clothing (textile and fur)........ | 3,132 3,192 | 48.04 | 118.3 | $40 \cdot 6$ |
| Wood products......... | 1,905 | $54 \cdot 15$ | $127 \cdot 7$ | $42 \cdot 4$ |
| Paper products. | 3,679 | 65.57 | $164 \cdot 3$ | 39.9 |
| Printing, publishing and allied trades. | 2,368 | $46 \cdot 55$ | $120 \cdot 3$ | $38 \cdot 7$ |
| Iron and steel products............... | 3,095 | $55 \cdot 77$ | $140 \cdot 1$ | 39.8 41.5 |
| Transportation equipment.. | 3,277 | 62.04 | 149.5 | 41.5 |
| Non-ferrous metal products.. | 3,189 | 60.25 | 147.3 | 40.9 39.0 |
| Electrical apparatus and supplies. | 2,990 | $55 \cdot 15$ 53.94 | $141 \cdot 4$ 135 | $39 \cdot 0$ 39.9 |
| Non-metallic mineral products. | 2,837 3,100 | 53.94 61.40 | $135 \cdot 2$ 161.6 | 38.0 |
| Chemicals and allied products. | 2,883 | 54.89 | 141.8 | 38.7 |
| Miscellaneous industries........ | 2,179 | $50 \cdot 47$ | $124 \cdot 6$ | $40 \cdot 5$ |

## 24.-Average Annual, Weekly and Hourly Earnings of Male and Female Salary-Earners

 in the Manufacturing Industries, by Provinces and Industrial Groups, 1949| Province or Industrial Group | Male |  |  |  | Female |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual | Weekly | Hourly |  | Annual | Weekly | Hourly |  |
| Province | \$ | \$ | cents | No. | \$ | \$ | cents | No. |
| Newfoundland. | 2,455 | 59.45 | 145•3 | 40.9 | 1,169 | 28.29 | $71 \cdot 4$ | 39.6 |
| New Brunswic | 2,568 | 57.64 | 131.6 | 43.8 | 1,243 | 27.88 | 68.6 | ${ }_{40 \cdot 6}$ |
| Quebec. | 3,256 | 64-41 | $156 \cdot 7$ | 41.1 | 1,670 | 33.05 | $85 \cdot 2$ | 38.8 |
| Ontario. | 3,458 | 51.82 | 128.2 | $40 \cdot 4$ | 1,974 | 29-59 | 77.2 | $38 \cdot 3$ |
| Manitobs. | 3,150 | $62 \cdot 19$ | 148.4 | 41.9 | 1,534 | $30 \cdot 30$ | $75 \cdot 9$ | 39.9 |
| Saskatchewa | 2,364 | 53.23 | $124 \cdot 6$ | $42 \cdot 7$ | 1,300 | $29 \cdot 30$ | 71.3 | $41 \cdot 1$ |
| Alberta. | 2,610 | 60.06 | $140 \cdot 3$ | $42 \cdot 8$ | 1,334 | 30.72 | $75 \cdot 6$ | $40 \cdot 6$ |
| British Columbia | 3,133 | 66.92 | $164 \cdot 4$ | 40.7 | 1,579 | 33.73 | $85 \cdot 2$ | $39 \cdot 6$ |
| Yukon and Northwest Territories.. | .. | .. | .. | .. | .. | .. | .. | .. |
| Totals | 3,317 | 65.37 | $160 \cdot 2$ | 49.8 | 1,655 | 32.62 | $84 \cdot 5$ | 38.6 |
| Industrial Group |  |  |  |  |  |  |  |  |
| Food and beverages | 2,930 | 62.27 | $147 \cdot 7$ | $42 \cdot 1$ | 1,490 | $31 \cdot 64$ | $80 \cdot 3$ | $39 \cdot 4$ |
| Tobacco and tobacco products | 3,667 | 65.26 | $161 \cdot 1$ | 40.5 | 2,057 | 36.63 | $93 \cdot 4$ | $39 \cdot 2$ |
| Rubber products. . | 3,491 | 63.53 | $160 \cdot 0$ | $39 \cdot 7$ | 1,697 | $30 \cdot 90$ | $80 \cdot 9$ | 38.2 |
| Leather products. | 3,533 | 57.94 | 136.0 | $42 \cdot 6$ | 1,819 | $29 \cdot 86$ | 76.2 | $39 \cdot 2$ |
| Textile products (except clothing).. | 3,884 | $65 \cdot 47$ | 156.2 | 41.9 | 1,864 | 31.46 | 80.2 | $39 \cdot 2$ |
| Clothing (textile and fur). | 3,817 | 60.25 | 144.5 | 41.7 | 2,031 | 32.08 | 82.0 | $39 \cdot 1$ |
| Wood products. | 2,038 | $62 \cdot 56$ | 143.8 | $43 \cdot 5$ | 1,015 | $31 \cdot 14$ | 79.0 | 39.4 |
| Paper products. | 4,354 | 77-41 | $191 \cdot 6$ | $40 \cdot 4$ | 1,964 | 34.88 | 90.8 | $38 \cdot 4$ |
| Printing, publishing and allied trades. | 2,879 | 57-12 | $145 \cdot 7$ | 39.2 | 1,526 | 30-30 | $80 \cdot 1$ | $37 \cdot 8$ |
| Iron and steel products. | 3,574 | $65 \cdot 17$ | 161.7 | $40 \cdot 3$ | 1,762 | $32 \cdot 13$ | 83.7 | 38.4 |
| Transportation equipment | 3,713 | 71.01 | 169.5 | $41 \cdot 9$ | 1,827 | 34.95 | $87 \cdot 1$ | $40 \cdot 1$ |
| Non-ferrous metal products.. | 3,776 | 71.43 | $170 \cdot 9$ | 41.8 | 1,794 | 33-95 | 87.5 | 38.8 |
| Electrical apparatus and supplies. | 3,489 | $64 \cdot 32$ | 163-6 | $39 \cdot 3$ | 1,877 | 34.58 | $90 \cdot 3$ | 38.3 |
| Non-metallic mineral products. | 3,218 | 62.87 | $154 \cdot 1$ | $40 \cdot 8$ | 1,635 | 31.96 | 84.5 | 37.8 |
| Products of petroleum and coal | 3,490 | 68.49 | $177 \cdot 4$ | 38.6 | 1,769 | 34.70 | $96 \cdot 1$ | 36.1 |
| Chemicals and allied products. | 3,481 | $67 \cdot 30$ | $171 \cdot 7$ | $39 \cdot 2$ | 1,782 | $34 \cdot 46$ | $91 \cdot 1$ | 37.8 |
| Miscellaneous industries........ | 3,435 | $63 \cdot 44$ | $154 \cdot 3$ | $41 \cdot 1$ | 1,700 | 31.43 | $83 \cdot 6$ | $37 \cdot 6$ |

Real Earnings of Employees.-When the index number representing the average yearly earnings is divided by the index number of the cost of living, on the same base, a measure of 'real' wages is obtained. Index numbers for 1940 to 1949 are given in Table 25.

## 25.-Average Yearly Earnings, and Index Numbers of Earnings, Cost of Living and

 Real Wages of Wage-Earners in Manufacturing Industries, 1910-19Notz.-Figures for 1931-39 are given at p. 560 of the 1947 Year Book.

| Year | Wages Paid | Average WageEarners | Average Yearly Earnings | Index Numbers ( $1935-39=100$ ) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Average Yearly Earnings | Cost of Living | Real Value of Average Yearly Earnings |
|  | \$ | No. | \$ |  |  |  |
| 1940. | 679,273,104 | 626,484 | 1,084 | 116.3 | $105 \cdot 6$ | $110 \cdot 1$ |
| 1941. | 978,525,782 | 802,234 | 1,220 | $130 \cdot 9$ | 111.7 | $117 \cdot 2$ |
| 1942. | 1,347,934,049 | 974,904 | 1,383 | 148.4 | 117.0 | 126.8 |
| 1943. | 1,598,434,879 | 1,047,873 | 1,525 | $163 \cdot 6$ | 118.4 | $138 \cdot 2$ |
| 1944. | 1,611,555,776 | 1,030,324 | 1,564 | 167.8 | 118.9 | $141 \cdot 1$ |
| 1945. | $1,427,915,830$ $1,329,811,478$ | 928,665 | 1,538 | $165 \cdot 0$ | 119.5 | $138 \cdot 1$ |
| 1947 | 1,611,232,166 | 940,650 | 1,713 | 183.8 | $123 \cdot 6$ $135 \cdot 5$ | $131 \cdot 6$ $135 \cdot 6$ |
| 1948 | 1,876,773,231 | 957,491 | 1,960 | $210 \cdot 3$ | 155.0 | $135 \cdot 7$ |
| 1949.. | 1,963,462,720 | 949,656 | 2,068 | 221.9 | 160.8 | $138 \cdot 0$ |

Percentages of Salaries and Wages to Net Value of Products.-Table 26 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 all other overhead charges that ordinarily must be met. The percentage 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 216 p.c. during the period 1924-49 while wage-earners increased 127 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.
26.-Percentages of Salaries and Wages Paid to the Total Net Values of Manufacturing Production, 1940-49

| Year | Value Added <br> 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. |
| $1940{ }^{\circ}$. | 1,942,471, 238 | 241,599,761 | 679,273, 104 | 12.0 | 35.0 | 47.0 |
| 1941.. | 2,605,119,788 | 286,336,861 | 978,525,782 | 11.0 | $37 \cdot 6$ | $48 \cdot 6$ |
| 1942.. | 3,309,973,758 | 334, 870,793 | 1,347,934,049 | $10 \cdot 1$ | $40 \cdot 7$ | $50 \cdot 8$ |
| 1943.. | 3,816,413,541 | 388, 857,505 | 1,598,434, 879 | $10 \cdot 2$ | $42 \cdot 0$ | $52 \cdot 2$ 50.6 |
| 1944. | $4,015,776,010$ $3,564,315,899$ | $418,065,594$ $417,857,619$ | $1,611,555,776$ $1,427,915,830$ | $10 \cdot 4$ 11.7 | $40 \cdot 2$ $40 \cdot 1$ | 50.6 51.8 |
| 1946. | 3,467,004,980 | 410,875,776 | 1,329,811,478 | 11.8 | $38 \cdot 4$ | $50 \cdot 2$ |
| 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 | $48 \cdot 6$ |

${ }^{1}$ Equivalent to "net value of products'; see footnote 1, Table 1, p. 603.

## Subsection 2.-Capital, Repair and Maintenance Expenditure

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 $\$ 6,317,000,000$, 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:-

|  | Year | Amount | $\begin{gathered} \text { Average } \\ \text { per } \\ \text { Employee } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
|  |  | \$ | \$ |
| 1939. |  | 2,168,900,000 | 3,296 |
| 1943. |  | 3,002,900,000 | 2,420 |
| 1948. |  | 4,573,300,000 | 3,956 |
| 1949. |  | 4,921,500,000 | 4,202 |

Between 1939 and 1943 there was a decrease of $\$ 876$ in the value of fixed assets per employee, due 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 $\$ 906$ in the value of buildings and equipment per employee between 1939 and 1949.

Of the total capital expenditure by manufacturers in 1949 amounting to $\$ 535,800,000,17 \cdot 2$ p.c. was reported by the paper products group of industries, 16.5 p.c. by the food group, 11.1 p.c. by iron and steel, 8.0 p.c. by chemicals, 6.9 p.c. by the textile industries (except clothing), $6 \cdot 1$ p.c. by non-ferrous metal products, $5 \cdot 7$ p.c. by wood products, $5 \cdot 6$ p.c. by products of petroleum and coal, $4 \cdot 6$ p.c. by transportation equipment, $4 \cdot 2$ p.c. by printing, publishing and allied trades, and $4 \cdot 1$ p.c. by non-metallic mineral products.

> 27.- Capital, Repair and Maintenance Expenditure by the Manufacturing Industries, by Provinces and Industrial Groups, 1949, with Totals for 1944-49

| Year and Province | Capital Expenditure |  |  | Repair and <br> Maintenance Expenditure |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Construction | $\left\lvert\, \begin{aligned} & \text { Machinery } \\ & \text { and } \\ & \text { Equipment } \end{aligned}\right.$ | Total | Construction | Machinery and Equipment | Total |
|  | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| 1944. | $61 \cdot 3$ | 150.11 | $211 \cdot 4$ | $60 \cdot 7$ | $173 \cdot 5$ | $234 \cdot 2$ |
| 1945. | 75.9 | 204-21 | $280 \cdot 1$ | $63 \cdot 1$ | $170 \cdot 6$ | $233 \cdot 7$ |
| 1946. | $132 \cdot 2$ | $205 \cdot 0$ | $337 \cdot 2$ | 56.8 | 164-3 | $221 \cdot 1$ |
| 1947. | $184 \cdot 7$ | $343 \cdot 2$ | 527.9 | $62 \cdot 4$ | $210 \cdot 7$ | $273 \cdot 1$ |
| 1948. | $184 \cdot 8$ | $394 \cdot 2$ | $579 \cdot 0$ | 78.8 | 253.8 | $332 \cdot 8$ |
| 1949 |  |  |  |  |  |  |
| Province |  |  |  |  |  |  |
| Newfoundland. | $2 \cdot 3$ | $6 \cdot 0$ | $8 \cdot 3$ | 1.5 | $3 \cdot 6$ | $5 \cdot 1$ |
| Prince Edward Island... | 0.1 | $0 \cdot 2$ | $0 \cdot 3$ | 0.1 | $0 \cdot 1$ | $0 \cdot 2$ |
| Nova Scotia.. | $3 \cdot 4$ | $5 \cdot 5$ | $8 \cdot 9$ | 2.7 | $7 \cdot 5$ | $10 \cdot 2$ |
| New Brunswick | $2 \cdot 6$ | 10.0 | $12 \cdot 6$ | $1 \cdot 2$ | 6.5 | $7 \cdot 7$ |
| Quebec.. | $50 \cdot 4$ | 113.8 | $164 \cdot 2$ | 19.1 | $80 \cdot 6$ | 99.7 |
| Ontario. | $63 \cdot 1$ | $177 \cdot 1$ | $240 \cdot 2$ | 30.0 | 127.3 | 157.3 |
| Manitoba..... | $3 \cdot 6$ | 9.9 | 13.5 | $2 \cdot 3$ | $6 \cdot 5$ | 8.8 |
| Saskatchewan. | $3 \cdot 5$ | $7 \cdot 0$ | 10.5 | 0.6 | $2 \cdot 4$ | $3 \cdot 0$ |
| Alberta........ | $4 \cdot 4$ | $8 \cdot 5$ | $12 \cdot 9$ | $1 \cdot 6$ | $6 \cdot 1$ | $7 \cdot 7$ |
| British Columbia | 23.2 | 41.2 | 64.4 | $7 \cdot 6$ | $26 \cdot 6$ | $34 \cdot 2$ |
| Totals, 1949 | 156.6 | 379.2 | 535.8 | 66.7 | 267.2 | 333.9 |

[^200]
## 27.-Capital, Repair and Maintenance Expenditure by the Manufacturing Industries, by Provinces and Industrial Groups, 1949, with Totals for 1944-49concluded.

| Year and <br> Industrial Group | Capital Expenditure |  |  | Repair and Maintenance Expenditures |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Construction | $\begin{aligned} & \text { Machinery } \\ & \text { and } \\ & \text { Equipment } \end{aligned}$ | Total | Construction | Machinery and <br> Equipment | Total |
| 1949-concluded | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| Industrlal Group |  |  |  |  |  |  |
| Food and beverages........... | 27.7 | 60.8 | 88.5 | $10 \cdot 4$ | $30 \cdot 7$ | $41 \cdot 1$ |
| Tobacco and tobacco products.. | 0.3 | $2 \cdot 0$ | $2 \cdot 3$ | $0 \cdot 4$ | $1 \cdot 3$ | 1.7 |
| Rubber products................ | 1.7 | $5 \cdot 6$ | $7 \cdot 3$ | $0 \cdot 6$ | $4 \cdot 4$ | $5 \cdot 0$ |
| Leather products .............. | 0.6 7.0 | 2.5 29.9 | 3.1 36.9 | 0.7 | $\stackrel{2 \cdot 2}{14}$ | 2.9 |
| Clothing (textile and fur)....... | 7.0 3.0 | $12 \cdot 7$ | 36.9 15.7 | 3.6 1.9 | 14.9 4.9 | 18.5 6.8 |
| Wood products................... | $7 \cdot 5$ | $22 \cdot 9$ | 30.4 | $5 \cdot 7$ | 18.2 | 23.9 |
| Paper products. ......... | 26.8 | $65 \cdot 2$ | $92 \cdot 0$ | $8 \cdot 7$ | $51 \cdot 1$ | 59.8 |
| Printing, publishing and allied trades. | $6 \cdot 3$ | 16.4 | 22.7 | $1 \cdot 4$ | $3 \cdot 9$ | $5 \cdot 3$ |
| Iron and steel products.......... | $14 \cdot 6$ | 44.9 | 59.5 | $12 \cdot 4$ | 38.9 | $51 \cdot 3$ |
| Transportation equipment...... | 6.7 | $18 \cdot 2$ | $24 \cdot 9$ | $5 \cdot 3$ | $20 \cdot 2$ | 25.5 |
| Non-ferrous metal products..... | $10 \cdot 4$ | $22 \cdot 0$ | $32 \cdot 4$ | $4 \cdot 4$ | $22 \cdot 3$ | 26.7 |
| Electrical apparatus and supplies. | 4.8 | $14 \cdot 1$ | 18.9 | $2 \cdot 0$ | $9 \cdot 4$ | 11.4 |
| Non-metallic mineral products.. | 6.9 | $15 \cdot 2$ | $22 \cdot 1$ | 1.5 | $14 \cdot 3$ | $15 \cdot 8$ |
| Products of petroleum and coal.. | 18.1 | $11 \cdot 6$ | 29.7 | $3 \cdot 0$ | 11.0 | $14 \cdot 0$ |
| Chemicals and allied products... | 11.9 | $30 \cdot 9$ | $42 \cdot 8$ | $3 \cdot 9$ | $17 \cdot 3$ | 21.2 |
| Miscellaneous................... | $2 \cdot 3$ | $4 \cdot 3$ | $6 \cdot 6$ | 0.8 | $2 \cdot 2$ | $3 \cdot 0$ |

## Subsection 3.-Size of Manufacturing Establishments

The size of the 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 to 1,376 plants with an output of about 75 p.c. of the total value of manufactures. In 1946, with the decline in production of the huge war plants, the manufactures of establishments, with a production 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 production to the total was 72 p.c. As a result of increased prices and expansion in the physical volume of production in the years 1947, 1948 and 1949 , establishments, with a production of $\$ 1,000,000$, or over, increased to 1,926 and their contribution to the total output rose to 74 p.c.
28.-Manufacturing Establishments and Total and Average Production, classified by Value of Products Groups, 1929, 1939, 1944 and 1949

${ }^{1}$ Includes central electric stations and dyeing, cleaning and laundry establishments.
${ }^{2}$ Exclusive of the Yukon and Northwest Territories.

Size as Measured by Number of Employees.-In 1929, establishments employing 501 persons or over 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 persons or over. 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 500 hands or over. 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 peacetime production, the larger establishments declined in size so that by 1949 only 62 establishments employed over 1,500 persons. The largest plant employed over 13,000 persons, one other employed over 8,000 and six employed between 6,000 and 8,000 persons.

## 29.-Manufacturing Establishments classified by Number of Employees and by Provinces, 1949

| Province or Territory | $\begin{gathered} \text { Up } \\ \text { to } \\ 500 \\ \text { Em- } \\ \text { ployees } \end{gathered}$ | $\begin{gathered} 500 \\ \text { to } \\ 799 \\ \text { Em- } \\ \text { ployees } \end{gathered}$ | $\begin{gathered} 800 \\ \text { to } \\ 999 \\ \mathrm{Em}- \\ \text { ployees } \end{gathered}$ | $\begin{gathered} 1,000 \\ \text { to } \\ 1,499 \\ \text { Em- } \\ \text { ployees } \end{gathered}$ | $\begin{gathered} 1,500 \\ \text { or } \\ \text { over } \\ \text { Em- } \\ \text { ployees } \end{gathered}$ | $\begin{gathered} \text { Total } \\ \text { Em- } \\ \text { ployees } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Newioundland. | 791 | - | - | 1 | 1 | 793 |
| Prince Edward Island | 251 | - | - | - | - | 251 |
| Nova Scotia. | 1,472 | 2 | 2 | 1 | 3 | 1,480 |
| New Brunswick | 1,052 | 6 | - | 1 | 1 | 1,060 |
| Quebec.. | 11,459 | 58 | 21 | 22 | 19 | 11,579 |
| Ontario.. | 12,777 | 88 | 21 | 31 | 34 | 12,951 |
| Manitoba...... | 1,514 | 2 | - | 2 | 2 | 1,520 |
| Saskatchewan. | 962 | - | - | - | - | 962 |
| Alberta........... | 1,681 | 3 | - | 1 |  | 1,685 |
| British Columbia............ | 1,473 18 | 13 | 3 | 2 | 2 | $\begin{array}{r}1,689 \\ 3,49 \\ \hline\end{array}$ |
| Canada. | 35,450 | 172 | 47 | 61 | 62 | 35,792 |

30.-Establishments and Employees in Manufactures, classified by Number of
Employees per Establishment, 1929, 1939, 1944 and 1949

${ }^{1}$ Includes central electric stations and dyeing, cleaning and laundry establishments.
${ }^{2}$ Exclusive of the Yukon and Northwest Territories.
that are not located at a plant.
Size of Establishment in Leading Industries. - Table 31 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, rubber goods, pulp and paper, primary iron and steel and agricultural implements and machinery. On the other
hand, the degree of concentration is low in such industries as fruit and vegetable preparations, bread and other bakery products, sawmills, furniture, butter and cheese, women's factory clothing, stock and poultry feeds and miscellaneous foods.
31.-Percentage Importance of Establishments, each Employing 200 or more Persons in the Leading Industries, 1949

|  | Industry | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { Such } \\ & \text { Establish- } \\ & \text { ments } \end{aligned}$ | Percentage of Total Number in the Industry | Percentage of Total Production in the Industry |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Pulp and paper. | 68 | $55 \cdot 3$ | $93 \cdot 0$ |
|  | Slaughtering and meat packing. | 28 | $17 \cdot 8$ | $75 \cdot 1$ |
|  | Non-ferrous metal smelting and refining. | 11 | 68.7 | 96.4 |
| ${ }_{4}^{4}$ | Motor-vehicles......................... | 7 | $46 \cdot 7$ | $97 \cdot 4$ |
| 5 | Petroleum products. | 13 | $27 \cdot 7$ | $79 \cdot 5$ |
| 7 | Sawmills....... | 22 | 0.3 1.1 | $25 \cdot 8$ 19 |
| 8 | Primary iron and steel. | 28 | 51.0 | $92 \cdot 7$ |
| 9 | Railway and rolling-stock equipment. | 24 | 61.5 | $96 \cdot 3$ |
|  | Flour mills... | 9 | 6.8 | $52 \cdot 7$ |
|  | Clothing, men's factory | 29 | $5 \cdot 1$ | $35 \cdot 6$ |
|  | Cotton yarn and cloth.. | 30 | 56.6 | $95 \cdot 0$ |
|  | Bread and other bakery products. | 20 | 0.7 | 25.9 |
|  | Clothing, women's factory....... | 8 | 0.9 | $7 \cdot 6$ |
|  | Rubber goods, including footwear........ | 21 | $33 \cdot 9$ | 93.9 |
|  | Agricultural implements and machinery. | 10 | $12 \cdot 7$ | $91 \cdot 2$ |
|  | Motor-vehicle parts.................. | 21 | 14.0 | 76.8 |
|  | Printing and publishing....... | 27 | $3 \cdot 4$ | $62 \cdot 5$ |
|  | Miscellaneous electrical products.. | 15 | $10 \cdot 3$ | $80 \cdot 3$ |
|  | Miscellaneous foods............. | 1 | $0 \cdot 3$ | 1 |
| 21 | Machinery, heavy electrical. | 14 | $30 \cdot 4$ | 88.7 |
| 22 | Furniture................. | 16 | $1 \cdot 3$ | 19.1 |
| 23 | Sheet metal products. | 25 | $9 \cdot 1$ | $66 \cdot 2$ |
|  | Feeds, stock and poultry, prepared | i | $0 \cdot 2$ | 1 |
| 25 | Fruit and vegetable preparations.. | 4 | 0.8 | 26.2 |

${ }^{1}$ Information cannot be published.

## PART II.-PROVINCIAL AND LOGAL 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 1949 amounted to $\$ 9,892,301,957$ or 79 p.c. of the gross value of manufactured products.

Table 1 shows the outstanding predominance of these two Provinces in each industrial group. In 1949, Quebec led in the manufacture of tobacco and tobacco products, textiles (except clothing), clothing (textile and fur), and paper products. In each of the other groups, Ontario had the greater production. In the production of wood products, British Columbia with 34 p.c. held the dominant position, outranking both Ontario and Quebec which accounted for 28 and 23 p.c., respectively, of total production. In each of the other industrial groups Ontario and Quebec led by a wide margin.

## 1.-Summary Statistics of Manufactures of Each Province, classifled by Industrial Groups, 1949

| Province and Industrial Group | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net Value of Products | Gross <br> Value of <br> Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | \$ |
| Newfoundland |  |  |  |  |  |  |
| Food and beverages ${ }^{1}$ | 31 | 929 | 1,587,495 | 5,483,199 | 4,070,560 | 9,774,601 |
| Textile products (except clothing) | 5 | 99 | 154,232 | 546,378 | 313,760- | 879,803 |
| Clothing (textile and fur). | , | 415 | 399,554 | 693,952 | 471,758 | 1,177,879 |
| Wood products. | 681 | 1,474 | 1,135,168 | 2,359,051 | 2,066,774 | 4,513,578 |
| Paper products. . . . . . . . . . . . . . . | 3 | 3,065 | 10,490,747 | 20,005,335 | 23,211,934 | 45, 839,080 |
| Printing, publishing and allied industries. | 30 | 399 | 801,006 | 350,646 | 1,294, 209 | 1,674,414 |
| Iron and steel products.............. | , | 77 | 143,490 | 95,256 | 189,369 | 1,291,566 |
| Transportation equipment | 1 | 41 | 68,496 | 65,770 | 53,781 | 122,582 |
| Non-metallic mineral products | 11 | 107 | 162,672 | 231,599 | 309,974 | 574,737 |
| Chemicals and allied products...... | 8 | 95 | 186,636 | 627,873 | 313,132 | 953,020 |
| Miscellaneous manufacturing industries. | 3 | 48 | 60,952 | 51,968 | 44,947 | 7,182 |
| All other groups ${ }^{2}$................... | 4 | 185 | 295,888 | 717,146 | 578,578 | 1,365,840 |
| Totals, Newfoundlan | 793 | 6,934 | 15,486,336 | 31,228,173 | 32,918,776 | 67,264,282 |
| Prince Edward Island |  |  |  |  |  |  |
| Food and beverages | 126 | 1,060 | 1,236,906 | 10,380,676 | 2,477,693 | 13,044,094 |
| Wood products...... | 95 | 256 | 211,715 | 518,322 | 428,094 | 963,272 |
| Printing, publishing and allied industries. | 10 | 161 | 265, 784 | 123,207 | 397,467 | 531,274 |
| Iron and steel products | 6 | 118 | 181,243 | 203,914 | 216,216 | 438,010 |
| Transportation equipm | 4. | 6 | 2,400 | 2,585 | 2,858 | 5,980 |
| All other groups ${ }^{3}$. | 10 | 146 | 235,507 | 2,308,440 | 815,992 | 3,140,570 |
| Totals, Prince Edward Island... | 251 | 1,747 | 2,133,555 | 13,537,144 | 4,338,320 | 18,123,200 |
| Nova Scotia |  |  |  |  |  |  |
| Food and beverages | 404 | 7,620 | 10,752,486 | 41,160,557 | 26,040,284 | 68,453,689 |
| Leather products. | 6 | 105 | 137,142 | 229,370 | 254,502 | 5 487,227 |
| Textile products (except clothing) | 10 | -667 | 1,201, 014 | $2,975,645$ <br> 4,347 | 2,396,100 | 5,509,288 |
| Wood products..... | 742 | 4,550 | 5,538,173 | 12,793,647 | 10,028,295 | 23,158,567 |
| Paper products | 7 | 1,187 | 3,079,082 | 5,242,61¢ | 7,648,191 | 14, 193,958 |
| Printing, publishing and allied industries. | 116 | 1,329 | 2,366,026 | 1,814,509 | 4,503,126 | 6,399,265 |
| Iron and steel products. | 52 | 6,575 | 16,429,528 | 23, 114,779 | 22,304, 017 | 48,452,593 |
| Transportation equipment | 77 | 3,698 | $8,123,148$ | 13, 304, 041 | 12,845,950 | 26,667,492 |
| Non-metallic mineral products | 25 | 605 | 1,113,225 | 751,192 | 2,212,825 | 3,414,368 |
| Products of petroleum and coal | 3 | 1,023 | 3,034,511 | 27,038,300 | 7,949,780 | 37,049,404 |
| Chemicals and allied products | 15 | 313 | 693,564 | 3,008,694 | 2, 363,514 | 5,502,082 |
| Miscellaneous ${ }^{4}$ | 8 | 88 | 150,732 | 61,156 | 151,580 | 226,898 |
| Totals, Nova Scotia | 1,480 | 29,311 | 54,686,577 | 135,841,899 | 102,294,298 | 247,592,389 |
| New Brunswick |  |  |  |  |  |  |
| Food and beverages | 330 | 6,821 | 9,730,471 | 64,450,718 | 23,546,782 | 89,641,122 |
| Leather products. | 11 | -320 | 468,622 | 1,029,309 | 5 870,744 | 1,916,069 |
| Textile products (except clothing) | 13 | 1,709 | 3,448,759 | 5,281,981 | 5,119,271 | 10,643,167 |
| Clothing (textile and fur) | 535 | + 277 | $\begin{array}{r}\text { 7, } 378,030 \\ \hline 0837\end{array}$ | 17, 7249,820 | 11,677,426 | 29,737, ${ }^{1,176}$ |
| Wood products. | 535 13 | 4,878 <br> 3,569 | $7,083,537$ $10,305,617$ | $17,724,080$ <br> $27,036,167$ | $11,677,426$ <br> $28,669,520$ | $29,737,730$ $60,791,031$ |
| Printing, publishing and allied industries | 65 | r,569 781 | 1,458,230 | $\begin{array}{r}1,007,214 \\ \hline\end{array}$ | 2,868,285 | 3,936,327 |
| Iron and steel products........ | 31 | 1,341 | 2,680,410 | 3,977,747 | 4,933,764 | 9,086,486 |
| Transportation equipment | 12 | 2,281 | 5,718,291 | 4,739,344 | $6,168,849$ | 11,199,442 |
| Non-metallic mineral products | 24 | ${ }^{433}$ | 792,907 | 1,097,958 | 2,021,907 | $3,564,408$ $4,520,183$ |
| Chemicals and allied products. | 7 13 | 145 891 | 353,743 $1,801,202$ | $3,445,129$ $1,444,786$ | $1,011,250$ $3,716,578$ | $4,520,183$ $5,293,275$ |
| Miscellaneous ${ }^{5}$. | 13 | 891 | 1,801,202 | 1,444,786 | 3,716,578 | 5,293,275 |
| Totals, New Brunswick | 1,060 | 23,446 | 44,219,819 | 131,804,253 | 91,187,375 | 231,506,191 |

For footnotes, see end of table, p. 644.

## 1.-Summary Statistics of Manufactures of Each Province, classified by Industrial Groups, 1949-continued

| Province and Industrial Group | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quebec | No. | No. | \$ | \$ | \$ | \$ |
| Food and beverages. | 2,766 | 41,305 | 77,768,234 | 489, 374, 625 | 204, 840,084 | 704,637,909 |
| Tobacco and tobacco | 14 | 8,721 | 18,087, 275 | 58,170,678 | 50,280,659 | 108,814,975 |
| Rubber products. | 24 | 6,130 | 12,943,676 | 13,819,655 | 18,570,906 | 33, 058,841 |
| Leather produ | 390 | 18,509 | 29,085,375 | 50,071,138 | 43, 817,637 | 94,456,056 |
| Textile products (except | 389 | 43,761 | 86,710,721 | 181,760,370 | 159,995,551 | 348,491,556 |
| Clothing (textile and fur | 1,719 | 65,262 | 111,664,749 | 208,954, 022 | 200, 067, 810 | 410,747, 691 |
| Wood products. | 3,256 | 32,184 | 51,653,676 | 104, 364,200 | 86,425,725 | 193, 120,347 |
| Paper products | 183 | 30,833 | 82,421,877 | 203,384,629 | 218,536,513 | 454,556,073 |
| Printing, publishing and allied industries | 1,020 | 16,231 | 37,327,057 | 33,731,460 | 67,174,172 | 101,634, 243 |
| Iron and steel p | 528 | 35,541 | 82,866,039 | 104, 037, 123 | 156,064, 609 | 266, 236,243 |
| Transportation equipme | 108 | 27,271 | 69,183, 380 | 102,037, 206 | 98, 203,364 | 203,662,323 |
| Non-ferrous metal products | 164 | 14,714 | 36,559,662 | 194,219, 295 | 98,403,326 | 313,321,567 |
| Electrical apparatus and suppl | 74 | 15,841 | $38,272,660$ | 46,573,067 | 69, 933,425 | 117,548,820 |
| Non-metallic mineral products | 276 | 7,868 | 17,192,499 | 21,507,934 | 38, 814,500 | 68, 213, 172 |
| Products of petroleum and coal | 12 | 3,061 | 8,348,618 | 121,951,765 | 29,467,305 | 160,354,569 |
| Chemicals and allied produ | 334 | 15,514 | 36,348,846 | 76,966,471 | 86, 098,853 | 167,323,336 |
| Miscellaneou | 292 | 7,529 | 13,144,926 | 16,870,005 | 24,935,229 | 42,319,402 |
| Totals, Quebec. Ontario | 11,579 | 390,275 | 809,579,270 | 2,027,793,643 | 1,651,629.668 | 3,788,497,123 |
| Food and beverages............. | 3,238 | 70,082 | 14 |  |  |  |
| To | 22 | 1,814 | 3,580,969 | 54,563,641 | 7,702,622 | 62,425,547 |
| Rubber produc | 31 | 14,556 | $35,143,042$ | 60,046,190 | 83, 025,528 | 145, 296,510 |
| Leather produc | 265 | 14,661 | 27, 828,964 | 62,208,579 | 42,892, 248 | 106,231,028 |
| Textile products | 358 | 29,729 | 61,529,964 | 135,795,758 | 112,180,199 | 252,196,403 |
| Clothing (textile | 1,030 | 41,252 | 76,997,764 | 124,932,351 | 122,733,319 | 249, 185, 397 |
| Wood produc | 2,707 | 35,472 | 67,370,664 | 117,185,554 | 113,808, 715 | 233,648,357 |
| Printing, publishing and allied industries. | 255 | 30,299 | 81,151,360 | 192,885,092 | 192,064,749 | 405, 105,627 |
|  | 1,566 | 31,062 | 72,952,010 | 67,685,469 | 127,898,729 | 197, 122,340 |
| Iron and steel product | 1,201 | 106,085 | 278, 192,714 | 442,018,700 | 518,611, 245 | 987,900,466 |
| Transportation equipm | 237 | 59,069 | 157,903,127 | 431, 586, 319 | 313,002,034 | 751,775, 755 |
| Non-ferrous metal produ | 300 | 24,384 | 62,666,953 | 223,182,968 | 165,629,654 | 404, 637,350 |
| Electrical apparatus and supp | 246 | 38,905 | 96,640,088 | 161,768,924 | 194, 192,995 | 359,303,073 |
| Non-metallic mineral product | 479 | 14,661 | 35, 396,660 | 43, 183,045 | 78,732,632 | 133,264, 802 |
| Products of petroleum and | 31 | 7,272 | 19,885.945 | 136,694, 019 | 55, 371, 633 | 201, 371,342 |
| Chemicals and allied product | 530 | 21,153 | 52,650,741 | 158,607,175 | 158,364,525 | 330,495,870 |
| Miscellaneous. Totals, Ontario | 55 | 16,734 | 33,790,865 | 39,687,995 | 61,776,095 | 102,606,735 |
|  | 12,951 | 557,190 | 1,305,544,434 | 3,256,454,918 | 2,708,554,013 | 6,103,804,834 |
| Manitoba |  |  |  |  |  |  |
| Food and bever | 368 | 10,626 | 22,799,729 | 170,262,196 | 51,163,022 | 223,914, 254 |
| Leather products | 33 | 681 | 1,091,116 | 2,516,030 | 1,612,087 | 4,157,636 |
| Textile products (except | 22 | 779 | 1,261,078 | 5,782,362 | 1,938,840 | 7,787,042 |
| Clothing (textile a | 171 | 6,383 | 10,904,059 | 23,541,076 | 17,609,981 | 41,301,409 |
| Wood product | 321 | 3.203 | 5,756,836 | 11,219,855 | 10,387,698 | 21, 869, 433 |
| Paper products | 20 | 1,345 | 3,096,632 | 9,036, 170 | 11,535,775 | 21,499,529 |
| Printing, publishing and allied industries | 266 | 3,832 | 7,945,326 | 7,172,799 | 15,038,514 | 22,408,017 |
| Iron and steel produc | 119 | 4,774 | 10,673,633 | 14, 257, 386 | 19,409,416 | 34,585, 128 |
| Transportation equipmen | 23 | 6,662 | 14,947,279 | 20,903,997 | 17,112,707 | 38,668,067 |
| Non-ferrous metal products | 20 | 469 | 1,153,516 | 13,477, 877 | 2,968,843 | 16,839,502 |
| Electrical apparatus and supp | 17 | 634 | 1,167,992 | 2,681,977 | 3,197,303 | 5,947,095 |
| Non-metallic mineral produ | 47 | 892 | 1,992,108 | 2,612,887 | 5,291,166 | 9,396,732 |
| Products of petroleum |  | 436 | 896,890 | 7,611,862 | 2,476,044 | 10,496,778 |
| Chemicals | 43 | 768 | 1,530,349 | 7,297,881 | 5,822,564 | 13,244,323 |
|  | 46 | 472 | 871,837 | 724, 143 | 1,771,535 | 2,566,967 |
| Totals, | 1,520 | 41,956 | 86,088,380 | 299,101,498 | 167,335,495 | 474,681,912 |
| Food and bev | 241 | 5,299 | 16 |  |  |  |
| Textile products (excep | , | 119 | 229,009 | 1,022,420 | 341,842 | 1,377,687 |
| Clothing (textile a | 14 | 185 | 314,607 | 735,279 | 554,092 | 1,294,863 |
| Wood product | 396 | 1,505 | 2,113,558 | 4,248,549 | 4,226,574 | 8,621,459 |
| Paper products..................... | 3 | 17 | 39,515 | 39,440 | 79,950 | 120,600 |
| Printing, publishing and allied industries. | 190 | 1,409 | 2,876,773 | 1,870,034 | 4,524,703 | 6,496,472 |
| Iron and steel prod | 48 | 703 | 1, 337, 912 | 2,344,591 | 2,124,614 | 4,550,760 |
| Transportation equipmen | 6 | 28 | 68,660 | 81,448 | 108,761 | 195, 515 |

For footnotes, see end of table, p. 644.
1.-Summary Statistics of Manufactures of Each Province, classified by Industrial Groups, 1919-concluded

| Province, Territory and Industrial Group | Estab-lishments | $\begin{gathered} \text { Em- } \\ \text { ployees } \end{gathered}$ | Salaries and <br> Wages | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net <br> Value of Products | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Saskatchewan-concluded | No. | No. | \$ | \$ | \$ | \$ |
| Non-metallic mineral produc | 29 | 376 | 781,263 | 667,992 | 1,690,146 | 2,493,155 |
| Products of petroleum and coal | 11 | 552 | 1,514,829 | 30,632,381 | 2,284,070 | 34,258,225 |
| Chemicals and allied product | 11 | 220 | 577,946 | 4,115,150 | 1,410,748 | 5,574,878 |
| Miscellaneous ${ }^{7}$... | 12 | 428 | 1,249,953 | 25,712,046 | 1,542,496 | 27,983,316 |
| Totals, Sask | 962 | 10,841 | 22,273,942 | 164,349,341 | 47,356,949 | 215,742,208 |
| Alberta |  |  |  |  |  |  |
| Food and beverage | 413 | 9,672 | 20,889,415 | 160,075, 453 | 50,989,990 | 212,814,096 |
| Leather products. | 11 | 58 | 87,630 | 110,624 | 94,701 | 207, 702 |
| Textile products (except clothin | 12 | 163 | 260,572 | 1,543,860 | 423,107 | 1,978,737 |
| Clothing (textile and fur) | r 740 | 5, ${ }^{9514}$ | ${ }_{8}^{1,3522,683}$ | $1,260,849$ $21,132,853$ | 15, 208,345 | $6,139,307$ $36,958,841$ |
| Wood products. <br> Paper products. | 749 | 5,351 125 | -254,607 | 1,189,524 | 721,197 | 1,918,721 |
| Printing, publishing and allied industries. | 236 | 1,990 | 4,425,677 | 3,037,784 | 8,503,518 | 11,637,919 |
| Iron and steel products. | 100 | 2,164 | 4,777,353 | 5,480, 232 | 8,224,418 | 13,873,026 |
| Transportation equipmen | 20 | 2,352 | 5,794,925 | 6,179,695 | 6,117,212 | 12,494,604 |
| Non-ferrous metal products | 5 | 60 | 137,966 | 610,877 | 283,925 | 901,792 |
| Electrical apparatus and supp | 3 | 11 | 15,681 | 14,707 | 24,033 | 40,400 |
| Non-metallic mineral product | 58 | 1,873 | 4,020,701 | 4,704,110 | 8,908,096 | 14,758,576 |
| Products of petroleum and coal | 8 | 923 | 2,618,791 | 40,372,763 | 6,645, 883 | 48,210,148 |
| Chemicals and allied product | 20 | 599 | 1,592, 201 | 3,452,467 | 5,153,128 | $9,318,559$ |
| Miscellaneous ${ }^{5}$. | 16 | 140 | 324,788 | 198,261 | 524,489 | 742,692 |
| Totals, A | 1,685 | 26,425 | $\mathbf{5 5 , 1 1 5 , 5 5 4}$ | 251,364,059 | 114,681,296 | 371,995,120 |
|  |  |  |  |  |  |  |
| Food and beverag | 636 | 16,595 | 34,715,896 | 170,730,746 | 81,820,576 | 256, 224,205 |
| Tobacco and tobacco p | 3 |  | 6,811 | 5,341 | 7,278 | 12,717 |
| Rubber products. | 4 | 32 | 67,790 | 24,625 | 82,756 | 115,695 |
| Leather products. | 26 | 531 | $\begin{array}{r}944,474 \\ \hline 1481438\end{array}$ | 1,623,837 | $1,539,254$ $2,576,753$ | 3, 6 , 770,711 |
| Textile products (except clo | 31 65 | 1, 685 | 1,281, 2 , 4138 | $3,907,78$ $4,085,285$ | 2,576,753 $4,249,889$ | 8,373,781 |
| Clothing (textile and fur) | 1,702 | 32,717 | 75,399,242 | 144,944, 072 | 139,515,573 | 287, 455, 282 |
| Paper products | 36 | 6,031 | 17,509,184 | 35,481,534 | 49,820,807 | 89,035,707 |
| Printing, publishing and allied industries. | 365 | 4,630 | 11,048,418 | 7,886,367 | 17, 929,070 | 26,028,918 |
| Iron and steel products. | 257 | 6,244 | 15,945, 231 | 23,969,528 | 28,856,581 | 53,731,447 |
| Transportation equipment.......... | 104 | 3,342 | 9,042,405 | $5,163,925$ 79 | 12,913,648 | 101,133,059 |
| Non-ferrous metal products. | 38 | 4,273 | 11,991,477 | 79,620,245 | 18,526,460 | $181,133,59$ $3,376,502$ |
| Electrical apparatus and suppli | 24 69 | 471 | 1, $3,116,771$ | 3,629,812 | 5,842,715 | 10,711,596 |
| Non-metallic mineral producter | 9 | 1,178 | 3,197,788 | 26,197,986 | 13,213, 284 | 40,868,660 |
| Chemicals and allied products | 67 | 2,479 | 6,678,369 | 21,252,614 | 27,269,368 | 48,859,931 |
| \iscellaneous... | 57 | 936 | 1,950,752 | 1,200,054 | 3,545, 425 | 4,900,443 |
| Totals, British Columbia | 3,493 | 82,934 | 196,403, 222 | 531,112,329 | 409,665,348 | 959,008,088 |
| Yukon and N.W.T. |  |  |  |  |  |  |
| Food and beverag | 5 | 15 | 23,166 | 24,742 | 32,5 | 63,773 |
| Wood products. |  | 42 | 77, 392 | 147,270 |  |  |
| All other groups ${ }^{\text {s }}$. | 6 | 91 | 258,510 | 471,795 | 416,845 |  |
| Totals, Yukon and N.W.T | 18 | 148 | 359,068 | 643,807 | 601,896 | 1,377,453 |

${ }^{1}$ Exclusive of fish processing in Newfoundland. $\quad{ }^{2}$ Includes tobacco and tobacco products, leather products and products of petroleum and coal, figures for which are confidential and cannot be published separately. mineral products and chemicals and allied products, figures for which are confidential and cannot be published separately.
$\qquad$
$\qquad$ 4 Includes electrical apparatus and supplies, figures for which are confidential and cannot be published separately.
$\qquad$ Includes non-ferrous metal products and pro and coal, figures for which are confidential and cannot be published separately. 8 Includes rubber products, figures for which are confidential and cannot be published separately. ${ }^{7}$ Includes leather products and non-ferrous metal products, figures for which are confidential and cannot be published separately $\quad{ }_{s}$ Includes printing, publishing and allied trades; non-ferrous metal products; products of petroleum and coal; and miscellaneous industries, figures for which are confidential and cannot be published separately.

The degree of concentration of manufacturing production in large units is illustrated in Table 2. In 1949, Newfoundland had, 42 p.c. of all persons engaged in manufacturing employed in establishments having 500 or more employees, as compared with 34 p.c. for Canada as a whole. Prior to the entry of Newfoundland into Confederation, Ontario had the greatest concentration in the largest units; in 1949 it ranked second with $37 \cdot 3$ p.c. of its employees in the largest units. Quebec ranked third with $36 \cdot 7$ p.c. followed by Nova Scotia with 31 p.c., New Brunswick 29 p.c., British Columbia 23 p.c., Manitoba 20 p.c. and Alberta 12 p.c. There were no plants in either Prince Edward Island or Saskatchewan employing 500 or more persons.
2.-Concentration of Manufacturing Production in each Province, 1919

| Province or Territory | Number of Establishments Employing 500 or More Persons | Percentage of Total Number of Establishments in Province | Provincial <br> Percentage of Number of <br> Employees Accounted for by these Establishments |
| :---: | :---: | :---: | :---: |
| Newfoundland... | 2 | $0 \cdot 3$ | 42.0 |
| Prince Edward Island. | - | - | - |
| Nova Scotia. | 8 | 0.5 | 31.2 |
| New Brunswick | 8 | 0.8 | 29.0 |
| Quebec... | 120 | 1.0 | 36.7 |
| Ontario. | 174 | $1 \cdot 3$ | $37 \cdot 3$ |
| Manitoba. | 6 | $0 \cdot 4$ | 19.8 |
| Saskatchewan. | - | - | - |
| Alberta. | 4 | 0.2 | 12.0 |
| British Columbia. | 20 | $0 \cdot 6$ | 23.1 |
| Yukon and Northwest Territories... | - | - | - |
| Canada. | 342 | $1 \cdot 0$ | 34.2 |

## Subsection 1.-The Manufactures of the Atlantic Provinces

Manufacturing production in Newfoundland is dominated by the forest and fisheries resources. Pulp and paper is the leading industry followed by sawmilling, these two industries together accounting for 71 p.c. of the total production of the Province in 1949. No information is available regarding the processing of fish products and the position of that industry in 1949 in the economy of the Province cannot be evaluated.

In Prince Edward Island the predominant fishery and agricultural resources make fish curing, and packing, and butter and cheese the leading manufactures of the Province. Nova Scotia is renowned for its coal mines and its fisheries as well as extensive forests and agricultural lands and is favoured with easy access by sea to the high-grade iron-ore supply of Newfoundland. On these resources are based the
leading manufactures of fish curing and packing, primary iron and steel, sawmills, shipbuilding and repairs, pulp and paper, and butter and cheese. The forests of New Brunswick give a leading place to its pulp and paper and sawmilling industries, while fish and agricultural products add to the varied output.

## 3.-Statistics of the Leading Industries of the Atlantic Provinces, 1949

|  | Industry | Estab-lishments | Employees | Salaries and Wages | Cost of Materials | Net <br> Value of Products | Gross <br> Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{l\|} 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \\ 7 \\ 8 \end{array}$ |  | NEWFOUNDLAND |  |  |  |  |  |
|  |  | No. | No. | 8 | \$ | \$ | \$ |
|  | Pulp and paper | 3 | 3,065 | 10,490,747 | 20,005,335 | 23,211, 934 | 45,839,080 |
|  | Sawmills. | 536 | 938 | 478,594 | 955,177 | 1,078, 205 | 2,080,842 |
|  | Planing mills, sash, doors, et | 20 | 243 | 396,487 | 1,164,125 | 685,704 | 1,874,921 |
|  | Bread and other bakery products. | 11 | 192 | 297,477 | 1,115,414 | 661,647 | 1,817,413 |
|  | Breweries. | 3 | 110 | 239,332 | 274,097 | 1,114,416 | 1,444,207 |
|  | Printing and publishing | 6. | 207 | 506, 849 | 178,206 | 912,499 | 1,110,107 |
|  | Clothing, men's factory | 6 | 397 | 358,454 | 623,952 | 434, 808 | 1,070,429 |
|  | All other leading industries ${ }^{1}$ | 4 | 475 | 698, 619 | 1,620,092 | 1,287,698 | 2,988,173 |
|  | Totals, Leading | 589 | 5,627 | 13,466,559 | 25,936,398 | 29,386,911 | 58,225,172 |
|  | Totals, All Industries. | 793 | 6,934 | 15,486,336 | 31,228,173 | 32,918,776 | 67,264,282 |
|  |  | PRINCE EDWARD ISLAND |  |  |  |  |  |
|  | 1 Butter and chee | 23 | 161 | 255,443 | 3,136,907 | 464,539 | 3,646,979 |
| 2 | Fish processing | 62 | 474 | 357,606 | 2, 145, 904 | 663,922 | 2,857,029 |
|  | Feeds, stock and poultry, prepared | 6 | 30 | 51,225 | 656,353 | 102, 630 | 764,656 |
|  | Fruit and vegetablepreparations.. | 7 | 116 | 89,861 | 442,975 | 149,791 | 602,029 |
|  | Printing and publishing | 4 | 143 | 253,865 85,605 | ${ }_{250,043}^{114}$ | 384,397 245,299 | 508,114 506,591 |
|  | Sawmills....... | 11 | 75 | 100,545 | 214,390 | 138,629 | 367,626 |
| 8 | 8 Sash, door and planing mills. |  | 61 | 78,627 | 210, 185 | 120,695 | 334, 108 |
| 9 | Aerated waters.. | 6 | 32 | 46,376 | 114,743 | 179,670 | 304,288 |
| 10 | All other leading industries ${ }^{\text {a }}$ | 4 | 226 | 438,332 | 5,675,749 | 1,366,254 | 7,095,179 |
|  | Total | 212 | 1,467 | 1,757,485 | 12,961,546 | 3,815,826 | 16,986,599 |
|  | Totals, All Industries. | 251 | 1,747 | 2,133,555 | 13,537,144 | 4,338,320 | 18,123,200 |
|  |  | NOVA SCOTIA |  |  |  |  |  |
|  | 1 Fish processing | 212 | 3,841 | 4,872,586 | 21,625,288 | 12,494, 684 | 34,564,126 |
|  | Primary iron and | 5 | 4,832 | 12,544,691 | 17,965,217 | 12,942,445 | $33,501,905$ |
| 3 | Sawmills.... | 598 | 2,907 | 3,064,804 | 7,343,008 | 6,056,690 | 13,562, 282 |
|  | 4 Pulp and pap | 4 | 1,029 | 2,857,811 | 4,471,776 | 7,224,548 | 12,985, 803 |
|  | 5 Ship building | 21 | 2,350 | 5,271,861 | 5,105,180 | 7,399,711 | 12,746,387 |
| 6 | 6 Railway rolling-stock | 3 | 925 | 2,183, 856 | 7,847,584 | 4,632,905 | 12,730,507 |
| 7 | 7 Butter and cheese. | 23 | 639 | 1,004,348 | 6,055,068 | 2, 227,947 | 8,438,285 |
| 8 | 8 Bread and other bakery products. | 81 | 787 | 1,231,572 | 3,075, 342 | 2,530,572 | 5, 507,881 |
|  | 9 Sash, door and planing mills...... | 72 | 954 | 1,507,093 | $3,120,819$ | $2,508,785$ $2,767,829$ | $5,714,988$ $5,480,194$ |
| 10 | 1 Confectionery ................... | 9. | 970 | 1,287,428 | 2,642,483 | 2,767,829 | 5,480,194 |
| 11 | Miscellaneous iron and steel products. | 3 | 509 | 1,287,887 | 2,506,223 | 2,521,811 | 5,265,901 |
| 12 | 2 Knitted goods other than hosiery ${ }^{3}$ | 3 | 724 | 1,054,773 | 2,290,092 | 2,043,663 | 4,403,741 |
| 13 | 3 Printing and publishing............ | 31 | 844 | 1,533,187 | 1,046,471 | 3,124,762 | 4,232,163 |
| 14 | 4 Aerated waters......... | 29 | 333 | 531,056 | 1,171,067 | 1,935, 865 | 3,192,487 |
| 15 | 5 Fruit and vegetablepreparations.. | 17 | 418 | 589,121 | 1,335, 143 | 1,152,016 | 2,575, 232 |
| 16 | 6 Fertilizers. | 3 | 88 | 160,872 | 1,933,175 | 4501,500 | 2, 2477 |
| 17 | 7 Miscellaneous foods. | 7 | 151 | 248,051 | 1,803,465 | 972, 265 |  |
| 18 | Clothing, men's factory | 7 | 408 1,931 | 448,155 $5,187,262$ | $1,266,788$ $30,067,915$ | 15, ${ }^{9721,265}$ | $2,251,959$ $47,417,056$ |
| 19 | 9 All other leading industries ${ }^{4} . .$. . |  | 1,931 | 5,187,262 | 30,067,915 | 15,101,837 | 47,417,056 |
|  | Totals, Leading Industries | 1,135 | 24,640 | 46,866,414 | 122,672,104 | 88,489,972 | 219,497,691 |
|  | Totals, All Industries. | 1,480 | 29,311 | 54,686,577 | 135,811,899 | 102,291,298 | 247,592,389 |

3.-Statistics of the Leading Industries of the Atlantic Provinces, 1949-concluded

| Industry | $\left\|\begin{array}{c} \text { Estab- } \\ \text { lish- } \\ \text { ments } \end{array}\right\|$ | $\underset{\substack{\text { Em- } \\ \text { ployees }}}{ }$ | $\begin{gathered} \text { Salaries } \\ \text { Wagd } \\ \text { Wages } \end{gathered}$ | $\begin{gathered} \text { Cost } \\ \text { Materials } \end{gathered}$ | $\begin{gathered} \text { Net } \\ \text { Value of } \\ \text { Products } \end{gathered}$ | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | NEW BRUNSWICK |  |  |  |  |  |
|  | No. | No. |  |  | s | \$ |
| ${ }_{2}{ }^{2}$ Pulp | 2 | , 354 |  | ${ }^{25,747,143}$ | 27,928,588 | 58,722, 370 |
| ${ }_{3}$ Fish processing | ${ }_{153}$ | ${ }_{2,663}$ | 2,605,959 | ${ }_{9} 9164$, | $4,317,125$ | 13,878, 81 |
| ${ }_{5}^{4}$ Sliaughtering and meat packing... | ${ }_{34}^{3}$ | ${ }_{513}^{337}$ | 777\%, ${ }^{721}$ | - |  |  |
| 6 Miscellaneous foods | 8 | ${ }_{242}$ | 344,927 | 5,993,249 | 1,724,560 | ${ }_{7} \mathbf{7}, 732,351$ |
| sh, door and pla | 6 | 1,126 | 1,959,964 |  | 2,779,698 |  |
| ${ }^{8}$ Bread and other | ${ }^{67}$ |  | 1,136,474 | 2,783,159 | ${ }^{2,120,478}$ |  |
| ${ }_{10} 9$ Feeating Hed | ${ }^{3}$ | 783 | 1,621,926 | 1,72, | ${ }^{2,9972,024}$ |  |
| ${ }^{10} 10$ Feeds, Fertilizers | ${ }_{3}^{9}$ | ${ }_{127}^{124}$ | 318,375 | - | ${ }_{868,354}^{462,588}$ | ${ }^{4}$ |
|  | 3 | 593 | 825 , | 1,832,678 | 1.882 |  |
| ${ }^{3}$ Printing and publish | 18 | 536 | 1,083,706 | 599,292 | 2,214,575 | 2,85 |
| ${ }^{15}$ Confectionery | 5 | ${ }_{5} \mathbf{3 6 4} 4$ | ${ }^{12,505,451}$ |  |  | , 6137.897 |
| Totars, Leading Industr | 809 | 20,138 | 38,877,551 | 121,122,088 | 81,458,257 | 210,386,229 |
| Totals, All Industries.. | 1,060 | 23,466 | 44,219,819 | 131,804,253 | 91,187,375 | 231,506,191 |

[^201]
## Subsection 2.-The Manufactures of Quebec

Quebec contributes about 30 p.c. of the total value of manufactured products of Canada. Quebec's forests, water powers, minerals and agricultural lands, and also its geographic position astride the St. Lawrence estuary permitting sea-going vessels to reach its main centres of population, are among the assets that have tended to develop manufacturing industries. In addition, Quebec has a stable and industrious population, an important factor in industries such as textiles, clothing, leather boots and shoes, etc., in which large labour forces are required. The production of pulp and paper occupies the premier position, accounting for about 10 p.c. of the gross value of Quebec manufactures and for about 45 p.c. of the Canadian total for this industry. Other large industries in which Quebec predominates are: tobacco, cigars and cigarettes with 92 p.c. of the Canadian total; synthetic textiles and silk 72 p.c.; cotton yarn and cloth 66 p.c.; women's factory clothing 65 p.c.; aircraft and parts 64 p.c.; leather boots and shoes 60 p.c.; men's factory clothing 57 p.c.; miscellaneous electrical apparatus 51 p.c.; railway rollingstock 49 p.c.; and pulp and paper 45 p.c.

Quebec also predominates in a large number of the smaller industries. For instance, the candle industry of Quebec contributed 95 p.c. of the Canadian total; men's clothing contractors 89 p.c.; women's clothing contractors 82 p.c.; cotton thread 81 p.c.; lasts, trees and shoe findings 78 p.c.; children's clothing 76 p.c.; dyeing and finishing of textiles 75 p.c.; oiled and waterproofed clothing 74 p.c.; oilcloth, linoleum and other coated fabrics 73 p.c.; narrow fabrics 73 p.c.; leather boot and shoe findings 72 p.c.; embroidery, pleating and hemstitching 71 p.c.; miscellaneous clothing 69 p.c.; asbestos products 67 p.c.; artificial flowers and feathers 67 p.c.; processed cheese 67 p.c.; fur dressing and dyeing 66 p.c.; and fabric gloves and mittens 66 p.c.
4.-Statistics of the Leading Industries of the Province of Quebec, 1949

| Industry | Estab-lishments | $\begin{gathered} \text { Em- } \\ \text { ployees } \end{gathered}$ | $\begin{gathered} \text { Salaries } \\ \text { and } \\ \text { Wages } \end{gathered}$ |  | Net Value of Products | Gross <br> Value of <br> Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | 8 | 8 | \$ | s |
| 1 Pup | 54 | 22,745 | 67,103,568 | 158,394,062 | 183,841,476 | 374,146,335 |
| refining. |  | 7,172 | 19,591,072 | ${ }^{136,417,932}$ | 66,389, 720 | 222,495,803 |
| 3 Slaughtering | 37 | 3,673 | $8,841,363$ | 125, 805,766 | 20,863,700 | 147,470, 540 |
| Petroleum products |  | 2,19 | 5,963, 285 | 113,897 | 24,258,556 | 143, 997,735 |
| 5 Cotton yarn and cloth | 19 | ${ }^{16,262}$ | 31,494, 809 | 84,223,774 | 52,010, 148 | 138,702,495 |
| 6 Clothing, women's fact | 538 | 18,399 | ${ }^{33,748,783}$ | 68, 285, 650 | ${ }^{62,923,383}$ | 131,480,315 |
| Clothing, men's factor | 339 | 17,881 | 30,979, 672 | 68, 955, 515 | 56,378, 176 | 125,685, 676 |
| 8 Railway rolling-stock | 12 | 15,698 | 40,836,867 | 64,990, 314 | 54,262,527 | 121,591,511 |
| 9 Tobacco, cigars and ciga |  | ${ }_{5}^{8,153}$ | 17,274,460 | 55,059,416 | 49,184, 757 | 104,576,208 |
| 110 Butter and cheese... | 807 36 | 5,980 12,399 | $\begin{array}{r} 9,856,181 \\ 25,732,270 \end{array}$ | $\begin{aligned} & 81,723,442 \\ & 32,223,166 \end{aligned}$ | 174,589,992 | $101,086,380$ $88,935,31$ |
| 12 Electrical apparatus and n.e.s. ${ }^{1}$ | 31 |  | 27,381,472 |  | 51,737,673 |  |
| 13 Boots and | 179 |  | 22,040,969 | 37,18 | 32,545,772 | 19 |
| wmills | 1,916 | 10,426 | 13,602,802 | 42,260 |  |  |
| 15 Bread and other | 024 | 9,014 | 15, 109, 489 | 28,967, 604 | 24,756,608 | 55,580,081 |
| 16 Miscellane |  |  | 3,823,988 | 38,320, | 16,046 | 54,677,927 |
| urniture | 373 | 8,912 | 16,804,337 | 22,121,317 | 27,020,578 | 49,675,435 |
| ds, | 127 | 1,240 | 2,292, 551 |  | 5,713,205 | 44, 109,824 |
| Machinery, indust | ${ }_{41}^{57}$ | 6,081 | $14,640,436$ $6,857,362$ | 15, ${ }_{28,769,819}$ | 12,230, | 41,613,642 |
| Brass and copper | 41 | 6,210 | 15,175, ${ }^{613}$ | 11,925,680 | 29,119,881 | 41,345,364 |
| Printing and Breweries... |  | $\stackrel{6,701}{ }$ | 7,684,792 | 12,335,'997 | 27,091,604 | 40, 210, 113 |
| Aircraft |  | 5,847 | 14,874 | 17,428,051 | 21,280,768 | 39, 163,442 |
| ${ }_{24}$ Sheet metal pr | 66 | 4,533 | 10,475,441 | 20,009,715 | 18,53 | 38,957, 628 |
| Primary iron | 12 | 4,017 | 10,434,878 | 13, 111, 376 | 1,008 | 36, |
| 26 Boxes and bags, pap | 49 | 4,0 | 7,101,286 |  |  |  |
|  |  | 6,1 | 12,943,676 |  |  |  |
| Sash, door an | 669 | 5,441 | 8,737,691 | 18,776,211 | 13,62 |  |
| Shipbuilding |  | 4,461 | 11,048,142 | 14,475 | 17,696,515 | 32,703,087 |
| Aerated | 171 | 2,738 | 5,107,358 | ${ }^{11}$.035 | 19,922,652 |  |
| Printing and book | 496 69 | -6,974 | ${ }_{7,572,858}^{13,}$ | 16,321,992 | 14,599,042 | 31,284,093 |
| 33 Medicinal and ph preparations. |  |  |  |  | 1, | 30,716,460 |
| Fur goods | 298 | 3,294 |  | 18,5 |  |  |
| Casting | 58 |  | 9,594, 199 | 13, 128,656 | 15,692,156 | 29,463,754 |
| Confectione | 2 | 2,55 | 4,307, 873 | ${ }^{14,958,612}$ | 13,477,543 |  |
| Acids, alkalies |  | 2,65 | ${ }_{6} 7,476,248$ | - ${ }^{9,697,278,395}$ | 14,041,393 | 28,553,478 |
| Paints, varnishes |  | 2,576 | 4,901,517 | 15,943,619 | 11,420,551 |  |
| 0 Distilled liquors |  | 1,661 | 4,014, 297 | 10,600,96 | 15,977,118 | 27,45 |
|  | 8,001 | 276,87 | 589,750, | 1,557,512,17 | 1,221,371,021 | 2,865,365,325 |
| tals, All Indust | 11,57 | 390,2 | 809,579,27 | 2,027,793,64 | 1,651,629,6 | 3,788,497,1 |
| Percentages of leading industries to all industries. | $69 \cdot 1$ | 70.9 | 2.5 | 76.8 | 73.9 | $75 \cdot 6$ |

${ }^{1}$ Not comparable with previous years.
${ }^{2}$ Sugar refining is also a leading industry, but statistics cannot be published because there are fewer than three establishments.

## Subsection 3.-The Manufactures of Ontario

The gross value of the manufactured products of Ontario in 1949 represented about 49 p.c. of the total for all Canada. This premier position in manufacturing has been maintained fairly uniformly by Ontario, as the following percentages show: 1926, 52 p.c.; 1918,53 p.c.; 1910, 50 p.c.; 1900, 50 p.c.; 1890, 51 p.c.; and 1880, 51 p.c. Despite the rapid industrial development in recent years in other provinces, such as Quebec, British Columbia and Manitoba, Ontario has maintained a manufacturing production roughly equal to that of the remainder of Canada.

The geographic position of Ontario on the Great Lakes waterway system, by means of which the iron ore of Minnesota and the coal of Pennsylvania are readily accessible; the wide range of natural resources of forests, minerals, water power,
and agriculture; large population and excellent water and rail transportation facilities to other parts of the country-all have encouraged industrial development. Other factors have been proximity to one of the most densely populated sections of the United States and the establishment within the Province of branch factories of such United States industries as automobile manufacturing.

Ontario also has the greatest diversification of manufacturing production of any province. Certain industries, such as the manufacture of motor-vehicles, motor-vehicle parts, agricultural implements, heavy electrical machinery, starch and glucose, machine tools, bicycles and parts, miscellaneous non-ferrous metal products and carpets, mats and rugs, are carried on almost exclusively in Ontario. Of the 40 leading industries in 1949, a substantial number were dominated by Ontario's share of the total production. These industries, with the percentage which the Ontario production of each bears to the 1949 total for Canada, are: motor-vehicle parts 98; motor-vehicles 97 ; agricultural implements 96 ; heavy electrical machinery 95 ; rubber goods 81 ; primary iron and steel 74 ; iron castings 69 ; miscellaneous paper products 63 ; coke and gas products 62 ; sheet metal products 60 ; industrial machinery 59 ; brass and copper products 58 ; printing and bookbinding 58; confectionery 57; paper boxes and bags 56 ; miscellaneous foods 53 ; furniture 52 ; and flour mills 50 .

In the case of the smaller industries, too, Ontario dominates the field. In 27 such industries in 1949 Ontario contributed more than 75 p.c. of the Canadian total. These are: machine tools 100 ; starch and glucose 98 ; bicycles and parts 96 ; miscellaneous non-ferrous metal products 96 ; carpets, mats and rugs 95; tobacco processing and packing 93 ; typewriter supplies 92 ; soaps, washing compounds and cleaning preparations 90 ; wine 87 ; breakfast foods 87 ; inks 87 ; artificial abrasives 86 ; leather tanning 86 ; scientific and professional equipment 86 ; automobile accessories, fabric 84; animal oils and fats 84; batteries 83 ; refrigerators, vacuum cleaners and appliances 82 ; woollen yarn 81 ; cordage, rope and twine 81 ; feed mills 79 ; toys and games 79; boilers and plate work 76; household, office and store machinery 76 ; sporting goods 76 ; jewellery and silverware 75 ; and miscellaneous cotton goods 75.

## 5.-Statistics of the Leading Industries of the Province of Ontario, 1949

| Industry | Estab-lishments | $\left\lvert\, \begin{gathered} \text { Em- } \\ \text { ployees } \end{gathered}\right.$ | $\begin{aligned} & \text { Salaries } \\ & \text { and } \\ & \text { Wages } \end{aligned}$ | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Net Value of Products | Gross <br> Value of <br> Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | ¢ | 5 | 5 | \$ |
| 1 Motor-veh |  | 26, 133 | 74,518,788 | 295, 431,447 | 177,739,592 | 476,084,443 |
| ${ }_{3}^{2}$ Slaughtering and meat packing... | 67 | 7,907 | 20, 149,051 | 221,559,445 | 42,384,481 | 265, 2911.727 |
|  | 44 | 16,793 | 51,576, 946 | 113,684,748 | 131,665,455 | 264, 183,400 |
| refining.. |  | 7,694 | 22,913,994 | 128,962,570 | 95,400,693 | 237,688,169 |
| imary iron |  | 18,981 | 56,947,2 | 112,717,545 | 97,652,204 | 226, 993,285 |
| ${ }_{7}^{6}$ Agricultural implements | ${ }_{97}^{39}$ | 17, 1704 | ${ }_{44}^{41,987,161}$ | ${ }_{86} 92,247,074$ | ${ }_{78}^{75,232,179}$ | 169,450,644 |
| 8 Machinery, heavy electrical | 32 | 18,365 | 49,012,729 | 61,285,674 | 87,914,472 | 150,780,791 |
| ${ }^{9}$ Rubber goods, including footwear. | 31 | 14,556 | 35, 143,042 | 60,046, 190 | 83,025,528 | 145, 296,510 |
|  |  | 4.251 | 11, 903,392 | 101,321,991 | 34,187,465 | 141, 427,763 |
| 11 Butter and ch | 686 | 8,526 | 16,755,455 | 96,808,072 | 29,299,307 | 128, 510,538 |
| ${ }_{13}^{12}$ Fliour mills ${ }^{\text {2 }}$................. | 70 | ${ }_{9}^{2,381}$ | 5,785,533 | 108, 658,928 | 12,693,218 | 122,014,467 |
| 14 Sheet metal products.......... | ${ }_{138}$ | 9,127 9 | ${ }_{23,836,945}$ | - $50,649,497$ | ${ }^{37,535,300}$ | ${ }_{\text {94, }} 9224,833$ |
| 15 Castings, iron | 112 | 12,173 | 31,681,711 | ${ }_{38,038,298}$ | 51,430,026 | ${ }_{91,627,925}$ |
| 16 Bread and other baker | 948 | 14,339 | 26,775, 295 | 退, | 42,613,751 | 88, 200,341 |
| 17 Machinery, industrial2. | 164 | 10,613 | 26.702,151 | 27,446,751 | 58,717,498 | 87,033,316 |
| 18/Furnitur | 456 | 13,769 | 28,690,621 | 35,342,157 | 45, 996,970 | 82,213,350 |
| ${ }^{1}$ Not comparable with previous |  |  |  |  |  |  |
| 98452-42 |  |  |  |  |  |  |

5.-Statistics of the Leading Industries of the Province of Ontario, 1949-concluded

| Industry | Estab-lishments | $\underset{\text { ployees }}{\text { Em- }}$ | Salaries and Wages | Cost of Materials | Net <br> Value of <br> Products | Gross <br> Value of <br> Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | 8 | 8 | 8 | \$ |
| 19 Print | 294 | ,768 | 29,477,753 | 24,790,456 | 54, 243,382 | 79,774,517 |
| Electrical apparatus and supplies, n.e.s. ${ }^{1}$ |  | 8,132 | 19,080,047 | 35,075, 440 | 41,108,887 | 77,009,875 |
| 21 Printing and bookbinding.......... | 654 | 11,499 | 25,051,194 | 26,063,945 | 43,032,460 | 69,625,078 |
| 22 Refrigerators, vacuum cleaners and appliances ${ }^{1}$ |  | 5,694 | 13,695,491 | 33,362,999 | 35,540,569 |  |
| 23 Clothing, men's facto | 149 | 10,952 | 20,335,956 | 37,644,056 | 31,226,360 | ,78,802 |
| ${ }_{25}^{24}$ Feeds, stock and poultry, prepared | 222 | 2,304 | 4,884,581 | 55, 338,843 | 12,128,330 | 68,159,558 |
| 25 Brass and copper products | 92 | 5,471 | 14,129,326 | 41,701,658 | 24,701,468 | 67,314,435 |
| ${ }^{26}$ Boxes and bags, paper. | 96 | 7,091 | 15,151,769 | 39,824,610 | 26, 490, 237 | 66,825,350 |
| 27 Machinery, store, office and house- |  |  |  |  |  |  |
| 28 Cotton yarn and cl | 30 | ${ }_{7,673}^{5.805}$ |  | 31,054, | ${ }_{26,560,930}^{32,71031}$ | - $4,549,3608$ |
| 29 Miscellaneous paper g | 109 | 5,867 | 13,111,823 | 34,609 | 28, 199,96 | 63,459,884 |
| 30 Sawmills | 1,511 | 8,971 | 14,147,420 | 32,887,587 | 29,201,468 | 62,739,000 |
| 31 Coke and gas product | 15 | 3,021 | 7,982,553 | 35,372,028 | 21,184,168 | 59,943,579 |
| 32 Railway rolling-stoc | 15 | 6,242 | 16,674,725 | 32, 129,470 | 26, 143,271 | 59,225,297 |
| Confectioner | 82 | 5,536 | 9,545,605 | 29,176,62 | 27, 184,523 | 56,91 |
| 34. Breweries | 22 | 3,097 | 8,657,929 | 14,698,658 | 41,318,735 | 56,786,328 |
| 35 Soaps, washing compounds and cleaning preparations |  |  |  |  |  |  |
| 36 Tobacco processing and packing | 10 | 89 | 2,055,1 | 50,926, 274 | 3,79 | 54,847,380 |
| 37 Hardware, tools and cutlery | 201 | 8,959 | 20,940,113 | 17,400,911 | 36,314,117 | 54,779,808 |
| 38 Miscella |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Miscellaneous |  |  |  |  |  |  |
| 40 Clothing, women's factor | 286 | 7,977 | 16,456,462 | 26,363,621 | 25,477,949 | 51,978,017 |
|  | 7,428 | 364,810 | 888,923,808 | 2,456,813,850 | 1,855,943,791 | 4,412,762,213 |
| Totals, All Indu | 12,951 | 557,190 | 1,305,544,434 | 3,256,454,918 | 2,708,554,01 | 6,103,804,83 |
| Percentage of leading industries to all industries. | $57 \cdot 4$ | 65.5 | 68.1 | $75 \cdot 4$ | 68.5 | $72 \cdot 3$ |

${ }^{1}$ Not comparable with previous years.

## Subsection 4.-The Manufactures of the Prairie Provinces

The leading industries of the Prairie Provinces are those based on agricultural resources-grain-growing, cattle-raising and dairying areas. Next in importance, generally, are industries providing for the more necessary needs of the resident population, such as the baking of bread, printing and publishing, etc. The extensive railway services require large shops for the maintenance of rolling-stock, especially in the Winnipeg area. The greatly increased production of crude petroleum in Alberta as well as the widespread use of motor-vehicles and power machinery on farms in the three provinces has given rise to the establishment and rapid development of petroleum refining. Manitoba, as the early commercial centre of the prairies, has had a greater industrial development than either of the other Provinces. Its natural resources of accessible water power, forests and, more recently, minerals, have created considerable diversification of industrial production.

Considering the Prairie Provinces as an economic unit, slaughtering and meat packing had the largest gross value of production in 1949, amounting to $\$ 221,889,019$, followed by flour mills with $\$ 94,885,289$, petroleum products $\$ 90,502,929$, butter and cheese $\$ 84,669,894$ and railway rolling-stock $\$ 43,935,978$. These five industries accounted for about 50 p.c. of the total production of the Prairie Provinces. Other leading industries, in order of gross value of production, were: bread and other bakery
products, breweries, printing and publishing, planing mills, sawmills, men's factory clothing, prepared stock and poultry feeds, women's factory clothing, malt and malt products, miscellaneous foods, sugar refining, furniture, printing and bookbinding, pulp and paper, etc.
6.-Statistics of the Leading Industries of the Prairie Provinces, 1949


For footnotes, see end of table, p. 652.
6.-Statistics of the Leading Industries of the Prairie Provinces, 1949-concluded

|  | Industry | Estab-lishments | $\underset{\text { ployees }}{\text { Em- }}$ | Salaries and Wages |  | Net Value of Products | Gross <br> Value of <br> Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ALBERTA-concluded |  |  |  |  |  |
|  |  | No. | No. | \$ | \$ | \$ | 8 |
|  | Sawmills | 601 | 2,995 | 3,729,615 | 5,911, 852 | 7,215,037 | 13,500,571 |
|  | Breweries $\ldots . . . . . . . . . . . . . . . . . .$. | 5 | ${ }^{635}$ | 1,695,400 | 3, 129,463 | 8,265, 175 | 11,510,760 |
|  | Railway rolling-stock | 3 | 1,931 | 4,894,724 | 5,554,278 | 5,122, 801 | ${ }_{10}^{10,970,147}$ |
|  | Feeds, stock and poultry, prepared | 41 | 375 | 745,951 | 6,431,334 | 1,335,616 | 7,845,301 |
|  | Printing and publishing... | 83 | 1,166 | 2,682,673 | 1,663,587 | 5,748,640 | 7,476,689 |
|  | n.e.s. | 13 | 222 | 588,469 | 4,214,654 | 1,120,088 | 5,381 |
|  | Clothing, men's factory | 7 | 671 | 920,026 | 2,589,212 | 2,200,412 | 4,799,177 |
|  | Aerated waters. | 20 | ${ }_{202}^{292}$ | ${ }_{500,885}$ | 1,455, 903 | 1,962, 652 | 3,502,643 |
| 15 | Fruit and vegetable preparations.. | 8 | 306 | 504,135 | 1,566,372 | 1,625,365 | 3,239,641 |
| 16 | Printing and bookbinding | 66 | 655 | 1,437,771 | 881,513 | 2,228,789 | 3,138,062 |
| 17 | Machine shops. | ${ }_{17}^{44}$ | ${ }_{6}^{629}$ | 1,332,412 | 1,003,726 | 1,917,210 | 2,971,352 |
| 18 | Miscellaneous fo | 17 | 187 | 296,070 | 1,783,919 | 1,081,644 | 2,899,216 |
| 19 | Furniture | 48 | 481 | 903,057 | 1,548, 205 | 1,316,188 | 2,893,730 |
| 20 | Sheet metal pro | 9 | 254 | 481,451 | 1,314,665 | 1,260,609 | 2,586,838 |
| $21$ | Cement products | ${ }^{23}$ | 285 | 668,040 | 1,100,894 | 1,256, 722 | 2,394,503 |
| $\begin{gathered} 22 \\ 22 \end{gathered}$ | Feed mills ${ }^{1}$ | 37 | 68 | 96,498 | 2,045, 296 | 293,242 | 2,359,373 |
| $23]$ | Biscuits. | 3 | 188 | 337,221 | 1,056,930 | 1,141,218 | 2,207,063 |
| $24$ | Castings, iron | 7 | 342 | 793, 304 | 536,283 | 1.349,948 | 1,912,156 |
| $25$ | Machinery, industrialı.. | 1 | 346 | 820,792 | 562,238 | 1,261,771 | 1,852,905 |
| $26$ | Clay products from dome | 11 | 438 | 891,075 | 42, 132 | 1,517,308 | 1,603,199 |
|  | Bags, cotton and ju | 3 | 52 | 74,640 | 1,223,295 | ${ }^{160,086}$ | 1,387,240 |
|  | Agricultural implements. | 10 | ${ }^{206}$ | 439,497 | 428,813 | 934,216 | 1,383,370 |
| $29$ | Boxes and baskets, wood |  | ${ }^{222}$ | 464,451 | 686,302 | 621,003 | 1,323,742 |
| 30 | All other leading industries ${ }^{\text {b }}$ | 15 | 1,933 | 4,575,908 | 19,523,345 | 14,663,262 | 35,988, 154 |
|  | tals, Leading Industries | 1,428 | 24,010 | 50,302,821 | 244,702,874 | 106,353,194 | 356,633,705 |
|  | Totals, All Indus | 1,685 | 26,425 | 55,115,554 | 251,364,059 | 114,681,296 | 371,995,120 |

[^202]
## Subsection 5.-The Manufactures of British Columbia

British Columbia, with a gross value of production of $\$ 959,008,088$ in 1949, was again the third most important manufacturing province in Canada. About 22 p.c. of that amount was contributed by the sawmilling industry, followed by pulp and paper, fish processing and meat packing. Shipbuilding, which occupied first place during the war years, was in fifteenth place in 1949; at the height of its productive effort in 1943 it employed 31,238 persons who were paid $\$ 64,939,484$ in salaries and wages, while the value of production reached the unprecedented figure of $\$ 155,536,396$. The shipbuilding industry was still in 1949 the seventh largest employer of labour in the Province and paid out the fourth highest amount in salaries and wages.

Emphasizing the importance of the forests in the industrial life of the Province, the sawmilling industry ranked first with a gross value of production of $\$ 209,607,511$ and the pulp and paper industry second with $\$ 69,925,185$. Third in importance
was fish curing and packing, based principally on the estuarial salmon fisheries. British Columbia accounted for 49 p.c. of the total production of this industry in Canada. Other important industries include: slaughtering and meat packing, petroleum products, fertilizers, planing mills, veneers and plywoods, miscellaneous food products, fruit and vegetable preparations, butter and cheese, etc.
7.-Statistics of the Leading Industries of the Province of British Columbia, 1949

|  | Industry | Estab-lishments | Employees | Salaries and Wages | Cost of Materials Used | Net <br> Value of Products | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | No. | \$ | \$ | \$ | \$ |
|  | 1 Sawmills | 1,290 | 24,027 | 56,527,596 | 103,345, 925 | 104,089, 164 | 209,607,511 |
|  | Pulp and paper | 9 | 4,586 | 14,374,571 | 23,460,417 | 42, 881, 670 | 69,925,185 |
|  | 3 Fish processing | 68 | 3,888 | 8,285,182 | 32,600,417 | 22,190,548 | 55, 553,356 |
|  | 4 Slaughtering and meat packing | 11 | 1,332 | 3,533,092 | $41,655,627$ | 7,198,368 | 49, 120, 931 |
|  | 5 Petroleum products. | , | 682 | 2,017,831 | 23,306,034 | 10,067,554 | 34,409,015 |
|  | 6 Fertilizers. | 5 | 1,368 | 4,027,647 | 8,966,988 | 18,964,481 | 28,060,751 |
|  | Sash, door and planing mills. | 138 | 2,488 | 5,682,083 | 16,467,344 | 9,745,606 | 26,522,103 |
|  | 8 Veneers and plywoods. | 11 | 2,769 | 6,341,935 | 10,702,470 | 14, 338, 223 | 25,239, 202 |
| 9 | Miscellaneous food industries | 42 | 694 | 1,126,600 | 18,686,960 | 4,295,896 | 23, 057,601 |
| 10 | Fruit and vegetable preparations.. | 77 | 2,224 | 3,683,224 | 14,272,893 | 8,082,474 | 22,622,366 |
| 11 | Butter and cheese.. | 32 | 1,734 | 3,751,152 | 13,840,869 | 5,929,247 | 20,267,063 |
| 12 | Bread and other bakery products. | 253 | 2,612 | 5,553,045 | 9,232,384 | 8,567,356 | 18,360,066 |
| 13 | Printing and publishing | 77 | 2,633 | 6,945,490 | 4,258,553 | 11,629,254 | 16,014,950 |
| 14 | Feeds, stock and poultry, prepared | 34 | 759 | 1,529,046 | 11,714,324 | 3,073,763 | 15,028,791 |
| 15 | Shipbuilding. | 27 | 2,604 | 7,289,235 | 3,635,365 | 10,395,510 | 14,281,661 |
| 16 | Breweries. | 11 | 718 | 1,850,119 | 2,459,639 | 9,155,439 | 11,807,728 |
| 17 | Sheet metal product | 30 | 874 | 2,249,525 | 7,429,693 | 4,114,611 | 11,640,408 |
| 18 | Furniture | 174 | 2,048 | 3,992,502 | 5,606,021 | 5,723,833 | 11,453,084 |
| 19 | Machinery, industrial | 39 | 1,678 | 4,431,994 | 3,274,511 | 7,942,786 | 11,395,478 |
|  | , | 2,333 | 59,718 | 143,191,869 | 354,916,434 | 308,385, 783 | 674,367,250 |
|  | Totals, AII Industri | 3,493 | 82,934 | 196,403,722 | 531,112,329 | 409,665,348 | 959,008,088 |

[^203]
## 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 in 1949 accounted for $93 \cdot 8$ p.c. and $91 \cdot 7$ p.c., 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 68.9 p.c. and 58.6 p.c., respectively. In the Prairie Provinces manufacturing is confined largely to a few urban centres.

## 8.-Urban Centres, each with a Gross Manufacturing Production of over $\$ 1,000,000$, Number of Establishments and Production in these centres as a Percentage of the Provincial Total, by Provinces, 1949.

Note.-Statistics published in this table are in some cases higher than the figures published in Table 11, since the table below includes statistics of towns with less than three establishments and production of over $\$ 1,000,000$ each. It was not possible to publish this information in Table $\mathbf{1 1}$ without disclosing the operations of individual establishments.

| Province or Territory | Urban Centres with a Gross Production of over $\$ 1,000,000$ each | Establishments <br> Reporting in Urban Centres Producing over <br> $\$ 1,000,000$ each | Total <br> Production <br> in Urban Centres Producing over <br> $\$ 1,000,000$ each | Total Production in each Province | Production in Urban Centres as a Percentage of Total <br> Production in each Province |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | p.c. |
| Newfoundland | 2 | 107 | $43,156,816$ | 67,264, 282 | $64 \cdot 2$ |
| Prince Edward Island | 2 | 56 | 11,039,520 | 18,123,200 | $60 \cdot 9$ |
| Nova Scotia. | 20 | 457 | 168,636,370 | 247,592,389 | $68 \cdot 1$ |
| New Brunswick | 14 | 313 | 166,291,063 | 231,506,191 | 71.8 |
| Quebec.. | 128 | 7,091 | 3,475,779,196 | 3,788,497,123 | 91.7 |
| Ontario.. | 165 | 9,311 | $5,724,561,190$ | $6,103,804,834$ | 93.8 |
| Manitoba | 11 | 1,062 | 430,702,432 | 474,681,912 | $90 \cdot 7$ |
| Saskatchowan | 10 | 396 | 171,397,892 | 215, 742,708 | 79.4 |
| Alberta. | 14 | 744 | 288, 351,166 | 371,995, 120 | $77 \cdot 5$ |
| British Columbia. | 25 | 2,110 | 562, 244,781 | 959,008, 088 | $58 \cdot 6$ |
| Yukon and Northwest Territories. | - | - | - | 1,377,453 | - |
| Canada | 391 | 21,647 | 11,042,163,426 | 12,479,593,300 | 88.5 |

## 9.-Principal Statistics of the Manufacturing Industries of the Six Leading Manufacturing Cities, 1939 and 1944-49



For footnote see end of table.

## 9.-Principal Statistics of the Manufacturing Industries of the Six Leading Manufacturing Cities, 1939 and 1944-49-concluded

| City and Year | Estab-lishments | Employees | Salaries and Wages | Cost of Fuel and Electricity | Cost of Materials | Gross Value of Products ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | $\$$ | \$ | \$ | \$ |
| Vancouver.............. 1939 | 829 | 17,957 | 22,382,192 | 1,397.159 | 56, 565,511 | 101,267, 243 |
| Vancouver.............. 1944 | 933 | 43,473 | 79,141,407 | 3,568,106 | 142,416, 371 | 289,390,718 |
| 1945 | 992 | 37,599 | $66,144,015$ | 3,443, 141 | 137, 118, 244 | 265,034,773 |
| 1946 | 1,071 | 31,408 | 55,960,984 | 3,075,458 | 138,045, 068 | 270,165,166 |
| 1947 | 1,127 | 33,119 | 65,363,332 | 3,589, 022 | 174, 822,180 | 313,964,785 |
| 1948 | 1,136 | 33,815 | 75,300,519 | 4.299,879 | 211,726,521 | 360,749,092 |
| 1949 | 1,225 | 33,536 | 78,793,345 | 4,392,716 | 204,642,985 | 358,620,526 |
| Winnipeg................ 1939 | 648 | 17,571 | 20,717,273 | 1,491,823 | 44,873,043 | 81,024,272 |
| Winipeg............. 1944 | 686 | 25,870 | 38,824,299 | 2,445,806 | 119,917,745 | 198,169,626 |
| 1945 | 716 | 26,206 | 40, 115,513 | 2,530,202 | 117,453,819 | 197,523,922 |
| 1946 | 756 | 26,730 | 42,354,650 | 2,625,075 | 121,531,306 | 206,381,007 |
| 1947 | 779 | 27.651 | 47,728,392 | 2,827,768 | 130,721,062 | 228,028,346 |
| 1948 | 765 | 27,906 | $54,379,965$ | 3,133,001 | 157,379,778 | 264,022,796 |
| 1949 | 860 | 28,687 | 58,604,162 | 3,166,077 | 143, 827, 270 | 255,006,806 |

${ }^{1}$ Net value is derived from gross value by deducting cost of materials, fuel, and electricity.
10.-Principal Statistics of the Manufacturing Industries in the Six Leading Metropolitan Areas, 1949

| Metropolitan Area | 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 <br> Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | \$ |
| Greater Montreal ${ }^{1}$ | 4,554 | 219,236 | 481,568,343 | 33,961,207 | 1,125,411,070 | 2,079,892,373 |
| Greater Toronto. | 4,335 | 182,714 | 429,073,706 | 20,858, 127 | 971,977,082 | 1,849,787,979 |
| Greater Hamilton | 565 | 54,894 | 138,023, 228 | 17,780, 194 | 286,450, 275 | 566,267,994 |
| Greater Windsor | 297 | 35,037 | 95, 104,680 | 5,422,001 | 273,401,313 | 497,733,778 |
| Greater Vancouver | 1,450 | 42,792 | 101,445,996 | 6,195,962 | 266, 596,418 | 469,019,227 |
| Greater Winnipeg. | 995 | 34,510 | 71,733,315 | 4,455,903 | 242,436,120 | 382, 953,842 |

${ }^{1}$ Exclusive of the non-ferrous smelting and refining industry.
11.-Statistics of Manufactures of Urban Centres, each with a Gross Production of $\$ 1,000,000$ or over, and with Three or More Establishments, 1949
Nore.-Statistics for urban centres with three or more establishments cannot be published when one establishment has 75 p.c. or two establishments 90 p.c. of the total production.

| Province and Municipality | Estab-lishments | Employees | Salaries and Wages | Cost of <br> Fuel and Electricity | Cost of Materials | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Newfoundlan | No. | No.2,224 | $\begin{gathered} \$ \\ 3,575,183 \end{gathered}$ | $344,511$ | $\begin{gathered} \$ \\ 8,428,284 \end{gathered}$ | $\begin{gathered} \$ \\ 15,783,998 \end{gathered}$ |
| St. John's. |  |  |  |  |  |  |
| Prince Edward Island- <br> Charlottetown. <br> Summerside. |  |  |  |  |  |  |
|  |  | 608269 | 1,063,340 | 112,70733,498 | 5,528,009 | $\begin{array}{r} 7,740,143 \\ 3,299,377 \end{array}$ |
|  |  |  | $1,003,340$ |  | 2,473,223 |  |
| Nova Scotia- |  |  |  |  |  |  |
| Amherst. | 23 | 918 | 1,595,739 | 200,965 | 3,239,360 | 6,344,651 |
| Berwick.. | 6 | 144 | 221,547 | 50,972 | 574,372 | 1,108,333 |
| Bridgewater | 21 | 207 | 311,952 | 26,485 | 736,759 | 1,488, 222 |
| Dartmouth. | 18 | 263 | 470, 268 | 101,001 | 1,062,527 | 2,131,494 |
| Digby.... | 10 | 244 | 373,480 | 16,769 | -821,839 | 1,451,874 |
| Glace Bay | 16 | ${ }_{6} 203$ | - 274,709 | 27,530 | - 552, 211 | 1,248,856 |
| Halifax... | 142 | 6,185 | $11,864,472$ 498,287 | 709,633 50,784 | $24,061,037$ 850 | $46,745,139$ 1,840 |
| Lockeport. | 4 | 243 | 4986,007 | 50,784 36,157 | 850,234 $1,122,706$ | $1,840,691$ $1,827,317$ |
| Lunenburg. | 16 | 586 | 1,047,238 | 72,500 | 2,812,998 | $1,827,317$ $4,674,239$ |
| Middleton. | 10 | 175 | -250,326 | 36,412 | 950,642 | 1,550,254 |

11.-Statistics of Manufactures of Urban Centres, each with a Gross Production of $\$ 1,000,000$ or over, and with Three or More Establishments, 1949-continued

| Province and Municipality | Estab-lishments | Employees | Salaries and Wages | Cost of Fuel and Electricity | Cost of Materials | Gross <br> Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | \$ |
| Nova Scotia-concluded |  |  |  |  |  |  |
| New Glasgow | 24 | 924 | 1,747,027 | 292,824 | 2,138,721 | 5,666,534 |
| North Sydney | 13 | 311 | 457,583 | 40,694 | 965,830 | 2,809,102 |
| Pictou......... | 7 | 210 | 341,394 | 20,907 | 740,831 | 1,405,559 |
| Shelburn | 17 | 222 | 347,614 | 21,254 | 736,409 | 1,357,588 |
| Sydney | 39 | 5,996 | 15,607,185 | 3,581,924 | 26,403,138 | 53, 409,044 |
| Truro.. | 40 | 1,356 | 1,974,415 | 206,831 | 4,695,827 | 8,259,544 |
| Windsor | 12 | 364 | 513,808 | 42,065 | 2,174,584 | 3,100,182 |
| Yarmout | 27 | 871 | 1,368,876 | 140,303 | $3,445,803$ | 6,288,097 |
| New Brunswick- |  |  |  |  |  |  |
| Campbellton. | 15 | 333 | 565,969 | 47,151 | 929,086 | 1,761,545 |
| Fredericton. | 41 | 844 | 1,363,361 | 113,710 | 3,312,081 | 5,727,392 |
| Moncton. | 50 | 3,683 | 7,601,900 | 472,270 | 17,774,762 | 29,927, 582 |
| Newcastl | 12 | 178 | 270,961 | 49,515 | 1,322,156 | 1,667,187 |
| Saint John | 108 | 3,475 | 6,629,261 | 1,011,789 | 39,105,482 | 55,367,794 |
| St. Stephen | 15 | 548 | 864,407 | 60,854 | 2,212,900 | 3,881,828 |
| Sussex. | 12 | 279 | 456,184 | 46,247 | 1,584,143 | 2,943,196 |
| Woodstock | 16 | 146 | 208, 139 | 21,682 | 745,345 | 1,150,639 |
| Quebec- |  |  |  |  |  |  |
| Acton Vale | 15 | 862 | 1,297,691 | 59,116 | 2,204,423 | 4,043,997 |
| Asbestos | 14 | 367 | 866,006 | 140,309 | 1,599,061 | 3,408,599 |
| Beauharn | 15 | 1,654 | 4,182,032 | 1,256,646 | 7,088, 254 | 18,481,208 |
| Bedford | 12 | 919 | 1,587,878 | 43,690 | 701,540 | 4,811,814 |
| Beebe Plai | 10 | 287 | 442,059 | 20,998 | 917,291 | 1,679,394 |
| Berthier | 17 | 723 | 1,065,226 | 133,950 | 2,356,869 | 4,596,237 |
| Cabano | 9 | 265 | 353,057 | 9,468 | 880,028 | 1,551,299 |
| Cap de la Madelein | 34 | 2,427 | 4,785, 262 | 1,029,864 | 15, 265,057 | 28,861,045 |
| Chambly Canton | 10 | 444 | 893.592 | 77, 814 | 1,435, 204 | 2,780,449 |
| Chicoutimi | 29 | 438 | 709,251 | 58,424 | 1,688, 164 | 3,036,292 |
| Coaticook | 22 | 1,089 | 1,799,024 | 108,551 | 4, 405,417 | 7,575,531 |
| Contrec¢e | 9 | 302 | 373,289 | 9,932 | 876,131 | 1,447,601 |
| Cookshire | 9 | 189 | 287,481 | 24,205 | 618,085 | 1,680,274 |
| Drummon | 44 | 8,272 | 16,599,463 | 1,630,908 | 17,473,201 | 56, 100,047 |
| Farnham | 20 | 1,008 | 1,735,726 | 152,458 | 4,315,096 | 8,641,573 |
| Granby. | 70 | 4,864 | 9,156,205 | 550,338 | 20,617,792 | 40,581, 662 |
| Grand'Me | 28 | 2,278 | 4,421,475 | 1,282, 680 | 10,276,438 | 21,999,634 |
| Grenville. | 4 | 137 | 253,294 | 32,627 | 937,312 | 1,275,608 |
| Henryville | 7 | 99 | 126,821 | 38,033 | 815,454 | 1,044,152 |
| Hull...... | 64 | 3,082 | 6,645,878 | 1,659,509 | 21,825,578 | 35, 609, 860 |
| Huntingdo | 14 | 686 | 1,575,287 | 116,887 | 4,976,496 | $8,136,524$ |
| Iberville. | 20 | 354 | 609,726 | 27,824 | 1,306,799 | 2,449,609 |
| Joliette. | 57 | 2,098 | 3,483,672 | 433,059 | 7,365,878 | 14,493,896 |
| Jonquière | 19 | 503 | 1,153,116 | 242,750 | 3,009, 619 | 4,902,108 |
| Lachine. | 54 | 7,105 | 17,961,748 | 936,804 | 22,007,441 | 58,636, 242 |
| Lachute. | 12 | 287 | 543,147 | 124,847 | 1,393, 140 | 2,135,725 |
| La Pérad | 13 | 267 | 380,079 | 95,048 | 1,759,629 | 2,557,753 |
| Laprairie. | 20 | 383 | 675,043 | 169,571 | 531,485 | 1,928,945 |
| La Salle. | 36 | 3,501 | 8,284,662 | 4,041,275 | 34, 486, 888 | 66,628,048 |
| L'Assomption | 17 | 497 | 834,126 | 25,834 | 2,419,753 | 3,823,861 |
| Lennoxville... | 13 | 418 | 842,731 | 140,003 | 1,748, 808 | 3,300,969 |
| L'Epiphanie | 15 | ${ }_{673} 9$ | 471,676 | 31, 133 | 949,846 | 1,799,638 |
| Lévis...... |  | 2, 6738 | 931,525 $4,116,075$ | 265,364 | $2,301,180$ $8,403,123$ |  |
| Longueuil. Lorettevill | 38 25 | 2,098 | $4,116,075$ 486,708 | 265,364 12,738 | $8,403,123$ $1,198,207$ | $16,094,316$ $2,211,995$ |
| Louiseville | 18 | 1,336 | 2,232,502 | 244,869 | 4,400,710 | 10,153,050 |
| Marieville | 19 | 570 | 815,692 | 47,084 | 2,484,930 | 3,998,474 |
| Matane | 20 | 326 | 643,866 | 20,875 | 1,302,277 | 2,628,596 |
| Mégantic (Lac). | 23 | 461 | 741,655 | 64,743 | 949,931 | 2,338,311 |
| Mont Laurier. . | 15 | 264 | 385,462 | 19,197 | 1, 084,995 | 1,778,699 |
| Montmagny | 40 | 1,522 | 2,392, 809 | 137,273 | 4,575,891 | $9,770,918$ 1 |
| Montreal. | 4,136 | 184,779 | 399,943, 526 | 16,487,474 |  |  |
| Montreal East | ${ }_{17}^{23}$ | 4,617 388 | $11,650,258$ 587,236 | $\begin{array}{r}9,625,317 \\ 24,124 \\ \hline 12,315\end{array}$ | 195,826, ${ }^{774,565}$ | $247,604,548$ $2,281,623$ |
| Nicolet.... | 17 <br> 24 | 388 1,487 | 587,236 $3,388,521$ | 24,124 112,313 | 13,545,029 | 23,610,561 |
| Outremont | 20 | - 810 | $1,618,619$ | 73,479 | 2,257,142 | 4,375,407 |
| Point-aux-Tremble | 12 | 619 | 1,176,121 | 52,772 | 1,395,346 | 3,417,541 |
| Portneuf Station. | 12 | 395 | 763,461 | 271,545 | 2,735,183 | 5,056,434 |
| Princeville. | 10 | 15, ${ }_{131} 3$ | 540,870 $26,412,265$ | 55,689 $3,350,026$ | $3,788,641$ <br> $67,141,900$ | 4, 121,416, 2 |
| Quebec. | 427 | 15,130 | 26,412,265 | 3,350,026 | 67,141,900 | 121,416,191 |

## 11.-Statistics of Manufactures of Urban Centres, each with a Gross Production of $\$ 1,000,000$ or over, and with Three or More Establishments, 1949-continued

| Province and Municipality | Estab-lishments | Employees | Salaries and Wages | Cost of Fuel and Electricity | Cost of Materials | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | \$ |
| Quebec-concluded |  |  |  |  |  |  |
| Rimouski. | ${ }_{32}$ | 580 | 1,179,992 | 41,108 | 2,119,953 | 4,272,742 |
| Rivière-du-L | 23 | 431 | 805,204 | 68,943 | 922,625 | 1,998,474 |
| Rock Island. | 17 | 668 | 1,203,565 | 55,925 | 1,070,034 | 4,088, 270 |
| St. Casimir | 15 | 115 | 127,303 | 11,963 | 782,435 | 1,040,541 |
| St. Césaire | 28 | 361 | 441,194 | 37,481 | 1,342,815 | 2,077,786 |
| Ste. Croix. | 10 | 203 | 299,644 | 11,570 | 681,062 | 1,192,965 |
| St. Félicien | 16 | 183 | 263,657 | 20,838 | 1,561,137 | 2,101,759 |
| St. Félix-de-Valois | 16 | 72 | 92,070 | 8,490 | 827,047 | 1,020,347 |
| St. Gabriel-de-Brando | 22 | 294 | 352,992 | 13,278 | 650,701 | 1,267,657 |
| St. Georges (Beauce Co.) | 13 | 428 | 671,449 | 48,483 | 816,391 | 1,911,148 |
| St. Georges West.... | 8 | 234 | 303,358 | 34,051 | 702,397 | 1,342,239 |
| St. Germain de Grant | 7 | 34 | 45,586 | 23,392 | 906,767 | 1,081,317 |
| St. Hyacinthe... | 87 | 4,937 | 8,408,460 | 486,480 | 20,810, 668 | 36,763,993 |
| St. Jacques. | 9 | 175 | 228,024 | 8,711 | 1,604,952 | 1,921,503 |
| St. Jean.. | 63 | 5,283 | 10,958,675 | 809,807 | 17,377,539 | 36,194,463 |
| St. Jérôme (Terrebonne Co | 53 | 3,802 | 6,281,276 | 455,306 | 9,407,622 | 21, 182, 264 |
| St. Lambert. | 16 | 764 | 1,264,320 | 94,772 | 2,552,765 | 5,283, 293 |
| St. Laurent | 25 | 3,199 | 8,127,927 | 334,527 | 12,438,493 | 26,632,199 |
| Ste. Marie | 19 | 581 | 831,505 | 78,368 | 1,922,225 | 3,685,472 |
| St. Michel (Montreal Is.) | 25 | 275 | 483,856 | 27,895 | 831,879 | 1,740,502 |
| St. Pie. | 15 | 212 | 316,812 | 27,783 | 1,047,484 | 1,592,229 |
| St. Pierre (Montreal Is.) | 14 | 2,285 | 5,684,931 | 920,958 | 5,081,914 | 13,596,145 |
| St. Rémi. | 11 | 233 | 373,027 | 40,632 | 2,261,865 | 3,139,955 |
| Ste. Thérése de Blair | 30 | 971 | 1,719,486 | 74,593 | 2,372,573 | 5,101,004 |
| Shawinigan Falls | 46 | 4,853 | 12,918,001 | 6,277,007 | 33,066,562 | 73,040,547 |
| Shawville | 9 | 98 | 140,742 | 14,707 | 939,707 | 1,227,191 |
| Sherbrool | 103 | 7,976 | 15,224,410 | 1,069,186 | 30,765,468 | 65,017,661 |
| Sorel. | 32 | 1,625 | 2,903,410 | 215,077 | 2,857,100 | 6,771,867 |
| Sutton. | 11 | 184 | 276,644 | 27,960 | 831,764 | 1,233,954 |
| Terrebonne | 16 | 473 | 942,375 | 43,337 | 1,572,312 | 2,990,676 |
| Thetford Mine | 27 | 366 | 582,566 | 69,638 | 713,906 | 1,888,110 |
| Three Rivers. | 85 | 6,969 | 16,283,070 | 5,785,029 | 36,088,761 | 84,353,551 |
| Thurso. | 8 | 416 | 825,555 | 13,751 | 1,590,024 | 3,158,895 |
| Trois Pisto | 18 | 229 | 389,208 | 17,475 | 1,816,618 | 2,746,247 |
| Valleyfield | 43 | 4,117 | 8,407,221 | 636,281 | 15,513, 278 | 32,992,001 |
| Verchères | 15 | 117 | 155,811 | 62,891 | 959,515 | 1,160,535 |
| Verdun. | 61 | 1,259 | 2,283,666 | 70,975 | 4,775,240 | 8,986,910 |
| Victoriavi | 49 | 2,407 | 4,007,075 | 135,221 | 7,717,527 | 14,560,965 |
| Warwick | 15 | 411 | 665,271 | 61,862 | 1,919,658 | 3,589,759 |
| Waterloo | 18 | 758 | 1,407,564 | 64,763 | 1,641,009 | 4,339,105 |
| Westmount | 15 | 1,939 | 4,509,080 | 261,841 | 5,541,427 | 14,397,017 |
| Windsor Mills. | 12 | 1,094 | 2,780,421 | 760,639 | 6,161,292 | 11,682,078 |
| Ontario- |  |  |  |  |  |  |
| Acton. | 19 | 905 | 1,673,006 | 180,882 | 5,834,895 | 9,248,468 |
| Almonte | 13 | 361 | 735,729 | 104,631 | 2,645,790 | 3,751,008 |
| Amherstb | 12 | 883 | 2,216,560 | 1,516,797 | 3 378,177 | 12,527,399 |
| Arnprior. | 18 | 603 | 1,287,642 | 111,702 | 2,143,873 | 4,219,938 |
| Aurora. | 14 | 625 | 1,287,913 | 71,406 | 4,855,663 | 6,860,943 |
| Barrie. | 24 | 891 | 1,814,096 | 140,205 | 7,088,116 | 11,710,845 |
| Beamsville | 14 | 174 | 262,097 | 12,787 | 584,689 | 1,073,559 |
| Belleville | 52 | 3,030 | 6,892,471 | 1,201,676 | 8,233,437 | 23,543,116 |
| Bloomfield | 10 | 129 | 179,552 | 21,171 | 871,381 | 1,194,832 |
| Bowmanvi | 18 | 1,013. | 2,380,207 | 182,907 | 4,043,578 | 8,758,775 |
| Brampton | 31 | 1,136 | 2,244,467 | 104,618 | 3,978,364 | 8,029,517 |
| Brantford | 153 | 13,650 | $31,822,897$ | 1,673,327 | 66,909,382 | 129,421,325 |
| Brockvil | 41 | 1,726 | $3,835,175$ | 283,560 | 21,530,782 | 27,446,597 |
| Burlington | 14 | -588 | 1,269,180 | 84,788 | 3,515,613 | 6,571,354 |
| Caledonia | 10 | 351 | 710,646 | 214,276 | 2,954,450 | 5,076,528 |
| Campbelliord | 21 | 398 | 750,575 | 51,173 | 2,109,953 | 4,057,917 |
| Carleton Plac | 10 | 859 | 1,696,031 | 114,717 | 2,495, 108 | 5,295,091 |
| Chatham. | 71 | 3,572 | 8,481,186 | 917,631 | 42,355,739 | 62,387,458 |
| Chesley. | 12 | 415 | 692,984 | 23,753 | 1,397,794 | 2,557,408 |
| Clinton.. | 11 | 180 | 267,875 | 26,562 | 812,072 | 1,424,867 |
| Cobourg | 33 | 1,071 | 2,031,344 | 176,297 | 3,716,097 | 7,730,100 |
| Collingwood | 18 | 1,089 | 2,238,457 | 105,080 | 2,669,896 | 5,836,564 |
| Cornwall. | 50 | 6,502 | 15,065,273 | 2,823,800 | 21,118,242 | 52,612,076 |
| Dresden | ${ }_{33}^{12}$ | - 2225 | [358, 134 | 49,906 | 791,629 | 1,519, 341 |
| Dunnville. | ${ }_{22}$ |  | 3,132,365 | 181,968 | 2,595,411 | 8,303,145 |
|  |  |  | 1,696,837 | 97,969 | 4,445,881 | 7,045,926 |

## 11.-Statistics of Manufactures of Urban Centres, each with a Gross Production of $\$ 1,000,000$ or over, and with Three or More Establishments, 1949-continued

| Province and Municipality | Estab-lishments | Employees | Salaries and Wages | Cost of Fuel and Electricity | Cost of Materials | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | \$ |
| Ontario-continued |  |  |  |  |  |  |
| Durham | 14 | 263 | 511,868 | 36,297 | 927,726 | 1,737,096 |
| Eastvie | 18 | 313 | 679,468 | 57,351 | 2,666,411 | 4,055,076 |
| Elmira | 21 | 790 | 1,580,335 | 140,323 | 3,790,904 | 7,915,575 |
| Elora | 7 | 385 | 751,939 | 22,207 | 864,973 | 2,284,703 |
| Essex | 15 | 336 | 592, 294 | 73,119 | 1,574,426 | 2,546,777 |
| Exete | 8 | 121 | 188, 018 | 23,822 | 662,189 | 1,032,550 |
| Forest | 13 | 220 | 308,796 | 36,395 | 1,075,809 | 1,774,704 |
| Fort Er | 16 | 809 | 2,312,346 | 48,920 | 4,771,888 | 10,542,617 |
| Fort Willia | 51 | 3,315 | 8,607,069 | 2,240,587 | 22,630,331 | 45,964, 240 |
| Galt | 86 | 6,030 | 12,790,437 | 671,853 | 17,697,793 | 40,212,650 |
| Gananoqu | 19 | 790 | 1,702,103 | 168,791 | 3,225,798 | 5,839,251 |
| Georgetown | 17 | 984 | 2,228,224 | 163,409 | 4,083,710 | 7,754,334 |
| Goderich. | 17 | 507 334 | 1,024,094 | 224,355 | 7,873,954 | 10,990,438 |
| Gravenhur | $\begin{array}{r}9 \\ 18 \\ \hline\end{array}$ | 334 597 | $1,618,457$ $1,032,995$ | 20,223 62,288 | $1,021,021$ $1,828,441$ | 2,254,473 $4,037,526$ |
| Grimsby. Guelph. | 18 | 5,867 | 12,032,995 | 62,288 | 1,828,441 | $4,037,526$ $45,612,308$ |
| Hamilto | 546 | 54,665 | 137,641,333 | 17,728,214 | 285, 180,403 | 563,982,920 |
| Hanover | 25 | 1,123 | 2,073,203 | 87,994 | 2,977,585 | 5,711,385 |
| Harrist | 14 | 225 | 355,721 | 46,208 | 956,887 | 1,677,441 |
| Hearst | 8 | 166 | 407,978 | 9,973 | 1,184,416 | 1,759,002 |
| Hespeler | 20 | 2,144 | 4,116,626 | 407,971 | 6,272,992 | 13,945, 422 |
| Huntsvil | 17 | 515 | 964,589 | 65,835 | 4,222,463 | 6,044,522 |
| Ingersol | 26 | 1,331 | 2,926,924 | 175, 188 | 7,896,104 | 13,647,094 |
| Jarvis. | ${ }_{4}^{4}$ | 44 | 102,676 | 25,508 45,822 | 1,970,140 | 1,207,422 |
| Kincardi | 14 | 5.559 | 12, 792,65026 | 45,822 $1,117,253$ | 21,374,981 | $3,035,020$ $49,993,267$ |
| Kingston | 65 197 | 5,556 | $12,240,266$ <br> $31,922,441$ | 1, $1,531,470$ | 21,944,949 | $49,993,267$ $141,680,659$ |
| Kitchener | 197 | 14,821 1,263 | $31,922,441$ $2,430,781$ | 1,531,470 | 15,999,062 | $141,680,659$ $25,249,516$ |
| Leamingto | $\begin{array}{r}17 \\ 51 \\ \hline\end{array}$ | 1,263 | $2,430,781$ $19,334,136$ | 956, 625 | 14, 701,839 | $25,249,516$ $83,732,170$ |
| Lindsay | 38 | 999 | 1,629,592 | 136,071 | 4,138,275 | 7,022,625 |
| Listowe | 15 | 485 | 861,408 | 79,607 | 2,383,127 | 4,102,563 |
| London | 270 | 15,153 | 32,878,430 | 1,674,088 | 62,394,787 | 139,254,663 |
| Long Branc | 39 | 1,221 | 3, 091,431 | 123,898 | 5,483,428 | 12,845,490 |
| Lucknow. | 9 | 79 | 147,682 | 16,767 | 1,229,719 | 1,640,919 |
| Meaford | 18 | 445 | 767,659 |  | 11,096, 539 | 21,212,363 |
| Merritton | 14 | 2,018 | $5.428,883$ | 804,709 84,327 | $11,026,53$ $5,126,188$ |  |
| Midland | 22 | 1,166 | $\begin{aligned} & 2,275,391 \\ & 1204,646 \end{aligned}$ | 84,327 291,567 | 5,126,188 $2,181,376$ | 5,894,171 |
| Milton.... | 11 | 566 239 | $1,204,646$ 436,242 | 291,567 16,286 | 2,181, 777,033 | 5,271, $1,519,720$ |
| Milverton | 9 | 239 582 | + 41378,934 | 105,097 | 1,858,900 | 4,572,105 |
| Mount For | 15 | 253 | 366,721 | 27,072 | 1,067,737 | 1,747,597 |
| Napanee | 15 | 393 | 731,299 | 97,830 | 1,755,509 | 3,508,555 |
| New Hamburg | 12 | 277 | 497,485 | 29,705 | 950,532 | 1,837,521 |
| New Liskeard. | 14 | 519 | 1,005,798 | 37,537 | 1,462,573 | $3,386,234$ 9800 |
| Newmarket. | 18 | 1,039 | 2,184,292 | 115,245 | 4,780,047 | 99, ${ }^{905}, 454$ |
| New Toronto. | 39 | 6,407 | 17,390,400 | 1,529,938 | 27, 388,858 | 71, 947,846 |
| Niagara Falls. | 76 32 | 6,163 568 | $15,648,428$ $1,291,095$ | 4, 101,267 | 2,053,094 | 4,566,981 |
| North Bay | 32 | 568 109 | 1, 167,115 | 32,699 | $1,097,506$ | 1,577,433 |
| Oakvi | 41 | 1,348 | 2,862,932 | 218,833 | 5,137,216 | 11,386,660 |
| Orangevilie | 13 | 216 | 334,974 | 30,414 | 1,110,333 | 1,722,003 |
| Orillia. | 49 | 2,053 | 3,883,513 | 268,625 | 5.306,005 | 12,547,810 |
| Oshawa. | 55 | 9,997 | 26,711,432 | 1,227,592 | 85,293,640 | 157,756,382 |
| Ottawa | 268 | 10,641 | 22,705,162 | 1,690,399 | 38,027,218 | $82,450,493$ $15,096,738$ |
| Owen Sound | 54 | 2,461 | 4,984, 1326 | 266,353 14,404 | $6,184,888$ $1,429,738$ | 1,682,302 |
| Palmerston. | 10 | 1,256 | 2,552,021 | 123,105 | 5,789,567 | 10,303,860 |
| Paris..... | 36 | 1.052 | 1,939,857 | 94,602 | 3,470,083 | 6,932,199 |
| Penetanguishene | 14 | 454 | 752,980 | 42,962 | 852,950 | 2,009,901 |
| Perth. | 28 | 950 | 1,642,368 | 91,048 | 3,359,578 | 7,262,743 |
| Peterborough | 99 | 9,591 | 23,586,512 | 1,099,333 | 61,596,796 | 100,033,462 |
| Petrolia. | 14 | ${ }_{186}^{433}$ | 853,959 244,792 | 491,073 19,692 | 6,773,319 | 8, $1,254,660$ |
| Picton. | 16 51 | 2,154 | 5,547,541 | 1,617,220 | 12,504,024 | 28,046,408 |
| Port Dover | 9 | 133 | 177,638 | 12,033 | 740,061 | 1,163,053 |
| Port Elgin. | 9 | 225 | 365,973 | 15, 634 | 396,288 | 1,055,921 |
| Port Hope. | 25 | 1,132 | 2,755,107 | 319,888 | 3,348,041 | 3,082,813 |
| Prescott... | 19 | 2,790 | 910,340 $5,737,165$ | 211,210 | $88,279,246$ | 18,550,324 |
| Presto | 27 | 1,057 | 2,076,583 | 160,089 | $3,618,755$ | 6,786,698 |
| Ridgeto | 12 | 253 | 522,845 | 21,753 | 709,283 | 1,948,860 |
| St. Catharines. | 104 | 9,899 | 25,216,677 | 1,218,198 | 39,765,144 | 85,699,808 |

## 11.-Statistics of Manufactures of Urban Centres, each with a Gross Production of $\$ 1,000,000$ or over, and with Three or More Establishments, 1949-continued

| Province and Municipality | Estab-lishments | Employees | Salaries and Wages | Cost of <br> Fuel and <br> Electricity | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | \$ | \$ |
| Ontario-concluded |  |  |  |  |  |  |
| St. Marys....... | 15 | ${ }^{665}$ | 1,427,255 | 911,744 | 4,676,611 | $9,730,722$ $15,047,837$ |
| St. Thomas | 46 | 7,153 | 18,874,114 | 9,332,026 | 90, 804,548 | 145, 303, 109 |
| Sault Ste. M | 54 | 6,941 | 19,835, 965 | 5,876,359 | 51,345,242 | 95, 209,534 |
| Seaforth | 13 | 333 | 543,240 | 31,625 | 1,992,006 | 2,734,282 |
| Simcoe | 28 | 1,345 | 2,827,203 | 183,117 | 12,514,910 | 18,636,553 |
| Sioux Lookout | 8 | 90 | 185,857 | 14,814 | 942,206 | 1,239,080 |
| Southampton. | 9 | 347 | 723,486 | 26,033 | 954,254 | 2,009,995 |
| Stratford. | 65 | 3,774 | 8,037,384 | 370,082 | 13,566,725 | 25,305, 230 |
| Strathroy | 20 | 539 | 895,653 | 41,931 | 2,263,319 | 3,876,045 |
| Streetsvill | 12 | 278 | 601,606 | 113,518 | 3,483,282 | 4,757,780 |
| Sudbury | 45 | 1,006 | 2,193,489 | 153,605 | 5,119,701 | 8,672,824 |
| Swansea. | 8 | 772 | 1,896, 938 | 229,408 | 3,232,200 | 6,707,365 |
| Tavistock | 11 | 192 | 282,692 | 25,993 | 1,964,812 | 2,436,544 |
| Tecumseh | 5 | 279 | 429,271 | 35,276 | 978,150 | 2,032,393 |
| Teeswater | 7 | 43 | 70,808 | 12,864 | 834,865 | 1,002,118 |
| Thorold. | 25 | 2,216 | 7,026,807 | 2,827,642 | 14,946, 803 | 32,646,053 |
| Tilbury | 13 | 628 | 1,258,744 | 95,454 | 1,289,494 | 2,341,056 |
| Tillsonburg | 29 | 718 | 1,313,977 | 166,254 | 8,449,658 | 11,501,997 |
| Timmins. | 31 | ${ }^{602}$ | 1,142,981 | 75,896 | 1,944,909 | 3,951,580 |
| Toronto | 4,005 | 158,562 | 368,510,524 | 17,003,151 | 837,148,440 | 1,579,186,450 |
| Trenton | 24 | 1,512 | 2,697,611 | 395,082 | 8,319,681 | 15,398,018 |
| Tweed. | 10 | 135 | 208, 271 | 15,426 | 845,202 | 1,410,254 |
| Walkerton | 17 | 503 | 862,408 | 37,396 | 1,364,361 | 2,541,196 |
| Wallaceburg | 24 | 2,595 | 6,077,696 | 1,131,744 | 12,362,194 | 24,945,583 |
| Waterloo. | 54 | 2,647 | 5,904,002 | 350,546 | 11,252,507 | 29,096,975 |
| Watiord | 9 | 101 | 193,456 | 25,164 | 626,526 | 1,110,415 |
| Welland. | 63 | 8,061 | 22,331,790 | 3,628,936 | 43,425,050 | 91,869,763 |
| Wellington | 8 | 139 | 205, 455 | 34, 158 | 798,948 | 1,268,461 |
| West Lorn | 8 | 177 | 343,470 | 19,008 | 813,735 | 1,651,809 |
| Weston. | 45 | 2,439 | 5,674,783 | 336,331 | 8,072,844 | 20,012,374 |
| Whitby | 11 | 370 | 543,900 | 36,015 | 1,089,503 | 1,877,922 |
| Winchester | 7 | 65 | 102,233 | 36,392 | 1,130,809 | 1,372,125 |
| Windsor | 283 | 34, 591 | 94, 304,627 | 5,373,123 | 271,392,923 | 494,162,203 |
| Wingham | 17 | 418 | 780,454 | 47,731 | 1,877,544 | 3,109,239 |
| Woodbridge | 8 | 327 | 692,493 | 134,991 | 5,734,711 | 7,831,733 |
| Woodstock | 70 | 3,663 | 7,438,499 | 352,818 | 18,529, 457 | 35,933,463 |
| Manitoba- |  |  |  |  |  |  |
| Brandon | 41 | 814 | 1,597,082 | 161,062 | 8,846,994 | 11,726,053 |
| Dauphin | 12 | 102 | 186,518 | 25,559 | 779,765 | 1,168,058 |
| Neepawa |  | 112 | 214,514 | 80,593 | 620,471 | 1,126,783 |
| Portage la | 19 | 260 | 368,534 | 33,501 | 967,047 | 1,787,659 |
| St. Boniface | 86 | 4,225 | 10,230,625 | 839,433 | 91,461,862 | 114,975,791 |
| Winnipeg. | 860 | 28,687 | 58,604,162 | 3,166,077 | 143,827,270 | 255,006,806 |
| Saskatchewan- |  |  |  |  |  |  |
| Kamsack. | 10 | 59 | 76,169 | 11,395 | 708,826 | 1,130,101 |
| Melville. | 9 | 71 | 112,285 | 18,247 | 1,918,114 | 2,212,335 |
| Moose Jaw | 48 | 1,446 | $3,385,161$ | 609,792 | 36,098,036 | 43,606,428 |
| North Battlefor | 13 | 155 | 270,184 | 30,242 | 886,497 | 1,477,567 |
| Prince Albe | 32 | 896 | 1,919,436 | 160,666 | 9,852,946 | 14,990, 347 |
| Regina. | 137 | 2,960 | 6,655,021 | 1,395,791 | 34,922,066 | 50, 334,303 |
| Saskatoon | 109 | 2,524 | 5,370,416 | 615,426 | 39,359,918 | 51,882, 127 |
| Swift Curre | 12 | 208 | 441, 103 | 55,600 | 1,470,029 | 2,222,197 |
| Weyburn. | 9 | 83 | 134,357 | 20,049 | 876,769 | 1,191,122 |
| Yorkton. | 17 | 206 | 380,400 | 65,502 | 1,532,016 | 2,351,365 |
| Alberta- |  |  |  |  |  |  |
| Athabaska | 20 | 166 | 229,200 | 25,940 | 1,129,560 | 1,600,569 |
| Barrhead. | 11 | 103 | 160,010 | 16,276 | 1,115, 265 | 1,382,902 |
| Calgary | 276 | 7,848 | 17,763,773 | 1,531,671 | 84, 202,669 | 117,310,415 |
| Camrose.. | 11 |  | 147, 193 | 11,053 | 836,133 | 1,108,200 |
| Edmonton. | 287 | 8,544 | 18,958,562 | 864,171 | 80,588,620 | 117, 123,100 |
| Grande Prai | 19 | ${ }_{977}^{281}$ | , 461,753 | 53,918 | 1,537, 726 | 2,846,244 |
| Lethbridge. | 41 33 | 977 1.042 | 2,052,349 | 129,558 | 5,962,789 | 11, 298, 150 |
| Red Deer. . | 17 | 1,042 157 | $2,046,116$ 284,615 | $\begin{array}{r}120,453 \\ 36.756 \\ \hline\end{array}$ | $14,832,569$ $2,033,898$ | $19,772,257$ $2,958,198$ |
| Wetaskiwin. | 10 | 72 | 129,954 | 13,411 | 1,180,875 | 1,420,186 |

11.-Statistics of Manufactures of Urban Centres, each with a Gross Production of $\$ 1,000,000$ or over, and with Three or More Establishments, 1949-concluded

| Province and Municipality | Estab-lishments | Employees | Salaries and Wages | Cost of Fuel and Electricity | $\begin{gathered} \text { Cost } \\ \text { of } \\ \text { Materials } \end{gathered}$ | Gross Value of Products |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | \$ | \$ | 8 | \$ |
| British Columbia- |  |  |  |  |  |  |
| Armstrong. | 12 | 133 | 262,201 | 25,352 | 528,503 | 1,031,646 |
| Chilliwack | 28 | 225 | 398,281 | 47,312 | 1,101,845 | 1,887,067 |
| Cranbrook | 22 | 411 | 891,725 | 71,054 | 1,632,624 | 3,007,859 |
| Duncan. | 24 | 223 | 487, 147 | 43,132 | 896,372 | 1,797,715 |
| Fernie. | 8 | 117 | 212,350 | 27,523 | 388,502 | 1,102,919 |
| Kamloops | 27 | 393 | 767,892 | 61,887 | 1,211,451 | 2,529,717 |
| Kelowna. | 33 | 743 | 1,433, 674 | 92,875 | 2,985,989 | 5,727,496 |
| Merritt. | 9 | 167 | 377,277 | 17,444 | 548,633 | 1,116,672 |
| Mission. | 23 | 463 | 872,002 | 67,316 | 2,639,252 | 4,429,412 |
| Nanaimo | 24 | 405 | 963,017 | 79,474 | 1,495,907 | 3,798,826 |
| Nelson. | 34 | 572 | 1,100,802 | 92,460 | 2,337,373 | 4,697,251 |
| New Westminste | 111 | 5,324 | 12,687,861 | 763,571 | 39,326,011 | $66,469,183$ |
| North Van | 53 | 1,994 | 5,254,652 | 255,452 | 7,144,473 | 15,894,016 |
| Oliver. | 9. | ${ }^{153}$ | 289,892 | 19,390 | 566, 165 | 1,195,299 |
| Penticton | 17 | 237 | 426,524 | 27,269 | 800,501 | 1,721,820 |
| Port Alberni | 23 | 1,755 | 4,872,190 | 202,563 | $8,409,589$ | 22, 148, 842 |
| Prince George | 98 | 889 | 1,726,052 | 147, 158 | $4,383,731$ | 7,730,334 |
| Prince Rupert | 24 | 622 | 1,367,747 | 82,251 | 3,540,851 | 5, 880,384 |
| Quesnel. | 36 | 236 | 381,329 | 41,625 33181 | 700,588 515,544 | 1,404,972 |
| Revelstoke | -18 | - 129 | 78,793,345 | 33,181 $4,392,716$ | 204,642,985 | $1,054,011$ $358,620,526$ |
| Vernon.... | 1, 38 | -374 | 6998,294 | 4, 66,833 | 1,531,203 | 2,771,490 |
| Victoria................. | 204 | 4,224 | 10,019,644 | 732,434 | 18,945, 110 | 37,637,880 |

## GHAPTER XVII.-CONSTRUGTION

\author{

CONSPECTUS <br> |  | Page | Section 2. Housing Construction.... | $\begin{array}{r} \text { PAGE } \\ 670 \end{array}$ |
| :---: | :---: | :---: | :---: |
| TION | 661 | Subsection 1. Government Aid to House |  |
| Subsection 1. Annual Census of Con- | 661 | Building.......................... | 670 |
| Subsection 2. Contracts Awarded and |  | Subsection 2. Construction of Dwelling |  |
| Building Permits Issued.............. | 665 | Units | 677 |

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

The purpose of this Chapter is to co-ordinate available official statistics on the construction industry and to give, as far as possible, a complete summary of construction from year to year. The official statistics of the annual Census of Construction (given in Subsection 1 of Section 1) cover all new construction, maintenance and repair work completed during a given year by contractors, builders, public bodies, industrial plants, etc. This information is supplemented by data from an outside source (Subsection 2) on construction contracts awarded, which are in the nature of a forecast of the amount of construction work contemplated in a given year. Usually some time elapses after contracts are awarded before work actually is begun and, in the case of contracts for large-scale undertakings, the work is seldom finished within one year.

## Section 1.-Statistics of the Construction Industry

## Subsection 1.-Annual Census of Construction*

In conducting the Census of Construction for 1949 and 1950, sampling techniques were employed for the first time. A study of the characteristics of the components of the industry revealed a predominance of firms whose annual production was very small in relation to the total value of work performed by the industry as a whole in the same year. Therefore, it was decided that a less detailed report form could be completed by the majority of these small firms and a sample group chosen to which the regular form would be mailed. On the basis of this sample, estimates could be calculated for data not called for on the short form but necessary for the presentation of construction statistics.

The regular form requested the respondent to give, in addition to details of the type and value of work performed, information on such operating expenses as salaries and wages paid, monthly employment of wage-earners and cost of materials. The short form asked only for a classification of work by type and value. Estimates for salaries and wages and other details of operations were made for the short-form group, based on the answers to the regular-form questions. Thus, the value of work figures presented are not estimates but are tabulations of actual reports, since all known construction operators were canvassed for that information. Also, it

[^204]should be emphasized that, in the case of operation details, the sample was selected from a segment of the industry whose total annual production was small in relation to the total value of work performed by the industry.

The definition of 'construction' as used in the Census of Construction has been approved and authorized by the Canadian Construction Association. It embraces all new buildings and works, together with alterations, additions, conversions, maintenance and repairs effected to those existing. It also includes works relating to engineering and marine projects as well as to structures of all types; improvements, maintenance, etc., of steam and electric railway companies; and the actual installation of machinery excluding, of course, cost of the machinery to be installed.

The value of construction work performed during 1950 showed an increase of 23 p.c. over 1949. Building construction advanced in 1950 by 26 p.c. owing largely to an increase of 43 p.c. in residential building, the most important group in that classification, while engineering construction increased by 17 p.c. over 1949.

Each year since 1945 the cost of materials has amounted to around 50 p.c. of the total value of work performed. The percentages in 1949 and 1950 were 52 and 53 p.c., respectively.

In the following tables and chart, the figures for 1949 and 1950 include construction work undertaken by the labour forces of railway and telephone companies which previously were given separately. Figures for Newfoundland are also included for these two years.
1.-Value of Construction Work Performed, classified by Provinces, by Disposition and by Types of Construction, 1946-50

| Province, Disposition and Type | 1946 | 1947 | 1948 | 19491 | $1950{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Province | \$'000 | 8'000 | \$'000 | \$'000 | \$'000 |
| Newfoundland. |  |  |  | 15,243 | 17,192 |
| Prince Edward Island | 2,382 | 3,071 | 5,424 | 7,424 | 9,590 |
| Nova Scotia. | 40,858 | 52,897 | 73,507 | 92,657 | 94,780 |
| New Brunswick | 27,761 | 42,675 | 51,590 | 70,108 | 72,378 |
| Quebec. | 225,582 | 338,515 | 421,476 | 553,233 | 605,861 |
| Ontario | 347,617 | 501,651 | 682,466 | 907,434 | 1,105,503 |
| Manitobs | 43,463 | 61,254 | 82,230 | 117,515 | 154,731 |
| Saskatchewa | 29,277 | 40,009 | 49,380 | 73,960 | 119,378 |
| Alberta. | 51,573 | 67,651 | 109,448 | 150,592 | 255,558 |
| British Columbia, Yukon and Northwest Territories. | 100,148 | 148,813 | 190,040 | 232,610 | 292,997 |
| Canada | 868,661 | 1,256,536 | 1,665,561 | 2,220,775 | 2,727,968 |
| Disposition |  |  |  |  |  |
| Contractors, builders, etc............... | 775,452 | 1,097,382 | 1,486,846 | 2,033, 802 | 2,470,263 |
| Municipalities. | 34,082 | 47,341 | 58,882 | 72,062 62 | 75,212 |
| Prederal government departments ...... | 15,184 | 18,641 | 31,078 | 52,571 | 65,627 |
| Type of Work |  |  |  |  |  |
| Building construction: | 490,408 | 658,383 | 825,622 | 969,227 | 1,217,691 |
| Engineering construction | 220,547 | 395.026 | 539.965 | 897,615 | 1,046,235 |
| Marine construction. | 15,943 | 22,639 | 37.608 262.366 | 52,833 301,100 | 415,516 |
| Trade construction. | 141.763 | 180,488 | 262,366 | 301,100 | 415,516 |

${ }^{1}$ Includes work performed by railway, telephone, telegraph and other utility companies utilizing their own employees.
2.-Values of New and Other Construction Work Performed, classifled by Types, 1949 and 1950

| Type of Construction | 1949 |  |  | 1950 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | New Construction | Repairs, Additions, etc. | Total | New <br> Construction | Repairs, Additions, etc | Total |
|  | \$'000 | \$'000 | \$'000 | \$ 000 | \$'000 | \$'003 |
| Building Construction-- <br> Dwellings and apartments. Grain elevators, factories, warehouses, farm and mine buildings Oil refineries. | 336,704 | 19,858 | 356,562 | 488,049 | 20,476 | 508,525 |
|  | 170,978 | 19,990 | 190,068 | 193,308 | 20,969 | 214,277 |
|  | 2,968 | 4,875 | 7,843 | 32,928 | 8,346 | 41,274 |
| Railway stations, offices, shops, engine houses, water and fuel stations. <br> Hotels, clubs and restaurants....................... | 4,182 | 16,853 | 21,035 | 5,412 | 18,243 | 23,655 |
|  | 14,132 | 1,715 | 15,847 | 16,711 | 2,389 | 19,100 |
| Office buildings, stores, theatres and amusement halls. | 137,906 | 19,708 | 157,614 | 140,278 | 23,327 | 163,605 |
| Commercial garages and service stations.. | 15,669 | 4,083 | 19,752 | 16,504 | 3,396 | 19,900 |
| Broad casting and radio stations....... | 813 | 103 | 916 | 3,543 | 64 | 3,608 |
| Aeroplane hangars.................. | 795 | 111 | 907 | 530 | 522 | 1,052 |
|  | 106,482 | 5,003 | 111,484 | 130,155 | 5,984 | 136,138 |
| Schools and institutional buildings... Churches, hospitals, etc. | 61,339 | 1,639 | 62,978 | 66,183 | 3,898 | 70,080 |
| Churches, hospitals, etc. <br> Armouries, barracks, drill halls, etc. Other building. | 2,592 | 1,757 | 4,348 | 7,623 | 3,646 | 11,269 |
|  | 16,513 | 2,462 | 18,975 | 4,486 | 721 | 5,207 |
| Totals, Building Construction.. | 871,073 | 98,155 | 969,227 | 1,105,710 | 111,982 | 1,217,691 |
|  |  |  |  |  |  |  |
| Streets, highways and parks......... | 163,830 26,375 | 52,615 9,931 | 216,445 36,306 | 198,718 40,304 | 65,892 13,777 | 264,611 54,082 |
| Water, sewage and drainage systems. <br> Electric power plants, including dams and reservoirs, transmission lines etc. | 53,766 | 7,936 | 61,702 | 58,482 | 10,584 | 69,066 |
|  | 257,455 | 21,912 | 279,367 | 273,558 | 24,264 | 297,821 |
| Railway construction, steam and electric. | 10,673 | 57,376 | 68,049 | 32,361 | 123,884 | 156,245 |
| Telephone and telegraph lines and underground conduits. | 66,905 | 35,749 | 102, 654 | 68,501 | 39,267 | 107,769 |
| Aerodromes or landing fields. | 6,835 | 906 | 7,741 | 3,170 | 847 | 4,016 |
| pumping stations, etc. | 7,254 | 726 | 7,980 | 68,299 | 346 | 68,645 |
| Other engineering, including installation of machinery. | 40,980 | 76,392 | 117,372 | 13,823 | 10,156 | 23,980 |
| Totals, Engineering Construction. | 634,073 | 263,542 | 897,615 | 757,217 | 289,017 | 1,046,235 |
| Marine Construction................... | 46,093 | 6,739 | 52,833 | 42,104 | 6,422 | 48,526 |
| Trade Construction | 200,411 | 100,689 | 301,100 | 265,138 | 150,378 | 415,516 |
| Grand Totals. | 1,751,650 | 469,125 | ,220,775 | 2,170,169 | 557,799 | 2,727,968 |

${ }^{1}$ Excludes trade construction.
3.-Principal Statistics of the Construction Industry, 1946-50

| Item | 1946 | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Firms reporting.................. No. | 23,793 | 26,542 | 21,909 | 22,961 | 41,886 |
| Employees....................... " | 198,851 | 250,330 | 284,019 | 362,828 | 383,549 |
| Salaries and wages paid............ \$'000 | 344,893 | 482,907 | 605,496 | 816,609 | 919,547 |
| Cost of materials used. | 459,966 | 654,996 | 835,917 | 1,154,126 | 1,443,903 |
| Value of work performed ${ }^{1}$ | 868,661 | 1,256,536 | 1,665,561 | 2,220,775 ${ }^{2}$ | 2,727,968 ${ }^{2}$ |
| New construction. | 577,572 | 1,001,910 | 1,383,553 | 1,751,650 | 2,170,169 |
| Additions, alterations, maintenance and repair | 291,289 | 254,626 | 282,008 | 469,125 | 657,799 |
| Sub-contract work performed..... | 143,981 | 213,277 | 225,612 | 261,083 | 316,470 |
| New construction.............. | 115,344 | 182,860 | 202,881 | 234,890 | 286,048 |
| nance and repair. | 28,687 | 50,417 | 22,791 | 26,198 | 30,428 |

[^205]4.-Principal Statistics of the Construction Industry, classifled by Provinces and by Disposition, 1949 and 1950


[^206]The following chart shows the movement of employees in the construction industry. The trend that began in 1945 continued through to 1951. A larger number of persons employed caused the 'average monthly' line to move steadily upwards, although in 1950 and 1951 the movement was less pronounced than in the previous years. At the same time, there are indications of a wider deployment between 'high month' and 'low month'. The former trend serves to point out that, in 1951, the industry was still in a position to absorb more units of labour. The latter trend indicates that the seasonal pattern of employment, since 1945, was becoming more pronounced.


## Subsection 2.-Contracts Awarded and Building Permits Issued

In this Section 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 Census of Construction. Further, values of contracts awarded, and especially of building permits, are estimates (more often under-estimates) of work to be done. Obviously, these statistics and those of Subsection 1 cannot be expected to agree, since much work contracted for towards the end of any one year is often not commenced until the next and may extend into more than one year especially on large contracts.

Contracts Awarded.-According to figures published by MacLean Building Reports Limited, the value of contracts awarded in 1951 was more than double the value in 1949. The increase in 1951 over 1950 amounted to 50 p.e., which was more than accounted for by business, industrial and engineering contracts. The value of contracts awarded for residential building declined by 19 p.c. All provinces, except Quebec and New Brunswick, shared in the general increase, but the most important advances were made by British Columbia and Ontario, value of contracts in the former Province increasing from $\$ 81,000,000$ to $\$ 382,000,000$, and in the latter from $\$ 597,000,000$ to $\$ 1,017,000,000$.

## 5.-Values of Construction Contracts Awarded, 1916-51

(Source: MacLean Building Reports Limited)

| Year | Value of Construction Contracts | Year | Value of Construction Contracts | Year | Value of Construction Contracts |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ |  | \$ |  | \$ |
| 1916. | 99,311,000 | 1928. | 472,032,600 | 1940. | 346,009, 800 |
| 1917. | 84,841,000 | 1929. | 576,651,800 | 1941.. | 393,991, 300 |
| 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. | ${ }_{1}^{1,143,547,3001}$ |
| 1926. | $372,947,900$ $418,951,600$ | 1939. | $187,277,900$ $187,178,500$ | 1950. | 1,525,764,7002 |

${ }^{1}$ Includes $\$ 3,431,100$ for Newfoundland, from Apr. 1 to Dec. $31 . \quad{ }^{2}$ Includes Newfoundland.

## 6.-Values of Construction Contracts Awarded, by Provinces and Types of Construction, 1946-51

(Source: MacLean Building Reports Limited)

| Province and Type of Construction | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | § | \$ |
| Newfoundland. |  |  |  | 3,431,100 ${ }^{1}$ | 10,065,000 | 10,509,400 |
| Prince Edward Island | 650,200 | 3,991,900 | 2,410,300 | 4,498,500 | 2,663,500 | 3,251,000 |
| Nova Scotia. | 13,489,400 | 28,855,000 | 36,624,200 | 33,941,600 | $35,643,300$ | 67,537,090 |
| New Brunswic | 26,698,500 | 27,017,300 | 28,980,100 | 19,536,100 | 34,592,100 | 20,983,900 |
| Quebec. | 226,809,500 | 255, 202,400 | 327, 111, 900 | 355,408,300 | 533,971,700 | 480, 106,000 |
| Ontario. | 252,787,400 | $258,709,300$ $34,446,100$ | $350,612,300$ $45,414,700$ | 781, 517,300 | 67, 685, | 1, 91,157,700 |
| Saskatchewan | 19,497,500 | 23,040, 200 | 18,273,600 | 43, 306, 200 | 27,563,900 | 39,604,700 |
| Alberta. | 38,971,900 | 47,425, 100 | 74,071,700 | 104,380, 600 | 134, 878,500 | 183, 775,100 |
| British Columbia | 58,709,200 | 39,449,800 | 70,583,600 | 79,428,700 | 81,239,500 | 381,547,500 |
| Grand Totals. | 663,355,100 | 718,137,100 | 954,082,400 | 1,143,547,300 | 1,525,764,700 | 2,295,499,209 |
| Residential- |  |  |  |  |  |  |
| Apartments. | 18,998,800 | 125, 146,700 | 342,986, 800 | 396, 821,500 | $\begin{array}{r} 59,297,800 \\ 482,386,50 \end{array}$ | $381,289,800$ |
| Residences. | 194,051,700 | 185,146,700 |  | 396,821,500 | 482,38,500 |  |
| Totals, Residential. | 213,050,500 | 197, 196,300 | 373,055,900 | 466,075,500 | 541,684,300 | 437,109,700 |

[^207]
## 6.-Values of Construction Contracts Awarded, by Provinces and Types of Construction, 1946-51-concluded

| Type of Construction | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B | \$ | \$ | \$ | \$ | \$ | \$ |
| Churches | 14,426,500 | 11,263,000 | 16,425,500 | 21,677,400 | 24,100,400 | 25,274,900 |
| Public gar | 16, 859,900 | 15,789,200 | 13,096,900 | 12,316,800 | 13,781,600 | 10,838,000 |
| Hospitals | 23,863,700 | 40,298,900 | 49,318,800 | 42,405,900 | 59,967,700 | 85, 746,400 |
| Hotels and c | 16,071,600 | 14,541,200 | 27,628,800 | 16,957,500 | 41, 611,000 | 32,095,700 |
| Office buildings | 18,912,400 | 34,620,600 | 34,137,900 | 40,031,400 | 53,240, 200 | 29,108, 200 |
| Public building | 7,411, 600 | 16,197,900 | 19,919,400 | 46,078,800 | 61,834,500 | 150,483,700 |
| Schools. | 23,019,500 | 45, 648,400 | 79, 156,000 | 80,982,500 | 99,296,400 | 139,938,800 |
| Stores. | 29,271,200 | 28,685,500 | 42,348,000 | 36,218,400 | 43,677, 100 | 33,497, 100 |
| Theatres | 8,921,500 | 7,823,200 | 4,814,500 | 6,132,300 | 6,173,600 | 2,713,900 |
| Warehouse | 28,047,600 | 24,662,300 | 28,413, 100 | 21,464,700 | 36,722,400 | 37,985,400 |
| Totals, Busi | 186,805,500 | 239,530,200 | 315,258,900 | 324,265,700 | 440,404, 900 | 547,682,100 |
| Industra | 138,328,500 | 113,495,000 | 74,878,100 | 104, 040,300 | 141,043,200 | 451,753,200 |
| Enginetring |  |  |  |  |  |  |
| Bridges. | 5,279,200 | 7,037,400 | 7,562,000 | 9,182,900 | 16,624,300 | 19,340,400 |
| Dams and wha | 10,379,700 | 41,663,700 | 18,215,000 | 20,716,900 | 38,561,900 | 32,155,000 |
| Sewers and water mains... | 13,144,900 | 16,281, 200 | 20,038,600 | 27,856,400 | $31,005,800$ | 63,333,300 |
| Roads and streets. | 56,941,600 | 53,707,800 | 45, 856,900 | 49,396,300 | 92,386,300 | 94,621,900 |
| General engineering | 39,425, 200 | 49,225,500 | 99, 217,000 | 142,013,300 | 224,054,000 | 649,503,600 |
| Totals, Engineering. | 125,170,600 | 167,915,600 | 190,889,500 | 249,165, 800 | 402,632,300 | 858, 954, 200 |

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. 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 issued in 1951 amounted to $\$ 681,161,938,15$ p.c. less than the 1950 value of \$801,765,092.

## 7.--Estimated Value of Proposed Construction as Indicated by Building Permits Issued in 204 Municipalities, ${ }^{1} 1950$ and 1951

Nore.-Statistics for these series covering years previous to 1950 will be found in the corresponding tables of earlier editions of the Year Book. For the 35 cities marked (e) the record goes back to 1910; the 23 places marked ( O ) were added in 1920.

| $\begin{gathered} \text { Province } \\ \text { and } \\ \text { Municipality } \end{gathered}$ | 1950 | 1951 | $\begin{gathered} \text { Province } \\ \text { and } \\ \text { Municipality } \end{gathered}$ | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Prince Edward Island- |  |  | Nova Scotla-concluded |  |  |
| OCharlottetown.. | 620,290 | 785,550 | Liverpool. | 109,425 | 96,735 |
|  |  |  | ONew Glasgow.......... | 721,525 | 753,980 |
| Nova Scotia- |  |  | New Waterford | 209,500 | 116,600 |
| , Scota- |  |  | North Sydney........ | 189,300 | 1,541,850 |
| Amherst................ | 189,443 | 186,270 | -Sydney...... | 2,655,109 | 2,509,978 |
| Bridgewater............... | 189,43 $2,593,580$ | 283,400 949,965 | Sydney Mines........ | 252, 200 | 406,664 |
| Glace Bay ................ | 445,332 | 828.636 | Truro... | 699,030 | 592,910 |
| - Halifax. | 14,793,237 | 5,440,410 | Yarmouth. | 1,173,570 | 132,387 |

[^208]
## 7.-Estimated Value of Proposed Construction as Indicated by Building Permits Issued in 204 Municipalities, 1950 and 1951-continued

| $\begin{gathered} \text { Province } \\ \text { and } \\ \text { Municipality } \end{gathered}$ | 1950 | 1951 | Province and Municipality | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| New Brunswick- | \$ | \$ | Ontarlo-continued | \$ | \$ |
| Campb | 897, 180 | 134,220 | Burlingt | 1,724,775 | 1,034,390 |
| Chatham | 174,330 | 196,800 | Campbe | 115,850 | 57,400 |
| Dalhousie | 463,525 | 1,004,300 | OChatham. | 3,827,248 | 2,065,089 |
| OFredericto | 2,305,891 | 1,274,190 | Cobourg | 535,500 | 360,690 |
| - Moncton | 6,500,563 | 2,146,841 | Cochran | 152,622 | 60,994 |
| Newcast | 180,700 | 335,200 | Collingwood | 202,660 | 262,843 |
| - Saint Joh | 1,835,147 | 2,205,830 | Cornwall. | 672,125 | 992,532 |
| St. Stephen | 875,956 | 1,116,565 | Dundas. | 1,017,778 | 449,640 |
|  |  |  | Eastvie | 1,549,700 | 1,249,625 |
|  |  |  | Etobicoke | 34,092, 204 | 34,937,570 |
| Quebec- |  |  | Forest Hill | 3,045,445 | 3,633,087 |
| Ca | 1,620,650 | 2,507,873 | Fort Erie | 765,029 $1,073,811$ | 939,346 $1,566,746$ |
| Chicoutimi | 1,730,845 | 4,250,860 | - Fort Willia | 1,986,007 | 2,522,160 |
| Coaticook | 116,439 | 108,510 | OGalt. | 1,269,584 | 1,481,502 |
| Drummo | 1,878,350 | 1,236,000 | Gananoq | 181,400 | 214,017 |
| Granb | 2,684,795 | 2,468,034 | Gloucester | 1,007,250 | 2,053,162 |
| Grand'Mè | 900,700 | 939,615 | Goderich | 181,441 | 852,755 |
| Hampste | 2,192,570 | 965,345 | - Guelph | 2,964,790 | 2,097,645 |
| Hull.... | 5,024,810 | 2,161,950 | Haileybury | 39,640 | 137.795 |
| Ibervill | 291,900 | 199,815 | - Hamilton. | 18,255,001 | 24,933,959 |
| Joliette | 1,172,105 | 2,081,050 | Hanover | 234,300 | 528,875 |
| Jonquie | 1,377,525 | 807,350 | Hawkesbur | 254,755 | 355,935 |
| Lachine | 7,054,748 | 5,328,297 | Huntsville | 90,200 | 135,000 |
| Laprairi | 264,100 | 596,700 | Ingersoll. | 217,988 | 118,012 |
| La Tuque | 491,800 | 241,700 | Kapuskasing | 549,300 | 550,810 |
| Lévis. | 419,500 | 1,296,400 | Kenora. | 283,603 | 567,152 |
| Longueui | 1,121,680 | 1,613,255 | - Kingston. | 3,641,594 | 1,833,595 |
| Mégantic | 123,855 | 119,520 | Kirkland Lake |  |  |
| - Montreal ( Maison- |  |  | Twp.). |  | $\begin{array}{r} 203,755 \\ 4,956,234 \end{array}$ |
| neuve). | $112,914,976$ 4,260 | $73,558,070$ $1,264,310$ | - Kitchen | $6,617,341$ 517,525 | $4,956,234$ |
| Montreal M | $4,260,440$ $3,471,995$ | $1,264,310$ $1,368,200$ | Leamin | 517,525 $3,563,480$ |  |
| Montreal | $3,471,995$ 91,100 | $1,368,200$ 329,800 | Lindsa | - 554,825 | 402,875 |
| Mount Roya | 5,995,747 | 7,359,820 | Listowe | 112,550 | 246,695 |
| Noranda. | 1,920,735 | 256,450 | - London | 10,801,025 | 7,141,120 |
| Outremont | 1,992,850 | 1,577,500 | Long Bra | 1,387,495 | 641,525 |
| Pointe-aux-T | 883,282 | 1,196,725 | Mimico | 809,804 | 1,029,760 |
| Pointe | 2,780,700 | 2,520,435 | Napanee | 75,900 | 1,025,750 |
| - Quebec | 12,721,398 | 6,648,746 | Nepean Tw | 2,156,170 | 2,031,586 |
| Rimousk | 3,020,850 | 2,720,760 | New Liskea | 271,958 | 321,425 |
| Rivière-du-L | 328,875 | 200,900 | Newmarket. | 476,000 | 359,700 |
| Rouyn.... | 1,143,700 | 455, 125 | New Toronto | 1,110, 150 | 2,790,100 |
| Ste. Agathe-des-Monts. . | 372,950 | 80,700 | 9 Niagara Fall | 2,472,412 | 2,151,931 |
| Ste. Anne-de-Bellevue... | 48,248 | 110,555 | North Bay | 869,312 | 1,337,623 |
| St. Hyacinthe. | 3,730,600 | 947,700 | North York Twp | 52,241, 324 | 40,016,552 |
| St. Jean... | 1,950,400 | 4,033,084 | Oakville. | 1,563,428 | 1,614,492 |
| St. Jérôm | 1,916,865 | 994.875 | Orill | 977,925 | 433,617 |
| St. Joseph | 223,842 | 210,327 | OOshawa | 3,332,501 | 4,506,834 |
| St. Lambert | 3,787,755 | 4,243,640 | -Ottaw | 36,100,884 | $30,445,363$ $1,219,135$ |
| St. Laurent | 10,868,150 | 6,351,625 1,495 | OOwen | 946,785 410,805 | $1,299,923$ |
| OShawinigan Sherbrooke | $2,039,640$ $5,644,956$ | 4,495,350 | Paris | 602,990 | 77,035 |
| Sorel. | 292,765 | 1,279,500 | Pembrol | 1,044,637 | 893,825 |
| - Three Ri | 6,014,925 | 2,898,250 | Perth | 272,310 | 419,690 |
| Val d'Or | 379,125 | 282,935 | Perth | 272,310 | 419,690 |
| Valley fiel | 2,054,693 | 1,851,060 | - Peterboro | 3,976,158 | 4,553,687 |
| Verdun. | 2,859,800 | 2,718,100 | Petrolia | 70,450 | , 50,500 |
| - Westmount | 1,510,280 | 2,324,455 | - Port Arthu |  | 1,742,076 |
|  |  |  | Port Colbo | 840,801 | 675,045 |
|  |  |  | Presto | 570,777 | 652,331 |
| Ontario |  |  | Renfre | 877,150 | 354,005 |
|  |  |  | ORiversi | 4,108,978 | 2,344,643 |
| Amherstburg | 320,280 | 253,200 | -St. Cathari | 3,436,194 | 4,883,581 |
| Barrie. | 2,042,418 | 2,278,225 | St. Marys. | 68,250 | 96,050 |
| OBelleville | 1,988,360 | 1,185,578 | - St. Thomas | 622,862 | 4,406,522 |
| Bowmanvi | 413,900 | 360,860 | OSarnia | 2,308,306 | 7,413,616 |
| Bracebridge | 101,950 | $\begin{array}{r}99,650 \\ \hline\end{array}$ | OSault Ste. Mar | 3,400,608 | 34, 3 , 2661,650 |
| Brampton | 1,968,083 | 1,939,508 | Scarboro Twp. | $22,538,200$ $1,084,650$ | - ${ }^{34,71,650}$ |
| Brantior | 2,443,134 | $1,866,833$ 476,490 | Smit | 1,418,095 | 1,042,475 |

${ }^{1}$ Exclusive of the municipalities of Newfoundland.

## 7.-Estimated Value of Proposed Construction as Indicated by Building Permits Issued in 204 Municipalities, ${ }^{1} 1950$ and 1951-concluded

| Province and Municipality | 1950 | 1951 | Province and Municipality | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario-concluded | \$ | \$ | Saskatchewan-concluded | \$ | \$ |
| Stratford. | 865,782 | 649,476 | - Saskatoon. | 6,830,860 | 3,719,134 |
| Sudbury | 7,096,225 | 3,691,125 | Swift Current | 897, 343 | 331,935 |
| Swansea | 952,890 | 834,270 | Weyburn. | 931,757 | 265,990 |
| Tillsonburg | 359,075 | 236,000 | Yorkton. | 1,049,200 | 744,590 |
| Timmins.. | 380,834 | 312,585 |  |  |  |
| Toronto. | 52,442,662 | 47,167,715 |  |  |  |
| Trenton... | 373,645 | 212,585 | Aberta- |  |  |
| Wallacebur | 407,405 $1,275,105$ | 267,350 $1,850,389$ | -Calgary | 25,990,734 | 22,322,868 |
| OWelland | 1,395,522 | 1,126,876 | Drumheller | 2584,675 | -130,330 |
| Weston | 1,168,425 | 526,565 | - Edmonton. | 46,584,673 | 36,100,034 |
| Whitby | 1,194,187 | 423,135 | OLethbridge | 4,513,525 | 4,820,675 |
| -Windsor | 9,308,655 | 12,228,405 | OMedicine Hat | 1,261,980 | 1,580,125 |
| OWoodstock | 1,373,428 | 1,105,978 |  |  |  |
| O \{ York Twp...... | 9,335,850 | 8,542,650 7 |  |  |  |
| (York East T | 9,471,797 | 7,796,074 | British Columbia- |  |  |
|  |  |  | Chilliwack.............. | 692,135 | 1,217,580 |
| Manitoba- |  |  | Cranbrook.............. | 227,582 | 869,422 |
|  |  |  | Fernie. | 75,413 | 288,360 |
| - Brandon. | 1,517,405 | 1,400,055 | OKamloops | 388,640 | 1,211,016 |
| Brookland | 56,510 | 197,240 | Kelowns................. | 1,481,449 | 1,125,384 |
| Dauphin. | 434,146 | 833,005 | O Nanaimo | 723,217 | 330,727 |
| North Kildonan | 200,200 | 203, 100 | Nelson. | 368,930 | 364,438 |
| Portage la Prairi | 713,960 | 442,620 | - New Westminster | 2,592,660 | 2,362,770 |
| OSt. Bonifa | 1,245,481 | 888,280 | O North Vancouver......... | 1,361,220 | 1,390,895 |
| Selkirk | 261,000 | 194,000 | Prince George............ | 555,675 | 932,825 |
| The Pas | 121,050 | 131,775 | OPrince Rupert............. | 350,600 | 304,323 |
| Transcona | 292,850 | 304,945 | Revelstoke............... | 144,920 | 204,820 |
| -Winnipeg. | 19,451,100 | 16,484,300 | Rossland................. | 214,325 | 89,176 |
|  |  |  | Trail.. | 716,638 | 713,225 |
| Saskatchewan- |  |  | - Vancouver................ | 34,949, 669 | 23,942,309 |
|  |  |  | Vernon. | 1,096,734 | 487,158 |
|  | $\begin{array}{r} 47,793 \\ 96,360 \\ 227,010 \end{array}$ | $\begin{array}{r} 15,350 \\ 282,780 \end{array}$ | Victoria | 5,660,227 | 4,087,011 |
| Estevan |  |  | $\left\lvert\, \begin{gathered} \text { Totals_ } \\ 204 \text { Municipalities } . . . . . . \end{gathered}\right.$ |  |  |
| Melville. |  | 166,375 |  | 801,765,092 | 681,161,938 |
| - Moose Jaw | 1,349,795 | 999,405 | 204 Municipalities...... |  |  |
| North Battlefor |  | 490,510 $1.866,717$ | 58 Municipalities O.. | 533,608,683 | 430,507,541 |
| - Regina | $\begin{aligned} & 1,830,257 \\ & 6,467,223 \end{aligned}$ | $\begin{aligned} & 1,866,717 \\ & 6,069,657 \end{aligned}$ | 35 Municipalities | 472,845,295 | 371,466,436 |

[^209]The indexes given in Table 8 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 averaged 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 $\$ 161,152,394$ or 24 p.c. of the value of building permits issued in 1951. In 1950 the same cities showed a value of $\$ 219,758,407$ or 27 p.c. of the total, and in 1929 the value for these cities was $\$ 126,387,555$.
8.-Values of Building Permits Issued in 204 Municipalities and Index Numbers of the Building Construction Industries, 1942-51

Nore.-These 204 municipalities are named in Table 7.

| Year | Value of Building Permits, 204 Municipalities | Average Index Numbers of- |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Wholesale Prices of Building Materials ( $1935-39=100$ ) | Wages in Construction Industries ${ }^{1}$ (1939=100) | Employment in Building Construction ${ }^{2}$ (1939=100) |
|  | \$ |  |  |  |
| 1942. | 104, 236, 278 | $131 \cdot 1$ | $118 \cdot 6$ | 231-3 |
| 1943. | 80,190,123 | 137.9 | $127 \cdot 7$ | $234 \cdot 7$ |
| 1944. | 128,728,465 | $144 \cdot 8$ | $129 \cdot 6$ | $139 \cdot 5$ |
| 1945. | 197, 187, 160 | $144 \cdot 8$ | $131 \cdot 1$ | $149 \cdot 1$ |
| 1946. | 383,596,698 | 153.4 | $143 \cdot 9$ | $213 \cdot 4$ |
| 1947. | 373,231,249 | $189 \cdot 3$ | 155.0 | $279 \cdot 1$ |
| 1948. | 536,057,597 | 222.6 | $176 \cdot 3$ | 311.8 |
| 1949. | 616,160,593 | $229 \cdot 2$ | $184 \cdot 2$ | $340 \cdot 9$ |
| 1950 | 801,765,092 | $249 \cdot 9$ | $194 \cdot 0$ | $356 \cdot 8$ |
| 1951. | 681,161,938 | $289 \cdot 8$ | .. | $395 \cdot 3$ |

[^210]
## Section 2.-Housing Construction

## Subsection 1.-Government Aid to House Building*

Federal Government Assistance, 1951.-Publicly assisted house building in Canada operates under two distinct types of arrangement. In one type, Government financial assistance in the form of mortgage loans is extended to prospective homeowners and builders through the National Housing Act, 1944, the Veterans' Land Act, 1942, the Farm Improvement Loans Act, 1944, and the Canadian Farm Loan Act, 1927. In the other, the Federal Government carries on direct house-building activities of veterans' rental units, armed service married quarters and, in conjunction with the provincial governments, joint housing projects for rental. During the seven-year period 1945-51, completions under these government-sponsored plans accounted for about one-third of total new permanent dwellings.

The Central Mortgage and Housing Corporation is the Federal Government agency responsible for most of the publicly assisted housing activities. It was incorporated by an Act passed in December 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 government activities in the housing field. In 1948, the functions of Wartime Housing Limited were transferred to its administration. In November 1950, the charter of Wartime Housing Limited was revived to form Defence Construction Limited and entrusted with carrying out construction of defence projects requisitioned by the Department of National Defence. Central Mortgage and Housing Corporation provides management and supervisory services to Defence Construction Limited.

The National Housing Act, 1944.-The National Housing Act, 1944, constitutes the principal legislation of the Federal Government in the field of housing. During 1951 three major changes were introduced in housing measures under this Act. The first change occurred in February 1951 when the one-sixth loan, which was in

[^211]addition to the basic joint loan provided for home-ownership building, was discontinued. At the same time, direct assistance by the Central Mortgage and Housing Corporation on rental insurance projects was also suspended and, in addition, the amount of rentals guaranteed on projects financed by lending institutions, formerly calculated on the basis of an 85 p.c. mortgage, was to be calculated on the basis of an 80 p.c. mortgage. These changes were introduced to permit an accelerated flow of construction resources into the expanding defence and defence-supporting construction program, and to keep the housing program within the limits of prospective total resources.

A further change occurred in June 1951 when the rate of interest payable by a borrower on joint loans was increased from $4 \frac{1}{2}$ p.c. to 5 p.c. per annum calculated semi-annually. Increases of $\frac{1}{2}$ to 1 p.c. in the interest rate were also effected with respect to rental insurance loans, primary producer housing loans and limiteddividend corporation housing loans. These changes came as a result of the increase, early in the year, in conventional mortgage interest rates and other long-term interest rates.

The third change occurred in October 1951, when down-payment requirements under the Act were reduced to 20 p.c. for prospective home-owners and for builders of dwellings for sale, provided that there was an agreed sale or contract price. Special provisions were also made for loans on dwellings for defence workers on the basis of a down-payment of 10 p.c. With respect to rental housing, the regulations provide that, failing financing from lending institutions, Central Mortgage and Housing Corporation will again consider applications for direct loans under the Rental Insurance Plan on an 80 p.c. basis. Also, for approved rental insurance projects for defence workers, direct loans of 85 p.c. of the estimated project cost and guarantees on the basis of such loan may be approved. In such cases the maximum return of rentals to the owner was extended from three to five years.

The Central Mortgage and Housing Corporation joins with approved private lending institutions in making loans to prospective home-owners or builders of dwellings for sale or for rental. The Corporation advances 25 p.c. of the loan and the lending institution 75 p.c. These joint loans are amortized over a period of not more than 30 years and, in the case of loans to prospective home-owner defence workers, for a period not exceeding 25 years.

The Central Mortgage and Housing Corporation may make direct loans for house building in areas beyond the normal operations of lending institutions on a basis similar to that for joint loans. Special provisions are effective in the case of prospective home-owner defence workers or builders of dwellings for sale to defence workers. Direct loans may also be made for low- and medium-rental units to limiteddividend companies and companies engaged in the primary industries of logging, lumbering, fishing and mining. Up to the end of 1951, 19 limited-dividend companies had been formed under the sponsorship of business companies or local groups supplemented in some cases by municipal grants or contributions from service clubs. Many of the units constructed through these companies are occupied by widows and old-age pensioners. In addition, when private lending institution funds are not available for suitable rental insurance projects, such projects may be financed by direct loans.

The Rental Insurance Plan, instituted in 1948, is designed to encourage the construction of rental housing accommodation. Owners of projects built under the Plan are guaranteed a return of rentals sufficient to pay taxes, operating expenses,
debt service and a minimum return of 2 p.c. on equity of the owner. From 1948 to December 1951, projects have been approved involving 14,600 units with an estimated cost of $\$ 106,000,000$.

Under the land-assembly provisions of the Act, which provide for the development of raw land into serviced lots for residential purposes and the sale at prices considerably below the market price for comparable lots, lending institutions are guaranteed the recovery of their investment together with an annual return of 2 p.c. Land-assembly projects have also been undertaken directly by the Corporation.

The construction of veterans' rental housing units, first carried out by Wartime Housing Limited and from 1948 by Central Mortgage and Housing, was nearing completion by the end of 1951. These rental units were constructed under federalmunicipal agreements. The administration of the construction of armed service married quarters, also in the hands of the Corporation since 1948, continued during 1951, but on a reduced scale compared with 1949 and 1950.

Sect. 35 of the National Housing Act, 1944, provides that, following agreements between a provincial government and the Government of Canada, Central Mortgage and Housing Corporation may undertake, jointly with the province, the development of a housing or land-assembly project. Projects are financed to the extent of 75 p.c. of expenditure by the Government of Canada and 25 p.c. by the province. By December 1951, all provinces except Alberta and Prince Edward Island had passed complementary legislation. Under the legislation, three main types of housing agreement have evolved: (1) the construction of houses for rental on an economic or sub-economic basis; (2) a combined rental-housing and land-assembly project in which serviced land not used for the rental-housing project is made available for sale to builders and prospective home-owners; and (3) the assembly and servicing of residential lots for sale to builders and prospective home-owners.

During 1951, seven rental-housing agreements were approved for a total of 1,225 dwellings including the construction of 935 rental units at Windsor, St. Thomas, Fort William and Hamilton, Ont., 50 units at Prince Rupert, B.C., 88 units at Saint John, N.B., and 152 units at St. John's, N'f'ld. In 1950, one rentalhousing project consisting of 140 units was initiated at St. John's, N'f'ld.

Four combined land-assembly and rental-housing agreements were entered into between Central Mortgage and Housing Corporation and the Province of Ontario during 1951. Projects at Brockville, Guelph, Kitchener and Trenton consist of 225 rental units and an additional 1,855 serviced residential lots for sale to builders and prospective home-owners.

Land-assembly agreements were approved with respect to projects for the acquisition and installation of services on 1,211 lots at Atikokon, Ont., Trail, B.C., and St. John's and Cornerbrook, N'f'ld. In 1950, land-assembly projects were negotiated for the servicing of 2,082 residential lots at Windsor, St. Thomas, London and Ottawa in Ontario.

At the end of 1951, negotiations were under way on rental projects at Lindsay, Sarnia and Prescott in Ontario involving 115 units, and for 100 dwellings at St. John's, N'f'ld.

Combined land-assembly and rental projects were also under consideration at the end of 1951 for 138 dwellings and 374 supplementary residential lots at North Bay, Sault Ste. Marie and Stratford in Ontario.

The Canadian Farm Loan Act, 1927.-Under this legislation federal long-term loan assistance for housing as well as for other farm purposes is provided. (See the 1950 Year Book, pp. 403-405.)

The Farm Improvement Loans Act, 1944.-This Act provides for guarantees in respect of intermediate and short-term loans made by approved lending agencies to farmers for housing and other purposes. (See the 1950 Year Book, pp. 405-406.)

The Veterans' Land Act, 1942.-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. 287-288.)

Statistics of Federal Assistance in the Housing Program, 1935-51.—The extent of Federal Government assistance to house-building in Canada is shown in Table 9. The year 1935 marked the passage of the Dominion Housing Act, 1935, 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 and 1944. These three Acts account for most of the federal loan assistance to house-building. (See the 1950 Year Book, pp. 650-652.)
9.-Dwellings Completed with and without Federal Government Assistance, 1935-51
(Exclusive of the Yukon and Northwest Territories)

| Year | With Federal Government Assistance |  |  |  | Without Federal Government Assistance | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Direct Government ${ }^{1}$ | Loans | Guarantees | Total ${ }^{1}$ |  |  |
|  | '000 | '000 | '000 | '000 | '000 | '000 |
| 1935....................... | - | 0.5 | $\rightarrow$ | 0.5 | 32.4 | $32 \cdot 9$ |
| 1936....................... | - | $1 \cdot 1$ | 0.1 | 1.2 | $38 \cdot 1$ | $39 \cdot 3$ |
| 1937......................... | - | 1.5 | 0.9 | $2 \cdot 4$ | $46 \cdot 2$ | $48 \cdot 6$ |
| 1938. | - | $2 \cdot 4$ | 0.9 | $3 \cdot 3$ | 40.7 | 44.0 |
| 1939. | 二 | $5 \cdot 2$ | 1.1 0.8 | 6.3 7.0 | $45 \cdot 4$ | 51.7 |
| 1940....................... | 17 | $6 \cdot 2$ | 0.8 | $7 \cdot 0$ | $45 \cdot 5$ | $52 \cdot 5$ |
| 1941:....................... | 1.7 | $4 \cdot 9$ | - | 6.6 | $50 \cdot 2$ | 56.8 |
| 1942....................... | $7 \cdot 6$ | $2 \cdot 7$ | $\overline{0}$ | $10 \cdot 3$ | $36 \cdot 9$ | 47.2 |
| 1943. | 6.4 | $1 \cdot 3$ | $0 \cdot 1$ | 7.8 | 29.0 | $36 \cdot 8$ |
| 1944. | $2 \cdot 8$ | $0 \cdot 1$ | - | 2.9 | $39 \cdot 9$ | $42 \cdot 8$ |
| 1945. | 3.4 | $2 \cdot 0$ | 0.2 | $5 \cdot 6$ | $42 \cdot 9$ | 48.5 |
| 1946. | 14.0 | $5 \cdot 6$ | $0 \cdot 4$ | 20.0 | $47 \cdot 2$ | 67.2 |
| 1947. | 10.0 | $10 \cdot 6$ | $0 \cdot 4$ | 21.0 | 58.2 | 79.2 |
| 1948. | 8.7 | 13.9 | $0 \cdot 5$ | 23.1 | $58 \cdot 1$ | 81.2 |
| 19492. | $9 \cdot 5$ | 23.4 | $2 \cdot 7$ | $35 \cdot 6$ | $55 \cdot 4$ | 91.0 |
| 1950 | $6 \cdot 8$ | $32 \cdot 5$ | $2 \cdot 5$ | 41.8 | $50 \cdot 0$ | 91.8 |
| 1951 | $3 \cdot 5$ | 29.3 | 1.5 | $34 \cdot 3$ | 50.5 | 84.8 |
| Totals, 1935-51... | 74.4 | $143 \cdot 2$ | 12.1 | 229.7 | $766 \cdot 6$ | 996.3 |

[^212]10.-Net Loans Approved under the National Housing Act, 1944, by Provinces, 1945-51

| Year and Item | N'i'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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1945- |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans...... No. | $\ldots$ | - | 60 | ${ }_{23} 3$ | 481 | 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. . ", |  | 1 | 113 | 206 | 1,931 | 5,345 | 1,020 | 363 | 880 | 1,965 | - | 11,827 |
| Amount.... \$'000 | $\ldots$ | 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 | $\cdots$ | 170 | 1,364 | 562 | 14,423 | 19,115 | 6,577 | 735 | 4,960 | 5,325 | - | 53;230 |
| 1948 - |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans...... No. |  | 35 38 | 285 | 286 | 2, 5185 | 6,539 | 1,106 1,372 | $\stackrel{94}{9} 102$ | 1,972 2,156 | 2,125 |  | 15,339 18,828 |
| Amount.... \$'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.... \$'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 |  | 34,440 |
| Dwellings.. "' | 51 | 20 | 558 | 348 | 13,980 | 17,830 | 1,826 | 360 | 4,279 | 3,503 |  | 42,756 |
| Amount.... \$'000 | 369 | 140 | 3,526 | 2,450 | 85,686 | 133,050 | 13,163 | 2,255 | 26,444 | 22,137 | 3 | 289,223 |
| 1951- |  |  |  |  |  |  |  |  |  |  |  |  |
| Loans....... No. | 33 | 7 | 173 | 123 | 2,630 | 7,700 | 1,010 | 135 | 1,983 | 1,124 | - | 14,918 |
| Dwellings.. "' | 33 | ${ }^{7}$ | 187 | 126 | 4,233 | 9,416 | 1,100 | 137 | 2.659 | 1,405 | - | 19,303 |
| Amount.... \$'000 | 239 | 41 | 1,210 | 869 | 26,035 | 63,523 | 6,810 | 797 | 16,162 | 8,011 |  | 123,697 |

## 11.-Dwellings Completed with and without Federal Government Assistance, by Provinces, 1950 and 1951

(Exclusive of the Yukon and Northwest Territories)

| Year and Type of Assistance | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | 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.. | 22 | 159 | 220 | 144 | 100 | 1,397 | 371 | - | 202 | 338 | 2,953 |
| Veterans rental projects by Central Mortgage and Housing Corporation..... | 50 | - | 66 | 166 | 754 | 1,073 | 582 | 284 | 367 | 499 | 3,841 |
| Totals, Direct Federal Government House Building. . | 72 | 159 | 286 | 310 | 854 | 2,470 | 953 | 284 | 569 | 837 | 6,794 |
| Federal Government LoansNational Housing Act, 1944 | 12 | 8 | 354 | 131 | 7,988 | 10,206 | 1,526 | 195 | 2,564 | 2,337 | 25,321 |
| Veterans' Land Act, 1942... | - | 19 | 47 | 67 | 327 | 976 | 111 | 78 | 179 | 345 | 2,149 |
| Canadian Farm Loan Act, 1927 |  | - |  |  | 6 |  | 10 | 21 | 14 | 8 | 71 |
| Totals, Federal Government Loans. | 12 | 27 | 401 | 202 | 8,321 | 11,190 | 1,647 | 294 | 2,757 | 2,690 | 27,541 |

11.-Dwellings Completed with and without Federal Government Assistance, by Provinces, 1950 and 1951-concluded

| Year and Type of Assistance | N'I'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Totals |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| Federal Government Gua-rantees- <br> Rental insurance under the |  |  |  |  |  |  |  |  |  |  |  |
| National Housing Act, 1944. | - | - | - | - | 775 | 745 | 33 | 18 | 333 | 70 | 1,974 |
| Farm Improvement Loans Act, 1944. | - | 2 | 1 | 1 | 14 |  |  |  | 196 | 30 | 511 |
| Totals, Federal Government Guarantees ${ }^{1}$. | - | 2 | 1 | 1 | 789 | 806 | 88 | 169 | 529 | 100 | 2,485 |
| Totals, With Federal Government Assistance ${ }^{\text {. }}$... | 84 | 188 | 688 | 513 | 9,964 | 14,466 | 2,688 | 747 | 3,855 | 3,627 | 36,820 |
| Totals, Without Federal Government Assistance. | 1,632 | 205 | 1,909 | 2,078 | 18,159 | 18,030 | 2,026 | 2,092 | 3,593 | 5,210 | 54,934 |
| Grand Total | 1,716 | 393 | 2,597 | 2,591 | 28,123 | 32,496 | 4,714 | 2,839 | 7,448 | 8,837 | 91,754 |
| 1951 |  |  |  |  |  |  |  |  |  |  |  |
| With Federal Government Assistance- <br> Direct Federal Government House Building- |  |  |  |  |  |  |  |  |  |  |  |
| Department of National Defence. | - | 97 | 174 | . 92 | 111 | 1,177 | 254 | - | 340 | 415 | 2,660 |
| Veterans Rental Projects <br> by Central Mortgage and <br> Housing Corporation. .... | - | - | - | - | 224 | 65 | - | 93 | 109 | 216 | 707 |
| Federal - Provincial - Municipal Projects. | 140 |  |  |  |  |  |  |  |  |  | 140 |
| Other projects............... | - | - | - | - | 32 | - | - | - | - | - | 32 |
| Totals, Direct Federal Government House Building. . | 140 | 97 | 174 | 92 | 367 | 1,242 | 254 | 93 | 449 | 631 | 3,539 |
| Federal Government LoansNational Housing Act, 1944 | 33 | 20 | 409 | 190 | 6,873 | 13,184 | 1,554 | 249 | 2,462 | 2,073 | 27,047 |
| Veterans' Land Act, 1942. <br> Canadian Farm Loan Act, 1927 | 16 | 12 | 49 2 | 60 | 223 6 | 1,094 10 | 125 | 67 16 | 204 14 | 315 | 2,165 64 |
| Totals, Federal Government Loans. | 49 | 32 | 460 | 250 | 7,102 | 14,288 | 1,687 | 332 | 2,680 | 2,396 | 29,276 |
| Federal Government Guar-antees- |  |  |  |  |  |  |  |  |  |  |  |
| Rental Insurance under the National Housing Act, 1944. $\qquad$ | - | - | - | - | 114 | 711 | 4 | - | - | 80 | 909 |
| Farm Improvement Loans Act, 1944. | - | 3 |  |  | 18 | 81 | 107 | 142 | 193 | 38 | 587 |
| Totals, Federal Government Guarantees ${ }^{1}$. | - | 3 | 4 | 1 | 132 | 792 | 111 | 142 | 193 | 118 | 1,496 |
| Totals, With Federal Gopernment Assistance ${ }^{1}$. | 189 | 132 | 638 | 343 | 7,601 | 16,322 | 2,052 | ${ }^{5} 56$ | 3,322 | 3,145 | 34,311 |
| Totals, Without Federal Goverament Assistance. | 752 | 158 | 1,471 | 991 | 20,205 | 16,383 | 1,889 | 1,474 | 2,965 | 4,211 | 50,499 |
| Grand Totals... | 941 | 290 | 2,109 | 1,334 | 27,806 | 32,705 | 3,941 | 2,041 | 6,287 | 7,356 | 84,810 |

${ }^{1}$ Exclusive of a small number of dwellings built by Federal Government Departments as part of their normal operations.

Provincial Government Assistance.-As stated previously (see p. 672), all provinces except Alberta and Prince Edward Island had, by December 1951, passed complementary legislation respecting Sect. 35 of the National Housing Act, 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 "Act to grant to municipalities special powers to remedy the housing shortage" (S.Q., 12 Geo. VI, c. 7) empowers municipal corporations under certain conditions to cede land at $\$ 1$ per unit to co-operative building societies or individuals and to reduce the valuation of any new dwelling for taxation purposes to 50 p.c. of its real value for a period of 30 years. The date fixed for the expiry of these powers was extended to Feb. 1, 1954, by Bill No. 16, dated Jan. 30, 1951.

An "Act instituting an enquiry into the housing problem" (S.Q., 12 Geo. VI, c. 8) authorized the appointment of a commission of from three to five members for this purpose and set aside $\$ 100,000$ for the carrying out of the enquiry. Bill No. 17, dated Jan. 30, 1951, provided a supplementary credit of $\$ 25,000$ for the completion of the enquiry.

The Charter of the City of Quebec (S.Q., 9 Geo. VI, c. 71) was amended by Bill No. 107, dated Feb. 28, 1951. Under the amendment, the City is authorized to borrow a maximum of $\$ 500,000$ for the purpose of making a loan on second mortgage to any person, association, corporation or limited-dividend company wishing to build residential dwellings under the National Housing Act, 1944. The dwellings may be of single or double type. Apartment houses or row houses containing up to ten dwellings are also eligible for second-mortgage loans under certain conditions. No loan shall exceed $\$ 1,000$ per dwelling.

An "Act to improve housing conditions" (S.Q., 12 Geo. VI, c. 6) was amended by Bill No. 5, assented to Nov. 15, 1951. Under the amendment, the Government is empowered to pay a subsidy on interest charges in excess of 3 p.c. on loans approved for the building of new dwellings of one or two units. The interest charged by the lender must not exceed 6 p.c. on loans up to $\$ 7,000$ in the case of a single-family dwelling and $\$ 12,000$ in the case of a two-unit dwelling. Before the amendment, the Government was authorized to pay an interest subsidy in excess of 2 p.c. on loans on which the interest rate did not exceed 5 p.c. per annum. The maximum amount of loan was $\$ 6,000$ in the case of a single-family dwelling and $\$ 10,000$ in the case of a two-unit dwelling. The amendment also provides for an addition of $\$ 10,000,000$ to the $\$ 20,000,000$ voted since 1948 for the purpose of paying the interest subsidy.

Ontario.-During April 1952, the Ontario Legislature approved five Bills designed to promote the building of new houses in urban and rural farm and nonfarm areas throughout the Province.

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 rural villages and other rural areas. 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 establishment, 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 municipality 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 of 50 p.c. of the capital cost of the project to the municipality. The Act came into force on Apr. 10, 1952.

## Subsection 2.-Construction of Dwelling Units

In 1951, the volume of house-building declined for the first time in the post-war years to a level below the rate prevailing in the period 1948 to 1950. Completions of dwellings in 1951 declined 8 p.c. from 91,800 units in 1950 to 84,800 in 1951. New dwellings started in 1951, after running ahead of 1950 for the first four months of the year, began to decline in May and dropped progressively for the remainder of the year. In 1951, 72,100 new dwellings (including conversions) were started, a decrease of 24 p.c. from the 95,300 started in 1950 . During 1951 approximately 80 p.c. of completed dwellings were built in urban centres and about 74 p.c. of all completions were single houses. It is estimated that about 25 p.c. were built for rental and the remainder were for owner-occupancy.

Regionally, starts and completions during 1951 decreased from 1950 by 26 and 2 p.c., respectively, in Quebec and by about 54 and 39 p.c., respectively, in the Maritimes. Ontario showed a decrease of 18 p.c. in starts and a gain of 1 p.c. in completions. The Prairie Provinces and British Columbia had a decrease of

31 p.c. and 24 p.c., respectively, in starts and 19 p.c. and 22 p.c. in completions. Newfoundland had a decrease of 47 p.c. in starts and 45 p.c. in completions.


Tables 12, 13 and 14 summarize the results of surveys conducted by the Dominion Bureau of Statistics and the Central Mortgage and Housing Corporation.
12.-New Dwelling Units Completed, by Types, 1949-51
(Exclusive of the Yukon and Northwest Territories)

| Type | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: |
|  | No. | No. | No. |
| New Construction- |  |  |  |
| One-family detached. | 68,422 | 68,685 7,376 | 60,366 |
| Two-family detached | 7,250 480 | 7,376 145 | ${ }^{7,568}$ |
| Apartment or flat. | 10,962 | 12,540 | 12,540 |
| Other.. | 419 | 269 | 251 |
| Totals, New Constructi | 87,533 | 89,015 | 81,310 |
| Conversions. | 3,422 | 2,739 | 3,500 |
| Grand Totals. | 90,955 | 91,754 | . 84,810 |

## 13.-New Dwelling Units Completed, by Provinces, 1950 and 1951

(Exclusive of Conversions)

| Province | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Urban | Rural | Total | Urban | Rural | Total |
|  | No. | No. | No. | No. | No. | No. |
| Newfoundland. | 377 | 1,339 | 1,716 | 429 | 512 | 941 |
| Prince Edward Island | 249 | 126 | 375 | 68 | 222 | 290 |
| Nova Scotia. | 1,774 | 799 | 2,573 | 1,102 | 840 | 1,942 |
| New Brunswick | 1,336 | 1,209 | 2,545 | 1447 | 696 | 1,143 |
| Quebec... | 23,264 | 3,973 | 27,237 | 22,116 | 4,570 | 26,686 |
| Ontario.. | 24,267 3,613 | 7,051 | 31,318 | 26,530 | 5,202 | 31,732 |
| Saskatchewan. | 1,985 | 828 | 2,813 | 1,286 | 1,740 | 3,810 2,026 |
| Alberta...... | 6,237 | 1,029 | 7,266 | 4,934 | 1,123 | 6,057 |
| British Columbia | 7,420 | 1,140 | 8,560 | 5,976 | 707 | 6,683 |
| Totals. | 70,522 | 18,493 | 89,015 | 65,387 | 15,923 | 81,310 |

14.-New Dwelling Units Completed, by Metropolitan Areas, 1949-51
(Exclusive of Conversions)

| Metropolitan Area | 1949 | 1950 | 1951 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | p.c. | p.c. | p.c. |
| St. John's, N'I'ld. |  | 299 | 326 |  | $0 \cdot 3$ | $0 \cdot 4$ |
| Halifax, N.S. | 780 | 708 | 620 | 0.9 | $0 \cdot 8$ | $0 \cdot 8$ |
| Saint John, N.B | 345 | 332 | 98 | 0.4 | 0.4 | $0 \cdot 1$ |
| Quebec, Que. | 1,090 | 1,473 | 1,045 | 1.2 | 1.7 | $1 \cdot 3$ |
| Montreal, Que | 14,394 | 15,826 | 16,316 | $16 \cdot 4$ | 17.8 | $20 \cdot 1$ |
| Ottawa, Ont. | 975 | 1,938 | 2,343 | $1 \cdot 1$ | 2.2 | $2 \cdot 9$ |
| Toronto, Ont. | 6,712 | 9,373 | 13,026 | $7 \cdot 7$ | 10.5 | 16.0 |
| Hamilton, On | 1,909 | 1,511 | 1,757 | $2 \cdot 2$ | 1.7 | $2 \cdot 2$ |
| London, Ont. | 1,204 | 1,325 | 1,261 | 1.4 | $1 \cdot 5$ | 1.5 |
| Windsor, Ont. | 1,416 | 1,196 | ${ }^{240}$ | $1 \cdot 6$ | $1 \cdot 3$ | $1 \cdot 2$ |
| Winnipeg, Man | 3,228 | 3,070 | 2,127 | 3.7 | $3 \cdot 4$ | $2 \cdot 6$ |
| Vancouver, B.C | 5,831 | 5,028 | 4,340 | $6 \cdot 6$ | $5 \cdot 7$ | $5 \cdot 3$ |
| Victoria, B.C. | 1,021 | 1,166 | 844 | 1.2 | $1 \cdot 3$ | 1.0 |
| Totals, Metropolitan Areas. | 38,905 | 43,245 | 45,043 | $44 \cdot 4$ | 48.6 | 55.4 |
| Totals, Canada ${ }^{1}$. | 87,533 | 89,015 | 81,310 | 100.0 | $100 \cdot 0$ | $100 \cdot 0$ |

[^213]
## CHAPTER XVIII.-LABOUR*

## 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.

## Section 1.-The Government in Relation to Labour

## Subsection 1.-Federal Labour Legislation

The Federal Department of Labour was established in 1900 by 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 certain 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; and Industrial Relations and Disputes Investigation Act, 1948.

Fair Wages Policy.-Wages and hours of work on contracts for the manufacture of equipment and supplies for the Federal Government and for construction were governed for some years by a Resolution of the House of Commons (1900) which was later incorporated in an Order in Council and amended from time to time. Contracts for construction are now regulated under the Fair Wages and Hours of Labour Act, 1935, and by an Order in Council of June 7, 1922, as amended Apr. 9, 1924, and May 2, 1949, and consolidated in November 1949. Hours on such

[^214]work are limited to eight per day and 44 per week except in an emergency or in special cases where exemption is granted by Order in Council; wages to be paid are those current for the type of work in the district concerned or, if there are no current rates, fair and reasonable ones determined by the Minister of Labour.

Wages and hours for work on contracts for equipment and supplies are regulated by the Order in Council of 1922 as amended on Dec. 31, 1934, and May 2, 1949. The hours on 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.

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, and that 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 a 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 precedent to strike and lockout action are provided 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 and 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 319 applications for certification since Sept. 1, 1948, 173 being granted, 81 rejected, 49 withdrawn and 16 pending as of Sept. 30, 1952.

Of the 139 industrial disputes dealt with under the conciliation provisions of the Act, 90 were settled by conciliation officers and conciliation boards, 19 were not settled, 6 lapsed and 24 were pending as of Mar. 31, 1952.

## Subsection 2.-Provincial Labour Legislation

Labour legislation in Canada is, for the most part, a matter for the provincial legislatures since it usually governs, in some respects, the contract of service between employer and employee or the contract between members of a trade union which forms the basis of the union, or it 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 in eight provinces and shops legislation in several provinces prohibit child labour, regulate the hours of women and young persons, and provide for safety and health. Other labour statutes in most provinces include minimumwage legislation and maximum-hours laws, legislation to ensure freedom of association, to promote collective bargaining and to provide for the settlement of industrial disputes, and laws to provide for apprenticeship and the licensing of certain classes of workmen. The Industrial Standards Acts in Saskatchewan, Ontario, New Brunswick and Nova Scotia, 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 employed in designated trades to be made legal 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 1951 is outlined in the following paragraphs.

Newfoundland.-The Workmen's Compensation Act, 1950, was brought into force on Apr. 1, 1951. Amendments made to the Act at the 1951 session fixed the benefits payable. In case of death of a workman, his widow is entitled to a lump sum of $\$ 100$ and $\$ 50$ a month until re-marriage or death, together with $\$ 10$ a month for each of her dependent children under 16, but the total monthly compensation payable to the workman's dependants, exclusive of burial expenses, may not exceed $66 \frac{2}{3}$ p.c.
of his average earnings. In non-fatal cases, a workman who is permanently and totally disabled is entitled to a pension for life equal to $66 \frac{2}{3}$ p.c. of his average earnings, and if he suffers a permanent partial disability, a payment of $66 \frac{2}{3}$ p.c. of the difference in his earnings before and after the accident. The maximum amount of yearly earnings to be taken into account is $\$ 3,000$. The waiting period under the Act is six days. Another amendment removes the fishing industry from the Act, except for the processing, canning and packing of fish and fish products on shore by persons other than the crews of fishing vessels. Masters and crews of fishing vessels are covered by the former individual liability Act.

The Labour Relations Act, 1950, was amended to repeal the provisions which required a trade union to comply with the Trade Union Act in order to be granted certification and the right to bargain with an employer under the Act.

A new Regulation of Mines Act, 1951, was passed, replacing an earlier statute, making detailed provision for mine safety. The minimum age for boys employed underground is raised from 13 to 18 years.

The Apprenticeship Act, 1951, provides for a provincial system of apprenticeship training. Under the Act, a person of at least 16 years of age may enter into a contract of apprenticeship with an employer in a skilled trade, under which he agrees to complete a minimum of 4,000 hours of employment in the trade and related courses of technical instruction. Under the direction of the Minister of Labour, a Director of Apprenticeship inspects and supervises apprenticeship training and a tripartite Provincial Apprenticeship Board has authority to register all apprentices, approve and certify apprenticeship contracts, and generaily regulate the training and certification of apprentices.

The Vocational Education Act, 1951, provides for the establishment of vocational schools.

The School Attendance Act, 1942, was amended to raise the school-leaving age from 14 to 15 years.

Prince Edward Island.-The Workmen's Compensation Act, 1949, was amended to increase the amount payable for the funeral expenses of a deceased workman from $\$ 100$ to $\$ 150$, the monthly allowance for a widow from $\$ 40$ to $\$ 50$ and that for each child under 16 years of age from $\$ 10$ to $\$ 12 \cdot 50$. A further amendment provides that the total monthly compensation payable to dependants in death cases may not exceed 75 p.c. of average earnings, instead of the previous $66 \frac{2}{3}$ p.c. The minimum payment to a disabled worker is increased from $\$ 12 \cdot 50$ to $\$ 15$ per week and the waiting period is reduced from seven to four days; three diseases are added to the schedule of industrial diseases; and several new classes of workers are brought under the Act.

Nova Scotia.-The Employment of Children Act, 1951, prohibits the employment of children under 14 years of age in specified industries, limits their working hours in other occupations to eight in a day, or to three in a day while school is in session unless an employment certificate is obtained, and forbids night work between 10 p.m. and 6 a.m. for children under 14 years. Inspectors appointed by the Minister of Labour may inspect premises and make any inquiry necessary for the enforcement of the Act.

The Women's Minimum Wage Act, 1951, replaces a 1920 Statute and applies to all women employees throughout the Province, except farm workers and domestic servants. Wider powers are given to the Minimum Wage Board, more specific provision is made for inspection, and higher penalties are prescribed for violation of the Act.

The Workmen's Compensation Act was amended to raise the monthly benefit payable for each child under 16 years of age in the care of a parent from $\$ 12 \cdot 50$ to $\$ 15$ and the payment for an orphan child from $\$ 22 \cdot 50$ to $\$ 25$.

The Coal Mines Regulation Act and the Metalliferous Mines and Quarries Regulation Act were revised and many safety provisions added. The minimum age for employment underground in metal mines is raised from 16 to 18 years.

New Brunswick.-Amendments to the Workmen's Compensation Act increase from $\$ 2,500$ to $\$ 3,000$ the maximum annual earnings on which compensation is computed, and raises the sum payable for burial expenses from $\$ 150$ to $\$ 200$.

The Labour Relation Act, 1949, was amended to permit a municipality to bring any group of its employees under the Act. Another amendment prohibits any attempt to influence the manner in which an employee votes in a representation vote or any other vote conducted by the Labour Relations Board.

Quebec.-The Labour Relations Act was amended to permit the term of collective agreements to be one, two or three years. Previously, one year was the maximum term.

Amendments to the Labour Relations Act and to the Trade Disputes Act provide that decisions of the Quebec Labour Relations Board or of councils of arbitration will not be subject to revision by the courts.

Ontario.-The Fair Employment Practices Act, 1951, the first legislation of its kind in Canada, forbids employers to refuse to employ, to discharge or to discriminate against any person because of race, creed, colour, nationality, ancestry or place of origin, and forbids trade unions to discriminate against any person for any of these reasons. Expressions of discrimination in application forms or advertisements or written or oral inquiries in connection with employment are prohibited. Employers of fewer than five persons, and religious, philanthropic, educational, fraternal or social non-profit organizations and domestic servants in private homes are not covered by the Act. Written complaints of discrimination must be filed by the persons affected. Charges are dealt with first by conciliation procedure and then, if necessary, by prosecution when fines up to $\$ 50$ may be imposed for an individual and $\$ 100$ for a corporation, union, or employment agency. The Act is administered by the Fair Employment Practices Branch of the Department of Labour.

The Female Employees Fair Remuneration Act, 1951, prohibits an employer from discriminating between male and female employees by paying a female employee at a lower rate than a male employee doing the same work in the same establishment. The machinery for dealing with charges of discrimination is the same as that established under the Fair Employment Practices Act. Offenders against the Act are liable to fines up to $\$ 100$. The Act, the first equal pay Act to be passed in Canada, became effective on Jan. 1, 1952.

The Workmen's Compensation Act was amended to increase the maximum annual earnings on which compensation is based from $\$ 3,000$ to $\$ 4,000$. The lump sum payable to the widow of a deceased workman is raised from $\$ 100$ to $\$ 200$, and the amount allowed for funeral expenses from $\$ 125$ to $\$ 200$. The waiting period is reduced from seven to five days.

A new Boilers and Pressure Vessels Act consolidates and revises the former Steam Boilers Act that governed the inspection of boilers during construction and repair, and the section of the Factory, Shop and Office Building Act providing for the inspection of boilers in factories, shops, restaurants and other buildings.

Whitoba.-The Hours and Conditions of Work Act, 1949, was amended to include provisions concerning work on public holidays, notice of termination of employment and a weekly day of rest. Overtime payment at the rate of time and one-half or compensatory time off must be given for any work done on seven specified public holidays in all industries and occupations except farming. Termination of employment without notice is prohibited where the period of employment is not fixed. Both employers and employees must give notice of intention to terminate employment. Where wages are paid once a month or oftener, the period of notice must correspond to the employee's pay period. The One Day's Rest in Seven Act was repealed, and the provision for a weekly rest-day in specified industries is now included in the Hours and Conditions of Work Act.

The Remembrance Day Act, 1951, makes Nov. 11 a public holiday on which work may be done only in specified essential services and industries or with a special permit from the Minister of Labour.

Amendments to the Workmen's Compensation Act shorten the waiting period from 14 to seven days, increase from $\$ 2,500$ to $\$ 3,000$ the maximum annual earnings on which compensation may be computed, raise the minimum weekly payment in cases of temporary total disability from $\$ 12 \cdot 50$ to $\$ 15$, and bring the members of municipal volunteer fire brigades under the Act.

The Vacations with Pay Act, 1947, was amended to require an annual vacation with pay of two weeks to be given after three consecutive years of employment.

Saskatchewan.-The Workmen's Compensation Act was amended to make learners eligible for compensation, to raise the monthly benefits from $\$ 50$ to $\$ 60$ for a widow and from $\$ 15$ to $\$ 20$ for each child under 16 years, and to increase the minimum monthly payment to the dependants of a deceased workman from $\$ 50$ to $\$ 60$ where the widow or invalid widower is the sole dependant, from $\$ 65$ to $\$ 80$ for a widow and one child, and from $\$ 75$ to $\$ 90$ for a widow and two or more children.

The Hours of Work Act was amended to make its application the same as that of the Minimum Wage Act. This amendment was declared in effect on Mar. 1, 1952.

An amendment to the Minimum Wage Act, which applies to all occupations except farming and domestic service in the cities, towns and villages and to mining, logging, lumbering and factory operations in any part of the Province, authorizes the Minimum Wage Board to fix minimum rates of pay for employees who work and for those who do not work on eight specified public holidays.

The Trade Union Act was changed to remove the provision which permitted the Labour Relations Board to require an employer to disestablish a company-dominated organization. The Act now gives the Board power to determine whether a labour organization is company-dominated and makes it an unfair labour practice for an employer to bargain with such an organization.

The Boiler and Pressure Vessel Act, 1948, was amended to provide for shop inspection of boilers and pressure vessels while under construction and annual inspection of such vessels.

The Apprenticeship and Tradesmen's Qualification Act was amended to make provision for the appointment of advisory and examining boards for designated trades. The schedule of designated trades was replaced.

The Wages Recovery Act, 1951, permits an employee to lay a complaint against his employer for non-payment of wages before a justice of the peace or police magistrate who, after summoning the employer to appear before him, may order the employer to pay the wages found to be due, up to a limit of $\$ 200$. The new Act repeals and replaces the Masters and Servants Act.

Alberta.-The Industrial Wages Security Act, which applies to the mining and lumbering industries, was amended to permit employers in cases authorized by the Minister of Industries and Labour to furnish security for the payment of wages in instalments. Employers in box factories and woodworking plants are exempted from the requirement to deposit security for wages with the Department before beginning operations each year.

The administration of the Factories Act, the Welding Act and the Electrical Protection Act was transferred from the Department of Public Works to the Department of Industries and Labour.

British Columbia.-The Public Works Fair Wages and Conditions of Employment Act, 1951, centralizes the fair wage policy for public works contracts under the jurisdiction of the Minister of Labour. The Act requires that all persons employed in the execution of a contract with the Provincial Government for any public work or on works subsidized by the Province must be paid "fair wages", that is, wages generally accepted as current in the district for that class of work and must work not longer than eight hours a day and 44 hours a week, except where arrangements are made as provided for by the Hours of Work Act in cases of emergency or otherwise. If a contractor fails to pay the proper wages, an employee may make a claim direct to the Minister supervising the carrying out of the contract, and the claim may be paid from the moneys in the hands of the Crown for securing the performance of the contract.

The Factories Act was revised and the schedule that listed the types of factories to which the Act applied was repealed. A broader definition of "factory" is inserted in the Act to ensure that all types of factories are covered as well as shipyards, laundries and elevators. New sections are added governing ventilation in factories where harmful gases or dusts are present. Six types of factories are declared exempt from the requirement to obtain a permit from the inspector for work on the public holidays specified in the Act.

Amendments to the Apprenticeship Act provide for the inspection of establishments where apprentices are employed and make apprenticeship open to adults over 21 years as well as to minors of over 15 years of age.

By a new amendment, the Annual Holidays Act does not apply where an annual holiday with pay has been granted under a collective agreement signed by a certified bargaining agent and the holiday provision has been approved by the Minister of Labour.

An Act was passed authorizing a committee of the Legislature to inquire into the Industrial Conciliation and Arbitration Act and its administration.

Regulation of Wages and Hours of Labour.-The regulation of wages and hours of persons in private employment in Canada is within provincial jurisdiction, and all the provinces, except Prince Edward Island, have legislation on the subject.

In Nova Scotia, the minimum wage law applies only to women, while in Ontario, though the Act applies to both sexes, the Orders apply only to women. In Manitoba, Alberta and New Brunswick, there are separate Orders for men and women and also in British Columbia but in the latter Province certain Orders cover both sexes. In Quebec and Saskatchewan, Orders apply to both sexes. The Newfoundland Minimum Wage Act, 1950, applies to both male and female workers and is similar to the Acts in the other provinces. 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, 1950, 99 agreements had been generalized to apply either throughout the Province or to a certain district. These agreements covered 192,228 workers and 20,711 employers. The agreements in force throughout the Province applied to the following industries: building materials, the manufacture of women's cloaks and suits, dresses, millinery, men's and boys' clothing, men's and boys' hats and caps, fine gloves and work gloves, shoes, furniture, paints, corrugated and uncorrugated paper boxes, tanning, lithographing, and elevator construction. Other agreements concern industries in particular cities or parts of the Province including all building trades and printing trades in the large urban centres and many rural districts. From Mar. 31, 1950, to the end of 1951, four new agreements were extended for the first time, and five were repealed affecting municipal employees, barbers and hairdressers, and clock and watch repairmen in certain areas. New agreements extended for the first time and applicable throughout the Province apply to the manufacture of men's and boys' shirts and the manufacture of ladies' handbags, etc.

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 be made legally binding by Order in Council on the industry in the area concerned. The Nova Scotia Act applies only to construction work at Halifax, Dartmouth and Sydney.

In Nova Scotia ten schedules for individual building trades were in force during 1951, all of which were renewals of previous schedules. In New Brunswick, three schedules were in force at Mar. 31, 1951, two of which were renewals. Since that date, two new sehedules have been made binding.

In Ontario there were 134 schedules in force at Mar. 31, 1950. Throughout the Province, schedules were in effect for brewery workers, cloakmakers, the men's and boys' clothing industry, men's and boys' hats and caps and the hard furniture industry. In the construction industry, one schedule covered several building trades in one city, and 55 schedules, each for a single trade in a single locality, covered one or more trades in 28 localities. In other industries also, schedules were in effect only for certain zones; for bakers in one zone, for soft furniture manufacturing in one, for coal hoisting in one, for the coal industry in one, for taxi-drivers in one, for the retail gasoline service in four and for barbers in 64 zones. From Mar. 31, 1950, to the end of 1951, 29 new schedules were made binding, six of which were made for the first time.

In Saskatchewan, 16 schedules were in effect at Dec. 31, 1950. These included one for barbers covering the whole Province; others covered bakers and salesmen, carpenters, electrical workers, painters, shoe repairers and beauty culture operators in one or more areas. During 1951 two schedules were renewed.

In Alberta, 22 schedules were in effect at the end of 1951. These included, in one or more areas, bakers and bakery salesmen, certain individual building trades, dairy employees, garage and service station employees, radio service employees, laundry and dry-cleaning employees and barbers. In 1950 and 1951, five new schedules were made binding, including one for the first time.

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 baking industry and the barbering and hairdressing trades.

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-of-work legislation, the only statutory regulation of hours, apart from that described above 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. Several Minimum Wage Acts give authority for the regulation of hours as well as wages.

Minimum Wage Regulations. -Table 1 shows the minimum rates in effect in June 1952 for several classes of establishments in the principal cities. In New Brunswick and British Columbia, the rates for all workers, and in Manitoba the rates for men, apply throughout the Province. In other provinces, 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 and Winnipeg.

## 1.-Minimum Weekly Rates for Experienced Workers in Certain Cities, June 1952

| Item and Type of Establishment | Halifax ${ }^{1}$ | Saint <br> John ${ }^{2}$ | Montreal | Toronto ${ }^{1}$ | Winnipeg ${ }^{3}$ | Regina ${ }^{4}$ | Edmonton ${ }^{5}$ | Van- couver |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hours per week... | 44-48 | 48 | 48-607 | 48 | 44 | 44 | 44 | 44 |
|  | \$ | cts. per hour | cts. per hour | \$ | \$ | \$ | \$ | \$ |
| Factories......... | 16.80 | 35 | 46 | 16.80 | 19.50 | 24 | 24 | $0 \cdot 40^{8}$ |
|  | 16.80 | 35 | 46 | 16.80 | $19 \cdot 50$ | 24 | 24 | $0 \cdot 40^{8}$ |
| Shops. <br> Hotels, restaurants, etc. | 16.80 | 35 | 46 | 16.80 | 19.50 | 24 | 24 | 18 |
|  | 16.80 | 28 | $40^{9}$ | 16.80 | $19 \cdot 50$ | 24 | 24 | 22 |
| Beauty parlours... Theatres and amusement places. $\qquad$ Offices. $\qquad$ | 16.80 | 35 | 46 | 16.80 | $19 \cdot 50$ | 24 | 24 | 20 |
|  | 16.80 | 35 | 46 | 16.80 | $19 \cdot 50$ |  |  |  |
|  | 16.80 | 35 | 46 | 16.80 | $19 \cdot 50$ | 24 | 24 | 18 |

[^215]Regulations of Hours and Annual Holidays.-In Ontario, there is a maximum eight-hour day and 48 -hour week for the workers to whom the statute applies. 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 all workplaces in centres over 300 in population and to any area where mining, logging, lumbering or factory operations are carried on. A Manitoba Act of 1949 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 workers and 44 for women. The Act covers most industrial workers in the Province. 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 provided 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 of employment, and in Manitoba after three years of employment. 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 days holiday with pay for every 20 days worked in a month but not more than two weeks holiday in a year.

Excluded from the holiday provisions are farm workers in all provinces and domestic servants in all but Manitoba and Saskatchewan. The Manitoba Act also excludes independent contractors, and railway and express companies under federal jurisdiction. In addition, Quebec exempts forest operations, public corporations, janitors and watchmen, and certain part-time workers; Ontario, professional workers, salesmen, funeral directing and embalming; Manitoba and Saskatchewan, ranching and market gardening; and British Columbia, professional workers and horticulture.

## Section 2.-Occupations of the Gainfully Occupied Population

Detailed statistics on the occupations of the people of Canada in 1941 will be found in Vol. VII, Census of Canada, 1941. Summary statistics appear in the 1943-44 and 1945 Year Books. Figures on the gainfully occupied population of Newfoundland are given in Vol. I of the Census of Newfoundland, 1945 and are summarized in the 1951 Year Book, pp. 655-656. Information from the 1951 Census on this subject was not available at the time of preparation of this Chapter.

## Section 3.-Employment and Unemployment

## Subsection 1.-The Labour Force*

During World War II it became increasingly apparent that up-to-date information on the size and characteristics of the labour supply was a necessity. Also, the possibility of disturbed economic conditions in the post-war period emphasized the need for a current and periodic analysis of the state of employment in Canada. To meet this need, a labour force survey on a sample basis was conducted in the

[^216]autumn of 1945, and quarterly surveys have been carried out since that time. A multi-stage area sampling 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 estimates of the labour force are restricted to the civilian labour force, since net strength of the Armed Forces is obtainable directly from official sources. Inmates of institutions and Indians living on reservations are also excluded because they are not in the competitive labour market. Because of inaccessibility and high cost of enumeration, certain remote areas of the country have been excluded from the sample.


The present sample includes about 30,000 households in over 100 different areas in Canada. These areas include the 28 cities having a population of 30,000 or over, in addition to some of the smaller cities and various rural areas. Once a year, at the mid-summer survey, the sample in the metropolitan areas of cities of 30,000 or over is doubled in order to improve the estimates of interprovincial migration obtained from the sample.

The labour force surveys provide a classification of persons 14 years of age or over on the basis of their activity during a specified week, which is, in each case, the week that precedes the beginning of the survey. Information on the part of the population not in the labour force is also collected. These non-workers are
classified as keeping house, going to school, retired or voluntarily idle, too old or permanently unable to work. A residual category consisting of persons who work without pay for charitable organizations or who, for any other reason, cannot be classified in another group is also shown.

The information gathered on the labour force is divided into two groups: (1) persons with jobs and (2) persons without jobs and seeking work. The estimates of persons with jobs are classified by region, sex, age, hours worked, occupation, industry and occupational status. Special estimates are given for women employed in domestic service and employed women by marital status. Included in the estimate of persons with jobs are those who worked during the survey week, as well as those temporarily absent from their jobs because of illness, vacation, bad weather, labour disputes or temporary layoffs. The estimates of persons without jobs and seeking work are classified by region, sex, age and number of months looking for work.

The estimates obtained from the labour force surveys are all subject to sampling error, which tends to increase as the size of the estimate decreases. Accordingly, the reliability of the smaller estimates is less than that of the larger estimates. Estimates of less than 10,000 persons should not be used without careful reservation.

Data in Table 2 for June 1, 1946 to 1951, are compiled from the results of quarterly labour force surveys conducted in late May or early June of those years. The information for years prior to 1946 is taken from estimates based upon 1931 and 1941 Census data rearranged according to the definitional system used in the labour force surveys, the revised census benchmarks being linked with the June 1946 survey on the basis of monthly and annual employment and unemployment data.
2.-Estimates of the Civilian Labour Force and its Main Components, June 1, 1931-51

| Year | Civilian PopuIation ${ }^{1}$ (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 <br> Labour Force ${ }^{1}$ |  |
|  |  | Non-Agriculture |  |  | Agriculture | Total (with jobs) |  |  |  |
|  |  | Paid Workers | Unpaid Workers ${ }^{2}$ | $\begin{gathered} \text { Total } \\ \text { (non-agri- } \\ \text { culture) } \end{gathered}$ |  |  |  |  |  |
|  | '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 7,856 | 2,906 | 434 | 3,340 | 1,107 | 4,447 | 75 | 4,522 | 3,275 |
| 1944..... | 7,896 | 2,950 2,914 | 369 363 | 3,319 | 1,126 | 4,445 | 62 | 4,507 | 3,349 |
|  | 7,882 | 2,914 | 363 | 3.277 | 1,134 | 4,411 | 72 | 4,483 | 3,509 |
| $1946{ }^{3} \ldots$ | 8 8,715 | 2,957 | 481 | 3,438 |  |  | 125 | 4,824 | 3,891 |
| 1947.... | 8,933 9,053 | 3.112 3,201 | 548 | 3,660 | 1,163 | 4,823 | 91 | 4,914 | 4.019 |
| 1948.... | 9,053 | 3,201 3,312 | 537 548 | 3,738 | 1,177 | 4,915 | 81 | 4,996 | 4,057 |
| 19490.6. | 9,211 9,040 | 3,312 3,240 | 548 539 | 3,860 3,779 | 1,110 | 4,970 4 4 | 101 | 5,071 | 4,140 |
| 19514... | 9,714 | 3.640 | 535 | 4,175 | 997 | 4,743 5,172 | 139 83 | 4,882 5,255 | 4,158 4,459 |

[^217]Main Characteristics of the Canadian Labour Force, 1931-51.*-The civilian population 14 years of age or over (exclusive of persons in institutions) increased in the period June 1931 to June 1951 by about 2,439,000 persons or at the rate of about 122,000 persons a year. The strength of the Armed Forces rose very considerably from 5,000 in 1931 and 9,000 in mid-1939 to 779,000 at June 1944 but declined to 75,000 by June 1951. Consequently, the civilian non-institutional population, which increased very little from June 1939 to June 1940 actually declined in size until, in mid-1943, it contained almost 240,000 fewer persons than in 1939. During 1944 there was a small increase in the civilian population $(59,000)$ as the rate of increase of the Armed Forces levelled off. In 1945, 1946 and 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 (June 1942 labour force being 102,000 greater than at June 1941, and that of June 1945 being 66,000 greater) mainly by recruiting 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 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, 382,000).

The number of civilian jobs increased considerably during the War as compared with pre-war experience (despite a decline in agricultural employment) reaching a wartime peak of $4,447,000$ in June 1943 ( 422,000 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 the all-time high, for that month, of $5,069,000$ in June 1951.

## Subsection 2.-Employment and Unemployment Statistics of the Census

Detailed statistics of earnings, employment and unemployment of the people of Canada as at June 1, 1941, are given in Vol VI, Census of Canada, 1941. Figures from the 1951 Census were not available at the time of preparation of this Chapter.

## Subsection 3.-Employment and Payrolls as Reported by Employers, $1951 \dagger$

For many years the Dominion Bureau of Statistics has made monthly surveys of employment in the major non-agricultural industries, exclusive of education, health, domestic and personal service, government administration, etc. The broad industrial divisions covered by the surveys are forestry (chiefly logging), mining, manufacturing, construction, transportation, storage and communications, public

[^218]utilities, trade, finance, insurance and real estate, and certain services (chiefly hotels, restaurants, laundries and dry-cleaning plants). Early in 1941, the monthly inquiries were extended to cover the current earnings of those in recorded employment. Subsequently, a record of weekly payrolls and average wages and salaries was built up for 1939, 1940 and 1941. Since late in 1944, monthly data have also been collected on man-hours and hourly earnings. Inquiries into the sex distribution of the persons on the payrolls of reporting establishments were undertaken on a monthly basis commencing Feb. 1, 1946, replacing the annual and semi-annual surveys of immediately preceding years. Following the entry of Newfoundland into Confederation, the collection of employment and payrolls data was undertaken in that Province. It has not yet been possible, however, to secure the data necessary to include the Newfoundland figures in the Canada indexes, but separate information concerning that Province has been published since 1949.

For practical reasons associated with costs of collection in time and money, the current inquiries* are limited to firms and branches ordinarily employing 15 or more persons. The restriction results in the inclusion of industrial samples of varying size in the monthly survey, the variation depending upon the organization of the industry in large or in small units; from the equally important geographical aspect, however, much greater uniformity exists in the provincial coverage of total employees and, in all cases, the coverage is large. It is estimated that the more than 23,000 firms co-operating in 1951 employed approximately 83 p.c. of the total wage-earners and salaried employees in the industries surveyed.

From 1951, the monthly records of employment, payrolls and man-hours have been grouped according to the Canadian Standard Industrial Classification, and the earlier employment and payroll indexes have been recalculated on 1939 averages as 100 p.c. The tables in this Subsection incorporate classification changes, and all indexes refer to $1939=100$.

The employment and payrolls indexes published monthly reflect general economic conditions in the country as a whole and also in specific areas, since workers are taken on staff or released by firms in response to demand for their products. The acceptance by Canada of a share in the responsibility for western defence created a demand for strategic materials; the outbreak of hostilities in Korea in 1950 accelerated a program already in progress and that gained momentum during 1951. The volume of employment in the period under review responded to the impact of defence spending and sustained consumer demand in many lines. Although area and industry movements varied in some instances, the general indexes of employment, payrolls and average earnings rose to unprecedented heights. A favourable factor during 1951 was a decline of about 35 p.c. in the working time lost as a result of industrial disputes as compared with 1950.

Employment.-During 1951, the index of employment for the composite of nine industries $(1939=100)$ reached a new maximum, averaging $180 \cdot 2$. The Dec. 1 figure of $186 \cdot 6$ was the highest on record. These indexes showed gains of

[^219]more than 7 p.c. over the average for $1950(168 \cdot 0)$ and about 4 p.c. over the peak figure in that year (Dec. 1, 179-2). The month-to-month movements in the two years 1950-51 were similar, the index dropping slightly from Jan. 1 to Mar. 1, and rising steadily throughout the remainder of the year.

The 1951 index of employment in manufacturing, averaging $190 \cdot 0$, was at a post-war peak, 7 p.c. above the 1950 figure and 8 p.c. above that for 1949 . At its wartime maximum in 1943, the index of factory employment was $196 \cdot 1$ declining to $194 \cdot 6$ in the following year; by 1946 it dropped to $160 \cdot 0$. Since then, the general movement has been upward except for an insignificant recession in 1949. Factories turning out durable manufactured goods in the year under review showed an average increase of 11.8 p.c. over 1950, and the gain in employment in non-durable goods was $2 \cdot 9$ p.c. Widespread improvement was indicated within the former category, most classes showing increased staffs. An exception was the heating and cooking apparatus group, in which the index of employment fell by 1.8 p.c. in 1951. There was particularly marked expansion as compared with 1950 in aircraft and parts, shipbuilding and repairing and aluminum products. In the non-durable goods division, the movements were not so uniform. Reduced employment was indicated in tobacco, soft drinks, leather products, woollen and fur goods, and some other classes. Firms in other branches of the non-durable goods group generally showed moderate improvement over 1950.

Employment in construction reached a new high level in 1951, the index rising by $7 \cdot 6$ p.c. The gain took place in the buildings and structures group, which showed an increase of 10.8 p.c. Within that category, the improvement was largely in industrial construction, due to a considerable extent to defence requirements. The trend in the other non-manufacturing industries for which data are available was also generally favourable in 1951, when new all-time peaks were recorded in many groups.

Employment indexes for the major industries are given in Table 3 and for the provinces in Table 4 by months for 1950 and 1951, with annual averages from 1941. Provincially, the greatest increases in industrial employment in 1951 as compared with a year earlier were recorded in Quebec, Alberta and Ontario, amounting to $8 \cdot 7$ p.c., $7 \cdot 5$ p.c., and $7 \cdot 5$ p.c., respectively. In the period since 1939 , a particularly marked rise in employment was shown in Alberta; the 1951 index for that Province was $202 \cdot 6$ compared with $191 \cdot 0$ for Ontario, where improvement was next in magnitude. Development of the oil fields contributed materially to the favourable position of Alberta.

Table 5 gives index numbers of employment in eight cities of Canada. In most of these, a continuation of the upward movement shown in earlier years was noted in both 1950 and 1951. In Quebec and Vancouver, however, the indexes had dropped slightly in 1950 from the year before, but recovered in 1951; in the former, a post-war peak was reached in the year under review, while the Vancouver index was exceeded only by that in 1948. A new all-time high level of employment was recorded in $1951^{7}$ at Toronto, where the index averaged $195 \cdot 3,6 \cdot 4$ p.c. above that of 1950 , the previous" maximum.

Table 6 gives the percentages of women reported by the larger establishments in specified industries at Oct. 1 in the period 1944 to 1951 . On the whole, the proportions have declined since 1944, when employment for women reached an all-time high; this was also the case in most industrial divisions for which statistics are available. In the finance, insurance and real estate group, the ratio of women has risen steadily in the three years 1949-51, but in 1951 it was still considerably below the wartime level.

## 3.-Annual Average Index Numbers of Employment, by Industrial Groups, 1941-51, and Monthly Indexes, 1950 and 1951

(Exclusive of Newfoundland and the Territories)
Note.-These indexes are calculated as at the first day of each month, on the base $1939=100$.

| Year and Month | Forestry <br> (chiefly <br> logging) | Mining | Manu-facturing | Construction | Trans-portation, Storage and Comcations | Public Utility Operation | Trade | Finance, Insurance, Real Estate | Services ${ }^{1}$ | $\xrightarrow[\text { dustria }]{\text { In- }}$ Composite |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Averages- |  |  |  |  |  |  |  |  |  |  |
| 1941..... | $144 \cdot 6$ | 105-3 | $145 \cdot 2$ | $110 \cdot 6$ | $117 \cdot 2$ | 107.3 | $110 \cdot 5$ | $102 \cdot 5$ | 116.3 | 128.0 |
| 1942. | $151 \cdot 1$ | $102 \cdot 0$ | $178 \cdot 6$ | $113 \cdot 2$ | $124 \cdot 8$ | $105 \cdot 1$ | $110 \cdot 2$ | $107 \cdot 5$ | 123.9 | $145 \cdot 5$ |
| 1943. | $138 \cdot 7$ | 94.4 | $196 \cdot 1$ | $111 \cdot 9$ | $132 \cdot 9$ | 103.0 | $109 \cdot 5$ | $108 \cdot 1$ | 131.6 | 153.9 |
| 1944. | 165.9 | - 92.1 | $194 \cdot 6$ | $83 \cdot 6$ | $138 \cdot 3$ | $103 \cdot 4$ | $115 \cdot 9$ | $110 \cdot 5$ | $140 \cdot 1$ | 153.1 |
| 1945. | $190 \cdot 2$ | $87 \cdot 5$ | $175 \cdot 9$ | 86.7 | $143 \cdot 9$ | $110 \cdot 8$ | 123.4 | 114.0 | $142 \cdot 6$ | $147 \cdot 0$ |
| 1946. | 206.4 | $92 \cdot 5$ | $160 \cdot 0$ | $112 \cdot 1$ | 149.4 | 128.9 | $135 \cdot 1$ | $125 \cdot 7$ | 155.4 | 146.0 |
| 1947. | $237 \cdot 7$ | $94 \cdot 2$ | 171.0 | $138 \cdot 1$ | $159 \cdot 6$ | $139 \cdot 1$ | 146.2 | 134.9 | $166 \cdot 4$ | 158.3 |
| 1948. | $220 \cdot 0$ | $103 \cdot 4$ | $176 \cdot 0$ | $153 \cdot 8$ | $165 \cdot 7$ | $161 \cdot 3$ | $156 \cdot 0$ | 141.4 | 174.4 | $165 \cdot 0$ |
| 1949. | $158 \cdot 9$ | $106 \cdot 4$ | 175-9 | 161.2 | $167 \cdot 3$ | $181 \cdot 3$ | 162.0 | $147 \cdot 4$ | 175.9 | 165.5 |
| 1950. | $160 \cdot 2$ | 112.2 | $177 \cdot 5$ | $165 \cdot 0$ | $167 \cdot 2$ | $183 \cdot 6$ | 167.2 | $155 \cdot 3$ | $177 \cdot 7$ | 168.0 |
| 1951. | $220 \cdot 3$ | $117 \cdot 7$ | $190 \cdot 0$ | $177 \cdot 6$ | $177 \cdot 6$ | $187 \cdot 5$ | $174 \cdot 0$ | $169 \cdot 8$ | 181-3 | $180 \cdot 2$ |
| 1950- |  |  |  |  |  |  |  |  |  |  |
| Jan. 1. | 179.9 | 107-4 | $171 \cdot 0$ | $143 \cdot 2$ | 163.1 | 182.3 | $176 \cdot 1$ | $151 \cdot 0$ | 172-7 | $163 \cdot 8$ |
| Feb. 1 | 144-3 | $107 \cdot 8$ | $170 \cdot 4$ | 131.4 | $157 \cdot 2$ | $178 \cdot 8$ | $160 \cdot 6$ | $151 \cdot 5$ | 171.4 | 158.3 |
| Mar. 1 | $135 \cdot 3$ | 108.2 | 171.5 | $127 \cdot 7$ | $156 \cdot 3$ | $175 \cdot 8$ | $160 \cdot 2$ | $152 \cdot 4$ | 168.4 | 157.9 |
| Apr. 1..... | $119 \cdot 7$ | 109.0 | $172 \cdot 0$ | $134 \cdot 1$ | 159.5 | $175 \cdot 6$ | 161.0 | $154 \cdot 0$ | 171-3 | $159 \cdot 0$ |
| May $1 . . . .$. | $80 \cdot 1$ | 109.2 | $172 \cdot 5$ | $145 \cdot 5$ | 161.8 | $177 \cdot 2$ | $162 \cdot 4$ | $154 \cdot 1$ | $174 \cdot 3$ | 159.7 |
| June 1. | 116.3 | 111.7 | $175 \cdot 3$ | $172 \cdot 7$ | $167 \cdot 9$ | $183 \cdot 7$ | $163 \cdot 6$ | $154 \cdot 5$ | 178.9 | 166.0 |
| July 1. | $147 \cdot 2$ | 114.8 | $178 \cdot 6$ | $184 \cdot 7$ | 171.5 | 188.9 | $165 \cdot 3$ | $155 \cdot 6$ | $186 \cdot 3$ | $170 \cdot 8$ |
| Aug. 1 | 149.4 | $115 \cdot 1$ | 179.6 | $190 \cdot 8$ | $175 \cdot 6$ | $193 \cdot 4$ | $164 \cdot 6$ | $156 \cdot 1$ | 188.2 | $172 \cdot 5$ |
| Sept. 1 ..... | 161.9 | $115 \cdot 0$ | 182.5 | $194 \cdot 4$ | $171 \cdot 4$ | $191 \cdot 7$ | $165 \cdot 7$ | $155 \cdot 7$ | 187.9 | $174 \cdot 1$ |
| Oct. 1. | $193 \cdot 4$ | $115 \cdot 6$ | $185 \cdot 6$ | 189.2 | $175 \cdot 1$ | $186 \cdot 7$ | $170 \cdot 5$ | $159 \cdot 5$ | $182 \cdot 5$ | 177-1 |
| Nov. 1. | $233 \cdot 7$ | 116.0 | $185 \cdot 4$ | $185 \cdot 8$ | $173 \cdot 9$ | $185 \cdot 5$ | $174 \cdot 2$ | 159.9 | 176.7 | 178.1 |
| Dec. 1. | $260 \cdot 5$ | 116.8 | $185 \cdot 3$ | $180 \cdot 4$ | $173 \cdot 1$ | $183 \cdot 3$ | $181 \cdot 8$ | $159 \cdot 6$ | 173.4 | $179 \cdot 2$ |
| 1951- |  |  |  |  |  |  |  |  |  |  |
| Jan. 1. | 256.0 | $115 \cdot 1$ | 182.4 | $158 \cdot 1$ | 168.1 | 179.8 | $184 \cdot 4$ | 159.8 | 172.9 | $175 \cdot 3$ |
| Feb. 1..... | $248 \cdot 3$ | 114.9 | $184 \cdot 5$ | $145 \cdot 1$ | $165 \cdot 0$ | $180 \cdot 1$ | 169.5 | $160 \cdot 8$ | $173 \cdot 3$ | $172 \cdot 3$ |
| Mar. 1 | $244 \cdot 1$ | 114.7 | 186.3 | $139 \cdot 7$ | $165 \cdot 7$ | $178 \cdot 3$ | 168.1 | 161.7 | 172.5 | $172 \cdot 3$ |
| Apr. 1. | 208.0 | $114 \cdot 7$ | 188.8 | $141 \cdot 9$ | $166 \cdot 7$ | 179.4 | $170 \cdot 9$ | 167.5 | 172.9 | 173 -3 |
| May 1 | 167 -9 | $115 \cdot 0$ | 189.9 | 163.4 | $171 \cdot 5$ | 183.2 | $171 \cdot 0$ | $170 \cdot 8$ | 175.9 | $175 \cdot 6$ |
| June 1 | 188.6 | 116.4 | $192 \cdot 0$ | $182 \cdot 7$ | 176.5 | $190 \cdot 9$ | $172 \cdot 8$ | $171 \cdot 0$ | $180 \cdot 9$ | $180 \cdot 3$ |
| July 1. | $197 \cdot 6$ | 119.0 | 193.9 | $190 \cdot 4$ | 183.2 | 193.8 | $173 \cdot 3$ | 172.0 | 188.8 | $183 \cdot 6$ |
| Aug. 1. | $180 \cdot 5$ | $120 \cdot 0$ | $194 \cdot 0$ | $199 \cdot 5$ | 186.4 | $195 \cdot 8$ | $170 \cdot 8$ | $172 \cdot 6$ | 193.4 | 184.3 |
| Sept. 1 | $181 \cdot 8$ 214.6 | 119.5 | $194 \cdot 1$ | $206 \cdot 7$ | 189.0 | $195 \cdot 3$ | 171.0 | 173.0 | 193.7 | 185.4 |
| Oct. 1..... | $214 \cdot 6$ | $120 \cdot 1$ | 194.2 | $206 \cdot 1$ | 186.7 | 191.8 | 175-5 | $173 \cdot 3$ | $187 \cdot 9$ | $186 \cdot 5$ |
| Nov. 1..... |  | $121 \cdot 4$ 121.6 | $190 \cdot 8$ 189.1 | $203 \cdot 1$ | 186.4 | $190 \cdot 7$ | $176 \cdot 7$ | $176 \cdot 4$ | 183.2 | 186.4 |
| Dec. 1..... | $293 \cdot 4$ | $121 \cdot 6$ | $189 \cdot 1$ | 194-3 | $185 \cdot 4$ | $190 \cdot 5$ | $183 \cdot 6$ | $178 \cdot 4$ | $180 \cdot 7$ | $186 \cdot 6$ |
| Percentage distribution ${ }^{2}$ | $4 \cdot 7$ | $4 \cdot 0$ | $44 \cdot 9$ | $9 \cdot 6$ | $13 \cdot 7$ | 1.7 | 13.9 | $4 \cdot 3$ | $3 \cdot 2$ | $100 \cdot 0$ |

${ }^{1}$ Consists mainly of hotels, restaurants, laundries and dry-cleaning establishments. ${ }^{2}$ The proportion of employees reported in the industries to the total reported by all employers making returns in Canada at Dec. 1, 1951.

## 4.-Annual Average Index Numbers of Employment, by Provinces, 1941-51, and Monthly Indexes, 1950 and 1951

Note.-These indexes are calculated as at the first day of the month, on the base $1939=100$.

| Year and Month | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Canada ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Averages- |  |  |  |  |  |  |  |  |  |  |
| 1941..... | 118.8 | $134 \cdot 1$ | 136.0 | 123.9 | 134.8 | 123.5 | $106 \cdot 4$ | $118 \cdot 1$ | 121.7 | 128.0 |
| 1942 | 111.1 | 153.9 | 148.7 | $145 \cdot 2$ | $150 \cdot 6$ | 133.4 | $109 \cdot 1$ | 127.9 | $147 \cdot 4$ | 145.5 |
| 1943 | 117.2 | $159 \cdot 2$ | 157.4 | $155 \cdot 6$ | $155 \cdot 7$ | $138 \cdot 6$ | 113.8 | 134.0 | $169 \cdot 5$ | 153.9 |
| 1944 | $134 \cdot 8$ | $156 \cdot 5$ | $163 \cdot 0$ | 153.0 | 154.9 | 143.0 | 119.5 | 139.9 | 165.9 | 153.1 |
| 1945 | 128.5 | 151.2 | $163 \cdot 3$ | $143 \cdot 1$ | $150 \cdot 1$ | $142 \cdot 3$ | $120 \cdot 7$ | 137.5 | 156.8 | 147.0 |
| 1946 | 137.0 | $142 \cdot 2$ | $162 \cdot 4$ | $139 \cdot 5$ | $150 \cdot 3$ | 149.3 | 128.8 | 148.9 | 149.9 | 146.0 |
| 1947 | $146 \cdot 5$ | 137-2 | $172 \cdot 7$ | $150 \cdot 9$ | 163.9 | 156.0 | 135.8 | 158.9 | $174 \cdot 1$ | 158.3 |
| 1948 | 161.0 | 148.4 | $174 \cdot 2$ | $156 \cdot 2$ | $171 \cdot 2$ | $162 \cdot 0$ | 139.0 | 168.9 | 181.6 | $165 \cdot 0$ |
| 1949 | 157.0 | 149.0 | $165 \cdot 6$ | $154 \cdot 3$ | $173 \cdot 1$ | 166.7 | $139 \cdot 7$ | $180 \cdot 3$ | 179.3 | 165.5 |
| 1950 | $173 \cdot 1$ | 142.5 | 169.9 | 155.0 | $177 \cdot 7$ | 168.0 | $140 \cdot 8$ | 188.5 | $180 \cdot 7$ | 168.0 |
| 1951 | $176 \cdot 8$ | $149 \cdot 4$ | $180 \cdot 5$ | 168.5 | 191.0 | $173 \cdot 2$ | $148 \cdot 1$ | $202 \cdot 6$ | 190.3 | $180 \cdot 2$ |
| 1950- |  |  |  |  |  |  |  |  |  |  |
| Jan. 1 | $158 \cdot 5$ | $137 \cdot 1$ | 169.8 | $151 \cdot 1$ | $173 \cdot 3$ | $167 \cdot 7$ | $139 \cdot 0$ | 181.7 | 172.9 | 163.8 |
| Feb. | $150 \cdot 4$ | 133.1 | $160 \cdot 4$ | 146.9 | $170 \cdot 1$ | $161 \cdot 0$ | 126.6 | 173.9 | 157.1 | 158.3 |
| Mar. 1 | $143 \cdot 8$ | $130 \cdot 8$ | $157 \cdot 4$ | $145 \cdot 5$ | $169 \cdot 5$ | $159 \cdot 0$ | 126.2 | $174 \cdot 0$ | $163 \cdot 2$ | 157.9 |
| Apr. | 149.9 | 132.0 | 157.5 | $146 \cdot 2$ | $169 \cdot 9$ | $159 \cdot 0$ | 127.3 | $175 \cdot 8$ | $170 \cdot 1$ | 159.0 |
| May 1 | $152 \cdot 6$ | 128.5 | 153.1 | 146.7 | $170 \cdot 3$ | $160 \cdot 1$ | $130 \cdot 0$ | 178.1 | 174.9 | 159.7 |
| June 1 | $167 \cdot 7$ | 142.0 | $165 \cdot 1$ | $152 \cdot 5$ | $175 \cdot 3$ | 162.5 | $142 \cdot 2$ | 188.5 | $182 \cdot 1$ | 166.0 |
| July | 179.0 | 147.0 | 180-2 | 156.4 | $179 \cdot 6$ | 171.1 | $146 \cdot 2$ | $195 \cdot 6$ | 186.2 | $170 \cdot 8$ |
| Aug. | 187.0 | $150 \cdot 2$ | $176 \cdot 0$ | 158.3 | 180.0 | 173.9 | $149 \cdot 2$ | $200 \cdot 7$ | $191 \cdot 9$ | $172 \cdot 5$ |
| Sept. 1 | 196.9 | 151.9 | 176.5 | 159.4 | 182.0 | $173 \cdot 9$ | $149 \cdot 9$ | 201.2 | $194 \cdot 1$ | $174 \cdot 1$ |
| Oct. 1 | 196.9 | $152 \cdot 8$ | 179.9 | $164 \cdot 0$ | 185.8 | 174.8 | $150 \cdot 4$ | 197.5 | 194.6 | $177 \cdot 1$ |
| Nov. 1 | 198.9 | $152 \cdot 0$ | 178.8 | $166 \cdot 0$ | $187 \cdot 3$ | $175 \cdot 5$ | $152 \cdot 1$ | 196.7 | 191.3 | $178 \cdot 1$ |
| Dec. | $195 \cdot 9$ | $152 \cdot 6$ | $184 \cdot 1$ | $167 \cdot 0$ | 189.1 | 177.9 | 150.9 | 197.7 | 189.6 | 179.2 |
| 1951- |  |  |  |  |  |  |  |  |  |  |
| Jan. 1 | $184 \cdot 2$ $165 \cdot 3$ | $149 \cdot 1$ $142 \cdot 2$ | $187 \cdot 5$ 179.3 | $162 \cdot 3$ 159.9 | 186.9 185.6 | $171 \cdot 2$ $165 \cdot 5$ | 144.4 $134 \cdot 9$ | 193.7 186.5 | $180 \cdot 4$ $177 \cdot 0$ | $175 \cdot 3$ $172 \cdot 3$ |
| Mar. | $160 \cdot 1$ | 135.7 | $179 \cdot 0$ | $161 \cdot 0$ | 185.7 | $164 \cdot 3$ | $133 \cdot 3$ | $186 \cdot 7$ | 176.9 | $172 \cdot 3$ |
| Apr. | $152 \cdot 0$ | $140 \cdot 3$ | $177 \cdot 1$ | $160 \cdot 3$ | $187 \cdot 3$ | $165 \cdot 2$ | $135 \cdot 3$ | 187.0 | 181.0 | $173 \cdot 3$ |
| May | $161 \cdot 8$ | $140 \cdot 3$ | $171 \cdot 7$ | 163.3 | $188 \cdot 5$ | $167 \cdot 5$ | $137 \cdot 9$ | 192.9 | 187.2 | $175 \cdot 6$ |
| June 1 | $178 \cdot 1$ | $149 \cdot 4$ | $171 \cdot 6$ | 167.9 | 191.9 | 172.6 | $149 \cdot 8$ | 202.5 | $192 \cdot 3$ | $180 \cdot 3$ |
| July 1 | 186.9 | $149 \cdot 6$ | 174.9 | 171.0 | 194.7 | $177 \cdot 6$ | $154 \cdot 6$ | $208 \cdot 9$ | 197-4 | 183.6 |
| Aug. 1 | 188.7 | $155 \cdot 3$ | 179.9 | $171 \cdot 6$ | $193 \cdot 5$ | 179.7 | 157.5 | 218.0 | $198 \cdot 1$ | $184 \cdot 3$ |
| Sept. 1 | 192.4 | 157.8 | $182 \cdot 3$ | 173.2 | $194 \cdot 1$ | $180 \cdot 4$ | 157.8 | 219.0 | 198.9 | $185 \cdot 4$ |
| Oct. | $188 \cdot 6$ | $158 \cdot 6$ | $183 \cdot 6$ | $175 \cdot 3$ | $195 \cdot 4$ | $178 \cdot 6$ | 156.9 | 214.0 | 201.0 | $186 \cdot 5$ |
| Nov. 1 | $182 \cdot 6$ | $158 \cdot 4$ | $186 \cdot 2$ | 178.0 | 193.9 | 178.4 | 157.7 | 211.3 | 197.9 | 186.4 |
| Dec. 1. | 181.0 | $156 \cdot 2$ | $192 \cdot 3$ | 178.6 | 194-7 | $177 \cdot 5$ | $156 \cdot 5$ | 210.9 | $195 \cdot 1$ | $186 \cdot 6$ |
| Percentage distri- bution ${ }^{2} \ldots \ldots \ldots$ | 0.2 | $3 \cdot 6$ | $2 \cdot 8$ | $29 \cdot 8$ | $42 \cdot 4$ | $5 \cdot 2$ | $2 \cdot 3$ | $4 \cdot 6$ | $9 \cdot 1$ | $100 \cdot 0$ |

${ }^{1}$ Exclusive of Newfoundland and the Territories.
${ }^{2}$ The proportion of employees reported in the industries to the total reported by all employers making returns in Canada at Dec. 1, 1951.

## 5.-Annual Average Index Numbers of Employment, by Metropolitan Areas, 1941-51, and Monthly Indexes, 1950 and 1951

Note.-Tbese indexes are calculated as at the first day of the month, on the base $1939=100$.

| Year | Montreal | Quebec | Toronto | OttawaHull | Hamilton | Windsor | Winnipeg | Vancouver |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Averages - |  |  |  |  |  |  |  |  |
| 1941... | $124 \cdot 9$ | $130 \cdot 6$ | 131.3 | $135 \cdot 4$ | $147 \cdot 6$ | 167.8 207.8 | $124 \cdot 8$ $133 \cdot 7$ | $128 \cdot 7$ 177 |
| 1942. | $143 \cdot 0$ $159 \cdot 3$ | 167.3 202.9 | $153 \cdot 5$ 165.5 | $144 \cdot 5$ 149.0 | $172 \cdot 1$ $172 \cdot 1$ | $207 \cdot 8$ $224 \cdot 6$ | $133 \cdot 7$ $140 \cdot 3$ | 1712.3 212 |
| 1944 | 159.4 | $200 \cdot 4$ | $167 \cdot 6$ | $148 \cdot 2$ | 166.9 | $214 \cdot 1$ | 146.3 | $209 \cdot 8$ |
| 1945. | $147 \cdot 5$ | 163.5 | $157 \cdot 3$ | 144.7 | 163.0 | 178-7 | $144 \cdot 2$ | $192 \cdot 7$ |
| 1946 | $144 \cdot 6$ | 127-7 | 153.0 | $154 \cdot 0$ | 153.0 | $176 \cdot 0$ | $151 \cdot 5$ | $172 \cdot 2$ |
| 1947 | $153 \cdot 8$ | $139 \cdot 4$ | 164-3 | $159 \cdot 7$ | $170 \cdot 4$ | $195 \cdot 8$ | $157 \cdot 5$ | $194 \cdot 2$ |
| 1948 | $158 \cdot 5$ | $150 \cdot 3$ | $171 \cdot 6$ | $168 \cdot 6$ | $180 \cdot 4$ | $200 \cdot 6$ | $162 \cdot 9$ 167.8 | $204 \cdot 7$ $200 \cdot 5$ |
| 1949 | $163 \cdot 2$ | $149 \cdot 5$ | $176 \cdot 4$ | $174 \cdot 7$ | $186 \cdot 1$ | 212.4 217.0 | $167 \cdot 8$ 168.0 | $200 \cdot 5$ 198.6 |
| 1950. | $165 \cdot 4$ $173 \cdot 9$ | 147.5 151.9 | $183 \cdot 6$ $195 \cdot 3$ | $180 \cdot 1$ $189 \cdot 3$ | $187 \cdot 5$ $203 \cdot 7$ | $228 \cdot 7$ | $168 \cdot 0$ $172 \cdot 2$ | $198 \cdot 6$ |

## 5.-Annual Average Index Numbers of Employment, by Metropolitan Areas, 1941-51,

 and Monthly Indexes, 1950 and 1951 -concluded| Year and Month | Montreal | Quebec | Toronto | OttawaHull | Hamilton | Windsor | Winnipeg | Vancouver |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950- |  |  |  |  |  |  |  |  |
| Jan. 1.......... | $162 \cdot 7$ | $142 \cdot 6$ | $180 \cdot 9$ | 178.7 | $185 \cdot 1$ | $212 \cdot 4$ | $170 \cdot 4$ | 195.0 |
| Feb. 1........... | $160 \cdot 7$ | 137.1 | $178 \cdot 1$ | $172 \cdot 0$ | 181.4 | $210 \cdot 9$ | $163 \cdot 4$ | $185 \cdot 6$ |
| Mar. 1 | $160 \cdot 4$ | 137-7 | 177-9 | $168 \cdot 6$ | $180 \cdot 8$ | $213 \cdot 1$ | 161.3 | 188.6 |
| Apr. 1. | $161 \cdot 0$ | $138 \cdot 6$ | 179-5 | $171 \cdot 3$ | 181.0 | $194 \cdot 7$ | $161 \cdot 3$ | $192 \cdot 7$ |
| May 1........... | $163 \cdot 0$ | $142 \cdot 9$ | $180 \cdot 9$ | 175.4 | 183.5 | $193 \cdot 5$ | $162 \cdot 3$ | 193.8 |
| June ${ }^{\text {July }} 1$. | $164 \cdot 4$ $165 \cdot 8$ | 147.7 151.8 | $182 \cdot 1$ 183.9 | $180 \cdot 1$ $184 \cdot 4$ | $186 \cdot 3$ $190 \cdot 3$ | $221 \cdot 1$ $225 \cdot 2$ | $160 \cdot 6$ $169 \cdot 8$ | 198.5 201.8 |
| Aug. 1. | $164 \cdot 8$ | 155.0 | 182 -4 | $184 \cdot 8$ | 189.4 | $228 \cdot 0$ | $169 \cdot 5$ | $204 \cdot 3$ |
| Sept. 1 | $166 \cdot 6$ | $155 \cdot 5$ | $184 \cdot 3$ | $185 \cdot 4$ | 188.0 | $230 \cdot 8$ | $170 \cdot 0$ | 206.6 |
| Oct. 1 | $170 \cdot 6$ | 154-4 | $187 \cdot 8$ | 186.0 | $191 \cdot 2$ | $229 \cdot 1$ | 173-3 | $206 \cdot 6$ |
| Nov. 1 | $171 \cdot 6$ | $153 \cdot 5$ | $191 \cdot 1$ | 187.0 | $194 \cdot 5$ | 221.7 | 175-3 | $202 \cdot 8$ |
| Dec. 1. | $172 \cdot 7$ | $153 \cdot 2$ | $194 \cdot 5$ | $187 \cdot 6$ | 198.2 | $223 \cdot 5$ | $179 \cdot 2$ | $206 \cdot 4$ |
| 1951- |  |  |  |  |  |  |  |  |
| Jan. 1. | 168.8 | $146 \cdot 2$ | 194.0 | $188 \cdot 7$ | 197-4 | 231.2 | 173-3 | $199 \cdot 4$ |
| Feb. 1. | $167 \cdot 5$ | $142 \cdot 6$ | 191.0 | $183 \cdot 6$ | $196 \cdot 2$ | $234 \cdot 6$ | $168 \cdot 1$ | $195 \cdot 9$ |
| Mar. 1. | 168.2 | $142 \cdot 7$ | $191 \cdot 1$ | 181.7 | 196.7 | 237.9 | 166.8 | 197.2 |
| Apr. 1. | $170 \cdot 9$ | $144 \cdot 6$ | 194-1 | 183.5 | 199.5 | $240 \cdot 2$ | 167.9 | 201.0 |
| May 1 | $173 \cdot 6$ | $148 \cdot 1$ | 195-4 | $186 \cdot 6$ | $205 \cdot 9$ | $235 \cdot 8$ | 168.7 | 203.7 |
| June 1. | $174 \cdot 6$ | $152 \cdot 0$ | $196 \cdot 2$ | $190 \cdot 4$ | $208 \cdot 6$ | $237 \cdot 3$ | $172 \cdot 5$ | $204 \cdot 8$ |
| July 1........... | $176 \cdot 3$ | 155-4 | $197 \cdot 9$ | $192 \cdot 8$ | 211.8 | $235 \cdot 7$ | $175 \cdot 3$ | 208.4 |
| Aug. 1. | 174.8 | $159 \cdot 1$ | 194.4 | $192 \cdot 5$ | $210 \cdot 5$ | 231.9 | $174 \cdot 5$ | $207 \cdot 4$ |
| Sept. 1........... | $175 \cdot 8$ | $159 \cdot 3$ | 195-5 | $192 \cdot 1$ | 206.8 | 223.7 | $175 \cdot 1$ | $207 \cdot 8$ |
| Oct. 1.......... | 178.0 | $158 \cdot 6$ | 197-3 | 192-4 | $206 \cdot 9$ | 211.8 | $173 \cdot 9$ | $207 \cdot 3$ |
| Nov. 1. | $178 \cdot 6$ | 158.2 | $197 \cdot 4$ | $194 \cdot 6$ | $201 \cdot 5$ | 211.4 | $174 \cdot 8$ | $203 \cdot 9$ |
| Dec. $1 .$. | $179 \cdot 9$ | 156.0 | $198 \cdot 9$ | $193 \cdot 1$ | $202 \cdot 9$ | $212 \cdot 3$ | $175 \cdot 8$ | $203 \cdot 1$ |
| Percentage distribution ${ }^{1}$ $\qquad$ | $14 \cdot 6$ | 1.5 | 14-1 | 1.8 | $3 \cdot 2$ | 1.7 | $3 \cdot 3$ | $3 \cdot 9$ |

${ }^{1}$ Proportion of employees reported in metropolitan areas to the total reported by all employers making returns in Canada at Dec. 1, 1951.
6.-Percentages of Women Employed in Main Industrial Groups at Oct. 1, 1944-51

| Industrial Group | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.e. | p.c. |
| Forestry (chiefly logging) | 1.9 | $1 \cdot 9$ | 1.8 | 1.8 | 1.7 | 1.8 | 1.5 | 1.7 |
| Mining | $3 \cdot 3$ | $2 \cdot 8$ | $2 \cdot 4$ | $2 \cdot 1$ | $2 \cdot 2$ | $2 \cdot 2$ | $2 \cdot 3$ | $2 \cdot 6$ |
| Manufacturing ${ }^{1}$ | 29.1 | 26.9 | $25 \cdot 0$ | $23 \cdot 7$ | $23 \cdot 4$ | $24 \cdot 1$ | $23 \cdot 6$ | $22 \cdot 7$ |
| Durable goods ${ }^{2}$. | $19 \cdot 4$ | 14.4 | $12 \cdot 3$ | $11 \cdot 4$ | $10 \cdot 9$ | $10 \cdot 9$ | 11.2 | $10 \cdot 7$ |
| Non-durable goods ${ }^{2}$ | $40 \cdot 2$ | $37 \cdot 6$ | $35 \cdot 1$ | $34 \cdot 4$ | $34 \cdot 5$ | $35 \cdot 1$ | $34 \cdot 7$ | $34 \cdot 0$ |
| Construction.............. | .. | .. | .. | . | .. | . | $2 \cdot 2$ | $2 \cdot 2$ |
| Transportation, Storage and Communications. | $12 \cdot 2$ | $12 \cdot 6$ | $12 \cdot 7$ | $12 \cdot 6$ | $12 \cdot 5$ | $13 \cdot 4$ | $14 \cdot 1$ | 13.8 |
| Public Utility Operation | 13.0 | $12 \cdot 6$ | $10 \cdot 6$ | $10 \cdot 6$ | 11.7 | $12 \cdot 0$ | $12 \cdot 3$ | $12 \cdot 2$ |
| Trade.. | $49 \cdot 3$ | 46.8 | 41.9 | $40 \cdot 2$ | $39 \cdot 0$ | 38.1 | $37 \cdot 4$ | $37 \cdot 6$ |
| Finance, Insurance and Real Estate | 53.9 | $53 \cdot 3$ | $46 \cdot 7$ | $47 \cdot 1$ | $46 \cdot 9$ | 47.5 | 48.2 | 48.9 |
| Service ${ }^{3} . . . \ldots \ldots \ldots . . . . . . . . . . . . . .$. | 58.2 | $57 \cdot 6$ | $54 \cdot 4$ | $53 \cdot 6$ | $51 \cdot 5$ | 51.6 | $50 \cdot 7$ | $50 \cdot 6$ |
| Industrial Composite. | 27.1 | 25:3 | 23.2 | 22.0 | 21.9 | 22.4 | 22.3 | 21.7 |

[^220]Earnings.-High levels of activity recorded in practically all areas and industries in 1951 were accompanied by substantially greater expenditures in wages and salaries, reflecting not only expanding employment generally, but also widespread and important increases in rates of pay. At $381 \cdot 3$, the index of aggregate weekly payrolls was 18.5 p.c. above the 1950 figure, previously the maximum. Provincially, the greatest percentage gains in the year were those of over 20 p.c. in Quebec, 19 p.c. in Ontario and 17 p.c. in British Columbia. Industrially, there was a particularly marked rise in payrolls in logging, in which the reported disbursements rose by 59 p.c.
in 1951 over 1950. In manufacturing, there was an advance of $18 \cdot 7$ p.c., in durable manufactured goods 24 p.c., and in non-durable manufactured goods, in which employment generally showed a relatively small gain in the 12 months, the increase was over 13 p.c.

The index of average weekly wages and salaries reached an all-time high in 1951 at $211 \cdot 6$. There were widely distributed gains in the per capita figures owing largely, in most industries and areas to upward adjustments in wage and salary rates. In some instances, industrial and occupational changes in the distribution of employees also contributed.
7.-Annual Index Numbers of Employment, Payrolls and Average Earnings in Industrial Establishments, with Average Weekly Wages and Salaries, 1950 and 1951

| Industry, Province or City | Index Numbers ( $1939=100$ ) |  |  |  |  |  | Average Weekly <br> Wages and <br> Salaries Reported |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Employment |  | Aggregate Weekly Payrolls |  | Average Weekly Earnings |  |  |  |
|  | 1950 | 1951 | 1950 | 1951 | 1950 | 1951 | 1950 | 1951 |
| Industry |  |  |  |  |  |  | \$ | \$ |
| Forestry (chiefly logging) | $160 \cdot 2$ | $220 \cdot 3$ | 388.2 | $616 \cdot 8$ | 241.9 | $278 \cdot 6$ | $42 \cdot 01$ | 48.40 |
| Mining.................... | $112 \cdot 2$ | $117 \cdot 7$ | 211.2 | $245 \cdot 4$ | 188.0 | 208.5 | 53.95 | 59.82 |
| Manufacturing | 177.5 | $190 \cdot 0$ | $360 \cdot 2$ | $427 \cdot 6$ | 202.8 | 224.9 | $46 \cdot 21$ | 51.25 |
| Durable goods ${ }^{1}$ | 211.4 | $236 \cdot 3$ | $431 \cdot 6$ | $534 \cdot 5$ | $204 \cdot 0$ | 226.1 | $49 \cdot 52$ | 54.89 |
| Non-durable goods ${ }^{1}$ | $155 \cdot 4$ | 159.9 | 308.4 | $349 \cdot 8$ | 198.4 | 218.8 | $43 \cdot 28$ | 47.74 |
| Construction. | $165 \cdot 0$ | 177.6 | $379 \cdot 9$ | $459 \cdot 1$ | $229 \cdot 8$ | 256.8 | $43 \cdot 27$ | 48.36 |
| Transportation, Storage and Communications. | 167.2 | $177 \cdot 6$ | 286.5 | 333.7 | $171 \cdot 4$ | $187 \cdot 4$ | $49 \cdot 15$ | 53.76 |
| Public Utility Operation............. | $183 \cdot 6$ | 187.5 | 317.9 | 355.5 | 173.2 | 189.4 | $51 \cdot 14$ | 55.93 |
| Trade... | $167 \cdot 2$ | $174 \cdot 0$ | $297 \cdot 4$ | $340 \cdot 0$ | $177 \cdot 8$ | $195 \cdot 6$ | 38.81 | 42.71 |
| Finance, Insurance and Real Estate | $155 \cdot 3$ | $169 \cdot 8$ | $233 \cdot 7$ | $270 \cdot 4$ | $148 \cdot 4$ | $156 \cdot 3$ | 43.90 | 46.26 |
|  | $177 \cdot 7$ | $181 \cdot 3$ | $320 \cdot 1$ | $349 \cdot 4$ | $180 \cdot 6$ | $193 \cdot 6$ | $29 \cdot 50$ | $31 \cdot 61$ |
| Province |  |  |  |  |  |  |  |  |
| Prince Edward Island | $173 \cdot 1$ | $176 \cdot 8$ | 301.1 | $333 \cdot 5$ | 174.0 | $189 \cdot 6$ | $34 \cdot 44$ | 37.52 |
| Nova Scotia. | $142 \cdot 5$ | $149 \cdot 4$ | $261 \cdot 9$ | $296 \cdot 4$ | 183.9 | 198.5 | $39 \cdot 40$ | 42.51 |
| New Brunswi | 169.9 | $180 \cdot 5$ | $325 \cdot 8$ | $383 \cdot 6$ | 191.8 | 212.9 | 38.76 | 43.02 |
| Quebec. | 155.0 | 168.5 | $312 \cdot 9$ | $375 \cdot 7$ | 201.7 | 222.8 | $42 \cdot 89$ | 47.37 |
| Ontario | 177.7 | 191.0 | 338.8 | $403 \cdot 4$ | $190 \cdot 5$ | 211.4 | 46.58 | 51.69 |
| Manitoba | 168.0 | $173 \cdot 2$ | 286.8 | 326.0 | $170 \cdot 7$ | 188.3 | 43.84 | 48.37 |
| Saskatchew | $140 \cdot 8$ | $148 \cdot 1$ | $249 \cdot 6$ | $285 \cdot 6$ | $177 \cdot 3$ | $193 \cdot 1$ | $42 \cdot 86$ | 46.68 |
| Alberta. | 188.5 | $202 \cdot 6$ | 338.7 | $402 \cdot 1$ | 179.6 | 198.4 | $45 \cdot 61$ | 50.37 52.93 |
| British Columbia | $180 \cdot 7$ | $190 \cdot 3$ | $332 \cdot 0$ | 388.0 | 183.4 | $203 \cdot 5$ | 47.70 | 52.83 |
| Canada ${ }^{3}$. | 168.0 | 180.2 | 321.8 | $381 \cdot 3$ | 191-3 | 211.6 | 44.84 | 49.61 |
| City |  |  |  |  |  |  |  |  |
| Halifax | $186 \cdot 6$ | $203 \cdot 8$ | 289.9 | $336 \cdot 6$ | $155 \cdot 2$ | $169 \cdot 1$ | $36 \cdot 35$ | $39 \cdot 61$ |
| Saint Joh | $161 \cdot 0$ | 172.7 | $280 \cdot 4$ | $324 \cdot 7$ | 173.8 | 188.2 | 37.22 | 40.29 |
| Quebec. | 147.5 | 151.9 | 296.7 | 331.0 | $200 \cdot 9$ | $217 \cdot 4$ | 37.40 | 40.48 |
| Sherbrooke | 161.6 | $172 \cdot 5$ | 315.9 | 369.8 | 195.4 | $214 \cdot 3$ | 37.90 | 41.58 |
| Three Rive | $165 \cdot 8$ | $178 \cdot 3$ | $350 \cdot 8$ | $429 \cdot 4$ | $211 \cdot 4$ | $238 \cdot 4$ | 42.87 | 48.35 |
| Montreal. | 165-4 | 173.9 | $315 \cdot 9$ | $363 \cdot 3$ | 191.0 | $209 \cdot 0$ | 43.58 | 47.69 |
| Ottawa-Hull | $180 \cdot 1$ | $189 \cdot 3$ | $317 \cdot 3$ | $368 \cdot 1$ | 176.1 | $194 \cdot 3$ 206.3 | 40.81 46.49 | 45.01 51.68 |
| Toronto.. | $183 \cdot 6$ $187 \cdot 5$ | $195 \cdot 3$ 203.7 | 341.0 379.6 | $402 \cdot 2$ $447 \cdot 1$ | $185 \cdot 6$ 202.2 | $206 \cdot 3$ 223 | 46.49 48.91 | 51.68 54.11 |
| Hamilton.: | $187 \cdot 5$ $248 \cdot 7$ | $203 \cdot 7$ $237 \cdot 3$ | $379 \cdot 6$ 449.9 | $447 \cdot 1$ $581 \cdot 7$ | $202 \cdot 2$ $215 \cdot 3$ | $223 \cdot 7$ 244 | 48.91 52.85 | 54.11 60.07 |
| Brantiord. | 204-1 | $209 \cdot 1$ | 448.9 | 513.0 | 219.9 | $245 \cdot 6$ | 45.67 | 51.01 |
| Kitchener | $174 \cdot 1$ | $181 \cdot 2$ | 351.7 | $402 \cdot 7$ | $202 \cdot 0$ | $222 \cdot 5$ | 42.84 | 47.20 |
| London.. | 185.8 | $193 \cdot 7$ | 341.4 | 396.2 | 183.8 | $204 \cdot 6$ | 43.48 | 48.42 |
| Windsor | 217.0 | $228 \cdot 7$ | $427 \cdot 7$ | $477 \cdot 5$ | 196.5 | $209 \cdot 5$ | $54 \cdot 60$ | 58.22 |
| Fort William-Port Arth | 189.4 | $211 \cdot 1$ | $348 \cdot 2$ | $440 \cdot 9$ | 183.7 | 207.9 | $46 \cdot 71$ |  |
| Winnipeg. | 168.0 | $172 \cdot 2$ 165.7 | $283 \cdot 4$ $287 \cdot 3$ | $320 \cdot 2$ $320 \cdot 0$ | 168.5 177.1 | $186 \cdot 4$ 193.2 | 40.94 39.98 | $45 \cdot 27$ $43 \cdot 62$ |
| Regina.... | $162 \cdot 1$ | $165 \cdot 7$ 188.8 | $287 \cdot 3$ $314 \cdot 5$ | $320 \cdot 0$ $360 \cdot 7$ | $177 \cdot 1$ $175 \cdot 2$ | 193.2 190.9 | 39.98 38.87 | $43 \cdot 62$ $42 \cdot 35$ |
| Saskatoon Edmonton | 179.4 232.9 | $188 \cdot 8$ $252 \cdot 1$ | 314.5 420.4 | $360 \cdot 7$ $505 \cdot 7$ | 175.2 180.3 | $190 \cdot 9$ $200 \cdot 2$ | 38.87 42.35 | 42.35 47 |
| Calgary. | 194.0 | $210 \cdot 1$ | $327 \cdot 4$ | $391 \cdot 3$ | 168.7 | $186 \cdot 2$ | 43.48 | 47.99 |
| Vancouver | 198.6 | $203 \cdot 3$ | $362 \cdot 2$ | 406.8 | $182 \cdot 2$ | 199.9 | $45 \cdot 68$ | 50.12 |
| Victoria.. | 206.4 | 221.5 | 378.7 | 453.1 | 183.3 | 204-6 | 43.93 | 49.03 |

${ }^{1}$ The durable 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. ${ }^{2}$ Mainly hotels, restaurants,
laundries and dry-cleaning establishments.
${ }^{3}$ Exclusive of Newfoundland and the Territories.

Since 1944 a monthly series of statistics on man-hours, hourly earnings and weekly wages in industries where employers keep count of hours actually worked has been prepared by the Dominion Bureau of Statistics. In manufacturing, the proportion of total workers included in the monthly surveys on these subjects is high, at approximately 80 p.c. of all wage-earners in Canada. Table 8, p. 700 summarizes the recent data.


The average hours of work per week in 1951 in most of the industries listed were lower than in 1950 or 1949 , owing mainly to continuing reductions in the standard working week and, to a lesser extent, to changes in the levels of business activity.

Mining and construction were the exceptions, showing a slight rise in the three years. Industrial changes in the distribution of the reported wage-earners and their hours within the mining division were largely responsible for the higher averages as compared with 1949, when industrial disputes caused a substantial loss in working time.

In all industries and areas for which statistics are given in Table 8, there have been successive increases in recent years in the averages of hourly earnings and weekly wages. The levels of average earnings in manufacturing generally in the different areas, and their changes from year to year, are affected by the industrial distributions of the reported wage-earners, and by local variations in business activity.

> 8.-Average Hours and Earnings in Specified Industries and Areas, 1949-51

| Industry and Area | Average Hours Worked |  |  | Average Hourly Earnings |  |  | Average Weekly Wages |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 | 1950 | 1951 | 1949 | 1950 | 1951 | 1949 | 1950 | 1951 |
| Industry | No. | No. | No. | cts. | cts. | cts. | \$ | \$ | \$ |
| Mining | $42 \cdot 6$ | 43.0 | $43 \cdot 1$ | 117.2 | $121 \cdot 4$ | $133 \cdot 4$ | 49.93 | 52.20 | 57.50 |
| Metal mining | $45 \cdot 3$ | $45 \cdot 1$ | $44 \cdot 1$ | 115.9 | $121 \cdot 1$ | $134 \cdot 8$ | 52.50 | $54 \cdot 62$ | 59.45 |
| Coal mining | $37 \cdot 4$ | $38 \cdot 1$ | $39 \cdot 5$ | $128 \cdot 3$ | $130 \cdot 1$ | 136.7 | 47.98 | $49 \cdot 57$ | 54.00 |
| Manufacturing | $42 \cdot 3$ | $42 \cdot 3$ | 41.8 | $98 \cdot 6$ | $103 \cdot 6$ | 116.8 | 41.71 | 43.82 | 48.82 |
| Durable goods | $42 \cdot 5$ | $42 \cdot 5$ | $42 \cdot 0$ | $106 \cdot 5$ | 112.0 | $125 \cdot 8$ | $45 \cdot 26$ | $47 \cdot 60$ | 52.84 |
| Non-durable goods | 42.0 | $42 \cdot 2$ | 41.7 | 90.6 | $95 \cdot 2$ | 107.2 | 38.05 | $40 \cdot 17$ | 44-70 |
| Construction. | $39 \cdot 7$ | $39 \cdot 9$ | $40 \cdot 3$ | 101.2 | $105 \cdot 6$ | 117.6 | $40 \cdot 18$ | $42 \cdot 13$ | 47.39 |
| Buildings and structur | $40 \cdot 1$ | $39 \cdot 6$ | $39 \cdot 5$ | 107.9 | 113.3 | 127.1 | 43.27 | 44.87 | 50.20 |
| Highways, bridges and | 38.8 | $40 \cdot 8$ | 41.9 | $85 \cdot 6$ | 88.1 | $95 \cdot 1$ | 33.21 | 35.94 | $39 \cdot 85$ |
| Service.... | $42 \cdot 2$ | $42 \cdot 5$ | $42 \cdot 5$ | $63 \cdot 6$ | 65.8 | $69 \cdot 3$ | 26.84 | 27.97 | $29 \cdot 45$ |
| Hotels and restaurant | 43.0 | $43 \cdot 5$ | $43 \cdot 5$ | $62 \cdot 6$ | $64 \cdot 5$ | 68.8 | 26.92 | 28.06 | 29.93 |
| Laundries and dry-cleaning plants | 40.9 | 40.9 | $40 \cdot 9$ | 62.8 | $65 \cdot 1$ | $67 \cdot 3$ | $25 \cdot 69$ | 26.63 | $27 \cdot 53$ |
| Province |  |  |  |  |  |  |  |  |  |
| Newfoundland. |  |  | 44.0 |  |  | 112.8 |  |  | 49.63 |
| Nova Scotia. | 43.4 | $43 \cdot 1$ | $42 \cdot 2$ | 89.0 | 91.9 | $100 \cdot 9$ | 38.63 | 39.61 | 42.58 |
| New Brunswi | $44 \cdot 5$ | 44.5 | $43 \cdot 8$ | 88.2 | 91.2 | 103.8 | 39.25 | $40 \cdot 58$ | 45.46 |
| Quebec. | $43 \cdot 7$ | 44.0 | $43 \cdot 5$ | 89.5 | $92 \cdot 9$ | $104 \cdot 5$ | $39 \cdot 11$ | $40 \cdot 88$ | $45 \cdot 46$ |
| Ontario | 41.8 | 41.9 | $41 \cdot 3$ | $103 \cdot 3$ | 109.4 | 123.7 | $43 \cdot 18$ | $45 \cdot 84$ | 51.09 |
| Manitoba | $42 \cdot 2$ | 41.8 | 41.4 | 95.5 | 99.4 | 112.5 | $40 \cdot 30$ | 41.55 | 46.58 |
| Saskatchewan | $41 \cdot 6$ | 41.4 | $41 \cdot 0$ | $100 \cdot 0$ | 105-1 | 117.4 | $41 \cdot 60$ | $43 \cdot 51$ | 48.13 |
| Alberta. | $42 \cdot 1$ | 41.7 | 41.0 | $100 \cdot 1$ | 103.9 | 116.6 | $42 \cdot 14$ | 43.33 | 47.81 |
| British Columbia | 37.7 | $37 \cdot 8$ | $37 \cdot 8$ | 118.7 | $124 \cdot 4$ | $140 \cdot 7$ | 44.75 | 47-02 | $53 \cdot 18$ |
| Cities |  |  |  |  |  |  |  |  |  |
| Montreal. | 42.2 | $42 \cdot 3$ | 42-0 | 94.5 | 97.9 | 109.2 | 39.88 | 41.41 | 45-86 |
| Toronto.. | $40 \cdot 7$ | 40.9 | $40 \cdot 6$ | $102 \cdot 1$ | $107 \cdot 8$ | $122 \cdot 3$ | 41.55 | 44.09 | $49 \cdot 65$ |
| Hamilton | 41.9 | $40 \cdot 7$ | $40 \cdot 2$ | 111.5 | $121 \cdot 1$ | 136.2 | 46.72 | 49.29 | 54.75 |
| Windsor. | $39 \cdot 7$ | 41.2 | 39.7 | $125 \cdot 3$ | $132 \cdot 0$ | 143.7 | 49.74 | 54.38 | 57.05 45.67 |
| Winnipeg. | $42 \cdot 0$ | 41.5 | ${ }^{41} \cdot 0$ | 94.9 | 98.7 | 111.4 | $39 \cdot 86$ | 40.96 | 45.67 |
| Vancouver.. | $37 \cdot 3$ | $37 \cdot 2$ | $37 \cdot 3$ | 116.4 | 122-3 | 138.4 | $43 \cdot 42$ | $45 \cdot 50$ | $51 \cdot 62$ |

[^221]
# Section 4.-Earnings, Hours of Work and Wage Rates 

## Subsection 1.-Earnings and Hours of Work of Male and Female Employees in Manufacturing Establishments*

Annual surveys of earnings and hours of work of male and female wage-earners and salaried employees in manufacturing establishments employing 15 or more persons have been conducted by the Dominion Bureau of Statistics since 1946. The surveys relate to the last week of November in 1946 and 1947 and to the last

[^222]week of October in subsequent years. In 1950, data were included for most of the large plants in Newfoundland. The distribution of male and female wage-earners by hours worked in the survey week was obtained in 1946-49; the 1950 survey showed the distribution of wage-earners and salaried employees of each sex by amounts earned in the week.

The data for 1949 (Tables 9 and 10) relate to all employees on the payrolls of the larger manufacturing establishments in the reported week, except homeworkers, travelling salesmen, watchmen and charwomen; the 1950 figures include all categories but homeworkers. Proprietors and firm members, pensioners, personnel in separately organized sales offices, and employees absent without pay throughout the survey week are excluded. The reported earnings comprise gross earnings, before deduction for taxes, unemployment insurance, etc., including time, piecework and commission earnings, regularly paid bonuses, overtime pay and payments to persons absent with pay in the survey week. The hours include part-time, full-time and overtime hours worked, and any hours of paid absence in that week.

Tables 9 and 10 show the average hours worked and the average earnings of wage-earners and salaried employees of both sexes, by provinces and industries. The trend in earnings has been consistently upward in the period covered, largely as a result of pay increases and rising cost-of-living bonuses. Other factors influencing pay levels include the type and size of the manufacturing operation, the proportion of women employed, occupational differences, variations in activity resulting from seasonal, market and other conditions, the proportions of short-time, part-time and casual workers, the amounts of overtime work done, and the extent of absenteeism and labour turnover in the week surveyed. There are also variations associated with the location of the plant in areas where general pay levels tend to be above or below average. Provincial variations are closely related to the industrial distribution of the workers in the different areas. Salary levels are also affected by the type and size of establishment, the varying requirements for highly paid executive and professional personnel, the prevalence of head offices, the organization of distributive operations, etc.

Table 11 shows the proportions of women among wage-earners and salaried employees and the relation of their earnings to those of men. Women's wages and salaries are generally lower than men's earnings, not only because of pay differentials and occupational differences, but also because their hours of work are frequently shorter, part-time work and absenteeism are more common than among men, and they tend, on the average, to be younger and less experienced workers.

The distribution of wage-earners by sex and hours worked in the last week in October 1949 is shown in summary form in Table 12. Provincial variations are related to the industrial distribution of workers, to variations in the normal work week, and to seasonal and other differences in amount of part-time, short-time and overtime work. Table 13, giving the distribution of wage-earners and salaried employees by amounts earned in the last week of October 1950, supplies information on the components of the general averages of earnings, indicating the extent to which unusually high or low earnings were factors in the general figures.

## 9.-Average Hours and Earnings of Male and Female Wage-Earners for the Last Week of October, 1949 and 1950

(As reported by manufacturers usually employing 15 persons or over)

| Province or Industry and Year | Average <br> Hours Worked |  |  | Average Hourly Earnings |  |  | Average <br> Weekly Earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Both Sexes | Male | Female | Both Sexes | Male | Female | Both Sexes |
|  | No. | No. | No. | cts. | cts. | cts. | 8 | \$ | \$ |
| Province |  |  |  |  |  |  |  |  |  |
| Nova Scotia.................. 1949 | $44 \cdot 8$ | $42 \cdot 6$ | $44 \cdot 5$ | $95 \cdot 7$ | 46.8 | 88.9 | 42.87 | 19.94 | 39.56 |
| 1950 | $45 \cdot 0$ | $43 \cdot 7$ | 44.8 | 95.5 | 47.8 | $88 \cdot 7$ | 42.98 | 20.89 | 39.74 |
| New Brunswick............... 1949 | $46 \cdot 4$ | $41 \cdot 3$ | $45 \cdot 4$ | 90.9 | 57.4 | 85.1 | $42 \cdot 18$ | 23.71 | 38.64 |
| Quec 1950 | $46 \cdot 3$ | $39 \cdot 3$ | $45 \cdot 0$ | $96 \cdot 0$ | 61.1 | $90 \cdot 4$ | 44.45 | 24.01 | $40 \cdot 68$ |
| Quebec....................... . 1949 | 46.3 46.7 | $40 \cdot 2$ 40.6 | 44.5 44.9 | $97 \cdot 6$ 103.1 | $64 \cdot 5$ 68.1 | 89.0 94.0 | 45.19 | 25.93 | $39 \cdot 61$ |
| Ontario..................... 1949 | 46.7 43.8 | $40 \cdot 6$ $39 \cdot 4$ | 44.9 42.8 | $103 \cdot 1$ 111.6 | $68 \cdot 1$ $72 \cdot 2$ | 94.0 103.6 | 48.15 48.88 | $27 \cdot 65$ 28.45 | $42 \cdot 21$ 44.34 |
| 1950 | 44.0 | $39 \cdot 5$ | $43 \cdot 0$ | $121 \cdot 2$ | 77.7 | 112.7 | $53 \cdot 33$ | $30 \cdot 69$ | 48.46 |
| Manitoba...................... 1949 | $44 \cdot 5$ | $39 \cdot 7$ | $43 \cdot 4$ | 102.0 | 66.1 | $94 \cdot 6$ | $45 \cdot 39$ | 26.24 | 41.06 |
| 1950 | $44 \cdot 6$ | 40.0 | $43 \cdot 6$ | $108 \cdot 3$ | 68.9 | $100 \cdot 3$ | 48.30 | 27.56 | 43.73 |
| Saskatchewan................ 1949 | $42 \cdot 9$ | $39 \cdot 2$ | $42 \cdot 4$ | 101.0 | 71.4 | 97.5 | $43 \cdot 33$ | 27.99 | 41.34 |
| Alberta 1950 | $42 \cdot 8$ | $39 \cdot 1$ | 42.4 | 106.5 | 74.6 | 103.1 | 45.58 | $29 \cdot 17$ | 43.71 |
| Alberta........................ 1949 | $43 \cdot 9$ | $40 \cdot 7$ | $43 \cdot 5$ | $104 \cdot 8$ | $73 \cdot 3$ | $100 \cdot 7$ | 46.01 | 29.83 | $43 \cdot 80$ |
| 1950 | $43 \cdot 0$ | $39 \cdot 7$ | $42 \cdot 6$ | $109 \cdot 5$ | $77 \cdot 1$ | $105 \cdot 3$ | 47.09 | $30 \cdot 61$ | 44.86 |
| British Columbia............. 1949 | 40.5 | 37.2 | $40 \cdot 1$ | 123.0 | 76.8 | 118.1 | 49.82 | 28.57 | 47.36 |
| 1950 | $40 \cdot 5$ | $37 \cdot 8$ | $40 \cdot 2$ | $131 \cdot 7$ | $81 \cdot 6$ | 126.2 | 53.34 | $30 \cdot 84$ | 50.73 |
| Canada'. | 4 | 39.8 | 43.3 | $106 \cdot 6$ | 68.3 | 4 | 47.33 | $27 \cdot 18$ | $42 \cdot 61$ |
|  | $44 \cdot 6$ | 40.0 | $43 \cdot 5$ | 114-2 | 72.5 | $105 \cdot 6$ | 50.93 | $29 \cdot 00$ | 45.94 |
| Industry |  |  |  |  |  |  |  |  |  |
| Meat products. . . . . . . . . . . . 1949 | $44 \cdot 7$ | $40 \cdot 6$ | 44.0 | $113 \cdot 6$ | $85 \cdot 3$ | $109 \cdot 0$ | 50.78 | $34 \cdot 63$ | 47.96 |
| Canned and preserved 1950 | $42 \cdot 9$ | 38.9 | $42 \cdot 2$ | $121 \cdot 6$ | $91 \cdot 1$ | 116.5 | $52 \cdot 17$ | 35.44 | $49 \cdot 16$ |
| fruits and vegetables....... 1949 | $46 \cdot 8$ | 38.3 | $42 \cdot 1$ | $81 \cdot 3$ | 61.8 | 71.4 | 38.05 | ${ }^{23 \cdot 67}$ | $30 \cdot 06$ |
| Bread and other bakery 1950 | 46.4 47.4 | 37.7 41.0 | $41 \cdot 6$ 46.3 | 84.0 90.5 | $62 \cdot 5$ 55.6 | 73.3 85.2 | 38.98 42.90 | 23.56 22.80 | 30.49 39.45 |
| 1950 | $47 \cdot 0$ | $40 \cdot 6$ | 45.9 | 96.0 | $58 \cdot 2$ | $90 \cdot 3$ | $45 \cdot 12$ | $23 \cdot 63$ | 41.45 |
| Distilled and malt liquors.... 1949 | $43 \cdot 2$ | $37 \cdot 7$ | 42.5 | $108 \cdot 7$ | $75 \cdot 4$ | $104 \cdot 9$ | 46.96 | 28.43 | 44.58 |
| 1950 | $43 \cdot 0$ | $38 \cdot 7$ | $42 \cdot 4$ | $116 \cdot 6$ | $80 \cdot 3$ | 111.8 | $50 \cdot 14$ | 31.08 | $47 \cdot 40$ |
| Tobacco and tobacco products. 1949 | $45 \cdot 6$ | $42 \cdot 6$ | $43 \cdot 6$ | $102 \cdot 5$ | $80 \cdot 8$ | 88.6 | 46.74 | 34-42 | 38.63 |
| 1950 | $43 \cdot 0$ | $40 \cdot 7$ | 41.5 | $112 \cdot 4$ | $90 \cdot 5$ | 98.6 | 48.33 | 36.83 | 40.92 |
| Rubber products.............. 1949 | $42 \cdot 8$ | $40 \cdot 9$ | $42 \cdot 3$ | 111.4 | $75 \cdot 3$ | $102 \cdot 5$ | 47.68 | $30 \cdot 80$ | $43 \cdot 36$ |
| 1950 | $44 \cdot 2$ | 41.8 | $43 \cdot 6$ | $122 \cdot 1$ | 81.9 | 112.0 | 53.97 | $34 \cdot 23$ | 48.83 |
| Boots and shoes (except 1949 | $39 \cdot 4$ | $37 \cdot 8$ | 38.7 | 86.8 | 59.4 | 74.8 | $34 \cdot 20$ | ${ }_{22} 2.45$ | 28.95 |
| rubber)........................ . 1850 | $40 \cdot 1$ | $38 \cdot 1$ | $39 \cdot 2$ | 91.1 | 62.8 | 78.6 | 36.53 | 23.93 | $30 \cdot 81$ |
| Cotton yarn and broad woven 1949 | $44 \cdot 0$ | 41.3 | $43 \cdot 0$ | $90 \cdot 1$ | 76.0 | 84.8 | 39.64 | $31 \cdot 39$ | 36.46 |
| goods........................ 1950 | $44 \cdot 4$ | $41 \cdot 6$ | $43 \cdot 4$ | $95 \cdot 1$ | $80 \cdot 4$ | 89.7 | $42 \cdot 22$ | 33.45 | 38.93 |
| Woollen goods................. 1949 | $46 \cdot 7$ | 41.4 | 44.4 | $87 \cdot 2$ | $67 \cdot 6$ | 79.2 | 40.72 | 27.99 | $35 \cdot 16$ |
| 1950 | $47 \cdot 0$ | $42 \cdot 2$ | $44 \cdot 9$ | $93 \cdot 0$ | $72 \cdot 4$ | 84.6 | $43 \cdot 71$ | $30 \cdot 55$ | 37.99 |
| Rayon, nylon and silk textiles.. 1949 | $48 \cdot 4$ | $45 \cdot 4$ | 47-6 | $90 \cdot 1$ | $69 \cdot 2$ | 84.3 | $43 \cdot 61$ | 31.42 | 40.13 |
| , 1950 | 41.8 | $44 \cdot 4$ | 46.9 | 96.5 | $75 \cdot 0$ | $90 \cdot 6$ | 46.13 | $33 \cdot 30$ | 42.49 |
| Men's clothing................ 1949 | $40 \cdot 2$ | $38 \cdot 1$ | 38.7 | $105 \cdot 9$ | $65 \cdot 5$ | 77.7 | $42 \cdot 57$ | 24.96 | 30.07 |
| W 1950 | 41.7 | $39 \cdot 3$ | $40 \cdot 0$ | $109 \cdot 1$ | 67.9 | $80 \cdot 7$ | $45 \cdot 49$ | 26.68 | $32 \cdot 28$ |
| Women's clothing............ 1949 | 36.9 | $35 \cdot 7$ | 36.0 | $122 \cdot 4$ | $70 \cdot 4$ | $81 \cdot 4$ | 45.17 | $25 \cdot 13$ | 29.30 |
| Knit 1950 | 38.0 | 36.5 | 36.8 | 128.3 | $72 \cdot 6$ | 84.5 | 48.75 | 26.50 | 31.10 |
| Knit goods................... 1949 | $45 \cdot 5$ $45 \cdot 9$ | $40 \cdot 7$ $41 \cdot 7$ | $42 \cdot 3$ 43.1 | 93.9 98.9 | $62 \cdot 5$ $66 \cdot 2$ | 73.7 78.0 | $42 \cdot 72$ $45 \cdot 40$ | $25 \cdot 44$ 27.61 | 31.18 $33 \cdot 62$ |
| Saw and planing mills......... 1949 | $43 \cdot 9$ | 41.0 | $43 \cdot 8$ | 96.9 | $78 \cdot 6$ | $96 \cdot 3$ | $42 \cdot 54$ | 32.23 | 42.18 |
| 1950 | $43 \cdot 9$ | $40 \cdot 6$ | $43 \cdot 8$ | $104 \cdot 9$ | 88.4 | $104 \cdot 5$ | 46.05 | $35 \cdot 89$ | 45.77 |
| Furniture...................... 1949 | $44 \cdot 6$ | $40 \cdot 3$ | 44.2 | 88.3 | 68.6 | 86.7 | $39 \cdot 38$ | $27 \cdot 65$ | 38.32 |
| 1950 | $45 \cdot 1$ | 41.3 | 44.7 | $94 \cdot 6$ | $72 \cdot 7$ | $92 \cdot 7$ | $42 \cdot 66$ | 30.03 | 41.44 |
| Pulp and paper mills......... 1949 | $48 \cdot 4$ | 45.0 | 48.4 | 114.7 | $70 \cdot 6$ | 114.0 | 55.51 | 31.77 | 55-18 |
| 1950 | $48 \cdot 9$ | $42 \cdot 6$ | 48.8 | $122 \cdot 5$ | $75 \cdot 5$ | 121.7 | 59.90 | $32 \cdot 16$ | 59-39 |
| Other paper products. . . . . . 1949 | 45.8 | $41 \cdot 6$ | $44 \cdot 2$ | 98-3 | $62 \cdot 2$ | 84.9 | 45.02 | $25 \cdot 88$ | 37.53 |
| , 1950 | $45 \cdot 7$ | $42 \cdot 0$ | $44 \cdot 3$ | $106 \cdot 8$ | $67 \cdot 2$ | $92 \cdot 3$ | $48 \cdot 81$ | 28.22 | 40.89 |
| Printing, publishing and allied 1949 | 41.8 | 38.3 | 41.0 | 128.2 | 67.0 | $115 \cdot 1$ | 53.59 | $25 \cdot 66$ | $47 \cdot 19$ 50.30 |
| industries. . . . . . . . . . . . . . 1950 | $41 \cdot 2$ | $37 \cdot 9$ | $40 \cdot 4$ | 139.9 | $70 \cdot 7$ | 124.5 | 57-64 | 26.80 | 50.30 |
| Agricultural implements. ..... 1949 | $42 \cdot 2$ |  | 42.2 | $115 \cdot 1$ | .. | 114.9 | $48 \cdot 57$ | .. | 48.49 56.28 |
| 1950 | $42 \cdot 8$ |  | $42 \cdot 8$ | $131-8$ | $\cdots$ | 131.5 | 56.41 | . | $56 \cdot 28$ 50.42 |
|  | $44 \cdot 5$ 43.8 |  | $44 \cdot 5$ $43 \cdot 7$ | $113 \cdot 5$ $122 \cdot 0$ | $\cdots$ | $113 \cdot 3$ 121.8 | $50 \cdot 51$ <br> $53 \cdot 44$ | $\cdots$ | 53.42 53.23 |
| Iron castings.................. 1949 | $44 \cdot 2$ | 41.6 | $44 \cdot 2$ | $112 \cdot 8$ | 86.9 | 112.1 | 49.86 | $36 \cdot 15$ | 49.55 |
| 1950 | $46 \cdot 0$ | $44 \cdot 8$ | 46.0 | $121 \cdot 6$ | $87 \cdot 3$ | 121.0 | 55.94 | $39 \cdot 11$ | $55 \cdot 66$ |

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## 9.-Average Hours and Earnings of Male and Female Wage-Earners for the Last Week of October, 1949 and 1950-concluded

| Industry and Year |  | Average Hours Worked |  |  | Average Hourly Earnings |  |  | A verage Weekly Earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male | Female | Both Sexes | Male | Female | Both Sexes | Male | Female | Both Sexes |
| Industry-concluded |  | No. | No. | No. | cts. | cts. | cts. | \$ | \$ | \$ |
| Machinery manufact | 1949 | $44 \cdot 0$ | 41.8 | 43.9 | 106.7 | 77.0 | $105 \cdot 2$ | 46.95 | 51.59 | 46-18 |
|  | 1950 | $45 \cdot 1$ | 41.0 | 44.9 | 114.4 | 87.0 | 112.9 | $32 \cdot 19$ | $35 \cdot 67$ | $50 \cdot 69$ |
| Primary iron and | 1949 | $43 \cdot 2$ | 38.9 | 43.2 | $122 \cdot 7$ | 91.5 | $122 \cdot 4$ | 53.01 | 35.59 | $52 \cdot 88$ |
|  | 1950 | $42 \cdot 6$ | $39 \cdot 6$ | $42 \cdot 6$ | $129 \cdot 1$ | 98.7 | 128.8 | 55.00 | 39.09 | 54.87 |
| Sheet metal prod | . 1949 | $44 \cdot 1$ | $41 \cdot 2$ | 43.7 | $105 \cdot 3$ | $79 \cdot 1$ | $102 \cdot 1$ | 46.44 | 32.59 | 44.62 |
| Sheet metal produc | 1950 | $43 \cdot 7$ | $41 \cdot 3$ | 43.4 | 113.8 | $84 \cdot 1$ | $110 \cdot 0$ | 49.73 | 34.73 | 47.74 |
| Aircraft and pa | . 1949 | $45 \cdot 7$ | 41.8 | $45 \cdot 6$ | 112.8 | 83.5 | $112 \cdot 2$ | 51.55 | 34.90 | 51.16 |
|  | 1950 | $46 \cdot 6$ | $40 \cdot 2$ | 46.4 | 117.9 | $74 \cdot 1$ | 116.9 | 54.94 | 29.79 | 54-24 |
| Motor- | . 1949 | $40 \cdot 4$ | $44 \cdot 9$ | $40 \cdot 4$ | $132 \cdot 5$ | $98 \cdot 6$ | $132 \cdot 1$ | $53 \cdot 53$ | $44 \cdot 27$ | 53.37 |
|  | 1950 | $43 \cdot 8$ | $43 \cdot 6$ | 43.8 | 146.0 | 107-3 | $145 \cdot 5$ | 63.95 | 46.78 | 63.73 |
| Motor-vehicle parts and | 1949 | 43.9 | $39 \cdot 1$ | 43.2 | $117 \cdot 4$ | 89.9 | 113.8 | 51.54 | $35 \cdot 15$ | 49-16 |
| accessorie - .............. | . 1950 | $44 \cdot 4$ | $40 \cdot 0$ | 43.8 | $128 \cdot 6$ | $97 \cdot 2$ | 124.5 | 57-10 | 38.88 | 54.53 |
| Railroad and rolling-stock | 1949 | 43.7 |  | 43.7 43.0 | $115 \cdot 1$ | .. | $115 \cdot 0$ | 50.30 | . | 50.26 50.10 |
| equipment............... | 1949 | $43 \cdot 0$ $43 \cdot 6$ |  | $43 \cdot 0$ 43.5 | $117 \cdot 1$ $111 \cdot 5$ | $\because$ | 116.5 111.1 | $50 \cdot 35$ 48.61 | . | 50.10 48.33 |
| Shipbuilding an | 1959 | 43.6 43.8 |  | 43.5 43.8 | 111.5 112.4 | $\cdots$ | 111.1 112.0 | $48 \cdot 61$ 49.23 | $\cdots$ | 48.33 49.06 |
| Aluminum produ | . 1949 | $44 \cdot 4$ | $40 \cdot 6$ | 43.9 | 104-3 | 69.5 | 99.0 | 46.31 | 28.22 | 43.86 |
|  | 1950 | $43 \cdot 6$ | 41.4 | 43.3 | $110 \cdot 1$ | 73.1 | $105 \cdot 7$ | 47.01 | $35 \cdot 26$ | 45.77 |
| Brass and copper prod | . 1949 | $43 \cdot 6$ | $40 \cdot 2$ | $43 \cdot 3$ | 109-4 | 81.0 | 107-2 | 47.70 | $32 \cdot 56$ | 46.42 |
|  | 1950 | 45.0 | $41 \cdot 4$ | $44 \cdot 7$ | $113 \cdot 7$ | 82.6 | 111.0 | 51.17 | $34 \cdot 20$ | 49-62 |
| Smelting and refining | 1949 | $45 \cdot 1$ | .. | $45 \cdot 1$ | 118.5 | .. | 118.4 | 53.44 | .. | 53.40 |
|  | 1950 | 44.5 |  | 44.5 | $122 \cdot 5$ |  | $122 \cdot 4$ | 54.51 |  | 54.47 |
| Electrical apparatus and | 1949 | 42.8 | $40 \cdot 3$ | $42 \cdot 1$ | $117 \cdot 7$ | 87.3 | 109.5 | 50.38 | $35 \cdot 18$ | 46-10 |
| supplies........... | 1950 | 43.3 | $40 \cdot 2$ | 42.4 | 127-1 | $92 \cdot 4$ | 117.7 | 55.03 | $37 \cdot 14$ | $49 \cdot 90$ |
| Non-metallic mineral | 1949 | 46.4 | 41.8 | 46.0 | $100 \cdot 1$ | 74.4 | 98.3 | 46.45 | 31.10 | 45-22 |
| products........ | 1950 | 46.8 | 41.6 | 46.4 | $107 \cdot 4$ | $75 \cdot 3$ | 105.0 | $50 \cdot 26$ | 31.32 | 48.72 |
| Products of petroleum and | 1949 | 41.9 |  | 41.9 | 125.5 |  | 125.4 | 52.58 |  | 52.54 |
| coal | . 1950 | $41 \cdot 3$ |  | 41.3 | $135 \cdot 8$ |  | $135 \cdot 6$ | 56.09 |  | 56.00 |
| Chemical produ | . 1949 | $45 \cdot 1$ | $40 \cdot 8$ | 44.3 | $105 \cdot 1$ | 64.5 | 97.7 | 47.40 | 26.34 | 43.28 |
|  | 1950 | $44 \cdot 1$ | $40 \cdot 1$ | 43.4 | $114 \cdot 6$ | 70.0 | 107-2 | $50 \cdot 54$ | 28.07 | 46.52 |
| Miscellaneous manufacturing | 1949 | $44 \cdot 2$ | $40 \cdot 7$ | $42 \cdot 8$ | 93.4 | 65.5 | $82 \cdot 1$ | 41.38 | 26.66 | 35-14 |
| industries.. | . 1950 | $44 \cdot 3$ | $40 \cdot 6$ | 42.8 | $100 \cdot 4$ | 71.0 | 88.8 | 44-48 | 28.83 | 38.01 |
| Durable manufactured good | . 1949 | 43.8 | $40 \cdot 8$ | 43.5 | 109.9 | 79.3 | $107 \cdot 6$ | $48 \cdot 14$ | $32 \cdot 35$ | 46.81 |
|  | 1950 | $44 \cdot 2$ | 40.8 | $43 \cdot 9$ | $117 \cdot 7$ | $84 \cdot 8$ | $115 \cdot 2$ | 52.02 | $34 \cdot 60$ | 50.57 |
| Non-durable manufactured goods................... | 1949 | $45 \cdot 1$ | $39 \cdot 6$ | $43 \cdot 1$ | $102 \cdot 6$ | $66 \cdot 1$ | 90.4 | 46.27 | 26.18 | 38.96 |
| goods..................... | . 1950 | $45 \cdot 1$ | $39 \cdot 8$ | $43 \cdot 2$ | $109 \cdot 9$ | 69.9 | 96.8 | $49 \cdot 56$ | 27.82 | $41 \cdot 82$ |
| Averages, Manufacturing Industries. | 1949 | 44.4 | 39.5 | 43.3 | $106 \cdot 6$ | 68.3 | $8 \cdot 4$ | 47.33 | 27.18 | 42.61 |
|  | 1950 | $44 \cdot 6$ | 40.0 | 43.5 | 114.2 | 72.5 | $105 \cdot 6$ | 50.93 | 29.00 | $45 \cdot 94$ |

10.-Average Hours and Weekly Earnings of Male and Female Salaried Employees for the Last Week of October, 1949 and 1950
(As reported by manufacturers usually employing 15 persons or over)

| Province and Year |  |  | Average Hours Worked |  |  | Average Weekly Earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Male | Female | Both Sexes | Male | Female | Both Sexes |
| Province |  |  | No. | No. | No. | \$ | \$ | $\delta$ |
| Nova Scotia..... <br> New Brunswick. |  | 1949 | 40.9 | $39 \cdot 6$ | 40.5 | 59.45 | 28.29 | $50 \cdot 47$ |
|  |  | 1950 | 41.0 43.8 | $40 \cdot 1$ 40.6 | 40.8 4.8 | 61.20 57.64 | 29.18 27.88 | 52.55 |
|  |  | 1949 1950 | $43 \cdot 8$ 43.0 | $40 \cdot 6$ 39.6 | 42.8 42.0 | $57 \cdot 64$ 61.40 | 27.88 28.71 | $48 \cdot 42$ 51.60 |
| Quebec.. |  | 1949 | 41.1 | 38.8 | 40.4 | $64 \cdot 61$ | 33.05 | $54 \cdot 66$ |
| Ontario.. |  | 1950 | 40.5 | 38.4 | 39.8 | 68.13 | 34.41 | 58.10 |
|  |  | 1949 | $40 \cdot 4$ | 38.3 | 39.7 | 66.81 | 32.74 | $55 \cdot 32$ |
| Manitoba. |  | 1950 | 39.8 | 38.1 | $39 \cdot 3$ | 71.40 | 34.84 | 59.81 |
|  |  | . 1959 | 41.9 | 39.9 | $41 \cdot 3$ | $62 \cdot 19$ | $30 \cdot 30$ | 52.98 |
| Saskatchewan.. |  | 1950 1949 | $41 \cdot 3$ 42.7 | $39 \cdot 8$ 41.1 | $40 \cdot 9$ 42.2 | $62 \cdot 42$ $53 \cdot 23$ | $32 \cdot 01$ $29 \cdot 30$ | $54 \cdot 21$ $45 \cdot 18$ |
|  |  | 1950 | 42.5 | $41 \cdot 3$ | $42 \cdot 1$ | $58 \cdot 13$ | $32 \cdot 34$ | 49.76 |

10--Average Hours and Weekly Earnings of Male and Female Salaried Employees for the Last Week of October, 1949 and 1950-continued

| Province, Industry and Year |  | Average Hours Worked |  |  | Average Weekly Earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Male | Female | Both Sexes | Male | Female | Both Sexes |
| Province-concluded |  | No. | No. | No. | \$ | $\delta$ | 8 |
| Alberta. | . 1949 | 42.8 | $40 \cdot 6$ | $42 \cdot 2$ | $60 \cdot 06$ | 30.72 | 51.80 |
|  | 1950 | 41.7 | $39 \cdot 8$ | 41.3 | $62 \cdot 62$ | $32 \cdot 47$ | 55.05 |
| British Columbia. | . 1949 | $40 \cdot 7$ | $39 \cdot 6$ | $40 \cdot 4$ | 66.92 | $33 \cdot 73$ | 57.91 |
|  | 1950 | $40 \cdot 2$ | $39 \cdot 0$ | $39 \cdot 9$ | 69.77 | $35 \cdot 23$ | 60.83 |
| Canadal. | . 1949 | 40.8 | $38 \cdot 6$ | $40 \cdot 1$ | 65.37 | $32 \cdot 62$ | 54.85 |
|  | 1950 | $40 \cdot 2$ | 38.4 | $39 \cdot 7$ | 69-35 | 34-38 | $55 \cdot 74$ |
| Industry |  |  |  |  |  |  |  |
| Meat products | . 1949 | $42 \cdot 2$ | $40 \cdot 5$ | 41.8 | 62.87 | 35.49 | 55.87 |
|  | 1950 | $41 \cdot 7$ | $40 \cdot 0$ | 41.4 | $65 \cdot 22$ | 36.97 | 59.19 |
| Canned and preserved fruits and vegetable | . 1949 | $43 \cdot 5$ | $40 \cdot 0$ | $42 \cdot 1$ | 59.21 | 29.63 | 47-58 |
|  | 1950 .1949 | $41 \cdot 8$ $45 \cdot 2$ | 39.8 38.9 | 41.1 42.7 | $62 \cdot 72$ $53 \cdot 51$ | $29 \cdot 53$ $29 \cdot 20$ | $50 \cdot 62$ $43 \cdot 62$ |
| drad | 1950 | $44 \cdot 3$ | $40 \cdot 1$ | $42 \cdot 6$ | 54.50 | 29.53 | 44.22 |
| Distilled and malt liquors | . 1949 | $38 \cdot 6$ | $36 \cdot 3$ | 38.0 | 76.84 | 36.81 | 66.82 |
|  | 1950 | 37.8 | 35.9 | 37.3 | 77-18 | 38.42 | $67 \cdot 96$ |
| Tobacco and tobacco products. | . 1949 | $40 \cdot 5$ | $39 \cdot 2$ | $40 \cdot 0$ | 65.26 | $36 \cdot 63$ | 54.17 |
| ,obaco and tobaco product... | 1950 | $38 \cdot 6$ | 37.9 | 38.4 | ${ }^{67 \cdot 18}$ | 39.48 | 57.86 53 |
| Rubber products | 1949 | $39 \cdot 7$ | $38 \cdot 2$ | 39.2 | 63.53 | $30 \cdot 90$ | 53-70 |
|  | 1950 | $40 \cdot 1$ | 38.5 | $39 \cdot 6$ | 67.97 | 33.76 | 58.09 |
| Boots and shoes (except rubber) | 1949 | $43 \cdot 1$ | $39 \cdot 4$ | 41.9 41.4 | 56.57 60.26 | $29 \cdot 36$ 30.23 | 48.00 50.66 |
|  | 1950 .1949 | $42 \cdot 3$ 41.2 | $39 \cdot 6$ $39 \cdot 0$ | 41.4 40.5 | $60 \cdot 26$ 67.63 | $30 \cdot 23$ $31 \cdot 01$ | $50 \cdot 66$ $55 \cdot 33$ |
| Cotton yarn and broad woven | 1950 | $40 \cdot 4$ | $38 \cdot 7$ | 39.8 | 74.04 | $31 \cdot 60$ | 59.37 |
| Woollen goods | 1949 | 43.4 | 38.8 | 41.9 | 66.66 | 31.54 | 54.80 |
| Woollen goods | 1950 | $41 \cdot 7$ | 38.2 | 40.5 | $70 \cdot 56$ | 33.49 | 57.50 |
| Rayon, nylon and silk textiles | 1949 | 41.5 | $40 \cdot 6$ | 41.2 | $62 \cdot 22$ | 31.03 33.18 | $51 \cdot 38$ 58.15 |
|  | 1950 | $41 \cdot 1$ | 39.5 | $40 \cdot 6$ | 69.37 | $33 \cdot 18$ 30.38 | 51.15 47.48 |
| Men's clothing | 1949 | $40 \cdot 7$ 39.9 | 38.3 38.6 | 39.8 39.5 | 57.36 59.83 | $30 \cdot 38$ $31 \cdot 17$ | 47.48 49.46 |
|  | 1949 | $41 \cdot 2$ | 38.8 | 40.1 | 63.47 | $36 \cdot 25$ | $50 \cdot 72$ |
| men's clothing | 1950 | 41.2 | 38.4 | 39.9 | $64 \cdot 86$ | 37.88 | $52 \cdot 39$ |
| Knit goods. | 1949 | $42 \cdot 8$ | $39 \cdot 1$ | 41.1 | 62.90 | 30.93 | 48.05 |
| nit goods | 1950 | 41.4 | 39.2 | $40 \cdot 4$ | 69.69 | $31 \cdot 22$ | 52.33 |
| Saw and planing mills | 1949 | $44 \cdot 2$ | $40 \cdot 4$ | $43 \cdot 3$ | 62.94 | $31 \cdot 87$ 34.07 | $55 \cdot 85$ 58.91 |
|  | 1950 | $43 \cdot 3$ 41.9 | $40 \cdot 0$ 38.3 | 42.5 40.7 | $66 \cdot 25$ $63 \cdot 54$ | $34 \cdot 07$ $30 \cdot 29$ | 58.91 52.58 |
| rnitur | 1950 | 41.2 | 38.3 | 40.2 | $66 \cdot 12$ | 31.78 | $54 \cdot 33$ |
| Pulp | 1949 | $40 \cdot 8$ | 38.8 | $40 \cdot 4$ | 83.40 | $36 \cdot 54$ | 72.72 |
| Pulp and paper | 1950 | 39.9 | 38.1 | 39.5 | $85 \cdot 11$ | 36.73 | 74-15 |
| Other paper products | . 1949 | $39 \cdot 5$ | 38.0 | 39.0 | 64-85 | $33 \cdot 10$ | 53.26 |
| Other paper products | 1950 | 38.9 | $37 \cdot 3$ | 38.4 | 72.47 | $34 \cdot 30$ | $59 \cdot 36$ 46.55 |
| Printing, publishing and allied industries | . 1949 | $39 \cdot 2$ $38 \cdot 3$ | 37.8 38.0 | 38.7 38.2 | 57.12 61.75 | $30 \cdot 30$ 32.56 | $46 \cdot 55$ 50.71 |
|  | 1950 | $38 \cdot 3$ 40.5 | 38.0 38.8 | $38 \cdot 2$ $40 \cdot 0$ | $61 \cdot 75$ 63.44 | $32 \cdot 56$ 31.40 | 50.71 55.56 |
| Agricultural impleme | 1950 | $39 \cdot 7$ | 38.5 | 39.5 | $67 \cdot 25$ | $34 \cdot 38$ | 59.51 |
| Fabricated and structural steel | 1949 | 40.9 | $40 \cdot 1$ | $40 \cdot 8$ | 71.03 | 34.70 | 64.44 |
| icated and structural steel. | 1950 | 41.1 | 39.9 | $40 \cdot 9$ | 78.05 | $35 \cdot 31$ | 70.75 |
| Iron castings | 1949 | 41.2 | 37.8 | 40.2 | 65.09 | 32.28 | 55.68 58.27 |
| Machinery | 1950 1949 | $40 \cdot 8$ 40.4 | 37.6 38.6 | 39.9 39.8 3 | $67 \cdot 32$ 62.86 | $33 \cdot 77$ 51.78 | 58.27 53.69 |
| achinery man | 1950 | $40 \cdot 3$ | $39 \cdot 0$ | 39.9 | 67.00 | 33-42 | $57 \cdot 19$ |
| Primary iron and stee | 1949 | $39 \cdot 9$ | $38 \cdot 3$ | $39 \cdot 5$ | 72.64 | $33 \cdot 50$ | 62.96 |
|  | 1950 | $39 \cdot 0$ | $37 \cdot 6$ | 38.7 | 74.58 | $34 \cdot 73$ 31.61 | $65 \cdot 22$ 53.36 |
| Sheet metal products | .1949 | 39.4 | $37 \cdot 6$ 37.7 | 38.9 38.7 | $62 \cdot 70$ 66.53 | 31.61 33.95 | 53.36 57.49 |
| Aircraft and | 1950 1949 | $39 \cdot 0$ $41 \cdot 5$ | 37.7 40.8 | $38 \cdot 7$ 41.3 | 66.53 62.44 | $31 \cdot 91$ $32 \cdot 24$ | 57.49 55.33 |
| ircrait and | 1950 | $40 \cdot 5$ | 39.5 | $40 \cdot 2$ | 67.94 | 34.90 | 59.99 |
| Motor-vehicles. | 1949 | 41.5 | $40 \cdot 1$ | 41.1 | $80 \cdot 39$ | 38.29 | 68.34 |
|  | 1950 | $42 \cdot 2$ | 41.1 | 41.9 | 88.23 | $43 \cdot 16$ | 76.19 59 |
| Motor-vehicle parts and accessories. | . 1949 | 41.4 | $40 \cdot 0$ | 40.9 | 71.48 | $33 \cdot 80$ $35 \cdot 71$ | 59.79 63.59 |
| Motor-vehicle parts and accsories. | 1950 | $41 \cdot 0$ $43 \cdot 9$ | 39.5 39.6 | $40 \cdot 6$ 43.4 | 75.09 70.44 | $35 \cdot 71$ $36 \cdot 75$ | $63 \cdot 59$ 66.47 |
| Railroad and rolling-stock equipmen | 1949 1950 | $43 \cdot 9$ $44 \cdot 3$ | $39 \cdot 6$ $39 \cdot 6$ | 43.4 43.9 | $70 \cdot 44$ 68.77 | 36.75 38.42 | 65.86 65 |

[^224]10.-Average Hours and Weekly Earnings of Male and Female Salaried Employees for the Last Week of October, 1949 and 1950-concluded

| Industry and Year | Average Hours Worked |  |  | Average Weekly Earnings |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Both Sexes | Male | Female | Both Sexes |
| Industry-concluded | No. | No. | No. | \$ | \$ | \$ |
| Shipbuilding and repairing...................... 1949 | $42 \cdot 2$ | $39 \cdot 7$ | $41 \cdot 6$ | 64-63 | $30 \cdot 71$ | 57.38 |
| Aluminum products. 1950 | 41.8 | 36.4 | $40 \cdot 8$ | ${ }^{66} \cdot 12$ | $31 \cdot 64$ | 59.38 |
| Aluminum products............................. 1949 | $39 \cdot 8$ | 37.8 | $39 \cdot 0$ | 69.45 | 33.32 | 54.45 |
| 1950 | $37 \cdot 7$ | $37 \cdot 1$ | $37 \cdot 4$ | 78.04 | $35 \cdot 14$ | 61.96 |
| Brass and copper products...................... 1949 | $40 \cdot 6$ | $38 \cdot 1$ | 39.8 | 64.27 | $33 \cdot 62$ | 54.58 |
| Smelting and refing 1950 | $40 \cdot 2$ | 37.7 | $39 \cdot 4$ | 71.48 | 34.97 | 60.11 69 |
| Smelting and refining. ......................... 1949 | $43 \cdot 6$ $42 \cdot 2$ | 41.5 40.4 | 43.3 41.9 | $75 \cdot 75$ 76.23 | $36 \cdot 36$ $37 \cdot 47$ | $69 \cdot 76$ $70 \cdot 30$ |
| Electrical apparatus and supplies................ 1949 | $39 \cdot 3$ | $38 \cdot 3$ | 39.0 | 64.32 | 35.58 | 55.15 |
| 1950 | 38.8 | $38 \cdot 0$ | $38 \cdot 6$ | 68.11 | 35.99 | $58 \cdot 61$ |
| Non-metallic mineral products.................. 1949 | $40 \cdot 8$ | 37.8 | 39.9 | $62 \cdot 87$ | 31.96 | 53.94. |
| 1950 | $40 \cdot 3$ | 38.0 | $39 \cdot 7$ | 67.41 | 33.85 | 58.29 . |
| Products of petroleum and coal.................. 1949 | 38.6 | 36.1 | $38 \cdot 0$ | 68.49 | 34.70 | 61.40 |
| 1950 | 37.4 | $34 \cdot 1$ | $36 \cdot 7$ | $72 \cdot 64$ | 38.52 | 65.59 |
| Chemical products............................ 1949 | 39.2 | 37.8 | 38.7 | $67 \cdot 30$ | $34 \cdot 46$ | 54.89 |
| Misell 1950 | $38 \cdot 8$ | 37.5 | 38.3 | 71.72 | 36.05 | 59.87 |
| Miscellaneous manufacturing industries........ 1949 | 41.1 | 37.6 | $39 \cdot 7$ | 63.44 | 31.43 | 50.18 |
| 1950 | 41.0 | 38.4 | $40 \cdot 0$ | 66.78 | 33.78 | 54.51 |
| Durable manufactured goods................... 1949 | 41.0 | 38.8 | $40 \cdot 4$ | 66.53 | $33 \cdot 22$ | 57.15 |
| 1950 | $40 \cdot 4$ | $38 \cdot 6$ | $39 \cdot 9$ | 70.48 | $35 \cdot 10$ | 60.87 |
| Non-durable manufactured goods............... 1949 | $40 \cdot 7$ | 38.5 | $39 \cdot 9$ | $64 \cdot 35$ | $32 \cdot 23$ | 53.00 |
| 1950 | $40 \cdot 0$ | $38 \cdot 3$ | $39 \cdot 5$ | 68.29 | 33.90 | 56.97 |
| Averages, Manufacturing Industries.... 1949 | 40.8 40.2 | 38.6 38.4 | $40 \cdot 1$ $39 \cdot 7$ | 65.37 $\mathbf{6 9 . 3 5}$ | $\begin{aligned} & 32 \cdot 62 \\ & 34 \cdot 38 \end{aligned}$ | $\begin{aligned} & \mathbf{5 4 \cdot - 8 5} \\ & 58 \cdot 74 \end{aligned}$ |

11.-Proportions of Women Employees, and Proportions of Women's Earnings to Men's Earnings for the Last Week of October, 1949 and 1950
(As reported by manufacturers usually employing 15 persons or over)

| Province and Group | Wage-Earners |  |  |  | Salaried Employees |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Proportions } \\ \text { of } \\ \text { Women } \end{gathered}$ |  | Proportions of Women's Weekly Wages to Men's |  | Proportions of Women |  | Proportions of Women's Weekly Salaries to Men's |  |
|  | 1949 | 1950 | 1949 | 1950 | 1949 | 1950 | 1949 | 1950 |
|  | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Nova Scotia....................... | 14.5 | $14 \cdot 7$ | $46 \cdot 5$ | $48 \cdot 6$ | 28.8 | 27.0 | $47 \cdot 6$ | $47 \cdot 7$ |
| New Brunswick..................... | 19.2 | 18.4 | 56.2 | 54.0 | 31.0 | $30 \cdot 0$ | 48.4 | 46.8 |
| Quebec............................... | 29.0 22.0 | 28.8 21.3 | 57.4 58.2 | 57.4 57.5 | 31.1 33.7 | 29.7 31.7 | 51.3 49.0 | 50.5 48.8 |
| Manitoba............................... | $22 \cdot 6$ | 21.3 22.1 | $58 \cdot 2$ 57.8 | 57.5 57.1 | 33.7 28.8 | 31.7 27.0 | 49.0 48.7 | 48.8 51.3 |
| Saskatchewan. | 12.9 | 11.5 | $64 \cdot 6$ | $64 \cdot 1$ | $33 \cdot 7$ | $32 \cdot 4$ | 55.0 | 55.6 |
| Alberta. | 13.9 | 13.7 | 64.8 | $65 \cdot 1$ | 28.1 | $25 \cdot 1$ | 51.1 | 51.9 |
| British Columbia. | 11.5 | $11 \cdot 6$ | 57.3 | 57.8 | $27 \cdot 2$ | 25.9 | 50.4 | $50 \cdot 5$ |
| Totals. | 23.2 | 22.6 | 57.4 | 56.9 | $32 \cdot 1$ | 30.4 | 49.9 | 49.6 |
| Durable goods manufacturing..... Non-durable goods manufacturing. | $\begin{array}{r} 8 \cdot 0 \\ 36.3 \end{array}$ | 8.4 $35 \cdot 4$ | $67 \cdot 2$ $56 \cdot 6$ | 66.5 56.1 | $28 \cdot 2$ $35 \cdot 3$ | 27.1 32.9 | $49 \cdot 9$ $50 \cdot 1$ | 49.8 49.6 |

12.-Provincial Distribution of Wage-Earners, classified by Sex and Hours Worked in the Last Week of October 1949
(As reported by manufacturers usually employing 15 persons or over)

| Sex and Hours Group | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | p.c. | p.c. | p.e. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Male | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |
| Under 40 hours | 14.0 | $13 \cdot 7$ | $12 \cdot 3$ | $13 \cdot 2$ | 7.9 | 11.5 | $10 \cdot 1$ | 19.7 | $13 \cdot 3$ |
| 40-44 | $35 \cdot 7$ | $23 \cdot 6$ | 22.9 | $35 \cdot 6$ | $50 \cdot 8$ | $59 \cdot 5$ | $43 \cdot 2$ | $64 \cdot 6$ | $34 \cdot 7$ |
| 45-48 | $27 \cdot 3$ | $26 \cdot 2$ | $32 \cdot 4$ | $36 \cdot 4$ | $24 \cdot 4$ | $20 \cdot 2$ | 31.9 | $9 \cdot 6$ | $31 \cdot 7$ |
| 49-54 | $13 \cdot 4$ | $21 \cdot 6$ | $17 \cdot 4$ | $9 \cdot 8$ | $10 \cdot 0$ | $7 \cdot 1$ | $11 \cdot 3$ | $3 \cdot 9$ | $12 \cdot 0$ |
| 55 bours or over. | $9 \cdot 6$ | 14.9 | $15 \cdot 0$ | $5 \cdot 0$ | 6.9 | 1.7 | $3 \cdot 5$ | $3 \cdot 2$ | $8 \cdot 3$ |
| Female. | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | 100.0 |
| Under 40 hours | 22.8 | $29 \cdot 7$ | $34 \cdot 1$ | $33 \cdot 3$ | 28.4 | $26 \cdot 8$ | $17 \cdot 4$ | 38.3 | $33 \cdot 2$ |
| 40-44 | $33 \cdot 3$ | $22 \cdot 7$ | $31 \cdot 4$ | $37 \cdot 3$ | $50 \cdot 7$ | $62 \cdot 7$ | $62 \cdot 4$ | $51 \cdot 7$ | $35 \cdot 9$ |
| 45-48 | $23 \cdot 1$ | $29 \cdot 0$ | $23 \cdot 3$ | $22 \cdot 7$ | $15 \cdot 0$ | $9 \cdot 3$ | $17 \cdot 6$ | $5 \cdot 4$ | $22 \cdot 1$ |
| 49-54 | $14 \cdot 4$ | $7 \cdot 7$ | $8 \cdot 3$ | $5 \cdot 5$ | $5 \cdot 2$ | $1 \cdot 2$ | $2 \cdot 4$ | $3 \cdot 7$ | $6 \cdot 7$ |
| 55 hours or over. | $6 \cdot 4$ | $10 \cdot 9$ | 2.9 | 1.2 | $0 \cdot 7$ | - | 0-2 | 0.9 | $2 \cdot 1$ |
| Both sexes | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ |
| Under 40 ho | $15 \cdot 3$ | 16.9 | 18.6 | $17 \cdot 6$ | $12 \cdot 4$ | 13.4 | 11.0 | 21.9 | $17 \cdot 9$ |
| 40-44 | $35 \cdot 3$ | $23 \cdot 3$ | $25 \cdot 3$ | $36 \cdot 1$ | $50 \cdot 7$ | $60 \cdot 0$ | $45 \cdot 9$ | 63.0 | $35 \cdot 0$ |
| 45-48 | 26.8 | 26.8 | 29.8 | $33 \cdot 3$ | $22 \cdot 3$ | 18.8 | $30 \cdot 0$ | $8 \cdot 2$ | 29.5 |
| 49-54 | $13 \cdot 5$ | 18.9 | 14.8 | $8 \cdot 9$ | $9 \cdot 0$ | $6 \cdot 3$ | $10 \cdot 1$ | $4 \cdot 0$ | 10.8 |
| 55 hours or over. | $9 \cdot 1$ | $14 \cdot 2$ | 11.5 | $4 \cdot 1$ | $5 \cdot 6$ | 1.5 | $3 \cdot 0$ | $2 \cdot 9$ | 6.8 |

${ }^{1}$ Exclusive of Newfoundland and Prince Edward Island.
13.-Provincial Distribution of Wage-Earners, classified by Sex and Earnings in the Last Week of October 1950

| Sex and Earnings Group | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Male Wage-Earners- | p.c. | p.e. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Under $\$ 10.00 \ldots .$. | 1 | 2 | 1 | 1 | 1 | 2 | 1 | 1 | 1 |
| \$10.00-\$19.99. | 3 | 5 | 3 | 2 | 2 | 2 | 2 | 2 | ${ }_{5}$ |
| 20.00-29.99. | 14 | 12 | 8 | 3 | 5 | 5 | 4 | 2 | 5 |
| $30.00-39.99$. | 22 | 25 | 18 | 11 | 18 | $\cdot 21$ | 16 | 6 | 14 |
| 40.00-49.99. | 27 | 19 | 27 | 25 | 29 | 38 | 36 | 23 | 26 |
| 50.00-59.99. | 20 | 20 | 23 | 28 | 32 | 21 | 29 | 41 | 28 |
| $60.00-69.99$. | 8 | 9 | 11 | 17 | 9 | 9 | 8 | 15 | 14 |
| 70.00-79.99. | 3 | 5 | 5 | 8 | 3 | 2 | 3 | 6 | 6 |
| $80.00-89.99$. | 1 | 2 | 2 | 3 | 1 | -- | 1 | 2 | 2 |
| $90.00-99.99$. | 1 | 1 | 1 | 1 | -. | -- | -- | 1 | 1 |
| 100.00 or over. | - | - | 1 | 1 | - | - | -- | 1 | 1 |
| Employees reported. No. | 17,300 | 12,249 | 198,571 | 334,065 | 22,217 | 4,939 | 13,342 | 54,808 | 663,836 |
| Female Wage-Earners- |  |  |  |  |  |  |  |  |  |
|  | $\begin{array}{r}7 \\ 43 \\ \hline\end{array}$ | 11 28 | 21 | $1{ }^{3}$ | 17 | 9 | $\stackrel{2}{9}$ | 11 | ${ }_{16}^{4}$ |
| 20.00-29.99. | 38 | 32 | 37 | 33 | 46 | 35 | 35 | 32 | 35 |
| $30.00-39.99$. |  | 20 | 27 | 34 | 23 | 32 | 34 | 37 | 30 |
| 40.00-49.99. | 3 | 8 | 9 | 15 | 8 | 18 | 19 | 14 | 12 |
| $50.00-59.99$. | -- | 1 | 3 | 3 | 2 | - | 1 | 3 | 3 |
| 60.00-69.99, | - | -- | -- | 1 | 1 | - | -- | -- | -- |
| $70.00-79.99$. | - | -- | - | -- | -- | - | - | - |  |
| 80.00-89.99. | - | - | -- | -- | -- |  | - | -- |  |
| $90.00-99.99$. | - | - | -- | -- | -- | - | - |  |  |
| 100.00 or over. | - | - | -- | -- | -- | - |  | - |  |
| Employees reported. No. | 2,973 | 2,758 | 80,221 | 90,380 | 6,294 | 644 | 2,122 | 7,221 | 193,639 |

${ }^{1}$ Includes Newfoundland and Prince Edward Island.
13.-Provincial Distribution of Wage-Earners, classified by Sex and Earnings in the Last Week of October 1950-concluded

| Sex and Earnings Group | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Totals ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Male Salaried Employees- <br> Under $\$ 10.00$ |  |  | $\cdots$ |  | -- | - |  | -- | -- |
| \$10.00- $\$ 19.99 . . . . . . . . . . .$. | 1 | ${ }^{-} 1$ | 1 | - | ${ }^{-} 1$ | - | ${ }^{-} 2$ | ${ }^{-} 1$ | -- |
| 20.00-29.99. | 5 | 8 | 6 | 3 | 5 | 6 | 5 | 2 | 5 |
| $30.00-39.99 \ldots \ldots \ldots .$. | 12 | 15 | 10 | 7 | 12 | 13 | 9 | 6 | 8 |
| 40.00-49.99. | 17 | 16 | 15 | 13 | 18 | 19 | 17 | 13 | 13 |
| $50.00-59.99 \ldots \ldots . .$. | 20 | 20 | 18 | 19 | 20 | 23 | 20 | 19 | 19 |
| $60.00-69.99 \ldots \ldots . .$. | 19 | 14 | 16 | 18 | 15 | 16 | 18 | 19 | 17 |
| $70.00-79.99 \ldots \ldots . .$. | 8 | 9 | 10 | 13 | 12 | 9 | 12 | 13 | 12 |
| $80.00-89.99 .$. | 7 | 5 | 7 | 9 | 5 | 4 | 6 | 10 | 8 |
| 90.00-99.99......... | 4 | 4 | 4 | 5 | 3 | 4 | 3 | 6 | 5 |
| 100.00 or over........... | 7 | 8 | 13 | 13 | 9 | 6 | 8 | 11 | 12 |
| Employees reported. No. | 2,003 | 1,431 | 41,600 | 72,206 | 4,384 | 1,237 | 2,909 | 8,238 | 135,418 |
| Female Salaried Em-ployees- |  |  |  |  |  |  |  |  |  |
| Under $\$ 10.00 \ldots \ldots \ldots$. | $\cdots$ | 1 | - | 1 | -- | -- | 1 | 1 | 1 |
| \$10.00- $\$ 19.99 \ldots . . . . .$. | 7 |  | 6 | 3 | 3 | 1 | 3 | 3 | 4 |
| 20.00-29.99. | 47 | 49 | 27 | 26 | 42 | 36 | 32 | 23 | 27 |
| $30.00-39.99 \ldots . . . . .$. | 37 | 30 | 39 | 45 | 39 | 49 | 47 | 47 | 43 |
| 40.00- $49.99 \ldots \ldots . .$. | 7 | 8 | 20 | 20 | 12 | 11 | 13 | 19 | 19 |
| $50.00-59.99 \ldots \ldots \ldots$. | 1 | 2 | 6 | 4 | 3 | 2 | 3 | 5 | 5 |
| 60.00-69.99 ......... | 1 | -- | 2 | 1 | 1 | 1 | 1 | 1 | 1 |
| $70.00-79.99$. | - | - | 2 | . | -- | - | 1 | 1 | -- |
| $80.00-89.99 \ldots . . . . .$. | - | - | - | -. | -- | - | - | $\ldots$ | -. |
| $90.00-99.99$. | - | - | -- | -. | .- | - |  |  | .- |
| 100.00 or over. | - | -- | -- | -- | -- | - | - | -- | -- |
| Employees reported. No. | 742 | 613 | 17,609 | 33,526 | 1,620 | 594 | 974 | 2,878 | 59,018 |

${ }^{1}$ Includes Newfoundland and Prince Edward Island.

## Subsection 2.-Wage Rates and Hours 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 supplementary to the Labour Gazette. The first report was issued in 1921 but the records begin, in many cases, with 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 straighttime wage rates or average straight-time piece-work earnings and do not include overtime or other premium payments.

Tables 14 and 15 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 1939-50, the rise in the general average index number amounted to $115 \cdot 9$ p.c.

[^225]14.-Index Numbers of Wage Rates for certain Main Industrial Groups, 1941-50
$(1939=100)$
Nore.-Figures back to 1901 may be obtained from the Department of Labour publication, Wage Rates and Hours of Labour in Canada, 1950. Figures for 1921-40 are given in the 1947 Year Book, p. 650.

| Logging | Coal <br> Mining | Metal <br> Mining | Manu- <br> fac- <br> turing | Con- <br> struc- <br> tion | Water <br> Trans- <br> por- <br> tation | Steam <br> Rail- <br> ways | Elec- <br> tric <br> Rail- <br> ways | Tele- <br> phones | Laun- <br> dries |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |  |
| General |  |  |  |  |  |  |  |  |  |  |
| Average |  |  |  |  |  |  |  |  |  |  |

## 15.-Index Numbers of Wage Rates, by Industries, 1946-50

$(1939=100)$

| Industry | 1946 | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Logging. | 167.4 | 195.1 | 218.8 | 216.2 | 213.9 |
| Logging, Eastern Canada | 162.8 | $188 \cdot 3$ | 212.0 | $210 \cdot 1$ | $200 \cdot 5$ |
| Logging, British Columbia coastal. | 184.9 | $220 \cdot 8$ | $244 \cdot 2$ | $239 \cdot 2$ | $264 \cdot 2$ |
| Mining. | $140 \cdot 6$ | 161.7 | 181.9 | 187.6 | 195.9 |
| Coal mining. | 146.7 | 166.7 | $192 \cdot 9$ | 196.1 | $200 \cdot 7$ |
| Metal mining. | $135 \cdot 7$ | 157-7 | $173 \cdot 1$ | 180.8 | 192.0 |
| Manufacturing. | 161.5 | 183.3 | 205.9 | 217.9 | $230 \cdot 7$ |
| Primary textile products. | $165 \cdot 6$ | $190 \cdot 1$ | $224 \cdot 2$ | $243 \cdot 3$ | 256.0 |
| Cotton yarn and broad woven goods. | 161.6 | 189.0 | $230 \cdot 6$ | $248 \cdot 6$ | $262 \cdot 0$ |
| Woollen and worsted yarn and woven | 183.1 | $209 \cdot 8$ | 241.3 | $258 \cdot 6$ | 273.0 |
| Hosiery and knit goods............... | 162.5 | 184.3 | 213.8 | $230 \cdot 3$ | $243 \cdot 6$ |
| Rayon, nylon and silk textiles. | 164.7 | 186.8 | 218.2 | $248 \cdot 4$ | 256.2 |
| Clothing.. | 176-2 | 189.5 | $205 \cdot 9$ | 212.0 | 217.3 |
| Men's and boys' suits and overcoats | $182 \cdot 1$ | 203.0 | 214.8 | 207.0 | 216.0 |
| Work clothing..................... | $160 \cdot 3$ | 173.0 | 197.1 | $205 \cdot 8$ | 228.7 |
| Women's and misses' coats and suits. | 176.2 | 186.2 | 206.3 | $210 \cdot 8$ | 203.8 |
| Dresses. | $179 \cdot 2$ | 178.5 | 196.9 | 213.4 | 213.3 2308 |
| Shirts.. | $171 \cdot 7$ | $196 \cdot 6$ | $209 \cdot 4$ | 228.0 | $230 \cdot 8$ |
| Rubber products. | 167.7 | $190 \cdot 1$ | $213 \cdot 7$ | $217 \cdot 6$ | 228.8 |
| Pulp and paper... | $148 \cdot 6$ | 173.8 | $193 \cdot 6$ | 194.4 | 206.1 |
| Pulp......... | $162 \cdot 8$ | 193.5 | 214.3 174 | $216 \cdot 5$ | 227.2 183.5 |
| Newsprint........ | 137.3 | 158.4 170.9 | 174.3 191.8 | $175 \cdot 6$ $190 \cdot 5$ | 183.5 205.4 |
| Paper, other than newsprin | $147 \cdot 0$ 151.6 | $170 \cdot 9$ 175.8 | $191 \cdot 8$ $202 \cdot 3$ | $190 \cdot 5$ $223 \cdot 4$ | 234.8 |
| Paper boxes and containers. Printing and publishing.... | $127 \cdot 3$ 127 | 138.9 | 158.2 | 173.9 | 188.1 |
| Daily newspapers.... | $125 \cdot 7$ | $136 \cdot 6$ | $152 \cdot 6$ | $164 \cdot 3$ | $178 \cdot 6$ |
| Job printing...... | 129.8 | 142.4 | 165.9 | 188.3 | $\stackrel{202.3}{ }$ |
| Lumber and its products. | 178.3 | 205-2 | $226 \cdot 2$ | 238.8 | $257 \cdot 6$ |
| Sawmills.............. | 184.8 | $215 \cdot 7$ | 236.5 | 253.0 | 274.0 |
| Sash and door, and planing mills. | 161.2 | $180 \cdot 2$ 192.6 | 195.9 218.8 | 197.5 228.3 | $216 \cdot 9$ 239 |
| Wooden furniture.... | 171.7 153.0 | $192 \cdot 6$ $175 \cdot 0$ | 218.8 194 | 2205.4 | $2317 \cdot 6$ |
| Edible plant products.. | 153.1 | 178.0 | 196.5 | 201.9 | $\stackrel{214.7}{ }$ |
| Bread and other bakery products | $152 \cdot 6$ | 174-2 | $191 \cdot 6$ | $202 \cdot 5$ | 213.9 |
| Biscuits and crackers... | 159.2 | 184-1 | $210 \cdot 5$ | $233 \cdot 8$ | $245 \cdot 0$ |
| Confectionery... | $148 \cdot 7$ | 167-0 | $189 \cdot 3$ | $192 \cdot 5$ | $208 \cdot 3$ |

15.-Index Numbers of Wage Rates, by Industries, 1946-50-concluded

16.-Average Hourly Wage Ratesgoriselectedroccupations in Manufacturing, by Provinces, 1950


[^226]17．－Average Standard or Normal Hours of Labour per Week for Male Employees in selected Industries，by Provinces，1948－50

| Industry and Year | Atlantic Provinces ${ }^{1}$ | Quebec | Ontario | Manitoba | Saskat－ chewan | Alberta | British Columbia |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | hrs． | hrs． | hrs | hrs． | hrs ． | hrs． | hrs． |
| Work clothing．．．．．．．．．． 1948 | 41.5 | $45 \cdot 9$ | $41 \cdot 4$ | $40 \cdot 2$ | 2 | $40 \cdot 0$ | 40．1 |
| ， 1949 | $43 \cdot 5$ | $45 \cdot 2$ | 41.4 | $41 \cdot 2$ | － | $40 \cdot 0$ | 41.7 |
| 1950 | $43 \cdot 5$ | $44 \cdot 4$ | $41 \cdot 1$ | $41 \cdot 0$ | － | $40 \cdot 0$ | 40.0 |
| Newsprint．．．．．．．．．．．．．． 1948 | 48.0 | 48.0 | 48.0 | $\vec{\square}$ | 二 | － | $44 \cdot 0$ |
| ${ }_{1950}{ }^{1949}$ | $48 \cdot 0$ $48 \cdot 1$ | $48 \cdot 0$ $48 \cdot 4$ | $48 \cdot 0$ 47.9 | $\overrightarrow{48} \cdot 0$ | － | 二 | $44 \cdot 0$ 43.4 |
| Wood products．．．．．．．．．． 1948 | $53 \cdot 1$ | $53 \cdot 7$ | $4 \dot{6} \cdot 4$ | $46 \cdot 1$ | $46 \cdot 3$ | $47 \cdot 5$ | $40 \cdot 7$ |
| 1949 | $51 \cdot 6$ | 53.4 | $46 \cdot 5$ | $46 \cdot 5$ | $45 \cdot 7$ | 46.5 | $40 \cdot 6$ |
| 1950 | 51.9 | $53 \cdot 0$ | 46.9 | $46 \cdot 0$ | $44 \cdot 6$ | $46 \cdot 3$ | $40 \cdot 7$ |
| Meat products．．．．．．．．．． 1948 | $44 \cdot 2$ | $45 \cdot 6$ | $45 \cdot 1$ | $44 \cdot 1$ | $44 \cdot 2$ | $44 \cdot 0$ | $44 \cdot 1$ |
| 1949 | $44 \cdot 0$ | $45 \cdot 8$ | $44 \cdot 4$ | $44 \cdot 4$ | 44.0 | 44.4 | $44 \cdot 0$ |
| 1950 | $40 \cdot 5$ | $44 \cdot 7$ | $42 \cdot 6$ | $41 \cdot 6$ | 41.8 | 41.5 | $41 \cdot 4$ |
| Iron and its products．．．． 1948 | $47 \cdot 1$ | $46 \cdot 8$ | 44.5 | $45 \cdot 1$ | $44 \cdot 1$ | $42 \cdot 8$ | $40 \cdot 1$ |
| Iron and its products．．．． 1949 | 44.8 | $44 \cdot 9$ | $43 \cdot 3$ | $45 \cdot 3$ | $44 \cdot 1$ | 41.8 | $40 \cdot 1$ |
| 1950 | $44 \cdot 5$ | $45 \cdot 2$ | $42 \cdot 4$ | $44 \cdot 9$ | 43.9 | $42 \cdot 4$ | $40 \cdot 1$ |
| Woollen yarn and cloth． 1948 |  | 48.5 | 46.8 | $45 \cdot 3$$45 \cdot 0$$45 \cdot 2$ |  |  |  |
| ， 1949 | $47 \cdot 5$ | 47.9 | $45 \cdot 7$ |  |  |  |  |
| 1950 | $48 \cdot 5$ | 46.5 | 46.1 |  |  |  |  |

[^227]18．－Average Hourly Wage Rates for selected Occupations in certain Cities， 1950

| Industry and Occupation | Halifax | Montreal | Toronto | Winnipeg | Vancouver |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Construction－ | \＄ | \＄ | \＄ | \＄ | \＄ |
| Bricklayer and mason． | 1.44 | $1 \cdot 60$ | 1.95 | 1.75 | 1.88 |
| Carpenter．．．．．．．．．．．．． | $1 \cdot 23$ | 1.40 | 1.75 | 1.50 | $1 \cdot 68$ |
| Electrician | $1 \cdot 33$ | 1.50 | 1.85 | $1 \cdot 50$ | 1.78 |
| Painter． | $1 \cdot 07$ | $1 \cdot 30$ | 1.50 | $1 \cdot 20$ | $1 \cdot 50$ |
| Plasterer． | $1 \cdot 35$ | $1 \cdot 60$ | $2 \cdot 00$ | 1.75 | 1.85 |
| Plumber． | $1 \cdot 30$ | 1.58 | 1.85 | $1 \cdot 65$ | 1.75 |
| Sheet－metal worker | $1 \cdot 13$ | 1.40 | 1.85 | 1.10 | 1.80 |
| Labourer．．．．．．．．．．．． | 0.81 | $0 \cdot 85$ | 0.95 | $0 \cdot 80$ | $1 \cdot 20$ |
| Manufacturing－ <br> Unskilled factory labour，male． | $0 \cdot 83$ | 0.91 | 0.99 | 0.88 | 1.16 |
| Transportation－ <br> Electric Street－Railway－ |  |  |  |  |  |
| One－man car and bus operator ${ }^{1}$ ． | $\ldots$ | $1 \cdot 15$ | $1 \cdot 24$ | 1.05 | 1.27 |
| Lineman．．．．．．．．．．．．．．．．．．．．．．．．． | $\ldots$ | $1 \cdot 10$ | 1.40 | $1 \cdot 32$ | 1.68 |
| Shop and barnman． | ．．． | 0．85－1．24 | 1．08－1．48 | 0．90－1．16 | 1－10－1－36 |
| Electrician．．．．．．．．．． | $\ldots$ | 1．23 | 1.33 | 1.16 | 1.36 |
| Trackman and laboure | ．．． | 0．85－1．01 | 1－08－1－24 | 0．79－0．84 | $1 \cdot 15$ |
| Printing and Publishing－ |  |  |  |  |  |
| Compositor－ News．．．．．．．． | $1 \cdot 43$ | 1.83 | 1．97宕 | 1.48 | 1.80 |
|  | $1.08 \frac{1}{2}$ | $1 \cdot 58$ | 1.63 | $1 \cdot 40$ | $1 \cdot 67$ |
| Pressman－ |  |  |  |  |  |
| Nows．．．．． | 1.21 | 1.40 | 1．59 | 1.33 | 1.56 |
| Bookbinder． |  | $1 \cdot 66$ | $1.67 \frac{1}{1}$ | 1.52 | 1.81 |
| Bindery girl． | $0 \cdot 46$ | $0 \cdot 77$ | 0.84 | $0 \cdot 70$ | 0.91 |

${ }^{1}$ Maximum rates based on length of service．Two－man car operators receive 7 cents less at Montreal and Vancouver and 5 cents less at Toronto and Winnipeg．

## 19.-Standard or Normal Hours of Labour per Week in certain Cities, 1950

| Industry | Halifax | Montreal | Toronto | Winnipeg | Vancouver |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | hrs. | hrs. | hrs. | hrs. | hrs. |
| Trades........ | 40 | 40 | 40 | 40 | 40 |
| Labourer............................. | 48 | 40-50 | 40, 44, 48 |  |  |
| Transportation - <br> Electric street-railway | ... | 48-50 | 40 | 44-48 | 461 |
| Printing and Publishing.... | 40 | 40-44 | 40 | 40-46 | 371 |

Wages of Farm Labour.-Compared with the corresponding dates in previous years, farm wage rates showed some levelling-off and decline in Eastern Canada and British Columbia in August 1949. This was in contrast to the general upward climb in evidence during the period 1940 to May 1949. With a few exceptions, this levelling-off and decline was continued in those areas and extended to the Prairie Provinces during January 1950. A reversal of this trend became evident for some of the wage rates in May and August 1950 and a general recovery was under way by January 1951 in all provinces. For the remainder of the year the rates climbed steadily to reach the highest level since the survey was started in 1940. The information is provided by volunteer farm correspondents located throughout Canada.

## 20.-Average Daily and Monthly Wages of Male Farm Help, as at Jan. 15, May 15 and

 Aug. 15, 1949-51Note.-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; and for 1947 and 1948 in the 1951 edition, pp. 703-704.

| Province and Year | Jan. 15 |  |  |  | May 15 |  |  |  | Aug. 15 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Daily |  | Monthly |  | Daily |  | Monthly |  | Daily |  | Monthly |  |
|  | With Without Board Board |  | With Without Board Board |  | With \|Without Board Board |  | With Without Board Board |  | $\begin{array}{\|c\|c} \text { With } & \text { Without } \\ \text { Board } & \text { Board } \end{array}$ |  | With <br> Board <br> $\begin{array}{c}\text { Without } \\ \text { Board }\end{array}$ |  |
|  | \$ | \$ | \$ | \$ | \$ | 8 | \$ | \$ | \$ | \$ | \$ | \$ |
| P.E.I.- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1949...... |  |  |  |  | $2 \cdot 90$ | $3 \cdot 81$ | 57.50 | 78.12 | $3 \cdot 10$ | $4 \cdot 20$ | 59.00 | 83.00 |
| ${ }_{1251} 195 . . .$. |  |  |  |  | 3.00 3.19 | $3 \cdot 75$ | 58.12 | $82 \cdot 35$ | $3 \cdot 10$ | $4 \cdot 10$ | 61.00 | 86.00 |
| 1251...... |  |  |  |  | $3 \cdot 19$ | $4 \cdot 12$ | 66.42 | 90.88 | $3 \cdot 40$ | $4 \cdot 50$ | 69.00 | 98.00 |
| N.S.- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1949. | 3.58 3.501 | 4.45 | 71.24 | 97.35 | $3 \cdot 50$ | $4 \cdot 50$ | 72.50 | 105.00 | $3 \cdot 80$ | $4 \cdot 70$ | 72.00 | $100 \cdot 00$ |
| 1950. | 3.501 | $4 \cdot 201$ | 65.001 | 98.001 | $3 \cdot 44$ | $4 \cdot 18$ | 74.21 | $104 \cdot 06$ | 3.70 | 4.70 | 77.00 | 95.00 |
| 1951. | 3.801 | $4 \cdot 601$ | 74.001 | $108.00^{1}$ | $3 \cdot 91$ | $4 \cdot 75$ | 85.83 | $105 \cdot 83$ | $4 \cdot 40$ | $5 \cdot 10$ | 85.00 | $109 \cdot 00$ |
| N.B.- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1949...... |  |  |  |  | $3 \cdot 85$ | 5.00 | 87.22 | 113.00 | 3.80 | 4.90 | 86.00 | 118.00 |
| 1950...... |  |  |  |  | 3.41 | $4 \cdot 33$ | 77.86 | 112.00 | $3 \cdot 90$ | 4.70 | 85.00 | 113.00 |
| 1951...... |  |  |  |  | $4 \cdot 26$ | $5 \cdot 25$ | $103 \cdot 70$ | $135 \cdot 43$ | $4 \cdot 70$ | $5 \cdot 80$ | $101 \cdot 00$ | $134 \cdot 00$ |
| Que.- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1949. | 3.93 | 4.83 | 83.18 | 112.57 | 3.91 | 4.83 | 85.29 | 114.59 | $4 \cdot 00$ | $4 \cdot 90$ | 85.00 | 114.00 |
| 1950. | $3 \cdot 30$ | 4.20 | 71.00 | 97.00 | $3 \cdot 54$ | 4.44 | $76 \cdot 50$ | $102 \cdot 44$ | 3.80 | 4.80 | 80.00 | 109.00 |
| 1951. | 4.00 | 5.00 | 79.00 | 114.00 | $4 \cdot 22$ | $5 \cdot 22$ | 89.22 | 116.02 | $4 \cdot 70$ | $5 \cdot 80$ | $100 \cdot 00$ | 134.00 |
| Ont.- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1949..... | 4.05 | 4.98 | 71.48 | 99.57 | $4 \cdot 11$ | $4 \cdot 91$ | 73.98 | 101.09 | $4 \cdot 30$ | $5 \cdot 20$ | 75.00 | 107.00 |
| $1850 \ldots .$. | 4.00 | 4.80 | 66.00 | 100.00 | $4 \cdot 12$ | $5 \cdot 13$ | 76.89 | 107.99 | $4 \cdot 60$ | $5 \cdot 70$ | 81.00 | 111.00 |
| 1951...... | 4-30 | $5 \cdot 40$ | 77.00 | 113.00 | $4 \cdot 68$ | 5.73 | $85 \cdot 34$ | $120 \cdot 07$ | $5 \cdot 20$ | $6 \cdot 40$ | 89.00 | 124.00 |

[^228]20.-Average Daily and Monthly Wages of Male Farm Help, as at Jan. 15, May 15 and Aug. 15, 1949-51-concluded

| Province and Year | Jan. 15 |  |  |  | May 15 |  |  |  | Aug. 15 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Daily |  | Monthly |  | Daily |  | Monthly |  | Daily |  | Monthly |  |
|  | With Without Board Board |  | With Without Board Board |  | With \|Without Board Board |  | With \|Without Board Board |  | With Without <br> Board  <br> Board  |  | With Without <br> Board  <br> Board  |  |
|  | \$ | \$ | \$ | \$ | 8 | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| Man.- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1949. | 4.09 | 5-36 | $66 \cdot 12$ | 94.00 | 4-29 | 5-63 | 81.78 | 108.00 | $5 \cdot 40$ | $6 \cdot 80$ | 91.00 | 121.00 |
| 1950. | $4 \cdot 00$ | $5 \cdot 20$ | $64 \cdot 00$ | . 90.00 | 3.94 | $5 \cdot 15$ | 85.59 | 110.00 | 4.90 | 6.20 | 93.00 | 123.00 |
| 1951. | 3.80 | $5 \cdot 20$ | $69 \cdot 00$ | 102.00 | $4 \cdot 79$ | 6.02 | 96.46 | 128.82 | 5.90 | $7 \cdot 20$ | $104 \cdot 00$ | 141.00 |
| Sask.- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1949. | 4.00 | 5.00 | 74.49 | 105.05 | $4 \cdot 18$ | $5 \cdot 15$ | $88 \cdot 26$ | 120.58 | 5.50 | 6.30 | 93.00 | 122.00 |
| 1950. | $3 \cdot 20$ | $4 \cdot 50$ | 64.00 | 90.00 | 4.37 | $5 \cdot 32$ | 91.15 | 119.21 | $5 \cdot 50$ | 6.70 | ${ }^{96.00}$ | 128.00 |
| 1951. | 3.90 | $4 \cdot 80$ | $70 \cdot 00$ | 103.00 | $4 \cdot 79$ | $5 \cdot 78$ | 100.69 | 132.92 | $6 \cdot 30$ | $7 \cdot 40$ | $109 \cdot 00$ | $141 \cdot 00$ |
| Alta.- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1949. | 4.07 | $5 \cdot 20$ | $76 \cdot 67$ | 107.31 | 4.44 | $5 \cdot 77$ | $89 \cdot 29$ | $121 \cdot 36$ | 5-10 | 6.00 | 92.00 | 122.00 |
| 1950. | $3 \cdot 60$ | $4 \cdot 60$ | 78.00 | $102 \cdot 00$ | $4 \cdot 27$ | $5 \cdot 31$ | 91.84 | $123 \cdot 11$ | $5 \cdot 20$ | 6.10 | 97.00 | 132.00 |
| 1951. | $3 \cdot 70$ | $4 \cdot 80$ | 76.00 | $104 \cdot 00$ | $4 \cdot 72$ | $5 \cdot 95$ | $100 \cdot 28$ | $133 \cdot 28$ | $5 \cdot 70$ | 6.90 | $110 \cdot 00$ | 147.00 |
| B.C.- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1949. | $5 \cdot 57$ | $5 \cdot 93$ | 84.50 | 126.67 | 5.06 | 6.44 | 93.57 | 127.50 | $5 \cdot 20$ | $6 \cdot 20$ | 86.00 | 118.00 |
| 1950. | $5 \cdot 00$ | $5 \cdot 40$ | 77.00 | $115 \cdot 00$ | $4 \cdot 72$ | 6.00 | 89.78 | $120 \cdot 33$ | $5 \cdot 30$ | 6.20 | 98.00 | 135.00 |
| 1951. | $6 \cdot 30$ | $7 \cdot 60$ | $90 \cdot 00$ | $141 \cdot 00$ | $5 \cdot 67$ | 7.00 | $105 \cdot 00$ | $141 \cdot 67$ | $6 \cdot 40$ | $7 \cdot 20$ | $112 \cdot 00$ | $140 \cdot 00$ |
| Totals- |  |  |  |  |  |  |  |  |  |  |  |  |
| 1949...... | $\begin{aligned} & 4 \cdot 04 \\ & 3 \cdot 60 \end{aligned}$ | $\begin{aligned} & 4 \cdot 97 \\ & 4 \cdot 50 \end{aligned}$ | ${ }^{74} \cdot 87$ $69 \cdot 00$ | $\begin{array}{r} 104 \cdot 45 \\ 99.00 \end{array}$ | 4.04 3.84 | 5.06 4.80 | $84 \cdot 64$ | 113.76 | $4 \cdot 30$ 4.40 | $5 \cdot 40$ | 88.00 | 120.00 |
| 1950....... | $3 \cdot 60$ <br> $4 \cdot 10$ | 4.50 5.10 | 69.00 75.00 | 110.00 | $3 \cdot 82$ <br> 4 | 5.4 | 84.64 94 | 127.00 | $5 \cdot 20$ | 6.30 | 101.00 | 135.00 |

## Section 5.-Unemployment Insurance

The Unemployment Insurance Act, which came into operation on July 1, 1941, applies to all employed persons with the following exceptions: 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 mileage 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, 1951, employers and employees contributed $\$ 773,530,581$ to the Fund and the Federal Government added $\$ 156,502,957$. Interest and profit on sale of securities amounted to $\$ 77,620,644$ and fines of $\$ 76,196$ made a total revenue of $\$ 1,007,730,378$.

Benefits first became payable on Jan. 27, 1942, and from that date to Mar. 31, 1951 , total benefit payments amounted to $\$ 343,150,001$, leaving a balance of $\$ 664,580,377$ in the Fund. Reserves of the Fund are invested in Government of Canada bonds and, as at Mar. 31, 1951, the par value of bonds held amounted to $\$ 652,847,500$.

WEEKLY RATES OF CONTRIBUTION AND BENEFIT UNDER THE UNEMPLOYMENT INSURANCE ACT

| Earnings | Weekly Contributions ${ }^{1}$ |  | $\begin{gathered} \text { Value } \\ \text { of } \\ \text { Weekly } \\ \text { Stamp }^{2} \end{gathered}$ | Weekly Benefits ${ }^{3}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\underset{\text { Employee }}{\text { Ey }}$ | By <br> Employer |  | Single <br> Person | Person With One or More Dependants |
|  | cts. | cts. | cts. | \$ | \$ |
| Less than $\mathbf{\$ 9} 00$. | 18 | 18 | 36 | $4 \cdot 20$ | 4.80 |
| \$ 9.00 to \$14.99. | 24 | 24 | 48 | $6 \cdot 00$ | $7 \cdot 50$ |
| \$15.00 to \$20.99. | 30 | 30 | 60 | $8 \cdot 10$ | $10 \cdot 20$ |
| \$21.00 to \$26.99. | 36 | 36 | 72 | $10 \cdot 20$ | 12.90 |
| \$27.00 to $\$ 33.99$. | 42 | 42 | 84 | $12 \cdot 30$ | 15.60 |
| \$34.00 to \$47.99. | 48 | 48 | 968 | 14.40 | 18.30 |
| \$48.00 or more.. | 54 | 54 | 108 | 16.20 | 21.00 |

[^229]No benefit is payable during the first eight 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 onefifth 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 due 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 Mar. 31 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,

[^230]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: 1942, 2,244; 1943, 3,055 ; 1944, 7,575 ; $1945,24,699$; 1946, 40,722 ; 1947, 36,$904 ; 1948,54,091 ; 1949,77,821$; and 1950, 88,165.

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: 1944, 10,454; 1945, 41,139; 1946, 96,760; 1947, 68,$254 ; 1948,88,909 ; 1949,135,624$; and 1950, 165,304.

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 benefit paid and amount of benefit paid.

In addition to the monthly material on the operation of the Act, annual tabulations of the persons employed in insurable employment are prepared from returns covering the book exchange at Apr. 1, and annual data are published on benefit years established and benefit years terminated.

The number of persons insured under the Unemployment Insurance Act, shown in Table 21, 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 22 presents information on the persons who established benefit years and those benefit years that terminated during the calendar year 1949. A benefit year is established under the Unemployment Insurance Act when an insured person, upon becoming unemployed, submits a claim and proves that at least 180 daily contributions have been made on his behalf during the preceding two years. 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 410,820 benefit years which terminated during 1949, 62,289 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 22, 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.

Table 24 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.

## 21.-Persons Insured under the Unemployment Insurance Act, by Industrial Groups and Sex, 1949 and 1950

Nore.-These figures include only those 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 employed in insurable employment as at Apr. 1.

| Industrial Group | 1949 |  | 1950 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Males | Females |
|  |  | No. | No. | No. |
| Agriculture | 970 | 410 | 1,240 | 440 |
| Forestry and logging............................... | 11,540 | 350 10 | 38,600 420 | 890 180 |
| Fishing, hunting and trapping........................ | 540 | 10 | 420 | 180 |
| Mining, Quarrying and Oil Wells- | 40,500 | 1,200 | 42,410 | 920 |
| Fuels...... | 27,700 | 1,200 | 27,180 | 400 |
| Non-metal mining | 7,190 | 250 | 6,920 | 220 |
| Quarrying, clay and sand pits | 1,870 | 30 | 2,150 | 30 |
| Prospecting................... | 700 | 20 | 1,290 | 160 |
| Totals, Mining, Quarrying and Oil Wells | 77,960 | 1,820 | 79,950 | 1,730 |
| Manufacturing - |  |  |  |  |
| Foods and beverages. | 83,920 | 30,450 6,270 | 87,770 3,340 | 35,230 4,820 |
| Rubber products...... | 12,600 | 4,800 | 13,970 | 5,160 |
| Leather products | 17,980 | 12,770 | 17,180 | 12,280 |
| Textile products (except clothing) | 42,450 | 29,200 | 42,110 | 26,560 |
| Clothing (textile and fur)... | 37,370 | 75,120 | 34,070 | 68,320 |
| Wood products.. | 76,750 | 7,880 | 78,500 | 7,480 |
| Paper products. | 56,410 | 10,180 | 57, 190 | 11,270 |
| Printing, publishing and allied indus | 30,680 | 14,780 | 32,540 | 14,970 |
| Iron and steel products.. | 138,470 | 14,880 | 126,920 | 14,480 |
| Transportstion equipment. | 103,750 | 8,310 | 103,690 | 8,770 |
| Non-ferrous metal products. | 33, 670 | 6,230 | 28,780 | 5,430 |
| Electrical apparatus and supplies | 27,720 | 11,890 | 35,420 | 14,840 |
| Non-metallic mineral products. | 22,100 | 3,130 | 22,670 | 2,750 |
| Products of petroleum and coal | 9,250 | 2,240 | 5,340 | 950 |
| Chemical products. | 27,860 | 10,160 | 27,380 | 10,920 |
| Miscellaneous manufacturing industries. | 15,610 | 11,230 | 15,020 | 10,560 |
| Totals, Manufacturing........................ | 741,240 | 259,520 | 731,890 | 254,790 |
| Construction- <br> General contractors. $\qquad$ <br> Special trade contractors (subcontractors). $\qquad$ |  |  |  |  |
|  | 100,090 | 2,740 | 95,660 | 2,450 |
|  | 39,110 | 1,510 | 42,520 | 1,850 |
| Totals, Construction <br> Transportation, Storage and Communications- <br> Transportation. <br> Storage. <br> Communications $\qquad$ <br> Totals, Transportation, Storage and Communication. | 139, 200 | 4,250 | 138,180 | 4,300 |
|  | 206,500 | 11,070 |  |  |
|  | 8,320 | 960 | 8,960 | 1,250 |
|  | 8,440 | 15,730 | 11,770 | 25,350 |
|  | 223,260 | 27,760 | 255,320 | 39,580 |
| Public utility operation. | 27,760 | 3,100 | 28,540 | 3,260 |
| Trade- |  |  |  |  |
| Wholesale | 87,000 | 27,520 | 92,970 | 28,280 |
| Retail | 180,570 | 149,310 | 171,340 | 131,190 |
| Totals, Trade | 267,570 | 176,830 | 264,310 | 159,470 |
| Finance, insurance and real estate | 32,520 | 50,270 | 32,260 | 52,500 |
| Service- |  |  |  |  |
| Community or public. | 10,020 | 11,800 | 9,750 | 12,800 |
| Government | 71,520 | 28,720 | 72,890 | 26,390 |
| Recreation | 10,320 | 5,880 | 9,990 | 6,070 |
| Business. | 14,540 | 13,100 | 15,600 | 13,820 |
| Personal. | 59,630 | 71,030 | 56,650 | 67,160 |
| Totals, Service. | 166,030 | 130,530 | 164,880 | 126.240 |
| Unspecified. | 18,490 | 6,510 | 9,490 | 2,250 |
| Unemployed | 197,100 | 44,630 | 180,200 | 47,640 |
| Totals, All Industries. | 1,904,180 | 705,990 | 1,925,280 | 693,270 |

22.-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 Provinces, 1949.

| Province |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |

${ }^{1}$ 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.

## 23.-Benefit Years Terminated during 1949 and Benefit Days Paid on those Benefit Years, classified by Duration of Benefit Paid

| Duration of <br> Benefit Paid (days) | Benefit Years Terminated | Benefit <br> Days <br> Paid | Duration of <br> Benefit Paid (days) | Benefit Years Terminated | Benefit <br> Days <br> Paid | Duration of Benefit Paid (days) | Benefit Years Terminated | Benefit <br> Days Paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | No. | No. | No. | No. | No. | No. | No. | No. |
| No benefit... | 62,289 | - | 105-109 | 6,348 | 678,776 | 215-219 | 1,001 | 217,232 |
| 1-4. | 16,593 | 42,497 | 110-114 | 5,870 | 657,175 | 220-224 | 924 | 205,012 |
| 5-9. | 19,776 | 143,462 | 115-119 | 5,264 | 615,611 | 225-229 | 893 | 202,677 |
| 10-14 | 15,073 | 180,471 | 120-124 | 4,828 | 588,956 | 230-234 | 921 | 213,568 |
| 15-19 | 15,272 | 255,748 | 125-129 | 4,255 | 540,402 | 235-239 | 813 | 192,594 |
| 20-24 | 14,324 | 313,205 | 130-134 | 3,672 | 484,510 | 240-244 | 770 | 186,327 |
| 25-29 | 13,573 | 366,237 | 135-139 | 3,403 | 465,922 | 245-249 | 822 | 203,044 |
| 30-34. | 12,893 | 413,327 | 140-144 | 3.112 | 441,810 | 250-254 | 698 | 175,837 |
| 35-39 | 16,979 | 629,834 | 145-149 | 2,779 | 408,364 | 255-259 | 681 | 174,996 |
| 40-44. | 14,819 | 622,253 | 150-154 | 2,625 | 399,040 | 260-264 | 735 | 192,520 |
| 45-49 | 15,053 | 705,728 | 155-159 | 2,431 | 381,755 | 265-269 | 684 | 182,716 |
| 50-54 | 14,642 | 760,169 | 160-164 | 2,120 | 343,365 | 270-274 | 629 | 171,060 |
| 55-59. | 13,905 | 792,067 | 165-169 | 1,929 | 321,927 | 275-279 | 612 | 169,518 |
| 60-61. | 13,536 | 839,267 | 170-174 | 1,727 | 296,920 | 280-284 | 670 | 188,961 |
| 65-69 | 12,617 | 846,264 | 175-179 | 1,626 | 287,789 | 285-289 | 614 | 176,162 |
| 70-74. | 11,349 | 816,922 | 180-194. | 1,507 | 274,150 | 290-294 | 570 | 166,396 |
| 75-79. | 10,853 | 834,364 | 135-139. | 1,431 | 267,626 | 295-299 | 679 | 201,717 |
| 80-84 | 10.175 | 833,931 | 190-194 | 1,312 | 251,888 | 300 or over. | 1,236 | 374,593 |
| 85-8 | 9,238 | 803,176 | 135-199 | 1,174 | 231,191 |  |  |  |
| 90-94 | 8.577 | 788,992 | 200-204 | 1,179 | 238,083 |  |  |  |
| 95-99 | 7,839 | 760,712 | 205-209 | 1,097 | 227,067 | Totals. | 410,820 | 24,660,099 |
| 100-104 | 6,727 | 685,880 | 210-214. | 1,077 | 228,336 |  |  |  |

24.-Benefit Years Terminated during 1949 and Benefit Days Paid on those Benefit Years, classified by Daily Rate of Benefit Authorized

| Daily Rate of Benefit | Benefit Years Termi- | Benefit Days Paid | Daily Rate of Benefit | Benefit Years Terminated | Benefit Days Paid | Daily Rate of Benefit |  | Benefit <br> Days <br> Paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. |  | No. | No. |  | No. | No. |
|  | 20 | 694 | \$1-40-\$1-49 | 11,182 | 630,024 | \$2.30-\$2-39 | 5,486 | 380,844 |
|  | 56 | 1,919 | \$1-50-\$1.59 | 11,642 | 659,923 | \$2.40-\$2.49 | 11,616 | 746,816 |
|  | 268 | 12,502 | \$1.60-\$1.69 | 13,104 | 769,528 | 52.50-52.59 | 20,128 | 1,161,108 |
|  | 627 | 32,403 | \$1-70-\$1-79 | 23,995 | 1,547,706 | \$2.60-\$2.69 | 100,880 | 5,995,599 |
|  | 868 | 41,610 | \$1-80-\$1.89 | 16,825 | 957,809 | \$2.70-\$2.79 | 22,102 | 1.415,757 |
|  | 2,247 | 125,239 | \$1.90-\$1.99 | 20,344 | 1,136,431 | \$2.80-\$2.89 | 2,746 | 221,480 |
|  | 3,278 | 174,128 | \$2.00- $52 \cdot 09$ | 82,722 | 4,735, 200 | \$2.90-\$2.99 | 995 | 83,008 |
|  | 7,548 | 459,635 | \$2-10-\$2-19 | 27,635 | 1,819,650 | \$3.00 or over | 702 | 57,428 |
|  | 15 |  |  |  |  | Totals... | 410,820 | 24,660,099 |

25.-Benefit Years Terminated during 1949, Benefit Days Paid on those Benefit Years, and Benefit Years Terminated by Cause, classified by Age of Claimant

| Age Group | BenefitYearsTerminated | Days Paid on Benefit Years Terminated | Benefit Years Terminated |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | Lapsed | Exhausted |
|  | No. | No. | No. | No. |
| Under 20 years. | 21,287 | 890,152 | 12,753 | 8,534 |
| 20-24 " | 79,979 | $4,069,197$ | 63,737 | 16,242 |
| 25-29 " | 66,132 | 3,561,334 | 56,163 | 9,969 |
| 30-34 " | 45,621 | 2,395,914 | 38,773 | 6,848 |
| 35-39 " | 39,800 | 2,087,338 | 33,346 | 6,454 |
| 40-44 " | 33,629 | 1,858,469 | 27,549 | 6,080 |
| 45-49 " | 30,010 | 1,718,696 | 24,252 | 5,758 |
| 50-54 " | 24,669 | 1,574,330 | 19,199 | 5,470 |
| 55-59 " | 20,672 | 1,440,920 | 15,456 | 5,216 |
| $60-64$ " 65 | 19,182 | 1,603,694 | 13,126 | 6,056 |
| 65 Not gears or oven.... | 27,649 2,190 | 3,305,402 | 16,132 1,396 | 11,517 |
| Not given.. | 2,190 | 154,653 | 1,396 | 794 |
| Totals, All Ages | 410,820 | 24,660,099 | 321,882 | 88,938 |

## 26.-Benefit Years Terminated during 1949 and Benefit Days Paid on those Benefit Years, classified by Industries and Age of Claimant

| Industrial Group | Benefit Years Terminated |  |  | Benefit Days Paid |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 25 Years | $\begin{aligned} & 25-59 \\ & \text { Years } \end{aligned}$ | 60 Years or Over | $\begin{gathered} \text { Under } \\ 25 \end{gathered}$ | $\begin{aligned} & 25-59 \\ & \text { Years } \end{aligned}$ | 60 Years or Over |
|  | No. | No. | No. | No. | No. | No. |
| Agriculture. | 549 | 1,291 | 164 | 25,683 | 77,569 | 14,204 |
| Forestry and logging. | 2,605 | 9,392 | 1,257 | 134,008 | 540,893 | 91,637 |
| Fishing, hunting and trapping | 67 | 386 | 1, 52 | 3,852 | 26,239 | 4,332 |
| Mining, Quarrying and Oil Wells- |  |  |  |  |  |  |
| Metal mining. | 830 | 2,681 | 367 | 29,916 | 119,179 | 35,986 |
| Fuels...... | 802 | 5,831 | 1,211 | 21,072 | 136,763 | 72,264 |
| Non-metal mining. | 335 | 957 | 1131 | 19,312 | 63,406 | 12,483 |
| Quarrying, clay and sand pits | 194 | 575 | 147 | 10,525 | 36,683 | 12,010 |
| Prospecting. | 9 | 48 |  | 376 | 3,056 | 554 |
| Totals, Mining, Quarrying and Oil Wells. | 2,170 | 10,092 | 1,865 | 81,201 | 359,087 | 133,297 |

26.-Benefit Years Terminated during 1949 and Benefit Days Paid on those Benefit Years, classified by Industries and Ages of Claimants-concluded

| Industrial Group | Benefit Years Terminated |  |  | Benefit Days Paid |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 25 Years | $\begin{aligned} & 25-59 \\ & \text { Years } \end{aligned}$ | 60 Years or Over | Under 25 Years | $\begin{aligned} & 25-59 \\ & \text { Years } \end{aligned}$ | 60 Years or Over |
|  | No. | No. | No. | No. | No. | No. |
| Manufacturing- |  |  |  |  |  |  |
| Food and beverages. | 7,393 | 15,620 | 2,730 | 359,063 | 907,620 | 277,074 |
| Tobacco and tobacco products | 476 | 900 | 129 | 24,159 | 56,356 | 17,264 |
| Rubber products.. | 1,372 | 2,174 | 152 | 55,259 | 91,818 | 16,912 |
| Leather products...................... | 2,289 | 3,800 | 686 | 100,967 | 182,368 | 61,722 |
| Textile products (except clothing)..... | 4,151 | 5,128 | 729 | 245,240 | 311,416 | 88,922 |
| Clothing (textile and fur)............... | 4,056 | 6,250 | 787 | 190,739 | 323,118 | 82,652 |
| Wood products... | 4,635 | 13,489 | 2,980 | 224,332 | 722,761 | 278,554 |
| Paper products. <br> Printing, publishing and allied industries | 2,694 | 5,558 | 900 | 153,438 | 350,179 | 140,076 |
|  | 1,325 | 1,912 | 346 | 59,870 | 115,464 | 42,939 |
| Iron and steel products................. | 4,512 | 12,750 | 2,112 | 189,099 | 598,546 | 247,368 |
| Transportation equipment.............. | 6,364 | 25,541 | 3,327 | 310,227 | 1,205,367 | 336,668 |
| Non-ferrous metal products............ | 1,507 | 3,581 | 300 | 70,406 | 139,862 | 34,667 |
| Electrical apparatus and supplies | 1,780 | 3,209 | 319 | 72,096 | 153,854 | 40,723 |
| Non-metallic mineral products. | 1,229 | 2,417 | 413 | 53,707 | 134,270 | 45,028 |
| Products of petroleum and coal........ | 187 | 614 | 163 | 6,645 | 33,126 | 23,273 |
| Chemical products.................... | 1,125 | 2,543 | 382 | 56,101 | 155,684 | 54,737 |
| Miscellaneous manufacturing industries | 1,257 | 2,032 | 349 | 59,323 | 108,596 | 37,516 |
| Totals, Manufacturing | 46,352 | 107,518 | 16,804 | 2,230,671 | 5,590,405 | 1,826,095 |
| Construction- |  |  |  |  |  |  |
| General contractors..... | 8,747 2,692 | 37,237 7,696 | 7,504 1,051 | 440,989 127,187 | $2,167,884$ 405,649 | 614,424 89,703 |
| Special trade contractors.............. |  |  |  |  | 405,649 | 89,703 |
| Totals, Construction............... | 11,439 | 44,933 | 8,555 | 568,176 | 2,573,533 | 704,127 |
| Transportation, Storage and Commu-nications- | 8,436317 | $\begin{array}{r} 20,766 \\ 828 \\ 887 \end{array}$ | 4,28717475 | $\begin{array}{r} 395,562 \\ 15,079 \\ 55,646 \end{array}$ | $\begin{array}{r} 1,143,715 \\ 51,723 \\ 75,860 \end{array}$ | $\begin{array}{r} 633,143 \\ 20,772 \\ 11,285 \end{array}$ |
|  |  |  |  |  |  |  |
| Communica |  |  |  |  |  |  |
| Public utility operation................. | 9,547 | 22,481 | 4,536 | 466,287 | 1,271,298 | 665,200 |
|  | 596 | 1,725 | 446 | 34,566 | 112,422 | 56,583 |
| Trade- |  |  |  |  |  |  |
| Wholesale | 3,532 12,665 | 8,728 20,535 | 1,313 2,746 | 168,035 646,546 | 551,207 | 155,433 322,167 |
| Totals, | 16,197 | 29,263 | 4,059 | 814,581 | 1,889,128 | 477,600 |
| Finance, Insurance and Real Estate..... | 1,426 | 2,338 | 724 | 80,339 | 177,089 | 96,759 |
| Service- | $\begin{array}{r} 699 \\ 2,206 \\ 664 \\ 540 \\ 6,038 \end{array}$ | 2,495 | 7963,222 |  |  |  |
| Community or public............................................... |  |  |  | 36,140131,915 | 158,686680,053 |  |
|  |  | 9,666 |  |  |  | 316,498 |
| Recreation............................. |  | 1,502 | 575 | 33,53222,524 | 96,091105,583 | $\begin{array}{r} 57,737 \\ 45,466 \\ 332,254 \end{array}$ |
| Business. |  | 1,654 | 459 |  |  |  |
| Personal. |  | 15,396 | 3,249 | 286,832 | 952,013 |  |
|  | 10,147 | 30,713 | 8,301 | 510,943 | 1,992,426 | 832,869 |
| Unspecified............................... | 171 | 401 | 68 | 9,042 | 26,912 | 6,393 |
| Totals, AII Industries ${ }^{1}$. | 101,266 | 260,533 | 46,831 | 4,959,349 | 14,637,001 | 4,909,096 |

${ }^{1}$ The total number of benefit years terminated was actually 410,820 since for 2,190 benefit years the age of claimant was not given; 154,653 benefit days were paid on these 2,190 benefit years, so that the total number of benefit days paid on benefit years terminated was $24,660,099$.
27.-Benefit Years Terminated during 1949 and Benefit Days Paid on those Benefit
Years, classified by Occupations

| Occupation Group | Benefit Years Terminated | Benefit Days Paid | Occupation Group | Benefit Years Terminated | Benefit Days Paid |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. |  | No. | No. |
| Managerial. | 3,872 | 264,185 | Fishing, trapping and |  |  |
| Professional............... | 3,080 | 191,887 | logging. ............. | 10,336 | 590,516 |
| Clerical. | 34,193 | 2,360, 103 | Fishing and trapping... | 416 | 28,060 |
| Transportation............. | 30,498 2 2,797 | $1,741,554$ 221,884 | Logging (including for- estry) | 9,920 | 562,456 |
| Commercial... | 25,716 | 1,615,492 | Mining.... | 10,425 | 379,912 |
| Financial... | 230 | 12,444 | Manufacturing and me- |  |  |
| Service (other than professional) | 38,076 | 2,665,722 | Electricl light and power | 86,652 | 4,628,416 |
| Personal (other than domestic). | 18,698 | 1,250,071 | production and stationary enginemen......... | 7,674 | 490,678 |
| Domestic........... | 12,915 | 834,012 | Construction. | 44,549 | 2,563,824 |
| Protective | 5.643 | 531,396 | Labourers. | 110,323 | 6,784,376 |
| Other.. | 820 | 50,243 | Unspecified | 630 | 41,965 |
| Agricultural. | 1,769 | 107,141 | Totals, All Occupations | 410,820 | 24,660,099 |

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 on Aug. 1, 1941, and added to by the Commission in all provinces, except Quebec. The Commission also established offices in Quebec and the provincial government thereupon reduced the number of its own offices.

## 28.-Applications for Employment, Positions Offered and Placements Effected by Employment Offices, 1941-50, and by Provinces, 1949 and 1950

Note.-Figures by provinces from 1920 to 1948 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 and 1940 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. |
| 1941. | 568,695 | 262,767 | 344,796 | 206,908 | 331,997 | 175,766 |
| 1942. | 1,044,610 | 499,519 | 949,909 | 431,933 | 597,161 | 298,460 |
| 1943 | 1,681,411 | 1,008,211 | 2,002,153 | 1,034,447 | 1,239,900 r | 704,126 |
| 1944 | 1,583,010 | 902, 273 | 1,779,224 | 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 |
| Newfoundland........ 1949 | 24,794 | 1,296 | 1,143 | 315 | 864 | 112 |
| Pind 1950 | 36,862 | 1,944 | 3,107 | 388 | 1,604 | 169 |
| Prince Edward Island.. 1949 | 6,084 | 2,695 | 3,534 | 1,885 | 2,834 | 1,254 |
| Nor 1950 | 8,492 | 3,337 | 4,868 | 2,262 | 4,283 | 1,678 |
| Nova Scotia........... 1949 | 57,607 | 17,072 | 16,842 | 10,708 | 13,507 | 7,246 |
| New Brunswe 1950 | 62,665 | 19,483 | 19,408 | 10,942 | 16,548 | 7,535 |
| New Brunswick....... 1949 | 52,749 | 13,923 | 16,940 | 7,614 | 13,979 | 5,015 |
| Quebec 1950 | 68,647 | 17,611 | 24,632 | 8,118 | 19,094 | 5,821 |
| Quebec................ 1949 | 324,982 | 111, 151 | 116,318 | 80.815 | 76,735 | 41,629 |
| Q 1950 | 393,371 | 139,535 | 164,240 | 82,075 | 104,533 | 46,905 |
| Ontario................ 19.1959 | 438,455 | 181,409 | 286,793 | 159,860 | 199, 679 | 91,851 |
| Manitoba............. 1949 | 488,571 | 205, 200 | 351,171 | 151,514 | 240,540 | 96,758 |
| Mand 1950 | 90,234 | 41,683 | 44,293 49,671 | 31,585 29,335 | 31,697 35,806 | 21,424 20,473 |
| Saskatchewan......... 1949 | 49,320 | 22,007 | 31,127 | 16,072 | 22,226 | 10,133 |
| 1950 | 55,621 | 23,732 | 33,915 | 14,679 | 25,262 | 9,720 |
| Alberta................ 1949 | 83,997 | 35,748 | 60,500 | 28,300 | 47,074 | 18,341 |
| British Columbis.... 1949 | 97,443 | 40,061 | 66,436 | 28,374 | 52,224 | 18,593 |
| British Columbia...... 1949 | 181,978 188,857 | 68,054 77 | 75,363 | 36,683 | 55,768 | 22,811 |
| 1950 | 198,857 | 77,057 | 83,163 | 36,024 | 59,988 | 23,268 |

## Section 6.-Vocational Training*

The Federal Department of Labour, in co-operation with the provincial governments has, since 1949, carried on the following types of training: (1) youth training; (2) assistance to students; (3) apprenticeship; (4) training of unemployed workers; (5) assistance to the provinces for vocational schools; (6) training of military personnel; and (7) training of discharged members of the Forces.

The Vocational Training Advisory Council, appointed under the authority of the Vocational Training Co-ordination Act, 1942, continued to advise the Minister of Labour on the general aspects of training plans. Two meetings were held during the year. The Council is representative of employers, organized labour, vocational education and of veterans' and women's organizations.

## 29.-Federal Government Allotments for Vocational Training for the Year Ended Mar. 31, 1951, and Claims Paid ${ }^{1}$ to Apr. 30, 1951

| Province | Youth Training |  | Training of Discharged Members of the Forces |  | Apprentice Training |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Allotment | Claims Paid | Allotment | Claims Paid | Allotment | Claims Paid |
|  | \$ | \$ | \$ | § | 8 | \$ |
| Newioundland. | 20,000 | 6,375 | - | - | - | - |
| Prince Edward Isla | 8,000 | 7,530 |  | $\sim$ |  | $\bar{\square}$ |
| Nova Scotia. | 24,000 | 18,454 | 2,500 | 1,399 | 49,000 | 33,314 |
| New Brunswick | 38,000 | 37,607 | 2,500 | 1,793 | 43,000 | 34,857 |
| Quebec. | 122,000 | 119,621 | 13,000 | 4,995 |  |  |
| Ontario.. | 60,000 | 60,000 13,018 | 14,000 3,000 | -1,133 | 166,000 41,000 | 152,195 40,022 |
| Manitoba.. | 18,500 35,500 | 13,018 35,355 | 3,000 3,000 | 1,133 | 41,000 30,000 | + 30,382 |
| Alberta... | 30,000 | 24,841 | 5,000 | 2,133 | 114,000 | 114,423 |
| British Columbia | 48,000 | 45,270 | 2,000 | 1,776 | 30,000 | 22,441 |
| Totals | 404,000 | 368,071 | 45,000 | 14,105 | 473,000 | 427,634 |
| Province |  |  | Training of <br> Unemployed Workers |  | Training of Military Personnel |  |
|  |  |  | Allotment \|Claims Paid |  | Allotment | Claims Paid |
|  |  |  | $\delta$ | \$ | \$ | \$ |
| Newfoundland. |  |  | - | - | - | - |
| Prince Edward Isla |  |  | $\overrightarrow{125}$ | 113 376 | - | - |
| Nova Scotia. |  |  | 125,000 | 113,376 | $\overline{16}, 000$ | 14, 253 |
| New Brunswick |  |  | 55,000 | -8,354 | 15,150 | 15, 147 |
| Ontario. |  |  |  |  | 1,200 | 1,085 |
| Manitoba |  |  | 30,000 | 19,697 | 7,000 | 6,399 |
| Saskatchewan |  |  | 27,000 | 25,910 | 20,500 | 19,180 |
| Alberta |  |  | 62,000 | 50,774 | - | - |
| British Columbia. |  |  | 13,000 | 6,899 | - | - |
| Totals. |  |  | 348,000 | 256,347 | 59,850 | 56,064 |

${ }^{1}$ Claims paid include commitments from previous years.
Youth Training.-This phase of the 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.

[^231]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 be assessed from the following approximate amounts paid to the provinces during the year ended Mar. 31, 1951:-

| Province | Amount | Province | Amount |
| :---: | :---: | :---: | :---: |
|  | \$ |  | \$ |
| Newfoundland.. | 6,375 | Ontario.. | 60,000 |
| Prince Edward Islan | 4,750 | Manitoba. | 5,419 |
| Nova Scotia. | 9,728 | Saskatchewan. | 19,938 |
| New Brunswick. | 13,856 | Alberta.. | 14,356 |
| Quebec.. | 74,000 | British Columbia | 25,363 |

During the year 1950-51, Federal Government expenditure for such assistance amounted to $\$ 137,000$ in the form of grants and $\$ 97,000$ in the form of loans. Financial help was given to 429 nurses-in-training and 2,162 students at universities. Included in the total number of university students were 502 taking courses in medicine, 72 in dentistry, 358 in engineering, 59 in agriculture and 704 in arts and science. Total federal payments in the past 12 years, amounting to $\$ 2,083,820$, have assisted 23,291 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. The total number of apprentices registered was 10,850 in the seven provinces having agreements with the Federal Government on Mar. 31, 1951.

Training of Unemployed Persons.-The Canadian Vocational Training and Co-ordination Act provided for the training of unemployed persons in receipt of unemployment insurance benefits. An amendment passed in 1948 extended 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, Prince Edward Island, Quebec or Ontario, 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, 1951, approximately 150,801 days' training was given to 1,505 individuals, nearly all of whom were in Nova Scotia, New Brunswick, Manitoba, Saskatchewan and Alberta. At the end of that year, 752 were under training. The largest enrolment was in classes for nurses' aides. No training under this schedule was given for the designated apprentice trades.

Assistance for Vocational Schools.-A ten-year agreement for vocational school assistance signed in 1945 by nine provinces continued in operation 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. Allotments provided for Newfoundland amount to $\$ 65,800$ for annual operation and $\$ 292,250$ for capital expenditure.

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, 94 were completed by Mar. 31, 1951, and 10 were under construction. Provision has been made for young people in rural areas of facilities for training in homemaking and related subjects, vocational agriculture and farm mechanics. Table 30 gives the amount of the federal annual and capital allotment to each province, together with the amount of claims paid during the year ended Mar. 31, 1951. Since the beginning of the agreement, total federal payments under the annual allotment have amounted to approximately $\$ 10,482,500$ and capital payments for buildings and equipment to about $\$ 7,232,500$.

## 30.-Federal Government Assistance to Provinces for Vocational Schools, Year Ended Mar. 31, 1951

| Province | Annual Allotment |  | Capital Allotment (Building and Equipment) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Allotment | Claims | Allotment | $\begin{aligned} & \text { Claims } \\ & \text { Paid } \end{aligned}$ |
|  | \$ | \$ | $\delta$ | \$ |
| Newfoundland........ | 65,800 | 65,708 | 292,250 |  |
| Prince Edward Island. | 25,700 | 35,110 | 82,000 | 9,890 |
| Nova Scotia..... | 106,400 | 105,447 | 504,300 433,000 | 154.323 17.897 |
| New Brunswick Quebec......... | 92,700 609,400 | 92,700 544,346 | 433,000 $3,139,400$ | 169,713 |
| Ontario. | 589,000 | 589,000 | 3,031,500 | 369,675 |
| Manitoba | 135,300 | 204,508 | 656.000 | 89,061 |
| Saskatchewan. | 173,900 | 173.564 | 858.200 | 201,432 |
| Alberta....... | 143,800 | 143,800 | 700,200 | 136,530 |
| British Columbia. | 123,800 | 128,708 | 595,400 | 6,342 |
| Totals. | 2,065,800 | 2,082,891 | 10,292,250 | 1,154,863 |

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 $1950-51$ was on a comparatively small scale, with an enrolment of 439 trainees in the Provinces of New Brunswick, Quebec, Ontario, Manitoba and Saskatchewan. The greater part of the training was given to driver-mechanics, motor-vehicle mechanics and electrical mechanics for the Army. The cost of this type of training is paid solely by the Federal Government.

Training of Discharged Members of the Forces.-As might be expected, each year now shows a marked decrease in the numbers of veterans receiving training. New enrolments in 1950-51 were composed of pensioners or individuals whose training was previously delayed. Only 256 veterans received training during the year, of whom 17 were still under training on Mar. 31, 1951. Since the beginning of such rehabilitation training, the total enrolment has amounted to 134,978 trainees. Costs were borne solely by the Federal Government and amounted to $\$ 25,814,000$.

# 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 Industries, 1948-51
(Includes Newfoundland since Apr. 1, 1949)

| Industry | Numbers |  |  |  | Percentages of Total |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1948 | 1949 | 1950 | 1951p | 1948 | 1949 | 1950 | 1951p |
| Agriculture. | 94 | 118 | 60 | 99 | 6.8 | $8 \cdot 5$ | $4 \cdot 7$ | 7-0 |
| Logging..... | 171 | 145 | 160 | 181 | $12 \cdot 3$ | 10.5 | $12 \cdot 5$ | 12.9 |
| Fishing and trapping.............. | 30 | 33 | 42 | 21 | $2 \cdot 2$ | 2.4 | $3 \cdot 3$ | 1.5 |
| Mining, non-ferrous smelting and quarrying | 194 | 203 | 173 | 188 | $14 \cdot 0$ | $14 \cdot 7$ | $13 \cdot 6$ | 13.4 |
| Manufacturing. . . . . . . . . . . . . . . . . | 268 | 250 | 247 | 231 | $19 \cdot 3$ | 18.1 | $19 \cdot 3$ | 16.5 |
| Construction. | 182 | 152 | 160 | 215 | $13 \cdot 1$ | 11.0 | 12.5 | $15 \cdot 3$ |
| Electric light and power | 45 | 42 | 62 | 31 | $3 \cdot 2$ | $3 \cdot 0$ | 4.9 | $2 \cdot 2$ |
| Transportation and public utilities. . | 248 | 257 | 199 | 242 | 17.9 | 18.5 | $15 \cdot 6$ | $17 \cdot 2$ |
| Trade. | 45 | 44 | 54 | 53 | $3 \cdot 3$ | $3 \cdot 2$ | $4 \cdot 2$ | $3 \cdot 8$ |
| Finance. | 3 | 2 | - | 5 | 0-2 | $0 \cdot 1$ | - | $0 \cdot 4$ |
| Service. | 106 | 133 | 120 | 137 | $7 \cdot 6$ | 9.6 | 9.4 | 9.8 |
| Unclassified | 1 | , |  | - | $0 \cdot 1$ | 0.4 | - | - |
| Totals. | 1,387 | 1,385 | 1,277 | 1,403 | $100 \cdot 0$ | $100 \cdot 0$ | 100.0 | $100 \cdot 0$ |

Causes of Fatal Accidents.-Preliminary figures indicate that, during 1951, 513 fatal accidents to gainfully employed persons were caused by moving trains, vehicles, etc. Falling objects resulted in 203 fatalities and falls of persons in 164. Fatalities resulting from causes in other classifications were: dangerous substances, 157; striking against or being struck by objects, 40 ; handling of objects, 22 ; hoisting apparatus, 25; working machines, 20; prime movers, 15; animals, 12; and tools, 2.

Included in the category "other causes" were 230 fatalities, of these, 153 were due to industrial disease, strain, etc. The number of accidents fatal and non-fatal, dealt with by the provincial Workmen's Compensation Boards, are shown in Subsection 2.

## 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 less 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 provincial 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.

Free medical aid is given, in all provinces, 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, a fixed period must elapse between the date of the accident and the date when compensation begins but, in all cases, medical aid is given from the date of the accident. This waiting period varies from one to seven days and in all provinces compensation is paid for the waiting period if disability continues beyond it, except that in Saskatchewan and Alberta, where the waiting period is only one day, compensation is payable from and including the day after the accident. Compensation in fatal cases is paid as follows:-

Burial expenses: $\$ 250$ in British Columbia, $\$ 200$ in Newfoundland, Nova Scotia, New Brunswick, Ontario and Alberta, $\$ 175$ in Quebec and Saskatchewan, and $\$ 150$ in Prince Edward Island and Manitoba. In some provinces costs of transporting the body are also allowed.

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 British Columbia, $\$ 60$ in Saskatchewan, $\$ 50$ in Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Ontario, 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.

[^232]For each child in the care of a parent or foster mother receiving compensation: a monthly payment of $\$ 25$ in Saskatchewan and Alberta, $\$ 20$ in British Columbia, $\$ 15$ in Nova Scotia, $\$ 12 \cdot 50$ in Prince Edward Island, $\$ 12$ in Newfoundland, New Brunswick, Ontario and Manitoba, and $\$ 10$ in Quebec.

For each orphan child: $\$ 30$ a month in Saskatchewan and British Columbia, $\$ 25$ in Prince Edward Island, Nova Scotia, New Brunswick and Alberta, $\$ 20$ in Newfoundland, Ontario and Manitoba, and $\$ 15$ in Quebec, with a maximum of $\$ 100$ per month to any one family in Prince Edward Island and Nova Scotia. In Alberta, a further amount, not exceeding $\$ 10$ a month, may be given at the discretion of the Board.

Except in the case of invalids, payments to children are not continued beyond the age of 16 years in seven provinces. 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 the child is regularly attending school. In Newfoundland, Prince Edward Island, Nova Scotia, Ontario, Manitoba, Saskatchewan and Alberta, 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 New Brunswick, Ontario, Manitoba and British Columbia, payments to invalid children are continued until recovery, while 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 sum to be paid to all such dependants is limited to $\$ 100$ in Ontario, $\$ 85$ in Alberta, $\$ 75$ in British Columbia, $\$ 60$ in Manitoba and $\$ 45$ in Prince Edward Island and Nova Scotia. In British Columbia, if there are parents as well as a widow or invalid widower or orphan children, the maximum payable to a parent or parents is $\$ 75$ a month. In all provinces, 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 in case of death of the workman. In Newfoundland, Nova Scotia, New Brunswick and Manitoba, the maximum is two-thirds of the workman's earnings, in Quebec 70 p.c. and in Prince Edward Island 75 p.c. In Ontario and Saskatchewan, the average earnings are the maximum amount payable.

The minimum payable to a consort and one child in Quebec is $\$ 55$ per month, or $\$ 65$ if there is more than one child; in Manitoba, the minimum is $\$ 12.50$ per week, or if there is more than one child, $\$ 15$ per week; in Saskatchewan, it is $\$ 85$ a month, and if there are more children, $\$ 100$. In Newfoundland and Ontario, the minimum payable to a widow and five or more children is $\$ 100$ per month.

The rate for total disablement in Newfoundland, Nova Scotia, New Brunswick and Manitoba is a periodical payment for duration of disability equal to $66 \frac{2}{3}$ p.c. of average earnings; in Quebec and British Columbia, the rate is 70 p.c. of earnings; and in Prince Edward Island, Ontario, Saskatchewan and Alberta, 75 p.c. Except in New Brunswick, the Acts fix minimum sums to be paid for a permanent total disability. The weekly minima are $\$ 15$ in Prince Edward Island, Quebec, Manitoba and British Columbia, $\$ 20$ in Saskatchewan and $\$ 25$ in Alberta. In Newfoundland, the minimum is $\$ 65$ per month, in Nova Scotia it is $\$ 85$ per month, and in Ontario $\$ 100$ per month. If, however, average earnings are less than these minima, the amount of the earnings is paid in all provinces except Nova Scotia and 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, except in cases of temporary partial disablement in New Brunswick where compensation is two-thirds of the difference in earnings before and after the accident. 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 and Saskatchewan (in the latter case from Jan. 1, 1953), $\$ 3,600$ in 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 the 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. Workmen's compensation statistics by provinces are not on a comparable basis and are presented in Tables 32-40.

The Workmen's Compensation Board of Newfoundland commenced operations Apr. 1, 1951. Prior thereto, the number of cases reported since Confederation by the Registrar of the Supreme Court, under the Workmen's Compensation Act, 1948, are: Apr. 1-Dec. 31, 1949, 35; 1950, 41; Jan. 1-Mar. 31, 1951; 37. Industrial accidents reported to the Workmen's Compensation Board of Newfoundland, Apr. 1-Dec. 31, 1951, totalled 5,563.
32.-Operations of the Prince Edward Island Workmen's Compensation Board, 1949-51

| Year | Compensation | Medical Aid | Total | Claims <br> Reported |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | $\delta$ | $\$$ | No. |
| 19491. | 13,100 | 5,984 | 19,084 | 249 890 |
| 1950. | ${ }_{32,899 \mathrm{p}}$ | 21,455 $19,882 \mathrm{p}$ | 64,978 52,781 p | 900 |

${ }^{1}$ Figures for 1949 cover the first six months of operation of Board.

## 33.-Operations of the Nova Scotia Workmen's Compensation Board, 1942-51

Nore.-Estimates for outstanding claims are not included. Statistics from 1917-41 are given in previous Year Books beginning with the 1938 edition.

| Year | Compensation | Medical Aid | Total | Accidents Compensated |
| :---: | :---: | :---: | :---: | :---: |
|  | S | \$ | 8 | No. |
| 1942. | 1,730,169 | 211,663 | 1,941,832 | 17,455 |
| 1943. | 2,897, 718 | 196,511 | 3,094,229 | 16,926 |
| 1944. | 2,693,483 | 185,392 | 2,878,875 | 19,027 |
| 1945. | 1,243,148 | 207,000 | 1,450, 148 | 18,396 |
| 1946. | 1,181,207 | 194,912 | 1,376,119 | 19,496 18,890 |
| 1947. | 1,074,399 | 151,896 168,403 | 1,226,295 | 18,890 19,741 |
| 1948..... | 1,054,654 | 168,403 171,082 | $1,223.057$ $1,268,928$ | 19.741 19.423 |
| 1949... | $1,097,846$ $1,316.737$ | 335,194 | 1,651,932 | 19,840 15 |
| 1951 | 1,298,363 | 351,686 | 1,650,049 | 16.601 |

34.-Operations of the New Brunswick Workmen's Compensation Board, 1942-51

Nore.-Statistics from 1920-41 are given in previous Year Books beginning with the 1938 edition.

| Year | Weekly Compensation | Permanent Partial Disability | Fatal |  | Medical Aid |  | Permanent Total Disability Reserve |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Funeral <br> Expenses | Reserve for Pensions | Doctors' Fees and Transportation | Hospital and <br> Nursing <br> Service |  |
|  | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 1942. | 459,528 | 82,632 | 3,275 | 143,392 | 125,837 | 89,246 | 1 |
| 1943. | 486,304 | 113,332 | 2,900 | 94,414 | 115,121 | 82,266 | 5,085 |
| 1944. | 658,666 | 388,992 | 2,624 | 142,921 | 125,116 | 94,809 | 8,330 |
| 1945. | 772,210 | 141,998 | 3,392 | 142,624 | 125,300 | 102, 256 | 1 |
| 1946. | 776,646 | 186,638 | 3,125 | 153,702 | 152,102 | 101,753 | 12,901 |
| 1947. | 834,738 | 244,676 | 3,514 | 230,460 ${ }^{\text {\% }}$ | 168,650 | 136,140 | 128,372 |
| 1948. | 814,419 | 229,341 | 3,879 | 200,227 ${ }^{\text {r }}$ | 179,360 | 135,360 | 146,060 |
| 1949. | $680,138 \mathrm{r}$ | 323,799 r | 2,450 ${ }^{\text {r }}$ | 133,844 r | 183,208 r | 143,350 r | 23,650 |
| 1950. | 637,768 | 320,772 | 3,550 | 191,923 | 188,785 | 153,238 | 33,665 |
| 1951P. | 605,212 | 221,844 | 3,395 | 162,000 | 129,699 | 117,567 | 57,227 |

${ }^{1}$ Not reported.

## 35.-Operations of the Quebec Workmen's Compensation Commission, 1942-51

Nore.-Statistics from 1928-41 are given in previous Year Books beginning with the 1940 edition.

| Year | Claims Schedules 1 and 2 | Compensation Schedule 1 | Medical Aid <br> Schedule 1 |
| :---: | :---: | :---: | :---: |
|  | No. | \$ | \$ |
| 1842. | 96,888 | 6,792,098 | 1,475,123 |
| 1943. | 90,564 | 6,462,259 | 1,389,008 |
| 1944. | 84,308 | 7,012,031 | 1,414,138 |
| 1945 | 82,724 | 7,737,865 | 1,458,809 |
| 1946. | 90,900 | 8,595,754 | 1,663,587 |
| 1947. | 96,135 | 9,774,008 | 1,836,483 |
| 1948. | 93,028 | 9,208,381 | 2,001,929 |
| 1949 | 85,040 | 9,342, $925^{\text {r }}$ | 1,960,395 ${ }^{\text {r }}$ |
| 1950. | 86,246 | 9,241, 226 | 2,080,876 |
| 1951. | 95,930 | 6,247,663 | 1,893,801 |

## 36.-Operations of the Ontario Workmen's Compensation Board, 1942-51

Nore.-Statistics from 1915-41 are given in previous Year Books beginning with the 1938 edition.

| Year | Benefits Awarded |  |  |  | Accidents Reported |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Schedule 1 |  | Schedule $2^{2}$ and Crown Compensation | Total Benefits |  |
|  | Compensation | Medical Aid |  |  |  |
|  | 8 | 8 | \$ | 8 | No. |
| 1942. | 7,225,733 | 1,977,854 | 1,733,376 | 10,936,963 | 133,513 |
| 1943. | 6,932,198 | 1,948,048 | 2,264,507 | 11,144,753 | 131,458 |
| 1944. | 8,317,960 | 1,888,846 | 2,278,793 | 12,485,599 | 123,820 |
| 1945. | 8,690,344 | 1,889,830 | 2,555, 764 | 13,135,938 | 118,220 |
| 1946. | 11,797,877 | 2,358,949 | 2,345,197 | 16,502,023 | 138,570 |
| 1947. | 12,412,296 | 2,735,271 | 2,613,175 | 17,760,742 | 168,767 |
| 1948. | 15,272,487 | 4,082,032 | 4,355, 783 | 23,710, 282 | 179,811 |
| 1950. | 11,346,994 | $4,719,512$ $4,943,899$ | 2,961,844 | $19,028,350$ $20,487,396$ | 179,894 |
| 1951. | 15,449,742 | $4,943,899$ $5,756,311$ | $3,219,866$ $3,793,466$ | $10,487,396$ $24,999,520$ | 182,144 202,645 |

[^233]
## 37.-Operations of the Manitoba Workmen's Compensation Board, 1942-51

Nors.-Statistics from 1917-41 are given in previous Year Books beginning with the 1938 edition.

| Year | Benefits Awarded |  |  | Accidents Compensated |
| :---: | :---: | :---: | :---: | :---: |
|  | Compensation | Medical Aid | Total |  |
|  | \$ | 8 | \$ | No. |
| 1942. | 1,165,627 | 245,255 | 1,410,882 | 13,785 |
| ${ }_{1944 .} 1943$ | 1,386, 104 | 240,492 | 1,626,596 | 13,948 |
| 1945. | 1,353,094 | 211,125 | 1,564,219 | 16,196 |
| 1946 | 1,414,829 | 264,742 | 1,679,571 | 14,795 |
| 1947. | 1,439,275 | ${ }^{2959}$, 295 |  | 15,746 |
| 1948. | $1,684,309$ $1,671,686$ | 347.782 361,033 | ${ }_{\substack{\text { a }}}^{2,032,091}$ | 16,783 |
| 1950. | 1,682,574 | ${ }_{365,686}$ | ${ }_{2,048,261}^{2}$ | 16,513 |
| 1951. | 1,641,093 | 434,436 | 2,075,529 | 20,441 |

${ }^{1}$ Accidents reported.
38.-Operations of the Saskatchewan Workmen's Compensation Board, 1942-51

Note.-Statistics from 1930-41 are given in previous Year Books beginning with the 1938 edition.

| Year | Benefits Awarded |  |  | Accidents Compensated |
| :---: | :---: | :---: | :---: | :---: |
|  | Compensation | Medical Aid | Total |  |
|  | \$ | \$ | 8 | No. |
| 1942. | 539,942 | 150,679 | 690,621 | 6,766 |
| 1943. | 676,592 | 138,355 | 814,947 | 6,921 |
| 1944. | 853,022 | 156,594 | 1,009,616 | 7,702 |
| 1945. | 800,516 | 176,697 | 1.977,213 | 7,509 |
| 1946. | 1,175,704 | 207, 129 | 1,382,833 | 9,509 |
| 1947. | 1,550,635 | 238,257 | 1,788,893 | 11,860 |
| 1948.. | 1,577,081 | 294,261 | 1,871,342 | 11,944 |
| 1949. | $1,588,969$ $1,804,606$ | 306,271 380,512 | $1,895,240$ $2,185,118$ | 10,830 12,944 |
| 1951. | 1,700,302 | 426,703 | 2,127,005 | 13,6761 |

## ${ }^{1}$ Claims reported.

## 39.-Operations of the Alberta Workmen's Compensation Board, 1942-51

Nore.-Statistics from 1921-41 are given in previous Year Books beginning with the 1938 edition. Amounts shown do not include sums transferred to pension fund, administration expenses, nor sums set aside to cover estimated liabilities. Accidents compensated do not include cases for medical aid only.

| Year | Benefits Awarded |  |  | Accidents Reported | Accidents Compensated |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Compensation | Medical Aid | Total |  |  |
|  | \$ | \$ | \$ | No. | No. |
| 1942. | 608,885 | 322,375 | 931,260 | 18,680 | 7,509 |
| 1943. | 816,493 | 368,299 | 1,184,792 | 19,700 | 7.602 |
| 1944. | 498,303 | 234,708 | 733,011 | 19,286 | 7,988 |
| 1945. | 517,879 | 249,639 | 767,518 | 19,154 | 8,891 |
| 1946. | 634,725 | 304,828 | 939,553 | 23,068 | 10,751 |
| 1947. | 721,226 | 365, 778 | 1,087,004 | 25,864 | 11,632 |
| 1948. | 858,116 | 441, 735 | $1,299,851$ $1,682,895$ | 28,557 32,396 | 12,253 13,213 |
| 1949. | 1,110,324 | 572,571 595,144 | $1,682,895$ $1,680,303$ | 32,396 33,337 | 13,397 |
| 1950. | $1,085,159$ $1,158,684$ | 595,144 670,885 | $1,680,303$ $1,829,569$ | 33,804 35,804 | 13,370 13 |

40.-Operations of the British Columbia Workmen's Compensation Board, 1942-51

Note.-Statistics from 1917-41 are given in previous Year Books beginning with the 1938 edition.

| Year | Benefits Awarded |  |  | Claims (gross) |
| :---: | :---: | :---: | :---: | :---: |
|  | Compensation | Medical Aid | Total |  |
|  | \$ | \$ | \$ | No. |
| 1942. | 6,941,736 | 1,586,164 | 8,527,900 | 65,475 |
| 1943. | 7,344,122 | 1,184,253 | 8,528,375 | 68,635 |
| 1944. | 8,031,613 | 1,182,236 | 9,213,849 | 60,463 |
| 1945. | 8,047,679 | 1,115,513 | 9,163,192 | 55,584 |
| 1946. | 8,413,654 | 1,353,596 | 9,767, 250 | 59,947 |
| 1947. | 9,390,825 | 1,756,758 | 11,147, 583 | 75,018 |
| 1948. | 10,202,450 | 2,270,329 | 12,472,780 | 74,064 |
| 1949. | 10,764,950 | 2,363,290 | 13,128,241 | 69,252 |
| 1950. | 12,164,699 | 2,648,484 | 14,813,184 | 71,504 |
| 1951. | 11,451,445 | 2,939,923 | 14,391,369 | 76,698 |

## 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 41 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. 687). Any duplication of the numbers of workers covered by agreements under this Act and by other agreements is eliminated in the third column. Of the total number of workers affected by agreements, 89 p.c. are represented by international or national unions. A more detailed table and studies of agreements in certain industries are available from the Department of Labour, Ottawa, Ont.
41.-Workers Affected by Collective Agreements, by Industries, 1950

| Industrial Group | Agreements (other than those <br> in Column 2) | Agreements <br> Extended Under <br> Collective <br> Agreement <br> Act, Quebec | Total ${ }^{1}$ |
| :---: | :---: | :---: | :---: |
|  | No. | No. | No. |
| Agriculture. | - | - | - |
| Forestry, Fishing, Trapping................................. | 54,193 | - | 54,193 |
| Mining (including milling), Quarrying and Oil Wells..... | 56,241 | 40 | 56,250 |
| Coal mining.. | 21,788 26,337 | - | 21,788 26,337 |
| Other.. | 8,116 | 40 | -8,125 |
| Manufacturing. | 569,591 | 84,210 | 618,613 |
| Vegetable foods. | 22,950 | 322 | 23,253 |
| Other vegetable products | 34,408 | - | 34,408 |
| Animal foods..... | 19,486 | - | 19,486 |
| Leather and fur products | 15,000 | 18,802 | 27,669 |
| Textile products......... | 87,553 | 31,682 | 102,611 |
| Irood and paper products............................... | 115,939 163,655 | 17,178 | 127,245 |
| Non-ferrous metal products. | -66,636 | 13,558 595 | -67,231 |
| Non-metallic mineral products | 21,324 | 843 | 22,167 |
| Chemical products. | 15,988 | 1,230 | 15,988 |
| Miscellaneous products.............. | 6,652 | 1,230 | 6,652 |
| Clectricity and Gas Production and Supply | 24,134 |  | 24,134 |
| Transportation and Communications. | 275,448 | 78,530 8,490 | 129,202 |
| Electric railways and local bus lines. | 21,658 | 8,490 | 279,023 21,658 |
| Steam railways (including express).. | 157,888 | - | 157, 888 |
| Water transportation (including stevedoring) | 36,049 | 4,872 | 36,604 |
| Other. Trade..... | 59,853 | 3,618 | 62,873 |
|  | 26,423 | 11,444 | 36,345 |
| Service. | 75,975 | 9,514 | 84,245 |
| Totals. | 1,133,881 | 192,228 | 1,282,005 |

[^234]
## Section 9.-Organized Labour in Canada*

At the beginning of 1951 there were 1,028,521 labour union members in Canada, an increase of $2 \cdot 3$ 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 44. In addition, each of the three largest congresses are 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 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 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 of 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 Organization. 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.

[^235]42.-Membership of Unions in Canada, 1918-51

| Year | Members | Year | Members | Year | Members |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. |  | No. |  | No. |
| 1918. | 248,887 | 1929. | 319,476 | 1940. | 362,223 |
| 1919. | 378,047 | 1930. | 322,449 | 1941. | 461,681 |
| 1920 | 373,842 | 1931. | 310,544 | 1942. | 578,380 |
| 1921. | 313,320 | 1932. | 283,096 | 1943. | 664,533 |
| 1922. | 276,621 | 1933. | 285, 720 | 1944. | 724,188 711117 |
| 1923. | 278,092 | 1934. | 281,274 | 1945. | 711,117 |
| 1924 | 260,643 | 1935. | 280,648 322,746 | $1946 .$. | 831,697 912,124 |
| 1925. | 271,064 274,604 | 1936. | 322,746 383,492 | 1947. | 912,124 977,594 |
| 1927. | 274,604 290,282 | 1938. | 381, 645 | 1949. | 1,005,639 |
| 1928. | 300,602 | 1939 | 358,967 | $1951{ }^{1}$ | 1,028, 521 |

[^236]43.-Union Membership and Local Branches in Canada, as at Jan. 1, 1951

| Organization | Branches | Membership |
| :---: | :---: | :---: |
|  | No. | No. |
| Trades and Labour Congress of Canada. | 2,982 | 470,926 |
| American Federation of Labour only... | , 33 | 11,307 |
| Canadian Congress of Labour. | 1,231 | 312,532 |
| Congress of Industrial Organizations only | 6 | 1,500 |
| Canadian and Catholic Confederation of Labo | 440 | 86,184 |
| International Railway Brotherhoods (Indepen | 387 | 40,459 |
| Canadian Federation of Labour. | 6 | 3,971 |
| National Council of Canadian Labour | 30 | 5,138 |
| Unaffiliated National and International Union | 285 | 80,083 |
| Unaffiliated local unions | 58 | 16,421 |
| Totals. | 5,458 | 1,028,521 |

44.-Unions having 1,000 or more Members in Canada, as at Jan. 1, 1951

| Organization | Reported or Estimated Membership |
| :---: | :---: |
| International Unions | No. |
| Automobile, Aircraft and Agricultural Implement Workers of America, International Union, United. | 60,000 |
| Bakery and Confectionery Workers' International Union of America..................... | 3,789 |
| Barbers, Hairdressers, Cosmetologists' and Proprietors' International Union of America, Journeymen. | 1,342 |
| Blacksmiths, Drop Forgers and Helpers, International Brotherhood of.................... | 1,100 |
| Boilermakers, Iron Ship Builders and Helpers of America, International Brotherhood of... | 6,092 |
| Brewery, Flour, Cereal, Soft Drink and Distillery Workers of America, International Union of United | 2,903 2,300 |
| Bricklayers, Masons and Plasterers' Internstional Union of Ämerica. ........................ | 3,817 |
| Bridge, Structural and Ornamental Iron Workers, International Associ | 2,081 |
| Building Service Employees' International Unio | 3,813 |
| Carpenters and Joiners of America, United Brotherhood of. | 38,276 |
| Cement, Lime and Gypsum Workers' International Union, United | 1,600 |
| Chemical Workers Union, International | 8,319 |
| Commercial Telegraphers' Union, The | 12,500 |
| Communications Workers of America. | 4,116 2,500 |
| Distillery, Rectifying and Wine Workers' International Union of America | 3,300 |
| Electrical, Radio and Machine Workers of America, United | 24,826 |
| Electrical Workers, International Brotherhood of. | 15,000 |
| Engineers, International Union of Operating | 4,806 |
| Fire Fighters, International Association of.... | 6,100 |
| Firemen and Oilers, International Brotherhood of.............................. | 2,300 |
| Fur and Leather Workers' Union of the United States and Canada, International | 6,700 |
| Garment Workers of America, United. . . . . . . | 1,350 |
| Garment Workers Union, International Ladies | 14,630 |
| Hatters, Cap and Millinery Workers' International Union, United | 1,500 3,000 |
| Hod Carriers, Building and Common Labourers' Union of America, Inter | 2,982 |
| Hotel and Restaurant Employees' and Bartenders' International Union. | 8,858 |
| Lithographers of America, Amalgamated | 1,622 |
| Locomotive Engineers, Brotherhood of. | 7,850 |
| Locomotive Firemen and Enginemen, Brotherhood | 9,855 |
| Longshoremen's and Warehousemen's Union, In | 5,000 1,450 |
| Machinists, International Associstion of..... | 1,450 |
| Maintenance of, Way Employees, Brotherhood | 26,000 |
| Metal Workers' International Association, Sheet | 18,806 |
| Mine, Mill and Smelter Workers, International U | 25,000 |
| Mine Workers of America, | 25,717 |
| Musicians of the U.S. and Canada, American Feder | 6,697 |
| Office Employees' International Union............... | 10,328 |
| Oil Workers International Union....... | 1,567 1,886 |
| Packinghouse Workers of America, United | 1,886 16,000 |
| Painters, Decorators and Paperhangers of America, Brotherhood of. | 4,524 |

## 44.-Unions having $\mathbf{1 , 0 0 0}$ or more Members in Canada, as at Jan. 1, 1951-continued

| Organization | Reported or Estimated Membership |
| :---: | :---: |
| International Unions-concluded | No. |
| Paper Makers, International Brotherhood | 6.845 |
| Plasterers' and Cement Masons' International Association of the U.S. and Canada, Operative | 1,427 |
| Plumbing and Pipe Fitting Industry of the United States and Canada, United Association of Journeymen and Apprentices of the. | 9,200 |
| Printing Pressmen and Assistants' Union of North America, International. | 5,750 |
| Pulp, Sulphite and Paper Mill Workers, International Brotherhoo | 33,138 |
| Railroad Telegraphers, The Order of | 9,000 |
| Railroad Trainmen, Brotherho | 20,643 |
| Railway and Motor Coach Employees of America, Amalgamated Association of Street Electric. | 14,146 |
| Railwsy and Steamship Clerks, Freight Handlers, Express and Station Employees, Brotherhood of. | 15,312 |
| Railway Carmen of America, Broth | 21,861 |
| Railway Conductors of America, Order | 2,111 |
| Retail Clerks' International Association | 2,470 |
| Rubber, Cork, Linoleum and Plastic Workers of America, International Union, United | 10,384 |
| Seafarers' International Union of North America........... $\quad . .$. | 6,180 |
| Stage Employees and Moving Picture Machine Operators of the United States and Canada, International Alliance of Theatrical. | 1.000 |
| Steelworkers of America, United................... | 55,000 |
| Store Union, Retail, Wholesale and Departm | 6,000 |
| Teamsters, Chauffeurs, Warehousemen and Helpers of America, International Brotherhood of. | 14,853 |
| Textile Workers of America, United. | 15,000 |
| Textile Workers' Union of America | 15,500 |
| Tobacco Workers' International Uni | 5,452 |
| Typographical Union, International | 5,634 |
| Upholsterers' International Union of | 2,574 |
| Woodworkers of America, International. | 20,478 |
| National Unions |  |
| Bas façonné et circulaire, Fédération Nationale des Employés du (Hosiery Workers, National Federation of Full Fashioned and Circular) (C.T.C.C.). | 2,595 |
| Batiment et Matériaux de Construction, Fédération Nationale des Métiers (Building and Construction Materials, National Federation of Trades) (C.T.C.C.) | 15,168 |
| Bois ouvré du Canada inc., Fédération Nationale Catholique de l'industrie du (Wrought Wood Industry of Canada Inc., National Catholic Federation of the) (C.T.C.C.)...... | 4,045 |
| Building and Construction Workers of Canada, Amalgamated (C.C.L.)... | 2,603 |
| Civic Employees, Federation of (C.C.L.)... | 1,601 |
| Civil Servants of Canada, Amalgamated (Ind.) | 7,377 4,700 |
| Civil Service Associstion of Alberta, The (T.L.C | 4,700 3,776 |
| Civil Service Association, The Saskatchewan (T.L.C.) | 3,776 |
| Commerce, inc., Fédération Nationale Catholique des Employes du (Commerce, Inc., National Catholic Federation of Employees of (C.T.C.C.) | 2,848 |
| Cuir et de la Chsussure du Canada inc., Fédération Nationale du (National Federation of | 3,257 |
| Electrical Workers, National Organization of Civic, Utility and (COCC.L.)................ | 2,273 |
| Engineers of Canada, National Union of Operating (C.C.L.) .............. | 2,500 |
| Express Employees, Brotherhood of (C.C.L.) | 3,624 |
| Fishermen and Allied Workers' Union, United (T.L.C.) | 7,399 2,800 |
| Fruit and Vegetable Workers' Unions, Federation of (T.L.C.) | 2,800 7800 |
| Government Employees' Association, British Columbia (T.L.C.)........................ | 7,800 |
| Imprimerie du Canada, Enrg., Fédération des Métiers de l' (Printing Trades of Canada Reg., Federation of) (C.T.C.C.) | 2,800 |
| Letter Carriers, Federated Association of (T.L.C.) (2) | 3,043 |
| Marine Workers' Federation, Maritime (C.C.L | 3,000 |
| Maritime Federation of Canada, National (C.F.L.) (3) | 1,452 |
| Merchant Service Guild, Canadian (T.L.C.)........................................ | 1,452 |
| Métallurgie, Fédération Nationale de la (Metal Trades Federation, C.C.) | 6,587 |
| Meuble, inc., La Fédération Nationale du (Furniture Federation Inc., The National) C.T. | 1,429 |
|  |  |
|  | 4,000 |
| Municipaux du Canada inc., Fédération Nationale des Employés (Municipal Employees of | 4,553 |
| One Big Union (Ind.).............. | 12,870 |
| Postal Employees' Association of Canada (T.L.C.) (2).......... ${ }^{\text {a }}$ (Pulp and Paper Workers | 6,242 |
| Pulpe et du Papier inc., Fédération Nationale des Travailleurs de ia (Pulp and Paper Workers inc., National Federation of) (C.T.C.C.) | 9,300 |

44.-Unions having 1,000 or more Members in Canada, as at Jan. 1, 1951-concluded

| Organization | Reported or Estimated Membership |
| :---: | :---: |
| National Unions-concluded | No. |
| Railway Employees and Other Transport Workers, Canadian Brotherhood of (C.C.L.).... | 33,000 |
| Railwaymen, Canadian Association of (Ind.). | 3,307 |
| Railwaymen, The National Union of (Ind.) | 3,107 |
| Railway Mail Clerks' Federation, Canadian (Ind.) . . . . . . . . . . . . . . . . . . . . . . | 1,053 |
| Services, inc., Fédération Nationale Catholique des (Services, Inc., National Catholic Federation of) (C.T.C.C.) (5). | 4,500 |
| Shipyard General Workers' Federation of British Columbia (C.C.L.) | 1,774 |
| Shoe and Leather Workers, National Union of (C.C.L.)................ | 1,779 |
| Teachers' Federation, British Columbia (T.L.C.) | 5,380 |
| Textile inc., Fédération Nationale Catholique du (Textile Workers, Inc., National Catholic Federation of) (C.T.C.C.) | 10,000 |
| Vêtement inc., Fedération Nationale des Travailleurs de l'Industrie du (Clothing Industry Workers Inc., National Federation of) (C.T.C.C.) | 3,900 |

## Section 10.-Strikes and Lockouts*

Statistics of strikes and lockouts in Canada have been collected by the Federal Department of Labour since its establishment in 1900.

The outstanding features of 1951 as compared with 1950 were an increase of more than 60 p.c. in the number of work stoppages and a decrease of about 35 p.c. in the time loss. The number of strikes and lockouts in 1951 was the highest since 1943 and strike idleness the lowest since 1948. The number of workers involved in 1951 stoppages was higher than average but was 46 p.c. below the 1950 total which was inflated by the large number of workers involved in the railway strike.

The latest figures available show that, in 1950, collective agreements in effect covered $1,282,005$ workers. A large majority of these contracts were renewed in 1951 by peaceful negotiations. In 1951, disputes over renewals of existing contracts caused only 70 stoppages, involving 32,111 workers, or $2 \cdot 5$ p.c. of the total of all workers covered by agreements.

Wages and related questions have been the predominant issues in strikes and lockouts during the last six years. Steadily rising consumer prices during this period have made the financing of the family budget a matter of real concern to the Canadian worker. Despite a sharp increase in the cost-of-living index in 1951, there was a substantial decline in the percentage of time lost in disputes over wage increases. In 1951, this issue caused 48 p.c. of the stoppages, involved 48 p.c. of the workers and caused 70 p.c. of the total time loss, as compared with an average for $1946-50$ of 59 p.c. of the stoppages, 73 p.c. of the workers, and 90 p.c. of the total strike idleness. In 1951, other causes affecting working conditions caused 19 p.c. of the stoppages; union questions, other than for increased wages, 18 p.c.; and discharge of workers, suspension, refusal to reinstate and employment of particular persons, other than in connection with union questions, 15 p.c. of the total. There were two small sympathy strikes in 1951, three in 1950, one in 1949 and none in 1948. Pension and welfare plans have not been important issues at any time.

[^237]Strike idleness in the manufacturing group of industries was greater than in all other industries combined, causing 74 p.c. of the total time lost in 1951. In 1950, the greatest loss was in transportation, the railway strike accounting for more than $1,000,000$ days. In 1951, time lost in transportation disputes was negligible. Mining accounted for 16 p.c. of the total time loss in 1951 but stoppages in coal mining caused less than 5 p.c. of the total for the group; in the construction industry, stoppages caused less than 8 p.c. of the total idleness.

Direct negotiations between workers and employers brought about settlement of 113 of the 259 stoppages in 1951, in some cases with provincial conciliators acting in an advisory capacity at some stage of the negotiations or in drafting contracts. Provincial conciliation effected settlement in 42 cases, federal conciliation in one, and civic mediation in one; 15 were referred to labour boards and commissioners; six were settled by arbitration; and 70 by return of workers and replacement, the latter being a factor in 21 cases.
45.-Summary Statistics of Strikes and Lockouts, 1912-51

| Year | Strikes <br> Beginning during the Year | Strikes and Lockouts in Existence in all Industries during the Year |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Strikes and Lockouts | $\underset{\text { ers }}{\text { Employ- }}$ | Workers Involved | Time Loss |  |  |  |
|  |  |  |  |  | $\begin{aligned} & \text { In Man- } \\ & \text { Working } \\ & \text { Days } \end{aligned}$ | Average Days per Wageand SalaryEarner ${ }^{1}$ | Average Days per Worker Involved | Estimate of Working Time ${ }^{1}$ |
|  |  |  |  | No. | No. | No. | No. | p.c. |
| 1942. | 352 | 354 | 492 | 113,916 | 450,202 | 0.16 | 3.95 | 0.05 |
| 1943... | 401 | 402 | 651 | 218,404 | 1,041,198 | 0.35 | $4 \cdot 77$ | $0 \cdot 12$ |
| 1944... | 195 | 199 | 400 | 75,290 | 490,139 | 0.16 | 6.51 | $0 \cdot 06$ |
| 1945... | 196 | 197 | 418 | 96,068 | 1,457,420 | 0.49 | $15 \cdot 17$ | 0.17 |
| 1946. | 225 | 228 | 1,299 | 139,474 | 4,516,393 | 1.49 | 32.38 | 0.50 0.26 |
| 1947. | 232 147 | 236 154 | 1,173 | 104,120 42,820 | $2,397,340$ 885,793 | 0.77 0.27 | 23.02 20.68 | 0.26 0.09 |
| 1948. | 147 132 | 154 | 674 <br> 542 | 42,820 51,437 | 885,793 | 0.27 0.32 | $20 \cdot 68$ $20 \cdot 68$ | 0.09 0.11 |
| 1949... | 132 | 137 161 | 542 345 | 51,437 192,153 | $1,063,667$ $1,389,039$ | 0.32 0.40 | $20 \cdot 68$ 7.23 8 | 0.11 0.13 |
| 1951. | 257 | 259 | 646 | 102,870 | 901,739 | $0 \cdot 24$ | $8 \cdot 77$ | 0.08 |

${ }^{1}$ Based on the number of non-agricultural wage- and salary-earners in Canada.
46.-Strikes and Lockouts, by Industries, 1950 and 1951

| Industry | 1950 |  |  |  |  | 1951 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. <br> of <br> Strikes <br> and <br> Lock- <br> outs | Workers Involved |  | Time Loss |  | $\begin{array}{\|c\|} \hline \text { No. } \\ \text { of } \\ \text { Strikes } \\ \text { and } \\ \text { Look- } \\ \text { outs } \end{array}$ | Workers Involved |  | TimeLoss |  |
|  |  | No. | Per-centage | ManWorking Days | Per-centage |  | No. | Per-centage | Man- <br> Working <br> Days | Per-centage |
| Agriculture............. | 1 | $\cdots$ | $\cdots$ | ... | $\ldots$ | 1 | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |
| Logging. | 1 | 130 | $0 \cdot 1$ | 520 | -- | 2 | 425 | $0 \cdot 4$ | 1,175 | 0.1 |
| Fishing and Trapping. . | 1 | 70 | -- | 1,540 | $0 \cdot 1$ |  | $\ldots$ | $\cdots$ | ... | $\cdots$ |
| Mining $2 . . . . . . . . . . . . . . .$. | 15 | 7,258 | $3 \cdot 8$ | 47,800 | 3.4 | 23 | 19,189 | 18.7 | 146,969 | 16.3 |
| Coal.................... | 11 | 4,348 | $2 \cdot 3$ | 14,925 | $1 \cdot 0$ | 16 | 14,325 | 14.0 | 40,129 106.840 | 4.5 11.8 |
| Other. | 4 | 2,910 | 1.5 | 32,875 | $2 \cdot 4$ | 7 | 4,864 | 4-7 | 106,840 | 11.8 |

46.-Strikes and Lockouts, by Industries, 1950 and 1951-concluded

| Industry | 1950 |  |  |  |  | 1951 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No.ofStrikesandLock-outs | Workers Involved |  | $\begin{aligned} & \text { Time } \\ & \text { Loss } \end{aligned}$ |  | $\left\|\begin{array}{c}\text { No. } \\ \text { of } \\ \text { Strikes } \\ \text { and } \\ \text { Lock- } \\ \text { outs }\end{array}\right\|$ | Workers Involved |  | $\begin{aligned} & \text { Time } \\ & \text { Loss } \end{aligned}$ |  |
|  |  | No. | Per-centage | $\begin{array}{\|c\|} \text { Man- } \\ \text { Working } \\ \text { Dsys } \end{array}$ | Per-centage |  | No. | Per-centage | Man- <br> Ways <br> Days | Per-centage |
| Manufacturing. | 99 | 47,490 | 24.7 | 245,346 | 17.7 | 162 | 73,171 | 71.1 | 670,124 | 74-3 |
| Vegetable foods, etc.... | 1 | 230 | 0.1 | 1,035 | $0 \cdot 1$ | , | 5, 905 | 0.9 | 6,562 | 0.7 13.1 |
| Tobacco and liquors... |  | ... | ... | .. | ... | 4 | 5.193 | $5 \cdot 0$ | 117,900 | $13 \cdot 1$ |
| Rubber and its products (including synthetic) | 5 | 1,906 | $1 \cdot 0$ | 4,175 | $0 \cdot 3$ | 10 | 9,264 | $9 \cdot 0$ | 43,344 | 4.8 |
| Animal foods........... | 3 | 137 | 0.1 | 1,140 | $0 \cdot 1$ | 2 | 296 | $0 \cdot 3$ | 1,030 | $0 \cdot 1$ |
| Boots and shoes (leather) | 3 | 309 | $0 \cdot 2$ | 9,540 | $0 \cdot 7$ | 3 | 200 | $0 \cdot 2$ | 1,873 | 0.2 |
| Fur, leather and other animal products. |  | 205 | $0 \cdot 1$ | 3,480 | $0 \cdot 3$ | 4 | 333 | $0 \cdot 3$ | 6,745 | 0.7 |
| Textiles, clothing, etc... | 20 | 3,494 | 1.8 | 55,604 | $4 \cdot 0$ | 23 | 2,473 | $2 \cdot 5$ | 17,375 | $1 \cdot 9$ |
| Pulp, paper and paper products. | 2 | 423 | $0 \cdot 2$ | 3,900 | 0.3 |  | 462 | $0 \cdot 4$ | 21,380 | 2.4 |
| Printing and publishing. | 1 | 4 | - | 250 | - | 2 | 66 | $0 \cdot 1$ | 1,585 | $0 \cdot 2$ |
| Miscellaneous wood products. | 16 |  | 1.4 | 14,998 | 1.1 | 25 | 2,417 | $2 \cdot 3$ | 28,214 | $3 \cdot 1$ |
| Metal products......... | 40 | 37,306 | $19 \cdot 4$ | 136,136 | 9.8 | 62 | 49,717 | $48 \cdot 3$ | 401,902 | $44 \cdot 6$ |
| Ferrous.. | 26 | 34,011 | $17 \cdot 7$ | 86,898 | $6 \cdot 3$ | 50 | 46,283 | $45 \cdot 0$ | 350,817 | 38.9 |
| Non-ferrous. | 14 | 3,295 | 1.7 | 49,238 | $3 \cdot 5$ | 12 | 3,434 | $3 \cdot 3$ | 51,085 | $5 \cdot 7$ |
| Shipbuilding......... | 1 | 507 | $0 \cdot 3$ | 11,000 | 0.8 | 4 | 1,098 | 1.1 | 14,486 | 1.6 |
| Non-metallic minerals, chemicals, etc. | 3 | 151 | $0 \cdot 1$ | 2,023 | 0.1 | 8 | 652 | $0 \cdot 6$ | 6,205 | $0 \cdot 7$ |
| Miscellaneous products. | 1 | 55 | - | 2,065 | $0 \cdot 1$ | 5 | 95 | $0 \cdot 1$ | 1,523 | 0.2 |
| Construction. | 13 | 2,318 | $1 \cdot 2$ | 28,866 | $2 \cdot 1$ | 32 | 5,867 | 5-7 | 68,412 | 7.6 |
| Buildings and structures | 12 | 2,258 | $1 \cdot 2$ | 28,836 | $2 \cdot 1$ | 25 | 5,585 | $5 \cdot 4$ | 67,784 | $7 \cdot 5$ |
| Railway ................ |  | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |  | 5 | $\ldots$ |  | $\cdots$ |
| Bridge ${ }^{3} . . . . . . . . . . . . . . . . ~$ | 1 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 1 | $\ldots$ | $\cdots$ | $\ldots$ | $\ldots$ |
| Highway............... | ${ }^{1}$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 1 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |
| Canal, harbour, waterway Miscellaneous. $\qquad$ | ${ }^{1} 1$ | ${ }^{\cdots} 60$ | $\because$ | 30 | :- | ${ }^{1} 7$ | 282 | $0 \cdot 3$ | 628 | 0.1 |
| Transportation and Pablic Utilities. | 12 | 132,595 | 69.0 | 1,007,920 | 72.6 | 13 | 664 | 0.6 | 1,800 | 0.2 |
| Steam railways......... | 2 | 128,006 | $66 \cdot 6$ | 1,000,054 | 72.0 | 1 | 28 | -- | 56 | $\cdots$ |
| Electric railways and local bus lines. | 3 | 3,060 | 1.6 | 2,110 | 0.2 | 2 | 95 | 0.1 | 425 | .. |
| Other local and highway transport. |  | 180 |  |  |  | 7 | 397 | $0 \cdot 4$ | 454 | $0 \cdot 1$ |
| Water transport.......... | 2 | 856 | $0 \cdot 4$ | 2,843 | $0 \cdot 2$ | 1 | 77 | 0-1 | 115 |  |
| Air transport........... | 1 | $\cdots$ |  |  |  |  | 58 | -. | 550 | $0 \cdot 1$ |
| Telegraph and telephone | 1 | 300 | $0 \cdot 2$ | 1,350 | $0 \cdot 1$ |  |  |  |  | ... |
| Electricity and gas..... |  | 193 | 0.1 | 948 | $0 \cdot 1$ | 1 |  | -. | 200 | -. |
| Miscellaneous..... | 1 | $\cdots$ | . | $\cdots$ | $\cdots$ | 1 | $\cdots$ | $\cdots$ | ... | $\cdots$ |
| Trade. | 7 | 378 | 0.2 | 10,867 | 0.8 | 15 | 2,957 | $2 \cdot 9$ | 7,947 | 0.9 |
| Finance................ | 1 | $\ldots$ | $\ldots$ | $\cdots$ | $\cdots$ | 1 | $\ldots$ | $\ldots$ | $\ldots$ | $\cdots$ |
| Service. | 13 | 1,914 | $1 \cdot 0$ | 46,180 | $3 \cdot 3$ | 12 | 597 | 0.6 | 5,312 | 0.6 |
| Public administration ${ }^{4}$. | 2 | 1,159 | 0.6 | 26,860 | 1.9 | 4 | 175 | $0 \cdot 2$ | 164 | -- |
| Recreation. <br> Business and personal... | 10 | 11 744 | $0 \cdot 4$ | $\begin{array}{r} 140 \\ 19,180 \end{array}$ | 1.4 | ${ }^{1} 8$ | 422 | 0.4 | 5,148 | 0.6 |
| Totals. | 161 | 192,153 | $100 \cdot 0$ | 1,389,039 | $100 \cdot 0$ | 259 | 102,870 | 100.0 | 901,739 | $100 \cdot 0$ |

[^238]
## Section 11.-Canada and the International Labour Organization

The Department of Labour is the officially designated liaison agency between the Canadian Government 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.

An association of 65 nations, financed by their governments and controlled by representatives of those governments and of their organized employers and workers, the Organization comprises: (1) the General Conference of representatives of the Member States; (2) the International Labour Office; and (3) the Governing Body. The Organization's structure and field of activity has been extended considerably since 1945 by the establishment of eight tripartite committees to deal with problems of major world industries.

The Conference in normal times meets at least once a year, and is composed of four delegates from each Member State, two representing the government, one representing the employers, and one representing the workers; these are accompanied by technical advisers. Decisions of the Conference are in the form of Conventions or Recommendations. The former, when given legislative effect and ratified by Member States, are legally binding on them. The enforcement of Conventions within such countries is a matter for annual consideration by the Conference. The ILO constitution requires, however, that every Convention must be brought before the competent authority or authorities for legislative or other action. In Canada, the competent authorities in respect of the subject matter of most of the Conventions and Recommendations are the provincial legislatures. Amendments to the constitution adopted by the Conference in 1946 included new provisions concerning the obligations imposed on federal countries with respect to the manner of dealing with Conventions and Recommendations. These changes in procedure are expected to facilitate the adoption of Conventions and Recommendations by the constituent States or provinces of federal countries.

The International Labour Office acts as the permanent secretariat of the Organization and as an information centre and publishing house with respect to all questions on industry and labour. The ILO maintains a Canadian branch office at 95 Rideau Street, Ottawa.

The Governing Body of the ILO consists of 32 members- 16 government representatives, eight employer representatives and eight worker representatives. Of the government seats, the eight States of chief industrial importance (of which Canada is one) each holds a permanent place, while the other eight government representatives are elected triennially by the Conference; the worker and employer members also are elected every three years at the Conference by their groups. In addition, there are eight government, eight worker, and eight employer deputymembers elected for three-year terms. The Governing Body meets three or four times a year, and has general supervision of the work of the Office and the various
committees and commissions of the Organization, in addition to framing the budget and drafting the agendas of the annual conferences. Canada's representative on the Governing Body is Federal Deputy Minister of Labour, Arthur MacNamara.

There have been 34 sessions of the International Labour Conference, at which 100 Conventions and 92 Recommendations have been adopted covering a wide range of subjects, such as 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, colonial labour, protection of migrant workers, and many other aspects of industrial and social problems. Up to 1952, the ratifications of the Conventions by Member States total about 1,250, and the Recommendations have served as valuable guides to national programs of industrial and social advancement.

During 1951, in addition to the 34th Annual Conference, the following ILO meetings were held: four sessions of the Governing Body; sessions of the Building, Civil Engineering and Public Works Industrial Committee, the Coal Mines Industrial Committee, and the Inland Transport Industrial Committee; meetings of the Committee of Experts on Indigenous Labour, the Committee on Application of Conventions and Recommendations, the Committee of Experts on Payment by Results, and the Joint Maritime Commission; a Regional Conference of Member States in the Near and Middle East; and a Preliminary Migration Conference. During the first half of 1952, the following meetings were scheduled: two sessions of the Governing Body; sessions of the Metal Trades Industrial Committee and the Iron and Steel Industrial Committee; meetings of the Advisory Committee on Salaried Employees and Professional Workers and the Committee of Experts on the Application of Conventions and Recommendations; an Inter-American Social Security Conference; a Regional Conference of Member States in the Americas; and the 35th Annual General Conference. Canada is represented at nearly all of these and full accounts will be found in the Labour Gazette.

Canada has ratified 18 of the ILO Conventions, 12 of which concern maritime and dock labour; one of these, Convention No. 58 on Minimum Age for Employment at Sea, was ratified in September 1951. The Department of Labour, as the official liaison agency with the International Labour Organization, is responsible for forwarding to the Office annual reports on ratified Conventions as well as periodical reports on many other industrial and social problems. The Department also keeps provincial governments, employer and worker organizations, and the general public informed of ILO activities.

## CHAPTER XIX.-TRANSPORTATION AND COMMUNICATIONS

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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, nearly 4,000 miles in length from east to west, with the main topographic barriers running in a north-south direction and a relatively small population of $14,009,029$ ( 1951 Census) unevenly distributed along the southern strip of this vast area, presents unusual difficulties from the standpoint of transportation and communication. Different parts of the country are shut off from each other by the Cabot Strait, the Strait of Belle Isle, by areas of rough, rocky forest terrain such as the region lying between New Brunswick and Quebec, 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 the barriers interposed by the mountains of British Columbia. 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, cheap transportation and efficient communication systems are necessities of existence.

The value of each of the principal agencies of transportation is appraised in Parts II, III, IV and V of this Chapter and the development of communication facilities in Parts VI, VII, VIII and IX. Government control over all such transportation and communication agencies is covered in Part I.

## PART I.-GOVERNMENT CONTROL OVER AGENCIES OF TRANSPORTATION AND COMMUNICATION

## Section 1.-Government Control Over Agencies of Transportation*

Carriers by rail, road, water and air are, or should be, inter-related parts of an integral whole where each agency has its place in the efficient provision of necessary transportation. The Federal Department of Transport was organized on Nov. 2, 1936, under authority of the Statutes of 1936, c. 34, to unify 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 (see Part III).

The business of transportation and communications is, generally speaking, a 'natural monopoly', i.e., a type of enterprise in which service can be more efficiently and economically rendered to the public where one or a few concerns control a particular type of service throughout the country. For this reason there has been a strong tendency toward consolidation and amalgamation over the past halfcentury. In recent years, the outstanding example of consolidation in Canada is the concentration of control of the railways under the Canadian Pacific Railway Company and the Canadian National Railway System.

Since such control has a tendency to bring with it elements of monopoly and possible overcharge, it was deemed advisable to set up authorities to control the rates to be charged and other conditions under which services to the public are to be rendered by common carriers. This control, so far as the railways under charter or within the jurisdiction of the Federal Government are concerned, is regulated by the Board of Transport Commissioners. From time to time the regulatory authority has been extended to some degree to other utilities (see under "Air Transport Board", pp. 740-741).

Besides the Board of Transport Commissioners there exist, in several of the provinces, bodies that undertake the supervision and control of local public utilities operating under the jurisdiction of the provinces, and the regulation of their rates for service. Among these are the Ontario Department of Municipal Affairs (formerly the Railway and Municipal Board of Ontario, established in 1906), the Quebec Commission of Public Utilities established in 1909, the Nova Scotia Board of Commissioners of Public Utilities and the Public Utilities Commission of Manitoba. In the three most westerly provinces these same duties are performed by provincial Departments of Railways.

The Board of Transport Commissioners for Canada.-An explanation of the situation that led to the introduction in Canada of railway regulation by commission, as well as other information relating to the organization of the Board of Transport Commissioners' procedure, judgments, etc., is given in the 1940 Year Book, pp. 633-635.

The powers of the Board with regard to transport by rail cover matters relating to the location, construction and operation of railways, the most important having to do with rate regulation. Passenger tariffs are divided into standard tariffs and

[^239]special tariffs; freight tariffs into class rates, commodity rate, competitive rate and special estimates tariffs. Standard tariffs contain maximum rates and require the Board's approval. Tariffs, other than standard tariffs, go into effect when they are filed and notice of issue has been given in accordance with the Railway Act and the Board's Regulations.

The Board has jurisdiction over the railways in Newfoundland, which became a part of the Canadian National Railway System following the entry of Newfoundland into Confederation, Mar. 31, 1949.

By an amendment to the Railway Act, the regulation of telephone, telegraph and express rates in Canada was given to the Board, but with narrower powers than those given it in dealing with railways.

Under the Transport Act, 1938, and proclamations of the Governor General in Council made thereunder, the Board has power to issue licences to ships engaged in the transportation of passengers or goods on the Great Lakes, the Mackenzie River and the Yukon River. The Board is required to perform the functions vested in it under the Transport Act and the Railway Act with the object of co-ordinating and harmonizing the operations of all carriers engaged in transport by railways and ships. The Board may require every applicant for a licence under the Transport Act to establish public convenience and necessity to its satisfaction and to take into consideration the financial responsibility of a licensee or applicant. The Board may, in the licence, state the ports between which the ships named therein may carry goods or passengers and the schedule of services to be maintained; every standard tariff and every amendment and supplement thereto requires the approval of the Board before it becomes effective.

In 1949 legislation was enacted giving the Board of Transport Commissioners jurisdiction over interprovincial and international pipelines.

The Air Transport Board.-The Air Transport Board was established in September 1944 by amendment to the Aeronautics Act. The Board is responsible for the economic regulation of commercial air services in Canada and is also required to advise the Minister in the exercise of his duties and powers in all matters relating to civil aviation. The regulatory function relates to Canadian air services within Canada and abroad and to foreign air services operating into Canada. It involves the licensing of all such services and the subsequent regulation of the licensees in respect of their economic operation and the provision of service to the public. As provided by the Act, the Board issues Regulations, approved by the Governor in Council, dealing with the classification of air carriers and commercial air services, applications for licences to operate commercial air services, accounts, records and reports, ownership, transfers, consolidation, mergers and leases of commercial air services, traffic tolls and tariffs, and other related matters. Detailed regulatory instructions are issued by the Board in the form of General Orders, published in the Canada Gazette, relating to all air services or groups of air services; Board Orders relating to individual air services and Rules and Circulars for general guidance and information are also issued.

The Board participates in the development, formation and operation of international policy and international agreements relating to civil aviation and takes an active part in the proceedings and work of the International Civil Aviation Organization, a member of its staff being the representative of Canada on the Council.

The Board consists of three members, including the Chairman, and the staff comprises a Secretary's Branch, which includes an Administration Division; a Legal Branch, administered by an Executive Director who is Legal Adviser to the Board on all matters of domestic and international air law, and includes an Examiner who conducts public hearings by order of the Board, a Departmental Solicitor and a Licensing Division; and a Traffic Branch, which supervises all matters relating to tariffs and schedules.

Financial and operating statistics are collected under authority of the Board's Regulations by the Bureau of Transportation Economics, which serves the Board of Transport Commissioners for Canada as well as the Air Transport Board.

Report of the Royal Commission on Transportation.-The Royal Commission on Transportation was established by Order in Council dated Dec. 29, 1948, to review and report on the economic, geographic and other disadvantages of certain sections of Canada in relation to transportation services, equalization of freight rates, particular freight-rate problems, railway accounting and statistics, recapitalization of the Canadian National Railways, national transportation policy and other matters affecting Canadian economic policy in respect to transportation.

The Report of the Commission, presented to Parliament in 1951, included the following recommendations: the adoption of a program of freight-rate equalization between all regions in Canada, including uniformity of class and commodity mileage rates and a uniform carload mixing rule; a general revision of the freight classification; that the Crowsnest Pass rates remain under the immediate control of Parliament and that Parliament continue to have the responsibility for fixing these rates; an amendment to the Railway Act to provide that when transcontinental competitive rates are published the tariffs shall contain a provision that rates to or from intermediate territory shall not be more than one-third greater than the transcontinental competitive rates; payment by the Government of Canada of the cost of maintaining the 'link' sections in the so-called Lake Superior territory of the transcontinental railway system between Eastern and Western Canada, estimated at $\$ 7,000,000$ annually; the retention of the right of appeal to the Governor in Council from decisions of the Board of Transport Commissioners for Canada; an amendment to the Railway Act to provide for a uniform classification and system of accounts and reports by the Canadian National and Canadian Pacific Railway Companies as prescribed by the Board of Transport Commissioners; that no major changes be made in the Maritime Freight Rates Act or in the Canadian NationalCanadian Pacific Act; simplification of the capital structure of the Canadian National Railways, with interest on Canadian Government loans to be payable only when earned, and provision to allow a reserve to be accumulated out of earnings in each year; and the creation of a single Board to co-ordinate and regulate the various agencies of transportation that are under the jurisdiction of the Parliament of Canada, bringing together the Board of Transport Commissioners, the Air Transport Board and the Canadian Maritime Commission.

## Section 2.-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. 842). 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.

With the exception of those matters covered by the Canadian Broadcasting Act of 1936, radio-communications are now regulated under the Radio Act, 1938, 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 P.C. 2526, 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 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.

Landline 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, 1938.

## PART II.-RAILWAYS $\dagger$

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 statistical field is more completely covered for this form of transportation than for any other.

[^240]A brief historical sketch of the development of steam railways in Canada is given in the 1940 Year Book, pp. 635-638, and a special article dealing with the wartime role of the railways appears in the 1945 Year Book, pp. 648-651.

## Subsection 1.-Mileage and Equipment

Construction was begun in 1835 on the first steam railway in Canada-the short link of 16 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.

## 1.-Steam-Railway Mileage, 1900-51

Note.-Corresponding figures of total mileage of single track for the years 1835 to 1899 and for the intervening years 1901-1909 are given in the 1941 Year Book, p. 546.

| Total Mileage (Single Track) |  |  |  |  |  | Mileage, by Provinces |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Miles in Operation | Year | Miles in Op eration | Year | Miles in Op eration | Type of Track and Province | 1941 | 1949 | 1950 | 1951 |
|  | No. |  | No. |  | No. | Single- | No. | No. 705 | No. 705 | No. 705 |
| 1900. | 17,657 20,487 | 1922... | 39,358 39,654 | 1937.... | 42,727 42,742 | N't'ld.......... | 286 | 705 286 | 705 286 | 705 285 |
| 1910. | 24,731 | 1924. | 40,059 | 1939.... | 42,637 | N.S............. | 1,396 | 1,396 | 1,397 | 1,396 |
| 1911. | 25,400 | 1925. | 40.350 | 1940... | 42,565 | N.B. | 1,836 | 1,835 | 1,835 | 1,835 |
| 1912.... | 26,840 | 1926. | 40,350 | 1941... | 42,441 | Que............. | 4,789 | 4,791 | 4,795 | 4,789 |
|  |  |  |  |  |  | Ont............ | 10,476 | 10,462 | 10,458 | 10,440 |
| , | 29 |  |  |  |  | Man | 4,854 | 4,836 | 4,834 | 4,834 |
| 1914 | 30,795 | 1928.. | 41,022 | 1943 | 42,346 | Alta | 5.747 | 5,643 | 8,739 | 8,739 |
| 1915. | 34,882 | 1929... | 41,380 | 1944.... | 42,336 | B.C. | 3,883 | 3,888 | 5,890 | 3,889 |
| 1916. | 36,985 | 1930... | 42,047 | 1945... | 42,352 | Yukon........... | 58 | 58 | 58 | 58 |
| 1917.... | 38,369 | 1931. | 42,280 | 1946. | 42,335 | In U.S.A | 339 | 339 | 339 | 339 |
|  |  |  |  |  |  | Totals | 42,441 | 42,978 | 42,979 | 42,956 |
| 1918. | 38,252 | 1932... | 42,409 | 1947... | 42,322 | Second | 2,499 | 2,494 | 2,498 | 2,487 |
| 19191. | 38,329 | 1933... | 42,336 | 1948... | 42,248 | Industrial | 1,551 | 1,925 | 1,979 | 2,068 |
| $1919{ }^{2}$ | 38,495 | 1934... | 42,270 | 1949.:. | 42,978 | Yard and sidings. | 10,210 | 10,437 | 10,541 | 10,639 |
| 1921. | 39,191 | 1936... | 42,552 | 1951... | 42,956 | Grand Totals. | 56,701 | 57,834 | 57,997 | 58,150 |

${ }^{1}$ As at June 30 for this and previous years.
${ }^{2}$ As at Dec. 31 for this and later years.
Construction of the Newfoundland Railway was begun in 1881 but it was not until 1896, after many difficulties, that the transprovincial line was completed from St. John's to Port aux Basques. The railroad is of narrow gauge track- $3^{\prime} 6^{\prime \prime}$ compared with the standard gauge of $4^{\prime} 8_{\frac{1}{2}}^{\prime \prime}$ in use in the other provinces. Its operations also include coastal steamer service and a dry dock. The Canadian National Railways took over the operation of the Newfoundland railway facilities on Apr. 1, 1949, thus adding about 4,200 personnel to its payroll.

There has been a tendency for railway mileages to decline slightly during the past decade because of the abandonment of unprofitable lines. Of the 42,956 miles of single track operated in 1951, over 50 p.c. were Canadian National Railway lines.

Rolling-Stock.-The figures in Table $\mathbf{2}$ may be supplemented by the statement that, between 1920 and 1951, the average capacity of box cars increased from $34 \cdot 779$ tons to $44 \cdot 166$ tons, of flat cars from $33 \cdot 459$ to $43 \cdot 269$ tons, of coal cars from $43 \cdot 404$ tons to 59.579 tons, and of all freight cars from $35 \cdot 141$ tons to $45 \cdot 961$ tons. The average tractive power of the locomotive increased from $31,112 \mathrm{lb}$. in 1920 to $42,488 \mathrm{lb}$. in 1951. The steady growth in dieselization is illustrated by the advance from 29 units at the end of 1946 to 574 units for 1951.
2.-Rolling-Stock of Steam Railways, as at Dec. 31, 1946-51

| Rolling-Stock | 1946 | 1947 | 1948 | 19491 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Locomotives | No. | No. | No. | No. | No. | No. |
| Steam- ${ }_{\text {Coal }}$ burning. |  |  |  |  |  |  |
| Coal burning. | 4,387 | ${ }_{2}^{4,364}$ | ${ }_{2}^{4,424}$ | ${ }_{2}^{4,351}$ | 3,730 542 | 3,553 |
| Diesel electric. | 29 | 54 | 62 | 246 | 350 | 574 |
| Electric. | 34 | 33 | 34 | 30 | 33 | 33 |
| Totals, Locomotives. | 4,450 | 4,451 | 4,520 | 4,627 | 4,655 | 4,715 |
| Passenger Cars |  |  |  |  |  |  |
| First class. | 1,947 | 1,923 | 1,953 | 1,996 | 2,043 |  |
| Second class. | 230 | 183 | 173 | 177 | 168 |  |
| Combination | 354 | 361 | 343 | 337 | 337 | 339 |
| Immigrant. | 378 | 355 | 353 | 347 | 333 | 315 |
| Dining. | 197 | 185 | 185 | 195 | 196 | 196 |
| Parlour | 160 | 173 | 175 | 175 | 176 | 153 |
| Sleeping ${ }^{\text {a }}$. | 770 | 762 | 758 | 775 | 795 | 803 |
| Baggage, express and postal | 1,634 | 1,619 | 1,677 | 1,766 | 1,808 | 2,201 |
| Motor-cars... | 64 | 64 | 60 | 54 | 52 | 49 |
| Other. | 407 | 405 | 406 | 402 | 430 | 141 |
| Totals, Passenger Cars ${ }^{3}$. | 6,141 | 6,030 | 6,083 | 6,224 | 6,338 | 6,366 |
| Freight Cars |  |  |  |  |  |  |
| Box. | 116.809 | 119,589 | 123,539 | 124,651 | 122,419 | 127,714 |
| Flat. | 10,868 | 10,453 | 10,314 | 10,951 | 11,263 | 11,062 |
| Stock | 6,382 | 6,277 | 6,115 | 6,648 | 6,655 | 6,509 |
| Coal. | 20,938 | 21,618 | 23,431 | 25,658 | 25,343 | 25,412 |
| Tank. | 358 | 354 | 352 | 454 | 469 | 460 |
| Refrigerator | 6,467 | 6,673 | 7,240 | 7,921 | 8,050 | 8,231 |
| Other....... | 1,523 | 1,487 | 1,382 | 1,331 | 1.398 | 1,337 |
| Totals, Freight Cars | 163,345 | 166,451 | 172,373 | 177,614 | 175,597 | 180,725 |

[^241]
## 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. The financial statistics of the Government-owned railways are given in Subsection 4. Further statistics of revenue are included in Table 9, and are shown in relation to traffic. Statistics of individual railways, covering single-track mileage, capital, earnings and operating expenses, may be found in the annual report, Statistics of Steam Railways of Canada, published by the Dominion Bureau of Statistics.

Capital Liability.-After 1922 an increase in the capital liability of the steam railways of Canada took place owing to the inclusion of all Government loans to railways and investment in road and equipment of Government railways as
part of the capital liability of the railways. The reduction after 1937 was brought about by the Canadian National Capital Revision Act (c. 22, 1937), explained at p. 644 of the 1939 Year Book.

## 3.-Capital Liability ${ }^{1}$ of Steam Railways, 1932-51

Note.-Figures for the years 1876 to 1925, inclusive, are given in the 1927-28 Year Book, p. 649, those for 1926-31 in the 1947 edition, p. 662.

| Year | Stocks | Funded Debt | Total | Year | Stocks | Funded Debt | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | \$ | S |  | \$ | 8 | \$ |
| 1932. | 1,437,489,430 | 2,934,182,332 | 4,371, 671,762 | 1942... | 1,578, 254,765 | 1,793,579,270 | 3,371,834,035 |
| 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 | 4,460,264,309 | 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. | 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 | $3,269,633,260^{2}$ |
| 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 ${ }^{2}$ |
| 1941. | 1,697,545,699 | 1,699,942, 865 | 3,397,488,564 | 1951. | 1,646,205,772 | 1,925,488,160 | 3,571,693,932 ${ }^{2}$ |

[^242]Capital Investment.-The increase of $\$ 95,885,622$ in capital liability during 1951 from 1950, as shown in Table 3, compares with an increase in investments in road and equipment of $\$ 156,254,921$ 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, etc., as well as by higher gains in earnings during the war years.
4.-Capital Invested in Road and Equipment of Steam Railways, 1946-51

| Investment | 1946 | 1947 | 1948 | 19491 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\$$ | \$ | \$ | \$ | \$ | \$ |
| New Lines- Road....... | 3,376,385 | 1,071,411 | 1,415,132 | 1,428,972 | 6,285,165 | 6, 301, 717 |
| Equipment.... | 136,196 | 465,476 | 66,694 |  |  | 1,552,117 |
| General..... | - |  | - | 33,409 | 50,634 | 53,901 |
| Totals.. | 3,512,581 | 1,536,887 | 1,481,826 | 1,462,381 | 6,335,799 | 7,907,735 |
| Additions and betterments- |  |  |  |  |  |  |
| Road.......... | 20,639,010 | 14,774,509 | 21,725,599 | 25,643,350 | 25,523,673 | 42,260,214 |
| Equipment.... | 14,582,489 | 39,848,412 | 85,736,595 | 75,393,226 | 52,666,164 | 107, 478,591 |
| General. . | 123,029 | 48,404 | Cr. 59,483 | Cr. 7,175 | 54,058 | Cr. $\quad 70.318$ |
| Undistributed. | Cr. 2,072 | Cr. 450 | Cr. $\quad 2,984$ | Cr. 3,494 | 3,399 | Cr. 2,381 |
| Totals. | 35,342,456 | 54,670,875 | 107,399,727 | 101,025,907 | 78,247,294 | 149,666,106 |
| Undistributed ${ }^{2}$. | Cr. 5,883,298 | Cr. 871,376 | 79,157,303 | 261,234 | Cr. 2,645, 822 | Cr. 1,318,920 |
| Totals, Invest ments as at Dec. 31...... | 3,355,712,911 | 3,411,979,297 | 3,600,018,153 | 3,702,767,675 | 3,784,704,946 | 3,940,959,867 |

[^243]Earnings and Expenses.-The operating ratio, or ratio of expenditure to revenue, of Canadian railways increased from about 70 p.c. to over 90 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 1951 show a considerable increase over the previous year accounted for by the wage increases received as a result of the strike settlement.

## 5.-Earnings and Operating Expenses of Steam Railways, 1942-51

Note.-Gross earnings and operating expenses for the years 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 $1926-38$ in the 1942 Year Book, p. 585 ; and for 1940-41 in the 1951 Year Book, p. 722.

| 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 Expenses | Net Earnings |  |  |
|  | \$ | \$ | p.c. | \$ | \$ | \$ | \$ | \$ |
| 1942. | 663,610,570 | 485,783,584 | 73.20 | 15,659 | 11,463 | 4,196 | 6.53 | $2 \cdot 93$ |
| 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 | $79 \cdot 68$ | 18,861 | 15,029 | 3,832 | 6.91 | $3 \cdot 82$ |
| 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 | $7 \cdot 38$ | 3.01 |
| 1948. | 875, 832, 290 | 808,126,455 | $92 \cdot 27$ | 20,702 | 19,102 | 1,600 | $8 \cdot 38$ | $2 \cdot 92$ |
| 19491. | 894,397,264 | 831,456,446 | 92.96 | 20,866 | 19,398 | 1,469 | 8.66 | $3 \cdot 10$ |
| 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 | $3 \cdot 36$ |

${ }^{1}$ Includes Newfoundland railways from Apr. 1.
6.-Distribution of Operating Expenses of Steam Railways, 1948-51

| Item | 1948 |  | 19491 |  | 1950 |  | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | p.c. | \$ | p.c. | 8 | p.c. | \$ | p.c. |
| Way and structures. | 159,963,352 | 19.8 | 164,891,364 | 19.8 | 163,998,704 | 19.7 | 202,490,988 | 20.7 |
| Equipment. | 174,473,389 | $21 \cdot 6$ | 186,067,026 | 22.4 | 189, 507, 197 | 22.7 | 224, 184, 671 | $22 \cdot 9$ |
| Traffic..... | 16,801,286 | $2 \cdot 1$ | 17,612,056 | $2 \cdot 1$ | 18,591,724 | 2.2 | 19,958,080 | $2 \cdot 1$ |
| Transportation. | 403,804,530 | 49.9 | 406, 033, 445 | 48.8 | 403,994, 207 | 48.5 | 468,653, 237 | $47 \cdot 9$ |
| General and miscellaneous. | 53,083,898 | 6.6 | 56,852,555 | 6.9 | 57,634,730 | 6.9 | 62,290,086 | $6 \cdot 4$ |
| Totals. | 808,126,455 | 100.0 | 831,456,446 | $100 \cdot 0$ | 833,726,562 | $100 \cdot 0$ | 977,577,062 | $100 \cdot 0$ |

${ }^{1}$ Includes Newfoundland railways from Apr. 1.
Employment and Salaries and Wages.-The number of railway employees increased in 1951 by 58 p.c. over 1939 while salaries and wages increased by about 212 p.c. Maintenance of equipment employees, on hourly rates, worked about 2 p.c. more hours and were paid 101 p.c. more wages per hour; average hours worked by transportation employees were slightly less than the 1939 average and their pay was increased by about 94 p.c. These figures reflect the increases received in the strike settlement in August 1950, and the conversion to the five-day week in 1951.

## 7.-Steam Railway Employees and Salaries and Wages, 1942-51

Note.-Figures for the years 1912-39 are given in the 1941 Year Book, p. 551; and for 1940-41 in the 1951 Year Book, p. 723.

| Year | Employees ${ }^{1}$ | Total Salaries and Wages ${ }^{1}$ | Average Salaries and Wages | Ratio of Operating Salaries and Wages Chargeable to Operation Expenses to- |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Gross Earnings | Operating <br> Expenses |
|  | No. | \$ | \$ | p.c. | p.c. |
| 1942.. | 157,740 | 291,416,755 | 1,847 | $39 \cdot 6$ | $54 \cdot 1$ |
| 1943. | 169,663 | 323,801,645 | 1,908 | 37.8 | $52 \cdot 5$ |
| 1944. | 175,095 | 372, 064,613 ${ }^{2}$ | 2,125 | 42.9 | 53.8 |
| 1945. | 180,603 | 371,814,379 | 2,059 | 43.8 | 53.7 |
| 1946.. | 180,383 | 396,856,901 | 2,200 | 50.2 | 57.8 |
| 1947. | 184,415 | 429,843,142 | 2,331 | $49 \cdot 9$ | 56.7 |
| 1948.. | 189,963 | 512,054,795 | 2,696 | $53 \cdot 0$ | 57.5 |
| 19493. | 192,366 | 523,453,375 | 2,721 | 52.9 | 56.9 |
| 1950. | 190,385 | 523,008,515 | 2,747 | 49.8 | 57.2 |
| 1951..... | 204,025 | 624,682,754 | 3,062 | 52.0 | 58.0 |

[^244]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. The situation, as it existed at Dec. 31, 1940, is set out in the 1942 Year Book, pp. 587-588.

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.

98452-48죽
8.-Railway Bonds Guaranteed by Federal and Provincial Governments,
as at Dec. 31, 1951

| Government | Canadian National | Other Railways | Total |
| :---: | :---: | :---: | :---: |
| Provincial Governments- | 8 | \$ | \$ |
| New Brunswick. | - | 465,000 | 465,000 |
| Federal Government. | 537,577,152 | - | 537,577,152 |
| Totals. | 537,577,152 | 465,000 | 538,042,152 ${ }^{1}$ |

[^245]
## Subsection 3.-Traffic

Passenger and Freight Traffic.-Table 9 shows the passenger and freight statistics for all steam railways for the years 1942-51. A separate analysis is given at pp. 754-756 of the operations and traffic of the Canadian National Railways, since this System is controlled by the Federal Government.

## 9.-Statistics of Passenger and Freight Services and Revenue Receipts, 1942-51

Note.-Figures for 1910-41 are given in the corresponding tables 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. |
| 1942. | 43,271,994 | 395, 118, 691 | 47,596,602 | 4,989.295,894 | 117,728 |
| 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 |
| $1950{ }^{3}$ | 43,744,164 | 392,800,555 | 31,139,092 | 2,816,154, 232 | 65,519 72,424 |
| $1951{ }^{3}$. | 46,200,947 | 415, 178, 734 | 30,995,604 | 3,110,240,504 |  |
|  | Average Receipts per <br> Passenger Mile | Average Receipts per Passenger | Average Passenger Journey | Average Passengers per Train | PassengerTrain Revenue per PassengerTrain Mile |
|  | cts. | \$ | miles | No. | \$ |
| 1942. | 1.83 | $1 \cdot 92$ | 105 | 115 | $2 \cdot 93$ |
| 1943. | 1.90 | $2 \cdot 16$ | 114 | 143 | 3.68 3.82 |
| 1944. | 1.92 | $2 \cdot 18$ | 114 | 148 | $3 \cdot 82$ 3.70 |
| 1945. | 1.96 | $2 \cdot 34$ $2 \cdot 30$ | 120 | 136 102 | $3 \cdot 70$ $3 \cdot 21$ |
| 1946.... | $2 \cdot 15$ | $2 \cdot 30$ | 107 | 102 | $3 \cdot 21$ |
| 1947. | $2 \cdot 35$ | $2 \cdot 14$ | 91 | 82 | 3.01 |
| 1948. | $2 \cdot 40$ | $2 \cdot 18$ | 91 | 75 | $2 \cdot 92$ |
| 1949. | $2 \cdot 66^{3}$ | $2 \cdot 44{ }^{3}$ | $92^{3}$ | 69 | $3 \cdot 05$ |
| $1950{ }^{3}$ | $2 \cdot 79$ | $2 \cdot 52$ | 90 | 64 | $3 \cdot 19$ 3.36 |
| $1951{ }^{3}$. | $2 \cdot 86$ | $2 \cdot 87$ | 100 | 67 | $3 \cdot 36$ |

For footnotes, see end of table.

## 9.-Statistics of Passenger and Freight Services and Revenue Receipts, 1942-51concluded



[^246]Commodities Hauled.-Revenue freight carried by the railways in 1951 showed an increase of $12 \cdot 2$ p.c. over 1950 and exceeded the previous peak volume reached in 1944. The average haul increased from 385 miles in 1950 to 399 miles in 1951 with a corresponding increase in ton miles. The principal commodities showing increase over 1951 were wheat, coke, ores and concentrates, sand and gravel and stone. Lumber, timber and pulpwood moved in heavier volume while most items in the manufactured and miscellaneous group registered improvement. During the war years the intransit movement of war supplies, motor-vehicles, and gasoline and petroleum products between United States points over Canadian lines was particularly heavy and, with wheat, was responsible for the 1944 record.

## 10.-Commodities hauled as Freight on Steam Railways, 1947-51

Note.-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 Product | 1947 | 1948 | 19491 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Agricultural Products | tons | tons | tons | tons | tons |
| Wheat | 12,888,800 | 11,221,579 | 12,861,460 | 10,180,638 | 15,444, 631 |
| Oats | 2,929,297 | 2,356,099 | 2,523,349 | 1,998,361 | 2,679,391 |
| Other gr | 4,836,652 | 4,514,027 | 4,195,518 | 3,430,079 | 4,703,796 |
| Flour | 2,929,758 | 2,302,510 | 2,012,513 | 1,996,281 | 2,222,861 |
| Other mill product | 3,662,558 | 2,853,657 | 2,463,699 | 2,479,974 | 2,565,747 |
| Other agricultural products............... | 4,833,258 | 4,408,579 | 4,233,782 | 4,290,525 | 4,122,972 |
| Totals, Agricultural Produets. | 32,080,323 | 27,656,451 | 28,290,321 | 24,375,858 | 31,739,398 |
| Animal Products |  |  |  |  |  |
| Live stock | 1,059,086 | 1,153,196 | 976,565 | 907,046 | 759,169 |
| Meats and other edible packing-house products. <br> Other animals products <br> ....................... | $\begin{aligned} & 960,855 \\ & 873,652 \end{aligned}$ | $\begin{aligned} & 942,278 \\ & 793,995 \end{aligned}$ | $\begin{aligned} & 894,266 \\ & 668,644 \end{aligned}$ | $\begin{aligned} & 764,040 \\ & 631,139 \end{aligned}$ | $\begin{aligned} & 815,267 \\ & 621,891 \end{aligned}$ |
| Totals, Animal Products............. | 2,893,593 | 2,889,469 | 2,539,475 | 2,302,225 | 2,196,327 |
| Mine Products |  |  |  |  |  |
| Coal, anthracite | 5,001,377 | 5,675,849 | 4,099,390 | 4,481,323 | 4,110,389 |
| Coal, bituminous. | 14,705,645 | 16,587,478 | 13,946,461 | 15,058,571 | 14,505,205 |
| Coal, sub-bitumino | 2,541,982 | 2,426,229 | 2,340,378 | 2,400,271 | 2,151,652 |
| Coal, lignite. | 1,223,106 | 1,272,774 | 1,521,762 | 1,787,973 | 1,802,473 |
| Coke.... | 1,967,287 | 2,141,063 | 1,805,620 | 1,899,872 | 2,223,652 |
| Ores and concentrates................. | 9,901,768 | 11,187,732 | 11,715,952 | 12,312,946 | 13,284,529 |
| Base bullion, matte, pig and ingot (nonferrous metals) | 1,291,728 | 1,457,668 | 1,330,464 | 1,427,581 | 1,446,910 |
| Sand and gravel.......................... | 3,210,425 | 3,556,854 | 3,118,677 | 3,582,966 | $3,900,617$ |
| Stone (crushed, ground, broken) | 2,942,111 | 2,989,724 | 2,629,652 | 2,788,301 | 3,486,464 |
| Other mine products............ | 8,439,367 | 9,437,571 | 9,233,094 | 10,008,616 | 9,143,215 |
| Totals, Mine Produc | 51,224,796 | 56,732,942 | 51,741,450 | 55,748,420 | 56,055,106 |
| Forest Products |  |  |  |  |  |
| Logs, posts, poles, piling | 1,639,274 | 1,582,800 | 1,439,447 | 1,350,064 | 1,832,259 |
| Cordwood and other firewood | 799,174 | 623,070 | 457,848 | 440,306 | 355, 213 |
| Pulpwood............................... | 7,860,080 | 8,995,154 | 6,555,770 | 5,521,412 | 9,970,231 |
| Lumber, timber, box, crate and cooperage material. | 7,797,668 | 7,514,232 | 6,418,854 | $7,778,428$ 740,129 | $7,867,659$ 810,555 |
| Other forest products. | 740,954 | 727,113 | 724,479 | 740,129 | 810,555 |
| Totals, Forest Products............... | 18,837,150 | 19,442,369 | 15,596,398 | 15,830,339 | 20,835,917 |
| Manufactures and Miscellaneous |  |  |  |  |  |
| Gasoline and petroleum products........ | $5,585,708$ |  |  | $6,226,127$ | $\begin{aligned} & 6,722,065 \\ & 2 \end{aligned}$ |
| Iron and steel (bar, sheet, structural pipe) | 2,808,025 $2,210,709$ | $2,989,652$ $2,162,322$ | $2,820,250$ $2,102,622$ | $2,633,274$ $2,517,930$ | 2,456,566 |
| Newsprint.................. | 3,825,252 | 3,809,313 | 3,747,561 | 3, 844, 113 | 4,056,679 |
| Wood-pulp. | 2,217,307 | 2,311,901 | 1,791,868 | 2,311,057 | 2,750,103 |
| Other manufactures and miscellaneous... | 26,790,201 | 27,160,763 | 24,770,961 | 25,099,776 | $27,725,675$ |
| Merchandise (all L.C.L. freight) ${ }^{2} \ldots \ldots .$. | 4,382,756 | 4,106,678 | 3,612,057 | 3,329,200 | 3,220,957 |
| Totals, Manufactures and Misc | 47,819,958 | 48,211,573 | 44,551,787 | 45,961,477 | 50,433,773 |
| Grand Totals | 152,855,820 | 154,932,804 | 142,719,431 | 144,218,319 | 161,260,521 |

${ }^{1}$ Figures include Newfoundland from Apr. 1.
${ }^{2}$ Less than carload lots.
Railway Accidents.-In Tables 11 and 12 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.

## 11.-Passengers, Employees and others Killed or Injured on Steam Railways, 1942-51

Note.-Figures for 1919-41 are given in the corresponding tables of previous Year Books beginning with the 1922-23 edition.

| Year | Passengers |  | Employees |  | Others ${ }^{1}$ |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Killed | Injured | Killed | Injured | Killed | Injured | Killed | Injured |
|  | No. | No. | No. | No. | No. | No. |  |  |
| 1942. | 44 | 779 | 120 | 10,008 | 279 | 743 | 443 | 11,530 |
| 1943. | 8 | 546 562 | 130 | 12,667 13,187 | 242 | 706 630 | 341 353 | 13,919 14,379 |
| 1944. | 8 10 | 562 499 | 103 98 | 13,187 13,147 | ${ }_{246}^{242}$ | 630 705 | $\begin{array}{r}353 \\ 354 \\ \hline\end{array}$ | 14,379 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 |
| $1949{ }^{2}$. | 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 |

${ }^{1}$ Includes trespassers walking along tracks, stealing rides, etc., and persons crossing tracks at level crossings. ${ }^{2}$ Includes Newfoundland from Apr. 1.

Accidents tabulated include all those in which railway trains were involved and accidents on railway property. The classification of accidents used in the Dominion Bureau of Statistics vital statistics treats collisions between motor-vehicles and trains as motor-vehicle accidents; provincial statistics also class them as motorvehicle 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.
12.-Persons Killed or Injured, by Specifled Causes, on Steam Railways, 1949-51

${ }^{1}$ Includes Newioundland from Apr. 1.

## Subsection 4.-The Canadian National Railway System

A description of the origin and growth of Government-owned railways in Canada is given in the 1926 Year Book, pp. 601-603, in an article recording their consolidation under the Canadian National Railways in 1923. The Hudson Bay Railway is a direct liability of the Federal Government and has been operated by the Canadian National Railways for the Government since Apr. 1, 1935, but is not included in the data for Canadian National Railways; to Mar. 31, 1950, the total capital expenditure on this account was $\$ 33,439,357$, exclusive of the expenditure of $\$ 6,240,096$ on the terminal at Port Nelson, Man., and a loss of $\$ 4,980,185$ on operation. The operating deficit for the fiscal year 1949-50 was $\$ 197,193$.

On Apr. 1, 1949, the Canadian National Railways took over the operation of the Newfoundland Railway embracing its 705 miles of line, 14 coastal steamers and a dry dock at St. John's; communications services of the Newfoundland Government Posts and Telegraphs were also transferred for operation to the Canadian National Railways. (The Newfoundland Hotel was consigned towards the end of the year.)

Effective Jan. 1, 1950, the Canadian National Railways took over the operation of the Témiscouata Railway which was purchased by the Government in 1949, thus adding about 69 miles of line.

The Quebec Railway, Light and Power Company (Montmorency Division), having $25 \cdot 7$ miles of single track was purchased and incorporated as part of the System, Nov. 1, 1951.

The major portion of Federal Government investment in railways consists of construction costs of the Intercolonial System, the National Transcontinental Railway and the Hudson Bay Railway, and the purchase price of small railways in the Eastern Provinces.

In view of the interest in the publicly owned railway System, the following salient statistics are presented showing the assets, debt, operating accounts, mileage and traffic for the Canadian National Railway System. More detail is available from the D.B.S. report Canadian National Railways, 1923-51.
13.-Assets of the Canadian National Railway System, as at Dec. 31, 1922 and 1951

| Account | Dec. 31, 1922 | Dec. 31, 1951 | Increase or Decrease |
| :---: | :---: | :---: | :---: |
|  | S | $\$$ | \$ |
| Investments- |  |  |  |
| Road and equipment. | 1,765, 323, 644 | 2,245,260,580 | $+479,936,936$ -394 |
| Improvements on leased railway property | $1,492,123$ $4,629,855$ | 1,097,308 | - ${ }^{-4,629,855}$ |
| Deposits in lieu of mortgaged property sold | 6,171,808 | 8,338,027 | +2,166,219 |
| Miscellaneous physical property............ | 34,767,914 | $65,523,665$ | +30,755,751 |
| Affiliated companies. | $24,253,323$ $5,789,464$ | $53,119,620$ $1,020,618$ | $+28,866,297$ $-4,768,846$ |
| Totals, Investments. | 1,842,428,131 | 2,374,359,818 | +531,931,687 |
| Current Assets- |  |  |  |
| Cash. ....... | $14,651,422$ $6,139,435$ | $23,179,918$ $5,293,620$ | $8,528,496$ $-845,815$ |
| Special deposits....... | $6,139,435$ 11,600 | 5,293,620 | -845,800 |
| Lrans and bills receivablear car service, balan | 2,528,622 |  | -2,528,622 |

13.-Assets of the Canadian National Railway System, as at Dec. 31, 1922 and 1951concluded

| Account |  |  |
| :--- | ---: | ---: | ---: |

${ }^{1}$ Includes demand loans and deposits.
${ }^{2}$ Includes 1951 deficit of $\$ 15,031,996$ receivable from Federal Government. $\quad{ }_{3}$ Increase in current liabilities $\$ \mathbf{1 2 , 2 0 4 , 1 6 7 .}$

Capital Structure and Debt.-The share capital on Dec. 31, 1922, consisted of $\$ 165,627,739$ stock of the Grand Trunk Railway held by the Federal Government and $\$ 100,000,600$ of the Canadian Northern Railway stock also held by the Federal Government. Also outstanding was $\$ 4,591,975$ stock of constituent lines held by the public. Table 14 shows the capital liabilities of the Canadian National Railways, other than shareholders' capital. The amounts shown under "Active Assets" represent, largely, temporary loans and explain the large increases during the war years.

## 14.-Debt of the Canadian National Railway System, as at Dec. 31, 1942-51

Nore.-Figures for the years 1922-39 are given at p. 591 of the 1942 Year Book; for 1940-41 see p. 730 of the 1951 edition.

| At Dec. 31- | Funded Debt Held by Public |  |  | Government Loans and AdvancesActive Assets in Public Accounts | Appropriationsfor CanadianGovernmentRailways ${ }^{1}$ | Grand Totals ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Guaranteed by - |  | Unguaranteed |  |  |  |
|  | Federal Government | Provincial Governments |  |  |  |  |
|  | \$ | \$ | \$ | \$ | \$ | \$ |
| 1942. | 741,896,436 | 4,718,822 | 62,600,816 | 502,856,461 | 16,771,981 | 2,028,137,130 |
| 1943. | 685, 290, 925 | 2,786,056 | 56, 155,492 | 537,323,765 | 16,771,981 | 2,035,393,793 |
| 1944. | 576,585, 327 | 2,702,155 | 50, 166,424 | $645,103,872$ | 16,771,981 | 2,050,695,085 |
| 1945. | 525,688,314 | 2,586,932 | 44,904,751 | 674,201,613 | 16,771,981 | 2,046,123,159 |
| 1946. | 486,820,210 | 1,952,108 | 41,650,680 | 701,765,305 | 16,771,981 | 2,029,614,299 |
| $1947 .$ | 536,807,069 | 1,952,108 |  | 672,698,368 | 16,771,981 | 2,051,096,952 |
| $1948 .$ | 490,485, 399 | 1,952,108 | 91, 795,151 | $743,722,844$ | 16,771,981 | 2,123,537,672 |
| $1949 .$ | $537,756,899$ | 1,949,845 | $85,159,176$ | 726, 889,181 | 16,771,981 | 2,147,536,088 |
| $1950 .$. | $566,418,607$ |  | 92,611,634 | 723,075,533 | 16,771,981 | $2,179,794,294$ |
| 1951....... | 518,396,607 | - | 96,800,428 | 840,801,793 | 16,771,981 | 2,253,685,348 |

[^247]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.

Under the Canadian National Railways Capital Revision Act (c. 22, 1937), interest on Federal Government loans, amounting to $\$ 530,832,598$, and Government claims for interest, amounting to $\$ 43,949,039$, were cancelled as liabilities of the Railway and these have been eliminated from Table 15 as fixed charges. Loans of $\$ 270,037,438$ for capital and $\$ 373,823,120$ for deficits were cancelled.

## 15.-Gross Revenue, Operating Expenditure, Net Revenue, Fixed Charges and Deficits of the Canadian National Railway System, ${ }^{1}$ 1942-51

Nors.-Appropriations, etc., for the Hudson Bay Railway are not included with these data; although the Railway was returned to the Government while under construction, it is not now a part of the Canadian National Railways. 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 $1940-41$ in the 1951 edition, p. 731.

| Year | Gross <br> Operating <br> Revenue | Operating Expenditure | Income Available for Fixed Charges | Total Fixed Charges | Net Income Deficit ${ }^{2}$ | Cash <br> Deficit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | 8 | \$ | \$ | \$ | \$ |
| 1942. | 375,654,544 | 288,998,675 | 78,952,433 | 51,669,935 | Cr. 27,282,498 | Cr. 25,063,268 |
| 1943. | 440,615,954 | 324,475,669 | 87,859,084 | 52,189,536 | Cr. 35,669,548 | Cr. 35,639,412 |
| 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 | 8,961,570 ${ }^{3}$ |
| 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 | $33,532,741{ }^{3}$ |
| 19494. | 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 |

Table 16 has been compiled to reconcile the investments in and loans to the Canadian National Railways (including Canadian Government Railways) as shown in the Public Accounts for the years ended Mar. 31, 1950 and 1951, with the debt to the Federal Government shown in the Railways' balance sheet at Dec. 31, 1950, which is covered by Federal Government proprietor's equity, and the columns "Active Assets in Public Accounts" and "Appropriations for Canadian Government Railways" in Table 14.
16.-Reconciliation between the Public Accounts, Mar. 31, 1950 and 1951, and the Balance Sheet of the Canadian National Railway System, ${ }^{1}$ Dec. 31, 1950

| Item | Public Accounts Mar. 31, 1950 | Public Accounts Mar. 31, 1951 | Canadian <br> National <br> Balance Sheet Dec. 31, 1950 |
| :---: | :---: | :---: | :---: |
|  | \$ | 8 | \$ |
| Canadian Government Railways- |  |  |  |
| Capital expenditure. | $379,976,555$ $16,771,980$ | $380,846,166$ $16,771,980$ | $379,877,514$ $16,771,980$ |
| Canadian National RailwaysFederal Government equity: |  |  |  |
| Canadian National Railways capital stock. | 18,000,000 | 18,000,000 | 18,000,000 |
| Canadian National Railways securities trust stock. | 378,518,135 | 378,518,135 | 378,518,135 |
| Temporary Loans................................ | 725,327,515 | 746,945,543 | 723,075,534 |
| Miscellaneous investments-Grand Trunk Railway stock purchased prior to Confederation-not shown in Canadian National Railways balance sheet.... | 121,740 | 121,740 | - |
| Transactions between Dec. 31, 1949, and Mar. 31, 1950: Advanced by Federal Government. | 8,043,027 | 3,261,236 | 3,261,236 |
| Additional temporary loans not shown in Canadian National Railways balance sheet. | - | - | 23,870,009 |
| Expenditure by Federal Government not in Canadian <br> National Railways balance sheet- |  |  |  |
| Grand Trunk Railways stock purchased prior to Confederation | - | - | 121,740 |
| Canadian Government Railways-Capital expenditure. | - | - | 968,652 |
| Totals | 1,526,758,952 | 1,544,464,800 | 1,544,464,800 |

${ }^{1}$ Includes Canadian Government Railways.
Mileage and Traffic.-At Dec. 31, 1951, steam-railway track mileage of the Canadian National Railways (including lines in the United States and Newfoundland but exclusive of the Northern Alberta Railways and Toronto Terminals Railway, which are controlled jointly by the Canadian National and the Canadian Pacific Railways) was $24,273.4$ miles. Including the Thousand Islands Railway, 4.51 miles, controlled but operated separately, the total steam-railway mileage was $24,277 \cdot 9$. The grand total, including $72 \cdot 9$ miles of electric lines, was $24,350 \cdot 8$ miles.

## 17.-Train Traffic Statistics ${ }^{1}$ of the Canadian National Railways (Canadian and United States Lines), 1950 and 1951

| Mileage and Traffic | 1950 | 1951 |
| :---: | :---: | :---: |
| Train Mileage - |  |  |
| Passenger trains..........................................miles | 22,387,001 | 24,412,847 |
| Freight trains............................................. "* | 45,458,577 | 48,353,158 |
| Totals, Train Miles........................ No. | 67,845,578 | 72,766,005 |
| Passenger-Train Car Mileage - |  |  |
| Coaches and combination...............................miles | 62,834,7962 | 70,811,1692 |
| Motor unit cars........................................ " | 596, 160 | 660,448 |
|  | $59,121,097$ $84,312,328$ | $62,968,188$ $90,041,623$ |
| Totals, Passenger-Train Car Miles . . . . . . . . . No. | 206,864,381 | 224,481,428 |

[^248]
## 17.-Train Traffic Statistics ${ }^{1}$ of the Canadian National Railways (Canadian and United States Lines), 1950 and 1951-concluded

| Mileage and Traffic | 1950 | 1951 |
| :---: | :---: | :---: |
| Freight-Train Car Mileage- |  |  |
| Loaded freight-car miles......................... . . . . . . . . .miles | 1,226,527,761 | 1,314,101,690 |
| Empty freight-car miles. | 531,072,795 | 562,171,410 |
| Caboose miles. | 45,543,687 | 48,539,588 |
| Totals, Freight-Train Car Miles............... No. | 1,803,144,243 | 1,924,812,688 |
| Passenger Traffic- |  |  |
| Passengers carried (earning revenue) .................... No. | 16,819,857 | 17,322,723 |
| Passengers carried (earning revenue) one mile............. | 1,407,724,037 | 1,611,153,281 |
| Passenger-train miles per mile of road. | 925 | 1,010 |
| Average passenger journey................................miles | $83 \cdot 69$ | 93.01 |
| Average amount received per passenger.................. \$ | 2.37155 | $2 \cdot 74066$ |
| Average amount received per passenger mile.............. ${ }^{\text {a }}$ | 0.02834 | $0 \cdot 02947$ |
| Average passengers per train mile......................... No. | 62.88 | 66.00 |
| Average passengers per car mile............................ | $12 \cdot 31$ | $12 \cdot 82$ |
| Total passenger-train earnings per train mile................ $\$$ | $3 \cdot 50$ | 3.72 |
| Total passenger-train revenue per mile of road.............. \$ | 3,246.62 | 3,761•04 |
| Freight Traffic- |  |  |
| Revenue freight carried.................................. tons | 81,364,658 | 89,618,436 |
| Revenue freight carried one mile | 31,988, 269,548 | 36,434,821,058 |
| Revenue freight carried one mile per mile of road. . . . . . . . | 1,317,500 | 1,501,578 |
| Total (all classes) freight carried one mile per mile of road.. | 1,451,268 | 1,624,019 |
| Average tons revenue freight per train mile............... No. | ${ }^{28.64}$ | ${ }^{754}$ |
| Average tons (all classes) freight per loaded car mile....... "t | 28.64 | 29.88 |
| Average hauls revenue freight................................miles | 393.15 | 406.55 |
| Freight revenue per train mile.............................. \% $_{\text {\% }}$ | 9.81 | ${ }_{20 \cdot 632}$ |
| Freight revenue per mile of roa | $18,429.50$ 5.48 | 20.63 5 5.57 |
| Freight revenue per ton mile................................. § | 0.01394 | 0.01369 |

[^249]
## 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. Before many years their safety and convenience resulted in the discarding of the older systems. The first electric railway line in Canada, and probably the first in North America, ran between Windsor and Walkerville and was established early in June 1886 (it is recorded that it was in active operation before June 11).

The cheap and reasonably rapid conveyance of human beings is a necessity of modern urban life. In some cities of Eastern Canada, electric street-railways are still operated by private companies under city franchises, while in a considerable number of cities in Ontario and the West the electric railways are owned and operated by the municipalities. The number of electric railways in operation declines each year as motor-buses replace electric trams.

Statistics presented in this Section cover the urban and interurban operations of the electric railway systems.

Equipment.-The single overhead-trolley system is used by all electric street railways. Montreal, Toronto, Winnipeg, Vancouver, Ottawa and several other municipalities have begun to use trackless trolley-buses, 909 of which were in service

[^250]in 1950. Of the 22 systems, 10 operated electric cars, motor-buses and trolleybuses; four operated trolley-buses and motor-buses; three electric cars only; four electric cars and motor-buses and one system operated trolley-buses only. There were 1,927 motor-buses in service during 1950.
18.-Equipment of Electric Railways, 1948-50

| Equipment | 1948 | 1949 r | 1950 | Equipment | 1948 | 1949 r | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. |  | No. | No. | No. |
| Passenger VehiclesClosed cars |  |  |  | Other Vehicles- <br> Baggage, express and |  |  |  |
| Open cars............. | 2,961 6 | 2,829 |  | Baggage, express and mail cars.......... | 17 | 17 | 16 |
| Combination passenger |  |  |  | Freight cars............ | 118 | 104 | 88 |
| and baggage........ | 5 | 6 | 5 | Locomotives............ | 56 | 58 | 57 |
| Cars without electrical |  |  |  | Snow ploughs............ | 51 | 48 | 53 |
| equipment........... | 133 | 130 | 130 | Sweepers. | 118 | 104 | 81 |
| Motor-buses. $.1 . . . . . .$. | 1,981 | 1,817 | 1,927 | Trucks ................. | 151 | 150 | 137 |
| Trackless trolley-buses | 518 | 726 | 909 | Miscellaneous........... | 212 | 177 | 176 |
| Totals, Passenger Vehicles. | 5,604 | 5,514 | 5,571 | Totals, Other Vehicles. | 723 | 658 | 608 |

Finances.-When electric railways have ceased to operate because of either a decline in traffic or the substitution of motor-buses, their statistics have been excluded from Table 19. Consequently, fluctuations in revenue, etc., have been affected by variations in traffic and by changes in the mode of local transportation. Despite these changing conditions, the gross revenue of electric railways continued to increase from the low point reached in 1933, and very marked increases were shown from 1940 to 1945. The ratio of expenses to receipts rose from a low of less than 63 p.c. in 1942 to 97 p.c. in 1950.

## 19.-Financial Statistics of Electric Railways, 1941-50

Nore.-Figures for 1901-40 are given in the corresponding table of previous Year Books beginning with the 1926 edition.

| Year | Capital Liability |  |  | InvestmentinRoad andEquip-ment | Gross Earnings | Operating Expenses | Ratio of Expenses to $\mathrm{Re}-$ ceipts | Employees | Salaries and Wages |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Stocks | Funded Debt | Total |  |  |  |  |  |  |
|  | \$ | \$ | \$ | 3 | \$ | \$ | p.c. | No. | \% |
| 1941 | 37,665,091 | 155, 867, 823 | 193,532,914 | 210,279, 871 | 55, 334,647 | 37,030, 823 | 66.92 | 14,801 | 23,193,704 |
| 1942. | 37,616,432 | 151,523,248 | 189,139,680 | 205,983,595 | 69, 034, 130 | 43,473,516 | 62.97 | 16,051 | 27,923,343 |
| 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 | $68 \cdot 69$ | 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. | 35,656,7631 | 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 | 172, 162,472 | 218,439, 361 | 86,519,712 | 81,787,723 | 94.53 | 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 r . | 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 |

${ }^{1}$ Mainly reduction of $\$ 1,602,500$ stock Hamilton Street Railway.
Traffic.-The passenger mileage travelled by electric cars in 1950 amounted to $88,170,069$, by trackless trolley-buses $26,863,939$ and by motor-buses $58,251,467$. The number of passengers carried by electric railways in the years since 1939 showed an especially sharp rise over previous years owing to improved conditions and the
curtailment of passenger-automobile traffic during the War. The 1,344,916,773 passengers carried in 1946 was by far the greatest traffic ever handled by these systems; the number in 1950 was the lowest since 1943.
20.-Statistics of Electric Railway Operations, 1941-50

Note.-Figures for 1901-40 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

| Year | Miles of Road |  | Electric Car and Bus Mileage |  |  | Fare Passengers Carried ${ }^{1}$ | Freight Carried ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | With Double Track | Passenger | Other | Total |  |  |
|  | miles | miles | miles | miles | miles | No. | tons |
| 1941. | 1,028.24 | 491.43 | 134,832,228 | 2,746,314 | 137,578,542 | 795,170,569 | 3,265,449 |
| 1942. | 1,017-24 | 488.01 | 152,518,129 | 2,852,757 | 155,370,886 | 996, 208,535 | 3,711,468 |
| 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 | $488 \cdot 30$ | 175,498,520 | 2,777,976 | 178,276,496 | 1,316,571,540 | 3,639,989 |
| 1946. | 1,004-44 | 485.06 | 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 r . | $719 \cdot 31$ | $356 \cdot 61$ | 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 |

${ }^{1}$ Includes passengers and freight carried on buses and trackless trolley-buses operated by electric railways.

## 21.-Passengers, Employees and Others Killed or Injured on Electric Railways, 1941-50

Nore.-Figures for 1900-40 are given in the corresponding tables 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. |
| 1941. | 1 | 2,508 | 5 | 423 | 60 | 1.002 | 66 | 3,933 |
| 1942. | 2 | 3,157 | 3 | 489 | 86 | 1,338 | 91 | 4,984 |
| 1943.. | - | 4,301 | 2 | 722 | 78 | 1,491 | 80 | 6,514 |
| 1944. | 3 | 3,980 | 7 | 835 | 88 | 1,556 | 98 | 6,371 |
| 1945. | 2 | 4,092 | 3 | 944 | 104 | 1,592 | 109 | 6,628 |
| 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 r . | 1 | 3.688 | 1 | 766 | 63 | 1,239 | 65 | 5,693 |
| 1950. | - | 3,718 | 1 | 730 | 44 | 1,204 | 45 | 5,652 |

The Toronto Underground Electric Railway.-Canada's first underground electric railway, at Toronto, Ont., was one of the planned major developments upon which work was commenced during 1949. The subway or underground railway will run north-south following the line of Yonge St. to Queen St. The opening is scheduled for the late autumn of 1953. The estimated cost of the Yonge and Queen Sts. subways is placed at over $\$ 55,000,000$. The total distance covered by the rapid transit lines will be about $9 \cdot 1$ miles, in the most congested areas of the city. The subway will descend from 6 ft . to a maximum of 20 ft . below the street surface. Considerable new equipment is on order and it is proposed to operate trains up to 5 two-car units in length. The ultimate capacity of the System is estimated at 40,000 passengers per hour in both directions. Excavations on the Yonge Street project alone involves the removal of about $1,390,000$ cubic yards of material.

## 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 thus always had close relations 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 Acts of the Federal Government 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. Much of the traffic consists of parcels and small lots that would make statistical classification and measurement very difficult. However, there is also an important movement in car lots of live stock, fresh fish, fruit, vegetables and other perishable commodities.

## 22.-Mileages Operated, Revenue and Expenditure of Express Companies, 1942-51

Note.-Figures for 1911-41 are given in the corresponding tables of previous Year Books beginning with the 1927-28 edition.

| Year or Company | Mileages Operated ${ }^{\text {t }}$ | Gross Earnings | Operating Expenditure | Express Privileges ${ }^{2}$ | Net <br> Operating <br> Revenue |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | § | \$ | 8 |
| 1942 | 52,824 | 25,725,512 | 13,391,508 | 11,388,477 | 945,527 |
| 1943 | 52,670 | 32,875,971 | 15, 824,160 | 15,323,905 | 1,727,906 |
| 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. 251,292 |
| 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 |  |  |  |  |  |
| Canadian National Express...... | 29,167 | 26,166,710 | 17,221,958 | 11,564,943 | Dr. 2,620,191 |
| Canadian Pacific Express........ | 21,605 | 23, 2552,173 | 14,885, 270 | 8,735,361 | 331,542 |
| Northern Alberta Railways..... | , 928 | -518,323 | 230,900 | 234,883 | 52,545 |
| Railway Express Agency, Inc.... | 3,881 | 1,380,281 | 543,561 | 820,769 | 15,951 |
| Totals, 1950 | 55,581 | 52,017, 492 | 32,881,689 | 21,355,956 | Dr. 2,220,153 |
| 1951 |  |  |  |  |  |
| Canadian National Express...... | 29,802 | 31,079,031 | 20,339,194 | 10,176,308 | 563,529 |
| Canadian Pacific Express........ | 21,531 | 27,234,716 | 17,050, 297 | 9,807,890 | 376,529 |
| Northern Alberta Railways..... | 928 | 583,487 | 264,569 | 264,092 | 54,826 |
| Railway Express Agency, Inc.... | 5,093 | 1,526,269 | 720,068 | 788,874 | 17,327 |
| Totals, 1951............. | 57,355 | 60,423,503 | 38,374,128 | 21,037,164 | 1,012,211 |

${ }^{1}$ 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, ete., for transporting express matter.

## 23.-Business Transacted by Express Companies in Financial Paper, 1947-51

| Description | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | \$ | \$ | 8 | \$ |
| Money orders, domestic and foreign. | 126,592,398 | 133,668,100 | 131,358,491 | 121,476,102 | 137, 215,925 |
| Travellers cheques, domestic and foreign | 5,697,740 | 6,654, 176 | 8,250,196 | 9,242,789 | 7,753,328 |
| "C.O.D." cheques. | 22,745,649 | 23,693,890 | 23,527,669 | 21, 292,175 | 24,186,587 |
| Telegraphic transfers. | 367,058 | 207,694 | 187,522 | 153,140 | 191,188 |
| Totals | 155, 402, 845 | 161,223,860 | 163,323,878 | 152,164,206 | 169,347,028 |

24.-Employees, Salaries and Wages and Commissions of Express Companies, 1942-51

| Year | Full-Time Employees | Salaries Wages ${ }^{1}$ | $\underset{\substack{\text { missions } \\ \text { Paid }}}{\text { Com- }}$ | Year | Full-Time Employees | Salaries and Wages ${ }^{1}$ | Commissions Paid |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | \$ |  | No. | \$ | \$ |
| 1942. | 5,296 | 9,417,112 | 1,253,428 | 1947. | 8,017 | 18,308,793 | 1,995,947 |
| 1943. | 5,936 | 10,837,037 | 1,569,453 | 1948. | 8,525 | 22, 212,249 | $2,157,489$ |
| 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 |

[^251]
## PART III.-ROAD TRANSPORTATION*

Recent development of highways in Canada has been almost exclusively for the purpose of providing roadbed for motor-vehicle traffic so that highways and motor-vehicles are treated here as related features of transportation. Following an introductiory section, which summarizes provincial regulations regarding motorvehicles 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 $\dagger$

Nors.-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 the Territories are given at pp. 762-765.

General.-The licensing of motor-vehicles and the regulation of motor-vehicle traffic lies within the legislative jurisdiction of the provincial and territorial governments. Regulations that are common to all provinces and to the Territories are summarized under the following headings:-

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 renewable annually. Special licences are required for chauffeurs and, in some cases, 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 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 visiting 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 provide 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 the 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, 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.

[^252]Penalties.-Penalties ascend in scale from small fines for minor infractions of any of the regulations to a 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.

There is such a wide variation in the different provinces and territories regarding the basis of licences and fees, the regulation of public commercial vehicles, details of traffic rules, speed, and the use of motor-vehicles, that it is impossible even to outline them satisfactorily in the space available here.

Safety Responsibility Legislation.-All the provinces and territories of Canada, with the exception of Newfoundland and Yukon Territory, have enacted legislation under this heading which is sometimes referred to as Safety Responsibility Legislation and at other times as Financial Responsibility Legislation. The following paragraphs give the latest amendments to this legislation and the authorities responsible for the administration of motor-vehicles.

Newfoundland.-Administration.-Motor Vehicle Division, Department of Public Works, St. John's. Legislation.-The Highway Traffic Act, 1941, as amended.

Prince Edward Island.-Provision was made in the Highway Traffic Act, 1936, for cancellation of the licence of any person unable to satisfy judgment against him arising out of a motor-vehicle accident. The licence is to be reissued only when proof of financial responsibility is made to the Provincial Secretary. In 1946, "Unsatisfied Judgment Fund" legislation was passed whereby the injured party in an automobile accident may receive compensation from this Fund where the person at fault was unable to satisfy the judgment against him. The revised statutes of Prince Edward Island were proclaimed in 1951.

Administration.-The Provincial Secretary, Charlottetown. Legislation.-The Highway Traffic Act (1950, c. 14).

Nova Scotia.-Administration.-Motor Vehicle Branch, Department of Highways and Public Works, Halifax. Legislation.-The Motor Vehicle Act (1932, c. 6) and amendments, and the Motor Carrier Act (R.S.N.S. 1923, c. 78) as amended.

New Brunswick.-Administration.-Motor Vehicle Division, Department of Public Works, Fredericton. Legislation.-The Motor Vebicle Act (R.S.N.B. 1951, c. 73) as amended.

Quebec.-In 1949, the Quebec Government passed an amendment to the Motor Vehicle Act, which provides for the suspension, for at least three months, of the driver's licence and registration certificate of any person proved guilty of driving while under the influence of liquor or narcotics, or of driving in a dangerous manner or neglecting to stop after an accident or failing to give aid to persons injured in such accident, or of driving a motor-vehicle without being provided with a licence and found guilty of an accident while doing so or while his licence is suspended. In case of a suit for damages resulting from fault, carelessness or neglect, the driver's licence and registration certificate, or either, may be suspended until judgment has been satisfied. In such case, recovery of licence or certificate may
require the furnishing of a guarantee, in the form of insurance, deposit or otherwise, of sufficient financial responsibility to afford reasonable protection to the public against any future accident.

Administration.-Motor Vehicle Bureau, Provincial Revenue Offices, Treasury Department, Quebec. Legislation.-The Motor Vehicle Act (R.S.Q. 1941, c. 142) as amended.

Ontario.-Safety Responsibility Legislation, or Financial Responsibility Legislation as it is sometimes referred to, came into force in Ontario in September 1930.

At the 1947 session of the Ontario Legislature, the Highway Traffic Act was amended to provide for the automatic suspension of the driver's licence and motorvehicle permit of: (1) every person convicted of any offence under the Act if any personal injury or property damage occurs in connection therewith; (2) every person convicted of any offence under the Act if the penalty imposed includes suspension of driver's licence or owner's permit; (3) every person convicted of a criminal offence involving the use of a motor-vehicle.

The suspensions remain effective until proof of financial responsibility is filed. The object of this law is to encourage safe driving by imposing this additional penalty on persons convicted of offences arising out of motor-vehicle accidents. Provision is also made for the forfeiture to the Crown of a motor-vehicle operated while the permit for its operation is under suspension. These amendments became effective July 1, 1947.

The Act was also amended to require the payment of all judgments arising out of motor-vehicle accidents either for personal injuries or property damage up to a maximum of $\$ 5,000$ for one person or $\$ 10,000$ for two persons and $\$ 1,000$ for property damage arising out of one accident. If judgments are not satisfied by the judgment debtors, provision is made for their payment out of an Unsatisfied Judgment Fund. The judgment debtor is then prohibited from holding a driver's licence or having a motor-vehicle registered in his name until the judgment debtor repays, in full, to the Fund the amount paid out, together with interest at 4 p.c. from the date of such payment, and also files proof of ability to satisfy a judgment for $\$ 11,000$ which may arise out of any future accidents. This part of the Act applies only to judgments arising out of accidents in Ontario since July 1, 1947.

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.-In 1945, the Financial Responsibility Law of Manitoba was repealed and replaced with"new Safety Responsibility Legislation.

Features under this legislation include the immediate and automatic impounding of any motor-vehicle after an accident if the operator is unable to produce proof of financial responsibility at the time Impoundment continues until the owner or driver settles any claims for damages or bodily injury sustained, or deposits with the Provincial Treasurer security sufficient to cover any judgment which may be recovered and until the owner of the vehicle has filed proof of financial responsibility for the future.

Driving privileges of financially irresponsible motorists are indefinitely suspended pending settlement of damage claims or deposit of security and the filing of proof of financial responsibility.

A trust fund called the Unsatisfied Judgment Fund provides for payment of judgments for bodily injuries and deaths in cases where the judgment debtor does not pay. This Fund also provides for the victims of hit-and-run motorists.

Administration.-Provincial Treasurer, Winnipeg. Legislation.-The Highway Traffic Act (R.S.M. 1940, c. 93) as amended.

Saskatchewan.-Financial Responsibility Legislation in this Province was placed on the Statutes in 1933 and provides that, where a judgment is rendered in any court in Canada for damages on account of death or injury to any person or on account of property damage in excess of $\$ 50$, occasioned by a motor-vehicle, and the person fails to satisfy the judgment within 30 days from the date upon which it becomes final, the Board shall suspend the operator's or chauffeur's licence issued to the person against whom the judgment is rendered and the registration of every motor-vehicle registered in his name. Judgment must be satisfied before licences are reinstated and the person so liable must give proof of financial responsibility for future motor-vehicle accidents in the amount of $\$ 11,000$ for a period of three years.

The Automobile Accident Insurance Act was passed by the Legislature and placed on the Statutes during 1946 and provides collision insurance, personal injury insurance, and public liability and property damage insurance in the amounts as set forth in the said Act. Saskatchewan citizens are provided with insurance against death or personal injury resulting directly from motor-vehicle accidents. Every person is automatically provided with public liability and property damage insurance to the extent of the amount paid for personal injuries or property damage which is payable by the insurance office.

Administration.-Treasury Department, Highway Traffic Board, Revenue Building, Regina. Legislation.-The Vehicles Act (R.S.S. 1951, c. 85).

Alberta.-In 1947, the Alberta Legislature passed the Automobile Accident Indemnity Act (later the title was amended to the Motor Vehicle Accident Indemnity Act), the main provisions of which are: the suspension of the licences of all drivers directly or indirectly involved in an accident which results in bodily injury, or in property damage exceeding $\$ 75$ in value (changed from $\$ 25$ in 1949), if proof of financial responsibility on the part of the driver is not forthcoming; and an Unsatisfied Judgment Fund is set up on the basis of a fee of $\$ 1$ per year, collected for each licensed motor-vehicle in addition to the regular registration fee. Action may be taken against the Superintendent of the Fund where a judgment for an amount exceeding $\$ 100$ has been obtained following a motor-vehicle accident, if the assets of the judgment debtor are insufficient to meet the award of the court, or in cases where the driver or owner of the motor-vehicle causing the accident is unknown. Minor amendments were made to this legislation in 1948 and 1949.

Administration.-Motor Vehicle Branch, Department of the Provincial Secretary, Edmonton, and the Highway Traffic Board, Department of Public Works, Edmonton. Legislation.-The Vehicles and Highway Traffic Act (R.S.A. 1942, c. 275) as amended, the Motor Vehicle Accident Indemnity Act (1947, c. 11) and amendments, the Public Service Vehicles Act (R.S.A. 1942, c. 276), and Rules and Regulations. The Vehicles and Highway Traffic Act and the 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 Public Works.

British Columbia.-Financial Responsibility Legislation, which has been in effect in this Province since 1932, provides for the suspension of the driver and motor-vehicle licences on failure to pay judgments, for contravention of certain convictions in connection with speed and for offences under Section 285 of the Criminal Code, etc. These suspensions remain in effect until the party concerned files proof of financial responsibility, which he is required to keep in full force and effect for a period of at least three years at which time he may be released under certain circumstances. In 1947, new legislation was enacted that added to the Financial Responsibility Legislation already in effect, providing for the impounding of motor-vehicles that were involved in motor-vehicle accidents, and for which, at the time, a motor-vehicle liability insurance card or a financial responsibility card could not be produced, and the suspension of licences until proof of financial responsibility is given and other security or satisfaction of claims is given for damages or injuries caused.

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 Municipal Police, Victoria, 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.

Yukon Territory.-Administration.-Commissioner of the Yukon Territory, Dawson, Yukon Territory. Information regarding regulations may also be obtained from the Northern Administration and Lands Branch, Department of Resources and Development, Ottawa. Legislation.-The Motor Vehicle Ordinance, (1947, c. 2) as amended.

Northwest Territories.-Administration.-Commissioner of the Northwest Territories. Address communications to the Director, Northern Administration and Lands Branch, Department of Resources and Development, Ottawa. Legislation.-The Motor Vehicles Ordinance, assented to Nov. 30, 1950, as amended.

## Section 2.-Roads and Highways

The steadily increasing use of motor-vehicles for pleasure and commercial travel has created an insistent demand for more and better highways and for the development of scenic routes as tourist attractions.

The figures of Table 1 include the mileages of all roads under provincial jurisdiction, those in the National Parks, local roads in the Atlantic Provinces and Ontario and estimates of local roads in the four western 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 extensively 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.

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 1950, the total number of miles of street reported was 14,462 , composed of 3,899
miles of bituminous pavements, 858 miles of portland cement concrete; 2,607 miles of bituminous surfaces, 3,436 miles of gravel and crushed stone and 122 miles of other surfaces; making a total of 10,922 miles of surfaced streets and 3,540 miles of earth roads. These figures for urban streets or roads are not included in Table 1.

## 1.-Mileage of each Type of Road, by Provinces, as at Mar. 31, 1951

Nots.-The figures for Canada are the sums of the mileages so reported. Urban streets are not included in the figures.

| Classification | N'f'ld | P.E.I. | N.S. ${ }^{1}$ | N.B. ${ }^{2}$ | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Yukon and N.W.T | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Surfaced Road | miles | miles | miles | miles | miles | miles | miles | miles | miles | miles | miles | miles |
| Portland cement concrete....... | - | 4 | 7 | - | 324 | 1,612 | 72 | - | - | 26 | - | 2,045 |
| Bituminous pavements. | 20 |  | 33 | - |  |  |  | - | - | 1,257 | - | 10,701 |
| Bituminous sur- |  |  | 1,175 | 1.538 | 5,203 | 4, | 730 | - | - |  | - | 10,701 |
|  | 01 | 271 | 1,175 | 1,53 | 906 | 4,30 | 730 | 754 | 1,193 | 1,104 | - | 12,074 |
| crushed stone... | 1,800 | 1,516 | 6,908 | 9,062 | 20,724 | 50,842 | 8,413 | 15,152 | 17,274 | 8,855 | 1,476 | 142,022 |
| Other surfaces. |  |  |  |  | - |  |  |  |  |  |  | 57 |
| Totals, Surfaced Road.... | 1,921 | 1,791 | 8,123 | 10,600 | 27,157 | 60,944 | 9,215 | 15,963 | 18,467 | 11,242 | 1,476 | 166,899 |
| $\begin{aligned} & \text { Non-Surfaced } \\ & \text { Road } \end{aligned}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| Improved earth.. |  | 1,926 | $3,146$ |  |  | 12,901 |  | $81,029^{3} \mid$ | $29,786^{3}$ | 10,197 | 151 | $149,501$ |
| Other earth roads | $3,940$ |  | $3,877$ | $730$ | 14,255 | , | $74,184^{3}$ | $115,661^{4}$ | $36,088^{3}$ | 2,020 | - | $\mid 250,755$ |
| Totals, NonSurfaced Road | 4,380 | 1,926 | 7,023 | 2,600 | 14,255 | 12,901 | 82,239 | 196,690 | 65,874 | 12,217 | 151 | 400,256 |
| Grand Totals.. | 6,301 | 3,717 | 15,146 | 13,200 | 41,412 | 73,845 | 91,454 | 212,653 | 84,341 | 23,4595 | 1,6278 | 567,155 |

[^253]Finances of Road Transportation.-The cost of road transportation to the people of Canada may be summarized under the following headings: expenditure on roads and highways; expenditure of individuals and corporations on owned motor-vehicles; expenditure for freight and passenger services rendered by public motor-carriers such as taxi, bus and motor-transport companies; and expenditures on garages, service stations, etc. Since expenditure on roads and highways is made almost entirely by government bodies, fairly complete statistics are available regarding them but, owing to the tremendous number of individuals and organizations that would have to be canvassed and the difficulties involved, complete statistics are not available under the other headings. Sales of gasoline are given at p. 772 and revenue of motor-carriers at p. 773.

Expenditure on Roads and Highways.-Roads in Canada, except in the Territories, the Indian Reservations and the National Parks, are under the jurisdiction of either provincial or municipal authorities.

Provincial and municipal expenditure was sharply curtailed during the war years 1939-45 and a considerable backlog of essential repair, improvement and expansion work was accumulated. In 1946, approximately $\$ 144,469,000$ was expended on construction, maintenance and general expenditure for roads and
bridges and from 1947 to 1950 outlays steadily increased and amounted to $\$ 232,514,000, \$ 265,802,000, \$ 270,170,000$ and $\$ 277,914,000$, respectively. Unit costs per mile of new construction increased over pre-war levels and had a restrictive effect on the planned extension of first-class roads. However, the improvement and completion of the Trans-Canada Highway, as a main artery of interprovincial travel, is well under way as a joint responsibility of federal and provincial authorities.

## 2.-Construction, Maintenance and General Expenditure on Rural Roads, Bridges and Ferries, by Provinces, 1947-50

Note.-Expenditure is for the respective provincial fiscal years. Figures for each year since 1931 are given in the corresponding tables of previous Year Books beginning with the 1937 edition.

| Item, Province or Territory | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: |
| Construction | \$ | \$ | $\delta$ | 8 |
| Newfoundland |  |  | 1,862,129 | 4,485,354 |
| Prince Edward Island | 1,618,270 | 1,406,558 | 1,177,213 | 1,564,687 |
| Nova Scotia | 9,650,905 | 14, 171,802 | 14,606,701 | 15,225,019 |
| New Brunswick | 11,145,097 | 14, 197, 244 | 9,848, 276 | 10,560,011 |
| Quebec. | 32,266,000 | 48, 208,000 | 37,977,756 | 31,325,159 |
| Ontario | 29,267,586 | 30,176, 894 | 34,200,336 | 41,220,136 |
| Manitob | 4,986,705 | 8,058,007 | 7,998,782 | 5,361,168 |
| Saskatchew | 6,122,684 | 6,107,610 | 6,247,962 | 6,677,887 |
| Alberta | 12,997, 155 | 14,132,453 | 12,845,686 | 16,509,201 |
| British Columbia | 15, 058,043 | 13,646, 266 | 26,571,557 | 18,599,050 |
| Yukon and N.W.T | 1,690,410 | 848,000 | 2,391,972 | 2,521,066 |
| Canada, Construction ${ }^{1}$. | 124,863,912 | 151,057,111 | 156,223,856 ${ }^{2}$ | 154,699,5532 |
| Maintenance- |  |  |  |  |
| Newfoundland |  |  | 1,442,908 | 1,447,686 |
| Prince Edward Island | 1,053,575 | 678,424 | 888,485 | 1,063,116 |
| Nova Scotia | 4,763,016 | 7,307,727 | 7,288,235 | 6,070,948 |
| New Brunswi | 4,365,076 | 6,680,846 | 5,278,069 | 6,162,960 |
| Quebec | 34,711,654 | 27,182,042 | 19,337,970 | 20,761,173 |
| Ontario | 33,873,098 | 40,804,487 | 38,987,794 | 44,719,097 |
| Manitoba | 1,520,789 | 1,934,874. | 1,844,171 | 2,143,407 |
| Saskatchew | 2,571,894 | 2,855,225 | 2,630,792 | 3,268,886 |
| Alberta | 7,142,511 | 4,146,537 | 11,730,362 | 13,387,434 |
| British Columbia | 6,480,712 | 8,676,506 | 13,628,207 | 10,170,411 |
| Yukon and N.W | 1,868,501 | 2,348,289 | 1,023,368 | 1,273,154 |
| Canada, Maintenance. | 98,350,826 | 102,614,957 | 104,080,361 | 110,468,272 |
| Administration and General- |  |  |  |  |
| Newfoundland..... |  |  | 179,700 | 218,409 |
| Prince Edward Island | 56,068 | 72,572 | 87,969 | 53,315 |
| Nova Scotia | 537,605 | 656,697 | 651,425 | 743,397 |
| New Brunswi | 42,147 | 20,000 | 249,202 | 274,709 |
| Quebec | 1,871,000 | 1,691,000 | 2,010,406 | 2,076,995 |
| Ontario | 4,924,066 | 4,497,582 | 4,728,877 | 4,343,658 |
| Manitoba | 467,526 | 462,839 | 588,150 | 621,086 |
| Saskatchewa | 145,957 | 185,496 | 234,857 | 238,544 |
| Alberta. | 56,498 | 49,930 | 61,193 | 114,693 |
| British Columb | 193,610 | 3,454,030 | 921,693 | 3,695,307 |
| Yukon and N.W. | 1,005,080 | 1,040,000 | 152,253 | 190,423 |
| Canada, Administration and General. . | 9,299,557 | 12,130,146 | 9,865,725 | 12,745,934 ${ }^{\text {3 }}$ |
| Grand Totals. | 232,514,295 | 265,802,214 | 270,169,942 | 277,913,759 |
| Distribution of All Expenditure- |  |  |  |  |
| Federal | 7,962,716 | 6,447,655 | 10,312,894 ${ }^{2}$ | 17,169,7212,3 |
| Provinclal | 209,283,093 | 248,975,024 | 240,747, 574 | 243,024,312 |
| Municipal | $\begin{array}{r} 14,811,914 \\ 456,572 \end{array}$ | $\begin{array}{r} 10,097,131 \\ 282,404 \end{array}$ | $\begin{array}{r} 18,594,702 \\ 514,722 \end{array}$ | $\begin{array}{r} 17,191,662 \\ 528,064 \end{array}$ |

[^254]The Trans-Canada Highway System.-An outline of the legislation, specifications and construction of the joint federal-provincial project, the Trans-Canada Highway, with a map showing the proposed route in the eight provinces participating at that date is given in the Year Book 1951, pp. 631-634.

The estimated mileage in 1952 for the eight original provinces entering the agreement with the Federal Government in 1950 and for Nova Scotia since May 15, 1952, are: 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; making a total of 4,580 miles.

Contractual commitments for the eight participating provinces with respect to new construction work on the Highway during the period Dec. 9, 1949, to Mar. 31, 1952 , amounted to $\$ 29,985,954$. The amounts paid during this same period in respect of prior and new construction were $\$ 3,146,031$ and $\$ 16,850,494$, respectively. The on-site labour expended on the Highway during this same period amounted to $1,210,577$ man-days of eight hours each.

The Highway through the National Parks will be constructed entirely with Federal Government funds and the amount of $\$ 500,000$ has been placed in the estimates for this purpose and construction work commenced during 1952. The 1952 program comprised of the building of a bridge over the Bow River near Lake Louise railway-station and the grading of approximately eight miles of roadway on the Banff-East Gate section in Alberta.

## Section 3.-Motor-Vehicles

Registration.-Automobiles were registered in Canada for the first time in 1904 and 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 $1,572,784$ 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, registrations reaching a peak in 1951 when the total of $2,872,420$ registrations included $2,097,594$ passenger cars and taxis, 722,463 trucks and miscellaneous vehicles, 9,174 buses and 43,189 motorcycles.

## 3.-Motor-Vehicles Registered, by Provinces, 1942-51

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 1936-40 in the 1948-49 edition, p. 707.

| Year | N'i'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 |
| 1942. | ... | 7,537 | 58,872 | 37,758 | 222,622 | 715,380 | 93,147 | 130,040 | 125,482 | 132,893 | 1,524,153 |
| 1943. | $\ldots$ | 8,032 | 59,194 | 40,205 | 222,676 | 691,615 | 93,494 | 133,839 | 127,559 | 134,691 | 1,511,845 |
| 1944. | ... | 8,412 | 57,933 | 39,570 | 224,042 | 675, 057 | 93,297 | 140,992 | 127,416 | 135,090 | 1,502,567 |
| 1945. | ... | 8,835 | 56,699 | 41,577 | 228,691 | 662,719 | 92,758 | 140,257 | 130,153 | 134,788 | 1,497,081 |
| 1946 | ... | 9,192 | 62,660 | 44,654 | 255, 172 | 711,106 | 101,090 | 148,206 | 138,868 | 150,234 | 1,622,463 |
| 1947. |  | 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 | 67,290 | 384,733 | 970,137 | 139,836 | 185,027 | 200,428 | 230,008 | 2,290,628 |
| 1950. | 16,375 | 15,383 | 94,743 | 74,415 | 433,701 | 1,104,080 | 157,546 | 199,866 | 230,624 | 270.312 | 2,600,269 |
| 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 |

[^255]
4.-Types of Motor-Vehicles Registered, by Provinces, 1950 and 1951

| Year and Province or Territory | Passenger Cars | Commercial Cars, Trucks, etc. ${ }^{2}$ | Buses | Motorcycles | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | No. | No. | No. | No. | No. |
| Newfoundland | 10,907 | 4,768 | $381^{8}$ | 319 | 16,375 |
| Prince Edward Island. | 10,392 | 4,885 | 25 | 81 | 15,383 |
| Nova Scotia. | 62,417 | 30,206 | 473 | 1,647 | 94,743 |
| New Brunswick | 48,890 | 23,679 | 382 | 1,464 | 74,415 |
| Quebec. | 302,811 | 112,020 | 2,748 | 16,122 | 433,701 |
| Ontario.. | 881,143 | 205,616 | $3,612^{4}$ | 13,709 | 1,104,0805 |
| Manitoba. | 111,240 | 44,363 | 191 | 1,994 | 157,788 |
| Saskatchewan | 129,302 | 69,213 | 127 | 1,224 | 199,866 |
| Alberta. | 150,546 | 77,155 | 450 | 2,473 | 230,624 |
| British Columbia | 198,397 | 67,306 |  | 4,609 | 270,312 |
| Yukon and N.W.T | 1,124 | 2,044 | 28 | 28 | 3,224 |
| Canada, 1950 | 1,907,169 | 641,255 | 8,417 | 43,670 | 2,600,511 |
|  |  |  |  |  |  |
| Newfoundland. | 13,483 | 5,919 | 264 | 392 | 20,058 |
| Prince Edward Island | 11,176 | 5,616 | 20 | 84 | 16,896 |
| Nova Scotia. | 69,786 | 33,274 | 515 | 1,687 | 105,262 |
| New Bruns | 54,327 350,435 | 26,623 | 687 | 1,386 | 83,023 |
| Ontario. | 958,082 | 130,931 2295 | ${ }_{3}^{2,9314}$ | 16,432 | ${ }^{500,729}$ |
| Manitoba | 119,775 | 229,585 49,337 | 3,9614 198 | 13,470 1,955 | 1,205,098 171,265 |
| Saskatchewan | 137,038 | 77, 201 | 109 | 1,102 | 215,450 |
| Alberta. | 168,482 | 88,380 | 471 | 2,508 | 259,841 |
| British Columbi | 213,770 | 73,503 |  | 4,144 | 291,417 |
| Yukon and N.W. | 1,240 | 2,094 | 18 | 29 | 3,381 |
| Canada, 1951. | 2,097,594 | 722,463 | 9,174 | 43,189 | 2,872,420 |

[^256]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 in Chapter XX of this volume.
5.-Apparent Supply of New Automobiles, 1941-50

| Year | Cars Made for Sale in Canada |  | Car <br> Imports ${ }^{1}$ |  | Re-exports of Imported Cars |  | Apparent Supply ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Passenger | Commercial | Passenger | Commercial | Passenger | Commercial | Passenger | Commercial |
|  | No. | No. | No. | No. | No. | No. | No. | No. |
| 1941............... | 81,943 | 76,627 | 2,672 | 1,036 | 26 | - | 84,589 | 77,663 |
| 1942............... | 8,596 | 93.903 | 327 | 718 | 9 | 2 | 8,914 | 94,619 |
| 1943.. | - | 79,290 | 21 | 795 | 1 | 163 | 20 | 79,922 |
| 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 | $85,715 \mathrm{r}$ | 35,293 | 3,404 | 32 | 8 | 212,321 ${ }^{\text {r }}$ | 89,111 = |
| 1950... | 259,481 | 96.826 | 81,722 | 6,806 | 62 | 20 | 341,141 | 103,612 |

${ }^{1}$ Does not include Armed Forces vehicles.
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. A sales tax on gasoline is also levied by each province and to Mar. 31, 1947, there was also a federal tax of 3 cents per gallon but this was withdrawn on that date and most provincial sales taxes were increased to absorb the federal rate. The rates per gallon in effect in 1952 are: for Newfoundland 14 cents; the Provinces of Prince Edward Island, New Brunswick and Quebec 13 cents; Nova Scotia 15 cents since June 1951; Ontario 11 cents; Manitoba 9 cents; Saskatchewan, Alberta and British Columbia 10 cents; and the Yukon and Northwest Territories 6 cents. The more important sources from which provincial revenue from motor-vehicles is derived are shown in Table 6. Federal Government revenue from import duties, excise and sales taxes are given in Chapter XXIII.

## 6.-Provincial Revenue from the Registration and Operation of Motor-Vehicles, 1949 and 1950

Note.-Figures are for the respective provincial fiscal years, all of which end Mar. 31 with the exception of Nova Scotia (Nov. 30) and New Brunswick (Oct. 31).

| Year, Province or Territory | Registration Licences |  |  |  | Operator and <br> Chauffeur <br> Licences | Tax on Bus and Truck Operators | Gasoline Tax | Total, Including Miscellaneous Revenue |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Passenger Car | Truck and Bus | Motorcycle | Dealer |  |  |  |  |
|  | \$ | \$ | \$ | \$ | 8 | \$ | \$ | \$ |
| 1949 |  |  |  |  |  |  |  |  |
| Newfoundland | 101,082 | 208,671 | 1,345 | 1,102 | 60,628 | - | 1,006,356 | 1,408,648 |
| P. E. Island. | 146,641 | 115,364 | 307 | 1.562 | 10,261 | 5,000 | 855,776 | 1,143,857 |
| Nova Scotia...... | 1,029 436 | 1,380,294 | 1 | 12,651 | 230,618 | 95,642 | 6,246,491 | 9,231,041 |
| New Brunswick. | 856,129 | 1,268,414 | 7,233 | 5,693 | 193, 230 | 42,185 | 5,535,767 | 8,006,736 |
| Quebec. | 2 | 2 | 2 | 2 | 2 | , | 30,908,312r | 45,644,052 ${ }^{\text {r }}$ |
| Ontario | 6,708,732 | 7,248,410 | 18,129 | 41,098 | 1,492,649 | 1,045,781 | 58,228, 133 | 76,745,251 |
| Manitoba | 1,248,609 | 550,962 | 7,039 | 14,800 | 211,327 | 408,265 | 5,291,780 | 7,814,849 |
| Saskatchewan. | 1,567,183 | 650,036 | 6,057 | 39,890 | 249,300 | 419,362 | 7,882,783 | 11,440, 170 |
| Alberts. | 2,213,848 | 1,895, 167 | 8,780 | 30,691 | 324,762 | 1,201,465 | 10,635,058 | 16,475,194 |
| British Columbia. | 3,623,304 | 2,170,105 | 26,843 | 28,038 | 390,284 | 301,846 | 11,163.046 | 18,016,177 |
| Yukon and N.W.T. | $16,260^{3}$ | 1,058 | 6 | 100 | 3,495 | 11,175 | 80,813 | 114,195 |
| Canada, 1949 | 17,511,224 | 15,488, 481 | 75,739 | 175,625 | 3,166,554 | 3,530,721 | 137,834,316r | 196,040,170 |
| 1950 |  |  |  |  |  |  |  |  |
| Newioundland | 185,365 | 242,244 | 2,455 | 1,234 | 72,039 | - | 1,251,928 | 1,782, 135 |
| P. E. Island. | 168,389 | 162,508 | 438 | 2,350 | 11,924 | 5,544 | 960,238 | 1,321,604 |
| Nova Scotia. | 1,161,726 | 1,424,576 | 1 | 13,882 | 241,788 | 92,989 | 6,590,526 | 9,793,072 |
| New Brunswick. | 995,512 | 1,288,486 | 8,094 | 2,410 | 201,130 | 1 | 5,731,589 | 8,407,056 |
| Quebec............ | 4,443,196 | 9,306, 165 | 29,952 | 47,295 | 1,461,985 | 260,048 | 37, 156,111 | 54, 109,599 |
| Ontario. | 8,066,603 | 8,144,069 | 28,086 | 44,745 | 1,647,684 | 1,206,851 | 65,040,229 | 86,605,148 |
| Manitoba | 1,443,736 | 621,047 | 7,922 | 16,280 | 224, 843 | 456,736 | 5,997,075 | 8,886,533 |
| Saskatchewan. | 1,658,303 | 675,545 | 5,676 | 39,822 | 260,953 | 546,013 | 8,331,276 | 12,173, 064 |
| Alberta | 2,554,780 | 1,899,431 | 10,270 | 36,665 | 370,085 | 1,568,339 | 11,609,189 | $18,235,834$ |
| British Columbia.. | 4,379, 053 | 2,384,027 | 26,436 | 32,630 | 1,122,932 | 328,672 | 12,400,167 | 20,920,828 |
| Yukon and N.W.T. | 9,582 | 12,154 | 100 | 50 | 4,233 | 12,397 | 78,257 | 117, 240 |
| Canada, 1950... | 25,066,245 | 26,160,252 | 119,429 | 237,363 | 5,619,596 | 4,477,589 | 155,146,585 | 222,332,113 |

[^257]Gasoline Consumption.-All provinces require retail sales of gasoline to be reported and a tax is imposed on all gasoline consumed by motor-vehicles using the highways and streets (see p. 770 for rates), and also on that used for an increasing number of other purposes. Most of the taxable gasoline is consumed by motorvehicles and indicates, in a general way, the increase or decrease in their use. Net sales are the differences between the total or gross sales reported and the quantities on which the tax is refunded in whole or in part, or on which the tax is not imposed at the time of sale.

Sales during the war years 1939-45 were, of course, materially affected by rationing, and large increases have followed the removal of restrictions and have resulted in a wide advance of registrations.
7.-Sales of Gasoline, by Provinces, 1946-50

| Province | 1946 | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | gal. | gal. | gal. | gal. | gal. |
| Newfoundland................. | ... | ... | ... | 1 | 1 |
| Prince Edward Island......... | 5,945,412 | 6,963,412 | 7,288,125 | 8,240,105 | 9,085,340 |
| Nova Scotia | 44,571,678 | 51,647,756 | 53,136,982 | 57,443,469 | 61,348,662 |
| New Brunswick. | 43,320,383 | 49,935,462 | 54,186,447 | 56,685,862 | 58,814,989 |
| Quebec........................ | 218,008,872 | 247,467,957 | 280, 857,736 | 304,139,386 | 340,621,374 |
| Ontario. | 451,251,989 | 501,433,196 | 562,530,157 | 623,684,828 | 687,729,936 |
| Manitoba...................... | 72,402,422 | 83,145,966 | 90,601,589 | 104,023,413 | 112,495,837 |
| Saskatchewan. | 136,065,534 | 142,368, 203 | 147,446, 058 | 168,266,743 | 176,118,129 |
| Alberta. | 143,650,095 | 171,112,439 | 190,608,360 | 218,935,855 | 241,387,708 |
| British Columbia............. | 97,383,294 | 117,497, 292 | 130,909,076 | 142,297,406 | 155,423,743 |
| Totals, Gross Sales....... | 1,212,599,679 | 1,371,571,683 | 1,517,564,530 | 1,683,717,067 | 1,843,025,718 |
| Refunds and exemptions....... | 277,780,170 ${ }^{\text {r }}$ | 338,664, 239 r | $384,330,757 \times$ | $436,022,855{ }^{\text {r }}$ | 461,777,271 |
| Totals, Net Sales........ | 934,819,509 r | 1,032,907,444 ${ }^{\text {r }}$ | 1,133,233,773 r | 1,254,882,2121, ${ }^{\text {r }}$ | 1,390,090,447 ${ }^{1}$ |

[^258]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 interurban 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.

[^259]8.-Capital, Revenue, Employees and Equipment of Motor-Carriers, 1948 and 1949

| Item | Freight Carriers with- |  |  |  |  |  | Passenger Carriers | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual <br> Revenue of $\$ 20,000$ or Over |  | Annual Revenue of $\$ 8,000-$$\$ 20,000$ |  | Annual Revenue under \$8,000 |  |  |  |
|  | 1948 | 1949 | 1948 | 1949 | 1948 | 1949 | 1949 | 1949 |
| Carriers....... No. | 597 | 622 | 633 | 622 | 1,587 | 1,830 | 419 | 3,493 |
| Investments- |  |  |  |  |  |  |  |  |
| Land, buildings, equipment, etc. $\$$ | 35,655,271 | 42,062,072 | 5,506,182 | 5,359,223 | 5,010,016 | 5,776,917 | 71,786,311 | 124,984,523 |
| Revenue- |  |  |  |  |  |  |  |  |
| Freight....... \$ <br> Passenger- | 65, 502,227 | 75,495,055 | 7,690,864 | 7,645,642 | 5,686,971 | 6,589,677 | 275,032 | 90,005,406 |
| Intercity and rural. $\qquad$ | 151,435 | 357,446 | 3,596 | 3,787 | 765 | 150 | 46,835,672 | 47,197,055 |
| City .......... 8 |  | 2, $\overline{07}$, 923 |  | 6,132 |  |  | 16, 420,058 | $16,426,190$ $6,002,458$ |
| Miscellaneous.. | 2,668,975 | 2,907,923 | 265,155 | 287,463 | 201,136 | 199,741 | 2,607,331 | 6,002,458 |
| Totals, Revenue \$ | 68,322,637 | 78,760,424 | 7,959,615 | 7,943,024 | 5,888,872 | 6,789,568 | 66,138,093 | 159,631,109 |
| Working proprietors.......No. | 450 | 377 | 661 | 581 | 1,349 | 1,770 | 241 | 2,969 |
| Employees- |  |  |  |  |  |  |  |  |
| As at July 15. No. | 13,496 | 14,705 | 1,322 | 1,235 | 454 | 637 | 10,206 | 26,783 |
| Asat Dec. 15. " | 13,335 | 14,380 | 1,186 | 1,159 | 428 | 520 | 9,512 | 25,571 |
| Total wages.... $\$$ | 26,158,540 | 31,302,703 | 1,796,094 | 1,811,555 | 566,569 | 640,121 | 23,049,130 | 56,803,509 |
| EquipmentTrucks No | 6,002 | 6,268 | 1,644 | 1,534 | 1,911 | 2,157 | 178 | 10,137 |
| Tractor, semi- " |  |  |  |  |  |  |  |  |
| trailer units. " | 2,752 1,630 | 3,067 1,703 | 94 56 | 80 60 | ${ }_{61}^{53}$ | 42 | 8 | 3,197 |
| Buses.......... " | 1 | 1, 55 | 19 | 13 | 7 | 11 | 4,544 | 4,623 |

Table 9 shows the freight and passengers carried by motor-carriers in 1948 and 1949. 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; consequently, 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, 1948 and 1949

| Year and Item | Freight Carriers with- |  |  | Passenger Carriers | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual Revenue of $\$ 20,000$ or Over | Annual Revenue of $\$ 8,000-$ $\$ 20,000$ | Annual Revenue of Under \$8,000 |  |  |
| 1948 |  |  |  |  |  |
| PassengersRegular Routes- |  |  |  |  |  |
| Intercity and rural. . . . . . . . . . . . . . . No. | 88,975 | 2,248 | 510 |  |  |
| City ............................... " | 88,875 |  | 1 | 161,750,667 | 161,750,667 |
| Special and Chartered ServiceIntercity and rural City $\qquad$ | 3,139 | - | - | 4, $4,177,902$ 197,262 | 4,181,041 197, 262 |
| Totals, Passengers.....................N. No. | 92,114 | 2,248 | 510 | 295,577,565 | 295,672,437 |
| Totals, Frelght, Intercity and Rural. ...ton | 12,123,682 | 1,602,193 | 1,045,950 | 111,512 | 14,889,337 |

9.-Traffic Carried by Motor-Carriers, 1948 and 1919—concluded

| Year and Item | Freight Carriers with- |  |  | Passenger Carriers | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Annual Revenue of $\$ 20,000$ or Over | Annual Revenue of $\$ 8,000-$ $\$ 20,000$ | Annual Revenue of Under \$8,000 |  |  |
| Passengers- 1949 |  |  |  |  |  |
| Regular Routes- |  |  |  |  |  |
| Intercity and rural. . . . . . . . . . . . . . No. | 248,415 | 2,335 | 350 | 139, 243, 269 | 139,494,369 |
| City............................. " |  | 2,106 | - | 230, 524,700 | 230,526,806 |
| Special and Chartered ServiceIntercity and rural. ......................No City | 8,126 |  | 二 | $\begin{array}{r} 5,901,192 \\ 256,953 \end{array}$ | $\begin{array}{r} 5,909,318 \\ 256,953 \end{array}$ |
| Totals, Passengers. . . . . . . . . . . . . . . . . . No. | 256,541 | 4,441 | 350 | 375,926,114 | 376,187,446 |
| Totals, Freight, Intercity and Rural. . . ton | 12,696,256 | 1,283,019 | 1,066,215 | 42,214 | 15,087,704 |

Motor-Vehicle Accidents.-Motorists are required by law to report accidents but complete statistics of these accidents are not available for all provinces. The Health and Welfare Division of the D.B.S. 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, differences in climate, road conditions, tourist cars, etc., all of which are factors in accidents, but it is apparent that safety education is required in all provinces.

Table 11 shows the number of persons killed or injured in automobile accidents as reported by the motor-vehicle branches of the Provincial Governments. It is possible that the latter reported some persons as injured who subsequently died from injuries and these would be included in the fatalities of the vital statistics shown in Table 10; also accidents that occurred late in December and resulted in deaths would be charged to December, by the provincial authorities but to January of the next year in the vital statistics data. Consequently, the figures of fatalities of Tables 10 and 11 are not in complete agreement.

## 10.-Deaths Resulting from Motor-Vehicle Accidents, by Provinces, 1941-50

Note.-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 1936-40 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 PLACE OF OCCURRENCE ${ }^{1}$ |  |  |  |  |  |  |  |  |  |  |
|  | No. | No. |  |  | No. | No. |  | No. | No. | No. | No. |
| 1941. | $\ldots$ | 9 | 104 | 89 | 485 | 835 | 79 | 45 | 78 | 128 | 1,852 |
| 1942.. | ... | 8 | 72 | 52 | 363 | 610 | 52 | 58 | 62 | 132 | 1,409 |
| 1943. | ... | 5 | 90 | 70 | 392 | 563 | 44 | 34 | 84 | 155 | 1,437 |
| 1944. | ... | 11 8 | 73 76 | 56 90 | 406 | 526 637 | 53 67 | 43 58 | 80 71 | 124 125 | 1,372 1,556 |
| 1945. | $\cdots$ | 8 | 76 | 90 | 424 | 637 | 67 | 58 | 71 | 125 | 1,556 |
| 1946 | ... | 4 | 84 | 69 | 482 | 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 r | ... 18 | 11 | 102 | 96 | 645 | 873 | 105 | 85 | 172 | 176 | 2,265 |
| 1950. | 18 | 7 | 94 | 103 | 682 | 850 | 75 | 91 | 162 | 188 | 2,270 |

[^260]10.-Deaths Resulting from Motor-Vehicle Accidents, by Provinces, 1941-50-concluded

| Year | N'f'ld. | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | DEATHS PER 10,000 REGISTERED MOTOR-VEHICLES |  |  |  |  |  |  |  |  |  |  |
|  | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. | No. |
| 1941. | ... | $11 \cdot 23$ | 16.56 | 21.47 | 20.89 | $11 \cdot 30$ | $8 \cdot 18$ | $3 \cdot 43$ | $6 \cdot 18$ | $9 \cdot 52$ | 11.78 |
| 1942. | $\ldots$ | $10 \cdot 61$ | $12 \cdot 23$ | $13 \cdot 77$ | $16 \cdot 31$ | $8 \cdot 53$ | $5 \cdot 58$ | $4 \cdot 46$ | $4 \cdot 94$ | 9.93 | $9 \cdot 24$ |
| 1943. | ... | $6 \cdot 23$ | $15 \cdot 20$ | $17 \cdot 41$ | $17 \cdot 60$ | $8 \cdot 14$ | 4.71 | $2 \cdot 54$ | $6 \cdot 59$ | 11.51 | $9 \cdot 51$ |
| 1944...... | $\ldots$ | 13.08 | 12-60 | $14 \cdot 15$ | $18 \cdot 12$ | $7 \cdot 79$ | $5 \cdot 68$ | $3 \cdot 05$ | $6 \cdot 28$ | 9.18 | $9 \cdot 14$ |
| 1945..... | $\ldots$ | $9 \cdot 05$ | 13.40 | 21.65 | 18.41 | 9.61 | $7 \cdot 22$ | $4 \cdot 14$ | $5 \cdot 46$ | $9 \cdot 27$ | $10 \cdot 39$ |
| 1946..... | $\cdots$ | $4 \cdot 35$ | 13.40 | $15.45{ }^{\text {r }}$ | 18.89 | 10.25 | $9 \cdot 30$ | $4 \cdot 72$ | $6 \cdot 55$ | 10.52 | 10.98 |
| 1947..... | $\ldots$ | 15.08 | 11.81 | 20.16 | 16.05 r | 9.41 r | $6 \cdot 87$ | $3 \cdot 22$ | $6 \cdot 63$ | 11.52 | $10 \cdot 17{ }^{\text {r }}$ |
| 1948 r .... | $\cdots$ | $4 \cdot 43$ | $12 \cdot 58$ | $18 \cdot 92$ | 17.83 | $8 \cdot 94$ | $6 \cdot 33$ | $5 \cdot 19$ | $7 \cdot 19$ | $9 \cdot 55$ | $10 \cdot 25$ |
| 1949 r .... | . | $8 \cdot 33$ | $12 \cdot 22$ | $14 \cdot 27$ | 16.76 | $9 \cdot 00$ | $7 \cdot 51$ | $4 \cdot 59$ | 8.58 | $7 \cdot 65$ | $9 \cdot 89$ |
| 1950..... | 10.99 | $4 \cdot 55$ | 9.92 | $13 \cdot 84$ | $15 \cdot 73$ | $7 \cdot 70$ | $4 \cdot 76$ | $4 \cdot 55$ | 7.02 | 6.95 | $8 \cdot 73$ |

11.-Motor-Vehicle Accidents, by Provinces, 1950

Note.-Figures are as reported by provincial motor-vehicle authorities for the calendar year.


[^261]
## PART IV.-WATERWAYS*

The Canada Shipping Act.-Legislation regarding all phases of shipping is consolidated under the Canada Shipping Act (1934, c. 44). The Act is a sequel to the passage of the Statute of Westminster in 1931, under which the Parliament of Canada accepted full responsibility for the regulation of Canadian shipping. The Canada Shipping Act is a comprehensive piece of legislation embracing features of international agreements as well as of British and previous Canadian legislation. A brief summary of the Act is given in the 1938 Year Book, pp. 680-682.

## 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.

Under the Terms of Union of Newfoundland with Canada the extensive marine services and facilities of that Province were incorporated with those provided by the Federal Department of Transport. A separate Marine Agency to take over the Province of Newfoundland was created with headquarters at St. John's. All existing lighthouses, buoys and other aids to navigation were taken over. Certain public harbours in Newfoundland, such as the Harbour of St. John's, which before union were under the management and control of harbour commissions, continue under such management and control, but these harbour commissions, together with other public harbours, wharves and breakwaters, now are under the jurisdiction of the Federal Department of Transport.

Newfoundland's records of shipping have been incorporated in the Register of Shipping of Canada and steamship inspection and nautical inspection services provided by the Department of Transport are made available in Newfoundland. Merchant seamen with service in the War of 1939-45 who were eligible for a Special Bonus or a War Service Bonus were provided with similar rehabilitation benefits as those who served in the Canadian Merchant Navy.

Ferry services operated by the Newfoundland Railway prior to union are now under the administration of the Canadian National Railways.

## 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 1 of the Canada Shipping Act, every ship included under the definition of 'British Ship' given in Sect. 6 of the Act and controlled as to management and use in Canada must be registered in Canada, unless registered elsewhere in the Commonwealth. An exception is made in the case of ships not exceeding 10 tons register and engaged solely in coastal or inland

[^262]navigation. A ship which should be registered, and which is not registered in any part of the Commonwealth, is not entitled to the privileges accorded to British ships. Ships exempt from registry are required to be licensed, and as at Dec. 31, 1951, there were 78,792 licensed ships in Canada as compared with 72,558 in 1950. Vessels about to be built or during construction may be recorded by a Registrar of Ships under the provisions of the Act.
1.-Vessels on the Canadian Shipping Registry, by Provinces, as at Dec. 31, 1949-51

Nore.-Figures for 1935-48 are given in the corresponding tables of previous Year Books beginning with the 1941 edition.

| Province or Territory | 1949 |  | 1950 |  | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Net Tons | No. | Net Tons | No. | Net Tons |
| Newfoundland. | 2,247 | 101,882 | 2,114 | -97,311 | 1,791 | 82,716 |
| Prince Edward Island | 108 | 7,843 | 134 | 7,849 | 144 | 7,835 |
| Nova Scotia. | 3,612 | 164,244 | 3,892 | 116,220 | 4,214 | 120,365 |
| New Brunswick | 915 | 36,741 | 935 | 39,279 | 963 | 35,554 |
| Quebec. | 1,347 | 677,215 | 1,578 | 590,348 | 1,696 | 579,417 |
| Ontario.. | 1,556 | 390,318 | 1,685 | 410,185 | 1,774 | 432,810 |
| Manitobs. | 102 | 11,455 | 100 | 10,915 | 107 | 12,233 |
| Saskatchewan | 1 | 147 | 1 | 147 | 1 | 147 |
| British Columbia | 4,199 | 438,898 | 4,361 | 389,751 | 4,583 | 384,122 |
| Yukon Territory. | 15 | 3,650 | 15 | 3,657 | 17 | 3,767 |
| Tota | 14,102 | 1,832,393 | 14,8161 | 1,665,6971 | 15,292 ${ }^{1}$ | 1,659,351 ${ }^{1}$ |

${ }^{1}$ Includes inland navigation.
Shipping Traffic.-A brief description of the early development of Canadian shipping is given at pp. 597-598 of the 1941 edition of the Year Book. Complete statistics, comparable with those given for the railways, showing all the freight carried by water, are not yet 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 departing from port makes a statistical report which is forwarded to the Dominion Bureau of Statistics and compilations of shipping statistics are made from these reports. Coastwise cargo is being reported commencing 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, ${ }^{1}$ 1941-50

Norg.-Figures for the years ended Mar. 31, 1929-35 are given in the 1941 Year Book, p. 597 and for 1936-40 in the 1948-49 edition, p. 733.

| Year | In Foreign Service ${ }^{2}$ |  | In Coasting Service |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vessels | Net Tons Registered | Vessels | Net Tons Registered | Vessels | Net Tons Registered |
|  | No. | No. | No. | No. | No. | No. |
| 1941. | 26,203 | 31,452,400 | 77,603 r | 48, 107,158 r | 103,806 r | 79,559,558 r |
| 1942 | 24,066 | 25,640,763 | 73,366 | 43,990,764 | 97,432 | 69,631,527 |
| 1943 | 22,901 | 26,345,562 | 65,066 | 40,300,778 | 87,967 | 66,646,340 |
| 1944 | 23,786 | 28,356,681 | 64,999 | 43,776,497 | 88,785 | 72,133,178 |
| 194 | 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 | 73,439r | 51,823,502 ${ }^{\text {r }}$ | 101,307 = | 87,749,597 r |
| 1949 | 31,138 30,565 | $39,443,055$ 40 | 75,141 | 52,453,382 | 106,279 | 91,896,437 |
| 1950. | 31,565 31,420 | 42,816,949 | 82,012 84,065 | 56,037,003 | 112,577 115,485 | $96,125,380$ $98,883,948$ |

${ }^{1}$ Exclusive of passenger services.

[^263]
## 3.-Vessels Entered at each of the Principal Canadian Ports, 1950

Note.-For details of shipping at all ports in Canada, see D.B.S. publication, Shipping Report.

| Province or Territory and Port | In Foreign Service ${ }^{\text {l }}$ |  | In Coasting Service |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vessels | Net Tons Registered | Vessels | Net Tons Registered | Vessels | $\underset{\substack{\text { Net } \\ \text { Tons } \\ \text { Registered }}}{\text { Non }}$ |
| Newfoundland- | No. | No. | No. | No. | No. | No. |
| Bell Island | 17 | 58,202 | 135 | 423,882 | 152 | 482,084 |
| Botwood | 60 | 152,933 | 46 | 47,115 | 106 | 200,048 |
| Cornerbroo | 107 | 205,580 | 350 | 224,892 | 457 | 430,472 |
| Port aux Basque | 22 | 19,858 | 744 | 313,529 | 766 | 333,387 |
| St. John's. . . . . . . . . . . . . . . . . . . . . . . . | 974 | 786,754 | 1,193 | 339,720 | 2,167 | 1,126,474 |
| Totals, Newfoundland ${ }^{2}$ | 1,643 | 1,437,355 | 6,718 | 2,186,857 | 8,361 | 3,624,212 |
| Prince Edward Isiand- |  |  |  |  |  |  |
| Charlottetown. Totals, Prince Edward Island ${ }^{2}$ | 25 | 30,693 $\mathbf{5 7 , 1 4 8}$ | 200 | $\frac{59,841}{81,254}$ | 225 | 90,534 |
| Nova Scotia- |  |  |  |  |  |  |
| Digby | 47 | 10,392 | 346 | 491,824 | 393 | 502,216 |
| Halifax | 1,014 | 3,203,611 | 962 | 994,405 | 1,976 | 4,198,016 |
| North Syd | 160 | 51,840 | 1,680 | +444,471 | 1,840 | 1 496,311 |
| Sydney. | $\begin{array}{r}97 \\ 367 \\ \hline\end{array}$ | 193,276 126,635 | 857 396 | $1,325,296$ 22,459 | 954 <br> 763 | $1,518,572$ 149,094 |
| Totals, Nova Scotia ${ }^{2}$ | 3,199 | 4,666,771 | 7,472 | 3,967,831 | 10,671 | 8,634,602 |
| New Brunsw |  |  |  |  |  |  |
| Campobello | 1,083 495 | $\begin{array}{r} 17,077 \\ 1,451,188 \\ \hline \end{array}$ | $\begin{array}{r}26 \\ 991 \\ \hline\end{array}$ | $\begin{array}{r}435 \\ 789,350 \\ \hline\end{array}$ | 1,109 1,486 | $\begin{array}{r} 17,512 \\ 2,240,538 \\ \hline \end{array}$ |
| Totals, New Brunswic | 7,012 | 1,755,680 | 2,773 | 1,163,733 | 9,785 | 2,919,413 |
| Quebec- |  |  |  |  |  |  |
| Baie Come | 42 | 80,635 | 715 | 279,850 | 757 | 360,485 |
| Montreal | 1,784 | 4,787,919 | 3,482 | 3,980,268 | 5,266 | 8,768,187 |
| Port Alfred | 400 | 1,225,850 | 277 | 808,794 | 677 | 2,034,644 |
| Quebec | 458 | 1,753,629 | 2,295 | 2,177,832 | 2,753 | 3,931,461 |
| Three Rivers | 231 | 522.306 | 1,928 | 1,830,598 | 2,159 | 2,352,904 |
| Totals, Quebec ${ }^{2}$ | 3,182 | 8,718,191 | 11,431 | 10,318,495 | 14,613 | 19,036,686 |
| Ontario- |  |  |  |  |  |  |
| Amherstbur | 559 | 381,168 | 73 | 34,742 | 632 | 415,910 |
| Cobourg. | 81 | 247,433 | 47 | 40,583 | 128 | 288,016 |
| Cornwall | 101 | 126,005 | 253 | 300.156 | 354 | 426,161 |
| Fort Willia | 281 | 736,835 | 647 | 1,494,323 | 928 | 2,231,158 |
| Hamilton. | 510 | 1,638,290 | 570 | 656,236 | 1,080 | 2,294,526 |
| Kingston | 384 | 114,990 | 580 | 763,994 | 964 | 878,984 |
| Midland. | 54 | 144,580 | 216 | 345,831 | 270 | 490,411 |
| Port Arth | 244 | 562,024 | 948 | 2,577,878 | 1,192 | 3,139,902 |
| Port Colborne | 260 | 645,633 | 670 | 1,197,753 | 930 | 1,843,386 |
| Port McNicoll | 14 | 50,885 | 87 | ${ }^{2} 233,840$ | 101 | 284,725 |
| Prescott. | 386 | 495, 651 | 236 | 327,423 | 622 | 823,074 |
| St. Cat | 33 | 82,721 | 96 | 89,763 | 129 | 172,484 |
| Sarnia. | 530 | 1,015,247 | 645 | 1,113,524 | 1,175 | 2,128,771 |
| Sault Ste. | 554 | 2,060,757 | 380 | 557,301 | 934 | 2,618,058 |
| Thorold. | 155 | 255,430 | -390 | 525,035 | - 545 | 780,465 |
| Toronto. | 729 319 | $1,542,626$ 816,179 | 1,295 364 | $1,665,431$ 457,857 | 2,024 683 | $3,208,057$ $1,274,036$ |
| Windsor. <br> Totals, Ontario ${ }^{2}$ | - 315 | - 816,179 | $\underline{10,384}$ | 14,654,752 | 17,539 | 28,242,747 |
| Manitoba (Churchill). | 20 | 76,560 | - | - | 20 | 76,560 |
| British Columbla- |  |  |  |  |  |  |
| Nanaimo.......... | 570 | 242,265 | 4,131 | $3,082,437$ | 4,701 3,399 | $3,324,702$ |
| New Westminste | 597 | 1,039,413 | 2,742 | 1,359,332 | $\begin{array}{r}3,339 \\ \hline 759\end{array}$ |  |
| Ocean Falls. | 44 77 | 164,951 | 715 739 | 634,585 442,518 | 759 816 | 799,536 739,299 |
| Port Alberni. | 77 | 296,781 170 | 739 3,814 | 442,518 $1,427,499$ | 816 4,034 | 739,299 $1,597,898$ |
| Powell River | 1,272 | 170,399 335,120 | 3,814 1,770 | $1,427,499$ 641,505 | 4,034 3,042 | $1,597,898$ 976,625 |
| Prince Ruper | 1,29 9 | 3,033 | 1,961 | 375,051 | 970 | 378,084 |
| Vancouver. | 2,437 | 5,260,548 | 22,024 | 10,417,038 | 24,461 | 15, 677, 586 |
| Victoria.. | 2,983 | 4,502,007 | 4,520 | 3,767.292 | 7.503 | 8,269,299 |
| Totals, British Columbia ${ }^{2}$ | 9,154 | 12,516,906 | 44,807 | 23,607,312 | 53,961 | 36,124,218 |
| Yukon and Northwest ' | 6 | 343 | 165 | 86,763 | 171 | 87,106 |
| Grand Totals. | 31,420 | 42,816,949 | 84,065 | 56,066,997 | 115,485 | 98,883,946 |

[^264]
## 4.-Vessels Entered at each of the Principal Canadian Ports, 1951

Nork-For details of shipping at all ports in Canada, see D.B.S. publication Shipping Report.

| Province and Port | In Foreign Service ${ }^{1}$ |  | In Coasting Service |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vessels | Net Tons Registered | Vessels | $\begin{gathered} \text { Net } \\ \text { Tons } \\ \text { Registered } \end{gathered}$ | Vessels | Net Tons Registered |
|  | No. | No. | No. | No. | No. | No. |
| Newfoundland- |  |  |  |  |  |  |
| Bell Island. . . . | 102 | 379,949 | 125 | 305,522 | 227 | 685,47\% |
| Botwood. | 69 | 181,315 | 29 | 57,487 | 98 | 238,801 |
| Cornerbroo | 105 | 243,994 | 469 | 421,436 | 574 | 665,430 |
| Port aux Basques........................ | +13 | 66,429 | 777 1.227 | 357,287 | 790 2988 | 363,716 1 |
| St. John's.............................. | 1,051 | 863,540 | 1,227 | 371,842 | 2,278 | 1,235,382 |
| Totals, Newfoundiand ${ }^{2}$. . . . . . . . . | 1,936 | 1,906,285 | 6,678 | 2,281,121 | 8,614 | 4,187,406 |
| Prince Edward IslandCharlottetown. | 20 | 21,546 | 193 | 63,655 | 213 | 85,201 |
| Totals, Prince Edward Island ${ }^{\text {2 }}$. . | 43 | 40,662 | 305 | 88,824 | 348 | 129,486 |
| Nova Scotla- |  |  |  |  |  |  |
| Digby. | 102 | 26,910 | 500 | 655,342 | ${ }^{602}$ | -682,252 |
| Halifax .................................. | 1,111 | 3,993,005 | 977 | 1,047,473 | 2,088 | 5,040,478 |
| North Sydney | . 212 | 76,764 | 1,701 | 493,563 | 1,913 | 570,327 |
| Sydney................................. | 154 | 334,946 | 837 3 | 1,158,881 | 991 719 | 1,493,837 |
| Yarmouth............................. | 390 | 128,951 | 329 | 23,677 | 719 | 152,628 |
| Totals, Nova Scotia ${ }^{2}$ | 3,645 | 5,769,708 | 7,603 | 3,843,095 | 11,248 | 9,612,803 |
| New Brunswick- |  |  |  |  |  |  |
| Campobello. <br> Saint John. | $\begin{aligned} & 791 \\ & 465 \end{aligned}$ | $\begin{array}{r} 13,723 \\ 1,438,072 \end{array}$ | $\begin{array}{r} 32 \\ 1,038 \end{array}$ | $\begin{array}{r} 569 \\ 958,216 \end{array}$ | $\begin{array}{r} 823 \\ 1,503 \end{array}$ | $\begin{array}{r} 14,292 \\ 2,396,288 \end{array}$ |
| Totals, New Brunswick ${ }^{2}$ | 6,748 | 1,804,516 | 3,092 | 1,362,507 | 3,840 | 3,167,623 |
| Quebec- |  |  |  |  |  |  |
| Baie Comean. | 43 | 84,411 | 857 | 284,850 | 900 | 369,261 |
| Montreal. | 1,809 | 4,645,440 | 3,227 | 3,606,022 | 5,036 | 8,251,462 |
| Port Alfred............................... | 490 |  | 855 | 792,807 | 1,345 |  |
| Quebec............................... | 472 | 1,941, 562 | 2,392 2,309 | 2,110,129 | 2,864 | 4,051,591 |
| Three Rivers............................ | 257 | 541,053 | 2,309 | 1,634,970 | 2,566 | 2,176,023 |
| Totals, Quebec ${ }^{\text {2 }}$. $\ldots . . . . . . . . . . . . . .$. | 3,392 | 9,124,178 | 12,871 | 10,001,770 | 16,263 | 19,125,948 |
| Ontario- |  |  |  |  |  |  |
| Amherstburg | 346 | 270,138 | 54 | 27,725 | 400 | 297,863 |
| Cobourg. | 25 | 25,686 | 35 | 46,777 | 60 | 72,463 |
| Cornwall | 111 | 127,976 | 246 | 302,932 | 357 | 430,908 |
| Fort William | 406 | 1,019,181 | 791 | 1,882,852 | 1,197 | 2,902,033 |
| Hamilton. | 678 | 1,901,718 | 566 | 606,816 | 1,244 | 2,508,534 |
| Kingston | 218 | 77,564 | 782 | 836,165 | 1,000 | 913,729 |
| Midland... | 46 355 | 100,184 | ${ }^{253}$ | 700,159 | . 299 | 800,343 |
| Port Arthur | 355 | 804,830 | 1,075 | 3,563,794 | 1,430 | 4,368, 624 |
| Port Colborne | 235 | 538,878 | 744 | 1,445,976 | 979 | 1,984,854 |
| Prescott....... | 360 | 28,279 538,550 | 144 239 | 539,994 322,875 | 152 599 | 568,273 861,425 |
| St. Cat | 47 | 96,517 | 102 | 89,456 | 149 | 185,973 |
| Sarnia | 636 | 2,491,204 | 740 | 1,352,271 | 1,376 | 3,843,475 |
| Sault Ste. | 546 | 1,924,926 | 441 | 665,748 | 987 | 2,590,674 |
| Thorold | 136 | 217,312 | 408 | 534,644 | 544 | 751,956 |
| Toronto | 930 | 1,651,901 | 1,339 | 1,609,756 | 2,269 | 3,261,657 |
| Windsor | 331 | 734, 032 | 298 | 374,158 | 629 | 1,108,190 |
| Totals, Ontario ${ }^{2}$. | 7,446 | 15,118,747 | 11,075 | 17,177,898 | 18,521 | 32,296,645 |
| Manitoba (Churchill). | 20 | 84,359 | - | - | 20 | 84,359 |

For footnotes, see end of table, p. 780.
98452-50졀
4.-Vessels Entered at each of the Principal Canadian Ports, 1951-concluded

| Province or Territory and Port | In Foreign Service ${ }^{1}$ |  | In Coasting Service |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vessels | $\begin{gathered} \text { Net } \\ \text { Tons } \\ \text { Registered } \end{gathered}$ | Vessels |  | Vessels | Net Tons Registered |
|  | No. | No. | No. | No. | No. | No. |
| British Columbia- |  |  |  |  |  |  |
| Nanaimo........ | 484 | 329,732 | 3,886 | 4,148,736 | 4,370 | 4,478,468 |
| New Westminst | 736 | 1,195, 872 | 2,642 | 1,495,877 | 3,378 | 2,691,749 |
| Ocean Falls. | 48 | 211,829 | 792 | 674,367 | 840 | 886,196 |
| Port Alberni | 83 | 338,804 | . 626 | 381,030 | 709 | 719,834 |
| Powell River | 202 | 225,486 | 3,492 | 1,303,079 | 3,694 | 1,528,565 |
| Prince Ruper | 1,379 | 343, 840 | 1,803 | 727,266 | 3,182 | 1,071,106 |
| Union Bay | 17 | 53,478 | 756 | 325,729 | 773 | 1,379, 207 |
| Vancouver | 2,424 | 5,856,781 | 23,096 | 11,895,532 | 25,520 | 17,752,313 |
| Victoria. | 2,851 | 4,397,071 | 4,093 | 3,472,527 | 6,944 | 7,869,598 |
| Totals, British Columbia ${ }^{2}$ | 9,069 | 13,659,630 | 44,834 | 25,989,433 | 53,903 | 39,649,063 |
| Yukon and Northwest Territories. | 5 | 257 | 113 | 58,150 | 118 | 58,407 |
| Grand Totals | 32,304 | 47,508,342 | 86,571 | 60,802,798 | 118,875 | 108,311,140 |

${ }^{1}$ Sea-going and inland international.
${ }^{2}$ Includes other small ports not shown separately.
Vessels in coasting service and vessels fishing in Canadian waters are not required by customs regulations to report any details of cargoes loaded or unloaded so that cargo data are available only for vessels in foreign service. The cargoes are not cargoes on board but are cargoes unloaded and loaded at the respective ports.
5.-Cargoes at Canadian Ports Loaded or Unloaded from Vessels in Foreign Service, by Provinces, 1947-51

| Province and Year | Loaded |  | Unloaded |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Tons Weight | Tons Measurement | Tons Weight | Tons Measurement |
| Newfoundland- |  |  |  |  |
| 19492........ | 1,504,651 | 87 | 307,051 | 5,454 |
| 1950. | 985,483 | 530 | 451,860 | 1,938 |
| 1951..... | 1,883,325 |  | 402,427 |  |
| Prince Edward Island- |  |  |  |  |
| 1947..... | 58,590 | 9,795 | 12,632 | 二 |
| 1948. | 47,511 | -4,560 | 15,853 18,910 | 二 |
| 1950. | 47,050 | +626 | 16,539 | - |
| 1951.... | 44,864 | 3 | 28,652 | - |
| Nova Scotia- |  |  |  |  |
| 1947.... | 4,125,005 | 27,989 | 2,645,143 | 1,275 |
| 1948. | 4,498,315 | 18,492 | 3,123,670 | 1,441 |
| 1949. | 3,634,676 | 7,754 | 1,952,617 | 4,182 |
| 1950. | $3,841,765$ | 5,876 | 1,879,169 | ${ }_{3}^{10,666}$ |
| 1951. | 4,018,764 | 3 | 1,841,121 |  |
| New Brunswick- |  |  |  |  |
| 1947.... | 2,239,539 | 105,879 | 478,896 | 44,443 |
| 1948. | 2,074,597 | 92,045 | 575, 165 | 33,596 |
| 1949. | 1.696,869 | 103,216 | 561,113 | 56,185 126,196 |
| 1950. | 1,160,774 | $\underset{8}{68,419}$ | 613,993 656,935 | 126,196 |
| 1951. | 1,745,548 |  | 656,935 |  |

For footnotes, see end of table.

## 5.-Cargoes at Canadian Ports Loaded or Unloaded from Vessels in Foreign Service, by Provinces, 1947-51-concluded

| Province or Territory and Year | Loaded |  | Unloaded |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Tons Weight | $\begin{gathered} \text { Tons } \\ \text { Measurement } 1 \end{gathered}$ | Tons Weight | $\begin{gathered} \text { Tons } \\ \text { Measurement }{ }^{1} \end{gathered}$ |
| Quebee- |  |  |  |  |
| 1947. | 5,724,483 | 312,652 | 6,880,554 | 47,741 |
| 1948. | $5,127,735$ $5,551,245$ | 295,565 208,106 | 7,846,612 $6,766,754$ | 86,914 74,279 |
| 1950. | 5,282,576 | 184, 205 | 9,700,675 | 277,873 |
| 1951. | 7,290,701 | , | 8,921,562 |  |
| Ontario- |  |  |  |  |
| 1947.. | $4,067,226$ $3,809,343$ | 216 | $20,438,843$ $22,635,413$ | 1,800 |
| 1949. | 4,444,190 | - | 16,230, 850 | 221 |
| 1950 | 4,430,654 | - | 20,988,359 | - |
| 1951. | 5,550,453 | - | 23,383,058 | - |
| Manitoba- |  |  |  |  |
| 1947. | 153.503 | - | 375 | - |
| 1948. | 159,433 | - | 958 | - |
| 1949. | 150,034 | - | 1,160 | - |
| 1950. | 200,846 | - | 3,200 | - |
| 1951. | 203,621 | - | 6,993 | - |
| British Columbia- |  |  |  |  |
| 1947. | 4,876,930 | 4,427 | 2,283,806 | 17,437 |
| 1948 | 4,311,539 | 5,447 | 2,485,594 | 37,156 |
| 1949 | 5,057,945 | 2,914 | 2,302,938 | 37,601 |
| 1950. | 5,016.020 | 2,779 | 2,851,311 | 39,395 |
| 1951. | 6,542,254 |  | 3,028,605 |  |
|  |  |  |  |  |
|  |  |  |  |  |
| 1948. | 717 | - | 15 | - |
| 1949 | 329 | - | 19 | - |
| 1950. | 327 | - | 7 | - |
| 1951. | 269 | - | 41 | - |
| Totals- |  |  |  |  |
| 1947. | 21,246,012 | 460,742 | 32,740,358 | 110,896 |
| 1948. | 20,029,150 | 411,765 | 36,683,280 | 160,907 |
| 1949 | 22,115,095 | 326,637 | 28,141,412 | 177,922 |
| 1950. | 20,965,495 | 262,435 | 36,505,113 | 456,068 |
| 1951 | 27,279,799 | 3 | 38,269,394 |  |
| ${ }^{1}$ One measured ton $=40$ cubic feet. $\quad{ }^{2}$ Figures for 9 months, Apr. 1 to Dec. 31. ${ }^{\mathbf{3}}$ Tons measurement combined with tons weight as of January 1951. |  |  |  |  |

## 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 that are dealt with separately, see p. 785.

## 6.-Facilities of the Six Principal Harbours, as at Dec. 31, 1951

Note. - The facilities include those under the control of other agencies as well as those of the National Harbours Board at these ports.

| Item | Halifax | Saint John | Quebec | Three Rivers | Montreal | Vancouver |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Minimum depth of approach channel ft . | 50 | 30 | 35 | 35 | 35 | 35 |
| Harbour railway................ miles | 31 | 63 | 23 | 5 | 62 | 75 |
| Piers, wharves, jetties, etc........ No. | 46 | 22 | 36 |  | 105 | 28 |
| Length of berthing. $. \ldots \ldots \ldots \ldots .$. ft. | 33,420 | 16,250 | 32,500 | 8,690 | 51,060 | 31,440 |
| Transit-shed floor space...........sq. it. | 1,429,500 | 868,000 | 743,600 | 193,000 | 2,179,000 | 1,415,500 |
| Cold-storage warehouse capacity. .cu. it. | 1,655,350 | 900,000 | 500,000 |  | 2,909, 200 | 3,023,350 |
| Grain Elevators- ${ }_{\text {Capacity }}$................. bu. | 2,200,000 | 3,000,000 | 4,000,000 | 2,000,000 | 15,162,000 | 18,716,500 |
| Loading rate............ bu. per hr. | 75,000 | 150,000 | 90,000 | 32,000 | 400,000 | 312,000 |
| Floating crane capacity $\ldots \ldots \ldots \ldots$ tons |  |  | 75 |  |  |  |
| Coal-dock storage capacity....... tons | 82,000 |  | 215,000 | 300,000 | 1,380,000 |  |
| Oil-tank storage capacity......... gal. | 119,245,000 | 17,026,600 | 54,186,500 | 1,410,000 | 54,000,000 | 99,490,000 |

National Harbours Board.-A description of the origin and functions of the National Harbours Board is given at pp. 679-681 of the 1940 Year Book. The Board is responsible for the administration and operation of the following properties (representing a capital investment of approximately $\$ 236,000,000$ ): 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. Operating revenue and expenditure for these properties are given in Table 28, pp. 801-802.

Harbour Traffic.-The freight movement through a large port takes a number of different forms. The overseas movement, i.e., the freight loaded on or 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. Then there is the in-transit movement in vessels that pass through the harbour without loading or unloading. Finally, there is 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 in all the ports and harbours of Canada, as many of them are small and without the staff necessary to obtain a detailed record of freight handled. The National Harbours Board reports annually the water-borne cargo loaded and unloaded at the eight ports under its control. Six of these are among the principal ports of Canada and the cargo handled in each is shown in Table 7. The figures include freight carried by coasting and inland international, as well as by sea-going shipping; they include all cargo loaded or
unloaded whether by facilities under the Board or at private docks and terminals in these ports. Cross-harbour movements, ballast (non-revenue), bunkers, ships' stores, mail and passengers' baggage are excluded.

## 7.-Principal Commodities in Water-Borne Cargo Loaded and Unloaded at each of Six Principal Ports, 1950 and 1951

| Port and Commodity | 1950 |  | 1951 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Inward | Outward | Inward | Outward |
|  | tons | tons | tons | tons |
| Montreal- |  |  |  |  |
| Coal, bituminous. | 1,056,336 | 2,087,114 | 1,966,781 |  |
| Gasoline......... | 186,729 | 1,347,791 | 91,580 | 1,781,376 |
| Flour, wheat | 4,731 | 405, 612 | 22 | 441,044 |
| Petroleum, fuel | 655,251 | 1,131,433 | 390,360 | 1,094,562 |
| Petroleum, crude | 2,284,702 | 251,561 | 1,345,935 | 276,752 |
| Sugar, raw. | 335, 241 | 23,313 | 309,979 | 11,055 |
| Motor-vehicles and parts. <br> Lumber (planks, boards and flooring) and square timber. | 90,657 | 33,299 | 41,604 | 68,645 |
|  | 17,889 | 68,900 | 8,706 | 70,539 |
| Meats, canned, cured, prepared or preserved......... | 2,107 | 10,995 | 6,950 | 7,015 |
| Petroleum, refined, n.e. $\delta$ | 2,611 | 4,874 |  |  |
| Manganese ore. | 112,287 | 101,090 | 40,271 | 40,181 |
| Newsprint.... | 52.238 | 7,965 | 92,445 | 17,502 |
| Kerosene...... | 29,517 | 31.084 | 17,631 | 29,464 |
| Cement, common or portland | 109,573 | 100,652 | 163,004 | 82,874 |
| Pulpboard (except wall board) |  | 7,296 |  | 12,288 |
| Gypsum, crude.. | 169,897 | 22,750 | 189,613 | 34,965 11,813 |
| Coal, anthracite | 294,466 64,580 | 34,960 69 | 203,136 23,206 | 11,813 4,482 |
| Iron ore. | 220,666 | 219,174 | 231,217 | 231,053 |
| Wood-pulp | 4,976 | 28,028 | 1,953 | 93,056 |
| Cheese... | 3,568 | 31,624 | 1,941 | 24,176 |
| Totals, 23 Commodities | 7,466,355 | 5,950,323 | 5,632,542 | 7,175,612 |
| Grand Totals, All Commodities............ | 8,579,034 | 6,736,499 | 6,797,082 | 8,115,988 |
|  |  |  |  |  |
| Grain..... | - | 1,499,545 | - | 2,441,719 |
| Logs, masts, piling, pitprops, poles, posts, spars and ties (railway) | 1,086,858 | 95,019 | 955,565 | 168,914 |
| Petroleum, crude | 1,220,065 |  | 1,224,341 |  |
|  | 522,465 | 300,428 | 615,075 | 313,244 |
|  | 503,499 | 482,795 | 527,817 | 440,407 |
| Sand and gra | 484,042 | 21,423 | 395,499 | 10,991 |
| Newsprint. | 114,440 | 7,083 | 142,062 | 10,399 |
| Gasoline.. | 210.128 | 167,027 | 253.495 | 205,313 |
| Coal, bituminous | 222,721 | 35,191 | 126,964 | 29,834 |
| Flour, wheat | 29 | 235,581 | 76 | 239, 156 |
| Wood-pulp. | 152,545 | 10,660 | 237,082 | 68,600 |
| Fish (including shellfish), canned or preserved...... | 22,611 | 23,612 | 23,320 | 20,336 |
| Fertilizers and fertilizer materials. | 17,245 130,838 | 14,109 10,600 | 19,027 128,240 | 10,377 10,193 |
| Hog fuel .................... | 130,838 | 109.338 |  | 86, 168 |
| Rock and stone | 8,248 | 90,568 | 18,337 | 180.764 |
| Kerosene. | 82,039 | 40,809 | 62,079 | 38,573 |
| Totals, 17 Commodi | 4,777,773 | 3,143,788 | 4,728,979 | 4,274,988 |
| Grand Totals, All Commodities | 6,090,660 | 3,966,293 | 5,961,684 | 5,196,216 |
| Hallfax- |  |  |  |  |
| Petroleum, crude. | 1,297,694 | - | 1,044,436 |  |
| Petroleum, fuel......................................... | 131,766 | 583,616 | 366,300 | 596,484 |
| Coal, bituminous | 201, 210 |  | 136,507 |  |
| Gasoline. | 165,756 | 221,967 | 292,883 | 240,985 |
| Grain..... | 85 | 199, 220 | - | 174,407 |
| Flour, wheat. | 760 | 79,889 | 21 | 94.559 |
| Motor-vehicles and parts. . | 74,208 | 5,293 | 23,901 | 7,698 |

## 7.-Principal Commodities in Water-Borne Cargo Loaded and Unloaded at each of Six Principal Ports, 1950 and 1951-concluded

| Port and Commodity | 1950 |  | 1951 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Inward | Outward | Inward | Outward |
|  | tons | tons | tons | tons |
| Halifax-concluded <br> Logs, masts, piling, pitprops, poles, posts, spars and ties (railway). |  |  |  |  |
|  | 57 | 17,455 | 59 | 15,637 |
| Lumber (planks, boards and flooring) and square | 874 | 17, 69 | 5 | 15,637 |
| timber................................. | 1,874 | 43,696 | 3,466 | 67,106 |
| Meats, canned, cured, prepared or preserved........ Fish (including shellfish), fresh or frozen......... | 1,412 35,887 | 5,571 6,178 | 1,787 37,030 | 5,366 1,790 |
| Fish (including shellfish), dried, pickled, salted or smoked. | 35,887 27,188 | 5,178 56,621 | 37,030 31,708 | 1,780 57,551 |
| Totals, 12 Commodities | 1,937,897 | 219,508 | 1,938,098 | 1,261,588 |
| Grand Totals, All Commodities | 2,251,211 | 1,472,950 | 2,296,266 | 1,582,009 |
| Saint John- |  |  |  |  |
| Grain... | - | 316,604 | - | 357, 250 |
| Flour, wheat... |  | 161,932 | 1 | 256,037 |
| Coal, bituminous, ............................. | 18,587 |  |  |  |
| Lumber (planks, boards and flooring) and square timber. | 9,719 | 62,958 | 7,786 | 73,179 |
| Sugar, raw | 197,540 |  | 184, 148 | 876 |
| Motor-vehicles a | 138,469 | 18,657 | 66,427 | 8,598 |
| Gasoline.. | 125,793 | 15,783 | 146,190 | 16,551 |
| Petroleum, fuel | 149,653 | 11,245 | 203,459 | 15,812 |
| Logs, masts, piling, pitprops, poles, posts, spars and ties (railway) | 459 | 8,076 | 65 | 35,369 |
| Potatoes..... | 155 | 71,623 | 66 | 40.172 |
| Totals, 11 Commodities | 640,375 | 705,428 | 608,142 | 853,821 |
| Grand Totals, All Commodities | 1,049,073 | 1,022,227 | 1,028,729 | 1,328,836 |
| Three Rivers- |  |  |  |  |
| Pulpwood.. | 1,198,560 | - | 1,617, 867 | - |
| Coal, bituminous. | 467,923 | 300.855 | 492,509 |  |
| Grain........ | 348,503 | 390,855 | 308,599 | 358,843 |
| Paper, newsprint. ................................ |  | 136,350 | -- | 130,242 |
| Lumber (planks, boards and flooring) and square timber. | 7,324 | 1,937 | 9,111 | 1,815 |
| Gasoline. | 28,652 | 1,554 | 36,535 | 1,613 |
| Sulphur.... | -22,942 | 4, 049 | 105,148 | 6,918 |
| Sand and gravel | 82,018 | 5,368 |  | 7,800 |
| Totals, 9 Commodities | 2,155,922 | 540,113 | 2,588,320 | 507,231 |
| Grand Totals, All Commodities | 2,209,472 | 566,742 | 2,636,993 | 557,021 |
| Quebec-- <br> Pulpword |  |  |  |  |
|  | 417,109 | 3 | 536,868 | 14,260 |
| Coal, bituminous | 617,537 | 633 | 621,881 | 3,045 10,621 |
| Gasoline..... . . . . . . . . . . . . . . . . . . . . . . . . | 206,507 | 2,644 | 206,867 | 10,621 |
| Logs, masts, piling, pitprops, poles, posts, spars and ties (railway). | 785 326.68 | 2,388 | 950 365,290 | 736 1,138 |
| Petroleum, fuel...................................... | 326,683 | 2,296 | 365, 290 | 1,138 |
| Lumber (planks, boards and flooring) and square timber. | 12,408 | 11,488 | 7,872 | 9,380 |
| Cement, common or portland. | 59,288 | 203 | 57,862 | 1,473 |
| Totals, 7 Commodities | 1,640,317 | 19,652 | 1,797,590 | 40,653 |
| Grand Totals, All Commodities | 1,831,822 | 429,458 | 1,948,999 | 863,951 |

Dry Docks.-The Department of Public Works of the Federal Government has constructed five dry docks. The dock at Kingston, Ont., is at present under lease to the Kingston Shipbuilding Company. There are two dry docks at Esquimalt, B.C., and at Lauzon, Que. 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 larger dry docks at Lauzon, Que., and Esquimalt, B.C., can be divided for use of small vessels; the Lauzon dock cost approximately $\$ 4,500,000$ and the Esquimalt dock approximately $\$ 7,000,000$.

The dimensions of the dry docks owned by the Federal Government and the dimensions and cost of those subsidized under the Dry Dock Subsidies Act (9-10 Edw. VII, c. 17) are given at p. 720 of the 1948-49 Year Book. Subsidy payments have now been completed on the Duke of Connaught dock at Montreal, Que.

## 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 and the Atlantic Ocean, Cape Breton, the St. Ours and Chambly Canals on the Richelieu 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.

The importance of this transportation system as a highway of commerce is evidenced by the fact that, during 1951, 29,325,034 tons of freight passed through, surpassing the peak reached in 1950 when freight traffic amounted to $27,439,076$ tons and comparing with $24,636,462$ tons in 1938 . In $1951,25,548$ vessels passed through the canals compared with 24,420 in 1950.

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 88,153 in 1951 as compared with 56,765 in 1950.

Revenue from canals during the year ended Mar. 31, 1952, amounted to $\$ 1,502,232$, of which $\$ 1,231,774$ were derived from rentals for hydraulic and land privileges and wharfage. In the previous fiscal year the total revenue was $\$ 1,335,286$, with rentals and wharfage $\$ 1,152,449$.

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 bulletin, Canals of Canada, published by the Department of Transport.

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 on the Red River, Man., 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.

## 8.-Lengths of Channels and Lock Dimensions under the control of the Department of Transport, as at Dec. 31, 1951

| Name | Location | $\left\|\begin{array}{c} \text { Length } \\ \text { of } \\ \text { ohannel } \end{array}\right\|$ | Locks |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No. | Minimum Dimensions |  |  |
|  |  |  |  | Length | Width | Depth |
| St. Lawrence- |  | miles |  | ft. | ft . | ft. |
| Lachine... | Montreal to Lachine. | 8.74 | 5 | 270 | 45 | 141 |
| Soulanges. | Cascades Point to Coteau Landing. . | $14 \cdot 67$ | 5 | 280 | 46 | 151 |
| Cornwall. | Cornwall to Dickinsons Landing.... | 11.00 | 6 | 270 | $43 \cdot 67$ | 141 |
| Farran Point. | Farran Point Rapids................ | 1.28 | 1 | 800 | 50 | $16^{1}$ |
| Rapide Plat........... | Morrisburg......................... | $3 \cdot 89$ | 2 | 270 | 45 | 141 |
| Galop................ | Iroquois to Cardinal................ | 7-36 | 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 RiverSt. Ours. Chambly. $\qquad$ | St. Ours, Que. | 0.12 | 1 | 339 |  |  |
|  | Chambly to St. Johns, Que.......... | 11.78 | 0 | 120.5 | 23.25 | $6 \cdot 5$ |
| Ottawa RiverSt. Anne. $\qquad$ <br> Carillon. Grenville. | Junction of St. Lawrence and Ottawa |  |  |  |  |  |
|  | Rivers........................ | $0 \cdot 12$ | 1 | 200 | 45 | 9 |
|  | Carillon Rapids, Ottawa River. | 0.94 | $\stackrel{1}{5}$ |  | 45 | 9 |
|  | Long Sault Rapids, Ottawa River... | $5 \cdot 94$ | 5 | 200 | 45 |  |
| MiscellaneousRideau. | Ottawa to Kingston | 123.53 | 47 | 134 | 33 | $5 \cdot 5$ |
| Trent. | Rideau Lake to Perth (Tay Branch) | 123.53 6.82 | 2 | 134 | 33 | $5 \cdot 5$ |
|  | Trenton to Peterborough Lock, Peterborough. |  |  |  | 33 | $8{ }^{3}$ |
|  | Peterborough Lock to Swift Rapids. | 135.71 | 24 | 134 | 33 | 6 |
|  | Swift Rapids to Big Chute ${ }^{4}$.......... | 8.00 | - |  |  |  |
|  | Big Chute to Port Severn............ | $8 \cdot 11$ | 1 | 100 | 25 | 6 |
|  | Sturgeon Lake to Lindsay (Scugog Branch) | 10.00 | 1 | 142 | 33 | 6 |
|  | Lindsay to Port Perry (Scugog Branch) |  |  |  |  |  |
|  | Branch) ${ }_{\text {Isthmus of Murray-Bay of Quinte.. }}$ | 25.00 7.536 | 二 | $\ldots$ | $\ldots$ | $\ldots$ |
| Murray <br> St. Peters. | St. Peters Bay to Bras d'Or Lakes, Cape Breton, N.S. | 0.50 | 1 | 300 | 48 | $18^{8}$ |

${ }^{1}$ Navigable depths are occasionally less at times of extremely low water. $\quad{ }^{2}$ Minimum depth between locks 23 ft . ${ }^{3}$ Notice must be given by vessels of more than 6 ft .10 in . draught. $\quad 4$ Marine railways in this section limit navigation to vessels 50 ft . long, 13.5 ft . beam, 4 ft . draught-weight not over 15 tons.
${ }^{5}$ Minimum depth of canal with Lake Ontario at elevation 244 ft . above sea level is 9.5 ft . The depth of canal prism is 17 ft .

Canal Traffic.-The canals of Canada are open to the vessels and traffic of all nations upon equal terms and thus United States traffic constitutes an important part of the total carried through certain canals, especially the Welland Ship Canal. This is shown in Tables 9 and 11. More complete details of the traffic through canals may be found in the D.B.S. annual report, Canal Statistics.

## 9.-Traffic through Canadian Canals, by Nationality of Vessel and Origin of Freight, Navigation Seasons, 1942-51

Notr.-Figures include duplications where cargoes use two or more canals. Figures from 1886 are available in the corresponding tables of previous Year Books beginning with the 1902 edition.

| $\begin{aligned} & \text { Navi- } \\ & \text { gation } \\ & \text { Sea- } \\ & \text { son } \end{aligned}$ | Nationality of Vessel |  |  |  | Origin of Freight Carried |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Canadian |  | United States ${ }^{1}$ |  | Canada |  | United States ${ }^{1}$ |  | Total |
|  | Vessels | Registered Tonnage | Vessels | Registered Tonnage | Tons | P.C. of Total | Tons | P.C. of Total | Tons |
|  | No. | No. | No. | No. |  |  |  |  |  |
| 1942.. | 22,150 | 18,952,917 | 3,751 | 8,404,363 | 7,764,804 | $37 \cdot 2$ | 13,134, 835 | 62.8 | 20,899,639 |
| 1943.. | 20,855 | 18,273,304 | 2,617 | 5,686,958 | 7,838,429 | $36 \cdot 5$ | 13,637,765 | 63.5 | 21,476, 194 |
| 1944.. | 20,780 | 18,191,826 | 1,911 | 4,541,575 | 8,002,746 | 38.8 | 12,612,761 | $61 \cdot 2$ | 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 | $47 \cdot 7$ | 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 | $52 \cdot 2$ 52.6 | 21,513,939 |
| 1948.. | 19,859 | 19,723,768 | 2,784 | 4,219,539 | 11,169,714 | $47 \cdot 4$ | 12,389,599 | $52 \cdot 6$ | 23,559,313 |
| 1949.. | 21,724 | 20,773,831 | 2,495 | 3,260,038 | 14,800,509 | $60 \cdot 7$ | 9,573.243 | $39 \cdot 3$ | 24,373,752 |
| 1950.. | 21,179 | 21,989,263 | 3,241 | 3,514,202 | $15,138,009$ | $55 \cdot 2$ | 12,301, 067 | $44 \cdot 8$ | 27,439,076 |
| 1951.. | 22,141 | 22,951,468 | 3,407 | 4,297,672 | 16,004, 284 | $54 \cdot 6$ | 13,320,750 | $45 \cdot 4$ | 29,325,034 |

${ }^{1}$ Figures include a small percentage of vessels and tonnage of freight of other foreign nationalities.

## 10.-Tonnage of Products carried by Canal, by Class of Commodity, Navigation Seasons, 1950 and 1951

Nore.-Figures include duplications where cargoes use two or more canals.


## 11.-Canal Traffic, by Direction and Origin, Navigation Seasons, 1950 and 1951

Note.-Figures include duplications where cargoes use two or more canals.

| Canal | From CanadiantoCanadian Ports |  | From CanadiantoUnited States Ports ${ }^{1}$ |  | From United States United States Ports ${ }^{1}$ |  | From United States ${ }^{1}$ to Canadian Ports |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Up | Down | Up | Down | Up | Down | Up | Down |
| 1950 | tons | tons | tons | tons | tons | tons | tons | tons |
| Sault Ste. Marie. | 517,607 | 1,023,655 | 17,939 | 310,286 | 69,042 | 4,168 | 257,683 | 101,383 |
| Welland Ship. | 1,095,915 | 3,719,508 | 854,276 | 44,584 | 741,949 | 536,655 | 39,867 | 7,708,419 |
| St. Lawrence River | 3,027,672 | 3,112,987 | 973, 629 | 34, 102 | 118,794 | 79,160 | 37,705 | 2,585,222 |
| Richelieu River... | 55,667 | 3,044 | 27,786 | - | - | - | , | 18,876 |
| St. Peters. | 2,795 | 5,010 | - | - | - | - | - |  |
| Murray |  |  | - |  | - | - | - | 2,744 |
| Ottawa River | 5,742 373 | 285,400 842 | 二 | 3,462 | 二 | - | - | - |
| Trent. | 229 | 373 | - | - | - |  |  |  |
| St. Andrews. | 10,531 | 4,370 | - | - | - | - |  |  |
| Totals, 1950... | 4,716,531 | 8,155,414 | 1,873,630 | 392,434 | 929,785 | 619,383 | 335,255 | 10,416,644 |


| Canal | Traffic by Direction |  | Origins of Cargo |  | Total Cargo | Comparisonwith 1949 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Up | Down | Canada | United States ${ }^{1}$ |  |  |
| 1950-concluded | tons | tons | tons | tons | tons | tons |
| Sault Ste. Marie | 862,271 | 1,439,492 | 1,869,487 | 432,276 | 2,301,763 | 2,301,514 |
| Welland Ship. | 2,732,007 | 12,008,566 | 5,714,283 | $9,026,290$ | 14,740,573 | 13,692, 209 |
| St. Lawrence River | 4,157,800 | 5,811,471 | 7,148,390 | 2,820,881 | 9,969,271 | 7,960,194 |
| Richelieu River... | 88,453 | 21,920 | 86,497 | 18,876 | 105,373 | 106,481 |
| St. Peters. | 2,795 | 5,010 | 7,805 |  | 7,805 | 12,679 |
| Murray. |  | 2,969 | ${ }^{2} 225$ | 2,744 | 2,969 | ${ }^{700}$ |
| Ottawa Rive | 5,742 | 288, 862 | 294,604 | - | 294,604 | 282,330 |
| Rideau | 373 | 842 | 1,215 | - | 1,215 | 1,163 |
| Trent. | 229 | 373 | 602 | - | 602 | 418 |
| St. Andrews | 10,531 | 4,370 | 14,901 | - | 14,901 | 16,064 |
| Totals, 1950 | 7,855,201 | 19,583,875 | 15,138,009 | 12,301,067 | 27,439,076 | 24,373,752 |


${ }^{1}$ Figures for the United States include small percentages of traffic from other foreign countries.

The figures in Tables 10 and 11 include duplications where the same freight passes through two or more canals, but in Table 12 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.
12.-St. Lawrence-Great Lakes Traffic using St. Lawrence, Welland Ship and Sault Ste. Marie Canals, 1950 and 1951

| Canals Used |  | Down- <br> Bound <br> Freight | Total |
| :---: | :---: | :---: | :---: |
| 1950 | tons | tons | tons |
| Traffic using Canadian Canals- |  |  |  |
| St. Lawrence only. | 2,675,363 | 2,599,967 | 5,275,330 |
| St. Lawrence and Welland Ship | 1,279,287 | 2,591,982 | 3,871,269 |
| St. Lawrence, Welland Ship and Sault Ste. Marie ${ }^{\text {c }}$......... | 184,381 | 358,422 | 542,803 |
| Welland Ship only ...................................... | 985,320 | 6,432,014 | 7,417,334 |
|  | 283,019 554,723 | $2,626,148$ 912,046 | $2,909,167$ $1,466,769$ |
| Totals, Traffic using Canadian Cana | 5,962,093 | 15,520,579 | 21,482,672 |
| Totals, Traffic using United States Locks at Sault Ste. Marie only. | 16,090,436 | 87,803,539 | 103,893,975 |
| Totals, Canal Traffic, 1950 | 22,052,529 | 103,324,118 | 125,376,647 |
| Traffic using Canadian Canals- |  |  |  |
| St. Lawrence only .......... | 2,512,772 | 2,743,503 | 5,256,275 |
| St. Lawrence and Welland Ship. .......................... | 1,309,450 | 2,487,909 | 3,797,359 |
| St. Lawrence, Welland Ship and Sault Ste. Marie ${ }^{1}$.......... | 213,769 | 377,673 | 591,442 |
|  | 918,312 | 6,922,397 | 7,840,709 |
| Welland Ship and Sault Ste. Marie ${ }^{1}$....................... | 310,908 | 3,657,506 | 3,968,414 |
| Sault Ste. Marie only | 648,038 | 1,206,347 | 1,854,385 |
| Totals, Traffic using Canadian Canals................ | 5,913,249 | 17,395,335 | 23,308,584 |
| Totals, Traffic using United States Locks at Sault Ste. Marle only. | 13,328,650 | 103,948,286 | 117,276,936 |
| Totals, Canal Traffic, 1951............................... | 19,241,899 | 121,343,621 | 140,585,520 |

${ }^{1}$ Through both Canadian and United States locks at Sault Ste. Marie.
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 $120,200,814$ tons in 1942. 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 peak of $94,326,578$ tons in 1942. Although wheat has ranged as low as only 7 p.c. of the iron-ore tonnage, its value has been greater, generally, than that of the iron-ore traffic, and has been the most valuable single, commodity passed through the canals; in 1928 the value of wheat passed through the canals was 40 p.c. of the value of all traffic. Other grains have been about one-quarter to one-fifth of the wheat tonnage and a smaller ratio of the value.

Soft coal has, generally, been second in tonnage to iron ore increasing from $8,676,297$ tons during the 1949 season to $13,301,048$ tons in 1950 ; in 1951, however, there was a decline to $10,684,734$ tons.

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 British and European ports throughout the year. As an alternative route to that of the transcontinental railway lines, such a passage by water is of vital importance in the solution of the larger transportation problems of the Continent. During World War I (1914-18), 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 (1939-45), the volume of Canadian traffic through the Canal was greatly reduced.

## 13.-Traffic to and from the East and West Coasts of Canada, via the Panama Canal, Years Ended June 30, 1942-51

Norg-Figures for the years 1921-28 are given in the 1938 Year Book, p. 707, and those for 1929-41 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 Coast |
|  | long tons | long tons | long tons | long tons |  | long tons | long tons | long tons | long tons |
| 1942. | 374,073 | 135,655 | 36.709 | 152,807 | 1947. | 2,981,348 | 316,898 | 132,521 | 99,745 |
| 1943. | 723,528 | 95.788 | - | 21,611 | 1948. | 2,824,394 | 244, 121 | 162,561 | 67,215 |
| $1944{ }^{1}$ | 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 |

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## 14.-Commercial Traffic through the Panama Canal, Years Ended June 30, 1942-51

Nots.-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 Tonnage | Vessels | Cargo <br> Tonnage | Vessels | Cargo Tonnage |
|  | No. | long tons | No. | long tons | No. | long tons |
| 1942. | 1,227 | 4,684,922 | 1,461 | 8,922,522 | 2,688 | 13,607,444 |
| 1943. | 824 | 4.945.267 | 988 | 5,654,699 | 1,822 | 10,599,966 |
| 1944. | 671 | 3,354,349 | 891 | 3,649,138 | 1,563 | 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 |

## Subsection 4.-Aids to Navigation

Included under this heading 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. 792. As a further aid to safe navigation, there are chains of radio signal and direction-finding stations which are described under radiotelegraphy at pp. 839-840. Lists of aids to navigation, with the exception of very minor ones, are published by the Department of Transport.

## 15.-Marine Danger Signals maintained in Canada, Years Ended Mar. 31, 1946-52

Nore.-In addition to the aids to navigation listed, approximately 9,006 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 1943-45 in the 1950 edition, p. 766.

| Type of Signal | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. | No. |
| Lights........................ | 2,107 | 2,320 | 2,469 | 2,491 | 2,778 | 2,841 | 2,861 |
| Lightships.................... | 6 | 8 | 8 | 8 | 8 | 8 | 8 |
| Light-keepers................. | 1,132 | 1,122 | 1,120 | 1,094 | 1,416 | 1,353 | 1,131 |
| Fog.whistles................. | 13 | 8 | 9 | 11 | 18 | 22 | 23 |
| Sirens... | 3 | 2 | 2 | 2 | 3 | 3 | 3 |
| Diaphones................... | 170 | 169 | 169 | 176 | 207 | 212 | 213 |
| Fog bells................... | 49 | 39 | 37 | 38 | 43 | 44 | 46 |
| Hand fog horns............. | 149 | 135 | 137 | 137 | 134 | 133 | 127 |
| Hand fog bells.............. | 4 | 9 | 10 | 10 | 10 | 10 | 12 |
| Gas and combination gas, whistling and bell buoys... | 435 | 541 | 552 | 585 | 618 | 655 | 681 |
| Whistling buoys............. | 41 | 40 | 39 | 39 | 38 | 38 | 37 |
| Bell buoys................... | $123^{1}$ | 118 | 112 | 113 | 109 | 110 | 113 |
| Fog guns and bombs......... | 13 | 12 | 12 | 11 | 11 | 10 | 9 |
| Fog alarm stations only..... | 13 | 10 | 10 | 11 | 15 | 15 | 15 |

${ }^{1}$ Includes one submarine bell.

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. The largest task of this nature has been the St. Lawrence River Ship Channel. An extensive floating plant is in service to maintain and improve the deep-water channel from Montreal, Que., to the sea for ocean-going shipping. 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-and to prevent flood conditions during the spring ice break-up.

## 16．－Seasons of Open Navigation on the St．Lawrence Ship Channel，1933－52

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 <br> Departure for Sea， Montreal Harbour |  | Year | Channel Open， Quebec to Montreal ${ }^{1}$ |  | First Arrival from Sea， Montreal Harbour |  | Last Departure for Sea， Montreal Harbour |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1933 | Mar． 23 | Apr． |  | Dec． | 6 | 1943. | Apr． |  |  |  | Dec． |  |
| 1934. | 28 |  |  |  |  | 1944 |  |  |  |  |  |  |
| 1935. | ＂ 30 |  | 15 | ＊ | 9 | 1945 |  |  |  |  | ＂ | 3 |
| 1936. | ＂ 28 |  | 13 |  | 11 | 1946 |  |  | ＂ |  | ＂ |  |
| 1937. | Apr． 9 |  | 19 | ＂ | 8 | 1947 |  | 16 | ＂ | 19 | ＂ |  |
| 1938. | ＂ 12 |  | 18 | ＂ | 4 | 1948 |  |  |  |  | ＂ |  |
| 1939. | ＂ 29 |  | 29 |  | 12 | 1949 |  |  | ＂ | 7 | ＂ |  |
| 1940. | ＂ 23 |  | 24 |  | 5 | 1950 |  |  |  |  | ＂ |  |
| 1941. | ＂ 14 | ， | 19 | ＂ | 17 | 1951. | ＂ |  | ＂ | 13 | ＂ | 13 |
| 1942. | 17 | May | ， | ＂ | 16 | 1952. | ＂ | 12 | ＂ | 13 | ＂ | 10 |

${ }^{\text {＂＂Channel Open＂means the route can be navigated although there may be floating ice in the river．}}$

## 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，consists of 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．The Service 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 or unloading ships；and also for the administration and carrying out of the provisions relating to the certification and employment of marine engineers．

17．－Summary Statistics of Steamship Inspection，Year Ended Mar．31， 1951

| 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． | $\begin{aligned} & \text { gross } \\ & \text { tonnage } \end{aligned}$ | No． | $\begin{aligned} & \text { gross } \\ & \text { tonnage } \end{aligned}$ | No． | $\begin{gathered} \text { gross } \\ \text { tonnage } \end{gathered}$ |
| St．John＇s． | 60 | 21，598 | 60 | 21，598 | － | 9， 478 | 3 | 10，406 |
| Halifax．． | 184 | 324，831 | 178 | 284，947 | 3 | 29，478 | 3 | 10，406 |
| Saint John | 42 | 37，006 | 42 | 37.006 | － |  | 6 | 1，458 |
| Quebec．． | 77 | 80.146 61.825 | 71 49 | 78,688 50,588 | － |  | ${ }^{6}$ | 11，237 |
| Sorel．．．．． | 818 | 61,825 417,853 | $\begin{array}{r}49 \\ 104 \\ \hline\end{array}$ | 50,588 264,437 | 二 | 二 | 86 | 153.416 |
| Kingston． | 79 | 84，193 | 75 | 82，500 | － | － | 4 | 1，693 |
| Toronto．． | 169 | 317，038 | 167 | 316，694 | － | － | 2 | 344 |
| St．Catharine | 61 | 156，033 | 61 | 156，033 | － | － | 17 |  |
| Collingwood． | 118 | 148， 101 | 101 | 147，165 | － | 二 | 17 | 936 36 |
| Midland． | 14 | 1，071 | 13 | 1，035 | － | 二 | 8 | 6， 358 |
| Port Arthur | 133 | 32，573 | 53 | 26，315 | 1 | 245 | 49 | 6，258 |
| Vancouver． | 425 63 | 209,947 75,153 | 375 50 | 202,125 56,431 | 1 | 245 | 49 13 | 18，722 |
| Totals | 1，696 | 1，967，368 | 1，399 | 1，725，562 | 4 | 29，723 | 293 | 212，083 |

Pilotage.-Pilotage service functions under the provisions set forth in Part VI of the Canada Shipping Act, 1934. Qualified pilots may offer their services to the stranger in local and confined waters. At the same time, pilotage might also be considered as a method of insurance.

There are 42 pilotage districts in Canada, nine of which are under the Minister of Transport as pilotage authority (see Table 18). The other districts function under local pilotage authorities appointed by the Governor in Council under the provisions of the Canada Shipping Act, 1934.

In addition, there are 21 districts in the Province of Newfoundland under local pilotage authorities, but as Part VI, Pilotage, of the Canada Shipping Act, 1934, is not yet applicable to this province, these districts are not yet under the jurisdiction of the Minister of Transport.

Table 18 shows, by districts, the number and aggregate tonnage of ships using pilots during the years ended Mar. 31, 1950 and 1951. Corresponding statistics are not available for the St. Lawrence-Kingston-Ottawa district.

18.-Pilotage Service by Districts, Years Ended Mar. 31, 1950 and 1951

| District | 1950 |  | 1951 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Ships | Tonnage | Ships | Tonnage |
|  | No. |  | No. |  |
| Bras d'Or Lakes, N.S. | 36 1,272 | 98,166 $3,307,029$ | 60 1.589 | 164,679 $3,490,551$ |
| Halifax, N.S.... | 2,554 | 8 8,621,931 | 2,576 | 8,623,043 |
| Saint John, N.B. | 1,176 | 3,405,961 | 1,087 | 3,251,310 |
| Quebec, Que.... | 4,000 | 12,291,031 | 4,197 | 13,595, 068 |
| Montreal, Que. | 6,425 | 14,729,606 | 7,528 | 16,565,344 |
| Churchill, Man. | 32 | 135,802 | 40 | 153,138 |
| British Columbia | 2,944 | 7,715,229 | 3.210 | 7,750,099 |
| Totals. | 18,439 | 50,304,755 | 20,287 | 53,593,232 |

Seamen Shipped and Discharged.-Seamen shipped and discharged at Canadian ports under the provisions of the Canada Shipping Act, 1934, during the years ended Mar. 31, 1942-51, are shown in Table 19.

## 19.-Seamen Shipped and Discharged at Canadian Ports, Years Ended Mar. 31, 1942-51

Nors.-Figures from 1918 are given in the corresponding tables of previous Year Books beginning with the 1941 edition.

| Year | Seamen Shipped | Seamen Discharged | Year | Seamen Shipped | Seamen Discharged |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. |  | No. | No. |
| 1942. | 23,064 | 20,312 | 1947. | 43,973 | 42,205 |
| 1943. | 19,255 | 15,250 | 1948. | 59,768 | 60,793 |
| 1944. | 26,068 | 20,491 | 19491 | 50,379 | 49.544 |
| 1945.. | 29,230 | 25,056 | $1950{ }^{2}$ | 43,677 | 43,194 |
| 1946... | 30,361 | 27,042 | $1951{ }^{2}$. | 40,241 | 40,535 |

${ }^{1}$ Includes 1,641 seamen shipped and 1,288 seamen discharged in Newfoundland during the period Apr. 1 to Dec. 31, $1949 . \quad$ Includes Newíoundland.

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 at p. 776 of the 1934-35 Year Book. A table showing the operating results from 1919 to 1936 is given at p. 689 of the 1937 Year Book.

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 $\$ 5,422,565$ being 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 is operating, on behalf of the Canadian Government, certain ships seized in prize and either requisitioned for use by the Canadian Government or condemned by the Court. Settlement with the owners of requisitioned ships for charter hire has not been completed.

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 1949, the Canadian National Steamships owned and operated 10 vessels in service between Canada and the British West Indies.
20. - Financial Statistics of Canadian National (West Indies) Steamships Limited, 1942-51
Nore.-Figures for the years 1929-38 are given in the 1942 Year Book, p. 620, and for 1939-41 in the 1950 edition, p. 777.

| Year | Operating <br> Revenue | Operating Expenditure | Operating Net | Depreciation | Interest | Book Loss or Surplus |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | \$ | \$ | \$ | \$ | \$ |
| 1942. | 5,600,496 | 4,220,219 | +1,380,277 | 160,634 | 816,701 | +273,880 |
| 1943. | 4,492,189 | 2,949,216 | +1,542,973 | 239,363 | 813,073 | +438,837 |
| 1944. | 5,378,059 | 3,160,568 | +2,217,491 | 243,158 | 651,246 | $+1,271,387$ |
| $19+5$ | 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 |
| 1949. | 6,595, 007 | 5,985,873 | +609,134 | 492,222 | 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 |

## Subsection 6.-The St. Lawrence Seaway Project

The proposal to enlarge the navigational facilities and develop the power resources of the International Section of the St. Lawrence River has been agitating public opinion in Canada and the United States for over one-hundred years. The proposal was formalized in the St. Lawrence Deep Waterway Treaty of 1932 and the Great Lakes-St. Lawrence Agreement of 1941. The former was killed in the Senate
of the United States. As late as June 18, 1952, the United States Senate returned a resolution to approve the 1941 Agreement to its foreign relations committee for further study.

Further delay by Congress of the United States to implement the 1941 Agreement has resulted in action being taken by Canada with a view to the construction of an all-Canadian navigational project. This would be undertaken in conjunction with a proposed joint Canadian-United States project to develop the power resources of the International Section of the St. Lawrence River.

Towards the end of the 1951 session of the Parliament of Canada, an Act was passed enabling the setting up of a St. Lawrence Seaway Authority to undertake the construction work of an all-Canadian navigational project and its operation on completion. Provision was made for this Authority to be the agency responsible for the Canadian share of construction and operation of the Seaway project should the United States join with Canada in this undertaking.

On June 30, 1952, separate submissions by Canada and the United States were filed with the International Joint Commission seeking approval of the necessary woris to develop the power resources of the International Section of the St. Lawrence River. In its submission, Canada undertook to carry out the construction of navigational works on the Canadian side of the River. At the same time, an exchange of notes between Canada and the United States on this subject took place at Washington, D.C.

Preliminary work in connection with the all-Canadian navigational project commenced in January 1952, with test drilling where the main canal would be located on the Canadian shore of the St. Lawrence River. Plans for the work involved in the construction of the all-Canadian project are well advanced by Department of Transport engineers, who were also responsible for the preparation of plans under the 1941 Agreement.

## 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 are 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 af 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 costs 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 21, which shows capital expenditure on canals, marine service and miscellaneous water-transport facilities to have reached the grand total of $\$ 411,291,685$, must be interpreted with the above qualifications in mind. In Table 22, the capital values of the fixed assets administered by the National Harbours Board are shown as at Dec. 31, 1950, and 1951, and are in addition to the capital expenditure of Table 21. Figures in Table 22 reflect the capital situation in regard to the national harbours of Canada far better than do those of Table 21 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 23 on p. 798 shows the amounts advanced by the Federal Government to the National Harbours Board for capital expenditure from 1949 to 1951.

## 21.-Capital Expenditure of the Federal Government on Canals, Marine Services and Miscellaneous Water-Transport Facilities, as at Mar. 31, 1950 and 1951

Note.-Compiled from annual reports of the Department of Transport.


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## 21.-Capital Expenditure of the Federal Government on Canals, Marine Services and Miscellaneous Water-Transport Facilities, as at Mar. 31, 1950 and 1951-concluded


${ }^{1}$ These are works not covered elsewhere in these tables and are shown in the Public Accounts as Schedule K to the Balance Sheet.

## 22.-Capital Values of Fixed Assets administered by the National Harbours Board, as at Dec. 31, 1950 and 1951

Note.-Compiled from the annual reports of the National Harbours Board.

| Item | 1950 | 1951 | Item | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\delta$ | \$ |  | \$ | \$ |
| Harbour dredging | 12,301,492 | 12,305,212 | Central heating plants.... | 150,657 | 150,657 |
| Real estate. | 12,776,002 | 12,828,869 | Harbour shops............ | 328,896 | 326,188 |
| Vehicular bridges | 300,389 | 202,206 | Electric power systems... | 1,215,493 | 1,219,773 |
| Roads, fences and bound- |  |  | Water supply systems.... | 763,388 | 768,923 |
| aries................... | 1,839,885 | 1,842,641 | Floating equipment...... | 2,181,269 | 2,186,561 |
| Sewers and drains.... | 689,701 | 689,701 |  | 923,508 | 927,145 |
| Wharves and piers...... | 91,179,600 | 95,213,985 | Engineering-general sur- | 571,524 | 587,107 |
| Permanent sheds. | 21,430,337 | 22,530,403 | veys. | 606,403 | 606,403 |
| Shed hoists and electrical cranes. | 248,973 | 248,973 | Works under construction. Sundry expenditure- | 5,533,904 | 1,544,992 |
| Railway systems. | 7,177,862 | 7,788,175 | undistributed.......... | 5,390,904 | 5,386,080 |
| Grain elevator systems.... | 42,292, 115 | 42,625,179 | Bridge construction, |  |  |
| Cold-storage systems..... | 5,768,459 | 5,779,504 | right-of-way, etc.. | 18,580,807 | 18,563,715 |
| Office furniture and appliances. | 165,645 | 181,353 |  |  |  |
| Harbour buildings........ | 991,377 | 1,184,138 | Totals. | 234,165,514 | 236,441,807 |

## 23.-Amounts advanced by the Federal Government to the National Harbours Board for Capital Expenditure, 1949-51

Note.-Compiled from the annual reports of the National Harbours Board.

| Harbours and Properties | 1949 | 1950 | 1951 | Harbours and Properties | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | 8 | \$ |  | § | 8 | 8 |
| Halifax | 1,899,432 | 496,606 | 1,042,951 | Montreal. | 561,694 | 1,514,824 | 898,823 |
| Saint John. | 1,473,057 | 260,452 | - | Port Colborne ele- vator............. | 7,040 | 120,283 | 49,648 |
| Chicoutimi | - | 558 | - | Churchill | 192,461 | 249,954 | 174,882 |
| Quebec.. | 575,522 | 260,250 | 27,254 | Vancouver | 15,141 | 90,243 | 90,698 |
| Three Rivers. | 2,163 | - | 2,542 | Totals | 4,726,510 | 2,993,170 | 2,286,798 |

Waterway Expenditure and Revenue on Consolidated Fund Account.Expenditure under this heading (Tables 24 to 26) 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 29. Operating expenditure and revenue of facilities administered by the National Harbours Board are shown separately in Table 28. The National Harbours Board operates as a statutory corporation. The improvement in the financial results since control was unified under the Board is indicated by the increase of consolidated operating income from $\$ 2,452,000$ in 1935 to $\$ 7,377,493$ in 1951. Revenue in connection with waterways of the Department of Transport and the Department of Public Works is shown in Table 27.

## 24.- Expenditure on Canals charged to Consolidated Deficit Account, Years Ended Mar. 31, 1950 and 1951

Notz.-Compiled from the annual reports of the Department of Transport.

| Canal | Expenditure on Improvements |  |  | Canal | Expenditure on Operation and Maintenance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { Year } \\ \text { Ended } \\ \text { Mar. 31, } \\ 1950 \end{gathered}$ | $\left\lvert\, \begin{gathered} \text { Year } \\ \text { Ended } \\ \text { Mar. } 31, \\ 1951 \end{gathered}\right.$ | $\begin{gathered} \text { Total } \\ \text { to } \\ \text { Mar. } 31 \text {, } \\ 1951 \end{gathered}$ |  | $\begin{gathered} \text { Year } \\ \text { Ended } \\ \text { Mar. 31, } \\ 1950 \end{gathered}$ | Year Mar. 31 1951 |
|  | \$ | \$ | \$ |  | \$ | \$ |
| Main CanalsQuebec Canals- |  |  |  | Administration, Ottawa...... | 85,174 | 87,933 |
| Beauharnois (old).. |  | - | 355, 640 |  |  |  |
| Hungry Bay Dyke. | 80,436 | 3,466,450 | 55,659 $6,949,881$ |  |  |  |
| Lachine. Lake St. Francis. | 901,231 | 3,466,450 | $6,949,881$ 55,324 | Quebec Canals- Head Office... | 52,211 | 55,772 |
| Lake St. Francis... |  |  | 55,324 | Heauharnois (old) ............ |  | 9,818 |
| Fleet.............. | 5,473 |  | 185,149 | Carillon and Grenville Canals | 123,698 | 107,845 |
| Soulanges | 52,001 | 11,607 | 751,007 | Chambly (Richelieu River). | 140,692 | 153,721 |
| Ontario-St. Lawrence Canals | - | - | 336,906 | Hungry Bay and Ste. Barbe Dykes................... | 10,653 | 4,622 |
| Cornwall. | 299,097 | 113,851 | 1,256,955 | Lachine. | 570,674 | 747,141 |
| Williamsburg........ | 45,139 | 32,483 | 543,610 | Quebec Dredging Fleet....... | 36,907 | 45,023 |
| Welland Canals- |  |  |  | Soulanges................... | 265,070 | 299,585 21,600 |
| Welland Ship...... | 206,099 | 52,716 | 2,077,014 |  | 19,430 16,646 | 21,600 18,999 |
| Prior Welland Canals. |  |  | 2,650,121 | St. Ours (Richelieu River).. | 16,646 | 18,999 |
| Sault Ste. Marie | 6,522 | 11,487 | 573,333 |  |  |  |
| Secondary Canals- |  |  |  | Ontario-St. Lawrence Canals- <br> Head Office. | 73,474 | 81,889 |
| Carillon and Gren- |  |  |  | Cornwall. | 300,948 | 413,188 |
| ville.............. | 418,652 | 6,000 | 1,114,215 | Williamsburg Ca | 154,887 | 182,055 |
| Chambly (Richelieu |  |  |  | St. Peters, N.S. | 29,993 | 36,613 |
| River)............ | 29,511 | 6,658 | 1,294,624 |  |  |  |
| Rideau and Tay..... | 87,433 | 51,923 | 1,326,860 | Rideau and Tay Canals....... | 401,924 | 369,073 |
| Ste. Annes. St. Ours (Richelieu |  | - | 232,812 | Sault Ste. Marie | 110,631 | 134,880 |
| River) .............. | 10,769 | 3,494 | 215,816 |  |  |  |
| St. Peters | 24,221 | - | 961,842 | Trent. | 415,148 | 461,349 |
| Trent.. | 98,524 | 48,689 | 4,766,135 |  |  |  |
| Murray.............. | - | 5,928 | 220,987 | Murray | 21,090 | 21,696 |
| Miscellaneous- |  |  |  | Welland Canals. | 1,164,307 | 1,219,332 |
| Bay Verte, Chignecto. | - | - | 44,388 |  |  |  |
| Culbute Lock and |  |  |  | Beauharnois................. | 364 | 520 |
| Dam (Ottawa R.).. | - | - | 60,923 |  |  |  |
| Surveys and inspections. | - | - | 572,990 | St. Lawrence Ship Canal Surveys, etc. | 11,320 | 5,760 |
| Canals generally..... | - | - | 190,509 |  |  |  |
| Totals | 2,193,108 | 3,811,286 | 26,792,700 | Totals. | 4,005,241 | 4,478,414 |

## 25.-Marine Service Expenditure charged to Consolidated Deficit Account, Years Ended Mar. 31, 1950 and 1951

Nors.-Compiled from the annual reports of the Department of Transport.

| Marine Services | 1950 | 1951 | Marine Services | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Marine Service - administration. | 18,614 | 19,959 | Navigation and Shippingmiscellaneous | 118,188 | 135,123 |
| Floating Equipment-administration | 35,481 | 54,603 | Life Saving Service............ | 136, 291 | 122,019 |
| Nautical Services-adminis- | 35,481 | 54,603 | Marine Signal Service....... | 135,486 | 144,004 |
| tration, operation and main- |  |  | Administration of pilotage.... | 277,798 | 400,773 |
| Maintenance and operation of | 250,951 | 303,899 | Subsidies for wrecking plants. | 65,000 | 65,000 |
| steamers (including icebreakers) $\qquad$ | 2,963,702 | 3,643,555 | Aids to navigation (construction, maintenance and supervision) | 496,130 | 540,012 |

25.     - Marine Service Expenditure charged to Consolidated Deficit Account, Years Ended Mar. 31, 1950 and 1951-concluded

| Marine Services | 1950 | 1951 | Marine Services | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Maintenance and repairs to wharves. $\qquad$ | 3,555 | 3,054 | Government Employees' Compensation Act. | - | - |
| Breaking ice-Thunder Bay... | 30,000 | 30,000 | Government Employees |  |  |
| North Atlantic ice patrol. . . . . | 9.819 | 20.000 | foundland Appendix (23)... |  |  |
| Steamship Inspection......... | 344,362 | 380,927 | Marine Service-War Appro- | - | - |
| Agencies, salaries and office expenses. | 395,172 | 436,750 | Write-off from active assets | 49 | 499 |
| St. Lawrence Ship Channelmaintenance and operation... | 593,782 | 609,336 | of the balance of advances for loans made to the |  |  |
| Grants to sailors' institutes.... | 600 | \% 600 | Halifax and Sydney Pilotage Districts................ | - | 8,358 |
| Pensions to pilots............ | 2,409 | 2,400 |  |  | 8,358 |
| Compassionate allowances..... | 153 |  | Totals. | 9,877,542 | 10,920,871 |

## 26.-Expenditure on Waterways charged to Consolidated Fund Account by Department of Public Works, Years Ended Mar. 31, 1950 and 1951

Note.-Compiled from Annual Reports of the Department concerned by the Comptroller of the Treasury, Department of Finance.

| Year and Item | Dredging | Construction | Improvements and Repairs | Staff and Sundries | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | \$ | \$ | \$ | \$ | \$ |
| Harbours and Rivers- |  |  |  |  |  |
| Newfoundland. | 100,443 | 37,833 | 319,306 | 46,994 | 504,576 |
| Prince Edward Island | 307,358 | 494,547 | 376,169 | 42,625 | 1,220,699 |
| Nova Scotia | 789,425 | 1,713,313 | 911,008 | 151,350 | 3,565,096 |
| New Brunswi | 289,534 | 1,015,012 | 753,518 | 330,619 | 2,388,683 |
| Quebec. | 843,698 | 5,656,381 | 1,996, 821 | 727,903 | 9,224,803 |
| Ontario | 1,522,285 | 1,820,245 | 2,628,774 | 386,727 | 6,358,031 |
| Manitoba | 114,210 | 178,905 | 16,959 | 106,563 | 416,637 |
| Saskatchewa | 903 | 6,247 | 28,385 | 62,771 | 98,306 |
| Alberta. | 19.814 | 10,832 | 19,864 | 43,453 | 93,963 |
| British Columbia | 1,294,565 | 901,264 | 1,151,330 | 552,969 | 3,900,128 |
| Yukon Territory | 3,426 | 25,918 |  |  | 29,344 |
| Northwest Territories | 62,969 | 229,150 | 24,173 | $\overline{0} 3$ | 316,292 |
| General. |  |  |  | 64,338 | 64,338 |
| Totals, Harbours ${ }^{1}$ and Rivers | 5,348,630 | 12,089,647 | 8,226,307 | 2,516,312 | 28,180,896 |
| Dredging plant. Roads and brid | 二 | 604,893 | $\begin{aligned} & 54,639 \\ & 48,720 \end{aligned}$ | 179,612 | $\begin{aligned} & 659,532 \\ & 228.332 \end{aligned}$ |
| Totals, 1950 | 5,348,630 | 12,694,540 | 8,329,666 | 2,695,924 | 29,068,760 |
| 1951 |  |  |  |  |  |
| Harbours and Rivers- |  |  |  |  |  |
| Newfoundland | 244,921 | 251,874 | 309,477 |  |  |
| Prince Edward Island | 342,861 | 614,929 | 225, 065 | 50,128 127,686 | ${ }_{3}^{1,232,983}$ |
| Nova Scotia | 758,546 | 1,089,791 | 1,369,740 | 127,686 | 3,345,763 |
| New Brun | 723,677 | 1,175,499 | 737,584 | 339,549 776,480 | $2,976,309$ $9,161,926$ |
| Quebec | 851,289 | $5,136,836$ 822,477 | $2,397,321$ $2,239,096$ | 776,480 364,389 | 9,161,926 $5,084,207$ |
| Mantario. | 118,319 | 119,466 | 106,055 | 93,144 | 436,984 |
| Saskatchew | 1,284 | 20,979 | 29,085 | 23,347 | 74,695 |
| Alberta | 24,494 | 23,725 | 59,906 | 56,712 | 164,837 |
| British Columbia | 1,417,625 | 1,252,083 | 1,429,124 | 506,977 | 4,605,809 |
| Yukon Territory | 16,883 | - |  | 10,058 | 26,941 |
| Northwest Territories General | 44,813 | 19,332 | 20,354 | $\overline{140,458}$ | 84,499 140,458 |
| Totals, Harbours ${ }^{1}$ and Rivers | 6,202,957 | 10,526,991 | 8,922,807 | 2,598,734 | 28,251,489 |
| Dredging plant Roads and brid | - | 1,073,976 | $\begin{aligned} & 54,337 \\ & 92,425 \end{aligned}$ | $\overline{79,471}$ | $\begin{array}{r} 1,128,313 \\ 171,896 \end{array}$ |
| Totals, 1951. | 6,202,957 | 11,600,967 | 9,069,569 | 2,678,205 | 29,551,698 |

[^267]
## 27.-Revenue of the Federal Government in connection with Waterways, Years Ended Mar. 31, 1950 and 1951

Nore.-Compiled from Annual Reports of the Department concerned by the Comptroller of the Treasury, Department of Finance.

| Item | 1950 | 1951 | Item | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | 5 |
| Department of Transport |  |  | Marine Service-concluded |  |  |
| Canals Service |  |  | Miscellaneous................ | 5,132 | 4,073 |
| Lachine. | 302,441 | 316,027 | Refund of previous year's expenditure. | 5,569 | 77,715 |
| Soulanges. | 4,056 | 3,060 |  |  |  |
| Chambly..... | 1,955 | 2,733 | Totals, Marine Service.... | 520,319 | 583,857 |
| Ste. Annes Lock. . . . . . . . . . . | 412 | 572 |  |  |  |
| Carillon and Grenville....... | ${ }^{2} 729$ | 9925 49872 |  |  |  |
| Beauharnois. . . . ${ }_{\text {Quebec dredging fleet.......... }}$ | 129,411 | 49,872 3,996 | Board or Transport Commissioners |  |  |
| Cornwall........... | 31,972 | 53,419 |  |  |  |
| Williamsburg | 9,162 | 34,218 | Licences to ships. | 699 | 2,793 |
| St. Peters. | 273 | 237 | Sale of publications. | 72 | 175 |
| Welland Cana | 701, 012 | 749, 805 |  |  |  |
| Sault Ste. Marie | 1,903 | 6,242 | Totals, Board of Transport |  |  |
| Rideau. | 21,690 | 19,692 | Commissioners. | 771 | 2,968 |
| Murray. | ${ }^{8750}$ | ${ }^{8750}$ | Totals, Dept. of Transport... | 1,819,175 | 1,922,111 |
| Fines and forfeitures.......... | - |  |  |  |  |
| Sale of publications.......... | - | 38 |  |  |  |
| Premium, discount and exchange. | 26 | - | Department <br> of Public Works |  |  |
| Sundry services. | - |  |  |  |  |
| Miscellaneous.. | - | 32 | Earnings of Dry Docks |  |  |
| Refunds of previous year's expenditure. | 4,649 | 6,175 | Champlain Dock, Lauzon, |  |  |
| Totalb, Canals Service... | 1,298,085 | 1,335,286 | Lorne Dock, Lauzon, Que.... | 38,053 | 69,518 20,040 |
|  |  |  | Esquimalt new dock......... | 91,973 | 77,730 |
|  |  |  | Esquimalt old dock |  | 1,429 |
|  |  |  | Selkirk repair slip. | 3,603 | 2,300 |
| Marine |  |  | Totals, Earnings.......... | 169,574 | 171,017 |
| Fines and forfeitures. | 46,247 | 17,347 |  |  |  |
| Steamship inspection | 159,142 | 162,788 |  |  |  |
| Wharf revenue. . . . . . . . . . . . | 203, 874 | 227,629 | Works and Plants Leabed |  |  |
| Harbour dues........, | 50,488 | 47,115 |  |  |  |
| Measuring surveyors' fees..... | 903 | 770 | Kingston dry dock........... | 9,025 | 9,025 |
| Examinations-masters and mates' fees. | 6,710 | 7,136 | Ferry privileges.............. | $\begin{array}{r} 503 \\ 180,392 \end{array}$ | 9.995 |
| Pilots' licence fees (pilotage). | 301 | 126 |  |  |  |
| Pilotage dues.. | - | 2,200 | Totale, Leased.............. | 189,920 | 19,462 |
| Shipping fees... |  | 3,125 |  |  |  |
| Marine steamers' earnings.... | 150 | 3.827 |  |  |  |
| Signal station dues .......... | 1,225 | 1,264 | Rents from water lots, etc.... | 17,566 | 19,474 |
| Rentals - water lots and lighthouse sites | 13,742 | 13,669 | Refunds against expenditure reported in previous years.. | 101,090 | 87,035 |
| Rentals - miscellaneous. . | 16,539 | 10,989 | Sundry receipts. | 6,340 | 9,858 |
| Sale of land, buildings, etc.... | 7,054 | 1,302 |  |  |  |
| Merchant seamen's identity certificates. | 3,243 | 2,782 | Totals, Dept. of Publie Works. | 484,490 | 306,846 |

28.-Operating Revenue and Expenditure of Harbours, Elevators and Bridges under the National Harbours Board, 1947-51

| Harbour and Year | Operating <br> Revenue | Operating <br> Expenditure | Operating Income | Harbour and Year | Operating Revenue | Operating Expenditure | Operating Income |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | 8 |  | \$ | \$ | \$ |
| Hallifax- |  |  |  | Saint John- |  |  |  |
| 1947... | 1,161,261 | 800.168 | 361.093 | 1947. | 945,198 | 488,756 | 456,442 |
| 1948. | 1,270,564 | 862,529 | 408,035 |  | 805.364 | 472,365 | 332,999 |
| 1949 | 1,300,605 | 893,699 | 406,906 | 1949 | 715,423 | 501,163 | 214,260 |
| 1950 | 1,158,425 | 895,757 | 262,668 | 1950 | 627,860 | 511,328 | 116,532 |
| 1951 | 1,338,348 | 1,044,779 | 293,569 | 195 | 728,648 | 576,255 | 152,393 |

28.-Operating Revenue and Expenditure of Harbours, Elevators and Bridges under the National Harbours Board, 1947-51-concluded

| Harbour and Year | Operating Revenue | Operating Expenditure | Operating Income | Harbour and Year | Operating Revenue | Operating Expenditure | Operating Income |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | Port Colborne | \$ | \% | \$ |
| Three Rivers- |  |  |  | Elevator- |  |  |  |
| 1947.. | 235,765 | 50,242 | 185,523 | 1947. | 208,871 | 142,265 | 66,605 |
| 1948 | 219,712 | 43, 264 | 176,448 | 1948. | 252,185 | 189,414 | 62,771 |
| 1949 | 213,745 | 45,194 | 168,551 | 1949. | 485,718 | 293,881 | 191,837 |
| 1950 | 265, 209 | 64,159 | 201,050 | 1950 | 588,357 | 325,954 | 262,403 |
| 1951 | 296,923 | 37,168 | 259,755 | 1951. | 630,423 | 394, 843 | 235,580 |
| Montreal- |  |  |  | Prescott Elevator- |  |  |  |
| 1947. | 4,990,919 | 3,083,883 | 1,907, 036 | 1947 | 136,750 | 119,687 | 17,063 |
| 1948. | 5,608,899 | 3,186, 639 | 2,422,260 | 1948 | 120,037 | 160,253 | -40.216 |
| 1949. | 6,272,697 | 3,663,798 | 2,608,899 | 1949. | 264, 004 | 150,155 | 113.849 |
| 1950 | 6,324,037 | 3,500,606 | 2, 823,431 | 1950 | 283,680 | 143,904 | 139,776 |
| 1951. | 7,478,227 | 4,053,329 | $3,424,898$ | 1951 | 276,544 | 159,139 | 117,405 |
| Chicoutimi- |  |  |  | Churchill- |  |  |  |
| 1947.. | 40,573 | 21,407 | 19,166 | 1947. | 218,061 | 284,725 | -66,664 |
| 1948 | 50,310 | 20,512 | 29,798 | 1948. | 278,712 | ${ }_{321,337}$ | $-42,625$ $-83,457$ |
| 1949 | 58,386 | 19,440 | 38,946 | 1949 | 256,487 | 339,944 | -83,457 |
| 1950 | 69,816 | 22,172 | 47,644 | 1950 | 368,472 | 556,659 | -188,187 |
| 1951. | 82,416 | 29,185 | 53,231 | 1951 | 409,141 | 463,887 | $-54,746$ |
| Quebec- |  |  |  | Vancouver- |  |  |  |
| 1947. | 627,732 | 691,609 | -63,877 | 1947 | 2,206, 235 | 1, 142,027 |  |
| 1948 | 684,128 | 833,283 | -149,155 | 1948 | 2, 21211,011 | $\begin{aligned} & 1,293,633 \\ & 1,009,250 \end{aligned}$ | 1,017,378 |
| 1949 | 871,022 978,667 | 813,289 818,594 | 57,733 160,073 | 1949 | $2,260,677$ $2,985,966$ | $1,209,250$ $1,594,580$ | $1,051,427$ $1,391,386$ |
| 1951. | 1,415,577 | 1,217,085 | 198,492 | 1951 | 3,305,429 | 1,853,730 | 1,451,699 |
| Jacques Cartier |  |  |  | Second Narrows |  |  |  |
| Bridge (Montreal) |  |  |  | Bridge (Vancouver) |  |  |  |
| 1947 | 835,097 | 118,779 | 716,318 | 1947......... | 224,447 | ${ }^{67,226}$ |  |
| 1948 | 974,764 | 129,372 | 845, 392 | 1948. | 255,096 | 95,974 89,082 | 159,122 179,930 |
| 1959. | 1,104,921 | 1418,785 | 1, 9883,152 | 1950 | 269,012 28319 | 89,082 92 | 190,411 |
| 1951. | 1,413,381 | 168,165 | 1,245,216 | 1951................ |  |  | 1 |

${ }^{1}$ Reverted to former owners in 1951.
Canadian Maritime Commission.-By authority of an Act (11 Geo. VI, c. 52) 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.

Since the Canadian Maritime Commission was created, it has assumed all responsibilities for the administration of steamship subventions which had formerly been under the jurisdiction of the Department of Trade and Commerce.

The Park Steamship Company.-Since World War II the Park Steamship Company has acted as an agent for Crown Assets Disposal Corporation in the sale and delivery to purchasers of Government war-built ships. This work is virtually completed but the Park Company remains available to carry out any appropriate duties. The Company has no staff of its own, any necessary work being done by the staff of the Canadian Maritime Commission.

Shipping Subsidies.-The figures given in Table 29 represent the amounts paid in connection with contracts made under statutory authority by the Canadian Maritime Commission for ocean, coastal and inland water-shipping services.
29.-Steamship Subventions, Years Ended Mar. 31, 1950-52


# PART V.-CIVIL 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 turned to commercial flying and were absorbed in existing operating companies or helped to develop other flying services. Transatlantic air services, which were inaugurated by the Department of Transport during the War, were turned over to Trans-Canada Air Lines which came into being by Act of Parliament in 1937 to provide for the development of a government-controlled transcontinental air service for operation as 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 to Australia and New Zealand in July of that year and to Japan, China and Hong Kong in September.

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 quthority 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 regulations of commercial air services. Part III of the Act deals with matters of government internal administration in connection with the Act.

Recent Developments in Ground and other Facilities.-Airports and aerodromes coming under the jursidiction of the Department of Transport have been 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 in 17 airports. Twelve of Canada's civil airports are regular ports of call for international commercial air services.

[^268]Expansion of the weather forecasting services of the Meteorological Division of the Department of Transport has been made possible by the establishment of additional weather-observing stations in Arctic and sub-Arctic regions. Canada has undertaken to maintain for meteorological purposes, a weather-observing station, manned by three weather ships in the Pacific Ocean, 300 miles off Vancouver Island. This weather station was established in December 1950 as a result of Canada's undertaking with International Civil Aviation Organization.

Royal Canadian Flying Clubs.-At the end of 1951, there were 36 member clubs of the Royal Canadian Flying Clubs Association with a total membership of 4,000 . In 1950 there were 34 member clubs. During the year 1951, with 1950 figures in brackets, instructional hours flown totalled $51,190(25,659)$ and the number of aircraft utilized for instructional purposes was 140 (127). The number of students instructed and graduated as private pilots was 709 (601). In 1951 there were 116 who graduated as commercial pilots.

Air Industries and Transport Association.-Commercial flying schools that are members of the Air Industries and Transport Association numbered 44 at the end of 1951 as compared with 57 in 1950. During the year 1951, with 1950 figures in brackets, the number of students instructed and graduated as private pilots was 516 (597) and the number graduated as commercial pilots 134 (not separately listed in 1950). The number of instructional hours flown was 33,063 $(33, S 54)$.

International Air Agreements.-In recent years, Canada has been a signatory to agreements concerning civil aviation with Australia and New Zealand; Belgium, Germany, Ireland, Iceland, Netherlands, Portugal, Sweden 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.-During the years 1950 and 1951, with two exceptions, emphasis was placed on increasing service on existing routes rather than geographic expansion of operations. On Apr. 1, 1950, a service between Montreal and New York was inaugurated; this service ties in with the TorontoNew York service, and four flights daily are operated on these routes.

The volume of passenger traffic on North American service in 1951 was the greatest in the Company's fifteen-year history; the number of passengers carried exceeded the previous peak year, 1950, by 9,945 , and the total revenue-mileage flown increased by 11 p.c. A fourth daily trans-continental flight began on Apr. 1, 1951, and additional operations were provided on the majority of the other routes, including the trans-border services. Approximately 500 more airline seats were made available daily than at the height of the 1950 travel season and 10 p.c. more scheduled flying took place.

At Dec. 31, 1951, Trans-Canada Air Lines was providing service for passenger, mail and commodity traffic over nationwide routes, totalling 9,126 miles.

Trans-Canada Air Lines (Atlantic) Limited.-On Apr. 2, 1950, the Company began the first direct air service between Canada and the Southern United States, when Tampa, Florida, was included as a traffic stop on the route to the Bahamas and Jamaica.

On Apr. 1, 1951, a service was inaugurated between Montreal and Paris. This was the first direct link between Canada and Continental Europe to be provided by a scheduled Canadian carrier.

North Atlantic flight frequency rose to a daily round-trip by mid-summer of 1951 and continuing traffic was so heavy that this schedule was maintained throughout the remainder of the year. With record passenger traffic moving on both the North Atlantic and southern routes, the overseas services more than kept pace with the domestic operations in growth of business. In 1951, 22 p.c. more persons were transported on North Atlantic flights than in 1950, while the Bermuda and Caribbean passenger traffic increased by 41 p.c.

Overseas routes, touching at England, Scotland, Ireland, France, Bermuda, the Bahamas, Jamaica, Barbados, and Trinidad, totalled 8,688 miles at Dec 31, 1951.

## 1.-Passenger, Freight and Mail Traffic of Trans-Canada Air Lines, 1942-51

Source: Trans-Canada Air Lines Annual Report.

| Year | Revenue <br> Passenger Traffic ${ }^{1}$ |  | Revenue Commodity Traffic ${ }^{3}$ |  | Mail <br> Traffic |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Passenger miles | lb. | ton-miles | ton-miles |
| 1912. | 102,762 | 51,334,839 | 527,635 | 247,314 | 1,072,571 |
| 1943. | 140,276 | 78,508, 427 | 1,114,206 | 526,363 | 1,623,802 |
| 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 |
| 1916. | 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 |
| 1918. | 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 |

[^269]${ }^{2}$ Includes excess baggage and express.

## 2.-Operating Revenue and Expenditure of Trans-Canada Air Lines, 1942-51

- Source: Trans-Canada Air Lines Annual Report.

| Year | Passenger | Freight ${ }^{1}$ | Mail | Total Operating Revenue ${ }^{2}$ | Operating Expenditure ${ }^{3}$ | $\begin{gathered} \text { Net } \\ \text { Surplus }(+) \\ \text { or } \\ \text { Deficit }(-) \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | \$ |
| 1912. | 3,065,453 | 202,480 | 3,211,922 | 7,337,318 | 6,628,399 | +494,915 |
| 1943. | 4,213,599 | 390,163 | $3,515,807$ | 9,379,501 | $8,974,902$ | +147,889 |
| 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 |

${ }^{1}$ Express and excess baggage.
${ }^{2}$ Includes other revenue.
${ }^{4}$ Includes interest on capital invested.

Canadian Pacific Air Lines Limited.-This Company operates scheduled domestic services with a total of 9,525 route miles, and overseas services from Vancouver to Australia, New Zealand and the Orient, totalling 15,295 route miles.

The 15 scheduled domestic services operated by the Company supply regular transport between the larger cities and the far northern terminals and intermediate points. Additional licences have been obtained to permit the extension of operations to the Kitimat aluminum project in British Columbia, and to the uranium exploration centre at Goldfields in northern Saskatchewan.

The overseas services comprise a fortnightly service from Vancouver to Australia and New Zealand via San Francisco, Honolulu, Canton Islands and Fiji, and a weekly service to Tokyo and Hong Kong via the Great Circle. At the close of the year 1951, the South Pacific service was extended to include Auckland, New Zealand.

In August 1950, Canadian Pacific Air Lines Limited began transporting United Nations military personnel to the Korean war theatre, starting with twice weekly flights. In December this was increased to four weekly flights, one of which carries on from Tokyo to Hong Kong as the Company's regular weekly scheduled flight.

In 1951, gross revenue increased by 52 p.c. over the previous year. Operations in Canada and over the Pacific showed improvement; gross revenue from operations in Canada increased chiefly as a result of greater traffic volume, while revenue from Pacific operations was greater because the more frequent service to Tokyo was in effect for a full twelve months.

Following are traffic statistics for the years 1950 and 1951:

| Item |  |  | Domestic |  | North Pacific |  | South Pacific |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1950 | 1951 | 1950 | 1951 | 1950 | 1951 |
| Revenue | miles. | No. | 4,594,893 | 5,299,871 | 932,932 | 2,211,242 | 444,342 | 423,068 |
| " | passengers. | No. | 145,055 | 172,646 | 3,181 | 10,183 | 1,571 | 1,586 |
|  | goods. | lb. | 6,041,214 | 2,045, 734 | 56,330 | 52,321 | 1,534 | 8,090 |
| Mail. |  | lb. | 5,639, 744 | 1,909,112 | 12,755 | 23,902 | 1,124 | 1,660 |

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.
Rimouski Air Lines Limited, Mont Joli, Que.
The number of operating certificates in effect are: 44 scheduled; 312 nonscheduled, other than flying training; and 96 flying training.

Non-scheduled services are operated by the majority of the independent air lines. These services provide effective means of access to sections of Canada that are inaccessible by other modes 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 Services.-In 1951, there were 14 operating certificates issued to Commonwealth and foreign scheduled services flying into Canada:-

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, Canada; and New York, U.S.A.
American Airlines Inc.-Operating between Toronto, Ont., Canada, and New York, N.Y., U.S.A./Newark, N.J., U.S.A., direct or via Buffalo, N.Y., U.S.A.

British Commonwealth Pacific Airlines Limited.-The Canadian portion of the route operating between San Francisco, U.S.A., and Vancouver, Canada of the TransPacific Service between Sydney, N.S.W., Australia, and/or Auckland, New Zealand, and Vancouver, Canada.
British Overseas Airways Corporation.-Operating between London, England, and Montreal, Canada, and between London, England, and New York, U.S.A., both routes via Prestwick, Scotland, or Shannon, Ireland, and Gander, Canada.
Colonial Airlines Inc.-(a) Operating between the terminals Ottawa and Montreal, Canada, and New York, U.S.A., via Burlington or Massena, U.S.A., and (b) between the terminals Montreal and Ottawa, Canada and Washington, U.S.A. via Massena, U.S.A.
K.L.M. Royal Dutch Airlines.-The Canadian portion of the route between the terminals Amsterdam, the Netherlands, and Montreal, Canada; and the Canadian portion of the route between the terminals Montreal, Canada, and Willemstad, Curaçao, North West Indies.
Northeast Airlines Inc.-Operating between Montreal, Canada, and Boston, U.S.A.
Northwest Airlines Inc.-Operating between Winnipeg, Canada, and Fargo, N.D., U.S.A.; and between Minneapolis/St. Paul, U.S.A. and Edmonton, Canada; Anchorage, Alaska, and beyond.
Pan American World Airways, Inc.-Operating between Seattle, U.S.A., and Fairbanks, Alaska, via Juneau, Alaska, and Whitehorse, Y.T., with a refuelling stop at Port Hardy, B.C., and/or Comox, B.C.i and between New York, N.Y., Philadelphia, Penn., Boston, Mass., all in the U.S.A., and Gander, N'f'ld., Canada; Shannon, Ireland; London, England.
Sabena (The Société Anonyme Belge D'Exploitation de la Navigation A Árienne) -Operating between Brussels, Belgium, and New York, U.S.A., via Shannon, Ireland, and Gander, N'f'ld.
Scandinavian Airlines System.-Operating between Stockholm, Sweden; Oslo, Norway; Copenhagen, Denmark; Prestwick, Scotland; Gander, N'f'Id.; and New York, U.S.A


#### Abstract

T.W.A. (Trans-World Airlines Inc.).-Operating between New York, Washington, Philadelphia, Boston, U.S.A.; Gander, Canada; The Azores; Shannon, Ireland; London, England; Paris, France; and beyond.

United Air Lines Inc.-Operating between Vancouver, B.C., and Seattle via Bellingham, U.S.A.

Western Air Lines Inc.-Operating between Great Falls and Cut Bank, U.S.A., and Lethbridge and Edmonton, Canada; via Calgary and Penhold, Canada.


## Section 3.-Civil Aviation Statistics

Aircraft.-The Canadian aircraft industry on Mar. 31, 1952, consisted of the following companies making the civilian type of aircraft named:-

Canadair Limited, Montreal, Que., manufacturers of the North Star, Canadair Four and the converted Canadair Dakota;

Canadian Car and Foundry Company Limited, Montreal, Que., manufacturers of the Norseman:

DeHavilland Aircraft of Canada Limited, Toronto, Ont., manufacturers of the Beaver, Chipmunk and Otter;

Fairy Aviation Company of Canada Limited, Eastern Passage, N.S., conversion of trainer aircraft;

MacDonald Bros. Aircraft Limited, Winnipeg, Man., overhaul and conversion work;
Northwest Industries Limited, Edmonton, Alta., overhaul and conversion work;
A. V. Roe Canada Limited, Toronto, Ont., engaged in the design and construction of a jet-powered transport for inter-city operations, the AVRO Jetliner;

British Aeroplane Engines Limited, Vancouver, B.C., overhaul work;
Canadian Pratt and Whitney Aircraft Company Limited, Longueuil, Que., overhaul and maintenance work;

Canadian Wright Limited, Montreal, Que., overhaul and testing.
The principal statistics of the aircraft industry are shown for the latest available year (1949) in Chapter XVI, Manufactures.

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 which, with many additions and improvements, became the chain of airports constituting the TransCanada airways operated by the Department of Transport. To-day, Canada is well supplied with airports and aerodromes scattered throughout the country. The Department of Transport retained a certain number of the airports that had been constructed for war purposes and others were made available to municipalities for local use. The airports, airfields and anchorages in Canada are as classified in Table 3; and a statement is given showing the number of airports and airfields by provinces equipped with control facilities and certain other facilities.

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## 3.-Airports, Airfields and Anchorages, by Provinces, as at Mar. 31, 1951

Note.-Department of Transport figures: unlicensed airfields and anchorages not included.

| Item | N'f'ld. | $\frac{\mathrm{P}}{\dot{\mathrm{E}}} \underset{\mathrm{I}}{ }$ | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | $\stackrel{\mathrm{N}}{\mathrm{~W}} \underset{\mathrm{~W}}{\mathrm{~T}}$ | $\left.\begin{array}{\|c\|\|} \hline \mathrm{Y} \\ \mathrm{u}_{\mathrm{k}} \\ \mathrm{o} \\ \mathrm{n} \end{array} \right\rvert\,$ | $\begin{gathered} c \\ a \\ n \\ a \\ a \\ a \\ a \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Landing Areas |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Canadian Pacific Airlines airports (land) and airfields. | - | - | - | - | 7 | 1 | - | - | 2 | 1 | - | 2 | 13 |
| ports (water) and anchor- |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Department of Mines and | 1 | - | - | - | 7 | 4 | 5 | 2 | 2 | 1 | - | 1 | 23 |
| Technical Surveys airports (land) and airfields...... | - | - | - | - | - | - | - | - | 3 | - | 1 | 8 | 12 |
| Department of Mines and |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Technical Surveys airports (water) and anchorages... |  | - | -- |  | - | - | - | - | 2 | - | 8 | - | 10 |
| Department of Transport air- | - | - |  | - |  |  |  |  |  |  |  |  |  |
| ports (land) and airfields. | 3 | - | 5 | 5 | 11 | 40 | 5 | 6 | 8 | 23 | 10 | - | 116 |
| Municipal airports (land) and airfields. | - | 11 | 2 | 3 | 8 | 18 | 7 | 14 | 11 | 15 | - | - | 89 |
| Municipal airports (water) and anchorages........... | - | - | - | 1 | - | 2 | 1 | - | 1 | 3 | - | - | 8 |
| Provincial Air Services air ports (water) and anchor |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ages................ | - | - | - | - | - | 14 | 10 | 1 | - | - | - | - | 25 |
| Royal Canadian Air Force airports (land) and airfields | 1 | 1 | 1 | 2 | 1 | 13 | 6 | 2 | 4 | 4 | 2 | 5 | 42 |
| Royal Canadian Air Force airports (water) and anchorages. $\qquad$ | - | - | - | 1 | 1 | 1 | - | - | - | 2 | - | - | 5 |
| United States Army Air |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Forces airports (land) and airfields. | 2 | - | - | - | - | - | - | - | - | - | 1 | - | 3 |
| Totals, Landing Areas. | 7 | 12 | 8 | 12 | 35 | 93 | 34 | 25 | 33 | 49 | 22 | 16 | 346 |
| Summary |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 6 1 | $\underline{12}$ | 8 | 10 | 8 | ${ }_{21}^{72}$ | 18 | ${ }_{3}^{22}$ | 5 | ${ }_{6}^{43}$ | ${ }^{14} 8$ | 15 1 | ${ }_{71}$ |
| Control and Auxiliary Facilities |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Airports (land) and airfield control. | 4 | 1 |  | 2 | 4 |  | 4 | 1 | 4 |  | - | 2 |  |
| Airports (water) control...... | - | - | 1 | 2 | - | 2 |  |  |  | 2 |  |  | 5 |
| Hard surfaced airports and airfields. | 5 | 2 | 9 | 8 | 12 | 39 | 15 | 13 | 14 | 21 | 3 | 2 | 143 |
| Lighted airports (land) and | 5 | 2 |  |  |  | 34 | 8 | 9 | 15 |  | 11 | 9 |  |
| Lighted airports (water) ..... | 1 |  | 1 | - | 1 | 1 |  |  |  | 5 |  |  | ${ }^{9}$ |

Air Traffic Control.-The function of Air Traffic Control is 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. The following services are provided: (1) Airport Control, (2) Area Control, (3) Flight Information, and (4) Alerting for Search and Rescue.
(1) 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.
Continued increase in air traffic, both civil and military, made it necessary to expand this service by the establishment of additional control towers. Aircraft operations for 1949,1950 and 1951 totalled 711,560, 784,690 and 968,436 , respectivelyan increase of 256,867 or approximately 36 p.c. in a three-year period. 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, Ottawa, and North Bay, Ont.; Montreal, Cartierville and Quebec, Que.; Moncton, N.B.; Sydney, N.S.; and Gander, N'f'ld.
(2) Area Control is designed particularly to provide air traffic control service to aircraft operating within controlled airspace during weather conditions that prevent a pilot from seeing other aircraft or obstructions and necessitates his reliance on instructions 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.
(3) 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, and other related data of assistance to the pilot in planning or conducting a flight.
(4) The Alerting for Search and Rescue service 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.

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, 1946-51

Nots.-Figures from 1921 are given in the corresponding table of previous Year Books beginning with the 1924 edition.

| Item | 19461 | 19471 | $1948{ }^{1}$ | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aircraft Miles Flown- <br> Revenue................. No. <br> Non-revenue. $\qquad$ | $\begin{array}{r} 25,844,570 \\ 2,424,219 \end{array}$ | $\begin{array}{r} 33,186,617 \\ 2,845,952 \end{array}$ | $\begin{array}{r} 35,852,977 \\ 2,481,124 \end{array}$ | $\begin{array}{r} 35,925,311 \\ 1,821,675 \end{array}$ | $\begin{array}{r} 39,901,935 \\ 1,466,559 \end{array}$ | $\begin{array}{r} 46,253,726 \\ 1,905,996 \end{array}$ |
| Totals. | 28,268,789 | 36,032,569 | 38,334,101 | 37,746,986 | 41,368,494 | 48,159,722 |
| Passengers Carried- <br> Revenue ${ }^{2} \ldots \ldots \ldots .$. ........ <br> Non-revenue ${ }^{3}$. $\qquad$ | 802,811 24,356 | $\begin{array}{r} 836,047 \\ 46,450 \end{array}$ | $\begin{array}{r} 1,054,778 \\ 41,695 \end{array}$ | $\begin{array}{r} 1,211,149 \\ 45,763 \end{array}$ | $\begin{array}{r} 1,452,081 \\ 48,113 \end{array}$ | $\begin{array}{r} 1,788,558 \\ 53,154 \end{array}$ |
| Totals.......... " | 833,840 | 893,171 | 1,103,798 | 1,267,865 | 1,511,021 | 1,888,689 |
| Passenger Miles- <br> Revenue .... $\qquad$ No. <br> Non-revenue ${ }^{3}$ " | $\begin{array}{r} 206,776,408 \\ 8,769,569 \end{array}$ | $\begin{array}{r} 237,986,178 \\ 19,959,207 \end{array}$ | $\begin{array}{r} 321,704,118 \\ 20,981,112 \end{array}$ | $\begin{array}{r} 392,507,141 \\ 23,882,322 \end{array}$ | $\begin{array}{r} 474,367,165 \\ 25,213,468 \end{array}$ | $\begin{array}{r} 585,701,475 \\ 25,228,048 \end{array}$ |
| Totals......... " | 215,545,977 | 257,945,385 | 342,685,230 | 416,389,463 | 499,580,633 | 610,929,523 |
| Freight Carried- <br> Revenue ${ }^{4}$ $\qquad$ lb. <br> Non-revenue. $\qquad$ " | $\begin{array}{r} 23,656,502 \\ 1,335,998 \end{array}$ | $\begin{array}{r} 31,633,437 \\ 2,357,529 \end{array}$ | $\begin{array}{r} 33,633,045 \\ 2,696,744 \end{array}$ | $\begin{array}{r} 32,852,373 \\ 3,232,369 \end{array}$ | $\begin{array}{r} 42,141,292 \\ 3,443,521 \end{array}$ | $\begin{array}{r} 53,542,103 \\ 4,129,524 \end{array}$ |
| Totals.. | 25,173,760 | 34,241,378 | 37,262,712 | 37,097,767 | 46,681,194 | 61,693,191 |
| Freight Ton Miles- <br> Revenue................... <br> Non-revenue. $\qquad$ | $\begin{array}{r} 1,892,391 \\ 410,560 \end{array}$ | $\begin{array}{r} 2,985,618 \\ 684,622 \end{array}$ | $\begin{aligned} & 4,248,630 \\ & 1,209,630 \end{aligned}$ | $\begin{aligned} & 4,669,861 \\ & 1,645,052 \end{aligned}$ | $\begin{aligned} & 6,420,693 \\ & 1,658,520 \end{aligned}$ | $\begin{aligned} & 8,274,995 \\ & 1,900,940 \end{aligned}$ |
| Totals.......... | 2.302,951 | 3,670,240 | 5,458,260 | 6,314,913 | 8,079,213 | 10,175,935 |
| Mail carried............. Ib. Mail ton-miles. $\qquad$ No. | $\begin{aligned} & \mathbf{5}, 930,338 \\ & 1,534,919 \end{aligned}$ | $6,965,895$ $1,646,136$ | $10,110,252$ $2,860,796$ | $13,506,220$ $4,108,488$ | $14,241,523$ $4,293,447$ | $\begin{array}{r} 16,485,558 \\ 4,736,524 \end{array}$ |

For footnotes, see end of table, p. 812.
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## 4.-Summary Statistics of Civil Aviation, 1946-51-concluded

\begin{tabular}{|c|c|c|c|c|c|c|}
\hline Item \& \(1946{ }^{1}\) \& \(1947{ }^{1}\) \& 1948 \({ }^{1}\) \& 1949 \& 1950 \& 1951 \\
\hline \begin{tabular}{l}
Hours Flown by Aircraft- \\
Transportation \\
revenue................No. \\
Transportation nonrevenue. \\
Patrols, surveys, etc...
\end{tabular} \& \begin{tabular}{l}
164,649 \\
19,542 \\
26,011
\end{tabular} \& 218,713
25,338
39,411 \& \begin{tabular}{l}
20,373 \\
48,308
\end{tabular} \& 227,563
14,770
37,988 \& \[
\begin{array}{r}
246,653 \\
12,409 \\
48,654
\end{array}
\] \& \[
\begin{array}{r}
478,523 \\
22,738 \\
50,475
\end{array}
\] \\
\hline Totals......... " \& 210,202 \& 283,462 \& 299,538 \& 280,321 \& 307,716 \& 551,736 \\
\hline \begin{tabular}{l}
Hours flown by crew.... No. \\
Hours flown by passengers. \\
Horse-power hours flown by aircraft.
\end{tabular} \& 449,844
\(1,302,358\) \& \begin{tabular}{l}
.. \\
.. \\
\hline.
\end{tabular} \& \begin{tabular}{l}
.. \\
\(\cdots\) \\
\hline.
\end{tabular} \& .
.
. \& ..
..
.. \& .
.

. <br>
\hline Gasoline consumption... gal. Lubricating oil consumption. $\qquad$ \& $11,278,759$
149,829 \& $13,922,451^{5}$
$184,454{ }^{5}$ \& $17,030,203^{5}$
225,2395 \& $16,987,122$
227,382 \& $22,088,575$
275,370 \& $29,596,490$
333,557 <br>

\hline | Licensed civil airports (all types). $\qquad$ No. |
| :--- |
| Licensed Civil Aircraft (all 'types)- | \& 161 \& 273 \& $286{ }^{\text {r }}$ \& 336 \& \[

$$
\begin{aligned}
& 279 \\
& \text { Year } \\
& \text { Ended } \\
& \text { Mar.31, } \\
& 1951
\end{aligned}
$$

\] \& \[

$$
\begin{gathered}
\text { Year } \\
\text { Ended } \\
\text { Mar. } 31 \text {, } \\
1952
\end{gathered}
$$
\] <br>

\hline $$
\begin{aligned}
& \text { Up to } 2,000 \mathrm{lb} . . . \text { No. } \\
& 2,001-4,00 \mathrm{lb} . . \\
& 4,001-10,000 \mathrm{lb} . . . \\
& \text { Over } 10,000 \mathrm{lb} . \\
& 10,001-20,000 \mathrm{lb} . . . \\
& \text { Over } 20,000 \mathrm{lb} . . .
\end{aligned}
$$ \& $\begin{array}{r}639 \\ 73 \\ 176 \\ -\quad 68 \\ \hline\end{array}$ \& 986

440
312

135 \& $\begin{array}{r}1,001 \\ 403 \\ 451 \\ 166 \\ \hline\end{array}$ \& \[
$$
\begin{array}{r}
1,018 \\
414 \\
-\quad 398 \\
-\quad 30 \\
113
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
1,169 \\
483 \\
-\quad 446 \\
-\quad 32 \\
112
\end{array}
$$
\] \& 1,170

527
454
$-\quad 31$
119 <br>
\hline Totals, Aircraft. \& 956 \& 1,873 \& 2,021 \& 1,973 \& 2,242 \& 2,301 <br>
\hline Ownership,CommercialUp to $2,000 \mathrm{lb}$. $\qquad$ 2,001-4,000 lb. $\qquad$ $4,001-10,000 \mathrm{lb}$. $\qquad$ Over $10,000 \mathrm{lb}$. $\qquad$ $10,001-20,000 \mathrm{lb}$. Over $20,000 \mathrm{lb}$.
$\qquad$
$\qquad$ \& 434
57
124
$-\quad 56$
$-\quad 1$ \& $\begin{array}{r}635 \\ 310 \\ 261 \\ -\quad 124 \\ \hline\end{array}$ \& 456
258
356
151
$-\quad$ \& 557
264
261
$-\quad 23$
102 \& 593
279
-300
$-\quad 24$
101 \& 577
282
387
$-\quad 25$
113 <br>

\hline | Ownership, Other- |
| :--- |
| Up to $2,000 \mathrm{lb}$. $\qquad$ |
| 2,001-4,000 lb. |
| ....... |
| 4,001-10,000 lb. |
| Over $10,000 \mathrm{lb}$ $\qquad$ $\qquad$ |
| Over $20,000 \mathrm{lb}$. $\qquad$ | \& 205

16
52
$-\quad 12$

$-\quad 1$ \& \[
$$
\begin{array}{r}
351 \\
130 \\
51 \\
-\quad 11 \\
\overline{\text { Year }} \\
\begin{array}{c}
\text { Ended } \\
\text { Mar. } 31, \\
1948
\end{array} \\
\hline
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
545 \\
145 \\
95 \\
-\quad 15 \\
= \\
\text { Year } \\
\text { Ended } \\
\text { Mar. } 31, \\
1949
\end{array}
$$
\] \&  \& 576

204
146
$-\quad 8$
11 \& 593
245
$-\quad 67$
$-\quad 6$
6 <br>

\hline | Licensed Civil Air Personnel- |
| :--- |
| Commercial pilots.... No. Commercial pilots. $\qquad$ Senior commercial.... Airline transport......" " Glider pilots. | \& 88 \& 1948

$-\quad 76$ \& 1949
$-\quad 65$ \& 1950
$-\quad 56$ \& 446
484
157
87
83
33 \& 386
807
165
165
165
77 <br>

\hline | Limited commercial pilots. |
| :--- |
| Transport pilots. Private pilots. $\qquad$ Air navigators.. Air traffic controllers.. Air engineers. | \& $\begin{array}{r}1,149 \\ 1,123 \\ - \\ \hline 1,269\end{array}$ \& | 1,087 |
| :--- |
| 801 |
| 1,910 |
| $-1,534$ | \& $\begin{array}{r}864 \\ 837 \\ 2,491 \\ \hline-1,640\end{array}$ \& $\begin{array}{r}653 \\ 775 \\ 2,603 \\ - \\ \hline 1,623\end{array}$ \& 8

3,546
-
1,546 \& 612
$-\quad 4,444$
28
172
1,402 <br>
\hline
\end{tabular}

Table 5 shows civil aviation figures for 1949-51 by type of service. For a definition of scheduled and non-scheduled carriers, see p. 805. 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 Statistics of Civil Aviation by Type of Service, 1949-51

| Year and Item | Canadian Carriers |  | Foreign International | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | Scheduled | NonScheduled and Other |  |  |
| 1949 |  |  |  |  |
| Aircraft Miles Flown- <br> Revenue transportation $\qquad$ No. <br> Non-revenue transportation $\qquad$ | $23,136,870$ 915,601 | 11,424,902 | $1,363,539$ 9,024 | $35,925,311$ $1,821,675$ |
| Totals. | 24,052,471 | 12,321,952 | 1,372,563 | 37,746,986 |
| Passengers Carried-1 |  |  |  |  |
| Revenue............................... No. Between foreign stations. | 795,804 | 155,599 | 211,087 10,953 | $\begin{array}{r} 1,162,490 \\ 10,953 \end{array}$ |
| Non-revenue........................... " | 39,854 | 2,219 |  | 45,763 |
| Totals. | 835,658 | 157,818 | 225,730 | 1,219,206 |
| Passenger Miles- <br> Revenue. . <br> Non-revenue. $\qquad$ | $\begin{array}{r} 367,702,955  \tag{No.}\\ 22,861,152 \end{array}$ | $\begin{array}{r} 9,742,339 \\ 265,738 \end{array}$ | $\begin{array}{r} 15,061,847 \\ 755,432 \end{array}$ | $\begin{array}{r} 392,507,141 \\ 23,882,322 \end{array}$ |
| Totals........................ " | 390,564,107 | 10,008,077 | 15,817,279 | 416,389,463 |
| Freight Carried-1 $\quad 15.349$, 058 15, 231,790 |  |  |  |  |
| Revenue........................... ${ }_{\text {el }}^{\text {Retween foreign stations.......... }}$ | 15,349,958 |  | $2,215,245$ $1,013,025$ | $32,796,993$ $1,013,025$ |
| Non-revenue. . | 2,645,985 | 230,747 | 355,637 | 3,232,369 |
| Totals. | 17,995,943 | 15,462,537 | 3,583,907 | 37,042,387 |
| Freight Ton Miles- |  |  |  |  |
|  | $\begin{aligned} & 3,412,438 \\ & 1,450,810 \end{aligned}$ | $\begin{array}{r} 777,224 \\ 15,568 \end{array}$ | $\begin{aligned} & 480,199 \\ & 178,674 \end{aligned}$ | $\begin{aligned} & 4,669,861 \\ & 1,645,052 \end{aligned}$ |
| Totals. | 4,863,248 | 792,792 | 658,873 | 6,314,913 |
| Mail carried................................................................................. Mail ton-miles..... | $\begin{array}{r} 11,769,964 \\ 3,837,202 \end{array}$ | $\begin{array}{r} 371,834 \\ 16,145 \end{array}$ | $\begin{gathered} 1,364,422^{2} \\ 255,141 \end{gathered}$ | $\begin{array}{r} 13,506.220 \\ 4,108,488 \end{array}$ |
| Hours Flown by Aircraft- <br> Transportation revenue. <br> Transportation non-revenue. $\qquad$ $\qquad$ <br> Patrols, surveys, etc. $\qquad$ | $\begin{array}{r} 138,428 \\ 5,904 \\ 1,281 \end{array}$ | $\begin{array}{r} 70,824 \\ 8,810 \\ 47,107 \end{array}$ | 7,911 56 | $\begin{array}{r} 217,163 \\ 14,770 \\ 48,388 \end{array}$ |
| Totals. | 145,613 | 126,741 | 7,967 | 280,321 |
| Gasoline consumption. ..................... gal. Lubricating oil consumption.............. | $\begin{array}{r} 16,574,129 \\ 205,852 \end{array}$ | $\begin{array}{r} 1,792,646 \\ 35,186 \end{array}$ | $\begin{array}{r} 1,186,801 \\ 11,338 \end{array}$ | $\begin{array}{r} 19,553,576 \\ 252,376 \end{array}$ |

For footnotes, ses end of table, p. 815.
5.-Summary Statistics of Civil Aviation by Type of Service, 1949-51-continued


For footnotes, see end of table.
5.-Summary Statistics of Civil Aviation by Type of Service, 1949-51-concluded

| Year and Item | Canadian Carriers |  | Foreign International | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | Scheduled | NonScheduled and Other |  |  |
| 1951-concluded |  |  |  |  |
| - Freight Carried-1 | 27,575, 021 | 22,593,883 |  | 53,438,644 |
| Retween foreign stations................ |  | , - | 4,021,564 | 4,021,564 |
| Non-revenue......................... " | 3,168,327 | 202,171 | 759,026 | 4,129,524 |
| Totals......................... | 30,743,348 | 22,796, 054 | 8,050,330 | 61,589,732 |
| Freight Ton Miles- | 5,973,629 | 1,062,672 | 1,238,694 | 8,274,995 |
| Non-revenue........................ ${ }^{\text {R }}$. | 1,635,402 | 15,871 | 249,667 | 1,900,940 |
| Totals...................... | 7,609,031 | 1,078,543 | 1,488,361 | 10,175,935 |
| Mail carried......................... lb . | 13,446,028 | 494,380 | 2,545, 150 ${ }^{4}$ | 16,485,558 |
| Mail ton miles......................... No. | 4,412,143 | 42,537 | 281,844 | 4,736,524 |
| Hours Flown by Aircraft- Transportation revenue.............. No. | 185,755 | 96,283 | 10,730 | 292,768 |
| Transportation non-revenue............. ". | 7,546 | 7,614 | - 32 | 15,192 |
| Patrols, surveys, etc. ................ | 1,348 | 47,779 | - | 49,127 |
| Totals....................... " | 194,649 | 151,676 | 10,762 | 357,087 |
| Gasoline consumption............... gal. | 21,662,791 | 2,357,458 | 5,576,241 | 29,596,490 |
| Lubricating oil consumption............. " | 228,432 | 50,204 | 54,921 | 333,557 |

[^270]
## 6.-Capital Investment of the Department of Transport in Air Services, Years Ended Mar. 31, 1949-51

Note.-Compiled from Department of Transport records.

| Item | 1949 | 1950 | 1951 | $\begin{aligned} & \text { Total as } \\ & \text { at Mar. 31, } \\ & 1951 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | S | $\$$ | \$ |
| AIrways and AIrportsCivil Aviation- |  |  |  |  |
|  |  |  |  |  |
| Capital appropriations...................... | 8.998,529 | 10,127,684 | 6,114,094 | 37,624, 738 |
| War appropriations- |  |  |  |  |
| Transferred from other government departments. | 7,892,411 | 135, 849,609 | 233,011 | - |
| Value of properties transferred to Crown Assets Disposal Corporation. | Cr. 2,447,539 | - |  | 213,053,694 |
| Property retired through obsolescence, | Cr. 2,447,539 |  | Cr.53,614,833 | 213,053,694 |
| loss or abandonment................... | Cr. 103,703 | Cr. $\quad 7.576$ | Cr. 367,675 | - |
| Air Ministry of United Kingdom ${ }^{1}$. . . . . . . . | - | - | - | 4,913,091 |
| Telecommunications DivisionAviation Radio Aids- |  |  |  |  |
| Ordinary appropriations.. | , $\overline{722}$ | - 27 | - | 336,180 |
| Capital appropriations.................. | 1,722,146 | 1,274,764 | 1,303,894 | 12,139,813 |
| War appropriations- <br> Transferred from other government <br> departments. | - | 4,390,149 | - | 5,645,960 |
| Totals, Airways and Airports......... | 16,131,844 | 151, 152,844 ${ }^{2}$ | Cr. 51,361,509 | 274,562,529 |

For footnotes, see end of table, p. 816.

## 6.-Capital Investment of the Department of Transport in Air Services, Years Ended Mar. 31, 1949-51-concluded

| Item | 1949 | 1950 | 1951 | Total as at Mar. ${ }_{1951}^{31 \text {, }}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| Telecommunications Division (excluding Aviation Radio Aids)- |  |  |  |  |
| Radio Act and Regulations................ | 4,578 | 17,002 | 64,368 | 85,948 |
| Radio Aids to Marine Navigation- |  |  |  |  |
| Ordinary appropriations................. | 176, $6588^{3}$ | 202,418 | 207,688 | 586,764 |
| War appropriations..................... | 797,2813 ${ }^{3}$ |  |  | 797,281 |
| Suppression of Radio Interferences.......... | 11,242 | 16,878 | 12,302 | 40,422 |
| Totals, Other Radio Facilities. | 188,458 | 236,298 | 284,358 | 1,510,415 |
| Meteorological Facilities-General- |  |  |  |  |
| Ordinary appropriations. | 223,396 | 331,689 489,279 | 390,219 | $1,210,318$ 492,099 |
| War appropriations. | - | 489,279 |  | 492,099 |
| Totals, Meteorological Facilities. | 223,396 | 800,394 ${ }^{2}$ | 390,219 | 1,702,417 |
| Canadian Government Transatlantic Air Service. | - | - | - | 4,788,369 |
| Grand Totals ${ }^{4}$. | 16,543,698 | 152,189,536 ${ }^{2}$ | Cr. 50,686,932 | 282,563,730 |

${ }^{1}$ Property constructed at Montreal (Dorval), Que., to Feb. 15, 1946, and North Bay, Ont., to Dec. 31, 1945, acquired by Federal Government under agreements of June 24, 1943, and June 5, 1944, respectively. ${ }^{2}$ Includes ordinary appropriations of meteorological aviation amounting to $\$ 12,486$ and war appropriations of $\$ 469,300$, other meteorological facilities amounting to $\$ 594$ and $\$ 19,980$, respectively.

3 Includes $\$ 4,020$ other ordinary appropriations and $\$ 797,281$ war appropriations. 4 Excludes expenditure for construction and development of airways and airports from unemployment relief appropriations to the extent of $\$ 3,811,164$ made by Department of National Defence prior to establishment of Department of Transport in 1936; grants to municipalities to assist in development of airways and airports to the extent of $\$ 4,025,635$; and expenditure made by Department of National Defence (Air) or other Federal Government Departments which have not been transferred to Department of Transport.

## 7.-Operation and Maintenance Expenditure and Revenue of the Department of Transport in connection with Air Services Branch, Years Ended Mar. 31, 1949-51

Note.-Compiled from Department of Transport records.

| Expenditure | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: |
| Expenditure | 8 | 8 | \$ |
| Airways and Airports: Civil Aviation and Aviation Radio Aids- |  |  |  |
| Control of Civil Aviation. | 583,909 | 647,810 | ${ }^{672.540}$ |
| Construction Services-adm |  |  | ${ }_{252} 712,177$ |
| Grants to aeroplane clubs... ${ }_{\text {Grante }}$ (to National Research Council............................ | 10,000 | 158,000 50,000 | 252,177 50,000 |
| Grants to National Research Council Mo....................... | 50,000 |  |  |
| Ordinary... | 3,326,909 | 6,468,470 | 7,914,467 |
| Aviation radio aids | 3,446,428 | 4,022,365 |  |
| Contributions to assist | ${ }^{25,000}$ | 97.297 30 | 196,027 |
| Contributions to State of Michigan. | 20,000 | 30,420 | 24,849 |
| Contribution to Trans-Canada Air Lines for improvements to airway facilities at Kinross, U.S.A. | 19,000 | - | - |
| Contribution to International Civil Aviation Organization re |  |  | 22,333 |
| Contribution to Denmark in joint support of North Atlantic | 122,000 | 37,079 |  |
| Air Navigation facilities in the Faroes and Greenland. | - | 174,311 | 70,172 |
| Contribution to South Pacific Air Transport Council |  |  | ${ }_{3}^{224} \mathbf{4}$ |
| Investigation of the "Canadian Pilgrims" aircrait acei. | 903,409 | 991,496 | 1,054,674 |
| Deficit: Trans-Canada Air Lines. | 2,933,240 | 4,317,593 |  |
| Northwest Communication System- |  |  |  |
| Operating deficit-demobilization and re Ordinary | 233,356 | 54,310 | 39,703 |
| War appropriations expenditure. | 1,208,520 | 1,016,085 | - |
| Government Employees Compensation Act | 10,852 |  |  |
| Totals, Airways and Airport | 12,892,623 | 18,065,236 | 15,302,583 |

## 7.-Operation and Maintenance Expenditure and Revenue of the Department of Transport in connection with Air Services Branch, Years Ended Mar. 31, 1949-51 <br> -continued

| Expenditure and Revenue | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: |
| Expenditure-concluded | \$ | \$ | \$ |
| Telecommunications Division (excluding Aviation Radio Aids)- |  |  |  |
| Administration of Radio Act and Regulations-Ordinary....... | 634,008 | 1,011,211 | 802,727 |
| Radio Aids to Marine Navigation-Ordinary.. | 1,294, 454 | 1,534,935 | 1,546,860 |
| Suppression of radio interferences. | 283,310 | 296,574 | 323,997 |
| Issue of radio receiving licences. | 611,919 | 637,381 | 675,780 |
| Telegraph and Telephone Services- | 1,130,421 | 1,217,171 | 1,216,860 |
| Construction and improvements............. | 106,614 | 326,160 | 226,939 |
| Government Employees Compensation Act. | 5,069 |  |  |
| Totals, Telecommunications Division (excluding Aviation Radio Aids). | 4,085,795 | 5,023,432 | 4,793,163 |
| Meteorological Facilities: GeneralOperation and maintenance. | 3,960,079 | 4,550,319 | 5,126,975 |
| Government Employees Compensation Act. | 1,009 |  |  |
| Totals, Meteorological Facilities. | 3,961,088 | 4,550,319 | 5,126,975 |
| Totals, Expenditure | 21,149,538 | 27,990,651 | 25,657,180 |
| Revenue and Receipts |  |  |  |
| Civil Aviation- ${ }^{\text {- }}$ - |  |  |  |
| Airways and Airports (including Aviation Radio Aids)- | 2,822 | 2,589 | 3,995 |
| Aircraft registration fees. | 4,461 | 3,703 | 3,586 |
| Airport licences........... | 570 | 366 | 580 |
| Airworthiness certificates | 1,575 | 905 | 815 |
| Fines-Aeronautics Act and Regulatio | 1,124 | 1,207 | 793 |
| Airport landing fees... | 426,742 | 1,558,816 | 1,791,191 |
| Rental at airports. | 328,627 | 337,413 | 621,088 |
| Outside and hangar space rental | 342,403 | 309,350 | 364,472 |
| Rental of equipment. | 13,534 | 10,499 | 11,927 |
| Rental-employees quar | 87.195 | 192,151 | 128,568 |
| Miscellaneous rentals | 30,306 | 23,401 | 48,532 |
| Power service. | 59,041 | 61,515 | 72,163 |
| Concessions- ${ }^{\text {Gasoline and oil }}$ | 173,878 | 326,827 | 361,088 |
| Taxi. | 29,897 | 20,379 | 21.743 |
| Telephone. | 2,685 | 2,841 | 4,162 |
| Restaurants and snack | - | 5,649 | 19,684 |
| Other | - | 7,665 | 14,355 |
| Telephone service | 33,614 | 41,461 | 23,939 |
| Airport radio service to aircraf | 82,263 | 75,104 | 229,564 |
| Radio message tolls. | 28,952 | 28,727 | 35,960 |
| Mess receipts. | 27,950 | 23,957 | 29,262 |
| Mess halls accommoda | - |  | 5.388 5,890 |
| Sales, miscellaneous | - | 9,272 | 5,890 |
| Aircraft servicing other than repair | - | 10,938 | 7,362 |
| Observation roof-turnstiles. | $\bar{\sim}$ |  | 17,952 |
| Miscellaneous revenue. | 28,954 | 18,163 | 47.540 |
| Gander Airport- |  |  |  |
| Airlines hotel accommodation. | - | 31,565 | 33,799 |
| Skyways Club............ | - | 64,356 | 81,629 |
| Terminal charges | - | 187,527 | 298,606 |
| Novelty shop | - | 49,280 | 12,362 |
| Cosl sales. |  | 22,361 | 27,832 |
| Mess hall board | - | 180,944 | 58,915 |
| Airlines hotel dining-room | - | 114,433 | 121,893 |
| Airlines hotel bar | - | 31,184 | 49,305 |
| Skyways Club snack ba | - | 281,220 | 290,222 |
| Skyways Club bar. | - | 82,158 | 114,006 |
| Laundry. | - | 28,595 | 34,018 |
| Dry-cleaning plant. | - | 15,648 | 15,657 |
| Recoverable service |  | 35,057 | 57,508 |
| Heating. | - | 78,675 | 112,021 |
| Electricity | - | 79,668 | 101,803 |
| Brkery. |  | 34,774 | 49,945 |
| Sanitary fee | - | 7,875 | 7,774 |
| Bus operation | - | 16,868 | 5,313 |
| Sundries. |  | 4,847 | 111 |
| Refund of previous year's expenditure | 40,992 | 21,516 | 113,273 |
| Totals, Airways and Airports. | 1,747,585 | 4,441,449 | 5,457,591 |

## 7.-Operation and Maintenance Expenditure and Revenue of the Department of Transport in connection with Air Services Branch, Years Ended Mar. 31, 1949-51 -concluded

| Revenue and Receipts | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: |
| Revenue and Receipts-concluded | \$ | \$ | \$ |
| Telecommunications Division (excluding Aviation Radio Aids)- |  |  |  |
| Radio operators' examination fees................................. | 1,255 | 1,013 | 990 |
| Radio Station Licences- <br> Aircraft station | 7.749 |  |  |
| Amateur experimental station. | 14,378 | re, ${ }^{7,974}$ | 8,755 16.856 |
| Commercial receiving station. | 14, 231 | -224 | 16.839 |
| Experimental station.. | 590 | 880 | 760 |
| Limited coast station | 351 | 650 | 750 |
| Municipal police private commercial station | 113 | 133 | 413 |
| Private commercial station. | 18,561 | 26,139 | 32,958 |
| Public commercial station. | 3,905 | 4,880 | 6,790 |
| Ship station...................... | 17,668 | 22,606 | 26,774 |
| Technical or training school station | 25 | 130 | 32 |
| Sale of transport publications. | 806 | 1,104 | 357 |
| Fines-Radio Act and Regulations............................... | 39,496 | 28,851 | 37,839 |
| Radio Message Tolls- ${ }_{\text {Department of Transport operated coast stations.............. }}$ | 127,197 | 113,580 | 100,475 |
| Marconi operated coast stations .................. | 56.740 | 59,237 | 65,477 |
| Rentals-living quarters-employees | 17,930 | 22,104 | 22,345 |
| Other. | 689 | 2,506 | 1,860 |
| Government telegraph and telephone tolls | 498,138 | 521,729 | 610,601 |
| Mess receipts. | , | 1,854 | 1,816 |
| Sundries. | 235 | 6,236 | 623 |
| Refunds previous year's expenditur | 9.794 | 8,831 | 63,836 |
| Totals, Telecommunications Division | 815,851 | 846,380 | 1,000,546 |
| Meteorological Facilities-General- |  |  |  |
| Rentals-living quarters-employees. | 14,470 | 29,403 | 36,849 |
| Sther................... | 246 | 29 | 87 |
| Sale of transport publications....... | 853 | 1,034 | 1,574 |
| Department of Transport operated coast stations. | 3,440 | 1,495 | 1,530 |
| Air-ground radio service. | 720 | 960 | 880 |
| Communication facilities-inter-office |  | 361 | 603 |
| Sundries........................... | ${ }_{5}^{55}$ | 1,171 | 8, ${ }^{6}{ }^{6}$ |
| Refunds of previous year's expenditure | 5,056 | 4,773 | 8,454 |
| Totals, Meteorological Facilities | 24,840 | 39,226 | 49,983 |
| Totals, Revenue and Receipts | 2,588,276 | 5,327,055 | 6,508,120 |

No statistics are available regarding 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 1949 and 1950 is shown in Table 8.

## 8.-Cost of Property, Revenue and Expenditure for Scheduled and Other Commercial Air Carriers, 1949 and 1950

| Year and Item | Commercial Canadian Carriers |  |  |
| :---: | :---: | :---: | :---: |
|  | Scheduled | Other | Total |
| 1949 | \$ | \$ | \$ |
| Property AccountAircraft | 17,004,265 | 2,077,265 | 19,081,530 |
| Aircraft engines. | 4,537,408 | 2,361,691 | 4,899,099 |
| Buildings and improvements | $3,720,142$ | 668,419 | $4,388,561$ |
| Miscellaneous.............. | 3,711,489 | 668,363 | 4,379,852 |
| Totals, Cost of Property | 28,973,304 | 3,775,738 | 32,749,042 |
| Revenue and Expenditure- |  |  |  |
| Revenue..... | $34,566,124$ $35,066,914$ | $5,014,897$ $5,313,684$ | 40,380,598 |

## 8.-Cost of Property, Revenue and Expenditure for Scheduled and Other Commercial Air Carriers, 1949 and 1950-concluded

| Year and Item | Commercial Canadian Carriers |  |  |
| :---: | :---: | :---: | :---: |
|  | Scheduled | Other | Total |
| 1950 | \$ | \$ | \$ |
| Property AccountAircraft. | 14,421,026 | 1,801,957 | 16,222,983 |
| Aircraft engines. | 3,958,155 | 1,853,424 | 4,311,579 |
| Buildings and improvements. | 3,521,755 | 408,883 | 3,930,638 |
| Miscellaneous................. | 3,663.700 | 525,015 | 4,188,715 |
| Totals, Cost of Property. | 25,564,636 | 3,089,279 | 28,653,915 |
| Revenue and Expenditure- |  |  |  |
| Revenue.... | $43,600,117$ $42,445,956$ | $5,463,486$ $5,527,719$ | $49,063,603$ 47 |

Employees and Salaries and Wages.-The numbers of civil air personnel licensed in recent years are shown in Table 4, p. 812. However, these figures 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, 1949 and 1950

| Class of Employee | Scheduled |  | Non-Scheduled |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1949 | No. | \$ | No. | \$ | No. | \$ |
| General officers. | 349 | 1,796,230 | 51 | 178,029 | 400 | 1,974,259 |
| Clerks. | 890 | 1,813,158 | 60 | 113,138 | 950 | 1,926,296 |
| Pilots. | 196 | 1,697,354 | 143 | 490,525 | 339 | 2,187,879 |
| Co-pilots | 173 | 797,519 | 1 | 3,748 | 174 | 801,267 |
| Despatchers | 58 | 215,533 | 16 | 37,712 | 74 | 253,245 |
| Communication operators | 432 | 971,271 | 9 | 17,973 | 441 | 989,244 |
| Stewards or other attendants | 192 | 462,670 | 3 | 6,618 | 195 | 469,288 |
| Air engineers. | 267 | 868,539 | 78 | 202,680 | 345 | 1,071,219 |
| Mechanics. | 1,572 | 4,577,549 | 94 | 183,809 | 1,666 | 4,761,358 |
| Airport employees. | 707 | 1,692,876 | 56 | 98,602 | 763 | 1,791,478 |
| Stores employees. | 195 | 448,010 | 13 | 25,145 | 208 | 473,155 |
| Other employees | 815 | 2,120,591 | 33 | 59,748 | 848 | 2,180,339 |
| Unclassified. |  |  | 110 | 201,238 | 110 | 201,238 |
| Totals, 1949 | 5,846 | 17,461,300 | 667 | 1,618,965 | 6,513 | 19,080,265 |
| 1950 |  |  |  |  |  |  |
| General officers. | 342 | 1,811,154 |  | 195,308 | 393 | 2,006,462 |
| Clerks. | 884 | 1,891,601 | 62 | 111,035 | 946 | 2,002,636 |
| Pilots. | 202 | 1,675,636 | 159 | 596,839 | 361 | 2,272,475 |
| Co-pilots. | 176 | 809.848 | - |  | 176 | 809,848 |
| Despatchers | 60 | 235,913 | 9 | 23,547 | 69 | 259,460 |
| Communication operators | 452 | 1,043,688 | 7 | 15,297 | 459 | 1,058,985 |
| Stewards or other attendants | 212 | 548,832 | 3 | 7.347 | 215 | 556,179 |
| Air engineers. | 269 | 936,472 | 83 | 224,265 | 352 | 1,160,737 |
| Mechanics. | 1,384 | 4,220,533 | 113 | 225,609 | 1,497 | 4,446,142 |
| Airport employees | 727 | 1,830, 836 | 42 | 79, 839 | 769 | 1,910,675 |
| Stores employees | 185 | 445, 261 | 12 | 27,477 | 197 | 472,738 |
| Other employees | 759 | 2,031,486 | 57 | 79,932 | 816 | 2,111,418 |
| Unclassified | - | - | 87 | 185,020 | 87 | 185.020 |
| Totals, 1950 | 5,652 | 17,481,260 | 685 | 1,771,515 | 6,337 | 19,252,775 |

## THE INTERNATIONAL CIVIL AVIATION ORGANIZATION AND CANADA'S PARTICIPATION THEREIN*

The International Civil Aviation Organization (ICAO) is a specialized agency of the United Nations established "in order that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be established on the basis of equality of opportunity and operated soundly and economically". The foundations of ICAO were laid at a Conference held at Chicago in December 1944 and Canada's delegates to that Conference, the Right Honourable C. D. Howe, Mr. H. J. Symington and Mr. J. A. Wilson, together with their advisers, played a most important part in assisting the Conference to arrive at the decisions which resulted in the preparation of the Convention on International Civil Aviation.

In order to understand the development and growth of ICAO, it is necessary to know something of what preceded it. While earlier attempts were made, particularly in Europe, to devise methods of international co-operation in respect of aviation, it was not until after the end of World War I that anything of great significance was achieved. The matter was considered very fully at the Versailles Peace Conference and, as a result, the International Convention for Air Navigation was signed at Paris in October 1919. The International Commission for Air Navigation (ICAN) which was established pursuant to that Convention filled, to a somewhat limited extent between the Wars, the place now occupied by ICAO. That Convention dealt mainly with the technical aspect of international flight and was designed to foster technical co-operation in the air. The membership of ICAN consisted mainly of European States and its scope was largely technical in character. Canada was a member of ICAN and was represented at many of its meetings but, owing to geographical position and the fact that the United States was not a member and Canadian civil aviation at that time was almost entirely domestic, the international consequences of Canada's participation were quite limited in character.

As a result of the great technical advances during World War II and the vast development of air transportation for military purposes, air transportation became a most important factor in world transportation. A number of Governments recognized, while the War was still in progress, that adequate provision for "order in the air" on a world-wide basis was absolutely essential. The United States took the lead and invited about 52 allied and neutral States to participate in a Conference which convened at Chicago in November 1944. Canada was keenly interested in planning for the future in the field of aviation and on Apr. 2, 1943, the Right Honourable W. L. Mackenzie King said in the House of Commons: "The Canadian Government strongly favours a policy of international collaboration in air transport and is prepared to support in international negotiations whatever international air-transport policy can be demonstrated as being best calculated to serve not only the immediate national interests of Canada but also our overriding interest in the establishment of an international order which will prevent the outbreak of another war". This statement is still the basis of Canadian international aviation policy. Before the United States convened the Chicago Conference, preparations were being made for Canada's participation in it and the Canadian draft convention on civil aviation, which was the earliest available complete plan, was

[^271]tabled in the House of Commons on Mar. 17, 1944. This draft, later approved with some modifications by Parliament, was further revised at a Commonwealth Air Conference held at Montreal, Que., and also in discussions with United States authorities.

The final Act of the Chicago Conference contained the text of the following Agreements: the Interim Agreement on International Civil Aviation; the Convention on International Civil Aviation; the International Air Services Transit Agreement;* and the International Air Transport Agreement. $\dagger$

It also contained 12 technical draft Annexes. The above instruments were opened for signature on Dec. 7, 1944.

Canada became a party to the Interim Agreement, the Convention and the Transit Agreement. For a number of reasons, very few States became parties to the Air Transport Agreement. The Interim Agreement came into force following its acceptance by 26 States on June 6, 1945, and the Provisional International Civil Aviation Organization (PICAO) was accordingly established. Pursuant to a decision taken at Chicago, Headquarters of PICAO was set up at Montreal, and the first meeting was held on Aug. 15, 1945. Upon the ratification of the Convention on International Civil Aviation by 26 States on Apr. 4, 1947, ICAO superseded the Provisional Organization. In accordance with the terms of the Convention, a decision was taken at the final meeting of the Assembly of PICAO that the permanent seat of the Organization would be at Montreal and the Government of Canada thereupon provided the Organization with suitable headquarters premises. Pursuant to arrangements made with Canadian National Railways, a modern ten-story office building, known as the International Aviation Building, was erected at the corner of Dorchester and University Streets, Montreal, and the Organization moved into this building in August 1949.

The Structure of ICAO.-The International Civil Aviation Organization is composed of an Assembly, a Council and certain other subsidiary bodies, and is staffed with an international secretariat. The Assembly meets annually and is composed of 57 Member States each of which is entitled to one vote. Except in respect of certain specific functions, which are allocated to the Council by the Convention, the Assembly is the supreme authority. The Council is a permanent body composed of 21 Member States elected by the Assembly every three years. Canada was a member of the PICAO Council and has continued to be a member of the Council of ICAO. All Council Member States maintain offices and resident representatives at Headquarters, where the Council is in session for the greater part of the year. The Council is responsible to the Assembly and is the executive body of ICAO. Under the Convention, it has a number of mandatory functions and a wide range of permissive functions which, together, cover the whole field of international civil aviation. In addition, it has the responsibility of deciding disagreements between Member States in regard to the interpretation or application of the Convention and has certain powers for making findings and recommendations in the case of disputes under the Air Services Transit Agreement and the Air Transport Agreement.

[^272]Pursuant to the Convention, the Air Navigation Commission is composed of 12 members appointed by the Council from among persons nominated by the contracting States, having suitable qualifications and experience in the science and practice of aeronautics. The Commission considers and makes recommendations to the Council on all the technical aspects of international air navigation and, in particular, makes recommendations for the adoption and modification of Standards and Recommended Practices that are adopted as Annexes to the Convention. The Air Transport Committee, also established pursuant to the Convention, is composed of 12 members similarly appointed. This Committee considers and makes recommendations to the Council on matters in the economic field of international aviation. The Joint Support Committee is a Committee of Council that deals with matters in the field of joint international financing of air navigation facilities and services required for the benefit of international air navigation. The Finance Committee, a Committee of Council established pursuant to a resolution of the Assembly, performs the normal functions laid down in the financial regulations and is responsible for taking appropriate action to ensure that the moneys voted by the Assembly are properly spent and that the most efficient and economical method of carrying out the approved program is observed. The Legal Committee of ICAO was created pursuant to a resolution of the Assembly under which all contracting States are entitled to participate in the work of the Committee. A Canadian nominee is a member of the Air Navigation Commission and Canada's Representative on Council is a member of all the other Committees.

The Secretariat of ICAO is composed of about 425 members. Approximately 150 senior employees have been recruited on an international basis from 29 of the Member States of ICAO in accordance with the established policy of securing the widest possible geographical representation in the Secretariat consistent with the maintenance of high standards of efficiency. Most of the remainder of the staff are recruited locally.

For the purpose of organizing the work of ICAO, particularly in the technical field, the world has been divided into eight regions: North Atlantic, Caribbean, European-Mediterranean, Middle East, South East Asia, South American-South Atlantic, South Pacific-North Pacific and African-Indian. Also, for the purpose of assisting in the maintenance of liaison, particularly in regard to technical matters, between the Headquarters of the Organization and the Governments of the Member States, there are five Field Offices located at Cairo, Lima, Melbourne, Montreal and Paris. These offices are responsible for co-ordinating the work in the field of aviation of the various States in the respective areas and for assisting in arranging for the implementation of the recommendations of regional meetings.

Work in the Technical Field.-The most important activities of ICAO and the major part of the work accomplished lie in the technical field. Using the draft technical annexes to the Convention as a basis, the Organization has developed standards and recommended practices covering practically all the important technical aspects of international air navigation. The Air Navigation Commission which, in PICAO and during the first two years of ICAO, operated as a Committee of unlimited membership, played a most important part in this work. Normally, the first step in developing standards is to invite all the contracting States to send representatives to a 'Division' meeting at which, on the basis of an agenda and documentation prepared by the Secretariat and the Commission, the technical experts contribute, from their knowledge and experience
of the subject, to the development of standards and practices designed to meet the needs and the best interests of all the Member States. The recommendations contained in the final report of the Division are studied by the Air Navigation Commission, with the assistance of the expert Secretariat, and then despatched together with any comments of the Commission, to all the Member States for their consideration. At this stage, all the Member States, whether or not they were represented at the meeting of the Division, are invited to submit their comments on the proposals developed in the Division. All comments received are examined and the recommendations of the Division once again reviewed. The Air Navigation Commission then presents to the Council its report and recommendations on the work of the Division. To the extent that these recommendations involve the adoption of or amendment to standards or recommended practices, a two-thirds vote ( 14 members) of the Council is required for their adoption. Standards and recommended practices, or amendments thereto, adopted by the Council, are then transmitted to all the States and unless, within 90 days or such longer period as the Council may prescribe, a majority of the Member States have notified to the Council their disagreement, the recommendations become effective under the Convention. After an additional period specified by the Council, during which the Member States are required to take the necessary steps to implement them through their own national laws or regulations, the recommendations come into force for all the Member States of the Organization. The only basis on which a State may be relieved of compliance with a standard established pursuant to the Convention is in cases where that State finds it impracticable to comply in all respects with any such international standard and to bring its own regulations or practices into full accord therewith or where a State finds it necessary to adopt regulations or standards differing in any particular respect from those established by the international standard. In such cases, the States concerned must immediately notify the Organization which, in turn, notifies all the other States of this "deviation". There can be no deviation over the high seas from Rules of the Air established by ICAO. Canada has participated very fully in the work of the Divisions and this participation has been greatly facilitated by the fact that practically all Division meetings are held at Montreal.

The following Technical Standards and Recommended Practices have been adopted as Annexes to the Convention:-
(1) Personnel Licensing.
(2) Rules of the Air.
(3) Meteorological Codes.
(4) Aeronautical Charts.
(5) Dimensional Units to be used in Air Ground Communications.
(6) Operation of Aircraft.
(7) Aircraft Nationality and Registration Marks.
(8) Airworthiness of Aircraft.
(9) Facilitation of International Air Transport.
(10) Aeronautical Telecommunications.
(11) Air Traffic Services.
(12) Search and Rescue.
(13) Aircraft Accident Inquiry.
(14) Aerodromes, Air Routes and Ground Aids.

Regional Activities.-Many problems related to international air navigation are regional in character and ICAO periodically convenes meetings because it is necessary from time to time to review the situation within the several Air Navigation Regions. Invitations are issued to all of the States located in the Region and to those States whose aircraft regularly fly into or through the Region. Each Regional Meeting considers the over-all provision of and requirements for air navigation facilities and services in the Region, and specific recommendations are
made in any case where an existing deficiency or inadequacy is considered likely to affect seriously the safety and regularity of international air navigation. Reports of Regional Meetings come before the Council together with the recommendations of the Air Navigation Commission thereon and, where appropriate, Council adopts the recommendations and transmits them to the States concerned for consideration and action. In cases where the State or States directly responsible for the implementation of a recommendation find it impracticable to do so, the Council may, under Chapter XV of the Convention, initiate the necessary action leading towards the joint financing of the project.

ICAO has now compiled, through the joint efforts of the Field Offices, the Headquarters Secretariat and the Air Navigation Commission, a complete tabulation on a world-wide basis of all air navigation facilities and services necessary or desirable for the safety, regularity or efficiency of international air navigation. This list includes existing facilities and services as well as the deficiencies.

Joint Financing of Air Navigation Facilities and Services.-Under the Convention, every Member State is required, so far as it may find practicable, "to provide in its territory, airports, radio services, meteorological services and other air navigation facilities to facilitate international air navigation in accordance with the Standards and Practices recommended or established from time to time pursuant to this Convention". In some cases, because of lack of necessary funds or a limited interest in aviation, States do not find it practicable to provide certain facilities and services that are considered to be necessary in the interest of international air navigation. The Convention, under Chapter XV, places upon the Council the responsibility for initiating the necessary action to remedy the deficiencies in such cases which includes consultation with the State directly concerned and with other States affected and, in these cases, prescribes certain rules relating to the financing of air navigation facilities and services. Pursuant to these provisions, arrangements have been entered into by which the States whose aircraft fly the North Atlantic meet a substantial part of the cost of air navigation facilities and services furnished by the Governments of Iceland and Denmark in Iceland, Greenland and the Faroe Islands, respectively. These arrangements were concluded at Special Conferences at which Denmark and Iceland, together with the other States concerned, were represented. Contributions under these schemes are based on the actual proportion of use of the facilities in question by the aircraft of the States concerned. Canada is a party to both agreements and the Canadian contribution amounts to about 7 p.c. of the total cost. Under the North Atlantic Ocean Stations Agreement, the same States provide, either by cash contributions or contribution of ships, a network of 10 Ocean Weather Stations permanently located in the North Atlantic, the maintenance of which requires 25 vessels. Canada's responsibility under this Agreement is one ship. The principal function of these Weather Stations is to furnish meteorological information which contributes to the safe and economical operation of North Atlantic air services. They also provide aids to air navigation and are equipped to serve as search and rescue units in cases of emergency.

Work in the Economic Field.-While the economic aspects of international air transport constitute a relatively small proportion of the activities of ICAO, they are of very considerable importance.

For a number of reasons it is easier to secure international agreement in technical matters than in the economic field and this difficulty has frequently impeded the work of ICAO. At the Chicago Conference, there was a generally expressed desire to make provision for the extension on a uniform basis of the rights to fly internationally. Because of the difficulties involved, two separate agreements were provided-the International Air Services Transit Agreement and the International Air Transport Agreement. Forty-one States accepted the Transit Agreement but only 17 States (of which five have since denounced) accepted the Transport Agreement. During the life of PICAO and thereafter in ICAO, studies and discussions were undertaken with a view to the development of a multilateral agreement on commercial rights in international transport. However, discussions in two Assemblies and in a Special Commission, convened at Geneva in November 1947, failed to produce an effective solution. It is generally agreed that the present system of bilateral exchange of routes and rights is not satisfactory but, although the matter has been given a great deal of further study, no complete solution has yet been found. Canada has consistently supported the multilateral principle.

An important achievement of ICAO has been in the development of standards and recommended practices in the field of facilitation of international air transport. In the early stages of international civil aviation, the main advantages of air travel, which are speed and the ability of aircraft to cross natural barriers, were considerably impaired by the great variety of national laws and regulations relating to customs, immigration, health and agricultural quarantine in connection with border clearances. This problem was vigorously attacked by ICAO and, at a Facilitation Division Meeting held at Geneva in May 1948, a comprehensive set of draft standards and recommended practices was prepared to deal with this problem, and these were later adopted by the Council as Annex 9 to the Convention. These standards and recommended practices were accepted by the Member States, including Canada, with relatively few deviations, and, as a consequence, there has been a great simplification and unification of border crossing procedures throughout the world. At the Second Session of the Facilitation Division held early in 1952, a number of proposals were made for additional and improved standards; these should be ready for adoption by the Council before the end of 1952.

Progress has been made with a number of other matters of considerable importance to airlines and to the general public who use them. These include Council recommendations to the Member States directed towards the elimination of double income and property taxation on airlines, certain taxes on fuel and oil and double and other burdensome insurance requirements. The statistical program of ICAO is of great importance to the Member States and invaluable to much of the work of the Council.

Work in the Legal Field.-The Comité International Technique d'Experts Juridiques Aériens (CITEJA), which was created pursuant to a recommendation adopted at the First International Conference on Private Air Law held at Paris in 1925, made considerable progress in the development of a code of private international air law through the preparation of draft international conventions for final adoption at periodic international conferences. The Chicago Conference recommended that Member States give consideration to the desirability of bringing about the resumption, at the earliest possible date, of the work of the CITEJA and of co-ordinating the activities of CITEJA with those of PICAO and, in due course, ICAO.

The first post-war session of CITEJA was held at Paris in January 1946 and, at this session, Canada participated for the first time in the work of this Organization. The CITEJA continued to operate during the period of the Provisional Organization and, at the first session of the ICAO Assembly in 1947, arrangements were made for the establishment of the Legal Committee of ICAO and for the new Committee to take over the functions formerly exercised by CITEJA. Since that time the Legal Committee has carried on that work. A new Convention has been adopted on the International Recognition of Rights in Aircraft, the purpose of which is to safeguard, while aircraft are in foreign Contracting States, rights of property, possession or security in or over the aircraft, validly acquired by third parties, in accordance with the laws of the State in which the aircraft is registered as to nationality. A revision of the Rome Convention, which deals with damage caused by foreign aircraft to third parties on the surface, has been completed by the Legal Committee and will be considered by a Special Conference at Rome in September 1952. A revision of the Warsaw Convention, which governs the international carriage of goods and passengers by air, is also in an advanced stage and many other projects are under study in the private air-law field. Canada has participated throughout in all the meetings of the Legal Committee.

Co-operation with Other International Organizations.-As a specialized agency of the United Nations, ICAO has a formal agreement with the United Nations for the purpose of ensuring the fullest co-ordination and co-operation between the two Organizations and, for the same purpose, ICAO has working arrangements with a number of the other specialized agencies including the World Meteorological Organization, the World Health Organization, the Universal Postal Union and the International Telecommunications Union. These arrangements have proved to be of great value in avoiding duplication of effort and possible conflicts where there are overlapping interests.

United Nations Expanded Program for Technical Assistance.-Under the United Nations expanded program for technical assistance, technical assistance missions have been organized by ICAO and dispatched to a number of underdeveloped countries. Technical advisers have been provided to meet special needs and a comprehensive fellowship scheme was established under which nationals of countries needing assistance are given training in countries that are more advanced in aviation and have the necessary facilities. Canada has co-operated fully with ICAO in furnishing qualified personnel as members of missions and for specialized work and has also undertaken to provide fellowship training in certain fields of aviation.

Canada's Contribution to ICAO.-As already stated, Canada has participated fully in all phases of the work of ICAO and Canadian representatives have from the beginning made substantial and valuable contributions to the work of the Organization in the Assembly, in Council, in the Committees and in Divisional and Regional Meetings. In turn, Canada has received very substantial benefits as a result of the work of the Organization. The opportunities afforded the participants in ICAO meetings, by way of the exchange of views with technical, economic and legal experts from all parts of the world, are of considerable value both in broadening understanding of world-wide problems in all fields of civil aviation and in the understanding of national problems and characteristics of the other participants.

The Government of Canada has contributed to ICAO by granting privileges and immunities of a diplomatic character to the Organization itself, to the internationally recruited staff and to the representatives of the Member States permanently located at the Headquarters or attending meetings. Negotiations are under way between ICAO and the Government of the Province of Quebec and also with the authorities of the City of Montreal for similar privileges. When the arrangement was made for the establishment of the Headquarters premises at Montreal, it was agreed that rental charges would not include any profit element. Pursuant to this arrangement, Canada has contributed approximately $\$ 70,000$ annually towards rent. At the request of the Council of ICAO for further financial assistance in alleviating to some extent the high cost of maintaining the Organization at Montreal, the Government of Canada has offered, subject to approval by Parliament, further to subsidize the rent of ICAO in an amount which, together with the present contribution, will make a total contribution of approximately $\$ 200,000$ per annum. On the basis of this offer, rent of ICAO will compare very favourably with that of other specialized agencies located in Europe.

Canada's contribution towards the operating expenses of ICAO represents approximately 5 p.c. of the total annual budget which is about $\$ 3,000,000$.

## PART VI.-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 Pelee and Manitoulin Islands in Ontario as well as telephone lines on the latter; some lines to northern outlying districts in Saskatchewan; telegraph lines from Edmonton to the Athabaska 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, lumber and mining centres in the interior; and an overland telegraph and telephone line serving communities from Asheroft, B.C., to Dawson, Yukon Territory.

As at Mar. 31, 1951, the Telegraph and Telephone Service comprised 7,608 miles of pole line, 23,095 miles of wire, $224 \cdot 5$ nautical miles of submarine cable, 49 radio stations and 405 offices. The number of messages handled during the year was $1,340,454$, producing a gross revenue of $\$ 674,464$ and a net revenue of $\$ 610,601$.

[^273]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.

## 1.-Summary Statistics of Canadian Telegraphs, 1942-51

Note.-Figures for 1920-41 will be found in the corresponding table of previous Year Books beginning with the 1938 edition.

| Year | Gross Revenue | Operating Expenses | Net Operating Revenue | Pole- Line Mileage | Wire Mileage | Employees ${ }^{1}$ | Offices | Messages, Land ${ }^{2}$ | Cablegrams and Marconigrams ${ }^{3}$ | Money Transferred |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | miles | miles | No. | No. | No. | No. | 8 |
| 1942 | 14,826, 431 | 11,925,417 | 2,901,014 | 52,418 | 381,953 | 7,544 | 4,979 | 15,422,131 | 2,831,549 | 5,439,880 |
| 1943 | 16,955, 288 | 12,942,108 | 4, 013, 180 | 52,414 | 384,350 | 8,330 | 4,908 | 16,469,564 | 3,013,752 | 7,677,080 |
| 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 |
|  | 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 |

${ }^{1}$ Excludes commission operators. $\quad{ }^{2}$ Includes messages to and from vessels on the Great Lakes and the St. Lawrence River and messages to and from stations. $\quad{ }^{3}$ Excludes messages relayed and includes paid wireless messages to and from ships in the Gulf of St. Lawrence and on the Atlantic Ocean.

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, 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, 1950

| Company and Station | Cables | Nautical Miles |
| :---: | :---: | :---: |
|  | No. | No. |
| Cable and Wireless Limited- |  |  |
| Halifax, N.S. to Harbour Grace, N'f'ld.-Harbour Grace, N'f'ld. to Porthcurnow, England. | 1 | 2,917 |
| Halifax, N.S. to Horta, Azores-Horta, Azores to Porthcurnow, England....... | 1 | 3.223 |
| Bamfield, B.C. to Sydney, Australia........ | 1 | 7.837 |
| Bamfield, B.C. to Auckland, New Zealand | 1 | 6,768 |
| Halifax, N.S. to Bermuda................... | 1 | 877 |
| Commercial Cable Company- |  |  |
| Canso, N.S. to Port aux Basques, N'f'ld. | 1 | 4200 |
| 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.................................. | 2 | 2,891 |
| Canso, N.S. to Horta, Fayal, Azores-Horta, Azores to Waterville, Ireland.... | $\stackrel{2}{2}$ | 5,873 3,718 |
|  | 2 | 3,718 2,594 |
| 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 | ${ }_{2}^{2}$ | 396 634 |
| North Sydney, N.S. to Island Cove, North Sydney, | 1 | ${ }_{323}$ |

## 2.-Cable Landings in Canada, 1950-concluded

| Company and Station | Cables | Nautical Miles |
| :---: | :---: | :---: |
|  | No. | No. |
| Western Union Telegraph Company-concluded |  |  |
| Canso, N.S. to Hammel, N.Y., U.S.A.. | 2 | 1,594 |
| Canso, N.S. to Duxbury, Mass., U.S.A. | 1 | 573 |
| Canso, N.S. to St. Pierre and Miquelon Islands. | 1 | 254 |
| North Sydney, N.S. to Canso, N.S.. | 2 | 253 |
| Hearts Content, N'f'ld. to Valentia, Ireland. | 4 | 7,505 |
| Hearts Content, N'f'ld. to Rantem Hut, N'f'ld | 3 | 76 |
| Bay Roberts, N'f'ld. to Penzance, England. | 4 | 8,419 |
| Bay Roberts, N'f'ld. to Horta, Azores.. | 1 | 1,341 |
| Bay Roberts, N'f'ld. to Hammel, N.Y. | 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 Cablezeompany- |  |  |
| Canso, N.S. to St. Pierre and Miquelon Islands. | 1 | 257 |

## Section 2.-Telephones

A brief historical account of the early development of telephones in Canada is given in the 1934-35 Year Book, p. 781.

Telephone Systems.-The 2,912 telephone systems existing in 1950 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 Public Works and the National Parks of Canada, Department of Resources and Development. Also included were 24 municipal systems, the largest being operated by the cities of Edmonton, Fort William and Port Arthur. Of the 2,245 co-operative telephone companies, 1,008 were in Saskatchewan, 795 were in Alberta and 215 in Nova Scotia. The largest among the 456 stock companies operating telephone systems in 1950 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 1941-50, there was an increase of $1,354,946$ in the number of telephones in use, representing an advance of 55 p.c. in telephones per 100 population.

Of the $2,917.092$ telephones in Canada in $1950,1,811,194$ or 62 p.c. were operated from automatic switchboards and the remainder from manual switchboards. Automatic switchboards have completely displaced manual switchboards in the principal cities of the Prairie Provinces and are displacing them in the other provinces as equipment becomes available.

## 3.-Mileages of Pole Line and Wire, and Telephones in Use, 1941-50

Note.- Figures for 1911-40 will be found in the corresponding tables of previous Year Books beginning with the 1938 edition.

| Year | Systems | Pole-Line Mileage | Mileage of Wire | Telephones in Use |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Business | Residential | Rural ${ }^{1}$ | Public Pay | Total | Per 100 <br> Population |
|  | No. | miles | miles | No. | No. | No. | No. | No. | No. |
| 1941. | 3,209 | 213,393 | 5,882,223 | 446,739 | 827,522 | 257,409 | 30,476 | 1,562,146 | $13 \cdot 6$ |
| 1942. | 3,192 | 217,958 | 6,014,596 | 463,827 | 867,307 | 266,176 | 30,465 | 1,627,775 | 14.0 |
| 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 | $14 \cdot 6$ |
| 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 | 17.7 |
| 1948. | 2,992 | 235,379 | 7,913,068 | 701,869 | 1,328,373 | 383,227 | 38,399 | 2,451,868 | $19 \cdot 0$ |
| 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 | $21 \cdot 1$ |

${ }^{1}$ 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 Provinces, 1949 and 1950


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 1941-50, are shown in Table 5.

## 5.-Financial Statistics of Telephones, 1941-50

Note.-Figures for 1911-40 will be found in the corresponding tables of previous Year Books, beginning with the 1938 edition.

| Year | Capitalization |  | Cost of Property and <br> Equipment | Gross <br> Revenue | Operating Expenses | Net Operating Revenue | Salaries and Wages ${ }^{1,2}$ | Employees ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Capital Stock | Funded Debt |  |  |  |  |  |  |
|  | \$ | \$ | \$ | \$ | \$ | \$ | \$ | No. |
| 1941. | 133,807,363 | 163,938,306 | 372,639,967 | 79,369,496 | 68,691,602 | 10,677,894 | 29,003,719 | 20,103 |
| 1942 | 135,034,375 | 165,634, 194 | 386, 164,071 | 87,057,252 | 75,221,887 | 11,835, 365 | 31,580,290 | 20,360 |
| 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, 664 | 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 |

${ }^{1}$ Includes salaries and wages chargeable to capital account.
${ }^{2}$ Excludes rural lines in Saskatchewan.

## 6.-Financial Statistics of Telephones, by Provinces, 1949 and 1950

| Year, Province or Territory | Capital Liability | Cost of <br> Property and <br> Equipment | Gross Revenue | Expenses | Net Income | Salaries and Wages ${ }^{1}$ | Employees |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1949 | \$ | \% | \$ | \$ | \$ | \$ | No. |
| N'f'ld | 3,599,105 | 3,747,830 | 672,353 | 555,396 | 116,957 | 327,075 | 202 |
| P.E.I. | 1,132,048 | 2,114,346 | 494,053 | 441,099 | 52,954 | 221,779 | 150 |
| N.S. | 13,779,701 | 21,469,667 | 5,239,692 | 4,486,138 | 753,554 | 2,504,071 | 1,438 |
| N.B | 15,974,936 | 19,593, 534 | 4,223,845 | 3,735,098 | 488,747 | 2,190,756 | 1,165 |
| Que | 330,219,313 ${ }^{2}$ | 183,356, 134 ${ }^{2}$ | 113,607,560 ${ }^{2}$ | 105, 850,496 ${ }^{2}$ | 7,757,064² | 27,370,900 | 11,797 |
| Ont | 10,960,296 | 315,259, 432 | 5, 804,387 | 5,173,220 | 631,167 | 39,189, 374 | 18,188 |
| Ma | 24,913,073 | 38,927,231 | 7,395, 115 | 6,195,055 | 1,200,060 | 4,168,857 | 2,274 |
| Sas | 40, 943,327 | 40,902,605 | 8,410,070 | 7,104,896 | 1,305, 174 | 2,606,608 ${ }^{3}$ | 1,283 ${ }^{3}$ |
| Alta | 21,361,978 | 31,692,138 | 8,767,429 | 5,812,620 | 2,954,809 | 3,367,042 | 1,438 |
| B.C | 16,996,383 | 59,425,941 | 14,480,240 | 13,694,399 | 785,841 | 8,677,362 | 4,388 |
| Yuk | 65,000 | 30,923 | 18,304 | 17,891 | 413 | 10,653 | 3 |
| Totals, 1949. | 509,945,160 | 716,519,781 | 169,113,048 | 153,066,308 | 16,046,740 | 90,634,477 | 42,326 |
| 1950 |  |  |  |  |  |  |  |
| $\mathrm{N}^{\prime} \mathrm{f}$ 'Id. | 4, 136,335 | 4,121,100 | 798,598 | 680,444 | 118,154 | 362,448 | 242 |
| P.E.I. | 1.534,678 | 2,291,835 | 549,867 | 503,586 | 46, 281 | 233,931 | 156 |
| N.S. | 16,389,707 | 25,299,490 | 5,927,750 | 5,052,636 | 875,114 | 2,790,683 | 1,589 |
| N.B | 17,991, 178 | 22,677,118 | 5,272,668 | 4,412,575 | 860,093 | 2,368, 250 | 1,154 |
|  | 368,386,496 ${ }^{2}$ | 210,001,473 ${ }^{2}$ | 134,501,306 ${ }^{2}$ | 123,751,542 ${ }^{2}$ | 10,749, $764^{2}$ | 30,724,930 | 12,518 |
|  | 11,208,291 | 351,073,913 | 6,280,668 | 5,680,478 | 600,190 | 43,659,660 | 19,273 |
|  | 30,177,022 | 45, 998, 204 | 8,260,168 | 7,149,357 | 1,110,811 | 4,967,794 | 2,556 |
| Sask | 44,708,321 | 43,680, 200 | 9,340,203 | 7,738,357 | 1,601,846 | 3,053,983 ${ }^{3}$ | 1,3883 |
| Alta | 24,356, 375 | 35.500,106 | 10,142,492 | 6,680,484 | 3,462,008 | 4,002,450 | 1,632 |
|  | 55,900,455 | 66, 151,836 | 17,730,332 | 16,526,522 | 1,203,810 | 9.915,902 | 4,885 |
| Yuk | 65.000 | 30,923 | 19,431 | 17,680 | 1,751 | 13,047 | 3 |
| Totals, 1950.... | 574,853,858 | 806,826,198 | 198,823,483 | 178,193,661 | 20,629,822 | 102,093,078 | 45,396 |

[^274][^275]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 . The long-distance calls, in practically all cases, were the long-distance calls actually completed.

## 7.-Local and Long-Distance Calls and Averages per Telephone and per Capita, 1941-50

Note.-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 Capital | Averages per Telephone |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Local | LongDistance | Total |
|  | No. | No. | No. | No. | No. | No. | No. |
| 1941. | 2,971,780,000 | 39,747,000 | 3,011,527,000 | 262 | 1,902 | 25.4 | 1,927 |
| 1942. | 2,954,644,000 | 44,230,000 | 2,998, 874,000 | 257 | 1,815 | $27 \cdot 2$ | 1,842 |
| 1943 | 2,929,446,000 | 50,348,000 | 2,979,794,000 | 253 | 1,731 | $29 \cdot 8$ | 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 |

${ }^{1}$ Per capita figures are based on official estimates of population given at p. 143.

## PART VII.-RADIO-COMMUNIGATIONS

In the 1945 Year Book at pp. 644-646, an outline is given of the development of administrative control over radio-communication in Canada. See also p. 742 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, 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 of radio aids to marine and air navigation.

National and international radio laws and regulations include the Canadian Broadcasting Act, 1936, the Radio Act, 1938, 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, 1934,

[^276]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.

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, 1936, applications for licences to establish broadcasting stations, or for modification of existing stations, are referred to the Canadian Broadcasting 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 Cuba, the Dominican Republic, Haiti, the Bahama Islands, Mexico, the United States and Canada 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 cycle and other factors. This information is obtained from hourly measurements of the ionosphere made at some 70 points throughout the world and analyzed 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, Portage la Prairie and The Pas, Man.; Ottawa, Ont.; and Prince Rupert, B.C.; data from these stations are correlated by the Defence Research Board. Five 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 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 use in case of distress. 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, 1938, 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 in the case of 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 which will produce harmful interference to broadcast reception is not permitted. The Radio Division of the Department of Transport maintains 50 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, 1948-51

| Item | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: |
| Sources Investigated- | No. | No. | No. | No. |
| Electrical distribution systems and power lines. | 1,459 | 1,602 | 1,919 | 1,836 |
| Domestic and commercial electrical apparatus.. | 5,035 | 5,499 | 5,383 | 7,756 |
| Defective receivers and radio apparatus. | 1,433 | 1,031 | . 934 | 1,054 |
| Industrial, scientific and medical apparatus. | 1,474 | 887 | 1,196 | 456 |
| Miscellaneous (external cross-modulation, etc.) | - | - | 2 | 2 |
| Totals. | 9,401 | 9,019 | 9,434 | 11,104 |
| Action Taken- |  |  |  |  |
| Sources definitely reported cured. | 6,428 | 7,289 | 7,219 | 8,976 |
| Sources not yet reported cured.. | 2,725 | 1,635 | 2,130 | 2,029 |
| Sources having no economic cure | 248 | 95 | 85 | 99 |

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, 1936. Regulations require that radiation from such apparatus, that 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 manu-
facturers, and the types that fulfil the requirements of the Department are listed as non-interfering. 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 land stations 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 Handled (including retransmissions), and Revenue collected by the Department of Transport, Year Ended Mar. 31, 1951

| Item | Messages | Words | Revenue |
| :---: | :---: | :---: | :---: |
| Marine- | No. | No. | \$ |
| East Coast. | 334,180 | 10,124,185 | 88,969 |
| Great Lakes. | 64,315 | 1,422,735 | 21,119 |
| West Cosst. | 313,735 | 7,387,456 | 44,966 |
| Hudson Bay and Straits | 152,463 | 8,734,747 | 4,865 |
| Premium revenue..... | , |  | 6,041 |
| Alrways- |  |  |  |
| Private, commercial and airline messages. Radio service to airline companies. | 4,301,863 | 112, 764,782 \{ | 35,960 229,564 |
| Totals, Marine and Alrways | 5,166,556 | 140,433,905 | 431,484 |
| Other Radio Revenue- |  |  |  |
| Examination fees-Radiotelegraph Operators' Certificates Fines and forfeitures under the Radio Act, 1938. | Proficien | ............ | $\begin{array}{r} 990 \\ 37,844 \end{array}$ |
| Licence Fees- |  |  |  |
| Aircraft stations.............. |  |  | 8,755 |
| Amateur experimental stations |  |  | 16,856 |
| Private commercial stations. |  |  | 33,371 |
| Public commercial stations |  |  | 6,790 |
| Ship stations. |  |  | 26,774 |
| Miscellaneous............. |  |  | 1,781 |
| Publications.................... |  |  | 18,424 |
| Power service. |  |  | 17.793 |
| Refunds on previous year's expenditure |  |  | 67,541 |
| Rentals- |  |  |  |
| Employees' quarters. |  |  | 118,415 |
| Equipment, transmitter space, etc |  |  | 11, 291 |
| Sundry sales and services... |  |  | 611 |
| Transmission lines privileges Miscellaneous............... |  |  | 171 |
| Total, Other Radio Revenue |  |  |  |
| Radio Revenue. |  |  | 374,091 |
| Total, Radio Revenu |  |  | 805,575 |
| Revenue from radio receiving and private broadcasting station licences, etc. ${ }^{2}$. |  |  | 5,236,298 |

[^277]Table $\mathbf{3}$ shows the number of receiving station licences issued in the year ended Mar. 31, 1951, in comparison with previous years.

## 3.-Private Receiving Station Licences ${ }^{1}$ Issued, by Provinces, Years Ended Mar. 31, 1947-52

| Province or Territory | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| Newfoundland. |  |  |  | 21.323 | 44,483 | 48,874 |
| Prince Edward Island | 10,626 | 12,173 | 11.825 | 11,152 | 10,862 | 11,323 |
| Nova Scotia | 87.043 | 91,940 | 99,477 | 102,927 | 105,317 | 109,422 |
| New Brunswi | 57,159 | 68,484 | 75,559 | 76,581 | 74,418 | 75,363 |
| Quebec. | 491,823 | 534,797 | 567,257 | 616,200 | 635, 002 | 659,742 |
| Ontario. | 628,075 | 677,299 | 704,993 | 715,290 | 708,012 | 724,892 |
| Manitoba | 108,985 | 118,823 | 126,586 | 135,582 | 125,371 | 137,647 |
| Saskatchew | 129,447 | 135,095 | 155,177 | 164,751 | 164,070 | 169,842 |
| Alberta. | 125.289 | 131,849 | 134,666 | 147,132 | 157,345 | 174,588 |
| British Columbia | 168,950 | 173,097 | 181,821 | 186,108 | 187,142 | 194,527 |
| Yukon and N.W.T | 427 | 470 | 438 | 399 | 413 | ${ }^{384}$ |
| Canada | 1,807,824 | 1,944,027 | 2,057,799 | 2,177,445 | 2,212,435 | 2,306,604 |

[^278]
## 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 4. Of these stations, 447 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 Resources and Development. The Department of Resources and Development operated 78 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 one station, the Department of Agriculture five stations, the Department of National Health and Welfare five stations, the Department of National Revenue one station, and the National Research Council 23 stations, 17 of which were experimental.

Stations operated by the Canadian Broadcasting Corporation numbered 71 and those by private owners, 173.
4.-Radio Stations in Operation, by Class, as at Mar. 31, 1951

| Class | No. | Class | No. |
| :---: | :---: | :---: | :---: |
| Department of Transport Stations |  | Department of Transport Stations |  |
| Coast | 8 |  | 9 |
| Combined coast, radiotelephone, L.F. direction finding and radar. | 1 | Ionosphere........... | 2 |
| Combined coast, radiotelephone and L.F |  | Monitoring. | 5 |
| direction finding. <br> Combined coast, radiotelephone and fre- | 11 | Land. | 29 |
| Combined coast, radiotelephone and frequency modulated radio relay........... | 1 | Ship (Class A) Aircraft........ | 29 29 |
| Combined coast and radiotelephone...... | 27 | Radio range | $42^{1}$ |
| Combined coast, radiotelephone and radiobeacon. | 1 | Radio range. . . . . . . . . . . . . . . . . . . ${ }^{\text {combined }}$ |  |
| Radiobeacon.......................... | 34 | and radiotelephone....... | ${ }_{135}$ |
| Combined radiobeacon and L.F. direction | 2 | Lighthouse radiotelephone. | 13 |
| Combined radiobeacon and radiotelephone | 15 | Fan marker...... | 11 5 5 |
| Radiotelephone....................... | 14 |  | 10 |
| Combined aeronautical radiotelephone and radiotelegraph. | 1 | Loran_(Long_range aid to navigation). | 3 |

For footnotes, see end of table.
4.-Radio Stations in Operation, by Class, as at Mar. 31, 1951—concluded

${ }^{1}$ Station location (" $Z$ ") markers are installed at 91 radio range stations. ${ }^{2}$ Two stations at Port Harrison, Que., and Coppermine, N.W.T., also periorm restricted coast station service during the season of navigation, but since they are primarily weather-reporting stations they are shown under this heading only. ${ }_{3}$ Includes 19 repeater stations.

The above 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. The principal services provided by stations not operated by the Federal Government are as follows:-

Public Commercial Licensed Services.-The Canadian Marconi Company is licensed to operate a public commercial station with transmitting equipment at Drummondville, Que., and receiving equipment at Yamachiche, Que., for the purpose of communicating with a similar station located at St. John's, N'f'ld., thus providing a direct radiotelephone circuit between Newfoundland and the mainland.

Commercial Trans-Oceanic Radiotelegraph and Radiotelephone Service.-As at June 7, 1950, the Canadian Overseas Telecommunication Corporation took over the operation of the long-distance beam radiotelegraph service formerly operated by the Canadian Marconi Company between Montreal (Drummondville) and Great Britain, Australia, Bermuda and Jamaica, and the radiotelephone service between Montreal and Great Britain.

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 15 permanent public commercial radiotelephone stations in that Province. These stations are authorized to provide communication to 261 private commercial radiotelephone stations located at isolated points in that Province. This Company is also licensed to establish limited coast stations at Lulu Island, Power River, Vancouver, Nanaimo, Victoria, Agassiz, Althorp Point, Alert Bay and Prince Rupert, B.C., to provide a ship-toshore service. These stations, used in conjunction with the ordinary telephone exchange, provide a duplex-radiotelephone service to 261 isolated points and certain ships at sea.

The North-West Telephone Company is also licensed to provide emergency radiotelephone communication at any point in British Columbia and to carry out tests with a view to extending the existing radiotelephone service throughout the Province.

To provide trans-river communication in the lower St. Lawrence area, the following companies: La Compagnie de Téléphone de Charlevoix et Saguenay, La Compagnie de Téléphone de Kamouraska, the Quebec Telephone Corporation, Gulf St. Lawrence Telephone Company, and the Quebec North-Shore Paper Company operate stations at La Malbaie, Tadoussac, Rivière-du-Loup, Rimouski, Matane, Montmagny, St. Antoine de l'Ile aux Grues, Forestville, Trinity Bay and Baie Comeau, Que.

The wireline facilities between Saint John, N.B., and Digby, N.S., between Charlottetown, P.E.I., and New Glasgow, N.S., and between Red Head, N.B., and Mount Hanley, N.S., are supplemented by radiotelephone links. The stations at Saint John and Red Head are operated by The New Brunswick Telephone Company, and the station at Charlottetown is operated by The Island Telephone Company. Terminals at Digby, New Glasgow and Mount Hanley are operated by the Maritime Telegraph and Telephone Company.

The Bell Telephone Company of Canada operates radiotelephone facilities between Leamington and Pelee Island, Ont.

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 System operates stations at Gimli and Norway House, Man., to provide terminal service with ships on Lake Winnipeg.

Canadian Pacific Air Lines Limited operates a public commercial radiotelephone service consisting of public commercial radiotelephone stations located at Sioux Lookout and Pickle Lake, which are used in conjunction with the ordinary telephone exchanges to provide telephonic communication to privately owned stations located at isolated points in the Sioux Lookout and Pickle Lake areas of Ontario.

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, Redditt and Laclu, Ont., 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 Ontario.

Provincial Government Services.-Provincial authorities use radio services in many Departments. Table 5 shows the number of stations operated by the Provincial Governments.
5.-Radiocommunication Stations Operated by Provincial Governments,
as at Mar. 31, 1951


Other Radiocommunication Services.-Radiotelegraphy and radiotelephony are used throughout Canada to provide a means of maintaining contact with isolated points beyond the reach of the regular telegraph and telephone facilities.

Radiocommunication systems consisting of fixed and mobile stations are operated by over 200 municipal departments across Canada. The departments include police, fire, engineering, hydro and other public utilities. The use of radio for taxi dispatching purposes continued to grow throughout 1951 and the operation was authorized of approximately 550 base stations and 4,545 mobile stations. Public utilities, power companies, and provincial power commissions use radio to provide emergency telegraph and telephone communications between their power plants and distribution centres and 707 licences for such stations were issued during 1951, including 191 receiving stations in patrol cars.

During 1951, approximately 308 radio stations were operated by oil and mining exploration companies in connection with their business.

Commercial air-line operators, including those performing charter services only, were licensed for 814 ground communication stations, 26 beacon stations and 355 aircraft stations (including 37 receiving stations installed in aircraft). In addition to the commercial air carriers, numerous individuals and other business organizations, such as manufacturing and mining companies, oil companies, etc., were also licensed to operate radio equipped aircraft and associated ground stations in connection with the performance of their normal business. These airline operators, individuals and business organizations operated a total of 930 ground stations and 1,053 aircraft stations.

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. Copies of this publication and of supplementary Notices to Mariners issued in connection therewith 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. Twenty-one stations on the East Coast and Hudson Bay and Strait, seven stations on the Great Lakes and nine stations on the West Coast broadcast information daily to navigators at advertised hours. In addition, urgent information, such as hurricane warnings, is broadcast immediately upon receipt.

The Vancouver Coast Station (VAI) maintains long range radiocommunication with ships of any nationality at sea, while the Halifax (CFH) and Vancouver (CKN) Coast Stations participate in the British Commonwealth scheme for providing similar radiocommunication services with ships. Station CFH is operated jointly by the Department of Transport and the Royal Canadian Navy.

Coast Radio Direction Finding Service.-There are 14 coast radio direction finding stations in operation-eight on the East Coast, five on Hudson Bay and Strait, and one on the West Coast. These direction finding stations continue to enjoy an enviable reputation for efficiency and accuracy. During the year ended Mar. 31, 1951, 19,769 bearings were given without charge to ships and aircraft.

Radiobeacon Service.-Radiobeacons 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 radiobeacon station. There are 52 radiobeacons in operation-26 on the East Coast, 17 on the Great Lakes, and 9 on the Pacific Coast.

Generally speaking, in clear weather each station, at advertised hours, transmits its characteristic for three periods of one minute separated by silent intervals of two minutes. In foggy weather all stations operate continuously, maintaining a uniform time cycle of 3 minutes, each station transmitting in its proper sequence for one minute separated by silent intervals of 2 minutes.

At Flat Point, N.S., Partridge Island, N.B., Red Islet, Que., Caribou Island, Gros Cap Lightship, Hope Island, Main Duck, Southeast Shoal, Cove Island, Burlington Bay, Michipicoten Harbour, Long Point, Port Weller, Ont., Amphitrite Point and Point Atkinson, B.C., the radiobeacon signals are synchronized with the emissions of the fog alarms for distance finding at those point during foggy weather.

In addition to the above radiobeacon facilities, ships equipped with direction finding apparatus may, upon request, obtain signals for the purpose of taking bearings from any of the coast stations. During the year ended Mar. 31, 1951, 161 such requests for signals were handled.

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 through any of the Department of Transport's coast stations. Messages from ships in this connection are forwarded to the nearest medical officer of the Department of National Health and Welfare and the reply is transmitted to the ship.

Assistance Rendered by Radio to Vessels in Emergency.-Government radio stations rendered assistance to 113 ships and aircraft reported in danger or distress, during the fiscal year ended Mar. 31, 1951.

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 many Canadian and United States military aircraft. To construct and maintain these many facilities, trained engineers and technicians are located at 6 district offices: Moncton, N.B.; Montreal, Que.; Toronto, Ont.; Winnipeg, Man.; Edmonton, Alta.; and Vancouver, B.C. The large communication stations at Gander, N'f'ld., are under the administration of the Moncton office.

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 93 stations in operation. Two stations at Frobisher, N.W.T., and Cape Harrison, N'f'ld., were taken over from the United States military authorities, during 1951.

Radio Beacons.-These stations provide radio signals with which pilots may use their direction finding equipment in order to obtain relative directional bearings to assist in the navigation of their aircraft. Eight of these stations are now in
operation, new ones having been established at Cambridge Bay, N.W.T.; Moose Jaw and Prince Albert, Sask.; Turner Valley, Alta.; and Cape St. James, B.C. (the latter being operated by the Marine Radio Aids Section). The radiobeacon at Sandspit, B.C., has been placed in continuous operation and the one at Whitehorse, Yukon Territory, decommissioned.

Fan Markers.-These facilities, operating on very high frequencies, provide a pilot with an indication of 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 distance from an airport. Eleven of these stations are now in operation, one new station having been commissioned at Campbell Cross, Ont.

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 at Killaloe, Ont., and Mecatina, Que.

Direction Finding Stations.-A direction finding station for determining the bearing of aircraft from the station was taken over from United States military authorities at Cape Harrison, N'f'ld. This station is capable of obtaining bearings on aircraft transmitting on high and very high radio frequencies.

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 indication from the runway at approximately four and one-half miles and $3,500 \mathrm{ft}$., respectively, and a low power radiobeacon (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-one instrument landing systems are now in operation, new installations having been made at Edmonton, Alta.; London, Ont.; Moncton, N.B.; and Dartmouth and Sydney, N.S. Construction work is continuing on installations at Windsor, Ont., and Torbay and Gander, N'f'ld.

Aeronautical Communication Stations.-In order to assist in providing the required communication between aircraft and the ground, 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. There are now 31 of these stations in operation. The communications stations at Gander and Goose Bay, N'f'ld., Moncton, N.B., Montreal, Que., and Vancouver, B.C., form a major contribution on the part of Canada to international aviation. The services provided by these 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 dispatch offices.

Since (3) is provided solely for the convenience of the airline operating agencies, a system of charges was introduced during 1950-51 to recover from the airlines the cost of providing this portion of the service. The charge at present is $\$ 13$ per aircraft per oceanic crossing, and the yield for a year is estimated at $\$ 132,000$. The charges will be adjusted from time to time depending upon any change in the cost of provision for the service.

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 52 radio range stations and in 18 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 of traffic on the airport surface.

Improvements in Radio Aids to Air Navigation.-An investigation is under way on a new type of Radio Aid to Air Navigation known as the VHF Omnidirectional Range. This type of facility, unlike the existing type of Radio Range, does not limit the aircraft using the station to one of four distinct courses. Instead, it is of a type which 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 Aeronautical Communications. The complete program involves testing two different models of this type of facility at Uplands, Ont., a site near the Ottawa airport. The first, now in operation, uses a fixed antenna array, whereas the second will have a rotating antenna system. Proof of performance tests are being made on each type of station.

## Section 3.-The Canadian Broadcasting Corporation*

The history and development of the Canadian Broadcasting Corporation is given in the 1947 Year Book, pp. 737-740.

The Canadian Broadcasting Corporation operates under authority of the Canadian Broadcasting Act, 1936, and is headed by a Board of ten Governors, chosen to give representation to the principal geographic divisions of Canada, and a full-time Chairman. The Board determines and supervises policy, but day-to-day operations and executive direction are the responsibility of the General Manager. The organization of the CBC consists of the following Divisions: Executive, Personnel and Administration, Finance, Engineering, Program, Press and Information, Commercial, Broadcast Regulations and Station Relations.

Under the Canadian Broadcasting Act, 1936, the CBC is responsible for regulations controlling the establishment and operation of networks, the character of all programs broadcast over its own and privately owned stations, 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 seeing that the regulations are 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, 1952, there were five CBC and 30 privately owned frequency modulation stations in operation.

[^279]Television.-In April 1949, the Government of Canada adopted an interim plan for the development of television that, in accordance with the Canadian Broadcasting Act, 1936, entrusted the general direction of television broadcasting in Canada to the CBC Board of Governors who will arrange for television operations by the Corporation. In a further statement of policy on Dec. 8, 1952, the Government announced its readiness to consider applications for licences for private commercial television from Canadian stations in areas where these will not be duplicating CBC television facilities, on the basis that there should be as wide a coverage of Canada as possible without duplication. The Government also proposed provision of a loan to the CBC for the purpose of building stations at Vancouver, Winnipeg, Ottawa and Halifax.

During 1949-50, TV channels were assigned to the Canadian Broadcasting Corporation for proposed television operations at Toronto, Ont., and Montreal, Que. Frequency Channels 2 and 5 were allocated to Montreal where the Corporation expects eventually to operate two outlets, one French and one English. The first to be used will be Channel 2 operating from 54 to $60 \mathrm{Mc} / \mathrm{s}$. Channel 5 will operate from 76 to $82 \mathrm{Mc} / \mathrm{s}$. Channel 9 , to be used at Toronto, will operate from 186 to $192 \mathrm{Mc} / \mathrm{s}$.

In addition to these frequencies, the CBC will use microwave frequencies in still higher bands to enable it to establish direct links from studio to transmitter and from mobile units to studio or transmitter or to both. Some of these will be in the $2,000 \mathrm{Mc} / \mathrm{s}$ band and others in the $7,000 \mathrm{Mc} / \mathrm{s}$ band.

The Toronto studios and transmitter building, topped by a 500 -foot tower and antenna, were built on CBC property at 354 Jarvis Street, Toronto. At Montreal, a high antenna tower was erected on the top of Mount Royal and a transmitter building is located at the base of the tower. Programs are carried from television studios, at the rear of the Radio Canada Building, to the transmitter by microwave link. Each building houses a 5 kw . transmitter. Television studio equipment and two mobile television units for Toronto and for Montreal, ordered from England, have been installed.

The Directors of Television, Technical Directors, Program Directors, and other key personnel have been appointed, and additional personnel have joined the television staff since the inception of the CBC's TV training course in the autumn of 1951. This course included lectures on theory and practical work which embraced all phases of television production. At the conclusion of the training scheme, the staff had an opportunity to continue closed-circuit rehearsals for a few months prior to the inauguration in September 1952 of a regular CBC television service at Toronto and Montreal.

Broadcasting Facilities.-Under Sect. 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 changes in frequency or location. Two considerations are involved: (1) non-interference with the present and proposed facilities of the CBC, and (2) that high-power transmission facilities, on both longand 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 French network, serving French-language listeners in Quebec. The Trans-Canada network is made up of 24 basic stations: 11 CBC-owned and 13 privately owned. There are 15 affiliated stations, four of which are CBC-owned Newfoundland stations. The Dominion network consists of 31 basic stations of which 30 are privately owned. Seven affiliated privately owned stations receive Dominion network service. The French network has three basic CBC-owned stations, and 12 privately owned stations.

In 1952 the CBC had 19 stations, 8 of which had 50,000 -watt transmitters. During 1950, CBC increased the power of CBM Montreal from 5,000 to 50,000 watts, and of CBR Vancouver from 5,000 to 10,000 watts; and a new 10,000 -watt station CBE was established at Windsor, Ont. On Jan. 25, 1952, CBR's frequency was changed from 1,130 to 690 and its call letters to CBU. In order to present programs at suitable times and to give expression to varying interests in the six regions, CBC maintains regional offices and production facilities at St. John's, N'f'ld.; Halifax, N.S.; Chicoutimi, Quebec City and Montreal, Que.; Ottawa and Toronto, Ont.; Winnipeg, Man.; Edmonton, Alta.; and Vancouver, B.C.

## 6.-Broadcasting Stations of CBC Networks, as at Apr. 1, 1952

Note.-The stations marked with an asterisk (*) are CBC-owned.

| ation Location |  | $\begin{gathered} \text { Fre- } \\ \text { quency } \end{gathered}$ | Power | Station Location |  | Frequency | Power |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | ke. | watts |  |  | kc. | watts |
| Trans-Canada Basic Network- |  |  |  | Trans-Canada Affillated-concl. |  |  |  |
| CBI* Sydney. |  | 1,570 | 1,000 | CHLO | St. Thomas. | 680 | 1,000 |
| $\mathrm{CBH}^{*}$ Halifa |  | 1,330 | 100 | CHOK | Sarnia. | 1,070 |  |
|  |  | 1,070 | 50,000 | CFAR | Flin Flon | 590 | 1,000 |
|  | Saint John | 1,150 | 5,000 | CFGP | Grande Pra | 1,050 | 1,000 |
| CFNB Fredericto | Fredericto | 550 | 5,000 | CKLN | Nelson | 1,240 | 250 |
| CBM* Montrea |  | 940 | 50,000 | CKPG | Prince George. | 550 | 250 |
| CBO* Ot |  | 910 | 1,000 | CFPR | Prince Rupert. | 1,240 | 250 |
| CKWS Kin |  | 960 | 5.000 | CJDC | Dawson Creek | 1,350 | 1,000 |
| CBL* Tor |  | 740 | 50,000 |  |  |  |  |
| CFCH North B |  | 600 | 1,000 |  |  |  |  |
| CJKL Kirkland |  | 560 | 5,000 | Dominion | Basic Network- |  |  |
| CKGB Timmins |  | 680 | 5,000 | CJCB | Sydney. | 1,270 | 0 |
| CKSO Sudbur |  | 790 | 5,000 | CHNS | Halifax. | 960 | 5,000 |
|  |  | 1,550 | 10,000 | CJFX | Antigonish | 580 | 5,000 |
|  |  | 1,490 | 250 | CJLS | Yarmouth. | 1,340 | 250 |
| CKPR Fort Willia |  | 580 | 1,000 | CFCY | Charlottetow | 630 |  |
| CBW* Winnipeg |  | 990 | 50,000 | CKCW | Moncton.. | 1,220 | 5,000 |
| CBK* Watrous |  | 540 | 50,000 | CFBC | Saint John. | 930 | 5,000 |
| CBX* Edmonto |  | 1,010 | 50,000 | CKNB | Campbellton | 950 | 1,000 |
| CJOC Lethbridg |  | 1,220 | 5,000 | CKTS | Sherbrooke.. | 1,240 | 250 |
| CFJC Kamloop |  | 910 | 1,000 | CFCF | Montreal | 600 | 5,000 |
|  |  | 630 | 1,000 | CKOY | Ottawa. | 1,310 |  |
| CJAT Trail. |  | 610 | 1,000 | CHOV | Pembroke. | 1,350 1,450 | 1,000 250 |
| $\mathrm{CBU}^{*}$ | Vancouver | 690 | 10,000 | CFJREX | Brockville. Peterborou | 1,450 1,430 | 1,000 1,000 |
|  |  |  |  | CJBC* | Toronto.... | 860 | 50,000 |
| Trans-Canada Affiliated- |  |  |  | CFPL, | London. | 980 | 5,000 |
| CBN** | St. John's. . | 640 | 10,000 | CFCO | Chatham | 630 | 1,000 |
| CBY* | Corner Brook | 790 | 1,000 | CFPA | Port Art | 1,230 | , 250 |
| CBG** | Gander. | 1,450 | 250 | CJRL | Kenora.. | 1,220 |  |
| CBT* | Grand Falls | 1,350 | 1,000 1,000 | CKRC | Winnipeg | 630 1,150 | 1,000 1,000 |
| CKBW | Bridgewater | 1,000 1,340 | 1,000 250 | CJGX | Brandon. | 1,150 940 | 1,000 1,000 |
| CKOC | Hamilton. | 1.150 | 5,000 | CKBI | Prince Albert | 900 | 5,000 |

6.-Broadcasting Stations of CBC Networks, as at Apr. 1, 1952-concluded

| Station Location | $\begin{gathered} \text { Fre- } \\ \text { quency } \end{gathered}$ | Power | Station Location | $\begin{gathered} \text { Fre- } \\ \text { quency } \end{gathered}$ | Power |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | kc. | watts |  | ke. | watts |
| Dominion Basic Network-concl. |  |  | French Basic Network- |  |  |
| CFQC Saskatoon.. | 600 | 5,000 | CBJ** Chicoutimi............ | 1,580 | 10,000 |
| CHAB Moose Jaw. | 800 | 5,000 | CBV* Quebec..... | 980 | 1,000 |
| CKRM Regina. | 980 | 5,000 | $\mathrm{CBF}^{*}$ Montreal | 690 | 50,000 |
| CFRN Edmonton | 1,260 | 5,000 |  |  |  |
| CFCN Calgary. | 1,060 | 10,000 |  |  |  |
| CHWK Chilliwack | 1,270 | 1,000 | French Affiliated- |  |  |
| CJOR Vancouver | 600 | 5,000 | CHNC New Carlisle.......... | 610 | 5,000 |
| CJVI Victoria. | 900 | 1,000 | CJEM Edmundston........... | 1,380 |  |
|  |  |  | CJBR $\quad$ Rimouski.............. | 900 900 | 5,000 1,000 |
|  |  |  | CHGB Ste. Anne de la Poca- |  |  |
| Dominion Affiliated- CHML Hamilton and |  |  |  | 1,350 | 1.000 |
| CHML $\quad$ Hamilton.............. | 900 620 | 5,000 | CKFP ${ }^{\text {CJull }}$ Riviere-du-L. | 1,970 1,400 | 1.000 250 |
| CFOR Orillia......... | 1,570 | 1,000 | CKVD Vald'Or.... | 1,230 | 250 |
| CHNO Sudbury | 1,440 | 1,000 | CHAD Amos. | 1,340 | 250 |
| CHAT Medicine Hat | 1,270 | 1,000 | CKRN Rouyn | 1,400 | 250 |
| CJIB Vernon..... | 940 | 1,000 | CKLS La Sarre. | 1,240 | 250 |
| CKFI Fort Frances. | 800 | 1,000 | CKLD Thetford Mines. | 1,230 | 250 |

15,000 watts during daytime; 1,000 watts at night.
${ }^{2} 1,000$ watts during daytime; 250 watts at night.

CBC International Service (Shortwave).-The International Service, inaugurated on Feb. 25, 1945, is operated by the Canadian Broadcasting Corporation on behalf of the Canadian Government. Its aim is to tell the people of other countries about Canadian life and thought, and to help unify the western world in defence of freedom.

The International Service, now in its eighth year of operation, has grown 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 with studio and program headquarters in the Radio Canada Building, Montreal, Que., from which programs are broadcast daily in English, French, German, Czech, Slovak, Dutch, Swedish, Norwegian, Danish, Italian, Spanish, Portuguese, Russian and Finnish. With technical facilities transmitting a signal unequalled by 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 and the South Pacific area.

Almost 200,000 letters have been received 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 programs. Many listeners request specific information on a variety of topics ranging from trade conditions to social and educational matters. These inquiries are answered by the language sections or are referred to the Government Departments directly concerned. Reception reports are also verified.

In addition to broadcasting Canadian programs approximately 14 hours daily, the International Service has developed a liaison with broadcasting organizations in other countries so that an increasing number of programs are relayed over national
networks, thus reaching an even wider audience. An important function of the Service is the coverage of United Nations activities by means of reports and interviews by the CBC correspondent at UN headquarters and foreign-language correspondents. The International Service also places its transmitters at the disposal of the United Nations Radio Division for the broadcasting of its official reports and commentaries to Europe and to the South Pacific.

Monthly illustrated program booklets designed for audiences in Europe and in Latin America are sent to listeners, upon request, by the International Service. These booklets contain broadcast schedules, program details in various languages, and frequency information.

Domestic Program Service.-During the year ended Mar. 31, 1952, 73,494 programs representing 23,933 hours of broadcasting were presented over the CBC Trans-Canada, Dominion and French networks. Of the total broadcasting hours, $76 \cdot 3$ p.c. were devoted to non-commercial and public-service programs, and the remainder to commercial presentations. Of the total broadcasting hours in 1951-52, $67 \cdot 1$ p.c. was scheduled on the Trans-Canada network; the Dominion network released more than $10 \cdot 1$ p.c. and the remainder was released on the French network.

The CBC originated and produced 81.7 p.c. of its network broadcasts. Of the remainder, 2.4 p.c. came from private stations and 15.9 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, news, talks, semi-classical music, variety, agriculture programs, educational broadcasts, religious periods, and programs devoted to the interests of women, sports enthusiasts and children. Table 7 shows the proportion of time devoted to sustaining programs as compared with commercial programs and analyses those made up of music as compared with the spoken word.

A program highlight ${ }^{\top}$ during 1951 was provided ${ }^{\top}$ by the visit to Canada of Their Royal Highnesses Princess Elizabeth and the Duke of Edinburgh. Throughout the three weeks of the Royal Tour the CBC networks carried eye-witness accounts of events from 27 cities and towns across Canada. Nearly_ 300 program and tech-nical-staff members, using more than three tons of equipment, travelled thousands of miles in those weeks to bring word pictures of the Royal Couple and the places they visited. A climax of the tour followed Princess Elizabeth's farewell address from Newfoundland when choirs organized by the CBC at Vancouver, Winnipeg, Toronto, Montreal, Halifax and St. John's, linked by more than 10,000 miles of national network lines, joined in singing Auld Lang Syne.

In May 1951, North America's most modern radio centre, the CBC's Radio Canada Building at Montreal, Que., was opened officially. From the building's 26 studios the CBC broadcasts more than 6,000 hours of programs a year to listeners in Canada, and speaks to the world in 14 languages through the facilities of the International Service. In its first year of service the Radio Canada Building played host to more than 60,000 visitors from Canada, the United States and many other parts of the world.

## 7.-Classification of CBC Programs, Year Ended Mar. 31, 1951

Note.-Dashes in this table indicate that no programs were reported under these particular items.

| Class of Program | Sustaining |  |  | Commercial |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Programs | Time | P.C. Hours | Programs | Time | P.C. of Total Hours |
| Musical | No. | hrs. mins. |  | No. | hrs. mins. |  |
| Opers..... | 21 | $63 \cdot 30$ | 0.34 | 17 | $39 \cdot 00$ | 0.75 |
| Symphony. | 108 | 119.05 | $0 \cdot 64$ | 10 | $15 \cdot 15$ | $0 \cdot 29$ |
| Sacred..... | 404 | 158.00 | $0 \cdot 85$ | - | $\square$ |  |
| Classical. | 2,537 | 1,666.15 | 8.93 | 72 | 72.00 | 1.38 |
| Semi-classical. | 2,479 | 1,001.05 | 5-36 | - 8 | 4.30 | $0 \cdot 08$ |
| Variety.. | 452 13,403 | $220 \cdot 55$ $5,069 \cdot 20$ | $1 \cdot 18$ 27 | 2,344 1,430 | $1,090.05$ 450.05 | $20 \cdot 94$ $8 \cdot 65$ |
| Dance. | 2,704 | 1,141-40 | $6 \cdot 12$ | 1,464 | 46.40 | 0.90 |
| Old-time. | 1,289 | ${ }^{1} 417$-10 | $2 \cdot 24$ | 378 | 126.30 | $2 \cdot 43$ |
| Band. | 177 | $70 \cdot 30$ | $0 \cdot 38$ | - |  | - |
| Totals, Musical... | 23,574 | 9,927-30 | 53.21 | 4,523 | 1,844.05 | 35-42 |
|  |  |  |  |  |  |  |
| Drams........... | 1,799 | $875 \cdot 10$ | $4 \cdot 69$ | 8,997 | 2,514-45 |  |
| Prose and poetry..... | ${ }_{6} 123$ | +51.45 | 0.28 | -149 | - | -6.57 |
| Talks-informative... | 6,043 1,470 | $\begin{array}{r}1,805 \cdot 25 \\ 519.20 \\ \hline\end{array}$ | 9.68 2.78 | 1,149 | $\stackrel{342 \cdot 10}{ }$ | ${ }^{6.57}$ |
| News commentary... | -954 | 245.00 | 1.31 | 二 | - | - |
| News events....... | 7 | 3.00 | $0 \cdot 02$ | 18 | 22.20 | $0 \cdot 43$ |
| News résumés. | 13,557 | 2,180.05 | 11.69 | 424 | $162 \cdot 45$ | $3 \cdot 13$ |
| Agriculture... | 2,514 | 953.05 | $5 \cdot 11$ | 120 | - | - |
| Sports events.. | 126 | 63.30 | $0 \cdot 34$ | 126 | 69.25 | $1 \cdot 33$ |
| Sports résumés. | 1,331 | 283.40 | 1.52 | 157 | 99.45 | 1.92 |
| Women's. | 1,796 $\mathbf{2} 419$ | 347.45 730.25 | 1.86 | 578 | $150 \cdot 30$ | $2 \cdot 89$ |
| Religious............. | 2,546 | $670 \cdot 45$ | $3 \cdot 59$ | 二 | - |  |
| Grand Totals. | 34,685 | 8,728-55 | 46.79 | 11,449 | 3,361-40 | 64.58 |
|  | 58,259 | 18,656-25 | 100.00 | 15,972 | 5,205.45 | 100.00 |
| Live talent. | 34,769 | 9,589-50 | $51 \cdot 40$ | 10,127 | 3,454.40 | 66.36 |
| Recording. | 15,807 | 6,222.40 | $33 \cdot 36$ | , 956 | 216.05 | $4 \cdot 15$ |
| Delayed.. | 7,683 | 2,843.55 | $15 \cdot 24$ | 4,889 | 1,535.00 | 29.49 |

Finances of the CBC.-For the year ended Mar. 31, 1952, the Corporation showed an operating surplus of $\$ 3,322,555$ after providing for depreciation and obsolescence and preliminary expenses in connection with the development of television amounting to $\$ 369,225$.

This surplus was made possible through the statutory grant amounting to $\$ 6,250,000$ which will continue for an additional four years, as provided by Parliament.

Licence fees increased by $\$ 269,326$ owing principally to the issue of an additional 101,509 receiving licences.

Additions to the Sound Broadcasting Service facilities amounted to $\$ 588,120$. These include the purchase of the Pigott Building, corner Young and Portage Avenues, Winnipeg; outlays for studios at St. John's, N'f'ld., and Toronto, Ont., and for the new transmitter at Vancouver, B.C.

Capital outlays of $\$ 1,879,693$ were made for television production centres and transmitters at Montreal, Que., and Toronto, Ont.

A short term loan of $\$ 650,000$, negotiated in 1950-51 to finance the Corporation's deficit, was repaid in $1951-52$. In addition, a second loan amounting to $\$ 1,500,000$ for the development of the Television Service was negotiated during the year.

All International Service capital and operating expenditure are recoverable from the Government of Canada. This expenditure is not considered chargeable to the Canadian Broadcasting Corporation because the statutory grant and the licence fees collected are used only to serve listeners in Canada.
8.-Income and Expenditure of the CBC, Years Ended Mar. 31, 1950-52

| Item | 1950 |  | 1951 |  | 1952 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Income | \$ | p.c. | \$ | p.c. | \$ | p.c. |
| Statutory grant. |  | - |  | - | 6,250,000 | 37-52 |
| Licence fees. | 5,481,488 | 57.84 | 5,571,991 | 56.28 | 5,841,318 | $35 \cdot 06$ |
| Commercial. | 2,366,401 | 24.97 | 2,463,345 | 24.88 | 2,456,432 | 14.75 |
| Miscellaneous | 73,465 | 0.77 | 187,151 | 1.89 | 173,004 | 1.04 |
| International Service. | 1,556,157 | 16.42 | 1,677,584 | 16.95 | 1,937,557 | 11.63 |
| Totals; Net Income | 9,477,511 | 100.00 | 9,900,071 | 100.00 | 16,658,311 | $100 \cdot 00$ |
| Expenditure |  |  |  |  |  |  |
| Programs. | 4,261,153 | 43.83 | 4,843,451 | $43 \cdot 35$ | 5,774,141 | $43 \cdot 29$ |
| Engineering. | 1,678,660 | $17 \cdot 27$ | 1,958,130 | $17 \cdot 53$ | 2,193,015 | 16.44 |
| Station networks | 1,094,540 | $11 \cdot 26$ | 1,161,252 | $10 \cdot 40$ | 1,270,322 | $9 \cdot 53$ |
| Administration. | 417,512 | $4 \cdot 30$ | 540,981 | $4 \cdot 84$ | 628,645 | $4 \cdot 72$ |
| Press and information | 227,734 | $2 \cdot 34$ | 271,476 | $2 \cdot 43$ | 321,023 | $2 \cdot 41$ |
| Commercial.. | 200,241 | $2 \cdot 06$ | 208,709 | 1.87 | 243,916 | 1.83 |
| Interest on loans | 94,802 | 0.98 | 230.627 | $2 \cdot 06$ | 243,353 | 1.82 |
| Depreciation. | 211, 149 | $2 \cdot 17$ | 235, 848 | $2 \cdot 11$ | 447,403 | $3 \cdot 36$ |
| Television (preliminary expenses). | 55,571 | $0 \cdot 57$ | 122,780 | $1 \cdot 10$ | 369,225 | 2.77 |
| International Service............... | 1,479,896 | $15 \cdot 22$ | 1,598,691 | $14 \cdot 31$ | 1,844,713 | 13.83 |
| Totals, Expenditure. | 9,721,258 | 100.00 | 11,171,945 | 100.00 | 13,335,756 | $100 \cdot 00$ |
| Operating deficit or surplus. | -243,747 | - | -1,271,874 | - | 3,322,555 | - |

## Section 4.-Privately Owned Radio Broadcasting Stations*

Development.-Privately owned (non-government) broadcasting stations began operations in the early 1920 's, about 12 years before any other broadcasting service was available, and since then have offered regular broadcasting service to communities in every part of Canada. In 1951, these stations numbered 135 with a total wattage of 378,600 daytime and 349,850 night-time. Operating mainly in conjunction with AM stations are 31 FM stations, with a combined power of 50,647 watts. There are, in addition, eight short-wave stations with a combined power of 6,685 watts.

The privately owned stations serve, primarily, the localities in which they are situated, the community served varying with circumstances. Many such stations are located in very small urban centres where they serve not only the local population but also a larger population scattered throughout the surrounding rural areas. Others may serve a metropolitan area and cities adjacent to it, in addition to the rural audiences and smaller centres lying between or beyond the urban areas.

These privately owned stations have a combined capital investment estimated at about $\$ 26,938,282$, employ more than 3,700 persons and disburse in salaries and wages an estimated $\$ 8,500,000$ annually. Revenue is obtained entirely from commercial advertising and they receive no part of the licence fee charged against

[^280]operators of receiving sets. The privately owned stations are required to pay transmitter licence fees to the Canadian Broadcasting Corporation; these totalled approximately $\$ 159,300$ for the fiscal year ended Mar. 31, 1951.

Interest in broadcasting at political, commercial and legal levels has increased recently as it has become more generally recognized that broadcasting is a new device for publicity and has grown to be a basic means of mass communication in North America. As a result, many representations have been made and are continuing to be made with increasing frequency and vigour to have broadcasting in Canada operate within the general framework of established law as is now the case with all other forms of publication. A complete and interesting review of this development may be found in the Minutes of the 1951 Special Committee on Radio Broadcasting, Minute Book No. 5 dated Nov. 28, 1951.

According to figures submitted by the Department of Transport to the Massey Commission 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 1948 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 required 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. Between 1947 and 1948 the privately owned stations increased their average gross revenue per station by 17 p.c. and the CBC increased its comparable revenue by 20 p.c. The average private station gross return in 1948 was $\$ 130,909$ and the CBC average per station gross return for the same year, from commercial revenue only, was $\$ 147,808$. Of the 109 stations reporting in 1948, 79 showed an aggregate surplus and 30 an aggregate loss. While no official compilations have been made available since that time, unofficial estimates indicate that the 1951 and 1952 position is approximately the same. In 1952, an order of the Copyright Appeal Board increased the copyright fees payable by the privately owned broadcasting stations from $\$ 152,000$ a year to approximately $\$ 350,000$ a year.

Administration.-The independent stations operate under the Canadian Broadcasting Act, which is administered by the Canadian Broadcasting Corporation, and under regulations made by the CBC, in addition to the Radio Act and specifications laid down by the Department of Transport. Annual statements of "Proof of Performance", showing that public service obligations have been fulfilled, together with financial statements, must be filed with the licensing authority. Advance copies of programs scheduled must also be filed weekly with the CBC and a program log within seven days following operations. Advertising content of program is limited to 10 p.c. of program time. Sources from which broadcasting stations obtain news must be approved in advance in writing by the Canadian Broadcasting Corporation.

Broadcasting Facilities.-Licences of the privately owned stations are granted by the Federal Government upon recommendation of the Board of Governors of the Canadian Broadcasting Corporation and are valid (unless cancelled or revoked) for a period of three years. Sale or ownership transfer of any station must be approved by the Federal Government.

The independent stations are limited to 5,000 watts. In 1948, three privately owned stations (CKAC Montreal, CFRB Toronto and CKLW Windsor) were authorized to operate on 50,000 watts and the latter two were so operating in 1952.

The majority continue to serve on 1,000 to 5.000 watts on the shared channels, the CBC stations occupying the clear channels allocated to Canada and operating mainly on 50,000 watts.

Network Operations.-Network operation in Canada (the process of having two or more stations broadcasting the same program at the same time) is at present restricted to the CBC by its own regulations. The CBC also has sole right, except in the case of four stations, to bring commercial and other network programs in from the United States. Some privately owned stations do, however, serve as outlets, either basic or supplementary, for CBC network programs. All stations must carry CBC or other programs when required by the CBC to do so. Food, drug and medicine continuity used on Canadian broadcasting stations must be approved in advance of broadcast by the Department of National Health and Welfare.

Television.-Government policy concerning citizen applications for television licences was undergoing revision as this Chapter went to press.

## PART VIII.-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 Quebec, Three Rivers and Montreal, while 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.

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; 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 12,305 were in operation at Mar. 31, 1952, as against 12,390 at the same date in 1951. Postage paid in 1951-52 by means of postage stamps amounted to $\$ 65,093,099$ ( $\$ 57,178,573$ in 1951). Post office money orders are issued for any amount up to and including $\$ 100$ at more than 7,000 post offices, for payment in Canada or in almost every country in the world. 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, 1952, had total deposits of $\$ 38,031,232$, an increase of $\$ 369,312$ over the $\$ 37,661,920$ deposited in 1951.

Post offices are established for the transaction of all kinds of postal business at places where 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 126 cities and towns by about 5,000 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 which include the sale of unemployment insurance stamps, the collection of Government annuity payments, the sale of radio licences, 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 the 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 four Headquarters Branches, viz., Administration, Operations, Communications and Financial, 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 Post Office Inspectors situated at 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 point of Canada), to settlements and missions far within the Arctic.

Canada's air-mail system provides several flights daily from east to west 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, 1948, 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. Air-stage service provides the sole means of communication with the outside for many areas in the hinterland. There were approximately 24,000 miles of air-mail and air-stage routes in Canada in 1952 as compared with 22,000 miles in 1951.

The principal means of mail transportation is the railway-mail service, which operates along about 40,000 miles of track and, in 1952, covere over $47,000,000$ of track mileage (exceeding $57,000,000$ in 1951). The railway mail service employed a staff of 1,343 mail clerks in 1952 ( 1,381 in 1951). 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 5,200 rural mail routes were in operation in 1952, involving about 120,750 route miles and serving 397,084 rural mail boxes ( 384,906 in 1951). Rural mail routes are generally circular in pattern
and average about 23 miles in length. A development during 1950-51 was a system of rural mail inspections carried out by Supervisory Postmasters. About 4,700 side services were in operation in 1952, as compared to 4,500 in 1951, to transport mail between post offices, railway stations, steamer wharves and air ports, while 3,050 stage services operated to convey mail to and from post offices not located on railway lines. In 1952 there were approximately 500 city mail services, as against 700 in 1951, transporting mails to and from post offices, postal stations and sub-post offices, collecting mails from street letter-boxes and delivering parcel post. In all, about 13,450 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.

In 1952, the Canadian postal service delivered an estimated $3,000,000,000$ items of mail-a decrease from the $3,012,000,000$ items delivered in the previous year. The service makes use of such mechanical handling devices as conveyers, chutes, sorting machines, stamp cancelling machines, etc., in its larger offices.

The increase in postal business is one of the impressive features of Canada's economic development during the last 10 years. From $\$ 55,477,159$ in 1942, gross revenue has increased year by year to $\$ 122,266,675$ by Mar. 31,1952 -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 Provinces, as at Mar. 31, 1949-52

| Province or Territory | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. |
| Newfoundland. | 550 | 553 | 573 | 592 |
| Prince Edward Island.. | 105 | 105 | 105 | 105 |
| Nova Scotia. | 1,362 | 1,315 | 1,278 | 1,245 |
| New Brunswick. | 922 | 909 | 874 | 837 |
| Quebec. | 2,567 | 2,560 | 2,545 | 2,530 |
| Ontario. | 2,590 | 2,586 | 2,602 | 2,598 |
| Manitoba. | 806 | 809 | 823 | 823 |
| Saskatchewan. | 1,418 | 1,404 | 1,407 | 1,397 |
| Alberta. | 1,186 | 1,184 | 1,179 | 1,179 |
| British Columbia. | 933 | 952 | 958 | 955 |
| Yukon Territory | 15 | 15 | 15 | 13 |
| Northwest Territories. | 26 | 26 | 31 | 31 |
| Canada. | 12,480 | 12,418 | 12,390 | 12,305 |

## 2.-Revenue and Expenditure of the Post Office Department, Years Ended Mar. 31, 1943-52

Nots.-Figures for 1867-1942 will be found in the corresponding tables of previous Year Books, beginning with the 1911 edition.

| Year | Gross Revenue | Net <br> Revenue ${ }^{1}$ | Expenditure ${ }^{2}$ | $\begin{aligned} & \text { Surplus ( }+ \text { ) } \\ & \text { or } \\ & \text { Deficit ( } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| 1943. | 59,175, 138 | 48,868,762 | 44,741,987 | +4,126,775 |
| 1944. | 73, 004,399 | 61,070,919 | 48,485,009 | $+12,585,910$ |
| 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 | +2,975,781 |
| $1950{ }^{3}$ | 101,277,435 | 84,528,655 | 82,639,741 | +1,888,914 |
| 19512 | 105,545,456 | 90,454,678 | 91,781,466 | $-1,326,788$ |
| $1952{ }^{3}$ | 122,266,675 | 104,622,208 | 97,973,263 | +6,648,945 |

${ }^{1}$ Gross revenue less commissions and allowances to postmasters and other smaller items. $\quad 2$ Excludes rental of service staff and staff post offices. ${ }^{3}$ Figures for Newfoundland included.

## 3.-Gross Postal Revenue of Offices collecting upwards of $\mathbf{\$ 1 0 , 0 0 0}$, for the Years Ended Mar. 31, 1951 and 1952

Nors.-The post offices shown in this table do not include those established at military camps. 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 | 1951 | 1952 | Province and Post Office | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Newfoundiand |  |  | Nova Scotia-concluded |  |  |
| Buchans. | 1 | 10,045 | Halifax. | 1,642,832 | 1,876,993 |
| Corner Brook | 54,964 | 66,231 | Hantsport | , | 10,397 |
| Gander. | 29,306 | 28,999 | Inverness. | ${ }^{1} 14$ | 10,710 |
| Goose Airport |  | 16,761 | Kentville.................. | 53,142 | 60,536 |
| Grand Falls | 20,225 | 21,419 | Kingston................ | 12,461 | 16,844 |
| St. John's................. | 473,976 | 549,975 | Liverpool................. | 26,145 | 31,944 |
| St. John's East........... | 78,072 |  | Lunenburg. . . . . . . . . . . . | 21,688 | 25,406 |
| Totals, Newfoundiand.. | 26,504 |  | New Glasgo | 14,476 79,705 | 22,887 94,267 |
|  | 945,478 | 1,109,669 | New Waterford | 18,115 | 21,700 |
|  |  |  | North Sydney | 30,417 | 34,788 |
| P. E. Island |  |  | Parrsboro. | 10,886 22,799 | 12,711 25,483 |
|  |  |  | Shelburne | 14,050 | 16,479 |
| Charlottetown | 180,968 | 204,871 | Springhill | 20.914 | 23,785 |
| Montague. |  | 11,075 | Stellarton. | 21,644 | 24,147 |
| Summersid | 55,512 | 67,567 | Sydney | 196,240 | 215, 033 |
| Totals, P. E. Island..... | 357,496 | 409,447 | Truro... | 121,246 | 135,951 |
|  |  |  | Westville |  | 11,456 |
| Nova Scotia |  |  | Windsor. | 31,560 | 35,393 |
|  |  |  | Wolfville | 23,715 | 26,937 |
|  | $\begin{aligned} & 65,352 \\ & 12.155 \\ & \hline \end{aligned}$ |  | Yarmout | 57,446 | 66,107 |
| Annapolis Royal.......... |  | 74,560 13,574 | Totals, Nova Scotia..... | 3,421,831 | 3,904,511 |
| Antigonish................ | 40,669 | 47,177 |  |  |  |
| Armare.. | 15,700 | 19,783 | New Brunswick |  |  |
| Berwick | 1 | 11,125 12,056 | New Branswick |  |  |
| Bridgetown | $\begin{array}{r} 15,040 \\ 37,537 \end{array}$ | 16,703 | Bathurst................ | 37,686 | 45,153 |
| Bridgewate |  | 43,144 | Campbellton.............. | 49,683 | 56,918 |
| Chester. | 37,537 | 10,595 | Chatham.... | 25,076 | 32,306 |
| Cornwall | 1 | 14,463 | Dalhousie. | 18,301 | 22,049 |
| Digby ${ }_{\text {Glace }}$ | 25,845 | 30,930 | Edmundsto | 39,106 | 47,064 |
| Glace Bay. | 51,463 | 59,661 | Fredericton | 237,374 | 290,145 |

[^281]
## 3.-Gross Postal Revenue of Offices collecting upwards of $\mathbf{\$ 1 0 , 0 0 0}$, for the Years Ended Mar. 31, 1951 and 1952-continued



For footnotes, see end of table, p. 858.

## 3.-Gross Postal Revenue of Offices collecting upwards of $\mathbf{\$ 1 0 , 0 0 0}$, for the Years Ended Mar. 31, 1951 and 1952-continued



## 3.-Gross Postal Revenue of Offices collecting upwards of $\mathbf{\$ 1 0 , 0 0 0}$, for the Years Ended Mar. 31, 1951 and 1952-continued

| Province and Post Office | 1951 | 1952 | Province and Post Office | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ontario-continued | \$ | \$ | Ontario-concluded | \$ | \$ |
| Owen Sound. | 157,862 | 166,567 | Wiarton. | 13,162 | 14,705 |
| Palmerston. | 11,058 | 13,609 | Willowdale | 81,373 | 140,389 |
| Paris. | 71,631 | 84,448 | Winchester | 10,560 | 12,566 |
| Parry Soun | 36,749 | 41,532 | Windsor. | 1,056,723 | 1,223,835 |
| Pembroke | 77,955 | 88,352 | Wingham. | 20,541 | 23,213 |
| Penetanguish | 16,570 | 18,503 | Woodbridge | 1 | 12,746 |
| Perth. | 43,746 | 50,877 | Woodstock | 138,428 | 162,926 |
| Peterbor | 301,600 | 364,491 | Totals, Ontario | 39,359,691 |  |
| Pickering |  | 13,080 |  |  |  |
| Picton. | 41,423 | 52,092 |  |  |  |
| Port Arthu | 208,100 | 247,428 |  |  |  |
| Port Colborn | 59.220 | 71,615 | Manitoba |  |  |
| Port Credit. | 40,076 | 54,143 |  |  |  |
| Port Dalhous | 14,201 | 16,291 | Altona. | 11,151 | 13,420 |
| Port Dover. | 15,424 | 18,380 | Beauséjour |  | 10,104 |
| Port Elgin | 11,699 | 13,452 | Boissevain | 10,658 | 12,425 |
| Port Hope | 51,987 | 58,338 | Brandon. | 188,524 | 217,122 |
| Port Perry | 10,393 | 12,154 | Carman. | 14,982 | 17,275 |
| Prescott | 24,673 | 28,711 | Dauphin. | 46,308 | 52,266 |
| Preston. | 60,325 | 69,126 | Flin Flon | 46,998 | 53,136 |
| Rainy R | 1 | 10,133 | Gimli.. |  | 16,597 |
| Red Lake | 12,767 | 13,196 | Killarney | 10,907 | 12,726 |
| Renfrew. | 49,576 | 55, 200 | Minnedosa | 16,377 | 18,195 |
| Richmond | 17,409 | 21,590 | Morden. | 13,989 | 15,446 |
| Ridgetown. | 16,571 | 18,695 | Morris. |  | 11,321 |
| Ridgeway | 10,774 | 12,604 | Neepawa | 24,532 | 27,214 |
| Rodney.. | 1 | 10,594 | Pine Falls. | 13,410 | 16,183 |
| St. Catharines | 309,233 | 373,317 | Portage la Prairie........ | 62,845 | 74,069 |
| St. Mary's. | 27,333 | 32,233 | Roblin.................... | 11, 125 | 13,063 |
| St. Thoma | 137,214 | 160,513 | Russell | 11,509 | 12,699 |
| Sarnia. | 191,514 | 239,862 | Selkirk | 24,258 | 28,848 |
| Sault Ste. Marie | 182,027 | 219,371 | Snow Lak | 10,050 |  |
| Scarborough Bluff | 13,731 | 16,541 | Souris.. | 12,253 | 13,836 |
| Schreiber......... |  | 10,380 | Steinbach | 13,646 | 17,141 |
| Schumach | 22,283 | 20,146 | Swan Rive | 21,541 | 25,075 |
| Seaforth. | 16,892 | 20,836 | The Pas. | 25,851 | 27,653 |
| Shelburne | 1 | 11,241 | Transcona | 14,984 | 16,944 |
| Simcoe. | 84,348 | 97,728 | Virden. | 16,383 | 19,127 |
| Sioux Lookou | 21,450 | 25,381 | Wawanesa | 12,505 | 10,975 |
| Smiths Falls.. | 49,354 | 57,592 | Winkler. | 12,318 $5,839,579$ | 6,713,897 |
| Smooth Rock F |  | 11,715 | Winnipeg | 5,839,579 | 6,713,897 |
| South Porcup | 25,226 | 25,253 | Totals, Manitoba | 7,275,059 | 8,355,009 |
| Stayner. | 1 | 10,630 |  |  |  |
| Stoney Creek | 13,777 | 16,914 |  |  |  |
| Stouff ville | 12,686 | 157,410 |  |  |  |
| Stratiord. | 134,250 | 157,750 | Saskatchewan |  |  |
| Strathroy | 26,412 | 31, 425 |  |  |  |
| Streetsville | 11,264 19,315 | 16,147 21,945 | Assiniboia. ............... Biggar............... | 20,003 16,034 | 23,862 17,378 |
| Sturgeon F | 19,315 276,101 | 21,945 340,555 | Big River |  | 10,316 |
| Tecumseh | 10,086 | 12,105 | Broadview | ${ }^{1}$ | 11,653 |
| Thamesville. | 1 | 10,468 | Canora. | 14,726 | 17,256 |
| Thessalon. | 14,234 | 13,084 | Carlyle. . |  | 10,658 |
| Thorold. | 52,579 | 58,929 | Estevan. | 33,064 | 35,667 |
| Tilbury. | 18,361 | 21, 185 | Eston. | 11,109 | 11,940 |
| Tillsonburg | 43,210 | 51,197 | Foam Lake |  | 11,102 |
| Timmins.. | 135,554 | 149,961 | Fort San.... |  | 10,068 12,866 |
| Toronto. | 20,045,041 | 23,883,460 | Gravelbourg.............. | 11,017 | 12,860 11,777 |
| Trenton. | 57,150 | 68,546 16,562 | Hudson Bay ............... |  |  |
| Tweed... | 13,955 12,383 | 16,562 14,970 | Humboldt... | 25,256 12,268 | 29,645 14,181 |
| Uxbridge. | 12,383 24,500 | 14,970 26,545 | Indian Head | 12, 588 | 17,739 |
| Wallaceburg | 49,205 | 57,212 | Kerrobert. | 10,302 | 11,682 |
| Waterford. | 12,075 | 13,256 | Kindersley. | 16,048 37,490 | 18,880 43,942 |
| Waterloo | 143,903 | 169,985 | Lloydminster............. | 37,490 16,013 | +18,641 |
| Watford. | 14,627 156,086 | 12,181 | Maple Creek.............. | 16,013 13,752 | 17,033 |
| Welland........ | 156,086 27,118 | 185,194 31,997 | Meadow La | 31,542 | 35,600 |
| Westboro Hill.......... |  | 14,426 | Melville | 30,277 | 34,239 229,378 |
| Whitby... | 29,205 | 34,391 | Moose Ja | 201,455 | 229,378 |

For footnote, see end of table, p. 858.

## 3.-Gross Postal Revenue of Offices collecting upwards of $\mathbf{\$ 1 0 , 0 0 0}$, for the Years Ended Mar. 31, 1951 and 1952-continued

| Province and Post Office | 1951 | 1952 | Province and Post Office | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Saskatchewan-concl. | \$ | \$ | Alberta-concluded | \$ | \$ |
| Moosomin............... | $\begin{aligned} & 13,965 \\ & 21,447 \\ & 80,146 \end{aligned}$ | $\begin{aligned} & 15,498 \\ & 25,384 \\ & 93,347 \end{aligned}$ | Wainwright Westlock | $\begin{aligned} & 16,240 \\ & 15,707 \\ & 30,274 \end{aligned}$ | $\begin{aligned} & 22,908 \\ & 17,799 \\ & 36,001 \end{aligned}$ |
| Nipawin............... |  |  |  |  |  |
| North Battleford. |  |  | Wetaskiw |  |  |
| Prince Albe | $\begin{array}{r} 140,554 \\ 1,729,440 \end{array}$ | $\begin{array}{r} 163,137 \\ 2,047,476 \end{array}$ | Totals, Alberta.......... | 5,922,910 | 6,896,147 |
| Rosetown | 20,572 | 23,569 |  |  |  |
| Rosthern. | 10,220 | 12,537 |  |  |  |
| Saskatoon | 672,647 | 789,314 |  |  |  |
| Shaunavon | 15,827 | 18,611 | British Columbia |  |  |
| Shell brook. |  | 10,543 |  |  |  |
| Swift Current | 78,876 | 83,131 | Abbotsiord | 36,091 | 43,416 |
| Tisdale. | 27,429 | 29,698 14,230 | Alberni... | 17,054 | 19,800 10,613 |
| Wadena | 11,962 13,064 | 14,230 15,013 | Aldergrove | 1 | 10,613 |
| Watrous | 10,574 | 11,639 | Armstrong | 14,983 | 16,405 |
| Weybur | 45,140 | 52,722 | Asheroft. |  | 10,227 |
| Wilkie. | 13,602 | 15,568 | Bralorne | 1 | 10,761 |
| Wynyard | 11,070 | 12,920 | Burns Lake | 16 | 17,981 |
| Yorkton. | 80,252 | 92,425 | Campbell | $\underset{1}{16,832}$ | 27,248 |
| Totals, Saskatchewan.. | 5,091,593 | 5,912,930 | Chemainus. Chilliwack. | 14,99678,812 | 16,91389,540 |
|  |  | 5,012,030 |  |  |  |
|  |  |  |  | 32,578 | 36,455 |
|  |  |  | Courtenay | 39,497 | 46,929 |
|  |  |  | Cranbroo | 43,560 | 47,532 |
|  |  | 12,468 | Creston. | 23,906 | 26,577 |
| Athabaska............... | 11,075 |  |  | 10,475 | 10,661 |
| Banff..................... | $35,696$ | 44,179 |  | 34,099 | 39,866 |
| Barrhead |  | 15,918 | Dawson Creek <br> Duncan. | 61,509 | 72,131 |
| Blairmore | $14,129$ | 15,89711,509 | Duncan. <br> Enderby |  | 11, 275 |
| Bonnyvill | 10,273 |  | Fernie.................... | 20,31613,280 |  |
| Bowden. |  | 11,241 | Fort St. John. . . . . . . . . . |  | 14,664 |
| Brooks. | $\begin{array}{r} 22,951 \\ 1,610,791 \end{array}$ | $\begin{array}{r} 25,866 \\ 1,896,797 \end{array}$ | Ganges.................. | 10,341 | 11,403 |
| Calgary. |  |  | Gibsons.................. |  | 10,88318,370 |
| Camrose | - 39,564 | -45,639 |  | $\stackrel{1}{16,619}$ |  |
| Cardston | $\begin{aligned} & 18,711 \\ & 13,166 \end{aligned}$ | 20,359 | Haney.................... | $\begin{aligned} & 20,363 \\ & 13,610 \end{aligned}$ | 32,409 |
| Clareshol |  | 19,667 | Hope <br> Kamloops. |  | $\begin{array}{r} 16,593 \\ 128,645 \end{array}$ |
| Cosldale. |  | 10,114 |  | $\begin{array}{r} 13,610 \\ 107,990 \end{array}$ |  |
| Coleman | 14,991 | 16,665 | Kamloops <br> Kelowna. | 107,990 122,069 | 133, 874 |
| Didsbur | 13,361 | 15,279 | Kimberley............... | 31,997 | 35,939 |
| Drumheller | 39,255 | $\begin{array}{r} 44,337 \\ 2,243,434 \end{array}$ | Ladner. <br> Ladysmith | $\begin{aligned} & 21,697 \\ & 17,126 \end{aligned}$ | $\begin{array}{r} 24,509 \\ 19,326 \end{array}$ |
| Edmonto | 1,911,207 |  |  |  |  |
| Edson. | 17,55010,822 | 21,320 | Ladysmith. <br> Lake Cowichan. |  | 10,732 |
| Fairvie |  | 13,05744,762 | Langley Prairie. <br> Merritt. | $\begin{aligned} & 32,617 \\ & 10,391 \end{aligned}$ | 39,310 |
| Grande | 39,251 |  |  |  | 12,220 |
| Hanna. | 16,904 | $\begin{aligned} & 20,485 \\ & 13,663 \end{aligned}$ | Mission City ............. | 40,510119,975 | 18,737135,092 |
| High Prairie | 12,673 |  |  |  |  |
| High River | 19,29117,695 | 21,214 | Nelson................... | $\begin{array}{r} 96,273 \\ 358,899 \end{array}$ | 107,636405,614 |
| Innisfail. |  | 20,07820,701 | New Westminster.........Ocean Falls............ |  |  |
| Jasper. | 19,863 |  |  | $\begin{array}{r} 358,899 \\ 16,702 \end{array}$ | 405,614 20,495 |
| Lacomb | 26,355 | 30,470 | Oliver.................... | 22,581 | 25,391 |
| Leduc. | $\begin{array}{r} 10,742 \\ 230,284 \end{array}$ | 17,327 | Osoyo..................... | 11,145 | 12,066 |
| Lethbridg |  | 264,534 |  | 11,477 | 12,74997,096 |
| Macleod. | $\begin{aligned} & 15,424 \\ & 101,738 \end{aligned}$ | 17,481119,321 | Penticton. . . . . . . . . . . . . . | 88,599 |  |
| Medicine Ha |  |  | Port Alberni <br> Port Alice | 58,529 | 67,719 |
| Nanton. |  | 10,346 |  |  | 10,08516,169 |
| North Edmo | 12,405 | 13,38623,918 | Port Coquitlam............ | 14,255 |  |
| Olds. | 21,09926,732 |  |  | 24,697 | 30,33187,056 |
| Peace River |  | 33,141 | Prince George............... | 66,034 |  |
| Pincher Cree | 15,86824,385 | 17,470 | Prince Rupert.............. | 90,924 | 101,578 |
| Ponoka. |  | 28,989 | Princeton. Qualicum Beach............ $^{\text {a }}$ | 16,43611,813 | 18,583 |
| Raymond. | 13,179 | 14,993 |  |  | 13,30332,592 |
| Red Deer............... | $\begin{aligned} & 75,658 \\ & 10.823 \end{aligned}$ | 89,61715 | Quesnel. <br> Revelstoke | 25,348 |  |
| Rocky Mountain House |  |  |  | 24,470 | 28,89323,173 |
| St. Paul. | 14,572 | 16,777 | Rossland................ |  |  |
| Stettler | 24,272727 | 30,177 |  | 10,093 | ${ }_{1}^{23,173}$ |
| Taber. |  | 25,029 | Royal Oak.................. |  | 12,501 |
| Three Hills, | 24,16918,224 | 33,20721,574 | Salmon Arm............... | 25,347 | 29,310 |
| Vegreville |  |  |  | 11,542 | 13,539 |
| Vermili | 22,993 | 25,227 | Sidney | 20,110 | 22,619 |
| Viking. |  | 10,143 | Smither | 14,654 | 19,276 |
| Vulcan. | 11,875 | 13,941 | Stevest | 11,005 | 13,546 |

For footnote, see end of table, p. 858.

## 3.-Gross Postal Revenue of Offices collecting upwards of $\mathbf{\$ 1 0 , 0 0 0}$, for the Years Ended Mar. 31, 1951 and 1952--concluded

| Province and Post Office | 1951 | 1952 | Province and Post Office | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| British Columbia-concl. |  |  | Northwest Territories |  |  |
| Terrace. | 10,503 | 16,825 | Yellowknife. | 35,595 | 36,598 |
| Trail..... | 109,217 $5,283,426$ | 124,696 $6,172.493$ | Totals, N.W.T. |  |  |
|  | 5,283,26 | 6, 23,896 | Totals, N.W.T | 50,559 | 54,187 |
| Vanderhoof. | 1 | 12.270 |  |  |  |
| Vernon. | 95,985 | 104,172 | Summary |  |  |
| Wictoria... | 1,090,519 | $1,285,306$ 17,081 |  |  |  |
| Westview. | 15,810 15,185 | 17,081 | Newfoundland Prince Edward İiland...... | 945,478 357,496 | $1,109,669$ 409,447 |
| White Rock | 20.778 | 24,782 | Nova Scotia.............. | 3,421,831 | 3,904.511 |
| Williams Lake | 15,772 | 20,635 | New Brunswick | 2,909,170 | 3,283,426 |
| Totals, British ColumbiaYukon Territory | 9,704,846 | 11,295,281 | Ouebec. | $21,790,583$ $39,359,691$ | 25,715,448 |
|  |  |  | Manitoba | 7,275,059 | 8,355,009 |
|  |  |  | Saskatchewan | 5,091,593 | 5,912,930 |
|  |  |  | Alberta. | 5,922,910 | 6,896,147 |
|  |  |  | British Columbia. | 9,704,846 | 11,295. 281 |
|  |  |  | Yukon and N.W.T | 121,671 | 134,629 |
| Dawson. Whitehorse. | $\begin{aligned} & 16,404 \\ & 41,487 \end{aligned}$ | $\begin{aligned} & 15,113 \\ & 48,776 \end{aligned}$ | Cana | 96,900,328 | 113,534,651 |
|  |  |  |  |  |  |
| Totals, Yukon Territory | 71,112 | 80,442 | P.C. of all Postal Revenue | 91.8 | 92.9 |

[^282]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: $\$ 56,303,157$ in $1947-48$, $\$ 56,317,570$ in 1948-49, $\$ 57,249,306$ in 1949-50, $\$ 57,178,573$ in 1950-51 and $\$ 65,093,099$ in 1951-52. Receipts from postage meter or postage register impressions and postage paid in cash by other means were as follows: $\$ 28,959,194$ in 1947-48, $\$ 33,315,148$ in 1948-49, $\$ 36,292,710$ in 1949-50, $\$ 39,979,297$ in 1950-51 and $\$ 48,945,565$ in 1951-52.

## 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. The analysis of such business by provinces, published in former editions of the Year Book, has been discontinued; because of a change in the type of money orders and in the method of recording them, the statistics cannot be presented on a basis comparable with earlier years.

A table showing the financial business of the Post Office Savings Bank will be found in the Chapter on Currency and Banking, p. 1116.

## 4.-Operations of the Money-Order System, Years Ended Mar. 31, 1943-52

Norg.-Figures for 1868-1942 will be found in the corresponding table of previous Year Books, beginning with the 1911 edition.

| Year | MoneyOrder <br> Offices in <br> Canada | MoneyOrders Issued in <br> 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. | \$ | 5 | \$ | \$ |
| 1943. | 7,306 | 18,627,228 | 236,925,920 | 233,004,136 | 3,921,784 | 6,887,250 |
| 1944. | 7,362 | 19,554, 760 | 262,297,331 | 256,630,949 | 5,666,382 | 8,440,436 |
| 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 | 576,614,652 | 567,187,152 | 9,427,500 | 3,019,522 |

## PART IX.-THE PRESS

The tables of this Part are based on data obtained from Canadian Advertising. One serious difficulty has been encountered in connection with the compilation of circulation figures. In the case of daily newspapers, reliable circulation figures are relatively easy to obtain since, in their own ${ }^{*}$ best interest, such papers qualify for and subscribe to the Audit Bureau of Circulation requirements. In such cases, 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. In these cases, 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. In the relatively few cases where such figures were not available, minimum publishers' 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 the Province for over 60 years. Eleven of the 13 French-language newspapers published in 1951, reported from that Province, the other two being 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 cities. This is especially true since rapid freight transport by highway and latterly by air has become more common. For instance, Montreal and Toronto morning papers (printed late the previous evening) can now be transported to Ottawa and delivered along the morning routes in competition with the local morning papers. Since these large metropolitan dailies can command exclusive feature services that the dailies of the smaller cities cannot afford, it often places them in an advantageous position in competition with the local dailies.

Weekly Newspapers.*-Weekly newspapers circulate within relatively restricted areas around their publication centres. These cater to a limited local interest but, within the areas they serve, they exercise an important influence. Canada is well served by foreign-language weekly newspapers. In 1951, they had a stated circulation of 215,354 copies, among which Ukrainian papers had a circulation of 67,179 copies, Yiddish 28,465, German 30,620, and Polish 23,656 copies.

Other Publications and Periodicals.-Table 6 gives the number of publications, other than newspapers, published in Canada. Monthly and weekly magazines and periodicals enjoy the largest circulation while those dealing with home, social and welfare, agricultural and rural topics, and religious, trade, industry and related subjects are the most popular types.

* Including a very few semi- and tri-weekly newspapers.


## 1.-Estimated Numbers and Circulations ${ }^{1}$ of reporting Daily and Weekly ${ }^{2}$ English-Language Newspapers, by Provinces, 1949-51

Nots.-Figures for the years 1938-46 are given at p. 788 of the 1948-49 Year Book and for 1947-48 at p. 824 of the 1951 edition.

| Province <br> or Territory | 1949 r |  |  |  | 1950 |  |  |  | 1951 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Daily |  | Weekly |  | Daily |  | Weekly |  | Daily |  | Weekly |  |
|  | No. | Circulation | No. | Circu- <br> lation | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation |
| N'f'ld. | 2 | 24,353 | 7 | 43,833 | 2 | 24,385 | 6 | 41,404 | 2 | 22,905 | 8 | 44,889 |
| P.E.I | 2 | 17,707 | 2 | 5,510 | 2 | 18,321 | 2 | 6,624 | 2 | 18,713 | 1 | 3,541 |
| N.S. | 6 | 206,342 | 28 | 81,545 | 6 | 209,360 | 28 | 80,026 | 6 | 205,833 | 28 | 80,376 |
| N.B. | 4 | 74,437 | 15 | 36,758 | 3 | 72,277 | 16 | 45,457 | 4 | 71,913 | 16 | 45,398 |
| Que. | 5 | 253,019 | 27 | 570,433 | 5 | 256,917 | 27 | 508,061 | 5 | 260,835 | 27 | 429,881 |
| Ont. | 37 | 1,485,591 | 254 | 1,414,204 | 37 | 1,519,067 | 252 | 1,441,306 | 37 | 1,551,490 | 255 | 1,416,234 |
| Man. | 5 | 169,674 | 63 | 65,071 | 5 | 174,291 | 66 | 71,022 | 6 | 180,256 | 64 | 69,168 |
| Sask. | 4 | 85,502 | 132 | 132,136 | 4 | 89,360 | 135 | 138,194 | 4 | 90,839 | 151 | 149,238 |
| Alta. | 6 | 165, 170 | 111 | 107, 269 | 6 | 174,428 | 107 | 109,901 | 5 | 169,909 | 111 | 115,108 |
| B.C. | 10 | 362,872 | 75 | 173,441 | 11 | 375,032 | 74 | 173,671 | 11 | 367,723 | 75 | 171,827 |
| Yukon and N.W.T... | - | - | 3 | 2,225 | - | - | 3 | 2,550 | - | - | 3 | 2,850 |
| Canada.. | 81 | 2,844,667 | 717 | 2,632,425 | 81 | 2,913,438 | 716 | 2,618,216 | 82 | 2,910,416 | 739 | 2,528,510 |

[^283]
## 2．－Estimated Numbers and Circulations ${ }^{1}$ of reporting Daily and Weekly ${ }^{2}$ French－Language Newspapers，by Provinces，1949－51

Note．－Figures for the years 1938－46 are given at p．789 of the 1948－49 Year Book and for 1947－48 at p． 824 of the 1951 edition．

| Province | 1949 r |  |  |  | 1950 |  |  |  | 1951 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Daily |  | Weekly |  | Daily |  | Weekly |  | Daily |  | Weekly |  |
|  | No． | Circu－ lation | No． | Circu－ lation | No． | Circu－ lation | No． | Circu－ lation | No． | Circu－ lation | No． | Circu－ lation |
| N＇f＇ld． | － | － | － | － | － | － | － | － | － | － | － | － |
| P．E．I．．．．．．． | 二 | 二 | － | $\overline{1} 5$ | 二 | 二 | － | － | 二 | － | $\square$ | － 135 |
| N．S．．．．．．．．．． | 1 | － | 1 1 | 1,456 4,100 | $\overline{1}$ |  | 1 |  | $\underline{1}$ | 7，041 | 1 | 4，000 |
| Que．．．．．．．．．． | 11 | 583，053 | 107 | 1，351，692 | 11 | 582，433 | 106 | 1，396．396 | 11 | 581， 151 | 110 | 1，421，417 |
| Ont．．．．．．．．． | 1 | 24，954 | 3 | 1，3，895 | 1 | 28，374 | 3 | －7，100 | 1 | 27，712 | 3 | 7，100 |
| Man．．．．．．．．． | － | － | 1 | 9，859 | － | － | 1 | 10，372 | － | － | 1 | 10，447 |
| Sask．．．．．．． | － | － | 1 | 914 | － | － | 1 | 914 | － | － | 1 | 1，302 |
| Alta．．．．．．．．． | － | － | 1 | 3，381 | － | － | 1 | 3，493 | － | － | 1 | 3，612 |
| B．C． | － |  |  |  |  | － |  |  |  | － |  |  |
| Totals．．．． | 13 | 608，007 | 115 | 1，378，297 | 13 | 617，503 | 114 | 1，424，008 | 13 | 615，904 | 118 | 1，419，313 |

${ }^{1}$ Circulation not reported in all cases．$\quad{ }^{2}$ Includes national week－end papers．

## 3．－Estimated Numbers and Net Paid Circulations of reporting Daily and Weekly English－Language Newspapers published in Urban Centres of $\mathbf{3 0 , 0 0 0}$ Population or Over， 1950 and 1951.

Nors．－Figures for 1945 are given at p． 753 of the 1947 Year Book；for 1946 and 1947 at p． 790 of the 1948－49 edition；and for 1948－49 at p． 825 of the 1951 Year Book．

| Urban Centre | $\begin{gathered} \substack{\text { Census } \\ 1951} \\ \hline \begin{array}{c} \text { House- } \\ \text { holds } \end{array} \end{gathered}$ | 1950 |  |  |  | 1951 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Daily |  | Weekly |  | Daily |  | Weekly |  |
|  | No． | No． | Net Paid Circu－ lation | No． | Net Paid Circu－ lation | No． | Net Paid Circu－ lation | No． | Net Paid Circu－ lation |
| Brantford | 10，380 | 1 | 18，579 | － | － | 1 | 19，058 | － | － |
| Calgary． | 37，705 | 2 | 72，119 | － | － | 2 | 75，163 | － |  |
| Edmonton． | 43，090 | 2 | 84，371 | 5 | 10，500 | 1 | 76，296 | 4 | 10，050 |
| Fort William | 9，295 | 1 | 12，964 | － |  | 1 | 13，035 | － |  |
| Halifax．． | 18，765 | 2 | 169，637 | $\square$ |  | 2 | 166，229 | 1 |  |
| Hamilton | 55，340 | 1 | 77，416 | 1 | 18，250 | 1 | 78，238 | 1 | 18，250 |
| Kipgston． | 8,695 11575 | 1 | 17，906 | － |  | 1 | 17，069 | － |  |
| Kitchener | 11,575 26,315 | 1 | 24,556 75,846 | 二 | 二 | 1 | 25,842 80,188 | － |  |
| Montreal | 248，110 | 3 | 243，057 | 7 | 423，521 ${ }^{2}$ | 3 | 246，560 | 7 | 344，172 ${ }^{1}$ |
| Oshawa． | 11，225 |  | 10，917 | － | 123，521 | 1 | 10，918 | － | － |
| Ottawa． | 48，955 | 2 | 105，215 | － |  | 2 | 114，142 | － |  |
| Peterboroug | 10，025 | 1 | 15，698 | 1 | 7，333 | 1 | 15，649 | 1 | 6，401 |
| Port Arthur | 8，415 | 1 | 10，661 | － | － | 1 | 11，412 |  | － |
| Quebec． | 35,045 19,220 | 1 | 4,429 42,782 | 1 |  | 1 | 4,959 43 | － |  |
| Regina．．．．． | 19,220 10,405 | 1 | 42,782 18,423 | 1 | 2，487 | 1 | 43,156 18,760 | 1 | 2，487 |
| St．John＇s． | 10，605 | 2 | 24，385 | 2 | 29，254 2 | 2 | 22，905 | 2 | 29，372 ${ }^{2}$ |
| Saint Joh | 13.215 | 1 | 43，635 | 1 | 5，500 | 1 | 42，724 | 1 | 5，500 |
| Sarnia．．． | 9，380 | 1 | 11.060 | － | － | 1 | 11，359 | － | － |
| Saskatoon． | 15，030 | 1 | 32，685 | － | － | 1 | 33，512 | － | － |
| Sault Ste．Marie Sherbrooke．．．．．．．． | 7,865 11.505 | 1 | 10，945 | 1 | － | 1 | 11，704 | 1 |  |
| Sudbury．．． | 11,505 9,460 | 1 | 9,431 16,455 | 1 | 3，400 | 1 | 9,316 18,277 | 1 | $\underline{3,400}$ |
| Sydney | 6，355 | 1 | 27，070 | － | － | 1 | 26，677 |  |  |
| Toronto． | 157， 205 | 4 | 869，058 | 4 | 951， 2752 | 4 | 878，904 | 5 | 917，515 ${ }^{3}$ |
| Three Rivers | 9，505 | ， | － | 1 | 3，889 | － | － | 1 | 3，889 |
| Vancouver． | 101，510 | 3 | 302，568 | 2 | 7，750 | 3 | 295，543 | 2 | 7，750 |
| Verdun．．． Victoria． | 19，775 | 2 | －${ }^{10}$ | $\stackrel{2}{2}$ | 32,4834 | － | － | 2 | 32，4774 |
| Windsor | 15,810 31,820 | 2 | 46,120 67,242 | 1 | $30,880^{5}$ | 1 | 45,761 69,542 | 1 | 30,6025 |
| Winnipeg． | 64，700 | 2 | 165，495 | － | － | 2 | 169，358 | － | － |

[^284]${ }^{2}$ Includes 1 national week－end， Saturday edition．

## 4.-Estimated Numbers and Circulations of reporting Daily and Weekly FrenchLanguage Newspapers in Urban Centres of $\mathbf{3 0 , 0 0 0}$ Population or Over, 1950 and 1951.

Note.-Figures for 1945 are given at p. 754 of the 1947 Year Book; for 1946 and 1947 at p. 835 of the 1950 edition; and for 1948-49 at p. 826 of the 1951 edition.

| Urban Centre | Census <br> 1951 <br> House- <br> holds | 1950 |  |  |  | 1951 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Daily |  | Weekly |  | Daily |  | Weekly |  |
|  | No. | No. | Circulation | No. | Circulation | No. | Circulation | No. | Circulation |
| Edmonton. | 43,090 | - | - | 1 | 3,493 | - | - | 1 | 3,612 |
| Hull..... | 9,335 | 5 | $\overline{7}$ | 2 | 7,106 | - | - | 2 | 7,106 |
| Montreal | 248,110 | 5 | 327,295 | 13 | 1,031,279 ${ }^{2}$ | 5 | 324,680 | 13 | 1,049,643 |
| Ottawa. | 48,955 | 1 | 28,374 | 1 | $1{ }^{1,031,27}$ | 1 | 27,712 | 13 | 1,049,643 |
| Quebec. | 35,045 | 3 | 212,018 | $\bigcirc$ | - | 3 | 211,626 | $\square$ | - |
| Sherbrooke Sudbury | 11,505 9,460 | 1 | 19,244 | 1 | 30,775 | 1 | 20,060 | 1 | 30,775 |
| Sudbury Three Rivers. | 9,460 9,505 | 1 | - 23,876 $^{\text {a }}$ | 1 | 1,825 6.378 | 1 | - 78.75 | 1 | 1,825 |
| Winnipeg..... | 64,700 | 1 | 23,876 | 1 | 6,378 10,372 | 1 | 24,785 | 1 | 10,223 10,447 |

${ }^{1}$ Includes 2 bilingual, 5 national week-end, 2 Saturday and 1 Sunday editions.

## 5.-Estimated Numbers and Circulations of Weekly Foreign-Language Newspapers, 1949-51

Nore.-Figures for the years 1938-45 are given at p. 792 of the 1948-49 Year Book; for 1946 at p. 836 of the 1950 edition; and for 1947-48 at p. 827 of the 1951 edition.


## 6.-Estimated Numbers and Circulations of reporting Magazines and Related Publications, by Broad Classifications, 1949-51

Nore.-Figures for the years 1938-45 are given at p. 793 of the 1948-49 Year Book; for 1946 at p. 836 of the 1950 edition; and for 1947-48 at p. 827 of the 1951 edition.

| Classification | 1949 r |  |  | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Reporting |  | Listed | Reporting |  | Listed | Reporting |  |
|  | No. | No. | Circulation | No. | No. | Circulation | No. | No. | Circulation |
| Agricultural and rural..... | 54 | 50 | 2,346,802 | 56 | 54 | 2,445,265 | 55 | 52 | 2,534,970 |
| Arts, crafts and professions | 13 | 12 | 154,644 | 16 | 15 | 113,953 | 19 | 18 | 113,399 |
| Construction.. | 16 | 16 | 91,988 | 17 | 17 | 118,224 | 16 | 16 | 121,415 |
| Educational. | 43 | 37 | 276,977 | 50 | 45 | 389,428 | 54 | 51 | 438,899 |
| Finance and insurance..... | 15 | 7 | 72,498 | 14 | 6 | 61,815 | 14 | 7 | 67,455 |
| Government and government services. | 24 | 20 | 242,618 | 27 | 24 | 254,782 | 27 | 24 | 268,107 |
| Home, social and welfare. | 46 | 40 | 3,447,259 | 46 | 43 | 3,683,084 | 47 | 44 | 3,932,209 |
| Labour......c........... | 19 | 14 | 199,339 | 19 | 14 | 196,383 | 20 | 17 | 235,924 |
| Pharmaceutical and medical | 25 | 21 | 100,007 | 30 | 26 | 112,662 | 32 | 28 | 116,582 |
| Religious. | 36 | 36 | 725,481 | 37 | 37 | 694,150 | 35 | 35 | 698, 207 |
| Services and directories... | 55 | 45 | 244,635 | 60 | 51 | 293,943 | 61 | 52 | 300, 282 |
| Sports and entertainment | 28 | 22 | 303,712 | 31 | 21 | 279,933 | 26 | 19 | 315,580 |
| Trade, industry and other related publications. | 165 | 157 | 743,432 | 166 | 157 | 745,398 | 171 | 158 | 790,155 |
| Transportation and travel | 29 | 27 | 196. 228 | 27 | 25 | 205,987 | 29 | 28 | 235, 223 |
| Miscellaneous........... | 48 | 48 | 537,791 | 40 | 40 | 462,403 | 40 | 39 | 443,770 |
| Totals. | 616 | 552 | 9,683,411 | 636 | 575 | 10,057,410 | 646 | 588 | 10.612,177 |

## CHAPTER XX.-DOMESTIC 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.

## PART I.-THE MOVEMENT AND MARKETING OF COMMODITIES

The different directions that economic development has taken across Canada and the diverse resources of various parts of the country have led to a vast exchange of products. The task of providing goods and services where they are required for consumption or use by the widely scattered population of $14,009,429$ (June 1, 1951, Census) accounts for a greater expenditure of economic effort than that required for the prosecution of the country's large volume of foreign trade, high though Canada ranks in this field among the countries of the world.

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, sports, etc. However, not all phases of this broad field are covered here though, wherever possible, cross references are given to related material occurring 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.-Grain Trade*

## Subsection 1.-Marketing Problems and Policies, 1949-50 to 1951-52

Wheat.-Requirements and Supplies.-World demand for wheat and wheat products has, for the most part, remained firm during the period under review although foreign exchange difficulties and political problems have become increasingly important factors in the international movement of grain and flour.

On the supply side, Canada harvested a near-average crop ( $371,400,000 \mathrm{bu}$.) of good quality wheat in 1949 followed by an above-average crop ( $461,700,000$ bu.) in 1950 and a near-record outturn ( $552,700,000 \mathrm{bu}$.) in 1951. The season was late, however, in the latter two years. In 1950, a substantial proportion of the crop was frosted, with some acreage remaining unthreshed over winter. In 1951, autumn rains prevented completion of harvest and an estimated $150,000,000$ bu. remained for spring threshing. While it was possible to recover most of the over-wintered grain of both crops, the impact of these two abnormal harvests created serious handling problems.

Large quantities of low-grade wheat from the 1950 harvest had to be disposed of and the lateness of the season delayed movement of grain to forward positions. Similar conditions prevailed in 1951-52 with the addition of a tremendous drying problem arising out of the unprecedented volume of tough and damp grain threshed in the autumn of 1951. However, with the excellent co-operation of all agencies concerned, it was possible to save nearly all of these out-of-condition stocks. During the winter months buyers accepted large quantities of tough wheat and all available drying equipment, including facilities at Duluth and Buffalo, U.S.A., was utilized. By a stroke of fortune, the spring of 1952 was early and warm and spring-threshed grain turned out very dry This made possible the use of the 'natural' drying process whereby dry grain is mixed with tough and damp stocks to bring the moisture content of the whole to a straight grade level.

Despite all the difficulties surrounding the handling of the 1951 crop, exports of wheat as grain for the 1951-52 crop year, at $304,700,000$ bu., were exceeded only once before in the country's history when $354,400,000$ bu. were exported in 1928-29. Combined exports of wheat and wheat flour in terms of wheat during 1951-52 amounted to $356,600,000$ bu., an increase of $115,600,000$ bu. over 1950-51. However, the merchandising problems associated with handling unusually large quantities of out-of-condition grain from two successive late crops held export movements to a much lower level than would have been the case had these crops been threshed in good condition at the normal time of year. In consequence, some build-up in carryover occurred, wheat stocks at July 31, 1951, amounting to $189,200,000$ bu. compared to $112,200,000$ bu. a year earlier. Estimated total supplies of Canadian wheat for the crop year 1951-52 (carryover at July 31, 1951, plus 1951 crop) amounted to $741,900,000$ bu. The carryover at July 31, 1952, showed a further increase although stocks were well below the levels existing at the close of the crop years 1940-41 to 1943-44, when carryover stocks ranged from $357,000,000$ bu. to $595,000,000$ bu.

[^285]
## 1.-Production, Imports, Exports and Domestic Use of Wheat and Wheat Flour, Crop Years Ended July 31, 1945-52

(Millions of bushels)

| Item | 1945-46 | 1947-48 | 1948-49 | 1949-50 | 1950-51 | 1951-52 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Carryover Aug. 1. | $258 \cdot 1$ | $86 \cdot 1$ | 77.7 | $102 \cdot 4$ | $112 \cdot 2$ | 189.2 |
| Production. | $318 \cdot 5$ | 341.8 | $386 \cdot 3$ | $371 \cdot 4$ | $461 \cdot 7$ | $552 \cdot 7$ |
| Imports.. | 0.1 | 0.8 | 0.3 | 1 | 1 | 1 |
| Totals, Supply | 576.7 | 428.7 | 464-3 | 473.8 | 573.9 | 741.9 |
| Exports...... Domestic use | 343.2 159.9 | $195 \cdot 0$ 156.0 | $232 \cdot 3$ $129 \cdot 6$ | 225.1 $136 \cdot 5$ | 241.0 $143 \cdot 7$ | $356 \cdot 6$ $173 \cdot 1$ |
| Totals, Disposition | $503 \cdot 1$ | $351 \cdot 0$ | $361 \cdot 9$ | $361 \cdot 6$ | 38.1 .7 | 529.7 |
| Carryover July 31. | $73 \cdot 6$ | 77.7 | 102 -4 | 112.2 | 189.2 | 212.2 |

${ }^{1}$ Less than 50,000 bu.
Price and Marketing Arrangements.-Since Aug. 1, 1949, the greater part of Canada's export wheat has moved under the terms of the International Wheat Agreement.* Under this Agreement, provision was made for the recognition of prior sales agreements between signatory countries and most of the wheat which Canada supplied to the United Kingdom in 1949-50, the final year of the CanadaUnited Kingdom Wheat Agreement, was recorded by the International Wheat Council. These sales, however, were subject to the 1949-50 price provisions of the Canada-United Kingdom Wheat Agreement. During 1949-50, the domestic price and the price under the Canada-United Kingdom Wheat Agreement were $\$ 2.00$ plus 6 cents per bu. carrying charges ( 5 cents until Sept. 30), basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. The price to countries under the provisions of the International Wheat Agreement was $\$ 1.80$ per bu. (maximum level) from the beginning of the crop year (Aug. 1, 1949) until the devaluation of the Canadian dollar on Sept. 19, 1949. After devaluation the price was increased to $\$ 1.98$ per bu. where it remained until the close of the crop year. A carrying charge of 5 cents per bu. applied from the beginning of the crop year until Dec. 13, when it was dropped. Class II prices (applicable to wheat for sale to countries outside the I.W.A.) fluctuated from a low of $\$ 2.04$ per bu. on Aug. 16 to a high of $\$ 2 \cdot 41$ on Oct. 6, and when the crop year closed on July 31, 1950, it stood at $\$ 2 \cdot 06$. Canada's quota for $1949-50$ under I.W.A. was $205,100,000$ bu. of wheat and flour in terms of wheat and, according to the annual report of the International Wheat Council, Canadian sales were $185,400,000 \mathrm{bu}$. Total Canadian exports of wheat and flour in terms of wheat for the crop year were $225,100,000 \mathrm{bu}$.

The five-year pool under which producers had been marketing their wheat terminated on July 31, 1950, and since then one-year pools have been in effect. Under the five-year pool, the initial payment on Apr. 1, 1949, reached a level of $\$ 1.75$ per bu. for No. 1 Northern, basis in store Fort William-Port Arthur or Vancouver. On Mar. 2, 1951, a final payment of approximately 8.3 cents per bu. was announced to cover all wheat delivered to the Wheat Board (about 1,428,000,000 bu.) during the five-year-pool period, thus bringing the total price to farmers to $\$ 1 \cdot 833$ per bu., basis No. 1 Northern in store Fort William-Port Arthur or Vancouver.

* A general outline of the Agreement is given in the 1950 Year Book, pp. 839-840.

Canada's guaranteed quantity under I.W.A. for $1950-51$ was $221,600,000$ bu. and, according to the Canadian Wheat Board, sales of wheat (including flour) under the Agreement amounted to $194,700,000 \mathrm{bu}$. Total exports for the crop year were $241,000,000 \mathrm{bu}$. From Aug. 1, 1950, until Oct. 2, 1950, I.W.A. sales were made at the maximum of $\$ 1.98$ per bu., basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. With the decontrol of the Canadian dollar on that date, fluctation in value of the Canadian dollar became a factor in the pricing of wheat, the maximum price of I.W.A. wheat varying with the movement of the dollar. All Canada's sales under I.W.A. during 1950-51 were made at the maximum level. Canadian wheat sold outside the Agreement continued to move under the Class II price which, on Aug. 1, 1950, was $\$ 2.06$ per bu., basis in store Fort William-Port Arthur or Vancouver. In the last few days of August and through early September the price dropped to the I.W.A. level of $\$ 1 \cdot 98$. From Sept. 20 to early January it held at some cents above the I.W.A. price and then began to move upward. At July 31, 1951, the Class II price stood at $\$ 2 \cdot 36 \frac{1}{8}$ per bu. as against $\$ 1 \cdot 90 \frac{1}{8}$ for I.W.A. wheat. Sales of wheat for domestic use during 1950-51 were made at the I.W.A. price until June 15, when a carrying charge of 6 cents per bushel was added on all domestic sales.

At the outset of the 1950-51 crop year western farmers received an initial payment of $\$ 1.40$ per bu. for No. 1 Northern, basis in store Fort William-Port Arthur or Vancouver, with the final price to be received by producers for each grade depending upon the average prices at which the Canadian Wheat Board sold such grade of wheat in the 1950-51 pool. Effective Feb. 1, 1951, the initial payment was increased to $\$ 1 \cdot 60$ per bu., with adjustment payments of 20 cents per bu. being paid on all wheat delivered between Aug. 1, 1950, and Jan. 31, 1951. On Nov. 19, 1951, it was announced that net surplus in the $1950-51$ wheat pool was $\$ 104,900,000$, amounting to an average final payment of $28 \cdot 65$ cents per bu. on the $366,200,000 \mathrm{bu}$. of wheat delivered to the Board in 1950-51. The final payment for No. 1 Northern wheat was 25.498 cents per bu. making the total return to producers for No. 1 Northern, basis in store Fort William-Port Arthur or Vancouver, $\$ 1 \cdot 85498$ per bu.

Canada's quota under I.W.A. for 1951-52 was revised on May 1, 1952, to a level of $238,500,000$ bu., all of which was sold. Altogether, Canada sold wheat and/or flour to all but five of the 42 importing countries participating in the multilateral pact. Sales under I.W.A. continued at the maximum price level plus 6 cents per bu., carrying charges added to all sales registered against 1951-52 Agreement quotas. With the rise in value of the Canadian dollar relative to the United States dollar, the I.W.A. price declined accordingly. The average price of Canadian I.W.A. wheat for July 1952 was $\$ 1 \cdot 74 \frac{1}{2}$ per bu. plus 6 cents carrying charges, basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. Class II prices also eased off from levels reached earlier in the crop year, the July average standing at $\$ 2 \cdot 11 \frac{1}{4}$, basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. Domestic prices remained at the I.W.A. level.

The initial price to producers (effective Aug. 1, 1951) was set at $\$ 1.40$ per bu., basis No. 1 Northern in store Fort William-Port Arthur or Vancouver. Effective Feb. 1, 1952, the initial price was increased to $\$ 1.60$ per bu. with adjustment payments of 20 cents per bu. to be paid on all wheat delivered by producers between Aug. 1, 1951, and Jan. 31, 1952.

Other Grains.-Supply and Disposition.-Data on the supplies and disposition of the major Canadian grain crops for the crop years 1949-50 and 1950-51 are set out in Table 2. Despite increased exports of oats and barley in 1950-51 the carryover
of these grains at July 31, 1951, was at a high level. Exports of barley in 1951-52 set a record of $69,900,000 \mathrm{bu}$. and oats exports, at $69,600,000 \mathrm{bu}$., were the third largest on record. However, the 1951 crops were large and despite heavy disappearance, further increases in crop-year-end carryovers occurred.

Carryovers of rye and of flaxseed were at a low ebb at July 31, 1951. The 1951 crops of these grains, however, were larger than in 1950 and exports for the 1951-52 crop year were not heavy. As a result, carryover stocks of rye and of flaxseed at July 31, 1952, were more than double those at the beginning of the crop year.

## 2.-Distribution of Canadian Grain Crops, Crop Years Ended July 31, 1950 and 1951

(Millions of bushels)


[^286]Initial payments to producers were made for oats on the basis of 65 cents per bu. for No. 2 C.W. in store Fort William-Port Arthur, with price differentials established for other grades. At the time of delivery, producers received the initial payment, less freight and other handling charges to the Lakehead. After the close of the crop year, surpluses accumulated by the Board on the sale of oats during 1949-50 were distributed among producers. The payments averaged about 19.5 cents per bushel for the principal grades.

Marketing arrangements for barley during 1949-50 were similar to those for oats. Initial payments were made on the basis of 93 cents per bu. for No. 3 C.W. 6-row in store Fort William-Port Arthur. Final payments, after the close of the pool, averaged about 57 cents per bu. on malting grades and from $44 \cdot 5$ to 47 cents per bu. for feed barley.

In 1950-51 the Canadian Wheat Board continued the compulsory pooling arrangement and the initial payments for the basic grades were unchanged from 1949-50. Later in the season the initial payments were increased by 10 cents and 20 cents for oats and barley, respectively. After the close of the 1950-51 oats pool a final payment was made averaging 9.411 cents per bu. The final payment for No. 2 C.W. oats was 9.71 cents per bu., making the total return to producers for this grade 84.71 cents per bu., basis in store Lakehead. The final payment on the barley pool averaged 18.1 cents per bu. and for No. 3 C.W. 6 -row it was 20.882 cents per bu., making the total return to producers on this grade $\$ 1.33882$ per bu., basis in store Lakehead.

In 1951-52 the basic initial payment for oats was again set at 65 cents per bu. for No. 2 C.W. in store Lakehead. The basic initial price for barley was increased to 96 cents per bu for No. 3 C.W. 6-row in store Lakehead. Effective Mar. 1, 1952, initial payment on all grades of Western barley was increased by 20 cents per bu. and adjustment payments were made on all barley delivered to the Board between Aug. 1, 1951, and Feb. 29, 1952. Final payments on the $133,135,187$ bu. of oats, delivered to the Board during the 1951-52 crop year, averaged $18 \cdot 587$ cents per bu. The final payment on No. 2 C.W. oats was 18.614 cents per bu., making total payments for this grade $83 \cdot 614$ cents per bu. Final payments on the $130,634,822$ bu. of barley, delivered to the Board during the 1951-52 crop year, averaged $14 \cdot 729$ cents per bushel. On No. 3 C.W. 6-row barley, final payment was $13 \cdot 2$ cents per bu., making total payments for this grade $\$ 1 \cdot 292$ per bu. With the exception of the voluntary flaxseed pool operated by the Board in 1949-50, no special marketing plans were in effect for rye and flaxseed and all dealings in these grains were handled by private trade.

## Subsection 2.-Miscellaneous Grain Trade Statistics

Grain Handled at Eastern Elevators.-The amount of grain handled by eastern elevators during the ten crop years ended July 31, 1942-51, is shown in Table 3.
3.-Canadian Grain Handled at Eastern Elevators, Crop Years Ended July 31, 1942-51

Note.-Figures for the crop years ended 1922-29 are given at p. 626 of the 1931 Year Book; for 1930-36 at p. 512 of the 1943-44 edition; and for 1937-41 at p. 816 of the 1947 edition.

| Item and Crop Year | Wheat | Oats | Barley | Rye | Flaxseed | Total Grain |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Receipt | bu. | bu. | bu. | bu. | bu. | bu. |
| 1942. | 282,400,393 | 5,468,716 | 7,240, 814 | 785,929 | 1,912,528, | 297.808. 380 |
| 1943 | 219,652,250 | 9,785,401 | 5,278,318 | 458,978 | 1,244,032 | 236,418,979 |
| 1944 | 254,389, 628 | 18,838,600 | 20,806,305 | 739,090 | 752,512 | 295, 526.135 |
| 1945 | 365,444,773 | 44,726,587 | 27,047,192 | 2,632,303 | 1,869,128 | 441,719,983 |
| 1946 | 318,075,743 | 70,013,103 | 30,789,084 | 1,938,882 | 3,669,449] | 424,486,261 |

3.-Canadian Grain Handled at Eastern Elevators, Crop Years Ended July 31, 1942-51 -concluded

| Item and Crop Year | Wheat | Oats | Barley | Rye | Flaxseed | Total Grain |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | bu. | bu. | bu. | bu. | bu. | bu. |
| Receipts-concluded |  |  |  |  |  |  |
|  | 255, 286,775 | 63,764.776 | 22,719,533 | 5,663,823 | 1,302,023 | 348,736,930 |
| 1948 | 196,718,272 | 38,842,320 | 27,560,650 | 17,543,967 | 6,234,436 | 286, 899,645 |
| 1950 | 262,914,675 | 34,911,609 | 17,239,457 | 8,750,556 | $14,906,168$ 8,711 | $343,597,200$ $324,524,842$ |
| 1951 | 208,590,769 | 30,631,192 | 35,781,508 | 5,763,488 | 7,522,620 | 288,289,577 |
| Shipments- |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 1943 | 241, 277,883 | 9,214,194 | 5,348,513 | 556,151 | 1,223,582 | 257, 620, 323 |
| 1944 | 248,581,173 | 17,221,335 | 17,164,441 | 829,960 | 628,979 | 284, 425, 888 |
| 1945 | 385,086,106 | 39,039,333 | 30,943,479 | 2,315,638 | 1,369,573 | 458,754,129 |
| 1946. | 338,462,187 | 70,460,215 | 28,472,958 | 2,432,487 | 3,727,565 | 443,555, 412 |
| 1947 | 251,033,577 | 68,714, 833 | 24,378,351 | 5,612,148 | 1,717,100 | 351,456,009 |
| 1948 | 206,061,315 | 39,805,551 | 26,847,608 | 17,647,367 | 5,551,788 | 295,913,629 |
| 1949 | 241,121,950 | 30,096,475 | 35, 803,699 | 6,999,851 | 11,355, 838 | 325,377, 813 |
| 1950. | 251,853,362 | 33,140,216 | 18,139,086 | 1,553,094 | 11,743,926 | 316, 429,684 |
| 1951. | 223,500,208 | 28,746,032 | 31,225,701 | 6,216,681 | 8,580,204 | 298,268, 226 |

Grain Inspections.-Total inspections of Canadian grain in crop years 1949-50 and 1950-51 amounted to approximately $457,000,000 \mathrm{bu}$. and $491,000,000 \mathrm{bu}$., respectively. Increased $1950-51$ inspections of oats and barley in the Western Division and of winter wheat in the Eastern Division account largely for the differences between the two years.

## 4.-Quantities of Grain Inspected, Crop Years Ended July 31, 1950 and 1951

| Grain | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Western Division | Eastern Division | Total | Western Division | Eastern Division | Total |
|  | bu. | bu. | bu. | bu. | bu. | bu. |
| Spring wheat. | 300,430,610 |  | 300.430.610 | 302,793,176 | 10,713, 005 | $302,793,176$ |
| Winter wheat. | 1.873,882 | 6,322,668 | 8,196,550 | 1,166.897 | 10,713,905 | $11,880,802$ |
| Totals, Wheat | 302,304,492 | 6,322,668 | 308,627,160 | 303,960,073 | 10,713,905 | 314,673,978 |
| Oats. | 75, 857,964 | 17,640 | 75,875, 604 | 85,068,699 | 228,497 | 85,297, 196 |
| Barley | 50,388,980 | 93,219 | 50,482, 199 | 70,973,451 | 20,753 | 70, 994, 204 |
| Rye... | 9,354,771 | 188,781 | 9,543,552 | 7,710,460 | 181,322 | 7, 891,782 |
| Flaxseed... | 1,563.266 | 35.110 | 1,598,376 | $3,035,820$ | 112,350 | 3,148,170 |
| Buckwheat | 9.029 | 81,312 | 90,341 | 25,556 |  |  |
| Corn. | 331,700 | 6,446,944 | 6.778, 644 | 62,622 | 5,002,963 | $5,065,585$ 486,889 |
| Mixed grain | 842,086 | - $\begin{array}{r}1.500 \\ 2,146.624\end{array}$ | 843,586 $2,146,624$ | 486,889 | $2, \overline{944}, 752$ | 486,889 $2,944,752$ |
| Soybeans. Beans..... | - | $2,146,624$ 562,885 | $2,146,624$ 562,885 | 二 | $\begin{array}{r} 2,944,752 \\ 220.782 \end{array}$ | 2,920,782 |
| Totals, Grain | 440,652,288 | 15,896,683 | 456,548,971 | 471,323,570 | 19,628,850 | 490,952,420 |

Lake Shipments of Grain.-Total shipments of grain from the Lakehead in the 1950-51 crop year were somewhat below the 1949-50 level. Approximately 21 p.c. of the 1950-51 shipments were routed to United States ports as compared with 16 p.c. in 1949-50.

## 5.-Lake Shipments of Grain from Fort Wiliam and Port Arthur, Crop Years Ended July 31, 1950 and 1951

| Grain | 1949-50 |  |  | 1950-51 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | To Canadian Ports | To U.S. Ports | Total Shipments | $\begin{gathered} \text { To } \\ \text { Canadian } \\ \text { Ports } \end{gathered}$ | To U.S. Ports | Total Shipments |
| Wheat..................bu. | 152,463,970 | 12,295, 631 | 164,958,7251 | 121,614,411 | 20,509,652 ${ }^{2}$ | 142,242,6522, ${ }^{3}$ |
| Oats. | 31,221,518 | 9,982,505 | 41,204,023 | 24,156, 450 | 20,908, 352 | 45,064,802 |
| Barley.................... | 17,600,957 | 16,195,221 | 33,796.178 | 24, 889, 152 | 9,587,403 | 34,476,555 |
| Rye.................... " | 77,413 | 9,609,832 | 9.687,245 | 2,993,086 | 5,878,722 | 8,871,808 |
| Flaxseed................. " | $4,262,164$ |  | 4,280,260 | 3,630,491 |  | 3,630,491 |
| Mixed grain............ " | 7,578,240 | - | 7,578,240 | 1,064,690 | - | 1,064,690 |
| Sample grain............. " | 29,974,789 | - | 29,974,789 | 32,086,333 | - | 32,086,333 |
| Totals, Grain . . . . . bu. | 243,179,051 | 48,083,189 | 291, 479,460 | 210,434,613 | 56,884,129 | 267,437,331 |
| Screenings..............ton | 11,538 | 83,218 | 94,756 | 5,619 | 47,366 | 52,985 |

${ }^{1}$ Includes 199,124 bu. to Europe direct.
${ }^{2}$ Includes 534,618 bu. of U.S.A. wheat.
${ }^{3}$ Includes

Wheat Flour.-Canadian wheat flour production, which reached a peak of $28,600,000 \mathrm{bbl}$. in the crop year 1946-47, steadied in 1949-50 when mills reported an output of $20,300,000 \mathrm{bbl}$. or only $100,000 \mathrm{bbl}$. below that of the previous year. Exports of wheat flour (based on adjusted customs returns) for 1949-50 amounted to $10,200,000 \mathrm{bbl}$., equivalent to $50 \cdot 2$ p.c. of the same year's production. The percentage of milling capacity utilized for the crop year 1949-50 averaged 67.8 p.c. compared with $67 \cdot 3$ p.c. for the previous crop year.

Canadian flour mills reporting for 1950-51 registered a flour production of $23,600,000 \mathrm{bbl}$., an increase of about $3,400,000 \mathrm{bbl}$. over the output for 1949-50. Exports for $1950-51$ amounted to $12,400,000 \mathrm{bbl}$., equivalent to $52 \cdot 6$ p.c. of the year's production. The percentage of milling capacity utilized for the crop year 1950-51 averaged $79 \cdot 8$ p.c., 12 p.c. above that of the previous crop year.

## Section 2.-Live-Stock Marketings*

Marketings of cattle through public stockyards, packing plants and direct for export in 1951 totalled $1,601,156$ head, a decrease of 13.8 p.c. from the previous year and a continuation of the downward trend evident since 1948. The decline was most pronounced in the Prairie Provinces. Quality of the output was higher than in 1950, as evidenced by the fact that choice and good heavy steers represented 9.4 p.c. of the total cattle in 1951 as compared with $6 \cdot 3$ p.c. in 1950 . Reflecting the increase in heavy steers, the average carcass weight of all cattle slaughtered under inspection in 1951 was 23.5 lb . higher than in the previous year. Marketings of calves in 1951 declined 23 p.c. from the 1950 total. Hog marketings in 1951 were $4,897,116$, an increase of 2.5 p.c. over 1950 . An increase in the average weight of hogs marketed in 1951 lowered the percentage grading A and B1 for Canada to 73.0 lb . from $75 \cdot 5 \mathrm{lb}$. in 1950. Sheep and lamb sales numbered 486,442 head, a decrease of 24 p.c. from the previous year and the lowest number recorded since 1926.

[^287]
## 6.-Live Stock Marketed at Public Stockyards, Packing Plants and direct for Export, by Provinces, 1950 and 1951

| Live Stock | Maritime Provinces ${ }^{1}$ | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Total ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950 | No. | No. | No. | No. | No. | No. | No. | No. |
| Cattle- | 9,135 | 66,295 | 339,709 | 112,688 | 274,207 | 302,704 |  |  |
| Direct to packers..... | 22,674 | 67,989 | 162,168 | 61,040 | 73,847 | 119,221 | 36,060 | 1,542,999 |
| Direct for export. | 2,632 | 13,133 | 99,744 | 735 | 15,510 | 41,908 | 7,334 | 180,996 |
| Country points in other provinces ${ }^{2}$. |  |  | 181 | 465 | 8,363 | 6,521 | 122 | 15,699 |
| Totals, Catt | 34,488 | 147,417 | 601,802 | 174,928 | 371,927 | 470,354 | 57,533 | 1,858,449 |
| Calves - |  |  |  |  |  |  |  |  |
| Totals to stockyards. | 19,421 | 110,980 | 129,016 | 40,632 | 70,019 | 78,584 | 1,806 | 450,458 |
| Direct to packers. | 23,028 | 172,993 | 98,367 | 45, 221 | 23,870 | 53,592 | 4,806 | 421,877 |
| Direct for export.. | 770 | 1,619 | 18,914 | 90 | 1,019 | 3,772 | 733 | 26,917 |
| Country points in other provinces ${ }^{2}$ | 3 |  | - | 105 | 4,061 | 1,773 | - | 5,942 |
| Totals, Calves. | 43,222 | 285,592 | 246,297 | 86,048 | 98,969 | 137,721 | 7,345 | 905,194 |
| Hogs- |  |  |  |  |  |  |  |  |
| Totals to stockyards... | 3,068 | 144, 130 | 198,369 $1,829,058$ | 49,654 216,479 | 79,065 200,180 | 185, 775 | 36,519 | 4, 660,551 |
| Direct to packers......... | 186,548 348 | 870,649 | 1,829,725 | 216, 60 | 200,180 |  | 24 | 1,164 |
| Totals, Hog | 190,002 | 1,014,784 | 2,028,152 | $\mathbf{2 6 6 , 1 9 3}$ | 279,246 | 960,609 | 37,735 | 4,776,721 |
| Sheep and Lambs- |  |  |  |  |  |  |  |  |
| Totals to stockyards... | 7,157 | 45,978 | 62,595 | 10,113 | 25,692 | 36,520 | 2,724 | 190,779 |
| Direct to packers....... | 36,576 | 105,990 | 97, 278 | 21.091 | 10,790 | 59,283 68,323 | 21,915 | 352,923 79 |
| Direct for export. <br> Country points in other provinces ${ }^{2}$ | 138 |  | 6,761 | 69 | 3,681 9,861 | 68,323 4,051 | 374 | 79,398 13,912 |
| Totals, Sheep and Lambs. $\qquad$ | 43,871 | 152,020 | 166,634 | 31,273 | 50,024 | 168,177 | 25,013 | 637,012 |
| Total Inward Move-ment-3 | 111 | 1.421 | 106 | 6,073 | 16,151 | 67, 248 | 1,318 |  |
| Calve | - | 1,459 | 16,299 | 854 | 2,779 | 14,487 | 943 | 35,821 |
| Sheep and lambs | - | 976 | 14,024 | 693 | 909 | 17,668 | 1,039 | 35,309 |
| Cattle- |  |  |  |  |  |  |  |  |
| Totals to stockyards... | 8,671 | 53,636 | 321,611 | 96,435 | 233,157 | 283,930 85 | 21,804 29 | -019,244 |
| Direct to packers....... | 21,524 | 50,220 | 154,765 | 53,011 | 56,359 | 85,314 | 29,639 | 450,832 110,546 |
| Direct for export. | 2,119 | 7,947 | 66,999 | 285 | 4,219 | 16,416 | 12,561 | 110,546 |
| Country points in other provinces ${ }^{2}$ | - | - | 79 | 185 | 10,963 | 8,210 | 1,097 | 20,534 |
| Totals, Cattle | 32,314 | 111,803 | 543,454 | 149,916 | 304,698 | 393,870 | $\mathbf{6 5 , 1 0 1}$ | 1,601,156 |
| Calves- |  |  |  |  |  |  |  |  |
| T'otals to stockyards... | 14, 229 | 88,200 | 99,265 | 32,678 | 51,179 | 57,139 34,906 | 3,757 4,413 | ${ }_{332,561}$ |
| Direct to packers...... | 13,519 | 151,792 | 82,677 | 31,486 | 13,768 | 34,906 604 | +207 | 10,477 |
| Direct for export <br> Country points in other provinces ${ }^{2}$ | 404 | 429 | 7,858 | ${ }^{-}$ | 975 4,985 | 2,755 | 20 30 | 10,8 7,820 |
| Totals, Calves . | 28,152 | 240,421 | 189,800 | 64,214 | 70,907 | 95,404 | 8,407 | 697,305 |
| Hogs- |  |  |  |  |  |  | , 020 | 616,568 |
| Totals to stockyards... | 1,663 | 128,692 | 1, 176,808 | 61,549 230 | 240,467 | 1798,396 | 31,200 | 4,277,974 |
| Direct to packers........ | 190, 173 | 1284,967 217 | 1,862,741 953 | 230,030 80 | 240,407 | $\begin{array}{r}798 \\ \hline 10\end{array}$ | ,607 | 2,574 |
| Totals, Hogs......... | 192,183 | 1,053,876 | 2,040,502 | 291,659 | 327,926 | 958,143 | 32,827 | 4,897,116 |

For footnotes, see end of table.
6.-Live Stock Marketed at Public Stockyards, Packing Plants and direct for Export, by Provinces, 1950 and 1951-concluded

| Live Stock | Maritime Provinces ${ }^{1}$ | Quebec | Ontario | Manitoba | Saskatchewan | Alberta | British Columbia | Total ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1951-concluded | No. | No. | No. | No. | No. | No. | No. | No. |
| Sheep and LambsTotals to stockyards | 511 | 34,853 | 53,806 | 73 | 19,689 | 36,062 | , 584 | 578 |
| Direct to packers... | 35,000 | 86,184 | 80,858 | 17,694 | 8,523 | 51,658 | 16,826 | 296,743 |
| Direct for export. |  |  | 3,066 | 35 | - | 5,044 | 1,142 | 9,378 |
| Country points in other provinces ${ }^{2}$ | - | - | - | - | 13,338 | 4,160 | 1,245 | 18,743 |
| Totals, Sheep and Lambs. | 40,598 | 121,041 | 137,730 | 26,802 | 41,550 | 96,924 | 21,797 | 486,442 |
| Total Inward Move-ment- |  |  |  |  |  |  |  | - |
| Cattle. | 258 | 2,357 | 114,586 | 11,595 | 19,689 | 93,216 | 2,508 | 244,209 |
| Calves................ | - ${ }^{9}$ | 1,680 | 26,768 | 3,292 | 4,082 | 20,155 | 1,035 | 57,021 |
| Sheep and lambs....... | 2 | 749 | 17,595 | 633 | 1.471 | 18,548 | 2,035 | 41,033 |

${ }^{1}$ Newfoundland figures not available. ${ }^{2}$ Live stock billed through stockyards to country points outside province of origin.
${ }^{3}$ Movement from stockyards within each province to farms in the same province.
7.-Grades of Live Stock Marketed at Stockyards and Packing Plants, 1947-51


For footnotes, see end of table, p. 874.
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## 7.-Grades of Live Stock Marketed at Stockyards and Packing Plants, <br> 1947-51-concluded


${ }^{1}$ Newfoundland figures not available.
4 Included with other grades.

## Section 3.-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.

[^288]The great difficulty in presenting warehousing statistics lies in the fact that 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. Since 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 which add the utility of 'time' to commodities already worked up into 'form'. At least, since some clear line must be drawn and because separate statistics of this 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

At Dec. 1, 1951, total licensed grain storage capacity in Canada stood at $526,000,000 \mathrm{bu}$. , an increase of $20,000,000 \mathrm{bu}$. from the level of Dec. 1, 1950. Licensed grain storage capacity reached a peak of $603,000,000$ bu. at Dec. 1, 1943, but, following the disposal of heavy war-time stocks, declined to $482,000,000 \mathrm{bu}$. at Dec. 1, 1947. Since then licensed capacity has increased each year.

In recent years strong export and domestic demand has prevented the accumulation of unduly large stocks of grain. Heavy crops, however, were harvested in 1950 and 1951, and with adverse harvesting weather in both seasons the normal flow of grain to foreign and domestic points of consumption was impeded. The proportion of licensed grain storage capacity occupied accordingly moved upward. At July 31, 1950, 22 p.c. of licensed capacity was utilized. A year later the proportion had risen to 39 p.c. and, at Mar. 27, 1952, more than 52 p.c. of licensed capacity was in use.

## 8.-Licensed Grain Storage Capacity and Grain in Store, 1950-51 and 1951-52

Note.-These figures, being exclusive of stocks in transit or in eastern mills, are lower than those shown in Table 18, p. 419.

| Year and Storage | $\begin{gathered} \text { Capacity } \\ \text { Dec. 1, } \\ 1950 \end{gathered}$ | $\begin{gathered} \text { Grain } \\ \text { in Store } \\ \text { July } 31 \text {, } \\ 1950 \end{gathered}$ | Capacity Qccupied | Grain in Store Nov. 30 , 1950 | Capacity Occupied | Grain Mar. 29, <br> 1951 | Capacity Occupied |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1950-51 | $\begin{gathered} \text { '000,000 } \\ \text { bu. } \end{gathered}$ | '000 bu. | p.c. | '000 bu. | p.c. | '000 bu. | p.c. |
| Western country elevators. | 279 | 32,038 | 11.5 | 167,619 | $60 \cdot 1$ | 159,355 | $57 \cdot 1$ |
| Interior, private and mill... | 21 | 6,487 | $30 \cdot 9$ | 8.332 | $39 \cdot 7$ | 7,645 | 36.4 |
| Interior terminals... | 21 | 2.638 | $12 \cdot 6$ | 7,835 | $37 \cdot 3$ | 10,891 | 51.9 |
| Pacific coast. | 22 | 12,471 | $56 \cdot 7$ | 10,329 | $47 \cdot 0$ | 3,848 | 17.5 |
| Fort William-Port Arthur | 82 | 25,129 | $30 \cdot 6$ | 45,809 | $55 \cdot 9$ | 64,909 | 79.2 |
| Georgian Bay and Upper Lake ports. | 33 | 10,153 | 30.8 | 9,870 | 29.9 | 6,137 | $18 \cdot 6$ |
| Lower lake and Upper St. Lawrence ports. | 19 | 7,968 | 41.9 | 7.700 | $40 \cdot 5$ | 3,386 | 17.8 |
| Lower St. Lawrence ports.... | 25 | 15,598 | $62 \cdot 4$ | 5,937 | $23 \cdot 7$ | 1,952 | 7.8 |
| Maritime ports ${ }^{1}$.. | 5 | 2 |  | 737 | 14.7 | 2,394 | $47 \cdot 9$ |
| Totals, 1950-51........... | 506 | 112,483 | 22.2 | 264,169 | $52 \cdot 2$ | 260,516 | 51.5 |
|  | $\begin{aligned} & \text { Capacity } \\ & \text { Dec. 1, } \\ & 1951 \end{aligned}$ | $\begin{gathered} \text { Grain } \\ \text { in Store } \\ \text { July } 31 \text {, } \\ 1951 \end{gathered}$ | Capacity Occupied | Grain <br> in Store <br> Nov. 29, <br> 1951 | Capacity Occupied | Grain in Store Mar. 27, 1952 | Capacity Occupied |
|  | $\begin{gathered} \text { '000,000 } \\ \text { bu. } \end{gathered}$ | '000 bu. | p.c. | '000 bu. | p.c. | '000 bu. | p.c. |
| Western country elevators.... | 290 | 100,614 | 34-7 | 150.214 | 51.8 | 142,709 | $49 \cdot 2$ |
| Interior, private and mill..... | 21 | 7,283 | $34 \cdot 7$ | 8.344 | $39 \cdot 7$ | 9,229 | $43 \cdot 9$ |
| Interior terminals. | 21 | 12,505 | 59.5 | 12,833 | $61 \cdot 1$ | 13,228 | $63 \cdot 0$ |
| Pacific coast. | 22 | 3,791 | $17 \cdot 2$ | 8,886 | $40 \cdot 4$ | 13,036 | $\stackrel{59.3}{78.6}$ |
| Fort William-Port Arthur.... | 91 | 55,705 | $61 \cdot 2$ | 40,608 | $44 \cdot 6$ | 71,493 | $78 \cdot 6$ |
| Georgian Bay and Upper Lake ports. | 33 | 9,450 | $28 \cdot 6$ | 14,442 | $43 \cdot 8$ | 9,293 | 28.2 |
| Lower lake and Upper St. Lawrence ports. | 19 | 6.545 | $34 \cdot 4$ | 7,458 | $39 \cdot 3$ | 4,283 | 22.5 |
| Lower St. Lawrence ports.... | 25 | 5,767 | $23 \cdot 1$ | 10,617 | $42 \cdot 5$ | 8,607 | $34 \cdot 4$ |
| Maritime ports ${ }^{1} . . . . . . . . . . . .$. | 5 | 1,978 | $39 \cdot 6$ | 216 | $4 \cdot 3$ | 3,086 | $61 \cdot 7$ |
| Totals, 1951-52. | 526 | 203,639 | 38.7 | 253,617 | 48.2 | 274,964 | 52.3 |

${ }^{1}$ Excludes Newfoundland. $\quad{ }^{2}$ Less than 0.05 p.c.

## Subsection 2.-Cold Storage and Storage of Foods

Cold Storage Warehouses.-Under the Cold Storage Act (R.S.C. 1927, c. 25), as amended June 18, 1952, subsidies have been granted by the Federal Government to encourage the construction and equipment of cold storage warehouses open to the public. The Act and Regulations made thereunder are 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, while 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. Included in this classification is the 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 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 designated 'private', though most of these places rent space to the public when it is not required for their own purposes.
9.-Cold-Storage Warehouses, by Provinces, Year Ended Mar. 31, 1952

| Province | Subsidized Public Warehouses |  |  |  | All Warehouses |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Refrigerated Space | Cost | Total Subsidy | Number | Refrigerated Space |
|  |  | cu. ft. | \$ | \$ |  | cu. ft. |
| Newfoundland. ${ }_{\text {Prince Edward Island....... }}$ | 7 | 267, 684 | $\overline{142}, 683$ | 42.349 | 52 | 1,606,968 |
| Nova Scotia................. | 20 | 4,985,083 | 4,000.575 | 1,190,892 | 77 | 5,655.109 |
| New Brunswic | 7 | 1,403,329 | ${ }^{7} 728.296$ | -218,489 | 47 | 2,089,402 |
| Quebec. | 30 | 1,455.934 | 1,729.994 | 516,251 | 248 | 15,511,462 |
| Ontario. | 57 | 9,092,783 | 6,027,878 | 1,802,339 | 883 | 30,369,266 |
| Manitoba | 7 | 2,967,088 | 2,021,865 | 606, 559 | 164 | 9,569.016 |
| Saskatchewan.............. | 14 | 587.162 | 587.340 | 176,202 | 247 | 4,300,273 |
| Alberta..................... | 5 | 624,925 | 475,876 | 142,347 | 201 | 6,840,758 |
| British Columbia........... | 64 | 22,599,926 | 9,384,775 | 2, 815,429 | 174 | 29,492,738 |
| Totals. | 211 | 43,983,914 | 25,099,281 | 7,510,859 | 2,117 | 105,860,192 |

10.-Storage and Refrigerated Space, by Provinces, as at June 30, 1952

| Class of Storage | Newfoundland | Prince Edward Island | Nova Scotia | New Brunswick | Quebec |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Public- <br> Warehouses $\qquad$ No. | - | 14 | 26 | 12 | 53 |
| Refrigerated Space- |  |  |  |  |  |
| Freezer.......................cu. it $^{\text {ft. }}$ | - | 195.087 | 1,237,272 | 994,850 | 4,056,95v |
| Cooler.................... ${ }_{\text {a }}$ | - | 29,342 | 3,417,447 | 649,198 | 6,511,378 |
| Locker........................ " | - | 43,520 | 15,668 | 20,706 | 12,894 |
| Private- <br> Warehouses. $\qquad$ No. | 29 | 9 | 47 | 34 | 181 |
| Refrigerated Space- |  |  |  |  |  |
| Freezer. . . . . . . . . . . . . . . . .cu. ft . | 1,152,555 | 46,541 | 711,243 | 305,711 | 973,373 |
| Cooler..................... " | 106,008 | 109,475 | 229,119 | 98,798 | 3,771,625 |
| Locker......................... " |  |  | 4,600 | 469 | - |
| Balt Depots- <br> Warehouses. | 21 | 1 | 2 | 1 | - |
| Refrigerated Space- |  |  |  |  |  |
| Freezer.......................cu. it. | 289,905 | 965 | 15,744 | 15,053 | - |
| Cooler..................... " | 750 |  | 15,74 | 4,617 | - |
| Locker......................... | 2,700 | - | - | - | - |
|  |  |  |  |  |  |
| Refrigerated Space- |  |  |  |  |  |
| Freezer.......................cu. ft. | - | - | 8,700 | - | 66,022 |
| Cooler.................... " | - 55050 | - | 3,296 | - | 35.232 |
| Locker.......................... " | 55,050 | - | 12,020 | - | 83,988 |
| Totals, Warehouses . . . . . . . . No. | 52 | 24 | 77 | 47 | 248 |
| Totals, Refrigerated Space. .cu. ft. | 1,606,968 | 425,200 | 5,655,103 | 2,889,402. | 15,511,462 |

10．－Storage and Refrigerated Space，by Provinces，as at June 30，1952－concluded

| Class of Storage | Ontario | Manitoba | Saskat－ chewan | Alberta | British Columbia | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Public－ <br> Warehouses．．．．．．．．．No． | 137 | 15 | 22 | 13 | 76 | 368 |
| Refrigerated Space－ |  |  |  |  |  |  |
| Freezer．．．．．．．．．．．cu．ft． | 4，821，301 | 3，997，173 | 561，234 | 469，148 | 4，992，672 | 21，325．687 |
| Cooler．．．．．．．．．．．＂ | 12，249，547 | 1，444，055 | 701，282 | 323，975 | 21，892，160 | 47，218，384 |
| Locker．．．．．．．．．．．＂ | 601，632 | 37，150 | 96，162 | 86，759 | 29，621 | 944，112 |
| Private－ <br> Warehouses $\qquad$ No． | 378 | 60 | 75 | 48 | 26 | 887 |
| Refrigerated Space－ |  |  |  |  |  |  |
| Freezer．．．．．．．．．．．cu．${ }_{\text {¢ }}$ it． | 2，464，747 | 648，328 | 607，305 | 1，816，029 | 377，678 | 9，103，510 |
| Cooler．．．．．．．．．．．．＂ | 6，893，767 | 2，716，221 | 1，233， 511 | 3，067，050 | 1，023，455 | 19，249，029 |
| Locker．．．．．．．．．．．．＂ | 63，774 | － | 20，734 | 11，985 | － | 101，562 |
| Bait Depots－ Warehouses．．．．．．．．．No． | － | － | － | － | － | 25 |
| Refrigerated Space－ |  |  |  |  |  |  |
| Freezer．．．．．．．．．．．．cu．${ }_{\text {cole }}$（t． | － | 二 | － | － | － | 321，667 |
| Cooler． <br> Locker． $\qquad$ | 二 | 二 | 二 | － | － | 5,637 2,700 |
| Locker Plants－ <br> Warehouses．．．．．．．．．No． | 368 | 89 | 150 | 140 | 72 | 837 |
| Refrigerated Space－ |  |  |  |  |  |  |
| Freezer．．．．．．．．．．．cu．${ }_{\text {c }}$ ft． | 482， 890 | 53，726 | 28，677 | 29，385 | 103，977 | 773，377 |
| Cooler．．．．．．．．．．．．＂ | 708，850 | 138，960 | 258，163 | 248， 252 | 157，548 | 1，550，301 |
| Locker．．．．．．．．．．．．＂ | 2，082，758 | 533，403 | 793，205 | 788，175 | 915，627 | 5，264，226 |
| Totals，Warehouses No． | 883 | 164 | 247 | 201 | 174 | 2，117 |
| Totals，Refrigerated Space． cu．ft． | 30，369，266 | 9，569，016 | 4，300，273 | 6，840，758 ${ }_{\text {¢ }}$ | 29，492，738 | 105，860，192 |

## 11．－Stocks of Food Commodities on Hand in Cold－Storage and Other Warehouses and in Dairy Factories，as at Jan．1， 1951

Note．－Total stocks include imported and in－transit stocks．

| Item | $\begin{aligned} & \text { As at } \\ & \text { Jan. } 1 \end{aligned}$ | $\underset{\text { Year }}{\text { Minimum }}$ | Date at which Minimum Occurred | Maximum During Year | Date at which Maximum Occurred | Twelve－ month Average |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Butter，Creamery，Dairy and Whey－ |  |  |  |  |  |  |
| In storage ${ }^{\text {a }}$ ．$\ldots$ ．．．．．．．．．．．．．．＇000 ${ }^{\text {lb }}$ b． | 39，029 | 8,267 9,842 | Apr． 1 | 65,278 66,416 | Nov．${ }^{1}$ | 35.689 36,658 |
| Cheese，Factory－u |  |  |  |  |  |  |
| In storage．．． | 26，559 | 17，298 | May 1 | 40，516 | Oct． 1 | 28.772 |
| Total stock． | 28，053 | 18，106 | May 1 | 45，012 | Oct． 1 | 30，736 |
| Evaporated Whole Milk－ Total stock． | 25，262 | 7，701 | Apr． 1 | 69，481 | Oct． 1 | 38，277 |
| Skim－Milk Powder－ <br> Total stock． | 2，857 | 1，786 | Mar． 1 | 10，614 | Nov． 1 | 5，897 |
| Eggs，Shell－， |  |  |  |  |  |  |
| In storage＇．．．．．．．．．．．．．．．．．．． 000 cases | 42 44 | ． 44 | $\begin{array}{ll}\text { Jan．} & 1 \\ \text { Jan．} & 1\end{array}$ | $\stackrel{253}{258}$ | $\begin{array}{ll}\text { June } & 1 \\ \text { June } & 1\end{array}$ | 141 145 |
| Eggs，Frozen－ <br> In storage． '000 lb. | 6，821 | 3，945 | Apr． 1 | 7，067 | Sept． 1 | 5，590 |

Includes imported butter．
11.-Stocks of Food Commodities on Hand in Cold-Storage and Other Warehouses and in Dairy Factories, as at Jan. 1, 1951-concluded


Cold Storage of Fish.-Stocks of frozen fish were at practically the same level in 1951 as in 1950. Normally, stocks decrease gradually during the first months of the year and reach a low point about May 1; during subsequent months they increase and reach a peak at the beginning of November. Since the great bulk of the frozen-fish production takes place during the summer and early autumn months, stocks piled up in that period form the main supply of frozen products until the heavy production period of the next summer. Stock figures at the beginning of each month in 1950 and 1951 (including Newfoundland) were as follows:-

| Month | 1950 | 1951 | Month | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | ('000,000 lb.) |  |  | ('000,000 lb.) |  |
| Jan. 1. | 41.5 | 46.5 | Aug. 1. | $49 \cdot 3$ | $43 \cdot 2$ |
| Feb. 1 | 34.1 | $39 \cdot 0$ | Sept. 1. | $55 \cdot 8$ | 49.3 |
| Mar. 1 | $27 \cdot 6$ | 31.5 | Oct. 1. | $58 \cdot 2$ | 51.0 |
| Apr. 1. | $20 \cdot 0$ 18.7 | 25.3 | Nov. 1. | 61.4 | 57.8 |
| May 1. | 18.7 33.0 | $25 \cdot 2$ $35 \cdot 7$ | Dec. 1. | 55.0 | 50.6 |
| July 1. | $41 \cdot 6$ | $38 \cdot 0$ | Average. | $41 \cdot 3$ | 41.1 |

Although total figures showed little change in 1951 compared with 1950, a few individual items registered variation. Monthly stocks of halibut were significantly higher in 1951. The halibut fishing season began with a carryover from the preceding season and hence production diminished on the East Coast; however, landings in British Columbia were high enough to maintain the heavy inventories throughout the remainder of the year. A low herring catch on the Atlantic Coast resulted in low stocks. Also, the high demand for cod fillets, frozen fresh, left stocks of that product at a low level even though production was slightly higher than in 1950.

Average monthly holdings of the main fish products in 1950 and 1951 (including Newfoundland) were as follows:-
Group and Main Products $\quad \frac{1950}{\prime 000,000} \frac{1951}{\mathrm{lb} .}$

| Frozen Fresh Sea Fish- |  |  |
| :---: | :---: | :---: |
| Salmon, Pacific, dressed and filleted. | $7 \cdot 3$ | $7 \cdot 6$ |
| Halibut, Pacific, dressed. | $5 \cdot 9$ | $7 \cdot 4$ |
| Herring, Atlantic, round. | $7 \cdot 9$ | 5 |
| Cod, Atlantic, filleted. | $3 \cdot 8$ | $2 \cdot 5$ |
| Totals, Frozen Fresh Sea Fish ${ }^{1}$. | $35 \cdot 6$ | 34-7 |
| Frozen Fresth Inland Fish- |  |  |
| Whitefish, dress and filleted. | $1 \cdot 0$ | 1.4 |
| Tullibee, round or dressed. | 0.5 | 0.5 |
| Pickerel (yellow pike), dressed and filleted. | $0 \cdot 3$ | $0 \cdot 3$ |
| Totals, Frozen Fresh Inland Fish ${ }^{1}$. | $3 \cdot 2$ | $3 \cdot 6$ |
| Frozen Smoked Fish- |  |  |
| Cod, Atlantic, filleted. | 1.4 | 1.7 |
| Sea herring, dressed. | 0.7 | $0 \cdot 6$ |
| Haddock, dressed.. | 0.2 | $0 \cdot 2$ |
| Totals, Frozen Smored Fish ${ }^{1}$. | $2 \cdot 5$ | $2 \cdot 8$ |
| Grand Totals. | 41-3 | 41.1 |

${ }^{1}$ Totals include other items not listed.
Cold Storage of Dairy Products.-Cold-storage facilities are a necessary adjunct in the manufacture of dairy products since most of them are perishable to a varying degree.

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.

In the case of cheese, temperature control is important in the curing process as well as in the prevention of deterioration. Most cheese factories are equipped with mechanical refrigeration and are required to have storage capacity for $\mathbf{1 7}$ days' produce during the period of maximum manufacture. The cheese is then transferred to central warehouses.

Milk, as soon as it is bottled, is placed in storage 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.-The marketing of the Canadian apple crop has undergone quite drastic changes in recent years. In pre-war years, and to some extent during the War, it was customary to export a substantial proportion of the crop early in the season to the United Kingdom and the European Continent. This
limited the necessity of long-term cold storage to that portion retained for domestic distribution and other export. The curtailment in export outlets during the postwar years has necessitated greater long-term cold-storage capacity in order to extend the marketing period for a much larger proportion of the crop. The degree to which cold-storage facilities have increased is illustrated by a comparison of the holdings on Dec. 1, the beginning of the storage season. During the years 1943-47, the Dec. 1 stocks averaged 53 p.c. in cold storage and 47 p.c. in common storage. The average for the two years 1950 and 1951 was 83 p.c. in cold and only 17 p.c. in common storage. Additional space under construction will maintain or increase the proportion of cold storage in future years.

Potatoes are generally held at production points and shipped out as needed throughout the season. While warehouse storage is quite common in parts of Prince Edward Island, Nova Scotia and New Brunswick, where commercial production is centred, most of the crop is stored in frost-proof cellars and pits.

## Subsection 3.-Storage of Petroleum and Petroleum Products

Bulk storage plants for petroleum and petroleum products are established at convenient distributing centres and 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.

## 12.-Inventories of Petroleum and Petroleum Products in Storage at Jan. 1, 1948-52

> (Barrels of 35 Imperial gallons)
> Note.-Figures for 1940-47 are given at p. 852 of the 1950 Year Book.

| Product | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Refinery Inventory- | bbl. | bbl. | bbl. | bbl. | bbl. |
| Crude oil........ | 4,078,981 | 6,117,447 | 6,002,321 | 5,097,114 | 8,183,535 |
| Naphtha specialties | 106,779 | -86,316 | 114,638 | 157,366 | 154,238 |
| Aviation gasoline. | 177,363 | 193,390 | 257,231 | 277,815 | 293,181 |
| Motor gasoline | 2,751,788 | 3,006,822 | 3,952,265 | 4,258,825 | 4,939,681 |
| Tractor distilla | 112,323 | 139,541 | 171,549 | 78,473 | 63,190 |
| Kerosene. | 1,550,944 | 56̈4,083 | 291,315 | 120,305 | 21,4091 166,497 |
| Stove oil (No. 1 fuel oil) | 1,550,944 | 1,009,457 | 964,165 | 836,879 | 1,081,484 |
| Furnace oil <br> Other light fuel o | 2,399,507 | 2,298,386 | 1,782,285 | 1,952, 317 $\{$ | 2,837,202 ${ }^{285}, 1512$ |
| Heavy fuel oil (Nos | 1,780,705 | 2,844,433 | 1,662,863 | 2,154,406 | 2,822,711 |
| Diesel fuel......... |  | 969,423 | 704,619 | 1,140,751 | 1,254,012 |
| Asphalt. | 510.394 | 550,074 | 533,897 | 444,725 | 771,135 |
| Coke (petroleum) | 25,331 | 28,154 | 70.272 | 33,384 | 32,011 |
| Lubricating oil | 153.103 | 236, 285 | 253.655 | 197,805 | 221,854 |
| Grease, wax and | 23,128 | 18,740 | 13,673 | 24,818 | 12,131 |
| Other products. | 3,206 | 19,137 | 6,945 | 7,026 | 22,856 |
| Marketing Inventory- |  |  |  |  |  |
| Naphtha specialties. | 64,057 | 74,665 | 91.081 | 78.209 | 101,251 |
| Aviation gasoline. | 104,975 | 403,662 | 439,888 | 653,727 | 689,791 |
| Motor gasoline | 3,832,932 | 4,197,718 | 4,830,869 | 5,377,351 | 5,998,086 |
| Tractor distillate | 129,588 | 120,568 | -99,462 | 5,30,376 | 5.33,275 |
| Aviation turbine f Kerosene........ | … |  |  |  | $64.404{ }^{1}$ 199.786 |
| Stove oil (No. 1 fuel oil) | 737,283 | 574,249 | 648,856 | 1908,382 | 1,108,932 |
| Furnace oil. <br> Other light fuel oil | 2,133,050 | 1,851,732 | 1,811,680 | 3,363,424 | 3,647,1112 ${ }^{120}$ |
| Hesvy fuel oil (Nos. 4,5 and 6 ) | 824,206 | 1,080,503 | 937,094 | 1,139.667 | 1.422,627 |
| Diesel fuel...... | .. | 969.755 | 882,387 | 813,369 | 1,060,171 |

[^289][^290]
## Subsection 4.-General Warehousing

Public Warehouses.-The Dominion Bureau of Statistics, in 1944, began an annual census of the principal public warehouses in Canada. Warehousing carried on by co-operatives, packing houses and other firms operating storage facilities in connection with their own businesses are not included. Also, some companies deriving more revenue from a moving, cartage or carrier business than from warehousing are not included but are covered in the D.B.S. report, Motor Carriers, Freight-Passenger. In order to show the trend in the industry, Table 13 has been prepared from data supplied by 141 firms that reported for both 1949 and 1950. Complete details are given in the D.B.S. report, Warehousing, 1950.
13.-Summary Statistics of 141 Public Warehousing Firms Reporting in 1949 and 1950

| Item | 1949 | 1950 | Item | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total revenue.......... \$ | 19.311,847 | 20,015,944 | Wages, regular........ \$ | 5,699,109 | 5,969,210 |
| Total operating expenses \$ | 16,599,245 | 17,136,136 | Wages, casual......... \& | 131,958 | 321,358 |
| Net operating revenue.. \$ | 2,712,602 | 2,879,808 | Salaried employees.. No. | 999 | 1,023 |
| Net income............ \& | 1,631,089 | 1,630,439 | Salaries............... s | 2,358,236 | 2,574,970 |
| Employees, regular....No. <br> Employees, casual | 2,878 95 | 2,843 262 | Total salaries and wages............... \$ | 8,189,303 | 8,865,538 |

Net occupiable space reported in 1950 by 164 firms comprised $34,748,232 \mathrm{cu} . \mathrm{ft}$. for merchandise, $19,333,375 \mathrm{cu} . \mathrm{ft}$. for household goods and $23,852,576 \mathrm{cu} . \mathrm{ft}$. of cold-storage space. Merchandise space increased $3,600,000 \mathrm{cu}$. ft., household goods space $1,500,000 \mathrm{cu}$. ft., and cold storage space $1,500,000 \mathrm{cu}$. ft. over the total for 155 companies reporting in 1949.

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 while 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;* (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 imported animals other than pure-bred mares; (7) warehouses for the storage of

[^291]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 while 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 which 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 14 shows the quantities of distilled liquor, tobacco, cigars and cigarettes in bond in recent years. The yearly inventory of breweries showed a decrease of total gallonage of beer in stock from $21,661,000$ in 1950 to $20,756,358$ in 1951.
14.-Distilled Liquor, Tobacco, Cigars and Cigarettes in Bond, Quarterly, 1948-52


[^292]In Table 15 the quantities of spirits, malt and tobacco products that have been released from bond for consumption are shown for the years 1943-52. These figures, supplied by the Department of National Revenue, are the most reliable data for the consumption of these bonded products.

## 15.-Spirits, Malt Liquor, Malt and Tobacco taken out of Bond for Consumption Years Ended Mar. 31, 1943-52

Nore.-Figures for the years prior to 1900 are given in the 1916-17 Year Book, p. 528; for 1901-10 in the 1933 Year Book, p. 840; for 1911-21 in the 1938 Year Book, p. 855; for 1922-29 in the 1945 edition, p. 936; and for 1930-42 in the 1947 edition, p. 964.

| Year | Spirits | Malt Liquor | Malt | Cigars | Cigarettes | Tobacco ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | gal. | gal. | lb. | No. | No. | lb. |
| 1943. | 3,445,872 | 103,291,141 | 228,029,691 | 204.699,110 | 10,803, 185, 549 | 31,510,083 |
| 1944 | 2,620,297 | 97, 192,032 | 219, 242,999 | 196,407,845 | 11,405,842,655 | 32,264,175 |
| 1945 | 2,676,482 | 116.009.457 | 219,529,938 | 200, 879,906 | 11,982, 675,329 | 30,876,112 |
| 1946 | 4,087,690 | 134,579,706 | 259,083,043 | 210,694,900 | 14,512,351,682 | 31,048, 195 |
| 1947. | 4,446,130 | 151,012,603 | 307,478, 641 | 221,131,244 | 14,972,562,544 | 31,516,702 |
| 1948 | 4,632,506 | 169.485, 610 | 335,232,688 | 215,434,810 | 15, 263,987,385 | 30,187,676 |
| 1949 | 4,360,914 | 168,265, 128 | 349,432,511 | 207,354, 058 | 15,909,596,750 | 30,953, 335 |
| 1950 | 4,608,926 | 172,650,886 | 349,681,927 | 200,746.672 | 17,507,977,020 | 30,615,128 |
| 1951 | 5,468,908 | 171,746,997 | 352,172,873 | 204,925,795 | 17, 261,995,425 | 30,966,068 |
| 1952. | 4,552,336 | 179,774,614 | 351,119,068 | 164,061,235 | 14,814, 071,510 | 31,843,677 |

${ }^{1}$ Includes snuff.
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 their sugar supplies and supplies of grape spirit distilled by the distilleries and held by the wineries for fortifying their wines. Native wine produced and placed in storage for maturing and blending for the years 1946-50 was reported as follows:-

|  | Year | Ontario | Other Provinces | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1946.. | $\ldots . . . . . . \mathrm{gal} .$ | $\begin{aligned} & 5,056,564 \\ & 3,180,465 \end{aligned}$ | $\begin{aligned} & 476,917 \\ & 369,498 \end{aligned}$ | $\begin{aligned} & \mathbf{5}, 533,481 \\ & 3,549,963 \end{aligned}$ |
| 1947. | $\ldots . . . \mathrm{gal}_{\S}$ | $\begin{aligned} & 5,517,482 \\ & 3,871,622 \end{aligned}$ | $\begin{aligned} & 570,522 \\ & 424,567 \end{aligned}$ | $\begin{aligned} & 6,088,004 \\ & 4,296,189 \end{aligned}$ |
| 1948.. | $\ldots . \text { gal. }$ | $\begin{aligned} & 4,377,487 \\ & 2,786,186 \end{aligned}$ | $\begin{aligned} & 661,134 \\ & 513,639 \end{aligned}$ | $\begin{aligned} & 5,038,621 \\ & 3,299,825 \end{aligned}$ |
| 1949.. | $\ldots{ }_{\S}$ | $\begin{aligned} & 3,390,787 \\ & 2,240,481 \end{aligned}$ | $\begin{aligned} & 608,665 \\ & 492,678 \end{aligned}$ | $\begin{aligned} & 3,999,452 \\ & 2,733,159 \end{aligned}$ |
| 1950.. | $\ldots g{ }_{\S}$ | $\begin{aligned} & 5,383,514 \\ & 3,198,462 \end{aligned}$ | $\begin{aligned} & 501,330 \\ & 404,574 \end{aligned}$ | $\begin{aligned} & 5,884,844 \\ & 3,603,036 \end{aligned}$ |

## Section 4.-Merchandising and Service Establishments*

A complete coverage of the multiplicity of establishments making up Canada's distributive system is attempted only in the Censuses. Some studies were made in the late 1920's, but results were incomplete and the Censuses of 1931, 1941 and 1951 represent the only complete analyses of the merchandising and services fields. Vol. X of the Census reports for each year contains information on retail establishments, and comprehensive material on the extent of the wholesale and services trades appears in Vol. XI of the reports. Summary census statistics are presented at pp. 596-621 of the 1945 Year Book and at pp. 527-536 of the 1943-44 edition.

[^293]Census results have been supplemented by statistical measurements, based mainly on sample surveys, of certain features of the distributive trades in other than census years. In an effort to meet the increasing needs of business, industry and government for information on the Canadian market, its nature and characteristics, considerable expansion and refinement of the statistical services has been carried out and plans are in progress to meet the requirements for information in greater geographical detail. Results of the Census of 1951 will be known in 1953 following a mail survey undertaken in 1952.

## Subsection 1.-Wholesale Trade Statistics

Sales Indexes.-Indexes of wholesale trade sales date from 1935. Data are prepared from reports supplied by a sample of firms in nine principal trades. The reporting panel is confined to wholesalers proper, i.e., those establishments that perform the complete functions of wholesalers and jobbers, buying merchandise in large quantities on their own account and selling principally to retailers in broken lots. The individual kinds of wholesale business for which results are compiled are those that handle the more common types of consumer merchandise.

Wholesale sales in Canada for the nine trades surveyed were 10 p.c. higher in 1951 than in 1950 and 239 p.c. above the average annual sales for the same trades in the base period 1935-39. The average index of sales for 1951 stood at 338.6 compared with $307 \cdot 3$ in 1950 and $142 \cdot 0$ for 1941 . These indexes represent increases in dollar volume of sales and are not adjusted for price changes.

All provinces recorded increased sales in 1951 over 1950, with British Columbia and Ontario showing gains in excess of 10 p.c. Wholesalers' sales of automotive equipment showed the largest increase over 1950 with a gain of 19 p.c.; wholesalers' sales of footwear advanced 16 p.c. and of hardware 13 p.c. _ Other trades registered increased sales ranging down to 1 p.c.

## 16.-Annual Indexes of Wholesale Trade Sales by Economic Areas and by Kinds of Business, 1944-51

(1935-39 $=100$. Exclusive of Newioundland)

| Economic Area and Kind of Business | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | P.C. Change 1950-51 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Maritime Provinces | 217.0 | 235.0 | 257.6 | $282 \cdot 3$ | $290 \cdot 4$ | $285 \cdot 2$ | 296.6 | $320 \cdot 6$ | $+8 \cdot 1$ |
| Quebec. | 176.9 | $191 \cdot 5$ | 223.4 | $255 \cdot 5$ | $263 \cdot 1$ | $258 \cdot 1$ | 274.4 | 296.4 | $+8$. |
| Ontario | $183 \cdot 6$ | 206.9 | 245.9 | 275.8 | $287 \cdot 7$ | 299.6 | 315.8 | $349 \cdot 3$ | $+10 \cdot 6$ |
| Prairie Provinces | 183.1 | 198.2 | $243 \cdot 6$ | 261.1 | 273.5 | 294.5 | 307.8 | $337 \cdot 0$ | +9.5 |
| British Columbia | 199.0 | 226.5 | 271.9 | $314 \cdot 6$ | 333.8 | $332 \cdot 1$ | 351.4 | $404 \cdot 5$ | $+15.1$ |
| Totals, Wholesale Trade. | 186.0 | 205.4 | $244 \cdot 6$ | 272.0 | 283.2 | $291 \cdot 3$ | $307 \cdot 3$ | 338.6 | +10.2 |
| Automotive equipmen | $197 \cdot 2$ | 242.8 | 334.0 | 369.8 | 379.9 | 397.6 | 429.4 | $509 \cdot 3$ | $+18 \cdot 6$ |
| Drugs. | 201.9 | 222.1 | $245 \cdot 2$ | $254 \cdot 6$ | 281.8 | $305 \cdot 5$ | $312 \cdot 2$ | 348.4 | $+11.6$ |
| Clothing | $183 \cdot 1$ | 186.3 | 229.3 | 255.4 | $265 \cdot 1$ | $248 \cdot 2$ | $248 \cdot 0$ | 253.0 | $+2.0$ |
| Footwear | 188.8 | $224 \cdot 0$ | 279.4 | $300 \cdot 8$ | 286.8 | 281.9 | 283.0 | 328.8 | $+16.2$ |
| Dry goods. | 165.9 | 161.9 | 197.5 | $244 \cdot 5$ | 284.7 | $240 \cdot 4$ | $245 \cdot 9$ | $249 \cdot 3$ | +1.4 |
| Fruits and vege | 222.0 | 262.4 | 291.2 | 274.7 | 237.2 | 263.0 | 271.4 | $290 \cdot 9$ | +7.2 |
| Groceries. | $169 \cdot 3$ | $180 \cdot 2$ | 208.9 | $244 \cdot 2$ | $254 \cdot 0$ | $257 \cdot 0$ | $275 \cdot 0$ | 305.0 | $+10.9$ |
| Hardwar | 183.8 | 212.0 | $277 \cdot 4$ | $325 \cdot 0$ | $359 \cdot 7$ | $374 \cdot 9$ | $404 \cdot 5$ | $455 \cdot 5$ | +12.6 |
| Tobacco and confectionery | $230 \cdot 1$ | 258.1 | 296.9 | 317.1 | 354.8 | 372.8 | 381.4 | 411.9 | +8.0 |

Operating Results of Wholesalers.-This wholesalers' survey is conducted on a biennial basis and latest available results are for 1949. These data were presented in the 1951 Year Book, pp. 846-847, and are not repeated in this edition.

## I NDEXES OF WHOLESALE SALES

$$
\begin{gathered}
1935-39=100 \\
\text { ANNUAL INDEXES }
\end{gathered}
$$



MONTHLY INDEXES OF WHOLESALE SALES SELECTED TRADES




## Subsection 2.-Retail Trade Statistics

From Canadian fields and farms, forests, mines, stockyards, factories and mills, from foreign lands through Canadian Atlantic and Pacific seaports, goods travel through innumerable channels to converge finally on the retail outlets before being dispersed again, but this time in small parcels made up to individual tastes for the consumer trade. Thus, the retailer occupies an important place between producer and consumer and, in a real sense, is the keystone of the distribution arch, for it is through retail outlets that every necessary operation of production for consumption is brought to its intended conclusion.

Retail Sales.-The volume of retail sales in Canada reached a peak in 1951 with total trade estimated at $\$ 10,445,061,000,10 \cdot 3$ p.c. higher than that attained in 1950 when sales totalled $\$ 9,467,400,000$. Corrections have not been made for changes in prices of consumer goods and dollar sales are, therefore, not indicative of changes in actual quantities of merchandise sold.

In 1951, motor-vehicle trade, with an aggregate volume of $\$ 1,811,846,000$, spearheaded the upward sales movement in recording a gain of $16 \cdot 6$ p.c. over 1950. Sales for grocery and combination grocery and meat stores amounted to $\$ 1,877,672,000$ and gained $15 \cdot 0$ p.c. over 1950 . Department stores ranked third with a total of $\$ 901,717,000$ and a gain of $3 \cdot 3$ p.c. over the previous year. The majority of the remaining trades showed increased sales in 1951 over 1950 with country general stores, variety stores and garages and filling stations in excess of 10 p.c. Estimated sales were lower in 1951 for furniture, appliance and radio, and jewellery stores.

All provinces recorded increased sales volumes in 1951, Saskatchewan showing the greatest gain at $12 \cdot 3$ p.c. above 1950 .

## 17.-Estimated Retail Trade, by Provinces and by Kinds of Business, 1941 and 1949-51

(Exclusive of Newfoundland)

| Province and Kind of Business | 1941 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$'000,000 | \$'000,000 | \$'000.000 | \$'000,000 |
| Maritime Provinces. | 283 | 614 | 654 | 702 |
| Quebee. | 819 | 1.891 | 2,205 | 2,458 |
| Ontario | 1,407 | 3,234 | 3,644 | 4,032 |
| Manitoba | 211 | 556 | 606 | 667 |
| Saskatchewan | 187 | 520 | 549 | 617 |
| Alberta. | 221 | 673 | 748 | 831 |
| British Columbia | 309 | 940 | 1,061 | 1,138 |
| Totals. | 3,437 | 8,428 | 9,467 | 10,445 |
| Grocery and combination stores. | 567 | 1,337 | 1,451 | 1,673 |
| Meat stores. | 80 | 176 | 182 | 204 |
| Country general stores. | 213 | 479 | 474 | 535 |
| Department stores... | 378 | 856 | 873 | 902 |
| Variety stores. | 85 | 164 | 170 | 190 |
| Motor-vehicle dealers. | 360 | 1,030 | 1,554 | 1,812 |
| Garages and filling stations. | 205 | 483 | 498 | 548 |
| Men's clothing stores... | 80 | 172 | 172 | 183 |
| Family clothing stores. | 74 | 157 | 161 | 171 |
| Women's clothing stores. | 71 | 181 | 161 | 177 |
| Shoe stores..... | 44 | 95 | 93 | 100 |
| Hardware stores. | 73 | 194 | 198 | 210 |
| Lumber and building materials dealers | 80 | 278 | 349 | 356 |
| Furniture stores. Appliance and radio stores. | 64 46 | 149 | 160 145 | 157 135 |
| Restaurants............... | 127 | 321 | 339 | 360 |
| Coal and wood dealers. | 99 | 179 | 194 | 198 |
| Drug stores.. | 101 | 200 | 208 | 228 |
| Jewellery stores. | 38 | 74 | 79 | 77 |
| Tobacco stores... | 43 609 | 85 1.687 | 81 1.926 | 888 |

## RETAIL SALES IN CANADA








Retail Chain Stores.-Chain-store sales in 1950 amounted to $\$ 1,559,693,100$, a gain of 10 p.c. compared with the 1949 total of $\$ 1,420,080,800$. Other advances in the operation of retail chain stores in 1950 in relation to 1949 were: salaries and wages 12 p.c.; accounts outstanding 30 p.c.; store stocks 29 p.c.; and warehouse stocks 28 p.c. Sales of 7,155 chain-store units in 1950 made up $16 \cdot 5$ p.c. of all retail sales in Canada.
18.-Chain-Store Statistics, 1930 and 1941-50

| Year | Average <br> Number <br> of <br> Stores | Net <br> Retail <br> Sales | Salaries <br> and Wages <br> Paid to <br> Store <br> Employees | Stocks on Hand, <br> End of Year | Accounts <br> Outstand- <br> ing, <br> End of |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Year |  |  |  |  |  |

${ }^{1}$ Exclusive of Newfoundland.
19.-Chain-Store Sales, by Provinces and by Kinds of Business, 1948-50
(Exclusive of Newfoundland)

| Province or Territory and Kind of Business | 1948 | 1949 | 1950 | P.C. Change 1949-50 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 |  |
| Maritime Provinces. | 98,500 | 101,299 | 105,833 | $+4.5$ |
| Quebec. | 271,307 | 283,388 | 318,377 | +12.3 |
| Ontario. | 595,546 | 641.304 | 722.838 | $+12.7$ |
| Manitoba. | 63,327 | 68.392 | 72,578 | +6.1 |
| Saskatchewan | 67,198 | 71.811 | 72.633 | +1.1 |
| Alberta....... | 85,383 | 96.712 | 107,181 | $+10.8$ |
| British Columbia. | 149.220 | 152,334 | 154,974 | +1.7 |
| Yukon and Northwest Territories | 5,254 | 4,841 | 5,279 | + 9.0 |
| Totals. | 1,335,735 | 1,420,081 | 1,559,693 | $+9.8$ |
| Food - |  |  |  |  |
| Grocery, combination and meat market. | 393,724 | 440,288 | 510,500 | +15.9 |
| Totals, Food ${ }^{1}$ | 408,557 | 454,296 | 524.710 | +15.5 |
| Country General Stores. | 15,123 | 15,060 | 15,988 | $+6.2$ |
| General Merchandise-_. Variety Stores....... | 133,907 | 142,061 | 147,732 | $+4.0$ |
| Totals, General Merchandise ${ }^{1}$. | 146,546 | 154,667 | 160,410 | $+3.7$ |
| Automotive. | 23,284 | 22,751 | 29,626 | $+30 \cdot 2$ |
| Apparel- |  |  |  |  |
| Men's and boys' clothing | 17,919 | 17,822 | 19,975 | +12.1 |
| Family clothing. | 33,817 | 33,770 | 35,759 | +12.1 +5.9 |
| Shoes stores...... | $\begin{array}{r} 34,834 \\ 31,378 \end{array}$ | 37,382 31,926 | 38,604 33,013 | +3.3 +3.4 |
| Totals, Apparel. | 117,948 | 120,900 | 127,351 | + 5.3 |
| Building Materials. | 67,190 | 71,529 | 81,795 | +14.4 |

For footnotes, see end of table, p. 890.
19.-Chain-Store Sales, by Provinces and by Kinds of Business, 1948-50-concluded

| Kind of Business | 1948 | 1949 | 1950 | $\begin{aligned} & \text { P.C. } \\ & \text { Change } \\ & \text { 1949-50 } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| Furniture, Household- | \$'000 | s'000 | \$'000 |  |
| Furniture stores...... Household appliances | 35,679 27,273 | 34,555 28.940 | 36,423 35,823 | + + 5 |
| Totals, Furniture, Household. | 62.952 | 63,495 | 72,246 | $+13.8$ |
| Restaurant. | 21,899 | 21,460 | 22,783 | $+6.2$ |
| Other Retail Stores- |  |  |  |  |
| Drug stores..... | ${ }^{27,458}$ | 27,430 | ${ }^{28.958}$ | + ${ }^{5.6}$ |
| Government liquor stores |  |  | 380.788 290.102 | +12.6 +4.8 |
| Totals. Other Retail Stores ${ }^{\text {c }}$. | 472,236 | 495.023 | 524,784 | +5.8 |

${ }^{1}$ Includes other kinds of business not shown separately. $\quad{ }^{2}$ Department stores excluded.
Department Stores.-This series is interesting not only because department stores account for nearly 9 p.c. of total retail trade, but because the diversity of merchandise handled gives some indication of the direction of consumer purchasing. Department store sales in 1951 reached an all-time high of $\$ 901,717,000$, an increase of $3 \cdot 3$ p.c. compared with the 1950 total of $\$ 872,380,000$. Alberta and Saskatchewan recorded the largest increases over 1950 with gains of $7 \cdot 6$ p.c. and 6.8 p.c., respectively. Year-end inventory holdings (Dec. 31, 1951) of department stores amounted to $\$ 182,570,000,2 \cdot 9$ p.c. above the level of those held on the same date of 1950 , when stocks totalled $\$ 177,387,000$.
20.-Department Store Sales and Stocks, by Type of Department, 1950 and 1951

| Type of Department | Sales |  |  | Stocks at Dec. 31 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 ${ }^{\text {D }}$ | 1951 ${ }^{\text {D }}$ | $\begin{aligned} & \text { P.C. } \\ & \text { Change } \\ & 1950-51 \end{aligned}$ | 1950 | 1951 | P.C. Change 1950-51 |
|  | \$'000 | \$'000 |  | \$'000 | \$'000 |  |
| Women's and misses' dresses. | 30,220 | 31,770 | $+5 \cdot 1$ | 3,799 | 3,010 | -20.8 |
| Women's and misses' coats and suits | 27.880 | 26,460 | $-5 \cdot 1$ | 3,066 | 2.550 | $-16.8$ |
| Women's and misses' sportswear. | 21.370 | 23.000 | + 7.6 | 3,670 | 3,310 | - 9.8 |
| Furs..... | 14,320 | 13,100 | $-8.5$ | 3,996 | 3,830 | $-3.9$ |
| Girls and infants' we | 37,230 | 40,050 | + $7 \cdot 6$ | 5,127 | 6,460 | +26.0 |
| Lingerie and corsets. | 32,240 | 34,220 | +6.1 | 6,257 | 5,690 | -9.1 |
| Aprons, housedresses and uniforms | 7,180 | 6,780 | $\pm 5.6$ | 888 | 700 | $-21.2$ |
| Millinery . . . . . . . . . . . . . . . . . . | 8.670 | 9,030 | +4.2 | 694 | 690 | -0.6 |
| Hosiery and apparel accessories, | 35,400 | 37,770 | +6.7 | 6,579 | 6,020 | -8.5 |
| Women's, misses' and children's sho | 36.760 | 39.620 | + 7.8 | 9.437 | 10, G50 | +6.5 |
| Men's clothing... | 30,490 | 30.620 | $+0.4$ | 6,321 | 7.370 | $+16.6$ |
| Men's furnishings | 42,470 | 44,430 | $+4.6$ | 7.224 | 8,540 | +18.2 |
| Boys' clothing and furnishings | 23,490 | 24,670 | $+5.0$ | 4.658 | 5.050 | +8.4 |
| Men's and boys' shoes....... | 15,300 | 16,430 | + 7.4 | 3,857 | 3,840 | $\bigcirc 0.4$ |
| Food and kindred products | 59.420 | 63,880 | $+7.5$ | 4,062 | 4,150 | +2.2 |
| Toiletries, cosmetics and drugs. | 19,980 | 22,060 | $+10.4$ | 4,505 | 4,370 | -3.0 |
| Photographic equipment and supplies. | 2,540 | 2.890 | +13.8 | 850 | 780 | -8.2 -6.3 |
| Piece goods....................... | 23,690 | 23.420 | $-1.1$ | 8,304 | 7,780 | $-6.3$ |
| Linens and domesti | 32,560 | 33,200 | $+2.0$ | 7,659 | 7,640 | $-0.2$ |
| Smallwares. | 18,660 | 19,250 | $+3.2$ | 5,486 | 5,380 | $-1.9$ |
| China and glasswa | 12.220 | 12,830 | +5.0 | 5,350 | 6,900 | +29.0 +11.4 |
| Home furnishings. | 54,350 | 54,880 | $+1.0$ | 17,188 | 19,150 | +11.4 |
| Furniture........ | 53,620 | 51,500 | $-4.0$ | 12,360 | 12,610 | $+2.0$ |
| Major appliances | 34,680 | 31,040 | -10.5 | 8,239 | 7,340 | -10.9 |
| Radio and music | 12.900 | 12,440 | $-3.6$ | 3,886 | 4.130 | +6.3 |
| Hardware and houseware | 50,870 | 53,740 | $+5.6$ | 10,903 |  | + 5.5 +2.0 |
| Jewellery. | 18.300 | 19.090 | +4.3 | 6.913 | 7,050 | + 2.0 |
| Sporting goods and luggage | 33,220 | 34,850 | +4.9 | 6.699 | 6,560 | - 2.1 |
| Stationery, books and magazin | 14, 820 | 15,350 | +3.6 +8.3 | 3,140 | 3,080 7,040 | -1.9 +12.1 |
| All other departments....... | 67,840 | 73,460 | $+8.3$ | 6.280 | 7,040 | +12.1 |
| Totals... | 872,690 | 901,830 | +3.3 | 177,387 | 182,570 | +2.9 |

Operating Results of Retail Stores.-The operating results series is conducted on a biennial basis-retail chain stores and wholesale trade were covered for 1947 and 1949, and independent retail stores were last surveyed on 1950 operations. The latest available data on retail chain stores (1949) appear in the 1951 Year Book, pp. 848-849, and are not repeated here.

Retail Independent Stores.-Studies concerning the operating ratios of independent retail merchants have been carried on over an extended period. Such statistics have been gathered to assist merchants in assessing the efficiency of various phases of their operations, to provide estimates of the contribution made to national income by unincorporated retail stores and to assist the prospective entrant into any of the retail trades in estimating his opportunities and prospects of success. Since the publication of recent detailed studies, their value has become evident as a basis for marketing research and as essential elements in the understanding of the structure of retail distribution.

Attention has been focussed on the relationships between net sales, gross trading profit or margin, operating expenses and net profit. Expenses have been examined in some detail to include salaries and wages paid to employees; advertising; store supplies; losses on bad debts; tax and insurance costs; rentals; heat, light and power used; repair and maintenance expense; depreciation; and other items.

Table 21 reviews some of the operating features of various trades based on 1950 averages.

## 21.-Operating Ratios in Retail Trade, by Kinds of Business, 1950

Nore.-All figures except stock turnover are percentages of net sales.

| Kind of Business | Cost of Goods Sold | Gross Margin | Total Operating Expenses ${ }^{1}$ | Salaries and Wages ${ }^{2}$ | Occupancy $\underset{\text { penses }}{ }{ }^{\text {Ex- }}$ | $\begin{gathered} \text { Net } \\ \text { Profit } \\ \text { before } \\ \text { Income } \\ \text { Tax4 } \end{gathered}$ | Inventories |  | Stock <br> Turn- <br> over ${ }^{5}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Beginning | Ending |  |
| Unincorporated | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | No. |
| Grocery. | $85 \cdot 6$ | 14.4 | $9 \cdot 2$ | $3 \cdot 7$ | 2.8 | 5-2 | $7 \cdot 5$ | $8 \cdot 3$ | 10.9 |
| Combination stores | $85 \cdot 1$ | $14 \cdot 9$ | $10 \cdot 8$ | $5 \cdot 3$ | $2 \cdot 6$ | $4 \cdot 1$ | $5 \cdot 7$ | $6 \cdot 6$ | $13 \cdot 9$ |
| Meat. | 83.9 | $16 \cdot 1$ | 11.1 | $5 \cdot 1$ | 2.7 | $5 \cdot 0$ | 1.8 | $2 \cdot 1$ | 43.4 |
| Confectionery | 81.8 | 18.2 | 10.7 | $3 \cdot 9$ | $5 \cdot 0$ | $7 \cdot 5$ | 6.9 | $7 \cdot 6$ | 11.3 |
| Fruits and vegetables | 82.5 | 17.5 | 11.6 | $4 \cdot 1$ | 3.8 | $5 \cdot 9$ | $4 \cdot 1$ | $4 \cdot 7$ | 18.8 |
| Men's clothing. | 73.2 | 26.8 | 16.5 | 6.9 | $5 \cdot 1$ | $10 \cdot 3$ | $32 \cdot 8$ | $35 \cdot 7$ | $2 \cdot 1$ |
| Family clothing | $75 \cdot 6$ | 24.4 | $15 \cdot 7$ | $7 \cdot 1$ | $4 \cdot 5$ | 8.7 | $33 \cdot 3$ | 35.5 | $2 \cdot 2$ |
| Women's ready-to-we | $73 \cdot 2$ | 26.8 | $19 \cdot 1$ | $8 \cdot 2$ | $5 \cdot 9$ | 7.7 | $20 \cdot 2$ | 21.9 | $3 \cdot 5$ |
| Family shoe......... | $72 \cdot 6$ | 27.4 | 16.8 | $7 \cdot 6$ | $5 \cdot 4$ | 10.6 | $37 \cdot 3$ | 40.5 | 1.9 |
| Country general. | 85.5 | 14.5 | $9 \cdot 0$ | $4 \cdot 1$ | $2 \cdot 6$ | $5 \cdot 5$ | 21.0 | 22.4 | $3 \cdot 9$ |
| Furniture <br> Household appliances an radios. | 72.9 | $27 \cdot 1$ | 18.4 | 6.7 | $4 \cdot 9$ | 8.7 | 23.0 | 26.9 | $2 \cdot 9$ |
|  | 72.2 | 27.8 | $17 \cdot 8$ | $8 \cdot 5$ | $3 \cdot 6$ | $10 \cdot 0$ | 13.9 | 18.9 | $4 \cdot 4$ |
| Hardware. ............ | 74.2 | $25 \cdot 8$ | 15.4 | $7 \cdot 4$ | $3 \cdot 9$ | 10.4 | 29.0 | ${ }_{32 \cdot 6}$ | $2 \cdot 4$ |
| Restaurants | $61 \cdot 3$ | 38.7 | $32 \cdot 2$ | 19.1 | $9 \cdot 2$ | 6.5 | $2 \cdot 6$ | $2 \cdot 8$ | $22 \cdot 5$ |
| Coal and wo | 79.4 | $20 \cdot 6$ | $15 \cdot 5$ | $4 \cdot 1$ | $2 \cdot 1$ | $5 \cdot 1$ | 5.7 | $6 \cdot 3$ | 13.2 |
| Drug stores. | 71.1 | 28.9 | 17.0 | $8 \cdot 5$ | $4 \cdot 6$ | 11.9 | 20.4 | 21.9 | 3.4 |
| Jewellery. | 61.2 | 38.8 | 24-8 | 11.2 | $6 \cdot 9$ | 14.0 | $40 \cdot 4$ | 44.7 | 1.4 |
| Tobacco. | $82 \cdot 4$ | 17.6 | 10.2 | $4 \cdot 3$ | $4 \cdot 1$ | $7 \cdot 4$ | $10 \cdot 2$ | 11.0 | $7 \cdot 8$ |
| Filling stations | 81.3 | 18.7 | $12 \cdot 7$ | 6.8 | $3 \cdot 9$ | $6 \cdot 0$ | 3.4 | $4 \cdot 0$ | 18.7 |
| Garages........ | $72 \cdot 2$ | 27.8 | 20.1 | 11.2 | $5 \cdot 3$ | 7-7 | $6 \cdot 2$ | $7 \cdot 2$ | 10.7 |
| Incorporated |  |  |  |  |  |  |  |  |  |
| Men's clothing. | 70.2 | 29.8 | 25.0 | 14.0 | $5 \cdot 3$ | $4 \cdot 8$ | 27.5 | 31.7 | $2 \cdot 4$ |
| Women's clothing | 71.0 | $29 \cdot 0$ | 26.9 | 14.9 | $6 \cdot 4$ | $2 \cdot 1$ | $17 \cdot 1$ | 18.1 | $4 \cdot 0$ |
| Family clothing. | $70 \cdot 4$ | $29 \cdot 6$ | $26 \cdot 1$ | 14.9 | $4 \cdot 8$ | $3 \cdot 5$ | 24.9 | 27.8 | $2 \cdot 7$ |
| Shoes.... | 68.0 73.0 | 32.0 | 27.2 23.4 | 15.6 | $6 \cdot 4$ | 4.8 | 31.3 | 34.9 | $2 \cdot 1$ |
| Hardware.... | 73.0 79.8 | 27.0 20.2 | 23.4 17.9 | 14.2 5.9 | 3.9 1.9 | 3.6 2.3 | $27 \cdot 3$ $5 \cdot 1$ | 37.5 30.0 | 2.5 15.8 |
| Drug.......... | $79 \cdot 8$ 66.6 | $20 \cdot 2$ 33.4 | 17.9 29.0 | 5.9 18.5 | 1.9 5.8 | 2.3 4.4 | 5.1 22.4 | 5.0 24.1 | 15.8 2.9 |
| Jewellery | 58.3 | 41.7 | 35.9 | $20 \cdot 2$ | $7 \cdot 0$ | 5.8 | 33.7 | 39-3 | 1.6 |

${ }^{1}$ Includes salaries and wages, occupancy expense and store supplies plus all other expenses. ${ }^{2}$ Sal-

[^294]Retail Consumer Credit.-Studies on retail consumer credit, an outgrowth of special inquiries conducted by the Wartime Prices and Trade Board during the period of wartime controls, have been continued by the Dominion Bureau of Statistics since 1945. Only those trades in which the extension of credit plays an important part were brought within the scope of these surveys.

Prior to 1951, the changes in credit sales and accounts outstanding were presented in index form. In 1951, the series was revised to show estimated dollar value back to 1948. Results of consumer spending are shown here in dollar form from 1948 to the latest available quarterly period.

Table 22 shows dollar estimates of cash, instalment and charge sales by quarterly periods from 1948 to the end of 1951, and percentage composition of sales and receivables. The movement in sales and accounts receivable of retail consumer credit are shown in Table 23.
22.-Quarterly Dollar Estimates and Percentage Composition of Retail Consumer Credit for All Trades, 1948-51

| Period | Sales during Period |  |  |  | Accounts Receivable at End of Period |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cash | Instal- ment | Charge | $\underset{\substack{\text { Total } \\ \text { Sales }}}{ }$ | (instal- | Charge | Total |
|  | Dollar Estimates (in Mulions) |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| 1948-January-March | 1,471.5 | $82 \cdot 4$ $107 \cdot 6$ | 338.8 391.3 | 1,597.4 | $75 \cdot 2$ $83 \cdot 5$ | $235 \cdot 0$ $260 \cdot 0$ | $310 \cdot 2$ 343.5 |
| July-September | 1,534.8 | $92 \cdot 1$ | $387 \cdot 6$ | 2,014-5 | 86.2 | 271.2 | 357.4 |
| October-Decemb | 1,694-7 | 129.8 | $432 \cdot 5$ | 2,257-0 | 111.6 | 299.7 | 411.3 |
| 1949-January-March | 1,230•6 | 97.8 | 361.4 | 1,689•8 | $104 \cdot 7$ | 267.0 | 371.7 |
| April-June..... | 1,626-3 | $133 \cdot 7$ | $450 \cdot 9$ | 2,210-9 | 112.8 | 298.7 | 411.5 |
| July-September | 1,618•6 | 128.1 | $439 \cdot 8$ | 2,186.5 | 115.0 | 299.9 | 414.9 |
| October-Decemb | 1,716.7 | $155 \cdot 4$ | $468 \cdot 6$ | 2,340.7 | $139 \cdot 8$ | $327 \cdot 7$ | 467.5 |
| 1950-January-March. April-June. | $1,353 \cdot 9$ $1,764 \cdot 5$ | $137 \cdot 3$ 183.4 | $382 \cdot 2$ $475 \cdot 1$ | $1,873 \cdot 4$ $2,423.0$ | $129 \cdot 6$ $137 \cdot 4$ | $291 \cdot 4$ 313.2 | $421 \cdot 0$ $450 \cdot 6$ |
| April-June...... | $1,764 \cdot 5$ $1,838 \cdot 6$ | $183 \cdot 4$ 196.0 | $475 \cdot 1$ $497 \cdot 8$ | $2,423 \cdot 0$ $2.532 \cdot 4$ | 137.4 144.5 | $313 \cdot 2$ 331.2 | $450 \cdot 6$ 475.7 |
| October-Decem | $1,838 \cdot 6$ $1.927 \cdot 4$ | $190 \cdot 4$ | 497.8 507 | 2,638.6 | 169.5 | 377-1 | 546.6 |
| 1951-January-March. | 1,589-0 | $183 \cdot 8$ | 476.8 | $2.249 \cdot 6$ | $143 \cdot 2$ | $348 \cdot 7$ | 491.9 |
| April-June..... | 1,989•8 | $200 \cdot 8$ | $540 \cdot 0$ | 2,730-6 | 121.8 | 356.5 | $478 \cdot 3$ |
| July-September | 1,920-5 | 197.4 | 536.5 | 2,654-4 | 99.8 | 356.9 | 456.7 |
| October-December | 2,033-1 | $195 \cdot 4$ | 581.9 | 2,810-4 | $105 \cdot 7$ | $401 \cdot 7$ | $507 \cdot 4$ |
|  | Percentage Composition |  |  |  |  |  |  |
| 1941-A verage. | 71-6 | $8 \cdot 9$ | $19 \cdot 5$ | $100 \cdot 0$ | 34.4 | $65 \cdot 6$ | $100 \cdot 0$ |
| 1948-January-March | $73 \cdot 6$ | $5 \cdot 2$ | 21.2 | $100 \cdot 0$ | $24 \cdot 2$ | 75.8 | 100.0 |
| April-June...... | $74 \cdot 7$ | $5 \cdot 5$ | $19 \cdot 8$ | $100 \cdot 0$ | $24 \cdot 3$ | $75 \cdot 7$ | $100 \cdot 0$ |
| July-September | $76 \cdot 2$ | $4 \cdot 6$ | 19.2 | $100 \cdot 0$ | $24 \cdot 1$ | $75 \cdot 9$ | 100.0 |
| October-December | $75 \cdot 1$ | $5 \cdot 7$ | 19.2 | $100 \cdot 0$ | $27 \cdot 1$ | 72.9 | $100 \cdot 0$ |
| 1949-January-March.. | $73 \cdot 1$ | $5 \cdot 8$ | $21 \cdot 1$ | $100 \cdot 0$ | 28.2 | 71.8 | $100 \cdot 0$ |
| April-June.... | $73 \cdot 5$ | 6.1 | $20 \cdot 4$ | $100 \cdot 0$ | 27.4 | $72 \cdot 6$ | $100 \cdot 0$ 100.0 |
| July-September | $73 \cdot 9$ | $5 \cdot 9$ | $20 \cdot 2$ | $100 \cdot 0$ | $27 \cdot 7$ | $72 \cdot 3$ | $100 \cdot 0$ |
| October-December | $73 \cdot 3$ | $6 \cdot 5$ | $20 \cdot 2$ | $100 \cdot 0$ | 29.9 | $70 \cdot 1$ | $100 \cdot 0$ |
| 1950-January-March.. | $72 \cdot 3$ | $7 \cdot 3$ | $20 \cdot 4$ | $100 \cdot 0$ | $30 \cdot 8$ | $69 \cdot 2$ | $100 \cdot 0$ |
| April-June...... | $72 \cdot 8$ | $7 \cdot 6$ | $19 \cdot 6$ | $100 \cdot 0$ | $30 \cdot 5$ | 69.5 | $100 \cdot 0$ 100.0 |
| July-September | $72 \cdot 6$ | $7 \cdot 7$ | 19.7 | $100 \cdot 0$ | 31.0 | $69 \cdot 0$ | $100 \cdot 0$ |
| October-Decemb | $73 \cdot 1$ | $7 \cdot 7$ | $19 \cdot 2$ | $100 \cdot 0$ | 31.0 | $69 \cdot 0$ | $100 \cdot 0$ |
| 1951-January-March. . | $70 \cdot 6$ | $8 \cdot 2$ | $21 \cdot 2$ | $100 \cdot 0$ | 29.1 | $70 \cdot 9$ | $100 \cdot 0$ |
| April-June...... | 72.9 | $7 \cdot 3$ | 19.8 | $100 \cdot 0$ | 25.5 21.9 | 74.5 78.1 | $100 \cdot 0$ $100 \cdot 0$ |
| July-September | $72 \cdot 4$ $72 \cdot 3$ | $7 \cdot 4$ $7 \cdot 0$ | $20 \cdot 2$ $20 \cdot 7$ | $100 \cdot 0$ 100.0 | 21.9 20.8 | 78.1 79.2 | $100 \cdot 0$ $100 \cdot 0$ |

23.-Dollar Estimates of Sales and Accounts Receivable, for Selected Trades, 1948-51
(Millions of Dollars)

| Kind of Business and Year | Sales during Year |  |  |  | Accounts Receivable at Dec. 31 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cash | Instalment | Charge | Total Sales | Instalment | Charge | Total |
| Department stores............. . 1948 | 579-0 | 92.4 | $131-7$ | $803 \cdot 1$ | $39 \cdot 8$ | $30 \cdot 1$ | 69.9 |
| 俍 1949 | $602 \cdot 3$ | 107.8 | $145 \cdot 4$ | $855 \cdot 5$ | $49 \cdot 5$ | $34 \cdot 2$ | $83 \cdot 7$ |
| 1950 | 601.9 | 112.5 | 158.0 | $872 \cdot 4$ | $53 \cdot 7$ | $39 \cdot 9$ | $93 \cdot 6$ |
| 1951 | $639 \cdot 0$ | 77.0 | $185 \cdot 7$ | 901.7 | 26.5 | $49 \cdot 2$ | $75 \cdot 7$ |
| Motor-vehicles.................. 1948 | 448.3 | 123.6 | 262.0 | 833.9 | $2 \cdot 7$ | $49 \cdot 1$ | 51.8 |
| 1949 | $562 \cdot 6$ | $175 \cdot 2$ | $292 \cdot 7$ | 1,030-5 | $4 \cdot 6$ | 51.2 | 55.8 |
| 1950 | 867.3 | $323 \cdot 6$ | $362 \cdot 8$ | 1,553-7 | $5 \cdot 2$ | 67.2 | $72 \cdot 4$ |
|  | $952 \cdot 1$ | 426-8 | 433.0 | 1,811-9 | $5 \cdot 1$ | $65 \cdot 2$ | $70 \cdot 3$ |
| Men's clothing. . . . . . . . . . . . . . 1948 | 141.8 | $3 \cdot 7$ | 20.0 | $165 \cdot 5$ | 1.4 | $6 \cdot 7$ | $8 \cdot 1$ |
| 1949 | $144 \cdot 3$ | $3 \cdot 8$ | 24.1 | $172 \cdot 2$ | $1 \cdot 6$ | $7 \cdot 4$ | $9 \cdot 0$ |
| 1950 | 139.8 | 6.6 | 25.2 | $171 \cdot 6$ | $2 \cdot 9$ | $8 \cdot 1$ | 11.0 |
| 1951 | $148 \cdot 5$ | $7 \cdot 5$ | $26 \cdot 7$ | $182 \cdot 7$ | $2 \cdot 7$ | $8 \cdot 6$ | $11 \cdot 3$ |
| Family clothing............... 1948 | 126.3 | $12 \cdot 1$ | 20.2 | 158.6 | 4.8 | $5 \cdot 8$ | $10 \cdot 6$ 11.4 |
| 1949 1950 | $122 \cdot 6$ $123 \cdot 6$ | $12 \cdot 6$ 12.7 | $21 \cdot 6$ $24-2$ | 156.8 160.5 | 4.7 4.4 | 6.7 7.5 | 11.4 11.9 |
| 1951 | $132 \cdot 3$ | 13.4 | $25 \cdot 7$ | 171.4 | $5 \cdot 4$ | 7.4 | 12.8 |
| Women's clothing. . . . . . . . . . . 1948 | $140 \cdot 6$ | $3 \cdot 3$ | 23.9 | 167.8 | 0.8 | 5-8 | $6 \cdot 6$ |
| 1949 1950 | $152 \cdot 6$ | $3 \cdot 3$ | 25.2 | $181 \cdot 1$ | 0.6 | $6 \cdot 3$ | 6.9 |
| 1950 1951 | $136 \cdot 1$ | 2.5 2.6 | 22.5 24.9 | $161 \cdot 1$ | 0.7 0.9 | $6 \cdot 5$ | $7 \cdot 2$ 6.9 |
| 1951 | $149 \cdot 6$ | $2 \cdot 6$ | 24.9 | $177 \cdot 1$ | 0.9 | 6.0 | $6 \cdot 9$ |
| Hardware..................... . 1948 | 119.0 | $4 \cdot 0$ | 60.8 | 183.8 | 1.0 | 13.4 | 14.4 |
| 1949 | 124-1 | 6.0 | 63.8 | 193.9 | 1.1 | 16.7 | 17.8 |
| 1950 | $122 \cdot 7$ | $8 \cdot 3$ | $67 \cdot 1$ | 198.1 | 1.8 | $17 \cdot 8$ | $19 \cdot 6$ |
| 1951 | 134-3 | $6 \cdot 1$ | 69.5 | 209-9 | 0.9 | 18.4 | $19 \cdot 3$ |
| Furniture........................ 1948 | 71.3 | 56.3 | 19.9 | $147 \cdot 5$ | 20.9 | $3 \cdot 7$ | $24 \cdot 6$ |
| 1949 | $65 \cdot 7$ | $60 \cdot 9$ | $22 \cdot 3$ | 148.9 | $25 \cdot 7$ | 4.5 | $30 \cdot 2$ |
| 1950 | $68 \cdot 4$ | $67 \cdot 0$ | $\stackrel{24-2}{ }$ | $159 \cdot 6$ | 34-3 | $5 \cdot 9$ | 40.2 |
| 1951 | 72.9 | 56.8 | $27 \cdot 5$ | $157 \cdot 2$ | 19.7 | $5 \cdot 4$ | $25 \cdot 1$ |
| Appliance and radio............. 1948 | $47 \cdot 0$ | 34.4 | 29.7 | $111 \cdot 1$ | $13 \cdot 3$ | $7 \cdot 0$ | $20 \cdot 3$ |
| 1949 | $52 \cdot 6$ | 48.3 | 29.8 | $130 \cdot 7$ | $19 \cdot 9$ | 6.2 | $26 \cdot 1$ |
| 1950 | $57 \cdot 4$ | $58 \cdot 7$ | 28.8 | 144.9 | 28.4 | $7 \cdot 8$ | $36 \cdot 2$ |
| 1951 | $56 \cdot 6$ | $47 \cdot 4$ | 31.5 | $135 \cdot 5$ | $20 \cdot 6$ | 6.7 | $27 \cdot 3$ |
| Jewellery....................... 1948 | 46.5 | $12 \cdot 3$ | 11.8 | $70 \cdot 6$ | $5 \cdot 8$ | $3 \cdot 3$ | $9 \cdot 1$ |
| $1949$ | $47 \cdot 4$ | $14 \cdot 4$ | $12 \cdot 5$ | 74.3 | $6 \cdot 2$ | $3 \cdot 3$ | 9.5 |
| 1950 1951 | $46 \cdot 3$ | $16 \cdot 7$ | $15 \cdot 9$ | 78.9 | 6.7 | $3 \cdot 7$ | $10 \cdot 4$ |
| 1951 | $48 \cdot 7$ | $13 \cdot 3$ | 15.5 | $77 \cdot 5$ | $4 \cdot 3$ | $4 \cdot 0$ | $8 \cdot 3$ |
| Grocery and combination....... 1948 | $643 \cdot 6$ | 1 | 226.5 | $870 \cdot 1$ | 1 | 28.7 | 23.7 |
| (independent) 1949 | $663 \cdot 3$ | 1 | $237 \cdot 9$ | 901.2 | 1 | $30 \cdot 0$ | $30 \cdot 0$ |
| 1950 | $705 \cdot 4$ | 1 | $239 \cdot 9$ | $945 \cdot 3$ | 1 | $28 \cdot 2$ | 28.2 |
| 1951 | $782 \cdot 3$ | 1 | $266 \cdot 4$ | 1,048.7 | 1 | $31 \cdot 6$ | $31 \cdot 6$ |
| Country general................. 1948 | 348.4 | 1 | 128.9 | $477 \cdot 3$ | 1 | $25 \cdot 3$ | $25 \cdot 3$ |
| 1949 | $341 \cdot 5$ | 1 | $137 \cdot 4$ | 478.9 | 1 | $27 \cdot 3$ | $27 \cdot 3$ |
| 1950 | 337.3 | 1 | $137 \cdot 1$ | 474.4 | 1 | 31.5 | 31.5 |
| 1951 | 383.5 | 1 | $151 \cdot 8$ | $535 \cdot 3$ | 1 | $32 \cdot 4$ | $32 \cdot 4$ |
| Coal and wood................. 1948 | $93 \cdot 9$ | 1 | $85 \cdot 3$ | 179.2 | 1 | 17.9 | $17 \cdot 9$ |
| 1949 | $92 \cdot 1$ | 1 | $87 \cdot 2$ | $179 \cdot 3$ | 1 | $20 \cdot 3$ | $20 \cdot 3$ |
| 1950 | 93.4 | 1 | $100 \cdot 9$ | 194-3 | 1 | $23 \cdot 2$ | $23 \cdot 2$ |
| 1951 | 96.0 | 1 | $102 \cdot 2$ | 198.2 | 1 | $25 \cdot 7$ | $25 \cdot 7$ |
| Garages and Filling Stations. . . 1948 | 348.0 | 1 | $92 \cdot 5$ | $440 \cdot 5$ | 1 |  |  |
| 1949 | 371.5 | 1 | 111.5 | 483.0 | 1 | 23.0 | 23.0 |
| 1950 | 383.7 | 1 | 114.3 | 498.0 | 1 | $25 \cdot 4$ | $25 \cdot 4$ |
| 1951 | $416 \cdot 0$ | 1 | $131 \cdot 6$ | 547-6 | 1 | 29.9 | $29 \cdot 9$ |

[^295]
## Subsection 3.-Statistics of Service Establishments

Theatres.-Receipts from the exhibition of motion pictures in Canada, in 1950, amounted to $\$ 86,713,357$ with an additional $\$ 11,841,704$ collected in amusement taxes. These figures include all types of operation-regular theatres, drive-in theatres, community enterprises and itinerant operators. The total number of paid admissions was $242,396,679$.

Drive-in theatres increased in number from 30 in 1949 with receipts (excluding amusement tax) of $\$ 1,392,760$ to 62 in 1950 with receipts of $\$ 2,290,679$. Itinerant exhibitors gave performances in 906 towns and villages in 1950 from which the receipts (excluding taxes) were $\$ 463,605$ and the number of paid admissions was 1,571,697.

Table 24 shows receipts, by provinces, of regular theatres and community enterprises. These two types are combined here for continuity of the statistics shown in earlier editions of the Year Book. Significant statistics concerning the four types of motion picture entertainment are also summarized in Table 25.

## 24.-Motion Picture Theatres and Receipts, by Provinces, 1941 and 1947-50

Nore.-Itinerant operators and legitimate theatre operators are not included in these figures. Receipts are exclusive of amusement taxes.

| Province | 1941 |  | 1947 |  | $1948{ }^{1}$ |  | 19491 |  | $1950{ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Receipts | No. | Receipts | No. | Receipts | No. | Receipts | No. | Receipts |
|  |  | \$ |  | \$ |  | \$ |  | \$ |  | $\$$ |
| Newfoundland ....... |  |  |  |  |  |  | 45 | 857,982 | 63 | 916,634 |
| Prince Edward Island. |  | 141,317 | 14 | 255, 835 | 16 |  | 17 | 288,741 | 17 | 293,307 |
| Nova Scotia. | 61 | 2,195,599 | 79 | 2,666,189 | 78 | 2,738,331 | 82 | 3,111,160 | 85 | 3,269,653 |
| New Brunswick....... Quebec | 39 202 | $1,102,265$ $8,047,022$ | $\begin{array}{r}58 \\ 318 \\ \hline 1\end{array}$ | 1,771,036 | $\begin{array}{r}58 \\ 472 \\ \hline 1\end{array}$ | $1,993,102$ $16,405,929$ | 54 506 | $2,051,791$ $19,502,992$ | 66 583 | $2,064,199$ $21,644,261$ |
| Ontario. | 410 | 18,757,372 | 473 | 27,043,278 | 523 | 29,523,367 | 562 | \| ${ }^{19} 1,937,717$ | 572 | 34,164,338 |
| Manitoba | 111 | 2,475,949 | 146 | 3,526,223 | 146 | 3,709,443 | 155 | 4,307,397 | 162 | 4,280,796 |
| Saskatchew | 145 | 1,673,313 | 254 | 2,914,301 | 263 | 3, 220,907 | 341 | 3,728,765 | 385 | 3,900,454 |
| Alberta | 144 | 2,257,115 | 178 | 3,711,366 | 216 | 4,245, 121 | 236 | 5,111,220 | 257 | 5,482,890 |
| British Columbia..... | 122 | 4,145,945 | 173 | 7,058,888 | 178 | 7,539, 053 | 192 | 7,662,014 | 197 | 7,942,541 |
| Totals | 1,240 | 40,795,897 | 1,693 | 62,865,279 | 1,950 | 69,657,248 | 2,200 | 78,559,779 | 2,387 | 83,959,073 |

${ }^{1}$ Includes, in addition to regular theatres, establishments in which motion picture entertainment is provided by community organizations such as churches, lodges, Boards of Trade, etc. In 1948 these halls numbered 346 with receipts of $\$ 962,927$; in 1949, 460 halls had receipts of $\$ 1,140,307$; and, in 1950, 586 halls had receipts of $\$ 1,251,311$.
25.-Summary Statistics of Motion Picture Theatre Operations, 1950

| Item | Regular <br> Theatres | Drive-in Theatres | Community Enterprises | Itinerant Operators | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Establishments................. No. | 1,801 | 62 | 586 | 175 | 2.624 |
| Receipts (excluding taxes)........ \$ | 82,707,762 | 2,290,679 | 1,251,311 | 463,605 | 86,713,357 |
| Amusement Taxes,.............. \& | 11,444,668 | 300,028 | 57,532 | 39.476 | 11,841,704 |
| Paid admissions.............. No. | 231,746,881 | 4,943,000 | 4,135,101 | 1,571,697 | 242,396,679 |

Power Laundries, Cleaning and Dyeing Plants.-There were 323 power laundries and 919 cleaning and dyeing plants operating in Canada in 1950. These two industries provided services to the value of $\$ 86,836,564$ during the year accounted for as follows: cleaning $\$ 46,884,466$, laundry $\$ 30,567,192$, dyeing $\$ 1,471,789$, linen rentals $\$ 4,299,832$ and other services $\$ 3,613,285$.
26.-Summary Statistics of Power Laundries, Dry Cleaning and Dyeing Plants, 1941 and 1947-50, and by Provinces, 1950

| Year and Province | Plants | Employees ${ }^{1}$ | Salaries and Wages | Cost of Materials | Value of Work Performed |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Power Laundries |  |  |  |  |
|  | No. | No. | \$ | $\delta$ | 5 |
| 1941. | 237 | 11,844 | 10,120,662 | 2,348,740 | 19,816, 895 |
| 1947. | 244 | 13,950 | 16,357,072 | 3,560,120 | 30,459,393 |
| 1948 | 294 | 13,923 | 18,737,302 | 4,138,029 | 35,360,996 |
| 19492. | 332 | 14,240 | 20,408,336 | 4,485,436 | 38,659,596 |
| 1950 |  |  |  |  |  |
| Newfoundland and P.E. Island. | 7 | 117 | 135, 032 | 29,159 | 298,459 |
| Nova Scotia................... | 15 | 402 | 471,482 | 108,145 | 981,340 |
| New Brunswic | 12 | 397 | 492,091 | 117,330 | 919,935 |
| Quebec.. | 79 | 4,333 | 6,252,243 | 1,449,251 | 11,763,063 |
| Ontario. | 131 | 5,113 | 7,250,381 | 1,779,345 | 14,305,773 |
| Manitoba. | 10 | 714 | 1,003,479 | 254,465 | 1,877,658 |
| Saskatchewan. | 8 | 331 | 463,178 | 119,504 | 933,230 |
| Alberta. | 17 | 802 | 1,241,634 | 263,573 | 2,478.501 |
| British Columbia ${ }^{3}$ | 44 | 2,101 | 3,666,910 | 690,910 | 7,028,983 |
| Canada, 1950. | 323 | 14,310 | 20,976,430 | 4,811,682 | 40,586,942 |
|  | Dry Cleaning and Dyeing Plants |  |  |  |  |
| 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 |  |  |  |  |  |
| Newfoundland and P.E. Island. | 11 | 179 | 246,456 | 70,833 |  |
| Nova Scotia. | 33 | 466 | 660.206 | 201,289 | 1,327,107 |
| New Brunswick | 32 | 270 | 379,468 | 110,416 | 951,622 |
| Quebec. | 167 | 3,120 | 5,125,849 | 1,249,996 | 10,654, 269 |
| Ontario | 391 | 5,930 | 9,646,769 | 2,421,352 | 20,852, 320 |
| Manitoba.. | 38 | 1,017 | 1,626,771 | 363,687 | 3, 057, 131 |
| Saukatchewan. | 58 | 501 | 770,938 | 194,623 | 1,855,630 |
| Alberta. | 85 | 876 | 1,346,054 | 343,969 | 3,041,988 |
| British Columbia ${ }^{2}$ | 104 | 1,091 | 1.902,178 | 422,399 | 3,935,077 |
| Canada, 1950. | 919 | 13,450 | 21,704,698 | 5,378,564 | 46,249,622 |

${ }^{1}$ Includes salaried employees and wage-earners. In addition, in power laundries there were 81 male and 12 female proprietors who received salaries of $\$ 214,602$ and 149 male and 15 female proprietors who received no regular salary in 1950 . In the dry cleaning and dyeing plants, there were 248 male and 25 female proprietors who received salaries of $\$ 668,550$ and 714 male and 56 female proprietors who received no regular salary in 1950. Territories.

Hotels.-The first survey of hotels since the 1941 Census was made for 1949. This was repeated for 1950 and will also form part of the results of the 1951 Census of Distribution. The 1949 data on hotels have been revised to exclude publichouses, originally included with Ontario hotels. In some instances, businesses were included as hotels in 1949 due to improper description, i.e., a large tourist home described as a lodge or seasonal resort. The decrease in number of hotels in 1950 may be attributable in some provinces to certain refinement of classification.

Of the 5,169 hotels in Canada in 1950, 4,204 operated on a full-year basis and 965 as seasonal hotels. Gross revenue of full-year hotels amounted to $\$ 304,287,000$ and of seasonal hotels $\$ 18,103,000$.

The total receipts of hotels in 1950 were derived from the following sources: $\$ 162,815,000$ from sales of beer, wine and liquor; $\$ 75,842,000$ from room rentals; $\$ 58,586,000$ from meal sales; $\$ 22,490,000$ from sales of merchandise and from other sources; and $\$ 2,657,000$ from leased concessions. Expenditure amounted to $\$ 297,104,000$, including $\$ 73,950,000$ paid in salaries and wages.
27.-Hotels and Total Receipts, by Provinces, 1941, 1949 and 1950

| Province | 1941 |  |  | 1949 |  |  | 1950 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Hotels | Rooms | Receipts | Hotels | Rooms | Receipts | Hotels | Rooms | Receipts |
|  | No. | No. | \$'000 | No. | No. | \$'000 | No. | No. | \$'000 |
| Newfoundland...... | $\cdots$ | $\cdots$ | $\cdots$ | 44 | 750 | 1,320 | 30 | 814 | 1,814 |
| Island..... | 38 | 592 | 249 | 29 | 712 | 586 | 26 | 644 | 543 |
| Nova Scotia........ | 226 | 3,663 | $\stackrel{2,896}{ }$ | 173 | 4,142 | 5.281 | 163 | 3,954 | 5,254 |
| New Brunswick.... | 171 | 3,570 | 1,807 | 138 | 3,620 | 3,369 | 122 | 3,407 | 3,501 |
| Quebec.............. | 1,556 | 30,883 | 28,647 | 1,582 | 38,654 | 72,967 | 1,510 | 37,764 | 73.651 |
| Ontario. | 1,762 | 40,388 | 66,076 | 1,538 | 45.158 | 109,417 | 1,451 | 44,589 | 107.608 |
| Manitoba. | 278 | 7,350 | 7,953 | 279 | 7,941 | 23,495 | 274 | 7,694 | 23,073 |
| Saskatchewan | 595 | 11,635 | 9,297 | 575 | 12,555 | 28,154 | 567 | 12,357 | 28,049 |
| Alberta............ | 433 | 12,918 | 14,218 | 449 | 14,250 | 41,125 | 444 | 13,985 | 40,463 |
| British Columbia ${ }^{1}$. | 587 | 17,981 | 16,345 | 618 | 22,316 | 38,738 | 582 | 21,145 | 38,434 |
| Canada. | 5,646 | 128,980 | 147,488 | 5,425 | 150,098 | 324,452 | 5,169 | 146,353 | 322,390 |

${ }^{1}$ Includes the Yukon and Northwest Territories.

## Subsection 4.-Miscellaneous Merchandising Statistics

Farm Implement Sales.-Manufacturers' and importers' sales of farm implements and equipment amounted to $\$ 218,187,120$ in 1950 , as compared with $\$ 217,089,685$ in 1949. These values are mainly at wholesale prices. It is estimated that, in terms of retail prices, Canadian farmers spent approximately $\$ 263,000,000$ on implements and equipment in 1950. These figures do not include expenditure for trucks, machine parts, binder twine or other farm supplies. Sales of repair parts totalled $\$ 29,862,034$ in 1950 , at wholesale prices, or an estimated $\$ 39,000,000$ at the retail level.

## 28.-Farm Implement and Equipment Sales, by Provinces, 1949 and 1950

Note.-Values are mainly at wholesale prices.

| Province | 1949 |  | 1950 |  | $\begin{aligned} & \text { P.C. } \\ & \text { Change } \\ & \text { 1949-50 } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Amount | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ | Amount | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ |  |
|  | \& |  | \$ |  |  |
| Atlantic Provinces ${ }^{1}$. |  | 2.5 7.7 | $5,946,209$ $19,137,999$ |  |  |
| Quebec....... | 16,657,442 | 7.7 22.0 | $19,137,999$ $51,922,436$ | 8.8 23.8 | +14.9 +8.7 |
| Ontario.. | 47,775,991 | $22 \cdot 0$ 17.2 | $51,922,436$ $29,308,664$ | 23.8 13.4 | + 81.7 |
| Manitoba...... | $37,474,620$ $59,629,464$ | 17.2 27.5 | 29,308,664 | 13.4 28.7 | +21.8 |
| Alberta........ | 44,459,129 | $20 \cdot 5$ | 45,117.409 | 20.7 | +1.5 |
| British Columbia | 5,693,928 | 2.6 | 4,125,132 | 1.9 | $-27.6$ |
| Totals | 217,089,685 | $100 \cdot 0$ | 218,187,120 | $100 \cdot 0$ | $+0.5$ |

[^296]Separate sales figures for different types of equipment are presented in Table 29.

## 29.-Sales of New Farm Implements and Equipment, in Canada and the Prairie Provinces, by Types, 1949 and 1950

Note-Values are mainly at wholesale prices.

| Type | Canada |  |  | Prairie Provinces |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 | 1950 | $\begin{aligned} & \text { P.C. } \\ & \text { Change } \\ & 1949-50 \end{aligned}$ | 1949 | 1950 | P.C. Change 1949-50 |  |
|  | \$ | $\delta$ |  | \$ | \$ |  |  |
| Planting, seeding and fertilizing machinery | 8,137,527 | 8,805,616 | +8.2 | 4,070,832 | 4,305,889 | +5.8 | 48.9 |
| Ploughs.................... | 17,938,013 | 15,228,291 | $-15 \cdot 1$ | 13,951,389 | 11,198,096 | $-19.7$ | $73 \cdot 5$ |
| Tilling, cultivating and weeding machinery. | 12.241,228 | 13,202,326 | + 7.9 | 8,383,492 | 9,759,427 | $+16.4$ | 73.9 |
| Haying machinery..... | 10.569,126 | 10,610,317 | + 0.4 | 4,288,005 | 3,704,367 | $-13.6$ | $34 \cdot 9$ |
| Harvesting machinery... | 39,088,015 | 44,243, 644 | $+13.2$ | 34,219,947 | 38,113,347 | +11.4 | 86.1 |
| Machines for preparing crops for market or use. | 7,822,176 | 8,486,629 | $+8.5$ | 3,788, 136 | 3,687,892 | $-2.6$ | $43 \cdot 5$ |
| Tractors and engines....... | 102,025,541 | 98,000,680 | $-3.9$ | 66,512,089 | 60,392,436 | $-9.2$ | $61 \cdot 6$ |
| Spraying and dusting equipment. | 1,332,584 | 1,416,507 | $+6.3$ | 665,561 | 699,960 | $+5.2$ | $49 \cdot 4$ |
| Farm wagons, trucks and sleighs. | 2,824,935 | 2,220,870 | -21.4 | 1,650,118 | 966.445 | -41.4 | 43.5 |
| Water systems and pumps.. | 5,386,881 | 5,375,319 | $-0.2$ | 1,225,773 | 1,212,723 | -1.1 | 22.6 |
| Dairy machinery and equipment. $\qquad$ | 4,004,640 | 4,033,896 | $+0.7$ | 886.638 | 585,702 | -33.9 | 14.5 |
| Barn equipment. . . . . . . . . . | 2,166,836 | 2,266,024 | $+4.6$ | 460,139 | 419.203 | -8.9 | 18.5 |
| Poultry farm equipment.... | 466,863 | -317,694 | $-32.0$ | 114,235 | 106,970 | $-6.4$ | 33.7 |
| Miscellaneous farm equipment. $\qquad$ | 3,085,320 | 3,979,907 | +29.0 | 1,346,859 | 1,902,887 | +41.3 | 47.8 |
| Totals, | 217,089,685 | 218,187,120 | $+0.5$ | 141,563,213 | 137,055,344 | $-3 \cdot 2$ | 62.8 |

Sales of New Motor-Vehicles.-The sales of new motor-vehicles dropped from a record high of 429,695 units in 1950 to 385,648 units in 1951. The decrease was accounted for by passenger-car sales, the number of trucks and buses sold in 1951 being higher than in any previous year.
30.-Retail Sales of New Motor-Vehicles, 1937-51

| Year | Passenger Cars |  | Trucks and Buses |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | 5 | No. | \$ | No. | \$ |
| 1937. | 114,275 | 116,886, 334 | 30.166 | 32,234,193 | 144,441 | 149.170.527 |
| 1938. | 95,751 | 105,006,462 | 25,414 | 30,005,446 | 121,165 | 135,011,908 |
| 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 |
| $1950{ }^{\text {r }}$ | 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 |

Finance Company Operations.-In 1950, 109 finance companies were active in the financing of consumer, commercial and industrial goods in Canada. Total financing amounted to $\$ 429,000,000$ in 1950,51 p.c. greater than the 1949 total of $\$ 285,000,000$. Consumer goods continued to account for an increasingly high
proportion of total financing. The 71 p.c. which this cagetory of goods formed of the total in 1950, while higher than in the three previous years, was still below the 1941 proportion of 77 p.c.
31.-Retail Instalment Paper Purchased and Balances Outstanding, by Classes of
Goods and Provinces, 1941, 1949 and 1950
(Millions of Dollars)

| Item | Paper Purchased |  |  | Balances Outstanding Dec. 31- |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1941 | 19491 | 1950: | 1941 | 19492 | 19501 |
| Class of Goods |  |  |  |  |  |  |
| Consumer goods. | 77 | 191 | 305 |  |  |  |
| New passenger cars. | 23 | 72 | 138 |  |  | 94 |
| Used passenger cars. | 44 | 83 | 122 |  | 46 | 74 |
| Other.............. | 10 | 36 | ${ }_{51}$ | - | ${ }_{23}$ | 94 |
| Commercial and industrial. | 23 | 94 | 124 | 16 | 68 |  |
| New commercial vehicles. | 11 | 44 | 61 |  | 92 | 46 |
| Used commercial vehicles. | 7 | 22 | 30 | - | 14 | 20 |
| Other.. | 5 | 28 | 38 | - | 22 | 25 |
| Totals, Retail Financing. | 100 | 385 | 429 | 65 | 181 | 293 |
| Province |  |  |  |  |  |  |
| Atlantic Provinces ${ }^{1}$. |  | 24 | 34 | 4 | 15 |  |
| Quebec. | 16 | 59 | 37 | 10 | 40 | 62 |
| Ontario. | 48 | 120 | 175 | 30 | 76 | 115 |
| Manitoba. | 5 | 12 | 21 |  | 8 | 15 |
| Saskatchewan. | 6 | 12 | 23 | 5 | 7 | 16 |
| Alberta. | 9 | 29 | 46 | 6 | 19 | 33 |
| British Columbia | 9 | 29 | 43 | 7 | 19 | 29 |

${ }^{1}$ Includes Newfoundland in 1949 and 1950.
Balances outstanding on retail instalment paper have mounted sharply in recent years and the total at the end of 1950 was $\$ 293,000,000,59$ p.c. above the year-end total of $\$ 184,000,000$ in 1949 . On consumer goods, outstanding balances totalled $\$ 202,000,000$ at the end of 1950 compared with $\$ 116,000,000$ at Dec. 31, 1949.

Table 32 gives a record of the financing of motor-vehicles for the ten years ended 1951. The figures do not agree exactly with those in Table 31 because they were obtained as a product of supplementary monthly surveys and are subject to reporting inconsistencies.
32.-Financing of Motor-Vehicle Sales by Finance Companies, 1942-51

| Year | New Motor-Vehicles |  | Used Motor-Vehicles |  | All Motor-Vehicles |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Financing | No. | Financing | No. | Financing |
|  |  | \$ |  | \$ |  | 8 |
| 1942. | 7,398 | 6,207,111 | 58,912 | 18,389.804 | 66,310 |  |
| 1943 | 1,077 | 1.254,878 | 38,496 | 13,637,688 | 39,572 | 14,892,566 |
| 1944 | 2,371 | 2,927,396 | 30,599 | 11,643,541 | - ${ }_{27} \mathbf{7}, 970$ | $14,570,937$ $14,437,182$ |
| 1945. | 3,630 22,866 | 4,934,456 $27,978,992$ | 24,356 30,527 | $9,502,726$ $13,607.573$ | 27,986 53,393 | $14,437,182$ $41,586,565$ |
| 1946. | 22,866 | 27,978,992 | 30,527 | 13,607,573 | 53,393 | 41,586,565 |
| 1947. | 46,709 | 65,422,230 | 72,167 | 43,322,528 | 118, 867 | 108,744,758 |
| 1948. | 51,867 | 73, 805,672 | 103,767 | 71, 149,341 | 155,634 | 144,955, 013 |
| 19491. | 81,502 | 115,511,459 | 151,486 | 103,672,571 | 232,988 | 219,184,030 |
| 19501. | 135,304 | 191,434,712 | 229,377 | 150,645.893 | 364,681 | 342,080,605 |
| $1951{ }^{1}$. | 126, 255 | 191,202,909 | 297.575 | 185,468,396 | 423,830 | 376,671,305 |

[^297]The proportion of new motor-vehicles sold for cash was high when motorvehicle production was resumed after World War II. Each of the years 1947 to 1951 witnessed an increase in the proportion of cars purchased on instalments through finance companies.
33.-Sales and Financing of New Motor-Vehicles (Passenger and Commercial), Selected Years, 1933-51

| Year | MotorVehicles Sold | MotorVehicles Financed | P.C. of Total Sales Financed |  | Average <br> Financed Value |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Number | Value |  |
|  | No. | No. |  |  | \$ |
| 1933. | 45,332 | 15,880 | $35 \cdot 0$ | $22 \cdot 1$ | 632 |
| 1935. | 101,461 | 31,950 | 31.5 | $22 \cdot 0$ | 701 |
| 1937. | 144,441 | 56,247 | 38.9 | 27.3 | 723 |
| 1939. | 114,747 | 37,230 | $32 \cdot 5$ | $22 \cdot 1$ | 746 |
| 1941. | 118,082 | 41,032 | $34 \cdot 7$ | 23.0 | 850 |
| 1946. | 120,044 | 22,866 | $19 \cdot 0$ | $14 \cdot 5$ | 1,224 |
| 1947. | 230,255 | 46,700 | $20 \cdot 3$ | $15 \cdot 7$ | 1,401 |
| 1948. | 221,300 | 51,867 | 23.4 | 16.8 | 1,423 |
| 19491. | 286,341 | 81,502 | 28.5 | $19 \cdot 6$ | 1,417 |
| 19501. | 429,695 | 135,304 | 31.5 | $21 \cdot 6$ | 1,415 |
| $1951{ }^{1}$. | 385,648 | 126.255 | $32 \cdot 7$ | $20 \cdot 1$ | 1,514 |

${ }^{1}$ Includes Newfoundland.

## Section 5.-Co-Operative Organizations*

Each year since 1932 co-operative organizations in Canada have reported voluntarily to the Department of Agriculture on their business operations. Reports received from such organizations for the crop year ended July 31, 1951, numbered 2,348 and included returns from co-operatives of all types. The number reporting in 1951 was 147 less than in 1950 but these were mainly small organizations and it is estimated that the returns received account for over 70 p.c. of all co-operatives and over 90 p.c. of the total volume of business. Membership reported in 1951 was $1,195,034$ and volume of business totalled $\$ 988,459,832$. Both these figures are less than those reported for 1950. The drop in volume of business for 1951 is attributable mainly to the large quantity of low grade wheat marketed by the western grain co-operatives as a result of the early frosts which damaged the 1950-51 crop.

Volume of business reported by the fishermen's and service co-operatives increased in 1951 over 1950 although the number of associations and total membership in these two groups decreased slightly.

Developments, 1949-50 and 1950-51.-Beginning in September 1951, the University of Saskatchewan offered full credit courses in the management and administration of co-operatives in the degree course of the School of Commerce. For the same scholastic year the University of Ottawa offered a degree course in co-operation leading to the degrees of B.A. (Co-op) and B. Comm. (Co-op).

During 1950, the Province of Saskatchewan made a major revision in its co-operative legislation and in Ontario all medical services co-operatives were placed under the jurisdiction of the Provincial Superintendent of Insurance.

[^298]In the Province of Newfoundland a provincial co-operative union was organized with the assistance and encouragement of the local government and later this union became affiliated with the Co-operative Union of Canada.

Marketing.-The total value of farm products marketed by co-operatives in Canada amounted to $\$ 769,264,824$ for the crop-year ended July 31, 1951. This figure is less by $\$ 34,300,000$ than the total reported for the same period in 1950 . Decreases were noted in sales of dairy products, fruits and vegetables, grain and seed, eggs and poultry and tobacco. The largest decrease was, of course, in grains and seeds for the reason noted on p. 899. The decrease was offset to a considerable extent by a substantial increase in the sales volume of co-operatives handling live stock.

It is estimated that about 34 p.c. of all farm products marketed commercially in Canada, in 1951, was handled by co-operatives. For the previous year (1950) the estimated proportion was slightly over 35 p.c. For the various commodities concerned the percentages for 1951 are as follows, with similar figures for 1950 shown in parentheses: dairy products $25.8(27.9)$; live stock $21.4(18 \cdot 7)$; poultry and eggs $12 \cdot 2$ ( $15 \cdot 3$ ); grain and seeds $56 \cdot 9(60 \cdot 6)$; fruits and vegetables $27 \cdot 1$ (35.8); tobacco $95 \cdot 6(94 \cdot 4)$.

Merchandising.-Although Canadian co-operatives are prominent in the field of marketing agricultural products they also supply farmers and consumers with production supplies and consumer goods. This phase of co-operative activity has become more important in the last decade but has not yet assumed an important position in the over-all statistics of wholesale and retail business. No authoritative estimate exists of the proportion of wholesale and retail business handled by cooperatives but it is estimated at about 2 p.c.

Total sales value of merchandise and supplies handled by co-operatives in Canada, in 1951, amounted to $\$ 209,985,815$, representing an increase of almost $\$ 4,000,000$ over the total reported in 1950 . The main increases were reported in sales of food products, petroleum products, feed, fertilizer and spray material. Minor decreases were noted in sales of machinery and equipment and in sales of clothing and home furnishings.

Wholesaling.-During 1950-51, 11 co-operative wholesales reported on their business and operations. These wholesales, with total assets amounting to $\$ 25,000,000$, supplied and serviced 1,766 co-operative associations.

On behalf of their members, the wholesales in 1951, marketed almost $\$ 80,000,000$ of farm products and, in addition, sold to their members $\$ 61,000,000$ in farm supplies and consumer goods. Total volume of business for 1951 amounted to $\$ 141,478,212$, an increase of $\$ 13,000,000$ over the total reported for 1950 . Feed and fertilizer sales by co-operative wholesales in Canada in 1951 amounted to $\$ 27,600,000$ and accounted for about 40 p.c. of the total supplies handled.

All the wholesales in Canada are federated into Interprovincial Co-operatives Limited. This organization buys on behalf of the member wholesales and provides a medium for co-ordination and service. Interprovincial Co-operatives Limited also distributed flour from the co-operative flour-mill at Saskatoon, Sask., and, in addition, owns and operates a bag factory at Montreal, Que. In 1951, a coffee roasting and blending plant was opened by this organization at Vancouver, B.C., and "co-op" brand coffee is now being supplied to co-operative wholesales and local associations in Western Canada.

Retailing.-Sales of food products in 843 co-operative retail stores amounted to $\$ 54,425,000$ during $1950-51$; clothing and home furnishings amounting to $\$ 7,726,000$ were handled by 543 outlets; and feed and fertilizer sales of over $\$ 18,576,000$ through 397 stores. Saskatchewan had the largest number of retail outlets, followed by Alberta and Quebec.
34.-Summary Statistics of Co-operative Marketing and Purchasing Associations, Crop Years Ended July 31, 1913-51

| Year | Associations | Places of Business | Patrons | Sales of Farm Products | Sales of Supplies | Total Business ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | \$ | 8 | 8 |
| 1943 | 1,650 | 4,406 | 608.680 | 295,499, 274 | 55,689, 141 | 352,785,598 |
| 1944. | 1,792 | 4,534 | 719,080 | 459,798,798 | 65, 508,771 | 527, 855, 540 |
| 1945. | 1,824 | 4,441 | 738,315 | 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 |
|  | Value of Plant | Total Assets |  | Liabilities to the Public | Shareholders or Members | $\begin{aligned} & \text { Members' } \\ & \text { Equity } \end{aligned}$ |
|  | 8 |  | \$ | \$ | No. | \$ |
| 1943. | 36,866 |  | ,634,839 | 124, 264,085 | 585,826 | 62, 370, 754 |
| 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 |
| 1918 | 75,009 |  | ,603,705 | 89, 381,360 | 1,127,229 | 112,222,345 |
| 1949 | 89,832 |  | ,962,924 | 106,599,688 | 1,141,698 | 130,363, 236 |
| 1950. | 98,514 |  | ,478.777 | 111,092,652 | 1,173,126 | 143,386,125 |
| 1951 | 99,790 | 191 3 | ,834,165 | 159,357,602 | 1,184,235 | 147, 476,563 |

${ }^{1}$ Includes other revenue.
35.- Products Marketed, Merchandise and Supplies Handled by Co-operative Marketing and Purchasing Associations, Crop Years Ended July 31, 1950 and 1951

| Item | 1950 |  | 1951 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Associations ${ }^{1}$ | Value of Sales | Associations ${ }^{1}$ | Value of Sales |
| Marketing- | No | \$ | No. | 8 |
| Dairy products. | 641 | 134,580,357 | 610 | 117,120.583 |
| Fruits and vegetables | 195 | 46, 250,620 | 187 | 32,497,354 |
| Grain and seed... | 116 | 383, 608,336 | 116 | 336, 260,884 |
| Live stock. | 324 | 141,713,027 | 335 | 192, 884, 359 |
| Eggs and poultry | 377 | 28,408,057 | 240 | 25, 602,756 |
| Honey.. | 10 | 1,626,271 | 7 | 1,216,507 |
| Maple products. | 3 | 2,025,735 | 3 | 2,380, 817 |
| Tobacco.. | 4 | 54, 868,427 | 5 | 51,174,252 |
| Wool | 10 | 1,519,639 | 22 | 2,248,727 |
| Fur. | 12 | 659,056 | 15 | 933,430 |
| Lumber and wood | 32 | 1,615,860 | 41 | 1. 847,750 |
| Miscellaneous. | 63 | 6,763,577 | 46 | 5,097,405 |
| Totals, Marketing | 1,361 | 803,638,962 | 1,210 | 769,264,824 |
| Merchandising- |  |  |  |  |
| Food products. . . . . . . . . . . . . . . . . . . . . . . . | 857 | 56,535,475 | ¢52 | 57,837,931 |
| Clothing and home furnishings.... | 579 | 8.403,312 | 538 | 7,641,051 |
| Petroleum products and accessories | 697 | 23,854,741 | 551 | 25,466,486 |
| Feed, fertilizer and spray material. | 1,140 | 74,910,650 | 1,009 | 76,492,817 |
| Machinery and equipment..... | 493 | 9,460,542 | 324 | 7,488,486 |
| Coal, wood and building material. | 695 | 14,577,076 | 629 | 14,646,884 |
| Miscellaneous. | 981 | 18,340.612 | 961 | 20,412,160 |
| Totals, Merchandising. | 1,874 | 206,082,408 | 1,872 | 209,985,815 |
| Grand Totals.................... | 2,495 | 1,009,721,370 | 2,348 | 979,250,639 |

[^299]
## 36.-Summary Statistics of Co-operative Marketing and Purchasing Associations by Provinces, Crop Years Ended July 31, 1950 and 1951

| Province | Associations | Shareholders or Members | Sales of Products | Sales of Merchandise | Totsl Business ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | 8 | \$ | \$ |
| Newloundland.............. 1950 | 33 | 5,419 | 16,913 | 2,068,512 | 2,087,830 |
| 1951 | 38 | 5,558 | 23,889 | 2,307,707 | 2.340,101 |
| Prince Edward Island..... ${ }_{1951}^{1950}$ | 26 32 | 8,293 9,309 | $3,085,982$ $2,750,883$ | $1,281,747$ $2,341,016$ | $4,376,861$ |
| Nova Scotia............... 1950 | 123 | 22,536 | 7.813,666 | 13,517,644 | 21,476,162 |
| 1951 | 114 | 22,185 | 6,548,561 | 12,117,451 | 18,791,301 |
| New Brunswick............ 1950 | 70 | 12,246 | 5,588,358 | 5,078,504 | 10,700,698 |
| 1951 | 60 | 13,354 | 5,796,290 | 4,805,791 | 10,648,559 |
| Quebec..................... 1950 | 776 | 89,365 | $71,539,064$ | 50,420, 191 | 122,074,066 |
| 1951 | 716 | 89,922 | 70,317,707 | 54,813,566 | 125,910,918 |
| Ontario..................... 1950 | 396 | 95,736 | 135,508, 254 | 42,634,320 | 179,031,708 |
| 1951 | 342 | 94,934 | 116,252,978 | 42,117,311 | 159,348,314 |
| Manitoba.................... 1950 | 151 | 163,616 | 74,246,649 | 13,619,334 | 88,388,516 |
| 1951 | 142 | 174,717 | 76,986,941 | 12,971,325 | 90,439,708 |
| Saskatchewan.............. 1950 | 563 | 403,499 | 231,499, 344 | 31,010,722 | 263,738,796 |
| 1951 | 552 | 393,529 | 216,467,659 | 34,756,876 | 252,920,020 |
| Alberta.................... 1950 | 215 | 222,955 | 140,961,913 | 19,166,732 | 161,695,167 |
| 1951 | 224 | 218,051 | 157,971,582 | 19,186,237 | 179,812,287 |
| British Columbia........... 1950 | 135 | 49,049 | 50,311,727 | 15,550,800 | 66,501,202 |
| British Columbia........... 1951 | 121 | 42,255 | 43, 233,489 | 14,450,609 | 58,731,057 |
| Interprovincial............ ${ }^{1950} 1951$ | 7 | 100.412 | 83,007.082 | 11,733,902 | 95,193,757 |
|  | 7 | 120,421 | 72,909,845 | 10,117,926 | 84,388,511 |
| Totals . . . . . . . . . . . 19.1959 | 2,495 | 1,173,126 | 803,638,962 | 206,882,408 | $\begin{array}{r} 1,015,264,763 \\ \mathbf{9 8 8}, 459,832 \end{array}$ |
|  | 2,348 | 1,184,235 | 769,264,824 | 209,985,815 |  |

${ }^{1}$ Includes other revenue.
Service Co-operatives.-Co-operatives are organized throughout Canada to provide members with distinct services such as seed-cleaning, transportation lodging, rural electrification, etc. Most of these types of co-operatives are fairly new and many are operated as special departments of the larger and older marketing and purchasing associations. The most important co-operatives in recent years are those being organized in Quebec and Alberta to provide electric power to rural families. Housing co-operatives are especially prominent in Nova Scotia and Quebec. Transportation co-operatives exist mainly in British Columbia.

In 1951, reports were received from 324 service co-operatives throughout Canada. Membership in these associations totalled 216,779 and the total revenue from services rendered amounted to $\$ 9,281,279$.

Fishermen's Co-operatives.-Fishermen on the Atlantic and the Pacific Coasts are organized co-operatively for the marketing of fish and fish products and for the purchasing of fishermen's supplies and consumer goods. In recent years, co-operative organizations and associations of fishermen on the Great Lakes and on the inland lakes of Manitoba and Saskatchewan have been reported and are making good progress.

In 1951, 96 fishermen's co-operatives reported a total membership of $\mathbf{1 5 , 4 1 2}$ and a total volume of business amounting to $\$ 18,809,860$ : over one-half of this volume was reported by co-operatives in British Columbia.

Insurance.-Farmers' mutual fire-insurance companies are the oldest form of co-operative endeavour among farmess in Canada. During 1950, there were 404 such companies in operation. The net amount of insurance at risk was almost $\$ 2,500,000,000$ and the net losses paid in 1950 amounted to $\$ 6, \$ 00,000$.

Many other companies in Canada are now operating, on a co-operative basis, in the fields of life insurance, casualty insurance, marine insurance and bonding for credit union treasurers and co-operative managers. The most recent addition to the list is the Co-operative Fire and Casualty Insurance Company which obtained a charter from the Federal Government in 1951 and commenced business in 1952.

## Section 6.-Interprovincial Freight Movements*

Statistics on interprovincial trade are difficult to collect because there are no barriers to this trade. 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 is the case with western grain moved to the Ontario ports of Fort William and Port Arthur. Consequently, the statistics of Table 37 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.

[^300]37.-Railway Revenue Freight Movement, by Provinces, 1950 and 1951

| Province | Loaded |  | Received from Foreign Connections |  | Totals Originated ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 | 1951 | 1950 | 1951 | 1950 | 1951 |
|  | tons | tons | tons | tons | tons | tons |
| Newloundland | 925,311 | 1,068,291 | 519 | - | 925,830 | 1,068,291 |
| Prince Edward Island. | 310.606 | 417,778 |  |  | 310,606 | 417,778 |
| Nova Scotia. | 10,208,321 | 10,289, 032 | 128,539 | 181,406 | 10,336,859 | 10,470,438 |
| New Brunswi | 3,661,704 | 5,012,561 | 631,636 | 686,421 | 4,293,340 | 5,698,982 |
| Quebec | 18.521,675 | 21,103,335 | 8,006,179 | 8,308,306 | 26,527,854 | 29,411,641 |
| Manitoba | $36,859,583$ 6,203 | 41,667,045 | 25,441,292 | 27,315, 222 | 62,300,875 | 68,982, 267 |
| Saskatchewan | 9,244,746 | 12,045,777 | 203,517 | 176,773 | 9,448,263 | 8,448,935 |
| Alberta | 12,365,162 | 11,880,807 | -38,296 | 150,712 | 12,403,458 | 11,931,519 |
| British Columbia | 9,895,058 | 10,510,464 | 939,077 | 1,689,773 | 10,834,135 | 11,600,237 |
| Totals | 108,195,001 | 121,963,051 | 35,835, 622 | 38,289,587 | 144,030,633 | 160,252,638 |

[^301]37.-Railway Revenue Freight Movement, by Provinces, 1950 and 1951-concluded

| Province | Unloaded |  | Delivered to Foreign Connections |  | Totals Terminated ${ }^{\text {t }}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 | 1951 | 1950 | 1951 | 1950 | 195 |
|  | tons | tons | tons | tons | tons | tons |
| Newfoundland ${ }^{\text {Prince Edivard İ. }}$ | ${ }_{4}^{796,955}$ | 998,757 | 201,380 | 175,449 | 998,335 | 1,174,206 |
| Nova Scotia... | 8,319,547 | 8,399,702 | - $\begin{array}{r}\text { 5, } \\ 4673 \\ \hline 159\end{array}$ | 574,930 | 8,779,806 | 8,974,632 |
| New Brunswick | 3,164,849 | 3,600, 243 | 1.823,232 | 2,345,147 | 4,988,081 | 5,945, 390 |
| Quebec. | 19,866, 250 | ${ }^{23,763.836}$ | 7,165,920 | 9.770,607 | 27,032,170 | 33, 534,443 |
| Ontario... | 46,546.363 | 52,156.726 | 23,696,458 | 26,763,532 | 70,242,821 | 78.920,258 |
| Manitoba.... | 7,483,403 | 7.329,550 | 626,360 | 808,884 | 8,109.763 | 8, 138,434 |
| Saskatchewan | 5,749,749 | 4.437.152 | 949,451 | 924,834 | 6.699,200 | 5,361,986 |
| Alberta........ | 5,114, 248 | 5,030, 241 | 27,294 3.5300 | 21.780 | 5,141,542 | ${ }_{5}^{5}, 108,021$ |
| British Columbia | 7,699,375 | 8,209,047 | 3,553,300 | 4,622,387 | 11,252,675 | 12,831,434 |
| Totals | 105,151,461 | 114,402 995 | 38,509,227 | 46,009,526 | 143,663,688 | 160,412,521 |

[^302]
## 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 double 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 at pp. 481-482 of the 1941 Year Book. An article on the operations of the Canadian Wheat Board is included in the 1939 Year Book, pp. 569-580, and concluded in the 1947 edition.

## Section 2.-Combinations in Restraint of Trade*

Federal legislative measures for aiding and regulating trade include specific prohibitions of operation against the public interest by monopolies and similar commercial combinations. Monopolistic trade arrangements tending to eliminate competition in price, supply or quality of goods, and thereby to restrain trade unduly, are illegal under the Combines Investigation Act and Sect. 498 of the Criminal Code. These laws are designed to promote reasonable competitive opportunities for the expansion of production, distribution and employment.

The first federal legislation in this field was enacted in 1889 and is still effective in amended form as Sect. 498 of the Criminal Code. Legislation providing for investigation of trusts or combines was first enacted in 1897 as part of the Customs Tariff Act. In 1910 a separate Combines Investigation Act was passed and further legislation was enacted in 1919 and 1923.

The Combines Investigation Act.-The Combines Investigation Act (R.S.C. 1927, c. 26), enacted in 1923 and amended in 1935, 1937, 1946, 1949, 1950, 1951 and 1952, provides for the investigation of trade combinations, monopolies, trusts or mergers alleged to have operated to the detriment of the public through limiting production, fixing or enhancing prices, limiting competition or otherwise restraining trade. Organizations of this nature are defined by the Act as 'combines', and participation in the formation or operation of a combine is an indictable offence. In line with recommendations contained in a final report by the Committee to Study Combines Legislation, certain amendments effective Nov. 1, 1952, revised the administrative organization by separating into two parts the functions formerly exercised by the Commissioner of the Combines Investigation Act with an agency for investigation and research and a board of three members to appraise the evidence obtained in investigations and report thereon. The former Commissioner of the Combines Investigation Commission became the new Director of Investigation and Research, with authority to initiate investigations respecting practices alleged to be offences under the Combines Investigation Act or under Sect. 498 or 498A of the Criminal Code which concern offences related to those covered by the Combines Investigation Act. The board is known as the Restrictive Trade Practices Commission and the following persons have been appointed as members: C. Rhodes Smith, Q.C., Chairman, formerly Attorney-General of Manitoba; Guy Favreau, a member of the Quebec Bar; and A. S. Whiteley, an economist who served as Deputy Commissioner under the Combines Investigation Act. Other amendments removed limitations on possible fines and permitted the Courts to prohibit continuation or repetition of an offence. Amendments made to the Combines Investigation Act in 1951 adopted recommendations contained in the interim report of the Committee to Study Combines Legislation by prohibiting the practice of resale price maintenance.

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 industry in Canada. Four formal charges were preferred under the Combines Investigation Act. The trial of the first charge concluded at Montreal in May 1951 with the five corporation defendants being convicted and fined a total of $\$ 85,000$

[^303]and costs. The fine included imposition of the maximum penalty of $\$ 25,000$ each against the Eddy Match Company Limited and Valcourt Company Limited, with Commonwealth Match Company Limited being fined $\$ 15,000$ and two other defendants controlled by the Eddy Match Company Limited being fined $\$ 10,000$ each. The costs and expenses were ordered to be paid by the five defendants on a similarly apportioned basis. An appeal against judgment and sentence is pending and will probably come before the courts in January 1953. Trial of the remaining three charges is awaiting disposal of the appeal.

In a report of a special commissioner made in November 1948, a combine was alleged to exist in the bread-baking industry in the Provinces of Saskatchewan, Alberta and British Columbia. Prosecution was instituted in Alberta on the direction of the Minister of Justice against McGavin Bakeries Limited, two McGavin Limited companies, Canadian Bakeries Limited, Weston's Bread and Cake (Canada) Limited, and Edmonton City Baking Limited. On Oct. 2, 1951, all six bakery corporations charged were found guilty, as charged under Sect. 498 of the Criminal Code, with total penalties of $\$ 30,000$ and costs being imposed. An appeal has been filed against the judgment. Costs of the Crown have, in part, been assessed by the Taxing Officer, but it is expected that an application will be made to the trial judge for directions in respect of items not yet taxed.

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. The report named the Rubber Association of Canada and nineteen rubber companies as being members of one or more of the alleged combines. Decision to prosecute was announced by the Minister on Nov. 7, 1952.

On July 7, 1952, a report was submitted to the Minister advising that, at the time of commencement of inquiry, a combine existed on the part of certain members of a bakery workers' union to prevent or lessen competition in the distribution and sale of bread in the Winnipeg area. On Aug. 29, 1952, in view of the particular facts of the case and the additional circumstance that no useful purpose would be served by commencing a prosecution against the members of the local union, the Minister stated that it was not the intention of the Department of Justice to commence proceedings against the parties named in the report.

Another report, comprising the results of an investigation into the fine paper industry was submitted to the Minister of Justice on Oct. 23, 1952. The latter report named seven manufacturers and 37 fine paper merchants as having been parties or privy to or knowingly assisted in the operation of a combine or combines within the meaning of the Combines Investigation Act. On Nov. 6, 1952, the report was made public by the Minister, who stated that as soon as he had examined it carefully and received the opinion of counsel he would make a further announcement as to whether proceedings would be instituted against parties to the alleged combine.

During 1951 and 1952 a variety of matters was disposed of on preliminary inquiry while 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. During 1952, the Commission has represented Canada at meetings of the Ad Hoc Committee on

Restrictive Business Practices, established under resolution of the United Nations Economic and Social Council to formulate proposals for an international convention to be considered by the Economic and Social Council.

## 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, and the Weights and Measures 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 label descriptively any commodity or container, it must be labelled accurately to avoid public deception. One such regulation of interest applies to the labelling of fur garments, and has established itself as a code of fair practice throughout the merchandising field.

Under the terms of the Precious Metals Marking Act, 1946 (c. 26), commodities composed of gold, silver or platinum may be marked with a quality mark which describes 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, silver-plated or platinum-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 prescribes the legal standards of weight and measure for use in Canada. Responsibilities under the Act require control of the type of all weighing and measuring devices used for commercial purposes, 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, 1951, was 481,088 , compared with 485,452 in 1949-50. The more important inspections comprised the following: weighing machines, including scales of all kinds, 231,431; measuring machines for liquids, 68,328 ; other weights, 128,454 ; other measures, 52,875 . Total expenditure was $\$ 576,041$ in 1950-51, compared with $\$ 512,539$ in $1949-50$ and total revenue $\$ 499,455$ compared with $\$ 472,282$.

Electricity and Gas Inspection.-Responsibilities of the Standards Division under the Electricity Inspection Act and the Gas Inspection Act comprise the control of the types of electricity meters and gas meters used throughout Canada, and the testing and stamping of every meter used for billing purposes, the object being to ensure the correct measurement of all electricity and gas sold. Canada is divided into 23 districts for administration of the two Acts, and staff numbers 156. During the year ended Mar. 31, 1952, 910,068 electricity and gas meters were tested as compared with 920,162 in the preceding year. Revenue derived from the testing amounted to $\$ 657,548$ and expenditure to $\$ 549,048$.

[^304]1.-Electricity and Gas Meters in Use, Years Ended Mar. 31, 1943-52

| Year | ElectricityMeters | Gas Meters |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Manufactured Gas | $\begin{aligned} & \text { Natural } \\ & \text { Gas } \end{aligned}$ | Acetylene Gas | Petroleum Gas | Total |
|  | No. | No. | No | No. | No. | No. |
| 1943. | 2,228,716 | 532,160 | 197,585 | 4 | 1,278 | 731,027 |
| 1944. | 2,269,509 | 540,240 | 201,532 | 4 | 1,392 | 743,158 |
| 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, 227 |
| 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 |
| 1950. | 3,198, 013 | 606,395 | 239,448 | 4 | 3,841 | 849,688 |
| 19511. | 3,405,432 | 610,096 | 252,468 | 5 | 33 | 862,602 |
| $1952{ }^{1}$. | 3,590,422 | 609,262 | 263,130 | 5 | 68 | 872,465 |

${ }^{1}$ Includes Newfoundland.
The Electricity and Fluid Exportation Act 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, 1952, amounted to $2,478,022,630 \mathrm{kwh}$. 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 (25-26 Geo. V, c. 32) as amended by 11 Geo. VI, c. 23. 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, 1946-51

| Item | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Applications for patents........... No. | 14,778 | 16,922 | 16,585 | 12,751 | 13,172 | 14,324 |
| Patents granted. | 7,412 | 6,590 | 7,175 | 7,959 | 8,513 | 8,461 |
| Granted to Canadians... | 495 | 520 | 580 | 570 | 655 | 627 |
| Caveats granted................... " | 421 | 438 | 313 | 325 | 356 | 391 |
| Assignments......................... | 8,964 | 11,063 | 13,656 | 13,325 | 12,811 | 11,437 |
| Fees received, net................. \& | 421,539 | 452,193 | 631,929 | 625,451 | 636,772 | 661,069 |

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 8,600 for the last ten years. Of the 8,461 patents granted in 1950-51, 6,289 or 74 p.c. were to inventors resident in the United States, 627 to Canadian residents, 929 to residents of the United Kingdom and other Commonwealth countries. Residents of France obtained 131, of Switzerland 109, of Holland 131, and of other countries 245.

[^305]Printed copies of patents issued from Jan. 1, 1949, to date are available at a nominal fee. The Canadian Patent Office Record ives 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, indexes, journals and reports from Australia, New Zealand, South Africa, India, Pakistan, France, Belgium, Austria, Norway, Hungary and Mexico.

Copyrights, Industrial Designs and Timber Marks.-Registration of copyright is governed by R.S.C. 1927, c. 32, and applications for protection relating to copyrights should be addressed to the Commissioner of Patents, Ottawa.

The Copyright Act of 1921 (consolidated in R.S.C. 1927, c. 32) sets out, in Sect. 4, the qualifications for a copyright and, in Sect. 5, 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 His 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 throughout all parts of the Commonwealth, in foreign countries of the Copyright Union and in the United States of America, as well as in Canada.

Protection of industrial designs and of timber marks is afforded under the Trade Mark and Design Act (R.S.C. 1927, c. 201) and amendments, and the Timber Marking Act (R.S.C. 1927, c. 198) and amendments. 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, 1946-51

| Item | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Copyrights registered.............. No. | 3,823 | 4,102 | 4,002 | 4.219 | 4,488 | 4,700 |
| Industrial designs registered......... " | 525 | 759 | 730 | 795 | 653 | 628 |
| Timber marks registered............ " | 5 | 15 | 7 | 20 | ${ }^{7}$ | ${ }_{51}^{4}$ |
| Assignments registered................. ${ }_{\text {F }}$ | 17,818 | 4, 18,838 | 17,885 | 17,784 | 426 19,325 | 512 19.848 |

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, 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, 1946-51

| Item | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |

## Section 5.-Subventions and Bounties on Coal*

Subventions have been regulated during past years by Orders in Council authorizing the payment of certain rates of assistance, in respect of the various movements of coal specified therein, from moneys voted annually by Parliament for that purpose. It has not been considered practicable to fix subvention aid by statute owing to the frequent changes in the competitive situation.

## 5.-Expenditure for Subventions, by Provinces, 1946-51

| Province | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nova Scotia $\qquad$ ton | $\begin{aligned} & 471,054 \\ & 486,661 \end{aligned}$ | $\begin{aligned} & 296,599 \\ & 141,156 \end{aligned}$ | $1,403,306$ 954,846 | $1,853,604$ $2,435,111$ | $1,165,719$ $1,005,438$ | $\begin{aligned} & 2,286,537 \\ & 3,074,466 \end{aligned}$ |
| New Brunswick............ton | 2,555 2,065 | 2,528 1,698 | 724 724 | 3,025 3,838 | 2,314 1,939 | 2,709 2,634 |
| Saskatchewan..............ton | 15,736 14,972 | 12,559 11,923 | 31,787 25,366 | 94,957 64,933 | 173,694 125,767 | $\begin{aligned} & 165,086 \\ & 126,042 \end{aligned}$ |
| Alberta and eastern British Columbia. $\qquad$ ton | $\begin{array}{r} 850,314 \\ 1,359,506 \end{array}$ | $\begin{aligned} & 252,076 \\ & 532,139 \end{aligned}$ | 282,608 635,253 | 441,938 897,970 | $\begin{array}{r} 785,148 \\ 1,482,202 \end{array}$ | $\begin{array}{r} 589,581 \\ 1,163,937 \end{array}$ |
| British Columbia bunker and export.................................. | $\begin{aligned} & 13,775 \\ & 10,331 \end{aligned}$ | $\begin{aligned} & 9,294 \\ & 6,971 \end{aligned}$ | $\begin{aligned} & 5,728 \\ & 4,296 \end{aligned}$ | $\begin{aligned} & 36,170 \\ & 29,893 \end{aligned}$ | $\begin{aligned} & 6.092 \\ & 4,569 \end{aligned}$ | $\begin{aligned} & 91,611 \\ & 88,551 \end{aligned}$ |
| Totals................ton | 1,353,434 | $\begin{aligned} & 573,056 \\ & 693,887 \end{aligned}$ | 1,724,154 | $\begin{aligned} & 2,429,692 \\ & 3,431,745 \end{aligned}$ | $\begin{aligned} & 2,132,970 \\ & 2,619,915 \end{aligned}$ | $\begin{aligned} & \mathbf{3 , 1 3 5 , 5 2 3} \\ & \mathbf{4 , 4 5 5 , 6 2 9} \end{aligned}$ |

The Coke Bounty Act, 1930 (20-21 Geo. V, c. 6), 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.

[^306]Bounties paid under this authority for the five years 1947-51 were as follows:-


## Section 6.-Control and Sale of Alcoholic Beverages*

The provincial liquor control Acts have been constituted to establish provincial monopolies of the retail sale of alcoholic beverages, with the practical elimination therefrom of private profit. Partial exception is made in the retail sale of beer by brewers, or others which certain provinces permit, while reserving regulative rights and taxing such sales heavily. The provincial monopoly extends to the retail sale and not to the manufacture of alcoholic beverages. The original liquor control Acts have been modified from time to time as deemed advisable.

The distilled liquor industry produces not only beverage spirits but also industrial alcohol such as (1) unmatured, denatured by distillers, used in anti-freeze and numerous other items, and (2) unmatured, non-denatured, used in chemical compounds, pharmaceutical preparations and vinegar. Production of industrial alcohol (denatured and non-denatured) totalled $6,474,056 \mathrm{pf}$. gal. in 1950, a decrease of $1,061,042 \mathrm{pf}$. gal. from 1949. Beverage spirits produced in 1950 and placed in bond for maturing totalled $15,147,458 \mathrm{pf}$. gal. as compared with $14,251,996 \mathrm{pf}$. gal. the previous year. Sales in 1950 of denatured alcohol for anti freeze, solvents, cleaning fluids, perfume manufacturing, etc., amounted to $3,835,517$ standard gal. as compared with sales of $3,538,803$ standard gal. in 1949. Sales of $3,548,958$ pf. gal. of non-denatured alcohol in 1950 were $1,070,503$ pf. gal. higher than in 1949. Beverage spirits sold (domestic and export sales) amounted to 18,209,143 pf. gal. in 1950 and $15,371,626 \mathrm{pf}$. gal. in 1949.

Materials used show important changes. Wheat was the major item during World War II but in 1950, owing to restrictions resulting from world food problems, consumption declined to only $1,432750 \mathrm{lb}$. from a peak of $402,535,232 \mathrm{lb}$. in 1944. Corn replaced wheat, increasing from $15,833,741 \mathrm{lb}$. in 1944 and $45,191,740 \mathrm{lb}$. in 1945 to $184,910,915 \mathrm{lb}$. in 1950. Wheat flour (alcomeal), introduced during the War and consumed to the extent of $77,268,410 \mathrm{lb}$. in 1944, ceased to be of importance in the later years.

Net Revenue from Liquor Control.-The provincial figures of net revenue shown in Table 6 include not only the net profit made by Liquor Control Boards or Commissions but also additional amounts of revenue received from permits, licences, etc., sometimes paid direct to the Provincial Governments.

The Federal Government, for the year ended Mar. 31, 1950, also collected in excise duties, customs duties, excise taxes, licence fees, etc., $\$ 80,749,812$ on spirits, $\$ 59,754,546$ on malt and malt products and $\$ 2,713,057$ on wines. $\dagger$ Corresponding collections for the year ended Mar. 31, 1951, were $\$ 92,217,597$ on spirits, $\$ 68,234,475$ on malt and malt products and $\$ 2,921,321$ on wines.

[^307]
## 6.-Net Revenue Received by the Provincial Governments from Liquor Control, by Provinces, Provincial Fiscal Years, 1942-51

Nore.-These figures are for provincial fiscal years ended on the following dates: N'f'ld. and P.E.I., Mar. 31; N.S., Nov. 30, 1942-50, Mar. 31, 1951; N.B., Oct. 31, 1942-50, Mar. 31, 1951; Que., Mar. 31; Ont., Mar. 31; Man., Apr. 30, 1942-46, Mar. 31, 194i-51; Sask., Apr. 30, 1942-46, Mar. 31, 1947-51; Alta., Mar. 31; and B.C., Mar. 31.

| Year | Newfoundland | Prince <br> Edward Island | Nova <br> Scotia | New <br> Brunswick | Quebee |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | $\delta$ | \$ |
| 1942. | ... | ... | 4,885,365 | 2,950,957 | 9,474,417 |
| 1943. | ... | ... | 5,613,367 | 3.054,932 | 12,332,540 |
| 1944. | ... |  | 6,738,081 | 3,497.089 | 14,034,564 |
| 1945. | $\ldots$ | 174,975 ${ }^{1}$ | 7,428,911 | 4,247,301 | 17,120,638 |
| 1946. | ... | 329,708 ${ }^{1}$ | 9,020,665 | 6,890,562 | 23,095,957 |
| 1947. | $\cdots$ | $529.698{ }^{1}$ | 8,241,986 | 6,879,632 | 29.715, 052 |
| 1948. | ... | 522,0671 | 8,152,655 | 6,605,291 | 28,073, 133 |
| 1949. | 1769 . 33 | 550,720 ${ }^{1}$ | 8,154,114 | 6,483,537 | 27,457,579 |
| 1950. | 1,769,333 | 676,505 ${ }^{2}$ | 7,465,126 | 5,471,929 | 27,657,648 |
| 1951 | 2,188,553 | 747,691 ${ }^{2}$ | 2,564,811 ${ }^{3}$ | 2,476,075 ${ }^{4}$ | 30,507,208 |
|  | Ontario | , Manitoba | Saskatchewan | Alberta | British Columbia |
|  | 8 | \$ | \$ | \$ | \$ |
| 1942. | 15,068,065 | 2,740,498 | 2,407,066 | 3,897,175 | 5,928,444 |
| 1943. | 18,546,295 | 3,738,980 | 3,030,953 | 5,050,216 | 8,145,795 |
| 1944. | 21,024.903 | 3,831,368 | 3,661,301 | 5,356,107 | 6,946,254 |
| 1945. | 19,181,266 | $4.379,365$ | 4,162,775 | 6,026,112 | 7.881,497 |
| 1946. | 30,373,016 | 6,101,352 | 6,605,448 | 8,248,814 | 11,194,187 |
| 1947. | 34,993,052 | $6,527,122^{\text {s }}$ | $8,104,620^{5}$ | 9,705,075 | 14,725,990 |
| 1948. | 36,807,803 | 6,989,096 | 7,920,528 | 9,971,205 | 16.598,430 |
| 1949. | 38,293, 602 | 7,291,043 | $8,545,831$ | 11, 198,608 | 18,073.768 |
| 1950 | 39,780,787 | 7,651.209 | 9,112,45\% | 11, 979,469 | 17,917,330 |
| 1951....... | 41,194,387 | 7,208,346 | 8.720 .284 | 12,194,142 | 18,773,139 |

Apparent Consumption of Alcoholic Beverages.-Accurate measurement of the consumption of alcoholic beverages by Canadians is practically impossible since no separate record is kept of sales to non-residents of Canada. Temporary additions to the resident population through tourist travel are, at certain seasons, extremely large. In 1951, for example, about $25,000,000$ visitors crossed the International Boundary into Canada. Sales of alcoholic beverages to certain of these visitors undoubtedly reached considerable proportions.

In Tables 7, 8 and 9 an attempt is made to indicate the apparent consumption in Canada of spirits, beer and wine, respectively, on the basis of the quantities produced imported, exported, etc. It should be noted, however, that these figures take no account of increases or decreases in the quantities held in stock by the Liquor Control Boards or by licensees. For instance, the Boards may, in certain years, buy heavily to replenish stocks or create reserves; such purchases would unduly weight the consumption figures for those years.

Practically the total production of spirits is placed in bonded warehouses whence it is released for various purposes. The quantities shown in Table 7 as entered for consumption are released from warehouses, duty paid, presumably for consumption for beverage purposes in Canada. Only a small part of the output of beer is placed in warehouses. The available supply, as shown in Table 8, is, therefore, made up of production, changes in warehouse stock and imports. The apparent consumption of native wines as shown in Table 9 is obtainable by dividing the rates of excise tax into the total tax collections.

## 7.-Apparent Consumption of Beverage Spirits, Years Ended Mar. 31, 1943-51

Nore.-Figures for the years 1924-40 are given at p. 532 of the 1941 Year Book and for 1941-42 at p. 891 of the 1950 edition. After 1942, a change was made in the method of computing apparent consumption of beverage spirits.

| Year | Entered for Consumption | Add Imports | Deduct Re-Exports of Imported Spirits | Apparent Consumption |
| :---: | :---: | :---: | :---: | :---: |
|  | pf. gal. | pf. gal. | pf. gal. | pf. gal. |
| 1943. | 3,445,872 | 1,284,116 | 69 | 4,729,919 |
| 1944. | 2,620,297 | 823,422 | 3 | 3,443,716 |
| 1945. | 2,676,482 | 1,043,709 | 273 | 3,719,918 |
| 1946. | 4,087,690 | 1,775,935 | 113 | 5, \$63.512 |
| 1947. | 4,446, 128 | 2,097,427 | 382 | 6,543,173 |
| 1948. | 4,632,506 | 2,691,302 | 3,420 | 7,320,388 |
| 1949. | 4,380,914 | 2,474,076 | 1,735 | 6,833,255 |
| 1950. | 4,608,926 | 2,361,141 | 169 | 6,969,898 |
| 1951. | 5,468,908 | 2,561,696 | 552 | 8,030,052 |

## 8.-Apparent Consumption of Beer, Years Ended Mar. 31, 1942-51

Note.-Figures for the years 1924-40 are given in the 1941 Year Book, p. 533, and for 1941 in the 1951 edition, p. 872.

| Year | Production | Add <br> Quantities <br> Entered for <br> Consumption from Warehouses | Add <br> Imports | Deduct Quantities Placed in Warehouses | Deduct Domestic Exports | Apparent Consumption |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | gal. | gal. | gal. | gal. | gal. | gal. |
| 1942. | 101,051,682 | 755,456 | 86,122 | 6,777,839 | 5,639,946 | 89,505,475 |
| 1913. | 108,980,613 | 1,197,658 | 85,211 | 6,813,251 | 5, 839,905 | 97,610,326 |
| 1944. | 104,062,427 | 726,817 | 61,634 | 7,536,054 | 6,604,977 | 90,709,847 |
| 1915. | 122,530,269 | 6,177,745 | 76,225 | 12,591,822 | 5,968,602 | $110,223,815$ |
| 1946. | 138,941, 170 | 2,596,574 | 26,550 | 6,910,528 | 4,567,667 | 130,086,099 |
| 1947. | 155,800,830 | 1,035,203 | 17,015 | 5,763,200 | 4,108,944 | 146,980,904 |
| 1948. | 173, 201, 842 | 3,368,130 | 36,662 | 6,839,480 | 4,024,332 | 165,742,842 |
| 1949 | 178,552,891 | 3,619,293 | 97,368 | 5,193,389 | 1,611,071 | $175,465,092$ |
| 1950. | 182,718, 898 | 4, 093,562 | 111,181 | 4,151,391 | 1,329,747 | 181,442,503 |
| 1951. | 179,625,127 | 1,513,990 | 147,678 | 1,277,694 | 1,738,377 | 178, 270,724 |

## 9.-Apparent Consumption of Wines, Years Ended Mar. 31, 1942-51

Note.-Figures for the years 1924-40 are given in the 1941 Year Book, p. 533, and for 1941 in the 1951 Year Book, p. 872.

| Year | Domestic | Imported |  |  | Apparent Consumption Domesticand Imported |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Apparent Consumption | Imports | $\frac{\text { Less }}{\text { Re-Exports }}$ | Apparent Consumption |  |
|  | gal. | gal. | gal. | gal. | gal. |
| 1942. | 3,733,449 | 434,888 | 1,094 | 433,794 | 4,167,243 |
| 1943. | 4,192,903 | 434,699 | . 35 | 434,664 | 4,627,567 |
| 1944. | $3,314,260$ $3,409,303$ | 290.691 | 11,005 | 279.686 | 3,593,946 |
| 1946. | 3,979,857 | 595,732 | - 12 | 303,153 595,720 | $3,712,456$ $4,575,577$ |
| 1947. | 4,655,734 | 928,664 |  | 928,664 | 5,584,398 |
| 1948. | 4,594,361 | 619,249 | 2 | 619,247 | 5,213,608 |
| 1949. | 4,020.542 | 690, 679 | 235 | 690,444 | 4,710,986 |
| 1950. | $4,149,863$ | 744,884 | 98 | 744,786 | 4,894,649 |
| 1951. | 4,348,733 | 851,591 | 24 | 851,567 | 5,200,300 |

## 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.

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, landlord's 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 the agencies, now Dun and Bradstreet, Incorporated, were 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 8).

## Section 1.-Administration of Bankrupt Estates*

According to Sect. 91 of the British North America Act, "the exclusive legislative authority of the Parliament of Canada" extends to bankruptcy and insolvency legislation, and an Insolvency Act (32-33 Vict., c. 16) was passed by the Federal Parliament in 1869, and applied to the four original provinces. This Act was renewed by the Statutes of 1874 , c. 46 . In 1875, a new Insolvency Act (38 Vict., c. 16) applicable to the whole of Canada was passed, but was repealed in 1880. After this there was no federal legislation on the subject of bankruptey until the Bankruptcy Act; 1919, except that under the Winding-Up Act insolvency was one of the grounds upon which a company could be wound up. In addition to regulating bankruptcy proceedings, the Bankruptcy Act, 1919, contained a provision which enabled an insolvent person, prior to bankruptey, to make a proposal to his creditors. This provision was abrogated in 1923 but was subsequently restored, in part, by the Companies' Creditors Arrangement Act, 1933, which, however, restricted its operations to incorporated companies. Somewhat similar legislation was made available to farmers under the Farmers' Creditors Arrangement Act, 1934, subsequently

[^308]superseded by the Farmers' Creditors Arrangement Act, 1943. Federal insolvency legislation now comprises the Bankruptcy Act, 1949, the Farmers' Creditors Arrangement Act, 1943, the Companies' Creditors Arrangement Act and, to some extent, the Winding-Up Act. The two Arrangement Acts referred to above 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 Bankruptey Act, 1919, and amendments thereto was repealed, restores to all insolvent persons the right to make a proposal prior to bankruptcy. The summary administration provisions of the Act, while new to Canadians, are to be found in English and Australian bankruptcy legislation and somewhat similar provisions are contained in the United States Bankruptcy Act. The purpose of summary administration is to enable insolvent persons, other than corporations, having limited assets to obtain the benefits 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" 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.
1.-Assets, Liabilities, Assets Realized and Cost of Administration in Bankrupt Estates Closed, 1941-50, and by Provinces, 1950
Note.-Figures for 1933-40 are given in the 1947 Year Book, p. 846.

| Year and Province or City | Estates Closed | Assets Estimated by Debtor | Liabilities Estimated by Debtor | Total Realization | Cost of Administration | Percentage of Costs to Total | Paid to Creditors |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | \$ | S | \$ | pc. | \$ |
| 1941. | 981 | 11,597,029 | 14,315,281 | 3,408,625 | 896,554 | 26.3 | 2,512,071 |
| 1942. | 879 | 10,994,748 | 12,023,215 | 2,393,661 ${ }^{1}$ | 772,995 | $32 \cdot 3$ | 1,620,666 |
| 1943 | 675 | 7,633,251 | 3,593,541 | 2,046,612 ${ }^{1}$ | 706,257 | 34.5 | 1,340,355 |
| 1944 | 468 | 3,495,148 | 6,154,052 | 1,196, 7251 | 425,121 | 35.5 | 771,604 |
| 1945 | 351 | 4,969,923 | 6,795,160 | 1,037,252 ${ }^{1}$ | 339,119 | $32 \cdot 7$ | 698,133 |
| 1946 | 299 | 3,030,599 | 4,716,747 | 1,202,650 ${ }^{1}$ | 281,999 | $23 \cdot 5$ | 920,651 |
| 1947 | 320 | 2,883,824 | 4,841,491 | 1,174,108 ${ }^{1}$ | 308,099 | 26.2 | 866,010 |
| 1948 | 450 | 6,440,256 | 10,816,776 | 2,461,5571 | 672,127 | 27.3 | 1,789,430 |
| 1919. | 672 | 9,941,797 | 13,710,958 | 2,778,734 ${ }^{1}$ | 763,943 | 25.9 | 2,069,794 |
| Nowfoundland |  | - |  |  |  |  |  |
| Prince Edward Island. |  | 63,681 | 115,566 | 22,371 | 4,147 | $18 \cdot 54$ | 18,224 |
| Nova Scotis. | 8 | 72,228 | 214,763 | 67,096 | 7,456 | 11.11 | 59.640 |
| New Brunsw | 8 | 85,453 | 108,383 | 26,836 | 5.870 | 21.87 | 20,966 |
| Quebec ${ }^{2}$. | 287 | 4,253,788 | 6,096,275 | 1,508,532 | 364,792 | $24 \cdot 18$ | 1,143,740 |
| ${ }_{\text {Montreal }}$ | 236 | 3,562,198 | 5,018,856 | 1,521,798 | 305,459 | 20.07 | 1,216,339 |
| Ontario ${ }^{2} \ldots \ldots \ldots \ldots . .$. | 55 | 1,061,556 | 1,244,508 | 421, 897 | 86,028 | $20 \cdot 39$ | 335,869 |
| Maniton | 39 | 1,624,154 | 2,082,953 | 459,713 | 111,900 | 24.34 | 347.813 |
| Saskatchew | 4 | 134,863 | 158,581 | 58,592 | 26.004 4.350 | 44.38 | 32,588 |
| Alberta | 2 | 29,433 | 71,194 | 10,258 | 4,220 | 16.19 31.09 | 7,138 |
| British Colum | 31 | 795,852 | 1,106.740 | 323,581 | 57,114 | $17 \cdot 65$ | 266,467 |
| Totals, 1950. | 678 | 11,725,427 | 16,302,167 | 4,447,651 ${ }^{1}$ | 976,340 | 21.95 | 3,471,311 |

[^309]Table 1 continues and completes the series of statistics collected on estates closed under the Bankruptcy Act, 1919, and shown in the corresponding tables of previous Year Books. The figures given in Table 2 are those of estates closed under the new Bankruptcy Act, 1949. It will be noted that the Cities of Montreal and Toronto are no longer shown separately, figures for these centres being incorporated with the respective provinces.

## 2.-Assets, Liabilities, Assets Realized and Cost of Administration under the Bankruptcy Act 1949, for the year 1951

| Province and Year | Estates Closed | $\left\|\begin{array}{c} \text { Assets } \\ \text { Fstimated } \\ \text { by Debtor } \end{array}\right\|$ | Liabilities Estimated by Debtor | Total Realization | Cost of Administration | $\left\|\begin{array}{c}\text { Percentage } \\ \text { of Costs to } \\ \text { Total Re- } \\ \text { alization }\end{array}\right\|$ | Paid to Creditor |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Under General Provisions of the Act


Proposals Under Sect. 27 of the Act


[^310]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 either 1950 or 1951.

## Section 2.-Returns under the Bankruptcy and Winding-Up Acts as Compiled by the Dominion Bureau of Statistics

As previously stated, 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. 1927, cc. 11 and 213), 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. 915) 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 3 the number of proposals are shown so as to give a general impression of the trend.

## 3.-Bankruptcies and Insolvencies under Federal Legislation, by Provinces, 1942-51

Note.-Figures for 1923-41 are given in the 1942 Year Book, p. 570.

| 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. |
| 1942. | ... | 2 | 9 | 8 | 456 | 192 | 19 r | 26 r | 11 | 14 | 737 |
| 1943. | $\ldots$ | - | 3 | 3 | 343 | 50 | 3 | 7 | 2 | 10 | 421 |
| 1944. | ... | - | 3 | - | 222 | 33 | 1 | 3 | 4 | 11 | 277 |
| 1945. | ... | 1 | 3 | 1 | 225 | 27 | 3 | - | 1 | 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 | 1,065 |
| 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 | 1,399 |
| $\begin{aligned} & \text { Proposals-1 } \\ & 1950 \ldots \ldots . . \\ & 1951 . \end{aligned}$ | 二 | 二 | 1 | 2 3 | 66 160 | 7 8 | 1 | - | - | 3 4 | 79 176 |
|  |  |  |  |  |  |  |  | - |  | 4 |  |

${ }^{1}$ See text above.

Wage-earner failures have been shown separately since 1949 and are given, by areas, in Table 4.
4.-Wage-Earner Failures, by Areas, 1949-51

| Year | Atlantic Provinces | Quebec | Ontario | Prairie Provinces | British Columbia | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | No. | No. | No. |
| 1949.. | 2 | 118 | 2 | -- | 2 | 12.4 |
| 1950. | - | 121 | 9 | - | 2 | 132 |
| 1951...... | 2 | 148 | 11 | - | 2 | 163 |

## 5．－Bankruptcies and Insolvencies under Federal Legislation，by Branches of Business，1942－51

| Year | Trade | Manu－ fac－ turing | Agri－ culture | Logging and Fishing | Mining | Con－ struc－ tion | Trans－ port－ ation and Public Utili－ ties | Finance | Service | Not Classi－ fied | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． |
| 1942．．．．． | 342 | 80 | 14 | － | 10 | 58 | 17 | 2 | 181 | 33 | 737 |
| 1943．．．．． | 166 | 61 | 13 | 1 | 7 | 38 | 14 | 11 | 78 | 32 | 421 |
| 1944．．．．． | 83 | 47 | 4 | 2 | 3 | 27 | 11 | 7 | 62 | 31 | 277 |
| 1945．．．． | 58 77 | 54 57 | 2 | － 4 | 3 3 | 39 32 | 12 | 6 | 70 64 | 28 18 | 272 |
| $1945 \ldots$. | $\begin{array}{r}77 \\ 153 \\ \hline\end{array}$ | － 57 | 2 | 4 | 3 | 52 | 14 | 7 | 64 | 18 | 278 |
| 1948．．．．．． | 289 | 188 | 9 | 4 | －3 | 57 77 | 20 30 | 5 | $\begin{array}{r}92 \\ 144 \\ \hline\end{array}$ | 53 | 545 813 |
| 1949．．．．． | 374 | 232 | 8 | 10 | 10 | 94 | 46 | 19 | $\stackrel{144}{203}$ | 70 | 813 1,066 |
| 19501．．．． | 502 | 257 | 24 | 7 | 5 | 97 | 40 | 20 | 273 | 78 | 1，303 |
| 1951 ${ }^{1} \ldots$. | 570 | 269 | 20 | 8 | 8 | 126 | 42 | 27 | 255 | 74 | 1，399 |

${ }^{1}$ Includes Newfoundland．

## 6．－Estimated Assets and Liabilities of Bankruptcies and Insolvencies，1942－51

Note．－Figures for 1923－39 are given in the 1942 Year Book，p．570，and for 1940－41 in the 1951 edition， p． 876 ．

| Year | Estimated Total Assets | Estimated Total Liabilities | Year | $\begin{aligned} & \text { Estimated } \\ & \text { Total } \\ & \text { Assets } \end{aligned}$ | Estimated Total Liabilities |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1942．． | 4，500，195 ${ }^{\text {r }}$ | 6，019，308 ${ }^{\text {r }}$ | 1947. | $5,933,211$ | $10,077,557$ |
| 1943. | 3，197，839 r | 5，339，523 | 1948. | 9，855，789 | 15，723， 615 |
| 1944. | 2，020，302r | 4，043， 864 ＝ | 1949 | 15，548，598 | 21，355，669 |
| 1945. | 1，864，359 | 3，995，109 | 19501. | 17，168，883 | 24，872，927 |
| 1946. | 4，039，339 | 5，966，153 | 19511. | 18，237，768 | 25，912，004 |

${ }^{1}$ Includes Newfoundland．

## 7．－Bankruptcies and Insolvencies，by Industries and Economic Areas， 1950 and 1951

| Industry | 1950 |  |  |  |  |  | 1951 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Atlantic Prov－ inces | Que． | Ont． | Prairie Prov－ inces | B．C． | Total | Atlantic Prov－ inces | Que． | Ont． | Prairie Prov－ inces | B．C． | Total |
|  | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． |
| Trade－ |  |  |  |  |  |  |  |  |  |  |  |  |
| General stores．．．．．． | 3 6 | ${ }_{45}^{29}$ | 8 9 | ${ }^{2}$ | 3 | 45 60 |  | 39 45 | ${ }_{11}^{8}$ | $\stackrel{2}{3}$ | $\stackrel{2}{2}$ | 56 65 |
| Grocery．．．．．．．．．．．． | 6 3 | 45 23 | 9 <br> 3 | 1 | － | 60 30 | 4 | 45 21 | 11 3 | 1 | 2 | 65 27 |
| Drink sad tobacco．． | － | 3 | － | － | 1 | 4 | － | 7 | 3 | － | － | 10 |
| Fish and meat．．．．．． | － | 36 | 8 | － | － | 44 | 2 | 37 | 2 | 2 | 1 | 44 |
| Boots and shoes．．．． | 1 | 14 | 3 | 1 | － | 19 | － | 15 | 1 | － | － | 16 |
| Dry gonds．．．．．．．．．．． | － | 28 | $\stackrel{2}{2}$ | 2 | $\square$ | 32 | 二 | 22 | $\stackrel{1}{2}$ | 4 | $\stackrel{\square}{4}$ | $\stackrel{24}{75}$ |
| Clothing．．．．．．．．．．．． | 6 | 46 | 12 | $\stackrel{2}{2}$ | 1 | 67 | － | 54 | ${ }_{1}^{2}$ | 4 | 4 | 28 |
| Furniture．．．．．．．．．．． | － | 13 | 2 | 2 |  | 17 | － | 20 |  | 1 | 4 |  |
| stationery ．．．．．．．． | － | 14 | － | 1 | $\checkmark$ | 15 | － | 17 | 2 | 1 | － | 20 |
| Automobile．．．．．．．．．． | － | 7 | 2 | －－ | 2 | 11 | 1 | 11 | 3 | 1 | － | 16 |
| Hardware．．．．．．．．．． | － | 8 | 2 | － | 1 | 11 | 1 | 11 | ${ }_{6}^{6}$ | 2 | 1 | 23 |
| Electrical apparatus． | － | 13 | 2 | 1 | － | 15 | 4 | 20 | 2 | 2 | 1 | $\stackrel{27}{27}$ |
| Jewellery．．．．．．．．．．． | 1 | 15 | 2 | 1 | 二 | 19 | － | 18 | 7 | 2 | 二 | 21 |
| Coal and wood．．．．．．］． | 1 | 14 | 2 | 二 | 二 | 17 |  | 18 6 | 2 | － | 2 | 8 |
| Mrugs and chemicals | 5 | 44 | 18 | －6 | 9 | 82 | 5 | 42 | 28 | 5 |  | 83 |
| Totals，Trade．．．． | 27 | 363 | 77 | 18 | 17 | 502 | 25 | 403 | 96 | 24 | 22 | 570 |

7．－Bankruptcles and Insolvencies，by Industries and Economic Areas， 1950 and 1951
－concluded

| Industry | 1950 |  |  |  |  |  | 1951 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Atlantic Prov－ inces | Que． | Ont． | Prairie Prov－ inces | B．C． | Total | $\begin{aligned} & \text { Atlantic } \\ & \text { Prov- } \\ & \text { inces } \end{aligned}$ | Que． | Ont． | Prairie Prov－ inces | B．C． | Total |
| Manufacturing－ | No． | No． | No． |  |  |  | No． |  |  | No． | No． | No． |
| Vegetable foods．．．．． | － | 26 | 9 |  | － | 38 | － | 26 | 7 |  | 1 | 35 |
| Drink and tobacco．． | 二 | $\overline{13}$ | $\frac{-}{2}$ | 二 | 二 | ${ }^{15}$ | － 1 | $\stackrel{2}{13}$ | $\overline{2}$ | － | $\frac{1}{2}$ | 18 |
| Fur and leather．．．．． | 1 | 27 |  |  | － | 33 | － | 25 | 2 | 2 |  | 31 |
| Pulp and paper． |  | 5 | 3 | ， | 2 | 10 |  | 13 | 3 | － | $\bigcirc$ | 16 |
| Textiles．．．．．．．．． |  | ${ }_{24}^{24}$ | $\frac{1}{8}$ | － | 二 | ${ }_{32}^{27}$ | － | 25 33 | ${ }_{6}$ | 二 | $\underline{1}$ | 26 39 |
| Lumber and ${ }^{\text {manuacture }}$ |  |  |  |  |  |  |  |  |  |  |  |  |
| manufactures | － | 21 | 8 |  | 6 | 36 | 3 | ${ }_{18}^{28}$ | 7 | － | 3 |  |
| Iron and steel．．．．．．．． | － | 9 4 | $\stackrel{3}{-}$ | 二 | 二 | ${ }_{4}^{12}$ |  | 12 | $\stackrel{2}{-}$ | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ | － | 16 5 |
| Non－metallic minera |  |  | 1 |  |  | 5 |  |  |  |  | － |  |
| Druge and chemicals | － | ${ }^{2}$ | 5 | － | － | 4 |  | 26 | $\frac{1}{5}$ | － | － | 31 |
| Miscellaneous． |  | 34 |  |  | 2 | 41 |  | 26 | 5 | － |  | 31 |
| otals， Manufacturing | 3 | 193 | 46 | 5 | 10 | 257 | 5 | 213 | 37 | 7 | 7 | 269 |
| Service－ |  |  |  |  |  |  |  |  |  |  |  |  |
| Other custom and |  |  |  |  |  |  |  |  |  |  |  |  |
| repairs．．．．．．．．．． | 1 | 40 | 4 | 2 | 1 | 48 | 1 | 34 | 7 | ， | $\frac{1}{2}$ | 43 |
| Personal service．．． | 1 | 47 | 5 | 3 | 5 | 61 |  | 46 | ${ }^{7}$ | 1 | ${ }_{6}$ | ${ }_{60} 6$ |
| Prolessional ser | － | 21 | 2 | － | － | ${ }_{23}$ | － | 25 | 2 | － | 1 | 28 |
| Recreational．．． |  |  |  |  |  | 8 |  | 8 |  |  | 1 | 10 |
| Business service． | － | 18 | 4 | 1 | － | 23 |  | 24 | 3 | － | 1 | 28 |
| Totals，Service．．． | 5 | 222 | 26 | 9 | 11 | 273 | 4 | 208 | 27 | 3 | 13 | 255 |
| Other－ |  |  |  |  |  |  |  |  |  |  |  |  |
| Agriculture． | － | 19 | 2 | － | 3 |  | 2 |  |  |  |  | 20 |
| Mining．．．．．．．．．．．． | － | － | 4 |  | － | 5 | － | 5 | 1 | 1 | 1 | 8 |
| Logking，fishing and |  |  |  |  |  |  |  |  |  |  | 1 |  |
| Construction．．．．．． | 1 | 67 | 17 |  | 7 | 97 | 3 | 79 | 33 | 4 | 7 | 126 |
| Transportation and public utilities． |  | 31 |  |  | 2 | 40 | 2 | 28 | 7 | － | 5 | 42 |
| Finance．．．．．．．．．．．．． | 1 | 16 | 2 | － | 1 | 20 | － | 19 | 4 | － | 4 | 27 |
| Totals，Other．．．． | 5 | 135 | 30 | 7 | 16 | 193 | 7 | 151 | 49 | 6 | 18 | 231 |
| Not classified． | 8 | 54 | 7 | 2 | 7 | 78 | 3 | 47 | 18 | 2 | 4 | 74 |
| Grand Totals．． | 48 | 967 | 186 | 41 | 61 | 1，303 | 4 | 1，022 | 227 | 42 | 64 | 1，399 |

## Section 3．－Industrial and Commercial Failures from Private Sources

A table on commercial failures for Canada，by classes，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 ．
8.-Industrial and Commercial Failures, by Classes, 1941-51, and by Provinces, 1951 (Source: Dun and Bradstreet, Incorporated)
Nots.-Figures for 1934-40 are given in the 1946 Year Book, p. 628.

| Year and Province | Manufacturing |  | Wholesale Trade |  | Retail <br> Trade |  | Construction |  | Commercial Service |  | Totals |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | $\begin{gathered} \text { Lia- } \\ \text { bilities } \end{gathered}$ | No. | Lia- | No. | $\begin{gathered} \text { Lia- } \\ \text { bilities } \end{gathered}$ | No. | Liabilities | No. | Liabilities | No. | Liabilities |
|  |  | \$'000 |  | $8{ }^{\prime} 000$ |  | $8{ }^{\prime} 000$ |  | \$'000 |  | §'000 |  | \$'000 |
| Totals, 1941 | 130 | 2,419 | 42 | 539 | 614 | 3,118 | 55 | 519 | 41 | 364 | 882 | 6,959 |
| Totals, 1942 | 87 | 3,630 | 33 | 516 | 393 | 2,499 | 61 | 526 | 35 | 173 | 609 | 7,344 |
| Totals, 1913 | 36 | 2,357 | 7 | 137 | 96 | 500 | 32 | 519 | 15 | 121 | 186 | 3,634 |
| Totals, 1944 | 33 | 1,042 | 12 | 242 | 33 | 514 | 15 | 265 | 3 | 56 | 96 | 2,119 |
| Totals, 194.5 | 37 | 1,511 | 7 | 246 | 26 | 250 | 20 | 240 | 5 | 58 | 95 | 2,305 |
| Totals, 1946 | 41 126 | 2,684 3,815 | 19 | 421 1,225 | 41 <br> 84 | 451 882 | 21 36 | 231 | 88 | 216 | 130 | 4,003 |
| Totals, 1948 | ${ }_{158}^{126}$ | 3,815 | 42 | 1,325 | -84 | 882 2,278 | 36 48 | 941 899 | 16 | 365 | ${ }_{493}^{304}$ | 7,228 11,755 |
| Totals, 19491 | 177 | 8,406 | 69 | 3,516 | 247 | 3,252 | 63 | 1,329 | 40 | 776 | 596 | 11,755 |
| Totals, 1950 | 159 | 6,479 | 70 | 1,746 | 349 | 4,347 | 89 | 1,415 | 50 | 1,405 | 717 | 15,392 |
| 1951 |  |  |  |  |  |  |  |  |  |  |  |  |
| Newioundland | - | - | 2 | 81 | 1 | 124 | - | - | 1 | 33 | 4 | 238 |
| P. E. Island. | 1 | 34 |  | - | 2 | 27 | - | , | , | - | 3 | 61 |
| Nova Scotia | 1 | 329 | 1 | 10 | 6 | 51 | 1 | 27 | 1 | 46 | 10 | 463 |
| New Brunsw | - |  | 1 | 24 | 14 | 252 | 4 | 36 | 3 | 55 | 22 | 367 |
| Quebec. | 122 | 3,280 | 44 | 1,980 | 237 | 2,937 | 78 | 1,580 | 39 | 1,318 | 520 | 11,095 |
| Ontario. | 32 | 1,811 | 21 | 762 | 67 | 1,191 | 20 | 597 | 2 | 1,22 | 142 | 4,383 |
| Manitoba | 10 | 196 | - | - | 15 | 373 | 4 | 61 | - | - | 29 | 630 |
| Saskatche | 2 | 65 | , | 10 | 8 | 97 | 1 | 5 | - | - | 12 | 177 |
| Alberta. |  | - | , | - | 12 | 166 | 2 | 34 | - |  | 14 | 200 |
| British Columbia | 6 | 694 | 2 | 25 | 25 | 475 | 6 | 220 | 2 | 20 | 41 | 1,434 |
| Totals, 1951. | 174 | 6,409 |  | 2,892 | 387 | 5,693 | 116 | 2,560 | 48 | 1,494 | 797 | 19,048 |

${ }^{1}$ Includes Newfoundland-for last nine months only in 1949.
In 1951, Quebec accounted for 65 p.c. of the total failures and 58 p.c. of the liabilities; Ontario had 18 p.c. of the failures and 23 p.c. of the liabilities.

According to Dun and Bradstreet, Incorporated, commercial failures during World War II decreased steadily year by year. During those years, failures in the retail trade group, in which the majority of failures took place before the War, also decreased considerably. After the end of the War, however, the total number of failures increased again each year and failures in the retail trade group in 1951 accounted for almost one-half of the total.

## 9.-Industrial and Commercial Failures, by Divisions of Industry, 1949-51

(Source: Dun and Bradstreet, Incorporated)
Nots.-Comparable figures back to 1934 are given in the corresponding tables of previous Year Books. Figures for Newfoundland are included from Mar. 31, 1949.

9.-Industrial and Commercial Failures, by Divisions of Industry, 1949-51-concluded

| Industry and Division | Failures |  |  | Liabilities |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 | 1950 | 1951 | 1949 | 1950 | 1951 |
|  | No. | No. | No. | \$ ${ }^{\prime} 000$ | \$'000 | \$'000 |
| Manufacturing-concluded |  |  |  |  |  |  |
| Machinery | 16 | 7 | 7 | 1,131 | 398 | 631 |
|  | 2 26 | 16 | 18 | 70 757 | $\begin{array}{r}3 \\ 373 \\ \hline\end{array}$ | 329 516 |
| All other........................................... |  | 16 | 18 | 757 | 373 | 516 |
| Totals, Manufacturing. | 177 | 159 | 174 | 8,406 | 6,479 | 6,409 |
| Wholesale Trade- |  |  |  |  |  |  |
| Farm products, foods, groceries. | 16 | 15 |  |  | 674 | 366 |
| Clothing and furnishings......... | 5 6 | $\begin{array}{r}3 \\ 3 \\ 3 \\ \hline\end{array}$ | 6 | 147 41 | 25 63 | -60 |
| Dry goods and textiles.. | 6 5 | 3 13 4 | 6 | $\begin{array}{r}41 \\ 183 \\ \hline\end{array}$ | -63 221 | 201 |
| Chemicals and drugs................ | - | 4 | 3 | 18 | 96 | 101 |
| Fuels................ | 1 | 1 | 1 | 377 | 7 | 129 |
| Automotive products. | 5 | - | 3 | 64 | - | 75 |
| All other. | 31 | 31 | 34 | 492 | 660 | 1,960 |
| Totals, Wholesale Trade | 69 | 70 | 72 | 3,516 | 1,746 | 2,892 |
| Retall Trade- |  |  |  |  |  |  |
| Foods... | 60 | 94 | 98 | 598 | 999 | 1,155 |
| Farm supplies, general stores | 16 | 17 | 17 | 271 | 264 | 404 |
| General merchandise. | 17 | 18 | 17 | 209 | 417 | 470 |
| Apparel............. | 45 | 60 | 54 | 565 | 869 | 653 |
| Furniture, household furniture....... | 24 | 20 | 39 | 283 | 169 | 745 |
| Lumber, building materials, hardware | 9 | 16 | 27 | 105 | 242 | 529 |
| Automotive products. | 35 | 38 | 40 | 760 | 423 | 815 |
| Restaurants. |  |  |  | 235 | 525 | 440 |
| Drugs... | 1 | 5 | 3 | 1 | 65 | $\begin{array}{r}59 \\ 4 \\ \hline\end{array}$ |
| All other | 20 | 33 | 39 | 225 | 374 | 423 |
| Totals, Retail Trade. | 247 | 349 | 387 | 3,252 | 4,347 | 5,693 |
| Construction- |  |  |  |  |  |  |
| General contractors........................... | 32 | 39 | 44 | 1,060 | 781 | 1,039 |
| Carpenters and builders. | 3 | 3 | 9 | 31 | 22 | 147 |
| Building sub-contractors. | 26 | 47 | 59 | 200 | 612 | 1.267 |
| Other contractors.... | 2 | - | 4 | 38 |  | 107 |
| Totals, Construction. | 63 | 89 | 116 | 1,329 | 1,415 | 2,560 |
| Commercial Service- |  |  |  |  |  |  |
| Cleaners and dyers, tailors. | 5 | 7 |  | 71 | 37 | 40 |
| Haulage, buses, taxis, etc... | 10 | 8 | 15 | 316 | 147 | 428 |
| Hotels.. | 7 | 9 | 9 | 284 | 429 | 563 |
| Laundries. | 1 | 1 | 3 | 10 | 7 | 113 |
| Undertakers. | , | 1 | 2 | 10 | 4 | 18 |
| All other. | 17 | 24 | 12 | 95 | 781 | 332 |
| Totals, Commerclal Service. | 40 | 50 | 48 | 776 | 1,405 | 1,494 |
| Grand Totals. | 596 | 717 | 797 | 17,279 | 15,392 | 19,048 |

## CHAPTER XXI.-FOREIGN TRADE



Note.-The interprelation 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 1950 and 1951, Part II gives detailed statistics of external commodity trade. Part JII 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 reviews the Canadian tariff structure.

## PART I.-REVIEW OF FOREIGN TRADE

World trade remained at a high level in 1950 and 1951. In 1950 its value (expressed in United States dollars) was slightly greater than in 1949, and the value of trade in 1951 showed a further increase of about 36 p.c. Higher prices for the goods of most countries made an important contribution to the latter value gain, but the volume of world trade also expanded.

International trade prices, which had stabilized in 1949, were affected by new inflationary pressures after the outbreak of the Korean war. Military needs and precautionary buying increased the demand for many important industrial materials such as wool, tin, manganese, rubber and wood-pulp, and the increased raw material prices, in turn, affected the costs and prices of manufactured goods. The prices of raw materials generally reached their peak in the first half of 1951 and declined thereafter, contributing to the stabilization of other prices and to some declines.

Despite a relatively small population, Canada is one of the world's major trading nations. Statistics published by the International Monetary Fund and adjusted for international differences in valuation methods show that from 1946 to 1950 Canada's trade was surpassed only by that of the United States and the

United Kingdom, and in 1951 only by that of those countries and of France. The Federal Republic of Germany ranked fifth in world trade in 1950 and 1951. As economic recovery in Europe has progressed the shares of France and Germany in world trade, especially in export trade, have increased steadily, as have those of other western European countries. Canada's per capita trade is much greater than that of the other leaders in world trade, although it is lower than that of Hong Kong and New Zealand.

## 1.-World Trade, by Leading Countries, 1950 and 1951

Sources: International Monetary Fund, International Financial Statistics, October 1952, and United National Statistical Office, Population and Vital Statistics Report, Vol. IV, No. 4.

| Country | 1950 <br> Total <br> Trade | 1951 |  |  | Population | Trade per Capita |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Exports, f.o.b. | Imports, c.i.f. | Total Trade |  |  |
|  | $\begin{gathered} \text { U.S. } \\ \$, 000,000 \end{gathered}$ | $\underset{\text { U.S. }}{\mathbf{\prime} 000,000}$ | $\underset{\mathbf{\$}, 000,000}{\text { U.S. }}$ | $\underset{\$ 000,000}{\text { U.S. }}$ | '000 | U.S. \$ |
| United States.............. | 20,355 | 15,038 | 12,444 | 27,482 | 157,367 | 175 |
| United Kingdom. . | 13,617 | 7,580 | 10,954 | 18,534 | 50,613 | 366 |
| France.. | 6,145 | 4,161 | 4,523 | 8,684 | 42,239 | 206 |
| Canads. | 6,297 | 4,038 | 4,194 | 8,232 | 14,009 | 588 |
| Germany (Federal Republic) | 4,685 | 3,461 | 3,495 | 6,956 | 51,460 | 135 |
| Belgium and Luxembourg... | 3,596 | 2,647 | 2,528 | 5,175 | 8,977 | 576 |
| The Netherlands. | 3,477 | 1,978 | 2,567 | 4,545 | 10,264 | 443 |
| Australia. | 3,038 | 2.204 | 1,911 | 4,115 | 8,431 | 488 |
| Italy........................ | 2,691 | 1,644 | 2,169 | 3,813 | 46,598 | 82 |
| Brazil. | 2,444 | 1,757 | 2,011 | 3,768 | 53,377 | 71 |
| World Total ${ }^{1}$. | 115,926 | 76,171 | 81,692 | 157,863 | ... | $\cdots$ |

${ }^{1}$ Excluding the Union of Soviet Socialist Republics, China, and other communist countries not publishing trade statistics.

Canada's trade in 1951 was at its highest post-war level, being 27 p.c. above the previous record value of 1950 and 8 p.c. above the previous record volume of 1947. A sharp increase in United States demand for Canadian materials was the principal factor sustaining exports in 1950 despite declining overseas sales, and in 1951 exports to the United States maintained their 1950 level. Most of the increase in exports in 1951 was in sales to overseas countries. Commonwealth and European purchases of Canadian goods were reduced after 1949 owing to exchange difficulties but, with needs intensified in 1951 by shortages and by the international situation, Canadian foods and materials again went overseas in greater volume.

Imports in 1950 and 1951 were affected particularly by the high level of investment activity as well as defence needs in Canada. A great part of the mining and industrial machinery, structural steel, electrical apparatus and transport equipment needed for Canada's economic expansion must be imported, as must many materials and components for defence production. The high level of exports and of consumption in Canada also increased the need for imported materials and consumer goods. While the United States continued to supply the greater part of Canada's imports, the share in this trade of European countries and of Commonwealth countries, other than the United Kingdom, was higher than in earlier post-war years.

The international environment in which Canada trades has improved considerably in the post-war period. Reconstruction of the wartime damage in European and other countries has increased production in those countries and with greater production their exports have grown and, with exports, their capacity to pay for their imports. The exchange rate readjustments of September 1949 also contributed significantly to the improvement of trading conditions by bringing prices in various countries into more realistic relationships. The rapid rise in raw material prices after the Korean outbreak of hostilities temporarily eased the balance-ofpayments difficulties of many countries in Asia, Oceania and South America. Incomes and inflationary pressures in these countries were also increased by the price rise and, when prices fell, severe payments problems developed for some countries in the latter half of 1951. Subsequent to a conference at London in January 1952, many Sterling Area countries announced new import restrictions, and some other countries have also intensified their trade controls. Nevertheless, barriers to the international exchange of goods were generally less at the beginning of 1952 than in most earlier post-war years, and the problems arising from inconvertible currencies were eased by greater imports of the dollar countries and by the operations of the European Payments Union.

Post-war Canadian Trade Policy.-Throughout the post-war period the Canadian Government has worked for the reduction and removal of the network of barriers to foreign trade which developed during and immediately after the War. To this end, Canada extended assistance to overseas countries which facilitated their post-war reconstruction. Canada has also participated in multilateral and bilateral negotiations on tariff matters and trade practices and has taken unilateral action to reduce and remove Canadian trade controls.

Loans to overseas countries were particularly large in 1946 and 1947. Under the Export Credits Insurance Act, 1944, the Government provided loans to foreign governments for the purchase of needed Canadian goods and, under the United Kingdom Financial Agreement Act, 1946, a credit of $\$ 1,250,000,000$ was extended to the United Kingdom for the purchase of Canadian goods in the reconstruction period. Net drawings on these credits totalled $\$ 105,000,000$ in $1945, \$ 750,000,000$ in $1946, \$ 563,000,000$ in 1947, and $\$ 126,000,000$ in 1948. In 1949 , net credits used were $\$ 107,000,000$, and in 1950 only $\$ 27,000,000$. At the same time as Canada was providing large exports on credit, it was necessary to pay currently for current imports. This contributed to a sharp decline in Canada's exchange reserves, which necessitated the temporary imposition of emergency exchange conservation controls in November 1947 and prevented further commitments to overseas loans.

Repayment of Canada's post-war loans began in 1947 with the receipt of $\$ 2,100,000$ from Belgium, and most of the countries to which loans were made are now making regular repayments. The repayment of these loans implies a willingness on Canada's part to accept the imported goods in which alone real payment can be made. Table 2 shows the post-war loans authorized by the Canadian Government, net drawings on these loans, and repayments of principal received to the end of 1951 (all credits not drawn have now lapsed).
2.-Post-war Loans and Advances to Other Countries by the Canadian Government, and Repayments, 1947-51
(Millions of dollars)

| Country | Loans Authorized ${ }^{1}$ | Loans and Advances Drawn ${ }^{2}$ | Repayments of Principal |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & 1947 \\ & \text { and } \\ & 1948^{3} \end{aligned}$ | 1949 | 1950 | 1951 |
| Export Credits- |  |  |  |  |  |  |
| Belgium.................................... | $100 \cdot 0$ | $68 \cdot 0$ | $4 \cdot 2$ | $2 \cdot 3$ | $2 \cdot 3$ | $2 \cdot 3$ |
| China..................................... | 60.0 | $51 \cdot 0$ | - | $2 \cdot 0$ | $0 \cdot 8$ | 3 |
| Czechoslovakis............................. | $19 \cdot 0$ | 16.4 | $\overline{8}$ | $\overline{8}$ | 3.4 | 3.3 |
| France.... | $242 \cdot 5$ $15 \cdot 0$ | $242 \cdot 2$ 15.0 | $8 \cdot 4$ | $8 \cdot 5$ | $8 \cdot 4$ | $8 \cdot 5$ $3 \cdot 1$ |
| The Netherlands | 125.0 | 118.8 | $5 \cdot 8$ | - | $2 \cdot 7$ | $2 \cdot 6$ |
| Norway...... | $30 \cdot 0$ | $23 \cdot 3$ | - | - | $2 \cdot 6$ | - |
| Union of Soviet Socialist Republics. | $3 \cdot 0$ | $11 \cdot 6$ | - | - | $2 \cdot 9$ | - |
| Totals, Export Credits. | 594.5 | $546 \cdot 3$ | 18.4 | 12.8 | 23.1 | 19.8 |
| Loan to United Kingdom . | 1,250 - 0 | 1,185-0 | - | - | - | 14.0 |
| Grand Totals. | 1,844.5 | 1,731-3 | 18.4 | 12.8 | $23 \cdot 1$ | 33.8 |

[^311]The principal tariff negotiations in which Canada has participated have been those of the parties to the General Agreement on Tariffs and Trade. The first series of negotiations was held at Geneva in 1947; there, 23 countries (including Canada) agreed to the mutual exchange of most-favoured-nation tariff treatment, and to make certain specific reductions in their tariffs. Subsequent meetings at Annecy, in 1949, and Torquay, in 1950-51, saw the number of contracting parties increase to 34, and further significant reductions were negotiated in Canadian and foreign tariffs. Tariff concessions negotiated under the General Agreement remain in force until Jan. 1, 1954, and may be further extended past that date. Canada has also conducted negotiations with some non-members of the General Agreement on Tariffs and Trade. Besides the 34 countries included in the General Agreement, Canada exchanges most-favoured-nation treatment with 24 other countries, and preferential treatment with most Commonwealth countries and Ireland.

Canada has also reduced non-tariff trade barriers in force in this country. As capital inflows and a closer balance of trade with dollar and with non-dollar countries contributed to an increase in Canada's exchange reserves, the emergency exchange conservation controls were gradually relaxed until the last were abolished at the end of 1950. The exchange value of the Canadian dollar was unpegged in October 1950 to reduce speculation on possible changes in this value and, after a year of relatively moderate fluctuations in the exchange rate, foreign exchange control was abolished in Canada in December 1951. The only significant direct controls now imposed on Canadian trade exist for reasons of military security, rather than economic protection. Besides these official measures, the Canadian Government has encouraged the efforts of such private organizations as the DollarSterling Trade Board to promote foreign trade.

Efforts have also been made to secure the reduction of non-tariff barriers to Canadian trade imposed by other countries. Some of these, such as many of the Sterling Area's restrictive measures, are necessitated by balance-of-payments problems that have resulted from the disturbed post-war economic situation. Others, such as United States quantitative restrictions on dairy-products imports, are purely protective in nature. While a measure of liberalization in the trade controls of the British West Indies was negotiated in 1950 and extended in 1951, and while the United Kingdom token import plan has kept some Canadian goods before the British public, nevertheless, much less progress has been made in persuading other countries to reduce non-tariff trade barriers than in the case of tariffs. The widespread use of direct import controls in the post-war world is, of course, owing to circumstances over which the Canadian Government has no control.

The Structure of Canadian Trade.-Foreign trade is based primarily on international differences in resources and on specialization. The influence of resources on trade is obvious, particularly in the case of natural products. Neither temperate nor tropical countries can raise all the wide range of agricultural products necessary for modern industry and required by consumers' tastes. Cotton and oranges must come from countries with warm climates while wheat and apples grow best in more temperate regions. Softwoods grow plentifully in northern climates, and most of the world's lumber, wood-pulp and paper is produced from softwoods, while tropical woods are chiefly prized for their hard texture and for the finish they will take. Mineral deposits as well as climatic differences are important. Few countries produce the whole range of minerals they require and, where mines are lacking, imports provide an alternative supply.

National specialization is also an important determinant of trade. Densely populated countries and countries with a large accumulation of capital tend to specialize in manufacturing industries, especially if they are deficient in important natural resources. Sparsely populated countries usually specialize in agriculture and in extractive industries if their resources permit, and within these categories further specialization by product is normal-on the Canadian prairies the emphasis is on wheat, although much wheat land could be used for stock-raising. In the field of manufactures the differences between the type of automobile produced in the United States and that produced in the United Kingdom are well known. In some cases manufacture is essential if resources are to be exploited-Canada's exports of aluminum are essentially exports of hydro-electric power, since it was power resources and not the domestic production of ore (bauxite, which is imported) that led to the establishment of this industry. Were it not for the production of aluminum much of this power would go unused.

In the manufactures field, particularly, many commodities are imported which could be (or are to some extent) produced in Canada. There are two simple reasons for this. Firstly, the Canadian home market is not sufficient to provide the full economies of large-scale production for some industries; therefore, many manufacturing industries can operate economically only if an export market is available. For some no export markets are readily available. Secondly, other industries in

Canada may provide more profitable employment for capital and labour. To export it is necessary to import-Canadian resources devoted to the production for export of newsprint, wheat, wood-pulp, lumber and base metals require that machinery, steel, fuels and textiles be imported if they are to receive payment. The high Canadian standard of living is based on the exchange of efficiently produced surpluses for goods which cannot be produced as efficiently or at all in Canada.

The statistics of leading exports and imports in Tables 11 to 14, pp. 943-961, reveal that the greater part of Canada's exports are raw or processed natural products, while in imports manufactured goods are more important. Farm implements, other machinery, automobiles and railway equipment are the chief manufactured exports, but these are much less important than shipments of such primary commodities as newsprint, wheat, wood-pulp, lumber, wheat flour and base metals. Many raw materials, such as petroleum, coal, cotton, wool and rubber, must also be imported to compensate for lack of sufficient conveniently located Canadian supplies or for the inability to produce these commodities in Canada. A great part of Canada's imports, however, are partly or fully manufactured goods, such as machinery, farm implements (especially tractors), iron and steel, textiles and electrical apparatus. Canada thus exchanges surplus resources for the surplus labour of other countries.

The importance of international trade to Canadian prosperity is emphasized by comparing it with population and national income. In 1951, Canada's exports were equal to $\$ 283$ for every man, woman and child in the country, and imports per capita reached $\$ 292$. Total trade per capita was $\$ 575$, a figure exceeded only in the case of Hong Kong and New Zealand, and far above the United Kingdom's $\$ 386$ and the United States' \$187. Of all the goods and services produced in Canada in 1951 no less than 18.7 p.c. was absorbed by merchandise exports, and of the goods and services available for current utilization (after allowance for maintenance of capital and other depreciation charges) $20 \cdot 3$ p.c. were exported as merchandise. The continued high level of merchandise trade in the post-war period has been an important determinant of Canada's prosperity.

Distribution of Canadian Trade.-One of the most prominent differences from pre-war in Canada's post-war pattern of trade has been the sharp increase in the proportion conducted with the United States. In the period 1946-50, 48 p.c. of Canada's exports went to this one market and 71 p.c. of the imports were drawn from this one source. In the inter-war period, 38 p.c. of exports went to the United States, and 65 p.c. of imports came from that country. The proportion of trade conducted with the United Kingdom has shown an equally marked decrease. In the inter-war period, 36 p.c. of Canada's exports went to the United Kingdom, as opposed to 23 p.c. in 1946-50, and 17 p.c. of imports were drawn from this source, as opposed to 10 p.c. in 1946-50.

One important reason for this change was World War II. Production in the United Kingdom was concentrated on military needs during the War even more so than in the United States and, in addition, the productive facilities of the United Kingdom suffered heavily from enemy attacks. At the end of the War, the United

Kingdom was faced with a major reconstruction task before she could again export in proportion to her import needs. The same was true of many other overseas countries, especially those of Europe. As a result, Canada was forced to obtain more imports from the United States, the main great producer to come through the war materially undamaged. Similarly, the United States was the one great market unhampered in its purchasing by exchange shortages or the need to pro-rate its imports. The greatest expansion in Canadian exports therefore, was in goods that could be sold readily in the United States.


Table 3 shows the distribution of Canada's peacetime trade by five-year periods from 1919-20 to 1950, and gives comparative figures for 1951. The inter-war data relate to fiscal years, the post-war data to calendar years. In 1946-50 both the United States and Latin America provided a greater share of Canada's imports than in the inter-war periods shown, and the proportions drawn from the United Kingdom and from Europe were less than in any of the inter-war periods shown. Imports from the Commonwealth were a smaller proportion of the total than in 1934-35 to 1938-39, when preferential tariffs were of more importance, but their share was larger than in the other inter-war periods shown. By 1951, greater production elsewhere had reduced the proportion of imports drawn from the United States and increased that from Europe and "Others". However, the import pattern was still markedly different from that prevailing before World War II.

The changes in exports are equally marked. Exports to the United Kingdom and to other European countries were greater in the immediate post-war years than in 1951 owing to emergency post-war needs for foodstuffs and materials by those countries while their own productive facilities were being restored. Even in this period, however, their share of Canada's exports was lower than in most of the inter-war period (although Europe's share in exports decreased sharply during the period of high protection immediately preceding the War). Exchange difficulties restricted the Commonwealth's share in exports in 1951, although these were less important in the immediate post-war reconstruction period. As with imports, only the United States and Latin America have consistently accounted for a larger proportion of Canada's exports in the post-war years than in the inter-war period.

Before the War, Canada's trade was normally in marked bilateral imbalance. Most major currencies were then convertible and surpluses earned in trade with overseas countries could freely be used to meet deficits on trade with the United States. In the post-war period inconvertibility of currencies has restricted the opportunity for such transfers, and it has been necessary to achieve a better bilateral balance in trade. The shares of Canada's principal trading partners in exports and imports are still far from equal, but the discrepancy between the export and import shares is much less than in the inter-war period.

## 3.-Percentage Distribution of Imports and Domestic Exports, by Principal Countries and Trading Areas, 1919-39 and 1946-51

Nore.-Trading areas adjusted for territorial changes. Thus the "Commonwealth" excludes Egypt, Iraq, Burma and Palestine in all years to maintain comparability. Newfoundland is also excluded from the table.

| Period ${ }^{1}$ | United States | United Kingdom | Other Commonwealth and Ireland | Europe | Latin America | Others |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Imports- | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1919-20 to 1923-24.. | 69.8 | $15 \cdot 8$ | $4 \cdot 3$ | $4 \cdot 2$ | $4 \cdot 1$ | 1.6 |
| 1924-25 to 1928-29.. | $66 \cdot 1$ | 16.7 | $5 \cdot 0$ | $7 \cdot 1$ | $3 \cdot 1$ | 1.7 |
| 1929-30 to 1933-34.. | $63 \cdot 1$ | $17 \cdot 8$ | $6 \cdot 2$ | $8 \cdot 1$ | $2 \cdot 7$ | 1.9 |
| 1934-35 to 1938-39.. | $59 \cdot 6$ | $19 \cdot 3$ | 9.8 | $6 \cdot 2$ | $2 \cdot 9$ | 1.8 |
| 1946-1950. | 71.2 | $10 \cdot 3$ | 7-0 | $2 \cdot 7$ | $7 \cdot 0$ | 1.5 |
| 1951..... | 68.9 | $10 \cdot 3$ | $7 \cdot 5$ | $4 \cdot 3$ | 6.7 | $2 \cdot 3$ |
| Domestic Exports- |  |  |  |  |  |  |
| 1919-20 to 1923-24.. | $40 \cdot 4$ | 36.0 | 5-6 | 12.2 | 1.9 | $2 \cdot 7$ |
| 1924-25 to 1928-29.. | 36.7 | $35 \cdot 7$ | 6.5 | $12 \cdot 4$ | $3 \cdot 0$ | $4 \cdot 9$ |
|  | $39 \cdot 3$ 34.8 | 31.2 41.2 | $7 \cdot 6$ $9 \cdot 6$ | 12.2 7.5 | $2 \cdot 8$ 2.1 | 5.8 3.9 |
| 1946-1950.......... | 48.7 | 22.5 | 9.8 9.8 | 9.8 | $4 \cdot 3$ | 3.8 3.8 |
| 1951.. | 58.7 | 16.1 | 6.7 | 8.9 | $5 \cdot 3$ | $4 \cdot 3$ |

${ }^{1}$ Averages of fiscal years ended Mar. 31, 1920 to 1939; averages of calendar years 1946 to 1950.

## 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.

[^312]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. The countries whence goods are consigned are not necessarily the countries of actual origin, since goods produced in one country may be purchased by a firm in another country and thence dispatched, after longer or shorter interval, to Canada. In such cases the second country would be the country of consignment to which the goods would be credited.

Exports are 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 figures of her customers and similar differences occur with Canadian imports. Many factors contribute to these discrepancies, among which are the following:-

1. Differences in the system of valuation used by Canada and the systems used by other countries.
2. The element of time lag is of considerable importance where Canadian exports are concerned, particularly with bulk goods shipped to other continents. There are always quantities of goods in movement at the beginning or end of any trading period and these affect the comparability between the two countries for the same period of time.
3. Canada's system of geographical classification, according to country of consignment, which may not be the ultimate destination of the goods.

Imports from the United Kingdom.-Published statistics of Canadian imports entered for consumption have always included several items that may be considered of a non-commercial character. These items are never very large in normal times but during the war years their inclusion in the total value of imports, from the United Kingdom in particular, tended to distort published data. The distinction between commercial and non-commercial imports is not always easy to establish, but three items have been segregated, as follows:-
(a) "Articles for the use of the Imperial Army, Navy and Air Force". These imports consisted almost entirely of war equipment of various kinds for experimental purposes, training and use in Canada by the United Kingdom Government. The values applied to the articles imported under this classification were nominal and no duty was paid.
(b) "Canadian goods returned". Before the War, this item amounted in value to several hundred thousand dollars annually. Late in 1945, however, the Government of Canada began the repatriation of large stocks of war equipment, the bulk of which was shipped from the United Kingdom. On entering Canada, they were classified in the trade returns as "Canadian goods returned" but are not shown in the United Kingdom trade returns.
(c) Settlers' effects, the property of immigrants.

The statement below shows the relation of these non-commercial items to the total:-

## I.-COMMERCIAL AND NON-COMMERCIAL IMPORTS FROM THE UNITED KINGDOM, 1939-51

(Millions of dollars)

| Year | Articles for Imperial Forces | Canadian Goods Returned | Settlers' Effects | Total NonCommercial Imports | Commercial Imports | Total Recorded Imports |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1939. | 0.8 | 0.4 | 0.6 | 1.8 | 112-2 | $114 \cdot 0$ |
| 1940. | 23.5 | $0 \cdot 3$ | $0 \cdot 6$ | $24 \cdot 4$ | 136.8 | $161 \cdot 2$ |
| 1941. | 81.2 | $0 \cdot 1$ | $0 \cdot 1$ | 81.4 | $138 \cdot 0$ | $219 \cdot 4$ |
| 1942. | 42.5 | 0.4 | $0 \cdot 1$ | $43 \cdot 0$ | $118 \cdot 1$ | 161 -1 |
| 1943. | 34-3 | $0 \cdot 1$ | 1 | $34 \cdot 4$ | $100 \cdot 6$ | $135 \cdot 0$ |
| 1944. | 16.2 | 0.3 | $0 \cdot 1$ | $16 \cdot 6$ | $94 \cdot 0$ | $110 \cdot 6$ |
| 1945. | 21.2 | 18.8 | $0 \cdot 2$ | $40 \cdot 2$ | $100 \cdot 3$ | 140.5 |
| 1946. | $2 \cdot 3$ | $60 \cdot 1$ | 1.4 | 63.8 | $137 \cdot 6$ | $201 \cdot 4$ |
| 1947. | 1.5 | 0.8 | $3 \cdot 4$ | $5 \cdot 7$ | 183.7 | 189.4 |
| 1948. | 0.7 | 0.8 | $4 \cdot 9$ | 6.4 | $293 \cdot 1$ | 299.5 |
| 1949. | $1 \cdot 6$ | 0.5 | $3 \cdot 0$ | $5 \cdot 1$ | 302-3 | $307 \cdot 4$ |
| 1950.. | 0.9 | 0.4 | 1.8 | $3 \cdot 1$ | $401 \cdot 1$ | 404.2 |
| 1951. | 1.9 | 0.2 | $3 \cdot 3$ | $5 \cdot 4$ | $415 \cdot 6$ | $421 \cdot 0$ |

${ }^{1}$ Less than $\$ 50,000$.
Treatment of Gold in Trade Statistics.-The fact that gold is a money metal gives it peculiar attributes that distinguish it from other commodities in trade. In particular, the movement of gold in international trade is determined, almost exclusively, by monetary factors. The amount of exports may fluctuate widely from month to month owing to other than ordinary trade or commercial considerations. In addition, gold is generally acceptable. It does not have to surmount tariff barriers and, normally, is assured a market at a relatively fixed price. It should also be noted that gold does not move in international trade in any direct or normal relation to sales and purchases. Changes in the Bank of Canada's stock of gold under earmark do not enter, therefore, into the trade statistics.

Statistics showing the net exports of non-monetary gold, including changes in stocks held under earmark, which supplement the trade figures, are given in the following statement:-
II.-NET EXPORTS OF NON-MONETARY GOLD, 1944-51
(Millions of dollars)

| Month | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January. | $9 \cdot 4$ | 8.7 | $9 \cdot 3$ | $9 \cdot 0$ | $9 \cdot 6$ | $9 \cdot 7$ | 15.8 | $17 \cdot 3$ |
| February... | $8 \cdot 1$ | $8 \cdot 4$ | $9 \cdot 5$ | 6.9 | 8.9 | $9 \cdot 6$ | 11.7 | 11.7 |
| March. | 12.9 | 10.2 | 10.0 | 6.8 | 8.7 | $12 \cdot 1$ | 13.5 | 8.4 |
| April....... | $9 \cdot 3$ | 6.8 | $7 \cdot 2$ | 6.4 | $9 \cdot 5$ | $9 \cdot 8$ | 11.4 | 16.2 |
| May. | 9.4 | $10 \cdot 2$ | $10 \cdot 0$ | 8.2 | $8 \cdot 8$ | 12.4 | 15.8 | 13.0 |
| June. | 10.9 | $4 \cdot 7$ | $7 \cdot 7$ | $8 \cdot 6$ | $9 \cdot 6$ | $9 \cdot 8$ | 15.0 | 13.8 |
| July.... | $6 \cdot 6$ | $8 \cdot 0$ | $6 \cdot 6$ | $10 \cdot 1$ | 10.8 | 9.4 | 14.8 | 13.4 |
| August. | $10 \cdot 0$ | $8 \cdot 5$ | $7 \cdot 5$ | $7 \cdot 5$ | 9.7 | 13.8 | $13.8{ }^{\circ}$ | 11.0 |
| September. | 8.7 | 6.8 | 6.8 | 8.4 | 11.9 | 11.2 | 10.8 | 10.8 |
| October. | $8 \cdot 4$ | $7 \cdot 7$ | $8 \cdot 5$ | $9 \cdot 2$ | $9 \cdot 6$ | $13 \cdot 2$ | 16.4 | 8.2 |
| November. | $10 \cdot 1$ | $9 \cdot 8$ | $6 \cdot 0$ | $7 \cdot 2$ | $9 \cdot 1$ | $15 \cdot 4$ | 12.3 | 7.7 |
| December. | $5 \cdot 9$ | $6 \cdot 2$ | 6.7 | 11.0 | 12.8 | - 12.5 | 11.3 | 18.3 |
| Totals | 109.7 | 96.0 | $95 \cdot 8$ | $99 \cdot 3$ | 119.0 | 138.9 | $162 \cdot 6$ | 149.8 |

## 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. Imports from the United Kingdom from 1940 to 1946 are distorted by the inclusion of large amounts of non-commercial items in the trade returns (see pp. 930-931). United Kingdom figures can be viewed in proper perspective only if these non-commercial items are excluded from the recorded import statistics.

## 1.-Value of Total Foreign Trade of Canada (Excluding Gold), 1934-51

Note.-These figures are available on a calendar-year basis only since 1919; figures for the fiscal years 1868-1933 are given in the 1940 edition of the Year Book, p. 526.

| Year | Imports |  |  | Exports |  |  | Balance of Trade: <br> Excess of Exports ( + ) Imports ( - ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dutiable | Free | Total | Domestic Produce | Foreign <br> Produce | Total |  |
|  | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 1934. | 295,566,101 | 217,903,396 | 513,469, 497 | 649,314,236 | 6,991,992 | 656,306,228 | +142,836,731 |
| 1935. | 306,913,652 | 243,400,899 | 550,314,551 | 724,977,459 | 12,958,420 | 737, 935, 879 | +187,621,328 |
| 1936. | 350,903,936 | 284, 286,908 | $635,190,844$ | 937, 824,933 | 12,684,319 | 950,509, 252 | $+315.318 .408$ |
| 1937. | 436,327,558 | 372,568,767 | 808, 896, 325 | 997,366,918 | 14,754, 862 | 1,012, 121,780 | +203,225,455 |
| 1938 | 379,095, 355 | 298, 355, 999 | 677,451,354 | $837,583,917$ $924,926,104$ | $11,100,216$ $10,995,609$ | $848,684,133$ $935,921,713$ | $+171,232,779$ $+184,866,179$ |
| 1939. | 427,470, 333 | 323,584,901 | 751,055,534 | 924,926,104 | 10,995,609 | 935,921,713 | +184,866,179 |

1.-Value of Total Foreign Trade of Canada (Excluding Gold), 1934-51-concluded

| Year | Imports |  |  | Exports |  |  | Balance of Trade: Excess of Exports ( + ) Imports ( - ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dutiable | Free | Total | Domestic Produce | Foreign <br> Produce | Total |  |
|  | \$ | \$ | \$ | \$ | \$ | $\delta$ | \$ |
| 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 | $3.483,098,612$ | $+1,724,200,415$ |
| 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, 110, 028,668 | +473,083,316 |
| 1949. | 1, 444, 123,667 | 1, 317,083, 574 | 2,761, 207, 241 | 2,992,963, 978 | 29,491, 856 | $3,022,452,834$ | +261,245,593 |
| 1953. | 1,617,948,425 | 1,556,304,713 | 3, 174, 253,138 | 3,118,386.551 | 38,686, 122 | 3, 157,072, 773 | -17.180.465 |
| 1951 | 2.174, 304,400 | 1,910,552,078 | 4,084, 856,478 | 3,914,460,376 | 48,923,939 | 3.963,384,315 | -121,472,163 |

## Section 3.-Trade by Geographic Areas

The tables in this Section provide information about Canada's total foreign trade by continents and by countries with special reference in Tables 4 to 8 to the division between Commonwealth and foreign countries.
2.-Trade of Canada, by Continents, 1939, 1950 and 1951

3.-Trade of Canada, by Leading Countries, 1939, 1950 and 1951

Note.-Countries arranged in order of importance, in 1951.

| Rank |  |  | Country | 1939 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1939 | 1950 | 1951 |  |  |  |  |
|  |  |  | Imports | \$'000 | \$'000 | \$'000 |
| 2 | 1 | 1 | United States.............................. | 496,898 | 2,130,476 | 2,812,927 |
| 2 | 2 | 2 | United Kingdom.......................... | 114,007 | 404,213 | 420,985 |
| 27 | 3 | 3 | Venezuela..................................... | 1,943 | 87,264 | 136,718 |
| 3 4 4 | 7 | 4 5 | Federation of Malaya | 13,145 | 28,852 | 57,980 |
| 4 29 | 8 | 5 | Australia........ Brazil.......... | 11,269 | 32,803 28,178 | 46,228 40,627 |
| 5 | 4 | 7 | India.. | 10,358 | -37,262 | 40,027 |
| 8 | 10 | 8 | Belgium. | 6,772 | 22,795 | 39,095 |
| 6 | 22 | 9 | Germany | 8,947 | 11,026 | 30,936 |
| 14 | 21 | 10 | New Zealand.. | 4,266 | 11,855 | 30,107 |
| 7 | 11 | 11 | British Guiana | 6,891 | 21,735 | 25,025 |
| 9 | 17 | 12 | France. | 6,028 | 14,669 | 23,974 |
| 1 | 9 | 13 | Arabia |  | 28,115 | 22,659 |
| 13 | 12 | 14 | Jamaica | 4,357 | 19,080 | 18,041 |
| 1 | 5 | 15 | Mexico.... | 479 | 32,974 | 18,013 |
| 19 | 18 | 16 | Switzerland | 3,459 | 14,464 | 16,398 |
| 18 | 13 | 17 | Ceylon. | 3,562 | 17,604 | 16,396 |
| 1 | 1 | 18 | Syria.. | 3 | 62 | 16,381 |
| 21 | 15 | 19 | Trinidad and Tobago | 2,668 | 15,205 | 15,082 |
| 23 | 26 | 20 | Italy | 2,354 | 9,373 | 14,217 |
| 16 | 28 | 21 | The Netherlands | 3,795 | 8,896 | 14,010 |
| 12 | 23 | 22 | Argentina. | 4,406 | 10,913 | 13,955 |
| 15 | 25 | 23 | Barbados. | 3,874 | 10,057 | 13,409 |
| 10 | 19 | 24 | Colombia | 5,437 | 13,342 | 13,063 |
| 11 | 20 | 25 | Japan... | 4,864 | 12,087 | 12,577 |
| 25 | 1 | 26 | Sweden. | 2,114 | 5,145 | 11,808 |
| 22 | 16 | 27 | British East Africa | 2,626 | 15,067 | 10,864 |
| 1 | 14 | 28 | Netherlands Antille | 270 | 17,336 | 10,809 |
| 1 | 29 | 29 | Philippines.......... | 451 | 6,425 | 8,954 |
| 1 | 1 | 30 | Costa Rica <br> Totals, 30 Leading Countries <br> Grand Totals, Imports <br> Exports | 124 | 3,378 | 8,785 |
|  |  |  |  | 726,478 | 3,070,651 | 3,960,240 |
|  |  |  |  | 751,056 | 3,174,253 | 4,084,856 |
|  |  |  |  |  |  |  |
| 1 | 1 | 1 | United States | 380,392 | 2,020,988 | 2,297,675 |
| 2 | 2 | 2 | United Kingdom. | 328,099 | 469,910 | 631,461 |
| 11 | 3 | 3 | Belgium........... | 7,261 | 66,351 | 94,457 |
| 4 | 9 | 4 | Japan. | 28,168 | 20,533 | 72,976 |
| 14 | 14 | 5 | Brazil ............ | 4,407 17,965 | 15,806 42,561 | 53,684 52,736 |
| 5 3 | 4 5 5 | 6 7 | Union of South Africa | 17,965 32,029 | 42,561 35,446 | 52,736 49,079 |
| 22 | 5 15 | 7 8 | Austral | 2,231 | 15,476 | 48,763 |
| 12 | 11 | 9 | France. | 6,973 | 18,403 | 46,538 |
| 9 | 23 | 10 | Germany. | 7.869 | 8,873 | 37,028 |
| 13 | 6 | 11 | India...... | 5,396 | 31,520 | 35,737 |
| 7 | 10 | 12 | Norway. | 10,904 | 18,924 | 32,198 29.880 |
| 20 | 13 | 13 | Mexico. | 3,004 | 17,624 | 29,880 |
| 26 | 8 | 14 | Venezuela. | 1,702 | 25,457 | 26,982 |
| 10 | 25 | 15 | The Netherlands. | 7,357 | 8,617 26 | 25,191 |
| 23 | 7 | 16 | Switzerland. | 1,850 | 26,435 | 25,345 21,757 |
| 6 | 20 | 17 | New Zealand | 11.954 | 10,983 | 21,757 |
| 19 | 18 | 18 | Ireland.... | 3,597 | 13,321 | 20,921 |
| 26 | 12 | 19 | Cuba... | 1,497 | 18.005 | 20,424 |
| 24 | 21 | 20 | Philippines | 1,819 | 10,829 | 15,598 |
| 1 | 30 | 21 | Chile...... | + 957 | $\begin{array}{r}6,864 \\ 14806 \\ \hline\end{array}$ |  |
| 25 | 16 | 22 | Colombia | 1,781 4,284 | 14,806 4,250 | 12,311 12,125 |
| 16 | 1 26 | 23 | Sweden..... | 4,284 1,463 | 4,250 8,004 | 12,125 |
| ${ }_{1}^{27}$ | 26 19 | $\stackrel{24}{25}$ | Hong Kong | 1,463 230 | r 8 8,004 | 12,033 11,816 |
| 21 | 1 | 26 | Federation of Malaya | 2,782 | 4,097 | 10.796 |
| 15 | 28 | 27 | Jamaica............. | 4.313 | 7.495 | 10.213 |
| 17 | 29 | 28 | Trinidad and Tobago. | 4,211 <br> 4 | 7,476 | 9,950 |
| 18 | 17 | 29 | Argentina........ | 4,117 | 13,360 7,643 |  |
| 1 | 27 | 30 | Puerto Rico. | 548 | 7,643 | 8,120 |
|  |  |  | Totals, 30 Leading Countries. | 889,160 | 2,982,183 | 3,749,428 |
|  |  |  | Grand Totals, Exports. | 924,926 | 3,118,387 | 3,914,460 |

[^313]4.-Values and Percentages of Trade with Overseas Countries via the United States, 1950 and 1951

| Country | Imports via the United States |  |  |  | Domestic Exports via the United States |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1950 |  | 1951 |  | 1950 |  | 1951 |  |
|  | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. | \$'000 | p.c. |
| United Kingdom and Other Commonwealth Countries |  |  |  |  |  |  |  |  |
| United Kingdom. | 257 | - | 76 | $\cdots$ | 10,445 | $2 \cdot 2$ | 26,177 | $4 \cdot 1$ |
| Australia. | 2 | .- |  | - | 12,579 | $35 \cdot 4$ | 20,203 | 41.1 |
| Bermuds..... |  | - | 3 | $4 \cdot 0$ | 102 | $3 \cdot 4$ | 134 | $3 \cdot 6$ |
| British East Airica | 34 | $\cdots$ | 110 | 1.0 | 492 | 57.9 | 1,070 | 74.0 |
| British South Africa. | 27 | 0.5 | 10 | $0 \cdot 2$ | 9,352 | $22 \cdot 0$ | 18,394 | 34.8 |
| British West Africa. | 30 | $0 \cdot 2$ | 1,782 | $22 \cdot 1$ | 895 | 84.5 | 1,807 | 90.2 |
| British Guians..... | - | $\square$ | 98 | 0.4 | 42 | 1.0 | 31 | 0.5 |
| British Honduras. | 35 | 7.9 | 6 | $1 \cdot 3$ | 57 | $11 \cdot 6$ | 135 | $23 \cdot 6$ |
| British West Indies. | 616 | 1.4 | 404 | $0 \cdot 8$ | 880 | 3.8 | 1,170 | $3 \cdot 8$ |
| India.............. | 231 | $0 \cdot 6$ | 1,314 | $3 \cdot 3$ | 778 | $2 \cdot 5$ | 888 | $2 \cdot 5$ |
| Ceylon. | 65 | $0 \cdot 4$ | 244 | 1.5 | 262 | $0 \cdot 6$ | 676 | 19.5 |
| Pakistan. | 24 | 1.4 | 16 | $0 \cdot 7$ | 633 | $7 \cdot 3$ | 729 | 16.3 |
| Hong Kong. | 74 | $3 \cdot 4$ | 93 | $3 \cdot 1$ | 1,953 | 24.4 | 1,835 | 15.2 |
| New Zealand | 128 | $1 \cdot 1$ | 79 | $0 \cdot 3$ | 1,711 | $15 \cdot 6$ | 4,889 | 22.5 |
| Totals, United Kingdom and Other Commonwealth Countries ${ }^{1} . . . . . . . . . . . . . . .$. | 1,522 | $0 \cdot 1{ }^{2}$ | 4,264 | $0 \cdot 4^{2}$ | 42,742 | $3.9{ }^{2}$ | 85,023 | $5 \cdot 3^{2}$ |
| Foreign Countries |  |  |  |  |  |  |  |  |
| Arabia | 6,918 | $25 \cdot 0$ | 9,131 | $40 \cdot 3$ | 372 | 42.5 | 1,194 | 84.4 |
| Argentina | 235 | $2 \cdot 2$ | , 629 | 4.5 | 1,318 | 9.9 | 4,613 | 51.9 |
| Belgium. | 167 | 0.7 | 220 | $0 \cdot 6$ | 7,373 | $11 \cdot 1$ | 6,579 | $7 \cdot 0$ |
| Brazil. | 816 | 2.9 | 2,602 | 6.4 | 5,468 | $34 \cdot 6$ | 23,417 | $43 \cdot 6$ |
| Chile. | 66 | 4.9 | 379 | $17 \cdot 6$ | 1,290 | 18.7 | 5,158 | 37.5 |
| Chins. | 285 | 5.4 | 88 | 4.6 | 806 | $39 \cdot 2$ | 151 | 41.1 |
| Colombia. | 1,164 | $8 \cdot 7$ | 1,368 | 10.5 | 5,254 | $35 \cdot 5$ | 5,110 | 41.5 |
| Costa Rica | 13 | $0 \cdot 4$ | 247 | 2.8 | 837 | 36.2 | . 601 | 27.6 |
| Cubs.. | 122 | $3 \cdot 0$ | 191 | $2 \cdot 3$ | 4,531 | $25 \cdot 2$ | 5,148 | $25 \cdot 2$ |
| Egypt.. | - | - | 8 | 1.1 | 319 | $8 \cdot 5$ | 686 | 27.8 |
| France. | 39 | 0.3 | 193 | 0.8 | 3,542 | $19 \cdot 2$ | 9,256 | 19.9 |
| Germany | 39 | $0 \cdot 4$ | 310 | 1.0 | 3,576 | $40 \cdot 3$ | 5,742 | 15.5 |
| Guatemala | 255 | $4 \cdot 4$ | 132 | 2.8 | 626 | $26 \cdot 1$ | 869 | 36.7 |
| Haiti. | 61 | $3 \cdot 4$ | 202 | $6 \cdot 7$ | 1,074 | $42 \cdot 7$ | 969 | 37.4 |
| Honduras | 33 | $0 \cdot 6$ | 104 | $2 \cdot 6$ | 499 | 81.4 | 500 | 14.0 |
| Iraq. | 40 | $3 \cdot 3$ | 5 | 0.2 | 63 | $90 \cdot 0$ | 973 | 91.6 |
| Ireland |  | - | 61 | $7 \cdot 8$ | 755 | $5 \cdot 7$ | 1,139 | $5 \cdot 4$ |
| Israel. | 7 | $\cdots$ | 77 | $8 \cdot 3$ | 1,273 | 10.5 | 2,140 | 18.1 |
| Italy. | 299 | $3 \cdot 2$ | 428 | $3 \cdot 0$ | 2,201 | 14.2 | 2,884 | $5 \cdot 9$ |
| Japan. | 773 | 6.4 | 945 | $7 \cdot 5$ | 1,588 | 7.7 | 9,529 | 13.1 |
| Mexico | 1,710 | $5 \cdot 2$ | 1,848 | $10 \cdot 2$ | 9,299 | 52.8 | 17,515 | 58.6 |
| The Netherlands | 1 | - | 61 | 0.4 | 684 | 7.9 | 5,281 | $20 \cdot 2$ |
| Panama. | 2 | . | 9 | $0 \cdot 3$ | 1,292 | $14 \cdot 3$ | 1,254 | 21.0 |
| Peru. | 5 | $\cdots$ | 131 | $2 \cdot 3$ | 1,727 | 46.1 | 3,166 | 62.6 |
| Philippine Islands. | 119 | 1.8 | - | - | 852 | 7.9 | 1,227 | 7.9 |
| Portugal......... | 48 | 2.8 | 121 | 6.0 | 926 | 16.4 | 1,161 | 24.8 |
| Portuguese Africa | 16 | 14.7 | 12 | - | 493 | 18.2 | 786 | 27.8 |
| Puerto Rico.. | 6 | $0 \cdot 6$ | 2 | 0.2 | 489 | $6 \cdot 4$ | 694 | 8.5 |
| Spain.. | 158 | 4.4 | 1,668 | 23.4 | 150 | $2 \cdot 7$ | 398 | 53.6 |
| Sweden. | 27 | $5 \cdot 2$ | 99 | 0.8 | 1.540 | 36.2 | 1,244 | $10 \cdot 2$ |
| Switzerland | 310 | $2 \cdot 1$ | 160 | 1.0 | 4,084 | 15.4 | 4,305 | 17.0 |
| Syris.. | 62 | $100 \cdot 0$ | 5,054 | 30.8 | 644 | $44 \cdot 0$ | 2,901 | 41.2 |
| Turkey | 259 | $20 \cdot 2$ | 678 | 38.6 | 3,125 | 83.4 | 1,963 | 66.2 |
| Uruguay |  | $\because$ | 48 | $1 \cdot 3$ | 1476 | 24.8 | 2,416 | 35-1 |
| Venezuela | 35,136 | 40.2 | 52,216 | 38.2 | 11,794 | $46 \cdot 3$ | 11,620 | $43 \cdot 0$ |
| Totals, Forelgn Countries ${ }^{1}$. | 50,539 | $4.8{ }^{2}$ | 82,961 | $6.5{ }^{2}$ | 100,894 | $9 \cdot 1{ }^{2}$ | 172,568 | 10.6 ${ }^{2}$ |
| Grand Totals. | 52,061 | 4.92 | 87,225 | 6.92 | 143,636 | 13.02 | 257,591 | 15.9 ${ }^{2}$ |

[^314]5.-Total Value of Imports, by Countries, 1945-51, with Averages, 1935-39

| Country | Averages 1935-39 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | 8'000 | \$,000 | 8'000 | \$'000 | \$'000 |
| United Kingdom and Other Commonwealth Countries |  |  |  |  |  |  |  |  |
| United Kingdom. | 124, 047 | 140,517 | 201,433 | 189,370 | 299,502 | 307,450 | 404,213 | 420,985 |
| Ireland ${ }^{1}$. |  |  |  |  |  |  | 2, | $2{ }^{2}$ |
| Aden............ |  |  |  |  | 5,531 | 884 | 12 | 22 |
| British East Africa......... | 2,683 | 1,539 | 3,603 | 7,683 | 9,543 | 6,094 | 15,067 | 10,864 |
| Southern Rhodesia......... <br> Northern Rhodesia | 316 | 542 | 93 | 181 29 | 484 19 | $\begin{array}{r}798 \\ 59 \\ \hline\end{array}$ | 15,401 | 1,496 |
| Union of South Africa | 4,210 | 8,433 | 7,892 | 4,228 | 3,816 | 3,862 | 4,964 | 9 5,372 |
| Other British South Africa |  |  |  |  | 3,810 |  | - ${ }^{\text {, }} 964$ | 5,372 |
| Gold Coast. | 701 | 6,367 | 5,381 | 6,493 | 9,751 | 6,709 | 8,999 | 7,112 |
| Nigeria. | 370 | 3,422 | 4,772 | 2,149 | 4,939 | 2,593 | 1,486 | 898 |
| Sierra Leone. | 7 |  |  | 18 | 5 | 10 | 294 | 49 |
| Anglo-Egyptian Sudan | 25 | 67 | 53 | 26 | 36 | 25 | 53 | 58 |
| India... | 8,531 | 30,568 | 27,877 | 42,250 | 33,400 | 26,233 | 37, 262 | 40,217 |
| Pakistan |  |  | 27,877 | 42,250 | 1,306 | 1,193 | $\frac{1}{2}, 706$ | 2,233 |
| Burma. | 165 | - | ${ }^{1}$ | 3 |  |  | 2 |  |
| Ceylon. | 4,015 | 5,682 | 3,745 | 11,653 | 11,182 | 11,635 | 17,604 | 16,396 |
| British Malaya... | 11,154 | - | 5,871 | 16,908 | 21,878 | 16,187 | 28,852 | 57,980 |
| Other British East Indies |  | - | - | 30 | 52 | 21 | 47 | 4,623 |
| Bermuda. | 102 | 94 | ${ }_{12}^{122}$ | 57 | 139 | 144 | 87 | 82 |
| British Guiana | 5,846 | 9,338 | 12,187 | 12,358 | 15,380 | 22,355 | 21,735 | 25,025 |
| British Honduras | 87 | 450 | 1,221 | 584 | 834 | 295 | 445 | 458 |
| Barbados. | 3,261 | 5,466 | 5,548 | 7,776 | 6,387 | 7,080 | 10,057 | 13,409 |
| Jamaica. | 5,160 | 9,273 | 10,484 | 6,371 | 9,557 | 16,577 | 19,080 | 18,041 |
| Trinidad and Tobago | 2,387 | 3,101 | 4,137 | 5,654 | 9,027 | 14,575 | 15,205 | 15,082 |
| Bahamas........... |  |  |  |  | 648 | 818 | 532 | 346 |
| Leeward and Windward Islands. | 1,816 | 857 | 788 |  | 308 | 297 | 395 | 956 |
| Falkland Islands |  | 424 | 1 |  | - | - | - |  |
| Hong Kong. | 842 | - | 163 | 982 | 1,866 | 2,989 | 2,203 | 3,001 |
| Malta. |  | 21 | 56 | 12 |  | 22 | 20 | 47 |
| Newfoundlan | 2,188 | 16,600 | 9,268 | 9,427 | 11,091 | $918{ }^{5}$ |  |  |
| Australia. | 9,728 | 17,180 | 19,754 | 14,222 | 27,415 | 27,429 | 32,803 | 46,228 |
| Fiji. | 2,341 | 1,607 | 3,123 | 4,178 | 8,275 | 7,997 | 10,194 | 5,993 |
| New Zealand. | 4,754 | 9,276 | 11,956 | 10,831 | 11,603 | 8,910 | 11,855 | 30,107 |
| Other British Oceania Israel | 3 68 | 409 415 | 420 500 | $-_{31}$ | 49 | $\frac{1}{2}$ | $\frac{-}{2}$ | $\stackrel{-}{2}$ |
| Totals, United Kingdom and Other Commonwealth Countries...... | 194,961 | 271,668 | 340,501 | 354,394 | 504,114 | 494,229 | 645,624 | 727,089 |
| Foreign Countries |  |  |  |  |  |  |  |  |
| Afghanistan. | 1. | 2,079 | 1,587 | - | - | 3 | ${ }^{109}$ |  |
| Arabia.... |  |  |  |  |  | 12,127 | 28,115 | 22,659 13,955 |
| Argentina | 5,374 | 7,333 | 14,372 | 17,961 89 | 5,746 | 3,324 382 | 10,964 | 13,191 |
| Belgium | 6,328 | 380 | 4,429 | 10,120 | 13,661 | 19,022 | 22,795 | 39, ${ }^{\text {c95 }}$ |
| Belgian Con | 5 | 333 | 664 | ${ }^{815}$ | 1,644 | 703 | 1,481 | 3,052 |
| Bolivia... | 26 | 25 | 32 |  | - | 2,049 | 2,442 | 1,848 |
| Brazil. | 920 | 7,601 | 14,018 | 13,888 | 20,559 | 21,163 | 28,178 | 40,627 |
| Burma. | 125 | $\cdots$ | 42 |  | ${ }^{6} 2$ | 528 | - ${ }_{53}$ |  |
| Chile. | 125 | 562 | 424 | 339 | 332 | 598 | 1,353 |  |
| China. | 3,344 |  | 2,321 | 2,304 | 3,912 | 3,347 | 5,299 | 1,929 13,063 |
| Colombia. | 5,139 | 11,678 | 9,708 | 9,197 | 8,668 | 12,588 | 13,342 3,378 | 13,063 8,785 |
| Costa Rica | 77 615 | 7.594 | 13, 248 | 727 23.751 | r ${ }^{32,107}$ | 2,119 | 3,378 4,134 | 8,785 8,333 |
| Cuba........... | 615 1,979 | ${ }^{7,512}$ | 13,228 ${ }^{164}$ | 23,751 3,645 | 22,606 4,809 | 6,562 6,401 | 6, 4,036 | 4,668 |
| Czechoslovak | 1,979 165 | -6 | ${ }_{157}^{964}$ | 3,645 1,455 | 4,809 9,585 | 1,893 | 1,406 | 3,730 |
| Greenland | 311 | 271 | 271 | - | - | - | - |  |
| Dominican Republic | 4 | 6,201 | 7,127 | 8,186 | 17,270 | 3,822 | 1,180 | 1,126 |
| Ecuador. | 41 | 1,964 | 157 | 207 | 889 | 1,137 |  |  |
| Egypt. | 728 | 213 | ${ }^{252}$ | ${ }^{205}$ | 1,490 | 1,054 | 659 848 | 1,183 |
| Ei Salvado | 19 | 1,502 | 2,428 | 1,342 | 1,166 | 1,054 11 | 848 30 | 1,116 |

[^315]5.-Total Value of Imports, by Countries, 1945-51, with Averages, 1935-39-concluded

| Country | $\begin{gathered} \text { Aver- } \\ \text { ages } \\ 1935-39 \end{gathered}$ | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Foreign Countries-concl. |  |  |  |  |  |  |  |  |
| Ethiopia | 5 | 2 | 23 | 9 |  |  | ${ }_{21}^{31}$ | ${ }_{158}^{31}$ |
| Finland. | 70 |  | 23 | 30 | 39 | $\begin{array}{r}45 \\ \hline 13\end{array}$ | - 217 | ${ }^{158}$ |
| France. | 6,382 | 273 | 4,610 | 8,755 | 12,648 | 13,309 | 14,669 | 23,974 |
| French Africa | 61. | 308 | 353 | 252 | 112 | 17 | 543 | 398 |
| French East Indies. | 126 | - | - | 1. |  | - | - |  |
| French Oceania.... | 3 | 44 | 22 | 18 | - | 416 | 476 | 360 |
| French West Indies. | 1 | 94 | 3 | 19 | 57 | 123 |  |  |
| Madagascar............ | 31. | 119 | 123 | 18. | 28 | 9 | 8 | 29 |
| St. Pierre and Miquelon. . | 26. | 11 | 7 | 15 | 11 | 12 | 17 | 25 |
| Germany.................. | 10,364 | 2 | 11 | 498 | 1,729 | 7,134 | 11,026 | 30,936 |
| Greece... | 47 | 2 | 64 | 95 | 144 | 135 | 203 | 174 |
| Guatemala | 67 | 1,779 | 2,928 | 9,488 | 8,209 | 5,743 | 5,781 | 4,618 |
| Haiti. | 63 | 514 | 778 | 227 | 176 | 1,026 | 1,769 | 3,020 |
| Honduras | 49 | 8,017 | 15,573 | 6,999 | 6,182 | 6,986 | 5,620 | 4,027 |
| Hungary | 130 | - | - | 50 | 103 | 76 | 36 | 121 |
| Iceland. | 3. | 31 | 9 | 30 | 76 | 52 | 233 | 26 |
| Iran. | 126 | 406 | 274 | 299 | 959 | 288 | 192 | 521 |
| Iraq. | 357 | 974 | 1,489 | 1,502 | 799 | 1,418 | 1,201 | 2,132 |
| Ireland |  |  |  |  |  | 2 | 148 | 785 |
| Israel. | 2 | 2 | 2 | 2 | ${ }^{2}$ | 504 | 490 | 929 |
| Italy. | 2,403 |  | 2,704 | 3,872 | 6,981 | 9,048 | 9,373 | 14,217 |
| Italian A | 1 |  |  |  |  | - |  |  |
| Japan. | 4,649 | 二 |  | 350 | 3,144 | 5,551 | 12,087 | 12,577 |
|  | 11 | - | - | - |  |  | 倍 | 33 |
| Liberia. | 14 | 12 | 60 | 25 | 7 | 7 | - | 183 |
| Lithuania | 4 | - | - | - | 2 | 2 | - | 12 |
| Mexico. | 667 | 13,508 | 14,610 | 16,980 | 27,258 | 25,494 | 32,974 | 18,013 |
| Morocco | 32 | 111 | 18 | 36 | 346 | 142 | 704 | 1,071 |
| The Netherlan | 3,984 | 401 | 2,497 | 3,530 | 5,831 | 6,688 | 8,896 | 14,010 |
| Indonesia. | 800 | 18 | 57 | 200 | 2,261 | 1,454 | 728 | 1,052 |
| Netherland | 150 | 830 | 3,186 | 8,648 | 7,286 | 3,713 | 17,336 | 10,809 |
| Surinam | 1 | - | 59 | 519 | 873 | 326 | 228 | 1,141 |
| Nicaragua | 1 | 1 | 29 | 87 | 172 | 179 | 339 | 596 |
| Norway | 742 | 641 | 836 | 4,999 | 1,103 | 1,212 | 1,405 | 2,977 |
| Panama. | 32 | 34 | 38 | 2,107 | 1,226 | 2,572 | 5,478 | 3,492 |
| Paraguay | 62 | 241 | 264 | 232 | 230 | 374 | 350 | 343 |
| Peru. | 3,554 | 149 | 847 | 407 | 1,989 | 2,465 | 3,961 | 5,588 |
| Philippine I | 563 185 |  | 2,058 | 8,063 | 6,442 | 4,203 | 6,425 | 8,954 |
| Poland. | 185 |  |  |  | 22 | 183 | 357 | 1,430 |
| Portugal. | 265 | 1,658 | 2,188 | 1,409 | 1,177 | 1,351 | 1,698 | 1,980 |
| Azores and Madei | 157 | 63 | 241 | 655 | 364 | 554 | 387 | 410 |
| Portuguese Afric | 15 | 306 | 510 | 392 | 77 | 212 | 109 | 198 |
| Roumania. | 96 | - | 1 | 1 | 19 | 3 | 19 | 22 |
| Siam. | 84 |  | 12 | 28 | 79 | 72 | 1,181 | 1,938 |
| Spain... | 989 | 4,353 | 4,484 | 3,002 | 2,586 | 2,427 | 3,558 | 7,114 |
| Canary Is | 10 |  |  | ${ }_{2}$ | 7 | 11 | 6 | 16 |
| Sweden. | 2,044 | 1,093 | 3,681 | 3,184 | 2,763 | 3,474 | 5,145 | 11,808 |
| Switzerla | 3,110 | 7,863 | 11,149 | 11,941 | 7,444 | 10,902 | 14,464 | 16,398 |
| Syria.. |  | 19 | 71 | 30 | 28 | 429 | 62 | 16,381 |
| Turkey . ${ }^{\text {Union }}$ Soviet Socialist | 293 | 277 | 1,880 | 2,672 | 1,064 | 1,207 | 1,280 | 1,757 |
| Union of Soviet Socialist |  |  |  |  |  |  |  | 358 |
| United States. | 418,738 | 1,202,418 | 1,405,297 | 1,974, 679 | 1,805,763 | 1,951,860 | 2,130,476 | 2,812,927 |
|  | , 93: | 113 | $\begin{array}{r}389 \\ \hline\end{array}$ | 744 | 1,323 | 1,218 | 976 | 1,483 |
| American Virgin Islands | 1 | - | 32 |  |  | 14 | 12 | 166 |
| United States Oceania Hawaii | 186 | -6 | $\begin{array}{r}50 \\ 346 \\ \hline\end{array}$ | - 709 | -796 | 85 | 115 |  |
| Puerto Rico | 13 | 51 | 198 | 270 | 1,583 | 523 | 931 | 1,276 |
| Uruguay | 180 | 95 | 618 | 321 | 714 | 1,069 | 2,770 | 3,768 |
| Venezuela | 1,662 | 17,267 | 26,886 | 46,688 | 94,758 | 91,697 | 87,264 | 136,718 |
| Yugoslavia | 99. |  |  | 23 | 5 | 45 | 122 | 149 |
| Totals, Forelgn Countries ${ }^{3}$ | 489,621 | 1,314,107 | 1,586,778 | 2,219,550 | 2,132,831 | 2,266,978 | 2,528,629 | 3,357,767 |
| Grand Totals. | 684,582 | 1,585,775 | 1,927,279 | 2,573,944 | 2,636,945 | 2,761,207 | 3,174,253 | 4,084,856 |

[^316]
## 6.-Value of Domestic Exports, by Countries, 1945-51, with Averages, 1935-39

| Country | $\begin{gathered} \text { Aver- } \\ \text { ages } \\ 1935-39 \end{gathered}$ | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| United Kingdom and Other Commonwealth Countries | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| United Kingdom | 353,741 | 963,238 | 597,506 | 751,198 | 686,914 | 704,956 | 469,910 | 631,461 |
| Ireland ${ }^{1}$. | 3,861 | 14,278 | 7,956 | 17,598 | 9, 2557 | 9,052 |  |  |
| Aden............. | 109 | +156 | ${ }_{2}^{256}$ | 1,602 | 2,653 3,473 | 57 1,730 | 31 849 | 25 1,444 |
| British East Africa. | 789 | 3,787 | 2,220 | 4,682 | 3,473 | 1,730 | 849 | 1,444 |
| Southern Rhodesia. Northern Rhodesia. | 970 | 2,008 | 3,284 | 7,369 450 | 2,711 606 | 2,665 | 1,202 395 | 1,669 281 |
| Union of South Africa | 15,457 | 31,593 | 68,633 | 66,674 | 83,248 | 77,713 | 42,561 | 52,736 |
| Other British South Afr |  |  |  | 15 | 6 | 15 | 5 | 27 |
| Gambia. | 35 | 33 | 63 | 66 | 26 | , | 12 | 26 |
| Gold Coast | 270 | 890 | 871 | 1,652 | 2,072 | 1,489 | 581 | 980 |
| Nigeria. | 145 | 318 | 1,021 | 2,285 | 876 | 1,068 | 247 | 796 |
| Sierra Leone | 203 | 376 | 410 | 811 | 717 | 303 | 219 | 200 |
| Other British West Africa. | $3{ }^{3}$ | 2 |  |  | 4 |  |  |  |
| Anglo-Egyptian Sudan..... | 109 | 94 | 510 | 1,028 | ${ }^{4} 42$ | 72, ${ }^{37}$ | 75 31520 | - 34 |
| India... | 3,732 | 307,461 | 49,046 | 42,947 | 33,698 7 7 | 72,551 | 31,520 8,681 | 35,737 4.486 |
| Burma | 71 | 478 | 442 | 823 |  |  |  |  |
| Ceylon | 246 | 8,290 | 2,140 | 4,079 | 1,710 | 2,159 | 4,353 | 3,470 |
| British Malays | 2,173 | 1,114 | 3,224 | 7,464 | 9,288 | 5,437 | 4,097 | 10,796 |
| Other British East Indies. |  |  | 51 |  | 16 |  | 32 |  |
| Bermuda. | 1,381 | 2,511 | 3,805 | 5,108 | 4,102 | 3,616 | 2,991 | 3,693 |
| British Guiana | 1,344 | 6,418 | 7,109 | 10,273 | 8,229 | 5,676 | 4,052 | 5,308 |
| British Honduras | 255 | 884 | 1,110 | 1,375 | 1,151 | 600 | 491 | ${ }_{584}$ |
| Barbados. | 1,218 | 4,750 | 6,205 | 9,063 | 5,654 | 5,013 | 2,974 | 4,584 |
| Jamaica. | 3,887 | 14,404 | 15,500 | 18,214 | 12,350 | 9,033 | 7,495 | 10,213 |
| Trinidad and Tobago | 3,372 | 16,433 | 19,140 | 26,354 | 17,105 | 12,325 | 7,476 | 9,950 |
| Bahamas.......... |  |  |  | 3,688 | 3,636 | 2,268 | 1,937 | 2,136 |
| Leeward and Windward Islands | 1,600 | 6,865 | 8,341 | 7,582 | 6,177 | 4,515 | 3,213 | 4,229 |
| Falkland İslands........... | 3 | 8 | 2 | 39 |  |  |  | 2 |
| Gibraltar. | 9 | 586 | 333 | 252 |  | 336 | 329 | 648 |
| Hong Kong | 1,651 | 99 | 4,362 | 6,397 | 8,256 | 10,099 | 8,004 | 12,033 |
| Malta. . | 377 | 4,740 | 4,671 | 6,705 | 3,250 | 3.905 | 4,680 | 2,150 |
| Newfound | 8,048 | 40,515 | 38,229 | 55,085 | 55,055 | 9,229] | 37.446 | 49.079 |
| Australia | 28,924 | 32,226 | 38,194 | 60,294 | - 38.257 | 35,363 598 | 35,446 | 49,802 |
| Fiji......... | 12,799 | 19, 102 | 16,110 | 37,386 |  | 14,489 | 10,983 | 21,757 |
| New Zealand. Other British Ocean | 12,799 | 19,102 | 16,110 | 37, 63 | $\begin{array}{r}18,156 \\ \hline\end{array}$ | -61 | , 15 |  |
| Israel... | 251 | 2,866 | 3,562 | 8,473 | 5,036 |  |  |  |
| Totals, United Kingdom and Other Commonwealth Countries. | 447,444 | 1,486,848 | 904,701 | 1,168,501 | 1,032,391 | 1,015,022 | 655,089 | 872,407 |
| Foreign Countries |  |  |  |  |  |  |  |  |
| Afghanistan. | ${ }^{3} 3$ | 497 | 122 | 36 505 | 43 90 | 14 | - 52 | 97 1 |
| Albania | 3 | 497 | 122 |  |  | 3,142 | 875 | 1,414 |
| Arabia. | 4,696 | 6,003 | 14,039 | 31,697 | 16,680 | 2,902 | 13,360 | 8,883 |
| Argentina | 4, 27 |  | 3,679 | 3,070 | 3,110 | 3,706 | 2,369 | 2,166 |
| Belgium | 13,204 | 34,618 | 63,626 | 52,749 | 33,035 | 56,525 | 66,351 | 94,457 |
| Belgian Congo | 89 | 945 | 1,201 | 1,292 | 2,241 | 2,459 <br> 1,908 | 2,471 | 3,418 3 |
| Bolivia. | + $\begin{array}{r}113 \\ 4.012\end{array}$ | 319 16,748 | 24,602 | 31,660 | 28,601 | 17,259 | 15,806 | 53,684 |
| Brazil. | 4,012 | 16,748 | 24,602 | 31,600 14 | 28,601 123 | 17,279 | 15215 | - 8 |
| Bulgaria | 10 | \% |  | 14 | 173 | 54 | 30 | 279 |
| Burma. |  | 2,562 | 3,565 | 4,392 | 4,495 | 3,633 | 6,864 | 13,751 |
| Chile. | 3,808 | 6,573 | 42,915 | 34,984 | 29,128 | 13,801 | 2,057 | 367 |
| Colombia | 1,296 | 5,011 | 8,930 | 9,950 | 8,406 | 8,012 | 14,806 | 12,311 |
| Costa Rica | 103 | 521 | 873 | 1,780 | 1,216 | 1,859 | - 28,005 | - 20,124 |
| Cuba.. | 1,418 | 4,535 | 5,270 | + 7,502 | 10,987 11 | 14,391 3,030 | 18,179 2,179 | -492 |
| Czechoslov | 881 1.438 | 6,717 | 9,871 | 13,779 | 7,748 | 3,109 | 923 | 5,587 |
| Denmark | 1,438 | 888 | 1,527 | 4, 128 | 88 | 27 | 134 | 206 |
| Greenland..... |  | 738 | 1,541 | 1,914 | 2,386 | 2,194 | 2,954 | 4,060 |
| Dominican Republic | 171 | 360 | 1.801 | 1,626 | 1,308 | 1,727 | 1,432 | 2,713 |
| Ecuador. | 399 | 36,417 | 15, 086 | 10,922 | 10,205 | 4,762 | 3,716 | 2,466 |
| El Salvado | 69 | 386 | 454 | 665 | 1,103 | 927 | 1,467 | 2,002 |

6.-Value of Domestic Exports, by Countries, 1945-51, with Averages, 1935-39-concl.

| Country | $\begin{gathered} \text { Aver- } \\ \text { ages } \\ 1935-39 \end{gathered}$ | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$000 | \$'000 | \$'000 | \$ 000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Foreign Countries - concl. |  |  |  |  |  |  |  |  |
| Ethiopia | 1 | 7 | 30 | 94 | 74 | 42 | 54 | 198 |
| Finland. | 539 |  | 507 | 1,212 | 2,280 | 607 | 600 | 3,129 |
| France. | 8,566 | 76,917 | 74,380 | 81,058 | 92,963 | 36,004 | 18,403 | 46,538 |
| French Africa | 248 | 16,908 | 8,945 | 4,598 | 2,747 | 2,243 | 1.927 | 6,748 |
| French East Indie | 85 | 1 | 269 | 858 | 498 | 177 | 69 | 223 |
| French Guiana. | 36 | 50 | 180 | 264 | 129 | 129 | 5 | 4 |
| French Oceania | 80 | 143 | 121 | 230 | 153 | 295 | 737 | 626 |
| French West Indies | 157 | 351 | 1,278 | 1,743 | 538 | 70 | 39 | 40 |
| Madagascar.. | 13 | 54 | 263 | 177 | 408 | 227 | 117 | 102 |
| St. Pierre and Miquelon.. | 309 | 737 | 784 | 1,158 | 1,432 | 1,208 | 1,061 | 1,186 |
| Germany. | 9,639 | 2.724 | 6,867 | 6,690 | 13,214 | 23,451 | 8,873 | 37,028 |
| Greece. | 1,142 | 25,563 | 9.739 | 5,440 | 9,663 | 2,615 | 1,833 | 2,703 |
| Guatema | 117 | 424 | 928 | 1,630 | 1,548 | 1,697 | 2,401 | 2,365 |
| Haiti. | 131 | 612 | 1,121 | 1,366 | 1,393 | 1,602 | 2,513 | 2,588 |
| Honduras | 159 | 188 | 624 | 641 | 677 | 678 | 613 | 3,575 |
| Hungary | 4 | 1 | 1,063 | 946 | 820 | 75 | 86 | 30 |
| Iceland | 28 | 3,681 | 3,123 | 2,485 | 1,845 | 743 | 847 | 700 |
| Iran. | 118 | 1,816 | 431 | 946 | 684 | 11,987 | 993 | 1,000 |
| Iraq. | 55 | 3,494 | 3,231 | 2.160 | 831 | 472 | 70 | 1,062 |
| Ireland | 2 |  |  |  |  |  | 13,321 | 20,921 |
| Israel | ${ }^{2}$ | ${ }^{2}$ | ${ }^{2}$ | ${ }^{2}$ | ${ }^{2}$ | 12,709 | 12,125 | 11,816 |
| Italy. | 2,785 | 89,470 | 20,387 | 35,688 | 32,379 | 12,567 | 15,476 | 48,763 |
| Tripoli |  |  |  |  |  | 10 | 374 | 2,029 |
| Other Italian Africa |  |  | 3 | 7 |  | 92 | 184 |  |
| Japan. | 21,880 | - | 1,027 | 559 | 8,001 | 5,860 | 20,533 | 72,976 |
| Korea |  | - | 126 | 30 | 23 | 233 | 1,143 | 213 |
| Jordan. |  |  |  |  |  | 211 | 46 | 1,071 |
| Liberia | 17 |  | 67 | 143 | 129 | 119 | 109 | 1,373 |
| Mexico. | 2,630 | 8,165 | 10,536 | 11,700 | 15,045 | 15,411 | 17,624 | 29,880 |
| Morocco | 711 | 9,192 | 1,169 | 1.447 | 1,700 | 1,268 | 1,700 | 3,381 |
| The Netherla | 10,062 | 39,970 | 33,883 | 55,940 | 43,684 | 13,759 | 8.617 | 26,191 |
| Indonesia. | 801 | 856 | 6,833 | 5,807 | 7,959 | 4,640 | 3,052 | 5,227 |
| Netherlands | 176 | 799 | 1,399 | 1,844 | 2,175 | 2,003 | 4,464 | 1,834 |
| Surinam. | 49 | 174 | 476 | 826 | 695 | 960 | 863 | 934 |
| Nicaragua | 72 | 317 | 366 | 590 | 701 | 638 | 756 | 1,097 |
| Norway | 7,247 | 7,842 | 19,267 | 20,320 | 23,429 | 21,736 | 18,924 | 32,198 |
| Panama | 316 | 1,006 | 1,502 | 1,882 | 4,123 | 13,632 | 9,019 | 5,961 |
| Paragu |  | 44 | 85 | 153 | 369 | 133 | 110 | 167 |
| Peru. | 1,072 | 3,957 | 3,080 | 3,695 | 2,529 | 7,050 | 3,744 | 5,054 |
| Philippine | 1,523 | 2,153 | 8,901 | 10,448 | 9,810 | 13,983 | 10,829 | 15,598 |
| Poland | 805 | 9,249 | 22,501 | 15,380 | 5,804 | 1,945 | 1,432 | 94 |
| Portugal. | 170 | 2,356 | 2,662 | 3,502 | 5,181 | 8,405 | 5,641 | 4,665 |
| Azores and Madeir |  | 21 | 71 | 392 | 77 | 101 | 210 | 259 |
| Portuguese Africa | 1,675 | 812 | 2,128 | 1,898 | 3,258 | 3,604 | 2,702 | 2,827 |
| Portuguese Asia | 1 | 4 | 76 | 147 | 104 | 162 | 103 | 107 |
| Roumania | 52 | - | 1 | 102 | 440 | 338 | 122 | 11 |
| Siam. | 22 | - | 58 | 415 | 609 | 752 | 1,200 | 2,378 |
| Spain. | 495 | 992 | 695 | 941 | 596 | 387 | 5,642 | 742 |
| Canary Islands | 17 | 49 | 333 | 46 | 12 | 49 | 237 | 107 |
| Spanish Africa |  | 4 | - | 62 | 54 | 95 | 62 | 75 |
| Sweden. | 3.593 | 4,169 | 9,133 | 17,461 | 7,207 | 5,516 | 4,250 | 12,125 |
| Switzerl | 948 | 10,922 | 8,636 | 14,196 | 19,389 | 32,281 | 26,435 | 25,345 |
| Syria.. | 80 | 630 | 228 | 2,546 | 6,094 | 3,278 | 1,462 | 7,036 |
|  | 388 | 710 | 1,618 | 2,229 | 2,012 | 14,121 | 3,744 | 2,962 |
| Union of Soviet Socialist Republics. | 336 | 58,820 | 17,705 | 4,866 | 112 | 93 | 182 18 | 2,862 |
| United States. | 321,294 | 1,196,977 | 887,941 | 1,034,226 | 1,500,987 | 1,503,459 | 2,020,988 | 2,297,675 |
| Alaska. | 154 | 223 | 276 | , 300 | , 865 | 1,008 | -259 | 2,264 |
| American Virgin Islands.. | 42 | 18 | 110 | 160 | 116 | 126 | 156 | 181 |
| United States Oceania.. |  |  |  | 199 | 318 | 182 | 205 | 191 |
| Hawaii. | 1,207 | 3,934 | 2,758 | 3,299 | 5,867 | 8,311 | 6,830 | 6,418 |
| Puerto Rico | 425 | 2,301 | 2,926 | 2,605 | 2,300 | 5,962 | 7,643 | 8,120 |
| Uruguay | 310 | 1,857 | 2,671 | 3,371 | 4.201 | 2,282 | 1,918 | 6,868 |
| Venezuela.. | 1,139 | 4,053 | ${ }_{1}^{11,086}$ | 12,989 | 16,935 | 27,689 | 25,457 | 26,982 |
| Yugoslavia. |  | 11,710 | 12,030 | 6,729 | 2,250 | 734 | 818 | 2,739 |
| Totals, Forelgn Countries ${ }^{3}$ | 437,092 | 1,731, 482 | 1,407,514 | 1,606,401 | 2,043,047 | 1,977,939 | 2,463,297 | 3,042,053 |
| Grand Totals | 884,536 | 3,218,330 | 2,312,215 | 2,774,902 | 3,075,438 | 2,992,961 | 3,118,386 | 3,914,460 |

[^317]
## 7.-Value of Trade with the Commonwealth and Foreign Countries, Significant Years, 1886-1951

| Item and Year | Canadian Trade with- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom |  | United <br> 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 | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ | Value | $\begin{aligned} & \text { P.C. } \\ & \text { of } \\ & \text { Total } \end{aligned}$ |
| Imports | \$'000 |  | 8 '000 |  | \$'000 |  | 8'000 |  |
| Ended Mar. 31- |  |  |  |  |  |  |  |  |
|  | 39,033 | $40 \cdot 7$ | 42,819 | $44 \cdot 6$ | 2,384 | 2.5 | 11,757 | $12 \cdot 2$ |
| 1891. | 42,019 | $37 \cdot 7$ | 52,033 | $46 \cdot 7$ | 2,318 | $2 \cdot 1$ | 15,163 | $13 \cdot 5$ |
| 1896. | 32,825 | 31.2 | 53,529 | 50.8 | 2,389 | $2 \cdot 2$ | 16,619 | $15 \cdot 8$ |
| 1901. | 42,820 | $24 \cdot 1$ | 107,378 | $60 \cdot 3$ | 3,833 | $2 \cdot 2$ | 23,900 | 13.4 |
| 1906. | 69,184 | $24 \cdot 4$ | 169,256 | 59.6 | 14,606 | $5 \cdot 1$ | 30,694 | 10.9 |
| 1911. | 109,935 | $24 \cdot 3$ | 275,824 | 60.8 | 19,533 | 4.4 | 47,433 | $10 \cdot 5$ |
| 1916. | 77,404 | $15 \cdot 2$ | 370,881 | 73.0 | 27,826 | $5 \cdot 5$ | 32,091 | $6 \cdot 3$ |
| 1921. | 213,974 | 17.3 . | 856,177 | $69 \cdot 0$ | 52,029 | $4 \cdot 2$ | 117,979 | 9.5 |
| Ended Dec. 31- |  |  |  |  |  |  |  |  |
| 1926. | 164,707 | 16.3 | 668,747 | 66.3 | 49,907 | $5 \cdot 0$ | 124,980 | $12 \cdot 4$ |
| 1929. | 194,778 | $15 \cdot 0$ | 893,585 | 68.8 | 62,287 | 4.8 | 148,343 | 11.4 |
| 1937. | 147, 292 | 18.2 | 490,505 | $60 \cdot 7$ | 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 | $7 \cdot 7$ | 1,423,672 | $82 \cdot 1$ | 103,666 | $6 \cdot 0$ | 72,773 | $4 \cdot 2$ |
| 1946. | 201,433 | 10.4 | 1,405,297 | 72.0 | 139,067 | $7 \cdot 2$ | 181,482 | $9 \cdot 4$ |
| 1947. | 189,370 | $7 \cdot 4$ | 1,974,679 | 76.7 | 165,024 | 6.4 | 244,871 | $9 \cdot 5$ |
| 1948. | 299,502 | 11.4 | 1,805,763 | 68.5 | 204,612 | 7.7 | 327,069 | 12.4 |
| 1949. | 307,450 | $11 \cdot 1$ | 1,951,860 | 70.7 | 186,779 | 6.8 | 315,118 | 11.4 |
| 1950. | 404,213 | 12.7 | 2,130,476 | $67 \cdot 1$ | 241,411 | $7 \cdot 6$ | 398,153 | 12.5 |
| 1951. | 420,985 | $10 \cdot 3$ | 2,812,927 | 68.9 | 306,104 | $7 \cdot 5$ | 544,840 | 13.3 |
| Exports (Domestic) |  |  |  |  | - |  |  |  |
| Ended Mar. 31- |  |  |  |  |  |  |  |  |
| 1886... | 36,694 | $47 \cdot 2$ | 34,284 | $44 \cdot 1$ | 3,263 | $4 \cdot 2$ | 3,515 | $4 \cdot 5$ |
| 1891. | 43,244 | 48.8 | 37,743 | $42 \cdot 6$ | 3,893 | 4.4 | 3,791 | $4 \cdot 2$ |
| 1896 | 62,718 | $57 \cdot 2$ | 37,789 | 34.4 | 4,048 | $3 \cdot 7$ | 5,152 | 4.7 |
| 1901. | 92,858 | $52 \cdot 3$ | 67,984 | $38 \cdot 3$ | 7,891 | $4 \cdot 5$ | 8.700 | 4.9 |
| 1906. | 127,456 | $54 \cdot 2$ | 83,546 | $35 \cdot 5$ | 10,965 | $4 \cdot 6$ | 13,516 | 5.7 |
| 1911 | 132,157 | $48 \cdot 2$ | 104.116 | 38.0 | 16,811 | $6 \cdot 1$ | 21,233 | 7.7 |
| 1916. | 451.852 | 60.9 | 201,106 | 27.1 | 30,677 | $4 \cdot 2$ | 57,974 | 7.8 |
| 1921. | 312,845 | $26 \cdot 3$ | 542,323 | $45 \cdot 6$ | 90,607 | $7 \cdot 6$ | 243,389 | 20.5 |
| Ended Dec. 31- |  |  |  |  |  |  |  |  |
| $1926$ | 459,223 | 36.4 | 457,878 | 36.3 | 95,701 | 7.6 | 248,439 | 19.7 |
| 1929... | 290,295 | 25.2 | 492,686 | 42.8 | 105,006 | $9 \cdot 1$ | 264,430 | 22.9 |
| 1937.. | 402,062 | $40 \cdot 3$ | 360,012 | $36 \cdot 1$ | 104,159 | 10.4 | 131,134 | 13.2 |
| 1939.. | 328.099 | 35.5 | 380,392 | 41.1 | 102,707 | $11 \cdot 1$ | 113,728 | 12.3 |
| 1943. | 1,032,647 | 34.8 | 1,149,232 | 33.7 | 369,015 | $12 \cdot 4$ | 420,581 | $14 \cdot 2$ |
| 1946. | 597,506 | 25.8 | 887,941 | 38.4 | 307,195 | 13.3 | 519,574 | 22.4 |
| 1947.. | 751, 198 | 27.1 | 1,034,226 | 37.3 | 417,303 | $15 \cdot 0$ | 572,175 | $20 \cdot 6$ |
| 1948.. | 686,914 | $22 \cdot 3$ | 1,500,987 | 48.8 | 345,477 | 11.3 | 542,060 | $17 \cdot 6$ |
| $1949 \ldots$ | 704,956 | $23 \cdot 6$ | 1,503,459 | 50.2 | 310,067 | 10.4 | 474,480 | 15.9 |
| $1950 \ldots$ | 469,910 | 15.1 | 2,020,988 | $64 \cdot 8$ | 185,179 | $5 \cdot 9$ | 442,310 | 14.2 19.0 |
| 1951... | 631.461 | $16 \cdot 1$ | 2,297,675 | 58.7 | 240.946 | 6.2 | 744.379 | $19 \cdot 0$ |

## 8.-Values of Dutiable and Free Imports from Principal Commonwealth and Foreign Countries, 1939, 1950 and 1951

| Country | 1939 |  |  | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dutiable | Free | Total | Duti- <br> able | Free | Total | Dutiable | Free | Total |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| United Kingdom and <br> Other Commonwealth Countries |  |  |  |  |  |  |  |  |  |
| United Kingdom | 52,589 | 61.419 | 114,008 | 151,142 | 253,071 | 404, 213 | 173,624 | 247,361 | 420,985 |
| British East Africa | 757 | 1,869 | 2,626 | 9,590 | 5,476 | 15,067 | 2,789 | 8,075 | 10,864 |
| Southern Rhodesia |  |  | , | 35 | 366 | 401 | 25 | 1,471 | 1,496 |
| Northern Rhodesia... | 784 | 3,206 | 3,990 | 770 | 4.245 | 5,014 | 708 | 4,673 | 5,381 |
| Other British South Africa |  |  |  |  |  |  |  |  |  |
| Gold Coast. . | 251 | - | 251 | 5,519 | 3,480 | 8,999 | 3,302 | 3,810 | 7,112 |
| Nigeria. |  | 52 | 54 | 1,445 | 41 | 1,486 | 776 | 122 | 898 |
| India (includes Pakistan). | 5,185 | 4,623 | 9,808 | 2,599 | 36,369 | 38,968 | 6,286 | 36.163 | 42,449 |
| Ceylon. | 2,169 | 1.394 | 3.563 | 567 | 17.037 | 17,604 | 467 | 15,929 57 | 16,396 |
| British Malay | $\begin{array}{r}783 \\ 8 \\ \hline\end{array}$ | 12, 368 | 13,145 66 | 389 17 | 28,463 70 | 28,852 87 | 305 12 | 57,675 70 | 57,980 82 |
| British Guia | 4,540 | 2.352 | 6,892 | 14,455 | 7,279 | 21,735 | 15,534 | 9,491 | 25,025 |
| Barbados. | 2,376 | 1,498 | 3,874 | 7,513 | 2,544 | 10,057 | 10,562 | 2,846 | 13,409 |
| Jamaica. | 2,323 | 2,034 | 4,357 | 17,473 | 1,608 | 19,080 | 16.705 | 1,336 | 18,041 |
| Trinidad and Tobago | 2,143 | 525 | 2,668 | 8,060 | 7, 144 | 15.205 | 8.371 | 6,712 | 15,082 |
| Bahamas.. | 770 | 810 | 1,580 | 46 | 486 | 532 | 40 | 306 | 345 |
| Leeward and Wind ward | 770 | 810 | 1,580 |  | 392 | 395 | 677 | 279 | 956 |
| Hong Kong | 615 | 167 | 782 | 1,945 | 258 | 2.203 | 2,258 | 742 | 3,001 |
| Australia | 4,718 | 6,551 | 11,269 | 12,457 | 20,346 | 32,803 | 16,559 | 29,669 | 46,228 |
| Fiji. | 2,776 |  | 2,778 | 10,194 |  | 10,194 | 5,986 | 7 | 5,993 |
| New Zeal | 143 | 4,123 | 4.266 | 1,601 | 10,254 | 11,855 | 5,543 | 24,564 | 30,107 |
| Totals, United King iom and Other Commonwealth Countries ${ }^{1}$. | 83,313 | 105,588 | 188,901 | 245,842 | 399,782 | 645,624 | 270,576 | 456,513 | 727,089 |
|  |  |  |  |  |  |  |  |  |  |
| Arabia................... | 1,939 | 2,467 | 4,406 |  |  | 28,11510,913 | 10,539 | 22,659 | $\begin{aligned} & 22,659 \\ & 13,955 \end{aligned}$ |
| Argentina |  |  |  |  |  | 3,416 |  |  |
| Belgium | 4,155 | 2,623 | 6,778 | 14,758 | 8,037 |  | 22,795 | 29,522 | 9,573 | 39,695 |
| Brazil | 817 | 294 | 1,111 | 22,078 | 6,100 | 28,178 | 27,617 | 13, 009 | 40,6271,929 |
| China | 2,526 | 250 | 2,776 | 2,33013,302 | 2,96941 | 5, 29913,342 | 1,139 | 79030 |  |
| Colomb | 648 | 4,789 | 5,437 |  |  |  | 13,032 |  | 13, ${ }^{1,929}$ |
| Cuba. | 812 | 77 | 889 | $\begin{array}{r} 0,02 \\ 3,037 \\ 5,698 \end{array}$ | 1,097 | 13,134 4, | 6,8484,465 | 30 1,485 | 8,333 |
| Czechoslo | 155 | 36 | 191 |  | -337 | 6,036 |  | 1,485 203 | $\begin{array}{r}4,668 \\ 3 \\ \hline\end{array}$ |
| Denmark | 123 | 74 |  | $\begin{array}{r} 5,698 \\ 901 \end{array}$ | 5056 | 1,4061,180 | 4,465 2,722 | 1,008 |  |
| Dominican Rep | 16 | 5 | 16 | $\begin{array}{r}901 \\ 1,174 \\ \hline 1\end{array}$ |  |  | $\begin{aligned} & 1,107 \\ & 2,086 \end{aligned}$ | 19 | 3,730 1,126 |
| Ecuador | 13 |  | 18 | 1,424 | 4917 | 1,473 |  | 352 | 2,438 |
| El Salva | 44 | 1 | 6,027 | 831 |  | 848 | $\begin{array}{r} 1,141 \\ 18.968 \end{array}$ | 425,005 | 1,18323,974 |
| France. | 4,671 | 1,356 |  | 10,543 | 4,126 | 14,669 |  |  |  |
| Germany | 6,969 | 1,978 | 8,947 | $\begin{aligned} & 6,833 \\ & 5,068 \end{aligned}$ | 4,192713 | 11,0265,781 | 25, 394 | 5,542673 | 30,936 |
| Guatemala | 164 |  | 16417 |  |  |  | 3,945 |  | 4,618 |
| Hondu | 17 | - |  | 5,565 | 56$-\quad 1$ | 5,621 | 4,013 | 14 | 4, 027 |
| Iraq. | 475 | 417 | $\begin{array}{r}479 \\ 2.354 \\ \hline\end{array}$ | 1,2017,619 |  | 1,2019,373 | 11,496 | 6362.746 | 2,132 |
| Italy | 1,937 |  |  |  | $\overline{1,754}$ |  |  |  | 14, 217 |
| Japan. | 4,038 | 826 | 4,864 | 11,512 | $\begin{array}{r}1,575 \\ \hline 27.45\end{array}$ | 12,087 | 11,490 | 1,087 | 12,577 |
| Mexico | 471 |  | 479 | $\begin{aligned} & \mathbf{5}, 549 \\ & 5,055 \end{aligned}$ | 27,425 | 32,974 | 7.841 | 10,171 | 18,01314,010 |
| The Nethe | 2,248 | 1,547 | 3,795 |  | 3,841 | 8,896 | 7,50810,657 | 6,503152 |  |
| Netherlan |  |  | 270 | 17,0901,121 | 247284 | 17,336 |  |  | [14,010 |
| Norway | 585 | 95 | 680 |  |  | 1,405 | 2,0743,487 | 903 | 2,977 |
| Panama | 72 | 591 | 73601 | 5,478 | - | 5,478 |  | 5 | 3,492 |
| Peru. | 10 |  |  | 121 | 3,840 | 3,961 | 278244 | 5,310 | 5,588 |
| Philippine I | 265 | 186 | 451 |  | 5,666 | 6,425 |  | 8,709 | $7 \begin{aligned} & 1,980 \\ & 1,914\end{aligned}$ |
| Portugal | 169 | 106 | 275 | -933 | 765 | 1,698 | 1,063 | ${ }^{8} 917$ |  |
| Spain | 518 | 144 <br> 534 <br> 68 | 6622,2893 | $\begin{array}{r} 2,785 \\ 3,993 \end{array}$ | 7731,1521 | 3,558 | 5,464 | 1,651 | 7,114 |
| Sweden | 1,755 |  |  |  |  | 5,145 | 9,827 | 1,981 | 11,808 |
| Turitzer | 2.772 | 687 | 3,459 | 12,708 | 1,756 | 14,464 | 13,712 | 2,687 | 16,398 |
| Turkey |  | 176 | 405 | 747 | 533 | 1,280 | 1,021 | 737 | 1,757 |
|  | 302,559 | 194,340 | 496,899 | 1,177,677 | 952,799 | 2,130,476 | 1,624,802 | 1,188,125 | 2,812.927 |
| Venezuel |  | 1,889 | 1,943 | 6,860 | 80,404 | 87,264 | 11,001 | 125,716 | 136,718 |
| Countries ${ }^{1}$ | 341,158 | 217,997 | 562,155 | 1,375,692 | 1,152,937 | 2.528,629 | 1,303,728 | 1,454,040 | 3,357,768 |
| Grand Total | 427,471 | 323,584 | 751,055 | 1,621,534 | 1,552,719 | 3,174,253 | 2,174,304 | 1,910,552 | 4,084,856 |

[^318]
## 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, 1939-51.

Notr.-Figures for the fiscal years 1868-1938 are given at p. 532 of the 1940 edition of the Year Book.

| Year | United Kingdom |  |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Ad Valorem Rates of Duty on- |  | DutiabletoTotalDutiable | Free to Total Free | Percentage of All Imports | Average Ad Valorem Rates of Duty on- |  | DutiabletoTotalDutiable | Free to Total Free | Percentage of Ant Imports |
|  | Dutiable Imports | Total Imports |  |  |  | Dutiable <br> Imports | Total Imports |  |  |  |
|  | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| 1939. | 27.0 | 12.4 | $12 \cdot 3$ | $19 \cdot 0$ | $15 \cdot 2$ | 21.3 | 13.0 | 70.7 | $60 \cdot 1$ | 66.2 |
| 1940. | $24 \cdot 8$ | $8 \cdot 4$ | $9 \cdot 3$ | 21.4 | $14 \cdot 9$ | $20 \cdot 3$ | $12 \cdot 4$ | 78.0 | 58.0 | 68.8 |
| 1941. | 23.4 | $4 \cdot 7$ | $6 \cdot 0$ | $24 \cdot 5$ | $15 \cdot 1$ | 18.8 | 11.6 | $84 \cdot 7$ | $53 \cdot 6$ | 69.3 |
| 1942. | $24 \cdot 2$ | $5 \cdot 8$ | $5 \cdot 4$ | 13.2 | $9 \cdot 8$ | $19 \cdot 0$ | $9 \cdot 2$ | 88.2 | $72 \cdot 5$ | $79 \cdot 3$ |
| 1943. | $18 \cdot 7$ | $5 \cdot 2$ | $4 \cdot 5$ | $10 \cdot 8$ | 7.8 | 18.9 | $10 \cdot 0$ | $90 \cdot 2$ | 74.0 | $82 \cdot 1$ |
| 1944. | $16 \cdot 3$ | $6 \cdot 1$ | $4 \cdot 7$ | 7.9 | $6 \cdot 3$ | $18 \cdot 7$ | 10.2 | $89 \cdot 0$ | $75 \cdot 5$ | $82 \cdot 3$ |
| 1945. | $17 \cdot 6$ | $4 \cdot 7$ | $4 \cdot 7$ | $13 \cdot 1$ | 8.9 | $19 \cdot 3$ | 11.1 | $86 \cdot 6$ | 64.8 | $75 \cdot 8$ |
| 1946. | $17 \cdot 5$ | $4 \cdot 5$ | $4 \cdot 8$ | 17.7 | 10.5 | 19.4 | 12.7 | 85.4 | $57 \cdot 0$ | 72.9 |
| 1947. | $15 \cdot 9$ | $6 \cdot 4$ | $4 \cdot 9$ | $11 \cdot 3$ | $7 \cdot 4$ | 19.5 | 13.1 | 84.9 | $64 \cdot 0$ | 76.7 |
| 1948. | $17 \cdot 1$ | $7 \cdot 7$ | $9 \cdot 8$ | $13 \cdot 1$ | 11.4 | $15 \cdot 7$ | $9 \cdot 1$ | $76 \cdot 2$ | $60 \cdot 0$ | 68.5 |
| 1949. | $16 \cdot 2$ | 6.9 | $9 \cdot 1$ | $13 \cdot 4$ | $11 \cdot 1$ | $16 \cdot 0$ | $9 \cdot 0$ | $75 \cdot 6$ | $65 \cdot 3$ | $70 \cdot 7$ |
| 1950. | $16 \cdot 6$ | $6 \cdot 2$ | $9 \cdot 3$ | $16 \cdot 3$ | $12 \cdot 7$ | $16 \cdot 3$ | $9 \cdot 0$ | $72 \cdot 6$ | 61.4 | $67 \cdot 1$ |
| 1951. | $15 \cdot 8$ | 6.5 | 8.0 | 12.9 | $10 \cdot 3$ | 16.5 | $9 \cdot 5$ | 74.7 | $62 \cdot 2$ | 68.9 |

## Section 4.-Trade by Commodities

The tables in this Section provide detailed information about the composition of Canada's imports and exports, with commodities shown by groups and individually.
10.-Imports and Exports, by Main Groups, 1939, 1950 and 1951

| Group | Imports |  |  | Domestic Exports |  |  | Total Trade ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1939 | 1950 | 1951 | 1939 | 1950 | 1951 | 1939 | 1950 | 1951 |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| United Kingdom |  |  |  |  |  |  |  |  |  |
| Agricultural and veget- <br> able products......... | 13,033 | 27,960 | 21,316 | 94,205 | 228,795 | 231,585 | 107, 250 | 256,788 | 253,040 |
| Animals and products... | 4,304 | 9,722 | 12,778 | 73,577 | 53,346 | 29,860 | 77,941 | 63,132 | 42,695 140,878 |
| Fibres and textiles...... | 41, 194 | 112,913 | 139,094 | 3,464 | 1,139 | 1,265 | 44,783 47 | 114,707 44,457 | 140,878 145,568 |
| Wood and paper. | 3,046 | 3,682 | 4,345 | 43,937 | 40,687 10 | 141,181 19,914 | 47,020 | 44,457 159,604 | 145,568 148,344 |
| Iron and its products.... | 19,253 | 148,850 | 126,553 | 15,977 83 3 | 117,099 | 181,635 | 38,420 <br> 88,516 | 159,793 | 225,097 |
| Non-ferrous metals. | 5,108 | 38,321 30,202 | 42,621 32,864 | 83,363 3,430 | 117,527 | 13,072 | 15,507 | -39,789 | 46,124 |
| Non-metallic minerals. Chemicals and allied products. | 12,020 7,375 | 30,202 14,047 | 32,864 16,188 | 3,430 5,731 | 9,527 $\mathbf{5 , 9 9 3}$ | 13,072 10,370 | 15,507 13,117 | 20,104 | 26,806 |
| Miscellaneous commodities. | 8,674 | 18,516 | 25,225 | 4,415 | 2,923 | 2,579 | 13,339 | 22,376 | 28,153 |
| Totals, United Kingdom. | 114,007 | 401,213 | 420,984 | 328,099 | 469,910 | 631,461 | 442,893 | 876,750 | 1,056,705 |
| United States |  |  |  |  |  |  |  |  |  |
| Agricultural and vegetable products. | 45,361 | 180,072 | 208.451 | 79,469 | 176,937 | 263,443 | 125,187 | 358,095 | ${ }_{341} 47257$ |
| Animals and products... | 16,936 | 57,240 | 73.546 | 44,117 | 253,333 18,343 | 265,528 19,588 | 61,942 44,791 | 312,521 172,893 | 244, 841 |
| Fibres and textiles..... | 41,564 | 151,776 | 220,966 | 2, 306 | 18,343 | 19,588 | 44,791 194 | 1,109,244 | 1,240,942 |
| Wood and paper | 28,687 | 92,329 | 125,630 | 165,824 4,954 | 1,016,396 | 169,188 | 164,805 | 1,957,992 | $1,330,364$ |
| Iron and its products.... Non-ferrous metals.... | 158,138 <br> 29,243 | 811,008 135,685 | $1,146,844$ <br> 192,827 | 4,954 49,538 | 267,043 | 278,009 | 79,5571 | 405,866 | 473,655 |

${ }^{1}$ Includes exports of foreign produce.

## 10.-Imports and Exports, by Main Groups, 1939, 1950 and 1951—concluded

| Group | Imports |  |  | Domestic Exports |  |  | Total Trade ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1939 | 1950 | 1951 | 1939 | 1950 | 1951 | 1939 | 1950 | 1951 |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| United States-concl. |  |  |  |  |  |  |  |  |  |
| Non-metallic minerals.. | 106,095 | 430,859 | 435,856 | 16,161 | 73,983 | 89,926 | 124,664 | 510,372 | 530,719 |
| Chemicals and allied products. | 30,668 | 134,603 | 165, 061 | 9,684 | 58,499 | 67,253 | 40,634 | 194,118 | 233,607 |
| Miscellaneous commodities. | 40,206 | 136,904 | 243,748 | 8,339 | 20,009 | 30,159 | 50,275 | 159,835 | 278,527 |
| Totals, United States. | 496,898 | 2,130,476 | 2,812,927 | 380,392 | 2,020,988 | 2,297,675 | 886,652 | 4,180,936 | 5,146,839 |
| All Countries |  |  |  |  |  |  |  |  |  |
| Agricultural and vegetable products. | 127,835 | 484,475 | 542,641 | 220,118 | 636,898 | 894,210 | 348,651 | 1,123,011 | 1,438,395 |
| Animals and products... | 32,758 | 86,968 | 125,562 | 131,804 | 365,775 | 348,033 | 165,537 | 454,844 | 476,207 |
| Fibres and textiles...... | 100,866 | 364,509 | 483,520 | 14,428 | 29,573 | 36,858 | 116,435 | 398,124 | 528,754 |
| Wood and paper. ....... | 33,703 | 100,366 | 137,047 | 242,541 | 1,112,945 | 1,399,076 | 276,578 | $1,213,988$ | 1,536,973 |
| Iron and its products.... | 183,160 | 980,229 | 1,332,251 | 63,102 | 251,109 | 342,299 | 248,297 | 1,244,307 | 1,692,766 |
| Non-ferrous metals..... | 42,108 | 215,526 | 290,848 | 182,890 | 457, 263 | 569, 870 | 225,852 | 676,123 | 865,139 |
| Non-metallic minerals.. | 132,824 | 611,741 | 684,535 | 29,332 | 103,655 | 131,529 | 164,660 | 721,427 | 821,392 |
| Chemicals and allied products. | 43,706 | 158,221 | 191,813 | 24,263 | 100,525 | 131,690 | 68,299 | 259,957 | 325,596 |
| Miscellaneous commodities. | 54,096 | 172,218 | 296,638 | 16,448 | 60,644 | 60,895 | 72,669 | 239,545 | 363,018 |
| Totals, All Countries. . | 751,056 | 3,174,253 | 4,084,856 | 924,926 | 3,118,387 | 3,914,460 | 1,686,978 | 6,331,326 | 8,048,241 |

${ }^{1}$ Includes exports of foreign produce.

## 11.-Leading Imports, 1926, 1930, 1940, 1946 and 1949-51

Nort.-Commodities are arranged in order of importance in 1951.

| Commodity | 1926 | 1930 | 1940 | 1946 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Petroleum and products | 52,508 | 66,620 | 66,155 | 123,743 | 274,664 | 307,963 | 353,894 |
| Machinery, except agricultura | 38,684 | 50,435 | 71,497 | 130,287 | 216,316 | 226, 249 | 328,741 |
| Automobile parts. | 27,466 | 23,359 | 47,580 | 66,453 | 117,748 | 158,405 | 195,177 |
| Farm implements and masils | 17,631 | 21,944 46,509 | 30,673 | 68,352 53 | 177,210 | 161,642 | 195,082 |
| Coal................ | 59,760 | 46,694 | 55,610 49,630 | 120,354 | 98,093 | 174,639 <br> 17 | 173,127 168,070 |
| Electrical apparatus | 16,697 | 30,281 | 21,250 | 47,788 | 69,802 | -82,565 | 120,101 |
| Cotton, raw and linte | 23,722 | 14,653 | 25,884 | 44,397 | 67,036 | 90,561 | 96,570 |
| Wool, raw and unmanufactur | 10,159 | 6,007 | 26,353 | 29,825 | 37,404 | 55, 306 | 94,809 |
| Fruits. | 29,523 | 30,974 | 27,943 | 95,496 | 72, 623 | 90,986 | 94,735 |
| Engines and boil | 13,908 | 10,827 | 12,385 | 29,462 | 58,698 | 54,640 | 88,422 |
| Cotton products. | 32,858 | 25, 563 | 24, 446 | 74,761 | 73, 394 | 66,883 | 86.580 |
| Sugar and produc | 37,883 29 | 28,496 | 29,115 | 39,879 20 | 71,084 | 86,945 | 85,862 |
| Automobiles, freight and | 29,991 24,381 | 12,842 20,560 | 35,115 | 20,079 31,702 | 29,020 | 48,680 85,917 | 84,529 70,624 |
| Wool products. | 39, 199 | 33, 339 | 20,612 | 34,744 | 62, 656 | 52, 383 | 67,723 |
| Books and printed m | 13, 433 | 16,827 | 16,655 | 30,737 | 36,077 | 42, 489 | 50,913 |
| Coffee and chicory | 6,104 | 5,135 | 3,666 | 16, 162 | 28,910 | 42,546 | 49,598 |
| Tourist purchasee |  |  | 3,883 | 9,125 | 28,848 | 33,090 | 47,071 |
| Clay and producta | 17,196 | 10,747 | 11,125 | 20,197 | 25,857 | 39,407 <br> 33 | 46,086 |
| Pipes, tubes and fitting | 3,835 | 4,103 | 11,1298 | 17,825 | 32,965 28 | 33,699 <br> 35 | 43,404 43,183 |
| Aircraft and parts..... | 3,830 | 1,346 | 10,646 | 8,448 | 13,256 | 35,394 10,942 | 43,183 41,438 |
| Oils, vegetable | 12,244 | 11,518 | 10,050 | 15,062 | 22,596 | 34, 248 | 38,950 |
| Syathetic fibrea and manufac | 5,500 | 13,781 | 6,692 | 22, 103 | 30,129 | 21, 299 | 35,453 |
| Paper. | 10,978 | 12,908 | 8,858 | 18,834 | 20,068 | 23, 434 | 34,831 |

11.-Leading Imports, 1926, 1930, 1940, 1946 and 1949-51-concluded

| Commodity | 1926 | 1930 | 1940 | 1946 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | 8'000 | 8'000 | \$'000 | \$'000 | \$'000 |
| Stone and product | 5,747 | 7,059 | 7,584 | 14,676 | 23,849 | 24,620 | 33,966 |
| Glass and glasswar | 8,515 | 8,285 | 10,141 | 23,258 | 25,403 | 28,150 | 31,769 |
| Vegetables. | 6,352 | 9,345 | 7,712 | 27, 242 | 19,185 | 24,504 | 31,390 |
| Flax, hemp, jute and products | 15,643 | 11, 808 | 14,993 | 23,142 | 20,130 | 25,589 | 31,092 |
| Refrigerators and parts. |  | 2,101 | 3, 870 | 5,201 | 7,342 | 15,353 | 30,620 |
| Precious metals, except gold | 2,631 | 2,164 | 8,199 | 13,897 | 17,661 | 31,398 | 30,208 |
| Wood, unmanufactured | 12,698 | 11,029 | 6,934 | 8,586 | 14,908 | 17, 896 | 28,218 |
| Aluminum and products | 4,870 | 6,296 | 8,946 | 14,693 | 18,223 | 18,716 | 28,071 |
| Synthetic resins |  |  | 2,839 | 14,519 | 15, 165 | 20, 884 | 28,018 |
| Scientific and educational equip | 3,877 | 4,290 | 6,291 | 13, 820 | 21,721 | 23,161 | 27,011 |
| Inorganic chemicals | 6,260 | 7,363 | 11,480 | 12,564 | 18,534 | 23,036 | 26,793 |
| Meats. | 5,221 | 6,739 | 4,962 | 2,347 | 5,652 | 8,392 | 23,510 |
| Vegetable fibres | 5,126 | 3,669 | 4,327 | 8,806 | 8,119 | 11,210 | 23,317 |
| Wood, manufact | 9,336 | 9,210 | 5, 653 | 11,467 | 15,273 | 16,546 | 23,084 |
| Settlers' effects | 7,367 | 11,755 | 3,516 | 7,726 | 13,527 | 12,391 | 22,892 |
| Nuts | 4,621 | 4,158 | 4,167 | 22,591 | 23,187 | 22,373 | 22,780 |
| Iron ore | 2,854 | 3,324 | 5,513 | 6,467 | 12,057 | 16,802 | 22,671 |
| Drugs and med | 3,101 | 3,652 | 4,337 | 9,371 | 14,829 | 18,629 | 22,427 |
| Coal products. | 7,521 | 6,359 | 6,080 | 12,728 | 15,734 | 15,582 | 22,279 |
| Furs and products | 12,560 | 9,585 | 8,886 | 27,292 | 19,576 | 21,999 | 21,586 |
| Tea. | 12,517 | 12,660 | 10,805 | 10, 208 | 21,347 | 28.611 | 21,018 |
| Paints and varnishes | 4,378 | 4,664 | 5,501 | 9,437 | 13,866 | 18,212 | 20,827 |
| Brass and copper and produc | 11,457 | 13,753 | 6,447 | 9,454 | 14,721 | 16,863 | 20,475 |
| Tin. | 3,486 | 1,855 | 6,346 | 6,109 | 7,910 | 10,399 | 19,626 |
| Tools | 2,337 | 2,351 | 4,101 | 10,135 | 11,361 | 13,484 | 19,117 |
| Cooking and heating appa | 652 | 2,026 | 3,028 | 10,462 | 11,547 | 14,941 | 18,911 |
| Beverages, alcoholic... | 28,339 | 37,937 | 6,031 | 12,911 | 22,020 | 16,860 | 18,381 |
| Leather and manufactures of. | 9,031 | 9,728 | 5,659 | 9,243 | 12,126 | 15,235 | 17,032 |
| Wire and chain.. | 4,084 | 3,337 | 4,452 | 5,563 | 12,008 | 10,192 | 16,775 |
| Hardware and cutlery | 3,760 | 3,740 | 3,203 | 7,431 | 11,650 | 11,783 | 16,700 |
| Ores of metals. | 368 | 283 | 2,169 | ${ }^{866}$ | 7,416 | 11,647 | 15,584 |
| Rags and waste. | 1,588 | 2,106 | 3,657 | 6,037 | 6,911 12,388 | 9,754 13,250 | 15, 104 |
| Hides and skins. | 9,201 3,966 | $\begin{array}{r}\text { 6,047 } \\ 12 \\ \hline\end{array}$ | 6,181 | 3,651 1,125 | 12,388 2,493 | 13,250 3,875 | 14,212 13,858 |
| Milk and products...... | 3,966 3,654 | $\begin{array}{r}12,975 \\ 3,372 \\ \hline\end{array}$ | 7,265 | 1,125 | [ 2,493 | 12,908 | 13,759 |
| Dyeing and tanning m | - 4,688 | 2,823 | 4,318 | 7,445 | 12,587 | 9,580 | 13.739 |
| Cocoa and chocolate | 3,329 | 2,956 | 2,949 | 5,626 | 13,998 | 16,019 | 11,733 |
| Clocks and watche | 3,103 | 2,759 | 3,148 | 7,808 | 9,072 5 | 12,012 8.249 | 10,214 9.847 |
| Animal oils, fats and greases | 2,487 | 2,027 | 1,546 | 4,685 | 5,326 | 8.249 | 9,847 |

## 12.-Leading Domestic Exports, 1926, 1930, 1940, 1946 and 1949-51

Note.-Commodities are arranged in order of importance in 1951.

| Commodity | 1926 | 1930 | 1940 | 1946 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | $8{ }^{\prime} 000$ | \$'000 |
| Newsprint | 114.091 | 133,371 | 151,360 | 265,865 | 433,882 | 485,746 | 536,372 |
| Wheat. | 362,978 | 185,786 | 119,530 | 250,306 | 435,158 | 325,614 | 441,043 |
| Wood-pulp. | 52,077 | 39,060 | 60,930 | 114,021 | 170,675 | 208,556 | 365,133 |
| Planks and boards | 61,943 | 36,743 | 67,737 | 125,391 | 160,420 | 290,847 | 312,198 |
| Nickel. | 12,461 | 20,505 | 61,163 | 55,205 | 92,324 | 105,300 | 136,689 |
| Grains, other than wheat. | 39,015 | 3,405 | 10,097 | 44,724 | 64,272 | 53,235 | 129,214 |
| Aluminum and products.. | 7,140 | 9,930 | 34,325 | 56,030 | 93,998 | 106,867 | 124,779 |
| Fish and fishery products. | 35,982 | 31,050 | 31,651 | 86,486 | 93,749 | 112,718 | 117,464 113,854 |
| Flour of wheat. | 71,994 | 37,540 | 26,352 | 126,733 | 97,693 | 93,839 | 113,854 |
| Farm implements and machi | 16,935 | 10,302 | 9,537 | 28,662 | 92,527 | 87,811 | 106,438 |
| Copper and products........ | 15,009 | 31,355 | 52,659 | 37,005 | 86,623 | 87,587 | 87,188 |

12.-Leading Domestic Exports, 1926, 1930, 1940, 1946 and 1949-51-concluded

| Commodity | 1926 | 1930 | 1940 | 1946 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \%'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Zinc and products | 8,615 | 6,254 | 12,038 | 27,769 | 55,862 | 58,893 | 84,450 |
| Asbestos and products | 10,705 | 8,653 | 15,833 | 24,481 | 37,298 | 63,475 | 81,831 |
| Meats | 31,642 | 7,569 | 63,289 | 128,936 | 68,120 | 74,518 | 72,462 |
| Pulpwood. | 14,067 | 13,612 | 12,522 | 28,731 | 31,317 | 34,768 | 68,103 |
| Automobiles, freight and passenge | 32,737 | 18,799 | 54,306 | 57,194 | 28,055 | 28,192 | 63.363 |
| Cattle. | 13,294 | 3,398 | 12,442 | 18,015 | 61,449 | 79,126 | 63,065 |
| Beverages, alcoholic | 24,539 | 22,767 | 9,334 | 36,296 | 34,588 | 43,507 | 56,463 |
| Precious metals, except gold | 13,528 | 11.589 | 14,053 | 21,469 | 27,918 | 33,568 | 48,524 |
| Lead and products. | 13,780 | 8,274 | 9,490 | 16,846 | 42,187 | 38,199 | 45,392 |
| Machinery, except agricultural | 4,451 | 6,109 | 13,458 | 15,535 | 31,840 | 25,644 | 40,271 |
| Paper, other than newsprint | 7,324 | 5,069 | 19,519 | 21,573 | 19,039 | 19,568 | 37,734 |
| Fertilizers. | 4,664 | 5,606 | 8,584 | 32,108 | 39,385 | 38,874 | 35,734 |
| Ferro-alloys | 3,413 | 2,694 | 6,007 | 9,485 | 19,182 | 17,075 | 31,347 |
| Furs and products | 19,490 | 15,357 | 16,176 | 32,291 | 23,327 | 25,298 | 29,864 |
| Rubber and products | 25,970 | 25,243 | 12,950 | 22,477 | 25,780 | 12,153 | 29,067 |
| Seeds. | 9,035 | 3,188 | 3,358 | 13,228 | 43,769 | 30,712 | 27,915 |
| Shingles | 8.752 | 4,132 | 7,606 | 11,211 | 16,803 | 32,401 | 27.483 |
| Abrasives, artificial, crude | 2,908 | 2,842 | 7,601 | 11,727 | 11.466 | 14,767 | 21,377 |
| Ore, iron. | 7 | 3 | 924 | 4,353 | 14,117 | 13,310 | 18,596 |
| Veneers and plywoods | 243 | 145 | 3,763 | 12,026 | 7,703 | 12,315 | 18,046 |
| Electrical apparatus. | 1,695 | 2.291 | 3,283 | 20,930 | 12,293 | 11,089 | 17,729 |
| Tobacco | 2,047 | 1,329 | 2,744 | 6,446 | 8,885 | 10,643 | 16,620 |
| Automobile parts | 5,485 | 1,588 | 10,290 | 21,110 | 10,752 | 12,036 | 15,763 |
| Pigs, ingots and blooms, iron | 108 | 67 | 12,900 | 3,328 | 4,957 | 21,331 | 14,433 |
| Hides and skins. | 6,707 | 4,781 | 3,681 | 1,647 | 14,358 | 14,410 | 13,791 |
| Fruits | 7,244 | 10,401 | 5,862 | 15,124 | 13,186 | 15,336 | 13,494 |
| Settlers' effects | 7,146 | 5,758 | 2,072 | 9,712 | 10,938 | 10,875 | 12,758 |
| Rolling-mill products, iron | 2,686 | 1,535 | 6,886 | 7,528 | 15,548 | 7,121 | 11,806 |
| Milk products, other than cheese | 16,464 | 6,154 | 4,681 | 12,975 | 13,844 | 11,030 | 11,267 |
| Cotton products. | 786 | 814 | 9.372 | 10,551 | 5,169 | 7,152 | 10,961 |
| Vegetables. | 13,891 | 9,942 | 5,175 | 13,754 | 6,602 | 8,388 | 10,550 |
| Cheese.. | 24,858 | 13,207 | 15,723 | 21,948 | 16,257 | 16,552 | 10,232 |
| Engines, including locomotives | 302 | 187 | 239 | 28,764 | 31,394 | 14,986 | 9,844 |
| Soda and sodium compounds. | 3,421 | 3,140 | 5,935 | 4,414 | 4,174 | 5,497 | 9,680 |
| Leather and products | 8,591 | 5,522 | 8,000 | 16,938 | 7,229 | 7,948 | 9,166 |
| Ships and vessels. | 437 | 708 | 101 | 17,856 | 42,458 | 22,847 | 8,774 |
| Fodders | 923 | 1,161 | 1,588 | 8,593 | 3,294 | 5,483 | 8,563 |
| Paints and varnishes | 502 | 481 | 2,325 | 4,407 | 3,604 | 4,025 | 7,999 |
| Electric energy | - | 4,244 | 4,892 | 7,070 | 4,845 | 6,102 | 7,938 |
| Aircraft. | - | - | 5.985 | 9,507 | 24,935 | 4,383 | 7,524 |
| Wool products | 1,633 | 1,120 | 1,561 | 18,945 | 5,395 | 6,298 | 7,497 |
| Polystyrene. | - | - | - | - | - | 2,129 | 6,776 |
| Oils, animal. | 2,644 | 1,083 | 1,339 | 2,402 | 6,044 | 5,455 | 6,522 |
| Drugs and medicines. | 568 | 633 | 1,596 | 5,343 | 3,885 | 4,298 | 6,037 |
| Brass and products. | 854 | 1.461 | 2,262 | 3.373 | 4,279 | 3,362 | 5,660 |
| Scientific and educational equipm | 5.711 | 4,599 | 2,576 | 3,105 | 3.210 | 2,646 | 5.520 |
| Hardware and cutlery | 3.445 | 1,687 | 3.563 | 4.176 | 4.512 | 4.500 | 5,160 |

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 1948-51, 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,


the United Kingdom and the United States, 1948-51

| United Kingdom |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 | 1949 | 1950 | 1951 | 1948 | 1949 | 1950 | 1951 |  |
| - | - | - | - | 18,543,842 | 25,283,575 | 34,791,540 | 37,890,484 | 1 |
|  |  | 332,473 | 48 | 41,677,802 | 34,944,112 | 32,552, 198 | 38,040,220 | 2 |
|  |  | 40,331 | 22 | 4,400, 059 | 4,355, 456 | 5,015,566 | 6,194, 660 |  |
| 98,675 | 416,986 | 448,478 | 599,566 | 7668,274 | 1,452, 394 | 2,224, 675 | $5,789,100$ | 3 |
| $\begin{array}{r} 278 \\ 4,552 \end{array}$ | $1,047,892$ 834,744 | 130,444 111,083 | $\begin{aligned} & 11,675 \\ & 18,981 \end{aligned}$ | $7,100,792$ $3,900,779$ | $8,372,419$ $6,959,850$ | $6,993,565$ $7,985,420$ | 9,327,771 $7,710,801$ | 4 |
| 103,227 | 1,251,730 | 599,892 | 618,569 | 27,512,954 | 38,051,275 | 50, 017, 201 | 57,585,045 |  |
| 19,596 | 43,476 | 92,356 | 59,870 | 14,345,080 | 9,862,971 | 4,404,703 | 3,979;964 | 5 |
| ${ }_{2} 96$ | 227 | 2,299 | 1,186 | 5,189, 843 | 14,578,659 | 20,918, 172 | 22,677,187 | 6 |
| 3,314 | 104,677 | 224,879 | 1,042,882 | 56,527 | 73,506 | 118,236 | 474,356 | 7 |
|  | 900 | 1,170 | 9,169 | 2,030,596 | 132.680 | 530,225 | 9,448, 669 | 8 |
|  | 462 5.247 | r 11.80 | ${ }_{9}^{920}$ | 246,129 | 14,999 | 93,553 | 1,038,858 |  |
| 16,239 | 15,891 | 14,842 | 9,101 23,016 | 206,194 66,313 | 46,379 42,854 | 176,512 126.488 | $1,436,783$ $1,264,765$ | 9 |
| 19,849 | 121,257 | 261,130 | 1,068,004 | 5,558,812 | 14,710,018 | 21,256,449 | 25,455,166 |  |
| 215 | - | 1.093 | - | 27,632,443 | 23,122,919 | 32,950,231 | 37,612,833 | 10 |
| 1,792 | 1.162 | 1.758.949 | 2,223 | 1,139,093 | 802,932 | 621,686 | 1,047, 205 | 11 |
| 895,403 | 942,843 | 1,758,430 | 2,360,576 | 313,875 | 535,601 | 536,605 | 1,423,660 | 12 |
| 1,485 |  | 28 | 601 | 251,434 | 179,461 | 193,914 | 220,303 | 13 |
| 898,895 | 944,005 | 1,760,500 | 2,363,400 | 29,336,845 | 24,640,913 | 34,302,436 | 40,304, 001 |  |
|  | 298,555 | 61,982 | - | 1,553,311 | 2,654,680 | 2,550,912 | 3,752,334 | 14 |
| 1,324,774 | 1,304,896 | 4,579,000 | 3, 121,993 | 560,511 | 950, 874 | 737,877 | 1,440,132 | 15 |
| 485,923 322,360 | $1,495,418$ 129.518 | $2,761,086$ $2,521,093$ | 275, 339 | 38,904 | 51,451 | 1,603,983 | 3,313,542 | 16 |
| 296,800 | 40,844 | 1,379,052 | 213,059 | 354,255 204,868 | 528,873 328 | $1,455,273$ $1,087,302$ | $1,903,475$ $1,574,840$ | 17 |
| 650,234 | 605,632 | -842,695 | 603,472 | 516,053 | 1,067,426 | -888,564 | -832,309 | 18 |
| 426,617 | 425,256 | 448,320 | 311,369 | 282,961 | 586,380 | 552,865 | 543,922 |  |
| 280,428 140,033 | 502,363 235,834 | 458,752 251,510 | 513,491 290,363 | 44 63 | 49,546 | 71,937 | 48,808 | 19 |
| 110,422 | 223,834 57,952 | 271,248 | 239,359 | 3,487,782 | 2,047,631 | 2,467,421 | - $\begin{array}{r}24,539 \\ 2,326,257\end{array}$ | 20 |
| 3,826, 136 | 6,219,223 | 12,466,076 | 8,561,325 | 82,882,091 | 93,904,416 | 119,025,657 | 140,299,742 |  |
| 157,587 | 197,714 | 161,749 | 236,890 | 133 | 9,903 | 98 | 20 | 21 |
| 989,796 8,492300 | 1,041,392 | 1,118, 136 | 1,312,207 | 515,397 | 757,192 | 276,974 | 636,425 | 22 |
| $\begin{array}{r} 8,492,300 \\ 108,624 \end{array}$ | $11,996.130$ 227,804 | 8,834,495 | 9,195,573 | 1,346,516 | 3,991,727 | 2,336,247 | 2,186,655 |  |
|  |  |  |  |  |  |  |  |  |
| 8,758, | 12,421, 648 | 9,146,791 | 9,623,638 | 1,394,444 | 4,037,722 | 2,384,077 | 2,220,760 |  |
| 57,336 | 107,379 | 168,235 | 90,289 | 4,614,958 | 4,266,722 | 4,808, 204 | 5,306.051 | 24 |
|  |  |  |  | $\begin{gathered} 72,880 \\ 377,925 \end{gathered}$ | $\begin{array}{r}627,592 \\ 2 \\ \hline\end{array}$ | - 390,038 | 921,977 | 25 |
| 1,872,522 | 279.244 | 2,511,429 | 426,505 | 6,348,703 | 17,317,090 | 10,116,756 | $3,781,402$ $15,436,530$ |  |
| 42,325 | 32,793 | 36,247 | 65,169 | 585,378 | 1781,336 | 20,779,016 | $15,256,569$ | 27 |
| 520,495 | 758,531 | 1,394,979 | 1,775,640 | 14,041,446 | 15,304,731 | 20,379,298 | 26,146,489 | 28 |
| 16,631 95,759 | 823,451 118,225 | $2,006,890$ 119,224 | 444,208 <br> 131,272 | 1,455,106 | 2,648,519 | $4,171,261$ | 6,881,649 | 29 |
| 105, 641 | 46.445 | 110,539 | 197,544 | 3,419,560 | $2,324,751$ $3,659,175$ | $2,583,017$ $4,229,538$ | $2,320,362$ $4,801,067$ | 30 31 |
| 11,469,220 | 14,587,716 | 15,494,334 | 12,754, 265 | 33,673,033 | 52,467,996 | 61,046,062 | 68,150,879 |  |
| 15,295,356 | 20,806,939 | 27,960,410 | 21,315,590 | 116,555,124 | 146,372,412 | 180,071,719 | 208,450,621 |  |

13.-Principal Imports into Canada for Consumption from All Countries,

| No. | Item | All Countries |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1948 | 1949 | 1950 | 1951 |
| II. Animals and Animal Products |  |  |  |  |  |
| $\stackrel{1}{2}$ | Animals, living.......................... \$ | 3.343,749 | 2,946, 894 | 2,249, 817 | 3,166,88) |
|  | Bone, ivory and shell products.............. \$ | 1,056,664 | 925.642 | -922,376 | 1,100,573 |
|  | Feathers and quills and manufactures of..... \$ Fishery Products, no.p.- | 411,636 | 612,253 | 622,781 | 802.038 |
| 4 | Fish, fresh or frozen .................... \$ | 2,537,354 | 1,958,952 | 1,325,872 | 2,309,56: |
|  | Fish, salted, dried, smoked or pickled.... Ib. | $8,613,218$ | 3,230,163 | 2,362,425 | 2,576,31: |
|  | Firh manned orpreserved, nop.......... | 886,767 | 452,458 | 357,757 | 380,037 |
| 67 | Fish, canned or preserved, n.o.p.......... \$ | 1,378,490 | 2,194,379 | 1,864,470 | 2,833,84! |
|  | Other fishery products, n.o.p............. \$ | 716,893 | 694,649 | 780,613 | 901,660 |
|  | Totals, Fishery Products, | 5,519,504 | 5,300,438 | 4,328,712 | 6,425,108 |
| 10 | Furs and manufactures of | 24,567,786 | 19,575,733 | 21,998,958 | 21,586,369 |
|  | Hairs and bristles and manufactures of...... $\$$ | 1,994,917 | 2,325,414 | 2,414,154 | 3,296,611 |
|  | Hides and skins, raw (except fur skins)...... No | 225,6691 | 3, 691,232 | 3,334,534 | 2,715,160 |
|  | \$ | 8,351,403 | 12,388,278 | 13,250,251 | 14,211,736 |
| 11 | Leather, unmanufactured...... ........... 8 | 4,985, 015 | 6,644,934 | 8,396,187 | 9,413,621 |
| 1213 | Leather, manufactured..................... \$ | 5,425,317 | 5,480,774 | $6,389,230$ | 7,618,333 |
|  | Meats................................ $\frac{1}{}$ | 825,266 | 5,652,220 | 8,392,475 | 23,509,614 |
| 14 | Milk and its products...................... $\delta$ | 10.704,387 | 2,492,726 | $3,875,263$ | 13,858,047 |
| $\begin{aligned} & 15 \\ & 16 \end{aligned}$ | Oils, fats, greases and waxes. . ......... .. ${ }^{\text {d }}$ | 11,871,509 | 5,326,361 | 8,249,468 | 9,846,662 |
|  | Other animal products.................. ... \& | 5,644,502 | 4,424,779 | 5,877,970 | 10,726,422 |
|  | Totals, Animals and Animal Products. \$ | 84,701,655 | 74,096,446 | 86,967,642 | 125,562,023 |
|  | III. Fibres and Textiles |  |  |  |  |
|  | Cotton and Its Products-- |  |  |  |  |
| 17 | Cotton, raw and unmanufactured......... lb. | 183,526, 275 | 221,245,187 | 246,208,448 | $214,707,322$ |
| 18 | Yarn, thread and cordage................ lb . | $57,182,285$ $9,408,666$ | $67,288,820$ $7,556,836$ | $90,927,016$ $5,751,452$ | $96,569,667$ $8,620,429$ |
|  | Yarn, thread and cordage................. | 12,899, 324 | $9,319,464$ | 7,963,543 | 15,304,761 |
| 19 | Piece goods (fabrics).................... lb. | 39,629,699 | 44,076,096 | 36,742,289 | 41,394,177 |
|  | Piece goods (abrics)....................... | 52, 815,466 | 52,665,702 | 45,901, 357 | 54,984,071 |
| 20 | Other cotton products.................. \& | 12,449,997 | 11,156,741 | 12,652,561 | 16,290,789 |
|  | Totals, Cotton and Its Products......... \$ | 135,347,072 | 140,430,727 | 157,444,477 | 183,149,288 |
| $\stackrel{21}{22}$ | Flax, hemp, jute and manufactures of .... .. \$ | 27, 259,024 | 20,129,682 | 25,589,198 | 31,091,992 |
|  | Silk and manufactures of.................. .. \$ | 3,842,813 | 5,566,265 | 7,712,259 | 7,631,573 |
|  | Wool and Its Products- |  |  |  |  |
| 23 | Wool, raw and unmanufactured. .......... lb. |  | $\begin{aligned} & 45,315,224 \\ & 37,403,644 \end{aligned}$ | $\begin{aligned} & 51,302,972 \\ & 55,305,983 \end{aligned}$ | $\begin{aligned} & 44,586,013 \\ & 94,809,397 \end{aligned}$ |
| 24 | iece goods (fabries)...................... lb. | 13,089,207 | 11,777,948 | 10,496,962 | 9,647,393 |
|  |  | 42,647,648 | 41,747,340 | 31,719,026 | 38,566,565 |
| 25 | Other woollen products.................. | 24,674,496 | 20,908,809 | 20,663,762 | 29,156,198 |
|  | Totals, Wool and Its Products.......... \$ | 115, 066, 109 | 100,059,793 | 107,688,771 | 162,532,160 |
| 2627 | Synthetic textile fibre and manufactures of.. \$ | 29,679,683 | 30,129, 156 | 21,299, 101 | 35,452, 640 |
|  | Other textile products............... | 39,424,479 | 36,716,213 | 44,775, 025 | 63,662,729 |
|  | Totals, Fibres and Textiles... ...... . \$ | 350,619, 180 | 333,031,836 | 364,508,831 | 483,520,382 |
|  | IV. Wood, Wood Products and Paper |  |  |  |  |
| 28 | Lumber and timber. . . . . . . . . . . . . . . . . . M ft. | 42,919 | 80,627 | 86,174 | 1732,538 |
|  | \$ | 5,554,445 | 9,524,659 | 11, 629.216 | 17,776,625 |
| 29 | Other wood, unmanufactured.............. \$ | 5,929,234 | 5,382,926 | 6,267,037 | 10,440,991 |
| 30 | Wood, manufactured............... ... . \% | 13,765, 673 | 15, 272,640 | 16,546,431 | 23,084,326 |
| 31 | Paper and manufactures of $\ldots \ldots \ldots \ldots \ldots \ldots .{ }_{\text {\% }}$ | $17,212,565$ $31,268,051$ | 20,068,438 | 23,43, ${ }^{2} 89,410$ | $34,831,145$ $50,913,423$ |
| 32 | Books and printed matter. | 31,268,051 | 36,077,921 | 42,489,410 | 50,913,423 |
|  | Totals, Wood, Wood Products and Paper. \$ | 73,729,968 | 86,326,584 | 100,365,624 | 137,046,510 |

[^319]the United Kingdom and the United States, 1948-51-continued

| United Kingdom |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 | 1949 | 1950 | 1951 | 1948 | 1949 | 1950 | 1951 |  |
| 264,741 | 222,268 | 259,514 | 327,277 | 3,037,239 | 2,706,763 | 1,963,128 | 2,803,224 |  |
| 342,769 | 315,828 | 274, 192 | 340,788 | 542, 230 | 471,421 | 539,916 | 622,223 |  |
| 20.971 | 26,687 | 23,254 | 48,784 | 306,571 | 397,670 | 413,048 | 346,518 | 3 |
| 411 | 539 | 512 | 849 | 626,846 | 1,279,629 | 1,055,339 | 1,399,541 |  |
| 80,659 | 164.757 | 504,157 | 586,782 | 366,840 | 231,733 | 223,057 | 140,342 | 5 |
| 12,520 | 25,193 | 69,442 | 83,577 | 58,812 | 49,766 | 44,771 | 28,108 |  |
| 39,464 | 15,798 | 36,078 | 29,763 | 79,088 | 1,124,364 | 709,317 | 1,005,629 |  |
| 3,029 | 3,637 | 6,989 | 3.209 | 482,783 | 562,728 | 659,876 | 691,282 | 7 |
| 55,424 | 45,167 | 113,021 | 117,398 | 1,247,529 | 3,016,487 | 2,469,303 | 3,124,560 |  |
| 437,805 | 536.072 | 755, 857 | 1,914,672 | 21,153,883 | 17,476,858 | 18,946,672 | 16,794,008 | 8 |
| 21,351 | 17,293 | 18,716 | 14,547 | 1,810,439 | 2, 159,479 | 2, 259, 109 | 2,873,133 |  |
|  | 5,132 | 1,620 | 30,696 | 144,2041 | $2,243,119$ | $2,188,829$ | 1,789,499 | 10 |
|  | 5,086 | 2,684 | 77,455 | 4,705,913 | 9,937,486 | $9,153,083$ | 9,878,810 |  |
| 3,086,436 | 3,152,201 | 4,787,955 | 5,372,166 | 1,649, 611 | 3,275,652 | 3,341, 831 | 3,417,541 | 11 |
| 1,765.320 | 1,347,222 | 2,606,567 | 3,182,012 | 3,250.291 | 3,523, 683 | 2.967,965 | 3,683,764 | 12 |
| 57,657 | 51,433 | 66,180 | 545,646 | 328,024 | 2,656,775 | 4,846,857 | 15,424,396 | 13 |
| 10,926 | 4,100 | 12,290 | 13,180 | 251,683 | 4, 311,078 | 7 377,386 | -721, 330 | 14 |
| $3.074,018$ 326.879 | 367,729 110,381 | 258,326 543,475 | 126,971 697,187 | $3,296,660$ $2,628,863$ | $4,848,034$ $2,379,985$ | $7,826,576$ $2,134,833$ | $9,508,522$ $4,347,679$ | ${ }_{16}$ |
| 9,464,2 | 6,201, | 9,722,031 | 12,778,083 | 44,208,936 | 53,161,371 | 57,239,707 | 3,545,708 |  |
| 775 | 198 | 74.883 | 54,862 | 103,280, 145 | 168, 195, 930 | 193, 939,465 | 211, 276,537 | 17 |
| 381 | 162 | 19,396 | 21,470 | 32,366, 114 | 51,114,828 | 70,774,966 | 95, 178, 118 |  |
| $\pm, 289,271$ | 2,658,777 | 2,992,754 | 3,741,346 | 5,050,046 | 4,887,024 | 2,693,678 | 4,492,970 | 18 |
| 6,873,732 | 3,993,462 | 4,057,318 | 7,676,557 | 5,859,370 | 5,281,048 | 3, 804, 871 | 7,062,689 |  |
| 7,319,832 | 5,679,933 | 3,802,758 | 3,030,389 | 30,952,601 | 33,424,002 | 25,558,436 | 28,843,776 | 19 |
| 14,580,208 | 11,487,568 | 7,616,811 | 7, 203, 247 | $36,003,753$ $3,892,344$ | $34,593,391$ $3,308,746$ | $31,056,358$ $3,731,146$ | $39,418,797$ $6,939,534$ |  |
| 7,373,068 | 5,237,900 | 4,916,544 | 5,364,333 | 3,892,344 | 3,308,746 | 3,731,146 | 6,939,534 | 20 |
| 28,827,389 | 20,719,092 | 16,610,069 | 20.265,607 | 78,121,581 | 94,298,013 | 109,367,341 | 148,599, 138 |  |
| 6,078,208 | 4,238,751 | 5,531,431 | 6,790,943 | 2,021,483 | 2,666,748 | 2,837,657 | 4,926, 107 | 21 |
| 411,613 | 433,763 | 584, 131 | 682,259 | 2,497,698 | 3,578,833 | 4,834,055 | 4,350,497 | 22 |
| 19,744,764 | 13, 687,986 | 19,651,329 | 16,304, 644 | 972,501 | 1,323,960 | 1,740,828 | 3,736,617 | 23 |
| 23,821, 895 | 17,666,991 | 29,889,284 | 43, 147,632 | 847,565 | 1,132,034 | 2,183,323 | 6,848,112 |  |
| 11,889,807 | 10,517,408 | 9,585,410 | 8,305,733 | 479,996 | 272,394 | 164,712 | 182,738 | 24 |
| 38,416,847 | 36,913,471 | 28,320, 135 | 32,699,043 | 1,411,047 | 734,820 | 462,672 | 547,103 |  |
| 20,147,607 | 15,221,311 | 14,060,639 | 20,400,441 | 1,459,793 | 1,321,656 | 1,088,655 | 1,472,902 | 25 |
| 82,386,349 | 69,801,773 | 72,270,058 | 96, 247, 116 | 3,718.405 | 3,188,510 | 3,734,650 | 8,868,117 |  |
| 16,513,788 | 12,986,463 | 5,338,572 | 5,993,749 | 10,882,830 | 14,261, 831 | 11,733,536 | 20,402, 147 | 26 |
| 12.174,244 | 11,047,846 | 12,578,894 | 9,114,459 | 14,003,867 | 16,382,561 | 19,268, 675 | 33,819,535 | 27 |
| 146,391,591 | 119,227,688 | 112,913,155 | 139,094,133 | 111,245,864 | 134,376,496 | 151,775,914 | 220,965,541 |  |
| 39 1,158 |  | 2,769 | 11,684 | 40,445 4.875 .724 |  | $82.490$ |  | 28 |
| 6.087 | 1,899 | 2.255 | 12,925 | 5,710,477 | 5,184,718 | 5,990.637 | 9,689,455 | 29 |
| 245,090 | 350.797 | 408,259 | 422,694 | 12.182,113 | 13,429.493 | 14.253.000 | 19,664,596 | 30 |
| 952,654 | 943.085 | 1,158.815 | 1,580,458 | 16,021,663 | 19,035.779 | 22,013.853 | 32,758,186 | 31 |
| 1,829,269 | 1,804,853 | 2,109,667 | 2,317,197 | 28,584,762 | 33,118,948 | 39,064.032 | 47,010,383 | 32 |
| 3.034.258 | 3,101,268 | 3,681,765 | 4,344,958 | 67,374,739 | 79,982,162 | 92,329,546 | 125,629,614 |  |

${ }^{1}$ Cwt.
13.-Principal Imports into Canada for Consumption from All Countries,

| No. | Item | All Countries |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1948 | 1949 | 1950 | 1951 |
| V. Iron and Its Products |  |  |  |  |  |
| 1 | Iron ore................................... . ton | 4,300,163 | 2,517,235 | 3,070,557 | 3,831,418 |
|  | 8 | 15,506,959 | 12, 057,415 | 16,801,727 | 22,671,265 |
| ${ }_{3}^{2}$ | Ferro-alloys ........................... ${ }_{\text {\% }}$ | 1,246,017 | 1,063,087 | 1,352,604 | 4,259,507 |
|  | Pigs, ingots, blooms and billets............ \% | 4,470,587 | 5,419,791 | 3,375, 898 | 11,387,617 |
| $\begin{aligned} & 4 \\ & 5 \end{aligned}$ | Scrap iron or steel........................... \$ | 10,453,507 | 7,916,619 | 5,398, 014 | 3, 854,606 |
|  | Castings and forgings....................... \$ | 9,793,469 | 12,587,835 | $9,580,131$ | 13,739,383 |
| 6 | Rolling-mill products....................... ${ }^{\text {d }}$ | 83,929,042 | 98,092,891 | 93, 639,001 | 173,127, 013 |
| $\begin{aligned} & 7 \\ & 8 \end{aligned}$ | Tubes, pipes and fittings............. ....... | 18,598,169 | 28,144,786 | 35, 393,818 | 43,182,776 |
| 9 | Wire.. | 9, ${ }^{\text {, }} 616,453$ | 8,506,175 | 7,127,473 | 12,303,865 |
| 10 | Chains............................. ${ }_{\text {E }}$ | 3,636,607 | 3,501,410 | 3,064,506 | 4,470,801 |
| 11 | Engines and boilers..................... | 50,284, 809 | 58,697,740 | 54,639,927 | 88,421,897 |
| 12 |  | $139,993,374$ $10,143,978$ | $177,210,372$ 11 | 161,642,021 | 195, 081,777 |
| 13 | Machinery (except agricultural).............. \$ | 217,090,260 | 216,315,663 | 226, 248,681 | 18, 899,982 |
| 14 | Springs...................................... \% | 179,656 | 104,382 | 110,698 | $328,741,288$ 119,148 |
| 15 | Stamped and coated products.............. \% | 4,476,094 | 5,748,392 | 8,287,010 | 10,128,840 |
| 16 | Tools and hand implements............. . . \$ | 10,998, 696 | 11,361,189 | 13,483,504 | 19,117,292 |
|  | Vehicles and Parts- |  |  |  |  |
| 17 | Automobiles, freight.............. . . . . . No | 3,348 | 3,270 | 6,770 | 5,642 |
|  | 8 | 5,874, 814 | 5,179,164 | 10,587,697 | 13,991,589 |
| 18 | Automobiles, passenger................. . No | 17,264 | 35,427 | 81,758 | 42,692 |
|  | 8 | 21,427,869 | 38,970,483 | 75,329,592 | 56,632,484 |
| 1920 | Automobile parts......................... § | 101,261,083 | 117,748,417 | 158,404, 838 | 195, 177, 254 |
|  | Other vehicles........................... § | 11,567,761 | 13,724,425 | 16,779,182 | 17,309,597 |
|  | Totals, Vehicles and Parts....... ....... \% | 140,131,527 | 175,622,489 | 261,101,309 | 283,110,924 |
| 21 | Other iron and steel products............... \% | 52,305,980 | 57,551,080 | 67,200,073 | 101,633,382 |
|  | Totals, Iron and Its Products........ \$ | 782,255,184 | 891,551,452 | 980,229,068 | 1,332,251,363 |
|  | VI. Non-Ferrous Metals |  |  |  |  |
|  | Aluminum- |  |  |  |  |
| 2223 | Bauxite................................. cwis. | 40,169, 876 | 35, 852, 808 | 37,232,540 | $48,035,179$ |
|  | Aluminum and manufactures of, n.o.p...... \$ | $9,884,001$ $7,777,604$ | $10,063,336$ $8,159,206$ | $9,890,125$ $8,825,665$ | $\begin{aligned} & 15,373,013 \\ & 12,698,393 \end{aligned}$ |
| 23 | Totals, Aluminum...................... \$ | 17,661,605 | 18,222,542 | 18,715,790 | 28,071,406 |
| 24 | Brass and manufactures of................. \$ | 9,733,687 | 12,708,260 | 14,491,830 | 16,422,410 |
| 25 | Copper and manufactures of............ .... \$ | 2,412,568 | 2,012,480 | 2,371,098 | 4,052,877 |
| 26 | Lead and manufactures of................... ${ }^{\text {\% }}$ | 290,858 | 944,248 | 594,835 | 786,269 |
| 27 | Nickel and manufactures of................... \$ | 5,174,099 | 6,637,548 | 6,880,228 | 6, 098, 654 |
| 28 | Precious metals and manufactures of | 16,010,316 | 17.661,332 | 31,398,398 | 30,208,153 |
| 29 | Tin and its products...... | 7,936, 494 | 7,910,326 | 10,399,050 | 19,626,067 |
| 30 31 | Zinc and manufactures of................. . ${ }^{\text {\% }}$ | 2,997,372 | 3,079,384 | 3,356,966 | $4,261,378$ $2,092,860$ |
| 31 | Alloys, n.a.p........................... .. ${ }_{\text {\% }}$ | 1,557,752 | 933,931 9 $9.071,712$ | 12, 3411,988 | $2,092,860$ $10,213,573$ |
| 3233 | Clocks and watches................ ...... § | 5,302,153 | 9,071,712 | 12,011,801 | $10,213,573$ $120,101,053$ |
|  | Electrical apparatus, n.o.p........... ...... | 62, 127,222 | 69,802,480 | 82,564,937 | $\begin{array}{r} 120,101,053 \\ 775,929 \end{array}$ |
| 343536 | Gas apparatus.......................... \% | 627,985 | 583, 034 | 491,349 2.380 | 775,929 $2,184,479$ |
|  | Printing materials........... .............. \& | $1,785,381$ $22,194,475$ | $2,015,171$ $23,109,275$ | $28,380,033$ $28,523,263$ | $2,184,479$ $45,953,375$ |
| ${ }_{36}$ | Other non-ferrous metals.... ......... ..... \% | 22,194,475 | 23,109,275 | 28,523,263 | 45,953,375 |
|  | Totals, Non-Ferrous Metals. <br> VII. Non-Metallic Minerals | 155,811,967 | 174,691,723 | 215,526,566 | 290,848,483 |
|  |  |  |  |  |  |
| 3738 | Asbestos and manufactures of.............. \$ | 3,751,979 | 2,596,360 | 2,631,352 | 3,428,453 |
|  | Clay and manufactures of........ .......... \& | 30,772,690 | 32,965, 203 | 33,699,110 | 43,403,839 |
|  | Coal and Its Products- |  |  |  |  |
| 39 | Coal, anthracite......................... ton | $\begin{array}{r} 5,2,24,837 \\ 56.380 .098 \end{array}$ | $\begin{array}{r} 3,945,135 \\ 45,656,328 \end{array}$ | 4,286,383 <br> 54, 285,320 | $\begin{array}{r} 3,853,431 \\ 51,244,639 \end{array}$ |
| 40 | Coal, bituminous and coal, n.o.p......... ton | 25,629,075 | 18,250,075 | 22,668,440 | 22,947,974 |
|  | Coal, bituminous and coal, n.o.p........... ${ }_{\text {of }}$ | 130,007,653 | 95,492,735 | 120,478,811 | 116, 844, 809 |
| 41 | Coke.................................. ton | 851,791 | 716,361 | 642,254 | 956,755 |
|  | 8 | 14,584,678 | 12,305, 245 | 11, 029,927 | 16,911,483 |
| 42 | Other coal products. . . . . . . . . . . . . . . § | 5,254,072 | 3.428,972 | 4,552,299 | 5,367,309 |
|  | Totals, Coal and Its Products........... \$ | 206,226,501 | 156,883,280 | 190,346,357 | 190,368, 240 |

the United Kingdom and the United States, 1948-51-continued

| United Kingdom |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 | 1949 | 1950 | 1951 | 1948 | 1949 | 1950 | 1951 |  |
| - | 11 | 11 | - | 3,392,063 | 2,350,149 | 2,975,659 | 3,690,269 | 1 |
|  | ${ }^{638}$ | 643 |  | 11,959,783 | 10,769,569 | 15,971,317 | 21,329,066 |  |
| 400,611 | 190,210 | 53,651 | 16,097 | 845,406 | 848,022 | 706,657 | 2,935,699 | 2 |
| 2,349 | 19,004 | 224,533 | 2,343 | 4,454,455 | 5,396,533 | 2,714,998 | 10,493,226 | 3 |
| 820 | - 107 | 88 | 23,925 | 5,892,980 | 4,368,632 | 2,257,089 | 3,221,800 | 4 |
| 1,915,725 | 2,873,350 | 3,065,590 | 5,214,799 | 7,866, 055 | 9,705,372 | 6,491,038 | 8,486,671 | 5 |
| 1,654,905 | 5,247,106 | 13,956,804 | 19,926, 906 | 79, 826,758 | 88,996,593 | $73,930,035$ | 120,308,700 | 6 |
| 1,621,719 | 2,411,222 | 5,737,243 | 9,712, 871 | 16,957, 103 | 25, 529, 370 | 29,388,650 | 31,470, 258 | 7 |
| 270,923 | 461,067 | 2,436,907 | 2,933,122 | 8,741,766 | $8,039,414$ | $4,664,157$ | $8,900,762$ | 8 |
| 363,061 | -364,339 | 384,881 | 613,034 | 3,248,866 | 3,116,285 | 2,665,384 | 3,819,233 | 9 |
| 6,734,109 | 9,859,906 | 6,711,083 | 8,692,858 | 40,615, 058 | 48,253,775 | 47, 833,732 | 79,566,355 | 10 |
| 2,106,358 | 3,604,154 | 8,694,520 | 6,877,118 | 137,433,551 | 173, 088, 398 | 152,576, 162 | 187,581,155 | 11 |
| 1,745,660 | 1,792,686 | 2, 261, 610 | 2,317,343 | 8,080,499 | 9,094,093 | 8,404, 167 | 12,271,447 | 12 |
| 11,550,504 | 12,720,403 | 17,277,251 | 21,373,473 | 203,643,363 | 201, 573, 012 | 204,984,479 | 296,978,195 | 13 |
| 2,870 155,016 | 1,762 176,943 | $\begin{array}{r}3,144 \\ 389 \\ \hline 189\end{array}$ | 19,248 | 176,786 | 102, 620 | 707,554 | 99,900 | 14 |
| 155,016 866.767 | 176,943 $1,062,959$ | 389,189 $1,641,727$ | 517,107 | 4,316,428 | 5,555,160 | 7,801,886 | 9,278,468 | 15 |
| 866.767 | 1,062,959 | 1,641,727 | 2,664,520 | 9,583,537 | 9,670,571 | 10,897, 049 | 14,900,400 | 16 |
| 2,036 | 2,232 | 5,173 | 2,267 | 1,292 | 1,034 | 1,587 | 3,375 | 17 |
| 2,112,923 | 2,085,348 | 4,824,792 | 2,405,202 | 3,747,614 | 3,090,487 | 5,756,886 | 11,586,387 |  |
| 14,177 | 31,231 | 77, 666 | 28,518 | 3,004 | 3,685 | 3,183 | 14,105 | 18 |
| 14,721,029 | 31,499,868 | 68,366,135 | 26,506, 824 | 6,643,044 | 7,044,887 | 6,337, 796 | 30,077,048 |  |
| $\begin{array}{r} 742,229 \\ 1,769,658 \end{array}$ | $\begin{aligned} & 1,485,165 \\ & 2,749,982 \end{aligned}$ | $4,232,470$ $3,186,381$ | $5,760,199$ $2,899,296$ | $100,491,962$ $9,695,015$ | $116,223,622$ $10,718,239$ | $154,107,515$ $13,276,687$ | $189,341,446$ $13,985,787$ | 19 20 |
| 19,345,839 | 37,820,363 | 80,609,778 | 37,571,521 | 120,577,635 | 137,077,235 | 179,478,884 | 244,990,668 |  |
| 2,087,506 | 2,903,528 | 5,401,273 | 8,077,071 | 48,906,643 | 53,025,450 | 60,134,549 | 90,212,316 | 21 |
| 50,824,733 | 81,509,747 | 148,849,915 | 126,553,356 | 713,126,672 | 794,210,104 | 811,007,787 | 1,146,844,319 |  |
| - | - | - | - | 1,989,766 | 867,564 | 1, 819, 401 | 2,792,244 | 22 |
|  |  |  |  | 1,936,718 | 775,567 | 2,239,082 | 3,149,235 |  |
| 592,582 | 1,346,408 | 1.053,418 | 1,948,806 | 6,276,942 | 6,562,869 | 7,351,214 | 10, 109,553 | 23 |
| 592,582 | 1,346,408 | 1,053,418 | 1,948,806 | 8,213,660 | 7,338,436 | 9,590,296 | 13,258,788 |  |
| 409,856 | 592, 285 | 818,572 | 843,496 | 9,289,974 | 12,034,333 | 13,522,765 | 15,352,644 | 24 |
| 57,387 | 104,427 | 219,828 | 436,778 | 2,349,218 | 1,901,604 | 2,092,066 | 2,938, 860 | 25 |
| 90,484 | 79,011 | 47,605 | 211,476 | 182,412 | 631,104 | 273, 630 | 245, 229 | 26 |
| 244,512 | 371,833 | 435,890 | 496,528 | 4,896,291 | 6,120,885 | 6,093,227 | 5,236,512 | 27 |
| 11,389,735 | 11,392,053 | 22,324, 474 | 18, 284,492 | 4,547,948 | 5,848,040 | 8,324,307 | 10,512,169 | 28 |
| 23,410 23,864 | 158,615 12,030 | 1,923,106 | 2,515,464 48 | 248,536 | 568,638 | 1,091,922 | $5,113,020$ | 29 |
| 275,850 | 220,399 | 41,244 389,117 | 48,741 545,040 | $2,897,672$ $1,272,674$ | 3,032,352 | 3,257,369 | 4, 123,946 | 30 |
| 229,076 | 184,897 | 183, 398 | 331, 395 | 1,716,594 | 3,354,197 | 4,691,385 | 1,541,081 | 32 |
| 6,342,861 | 5,817,400 | 9,284,924 | 14,669,101 | 54,903, 856 | 63,202,651 | 71,644,630 | 103,560,737 | 33 |
| 12,773 | 31,340 | 9,458 | 8,525 | 613,859 | 546,581 | -453, 864 | 107,473 | 34 |
| 29,058 $1,052,278$ | 24, 051 | 75,009 | 89,044 | 1,754,503 | 1,970,241 | 2,297,961 | 2,083,692 | 35 |
| 1,052,278 | 1,035,716 | 1,514,753 | 2,192,032 | 16,304,741 | 14,555,937 | 11,423,590 | 24, 165,026 | 36 |
| 20,773,726 | 21,370,465 | 38,320,797 | 42,620,918 | 109,191,938 | 121,817,996 | 135,685,578 | 192,826,608 |  |
| 756,426 $13.192,254$ | 13, 466,796 | 13 ${ }^{386,941}$ | 635,049 | 2,965,621 | 2,074,753 | 2,226,629 | 2,706,742 |  |
| 13,192,254 | 13,571,012 | 13,576,865 | 16,933,548 | 16,884,484 | 18,461,644 | 18,887, 335 | 24,418,877 | 38 |
| [ $\begin{array}{r}162,354 \\ 2,009 \\ \hline\end{array}$ | -326,645 | 395,867 | 291,656 | 5,082,483 | 3,618,490 | 3,890,254 | 3,561,775 | 39 |
| 2,009,583 | 3,950,220 | 4,702,789 | 3,397,935 | 54, 370,515 | 41,706, 108 | 49,580,505 | 47,846,704 |  |
|  | 4.812 54.127 | 28,007 272,370 | - | 25,628,865 | 18, 245, 246 | 22,640,395 | 22,947,920 | 40 |
| , 28 | 54.1201 | 272,370 |  | 130,005,416 | 95,438,508 | 120, 205,703 | 116,843,834 |  |
| 1, 1,364 | 3,794 | 3,103 | 44 | 14,583,314 | 12,301,451 | 11,026,824 | 956,737 | 41 |
| 794,094 | 341,925 | 758,685 | 662,421 | 4,456, 684 | 3,086.481 | 3,688,377 | 4,362,340 | 42 |
| 2,806,749 | 4,350,066 | 5.736,947 | 4,060,400 | 203,415,929 | 152,532,548 | 184,501,409 | 185,963, 372 |  |

13.-Principal Imports into Canada for Consumption from All Countries,

| No. | Item | All Countries |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1948 | 1949 | 1950 | 1951 |
|  | VII. Non-Metallic Minerals-concluded |  |  |  |  |
|  | Glass and manufactures of................. s | 25,925, 237 | $25,402,867$ | 28,150,003 | 31,768,775 |
|  | Graphite and its products................... \% | 532,577 | 505,264 | 566,024 | -788,533 |
|  | Mica and manufactures of..... . .......... \$ | 407.202 | 567,469 | 757,825 | 976,467 |
| $\begin{aligned} & \mathbf{1} \\ & \mathbf{2} \\ & \mathbf{3} \end{aligned}$ | Petroleum, Asphalt and Products- |  |  |  |  |
|  | Petroleum, crude...................... M gal. | $2,717,306$ 197 | 2,648,986 | 2,804,519 | 2,948.512 |
| 5 |  | $197,140,292$ $12,504,179$ | $193,146,495$ $13,327,449$ | 204, 135, 857 | 233,363,537 |
|  | Fuel oil for ships' stores.......... ...... gal. | 12,504,179 | $13,327,449$ 669,887 | $10,695,294$ 442,869 | $14,258,112$ 679,982 |
|  | Coal oil and kerosene. | 76,868,321 | 36, 618,392 | 15,722,711 | 18,971,434 |
|  |  | 8,791, 014 | 3,687,650 | 1,855,875 | 2,321,563 |
| 7 | Gasoline................................ gal. | 322,607,355 | 308, 005, 168 | 246,462,585 | 202,565,570 |
|  | Lubricating oils | 46, 461,672 | 45, 256,493 | 39,759,478 | 33, 395, 830 |
| 8 | Lubricating oils. | 16,176,373 | 16,464,087 | 17,710,328 | 28,898,979 |
| 9 | Other petroleum and asphalt products.... \$ | $5,631,949$ $43,001,093$ | $4,669,755$ $27,233,324$ | $5,315,068$ $56,453,374$ | 9,946,077 $74,186,674$ |
|  | Totals, Petroleum, Asphalt and Products. \& | 301,782,708 | 274, 663,604 | 307,962,521 | 353,893,663 |
| 10 | Stone and its produc | 20,084, 245 | 23, 848, 651 | 24,620,481 | , 946 |
| 11 | Other non-metallic min | 16,699, 117 | 17,895, 815 | 23,007,754 | 25,941,420 |
|  | Totals, Non-Metallic Minerals. <br> VIII. Chemicals and Allied Products | 606,182,256 | 535,328,513 | 611,741,427 | 684,535,336 |
| 12 | Acids | 3,926,038 | ,134,227 | 5,613,559 | 7,541,211 |
| 13 | Alcohols, indus | 1,493,303 | 602,390 | 880,171 | 1,227,877 |
| 14 | Cellulose products....................... | 4,451,472 | 5,653,761 | 6,233,519 | 7,226,520 |
| 15 | Drugs, medicinal and pharmaceutical products | 13,163,602 | 14,828,906 | 18,629,297 | 22,427,117 |
| 16 | Dyeing and tanning materials............... | 10,117,384 | 10,293, 926 | 12,907,549 | 13,759,164 |
| 17 | Explosives.............................. | 1,139,658 | 1,909,771 | 1,385,735 | 1,652,679 |
| 18 | Fertilizers................................. cwnt. | 6,426, 175 | 7, 108,471 | 7,446,737 | 8,223,278 |
|  |  | 6,297,690 | 7,768,394 | 8,792,439 | 10,234,838 |
| 19 | Paints, pigments and varnishes............. \$ | 14,276,958 | 13, 866,352 | 18,211,825 | 20, 826,503 |
| 20 | Perfumery, cosmetics and toilet preparations, \$ | 192,706 | 288, 975 | 357,674 | 646,619 |
| 21 | Soap, common laundry ..................... lb. | 7,003,678 | 1,492,293 | 2,376,681 | 2,232,190 |
|  | 8 | 967, 683 | 176,311 | 286,664 | 316.397 |
| 22 | Soap, other.............................. \% | 519,109 | 453,673 | 569,185 | 571,216 |
| 23 | Inorganic Chemicals, n.o.p.- |  |  |  |  |
| 24 | Ammonia and its compounds........... lb. | 5,648,585 | 6,774, 178 | 20,944,861 | 15,768, 181 |
|  |  | 214,206 | 260,123 | 817,977 | 647,273 |
| 25 | Compounds of antimony, arsenic, copper, lb. tin and zine. | 1,851,007 | 3,129,026 | 3,867,857 | 2,914,051 |
|  |  | 154,881 | 265,059 | 284,446 | 293,347 |
| 26 | Potash and potassium compounds, n.o.p... lb. | 9,424,895 | 6,885,797 | $8,311,341$ | 9,504,604 |
|  |  | 745,665 $257,184,889$ | 693,402 $160,342,729$ | 815,015 $234,391,731$ | 365,832,915 |
| 27 | Soda and sodium compounds, n.o.p....... lb. | $25,1832,995$ 9,53 | $160,39,192$ 8,396 | 29,154,542 | 11,497,777 |
| 28 | Other inorganic chemica | 7,659,213 | 8,687,926 | 11,673,211 | 12,790, 185 |
|  | Totals, Inorganic Chemicals, n.o.p........ § | 18,480, 808 | 18,533,529 | 23,036,340 | 26,782,874 |
| 29 | O | 43,353,410 | 52, 149,863 | 61,317,098 | 78,589,832 |
|  | Totals, Chemicals and Allied Products. \$ | 118,379,821 | 130,660,078 | 158,221, 055 | 191,812,947 |
|  | IX. Miscellaneous |  |  |  |  |
| 30 | Amusement and sporting goods, n.o.p...... \$ | 7,887,706 | 9,418,117 | 11,507,730 | 15,881,079 |
| 31 | Brushes................................................. | 642,912 | 928,970 | 993,686 | $1,280,870$ |
| 32 |  | 3,654,264 | 4,743,862 | 5,821,110 | $7,628,265$ 44,908 |
| 33 | Household and personal equipment.......... \& | 12,483,466 | 16,106,344 61 | $26,852,160$ 86,613 | $\begin{array}{r} 44,908,354 \\ 103,049 \end{array}$ |
| 34 35 | Mineral and aerated waters.................. $\frac{8}{8}$ | 56,822 $3,356,600$ | 61,757 $3,800,411$ | $86,61]$ $3,861,103$ | $\begin{array}{r} 103,049 \\ 4,738,636 \end{array}$ |
| 35 36 | Musical instruments....................... . \% | $3,356,600$ $17,909,541$ | 21,800,411 | 3, 3 , 861,1004 | $\begin{array}{r} 4,738,636 \\ 27,010,665 \end{array}$ |
| 36 37 38 | Scientific and educational equipment Ships and vessels | $17,909,541$ $1,820,161$ | $21,721,476$ $1,108,941$ | 23,1658,036 | 2,729,617 |
| 37 <br> 38 | Vehicles (except iron).......................... | 9,734,583 | 15, 206,525 | 13, 140,045 | 44, 454, 932 |
| 3940 | Works of art. <br> Miscellaneous imports under special conditions Other miscellaneous commodities. | 1,864,816 | 2,516,138 | 2,471,515 | 3,262,143 |
|  |  | 23, 275,997 | $44,589,192$ $37,926,033$ | $48,528,968$ $34,135,626$ | $81,969,796$ $62,670,859$ |
| 41 |  | 32,659,192 | 37,926,033 |  | 62,670,859 |
|  | \$ | 115,346,060 | 158,127,766 | 172,217,594 | 296,638,265 |
|  | mption. \$ | ,63 | 1,207, | 3,174,253,13 | 084,856,478 |

the United Kingdom and the United States, 1948-51-concluded

| United Kingdom |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 | 1949 | 1950 | 1951 | 1948 | 1949 | 1950 | 1951 |  |
| 67,664 | 5,644,314 | 065 | 6,321,195 | 17,024,342 | 16,902,618 | 18,375,666 | 20,449,504 |  |
| 63,817 | 68,684 | 90,905 | 102,867 | 405,189 | 366,667 | 422,864 | 608,711 |  |
| 8,357 | 11,618 | 37,741 | 32,487 | 241,850 | 351,872 | 474,724 | 544,948 |  |
| - | - | - | - | 1,183,373 | 1, 053,802 | 1,094,514 | 760,522 |  |
|  |  |  |  | 90,760,702 | 82,714,313 | 90,278,634 | 59,811,632 |  |
|  |  |  |  | 12,473,161 | 13,327,449 | 10,695,294 | 14,258,112 |  |
|  |  |  |  | 754,773 | 669,887 | 442,869 | 679,982 |  |
|  |  |  | 226 | 51,940,463 | 33,157,266 | $11,388,660$ | 15,631, 880 |  |
|  |  |  |  | 299,643, ${ }^{681}$ | 303, 050,782 | 204,115, 317 | 182, 233,536 |  |
|  |  |  |  | 43,852,288 | 44,135, 208 | 32,827,557 | 30,271,192 |  |
| 5,318 | 7,990 | 29,794 | 26,570 | 16,130,457 | 16,417, 278 | 17,655,339 | 28,822,084 |  |
| 5,098 | 8, 101 | 21,722 | 21,181 | 5,593,596 | 4,628,880 | 5,268,208 | 9,877,788 |  |
| 4,705 | 2,743 | 64,121 | 10,662 | 40,206,909 | 24,522,047 | 39,436,646 | 55, 433,578 |  |
| 9,803 | 10,844 | 85,843 | 32,399 | 187,241,729 | 160,052,787 | 169,643,863 | 158,026, 356 |  |
| 611,326 | 1,553 | 2,7 | 3,472,0 | 16,945,901 | 17 | 19, 946,539 | 39 | 10 |
| 1,645,447 | 962,079 | 1,486,543 | 1,274,082 | 11, 247,851 | 11,950,508 | 16,379,875 | 18,738,703 | 11 |
| 23,761,843 | 26,639,073 | 30,201,816 | 32,864,040 | 456,372,896 | 383,633,214 | 430,858,904 | 435,855,952 |  |
| 424,374 | 637,589 | 959,517 | 1,361,730 | 3,318,726 | 3,374,243 | 4,332,341 | 5,473,182 | 12 |
| 8,369 |  | 1,147 | 1,672 | 1,035, 371 | 591,451 | -872,802 | 1,216,530 | 13 |
| 309,440 | 642,562 | 818,013 | 912,857 | 4,132, 133 | 4,975,425 | 5,363,212 | 6,094,769 | 14 |
| 1,309,284 | 1,143, 204 | 1,664,666 | 1,681,080 | 11,324,610 | 12,908,164 | 16,178,810 | 19,619,856 | 15 |
| 1,030,508 | 1,248,097 | 1,721,531 | 1,853,528 | 7,474,667 | 7,106, 474 | 8,370,078 | $8,380,411$ | 16 |
| 13,624 | 633,259 | 376,679 | 88,266 | 5990,531 | 1,049,540 | 920,590 | 1,464,984 | 17 |
|  | 3,402 | 4,558 4,321 | 8,783 | 5, 506,772 | 6,041,051 | $6.251,275$ | 7,537,072 | 18 |
| $\begin{array}{r} 2,121 \\ 1,034,755 \end{array}$ | 1,213,678 | 2,526,380 | 2,922,200 | $4,613,136$ $13,159,913$ | $5,998,785$ $12,607,197$ | 6,846,050 | 9,002,585 $17,669,049$ |  |
| 51,144 | 60.280 | 107,930 | 67,106 | -57,226 | , 98,988 | 95,722 | 406, 153 | 20 |
| 524 | 142,353 | 86,362 | 21,320 | 7,002,492 | 1,346,972 | 2,215,513 | 2,209,770 | 21 |
| 46 | 24,556 | 14,334 | 2,700 | 967,489 | 151,135 | 260,041 | 313,433 |  |
| 129,037 | 100,353 | 124,422 | 110,648 | 365,931 | 343,675 | 429,498 | 433,011 | 22 |
| 11,274 | 47,864 | 59,726 | 154,558 | 63,322 | 57,130 | 47,705 | 58,529 | 23 |
| 28,474 | 66,711 | 100,557 | 260,699 | 145,374 | 164,116 | 189, 953 | 272,730 |  |
| 1,214,616 | 883,445 | 929,073 | 2,021,396 | 4,544,377 | 5,890,733 | 19,999,112 | 13,701,523 | 2 |
| 69,195 | 49,433 | 57,754 | 109,556 | 145, 111 | 210,690 | 757, 505 | 531,885 |  |
| 684,062 43,635 | 1,052,447 | 2,614,975 | 628,220 | 1,148,718 | 1,848,002 | 912,242 | 1,544,895 | 25 |
| 366, 658 | 322,159 | 967,649 | 1,068,416 | 8,998,385 | 6,191,600 | 6,001,219 | 7,301,965 | 26 |
| 114,914 | 84,382 | 148,868 | 175,420 | 616.142 | 558,093 | 528,046 | 698,416 |  |
| $21,949,388$ | 15,759,415 | 78,559,769 | 134,301,269 | 234,738,975 | 142,489,084 | 151,302,152 | 226,754,416 |  |
| $\begin{array}{r} 1,023,772 \\ 154,200 \end{array}$ | 962,707 | 2,092,723 | 2,992, 526 | 8,478,960 | 7,331, 384 | 6,557,852 | 7,971,541 |  |
|  |  |  |  |  |  |  |  |  |
| 1,434,190 | 1,446,424 | 2,936,349 | 3,945, | 16,871,083 | 16,867,152 | 19,245,778 | 21,888,046 |  |
| 1,040,110 | 1,294,416 | 2,791,754 | 3,222,4 | 41,749, 241 | 48,960,796 | 56,105, 095 | $73,098,848$ | 29 |
| 6,787,002 | 8,447,820 | 14,047,043 | 16,188,139 | 106,060,057 | 115,033,025 | 134,603,008 | 165,060,857 |  |
| 2,248,063 | 1,992,537 | 2,465,298 | 2,700,209 | 4,974,228 | 5,475,519 | 7,084,026 | 1,146,526 | 30 |
| 269,939 | 322,817 | 362,517 | 613,471 | 365,030 | 595,115 | '598,409 | 1, 587,742 | 31 |
| 1,434, 267 | 1,610,767 | 2,018,007 | 2,574,429 | 1,520,172 | 2,091,880 | 2,551,669 | 3,086,074 | 32 |
| 1,678,848 | 2,736,070 | 3,672,222 | 3,436,383 | 10,196,899 | 12,181,521 | 21,446,243 | 39,435,901 | 33 |
| 282, ${ }^{1,874}$ | 4,522 337,895 | 5,931 458,590 | 3,233 | 16,488 | 4,486 | 12,241 | 18,837 | 34 |
| 1,064,813 | 1,087,728 | 1,285,188 | 516,043 | 2,298,380 | 2,575, 801 | 2,532,414 | 3,263,130 | 35 |
| $1,03,584$ 718 | 1,072,209 | 1,285,581 | 1,328,844 | $16,296,377$ $1,785,282$ | $19,601,404$ $1,059,467$ | $20,281,738$ $1,232,710$ | $23,370,006$ $2,101,916$ | ${ }_{37}^{36}$ |
| 718,799 | 2,522,598 | 1,885,123 | 3,078, 854 | 9,013, 194 | 12,666,843 | 11, 245,627 | 41,067,444 | 38 |
| 8,022,027 | $1,008,957$ $3,082,090$ | 866,620 | 1,030,126 | 611,696 | 944, 245 | , 737,152 | 838,508 | 39 |
| 8,768,5013 5,716,013 | $3,082,090$ $5,397,148$ | $2,209,224$ $3,130,216$ | $3,010,066$ $6,656,832$ | $12,667,696$ $21,881,117$ | 40,093,556 | 44, 888,485 | 77,456, 279 | 40 |
| 23,169,394 | 20,145,333 | 18,516, |  |  |  |  |  |  |
|  |  | 18,516, | 25 | 81,626,559 | 123,273,285 | 136,903,766 | 243,748,078 |  |
| 290,502,200 | 307,449,800 | 404,213,44 | 420,984,5 | 1,805,762,7 | 1,951,860,065 | 2,130,475,929 | 812,927,298 |  |

14.-Principal Exports of Canadian Produce from Canada to All Countries,

the United Kingdom and the United States，1948－51

| United Kingdom |  |  |  | United States |  |  |  | No． |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 | 1949 | 1950 | 1951 | 1948 | 1949 | 1950 | 1951 |  |
| － | 2，238，308 | 3，680，760 | 1，900，464 | 7，504，862 | 8，209，491 | 10，532， 247 | 10，351，424 | 1 |
|  |  |  |  | 745,964 | 571，306 | 630，544 | 31，280 | 2 |
|  |  |  |  | 111， 297 | 76，164 | 108，404 | 6，347 |  |
| 4，488，991 | 5，230，877 | 16．651 | 29，847 | 718，449 | 6，104，695 | 3，458，731 | 2，927，905 | 3 |
| 292，606 | $\underline{-}$ | ［，696 | 12，123 | 134,121 217,428 | 750,350 484,720 | 505,671 210,356 | 466,975 167,520 | 4 |
| － | － | － | － | 228，114 | 379，084 | 168，553 | 148，587 |  |
| 292，606 | 2，719，249 | 3，686，456 | 1，912，587 | 7，978，394 | 9，415，089 | 11，314， 875 | 10，973，333 |  |
| － | － | － | － | 44 | － | － | 577 | 5 |
| － | － | － | － | 5，032，755 | 3，866，440 | 4，688，193 | 4，981，505 | 6 |
| 二 |  |  |  | 636 377 |  | 13 16 | 27 26 | 7 |
| 1，808，471 | 4，671，398 | 4，644，276 | 8，357，948 | 3，531 | 1，452，703 | 13，695，570 | 20，994，355 | 8 |
| 186，268 | 427，203 | 416，691 | 872,103 | 398 | 102.989 | 1，122，056 | 2，190，798 |  |
| 9，111 | 17，487 | 9，576 | 19，106 | 2，454 | － | 12，033 | 26，462 | 9 |
| 195，379 | 444，690 | 426，267 | 891，209 | 5，035，984 | 3，969，429 | 5，822，298 | 7，198，791 |  |
| 117，329，875 | 139，281， 181 | 86，967，949 | 85，742， 135 | 3，183，970 | 8，071，960 | 14，951，226 | 37，916，746 | 10 |
| $\begin{array}{r}196,533,828 \\ 7 \\ \hline 132 \\ \hline 1\end{array}$ | 280， 732,019 | 173，650，751 | 159，179， 214 | 6，608，490 | 16，997，060 | 28，485，785 | 65，036，229 |  |
| $7,432,598$ $61,640,100$ | $4,768,739$ $46,734,103$ | $4,349,704$ $40.962,695$ | 4，792，478 | 556 | 77，925 | 91，668 | 200，188 | 11 |
| 2，037 | 46.734, 2,209 | 40，962， 1,588 | 43，005，246 | 4,696 180,137 | 552,661 218,707 | 669,813 311,302 | $1,586,558$ 813,852 | 12 |
| 612，309 | 542，966 | 481，643 | 8，987，088 | 44，631，294 | 60，423，775 | 55，603， 035 | 88，389，954 | 13 |
| 258，788，274 | 328，011， 297 | 215，096，677 | 211，175，470 | 51，424，617 | 78，192， 203 | 85，069，935 | 155，826，593 |  |
| 二 | 二 | 二 | 二 | $\begin{array}{r} 6,781 \\ 105,034 \end{array}$ | 11,181 186,999 | 652 7,369 | $\begin{array}{r} 376 \\ 10,559 \end{array}$ | 14 |
| 16，695 | 16，481 | 15，182 | 30，733 | 18，522 | 38，883 | 33，687 | 43，292 | 15 |
| 二 |  | － | － | 6，084，142 | 7，110，330 | 6，576，136 | 5，824，539 | 16 |
| ${ }^{-775}$ | 230 | － | － | $2,491,836$ $1,486,609$ | 3，090，383 | 2，880，651 | 2，434，882 |  |
|  |  |  |  |  |  |  |  |  |
| 17，470 | 16，711 | 15，182 | 30，733 | 3，996，967 | 4，552，945 | 4，756，499 | 4，195， 849 |  |
| 2,755 | 二 | － | － | 271，086 | 42，003 | 76，234 | 10，086 | 18 |
| 二 |  | － | － |  | 38，572 | 103 | 75，969 | 19 |
| $\overline{14}, 452$ | 11 |  |  | 125，925 | 103， 247 | 167， 124 | 127，947 | 20 |
| 14，452 | 11，481 | 6，608 | 5，712 | 430，775 | 375，219 | 259，156 | 278，121 | 22 |
| $\underline{259,310,936}$ | 331，203，428 | 219，231，190 | 214，015，711 | 69，384， 889 | 96，881，762 | 107，477，497 | 178，700，501 |  |
| － | － | － | － | 1，319，508 | 1，162，288 | 1，528，618 | 1，776，864 | 23 |
| 271，568 | 138，782 |  |  | 1，297，422 | 1，314，597 | 1， 638,142 | 1，951，738 |  |
| 550， 261 | 418，489 | 377，611 | 1029，527 | 23，224， 2494 |  | $\begin{array}{r} 3,708,215 \\ 33,521,556 \end{array}$ | $\begin{array}{r} 4,891,567 \\ 44,207,395 \end{array}$ | 24 |
|  |  |  |  | 3,050 <br> 15,653 | 1,239 3,389 | $\begin{aligned} & 2,852 \\ & 3,564 \end{aligned}$ | －${ }_{52}^{2}$ | 25 |
| 550，261 | 418，489 | 377，611 | 639，527 | 24，567，416 | 29，730，023 | 35，163，262 | 46，159，185 |  |
| 21，977 | 26，985 | 17，078 |  |  | 19，457 | 18，502 | $15,400$ | 26 |
| － |  |  | 228,480 861,079 | 221，045 | 180， 2783 | 498，769 | 576，547 | 27 |
| 1，872，207 | － |  |  | 1，820，950 | 573,789 320,894 | 1，669，839 | $1,860,357$ 493,884 |  |
| 29,648 1.500 | 33，604 | 22，423 | 14，624 | 73，066 | 106，199 | －89，174 | 193，884 104 | 28 |
| 1，500，888 | 882，655 | 418，271 | 1，884，770 | 10，211，707 | 11，919，810 | 4，376，316 | 6，646，934 | 30 |

14.- Principal Exports of Canadian Produce from Canada to All Countries,


[^320]the United Kingdom and the United States, 1948-51-continued

| United Kingdom |  |  |  | United States |  |  |  | No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 | 1949 | 1950 | 1951 | 1948 | 1949 | 1950 | 1951 |  |
|  | -* |  | - | 4,331,707 | 7,095,530 | 3,881,329 |  | 1 |
| - |  | - |  | 5,601,567 | 7,833,277 | $3,966,402$ | 3,003,288 |  |
| 2,159,154 | 978,676 | 254,470 | 320,124 | 18, 490,894 | 14,969,169 | 11,961,110 | 11,734,055 | 2 |
| 12,487,642 | 13,042,764 | 15,766,400 | $23,223,062$ | 9,320 | 66,424 | - 122 | 135 | 3 |
| 6,330, 102 | 7,346,911 | 8,320,337 | 13,491,339 | 3,750 | 11,064 | ${ }^{196}$ | 113 |  |
|  | 751 | 17 | 308 | 8,191 | 9,451 | 49,691 | 43,896 | 4 |
| 147,298 | 88,559 | 153,827 | 313,788 | 8,381,078 | 8,262,564 | 11,703,607 | 14,680,791 | 5 |
| 12,611,605 | 9,776,630 | 9,564,034 | 17,569,063 | 69,937, 556 | 73,755,697 | 69,459,416 | 84,742,059 |  |
| 271,922,541 | 340,980,058 | 228,795,224 | 231,584,774 | 139,322,445 | 170,637,459 | 176,936,913 | 263,442,560 |  |
| $\therefore$ |  |  |  |  |  |  |  |  |
| 216,592 | - | 145 | 250 | 11, 155,840 | 6,198,637 | 7,322,754 | 7,975,275 |  |
|  | - |  |  | 406,228 | 396,764 | 433,992 | 218,607 | 7 |
| -? ${ }^{3}$ | 0 |  | - | 61,563,904 | 54,738,442 | 71,516,369 | 54, 873,719 |  |
|  | $7,480^{9}$ |  | - | 13,570 621,218 | 12,420 | 26,788 | 10,964 | 8 |
|  |  | 2,800 | 2,726 | -621,218 | 561.660 6.479 .710 | 990, 873 | 544,408 |  |
| 8,747 | 18,907 | 3,640 | 2,726 | 11,784, 814 | 6,479,710 | 4,036,778 | 1,300,593 | 9 |
| 225,339 | 26,387 | 6,585 | 2,976 | 85, 125,776 | 67,978,449 | 83,866,774 | 64,693,995 |  |
| - | - | - | 15,400 | 486,404 | 463,316 | 350,880 | 351,502 | 10 |
| - | - | - | - | 2,344,526 | 2,287, 563 | 2,941,058 | 2,804,321 | 11 |
| - | 二 |  | - | 44,973,446 | 45,535,116 | 62,251,984 | 65,969,421 | 13 |
| - | - |  | 二 | 6,049,542 | 6,709,394 | 6,884,616 | 6,700,901 | 12 |
| 49,794 | 232,109 | 127,794 | 169,643 | 57,044 | 57,404 | 39,650 | 32,573 | 13 |
| 1,810,879 | 7,321,057 | 4,891,776 | 7,043, 534 | 3,082,445 | 2, 841, 466 | 2,944, 225 | 2,126, 404 |  |
| 1,014 | 85,907 | 86,325 | 128.290 | 3,592,309 | 6,486,973 | 6,152,805 | 7,066,840 | 14 |
| 1,811,893 | 7.406,964 | 4,978,101 | 7,171,824 | 57,697,742 | 61,572,949 | 78,199,630 | 81,863,566 |  |
| 7,965,968 | 4,875,557 | 4,009,635 | 7,325,579 | 15,615,058 | 18,078,008 | 20,807,744 | 21,834,659 | 15 |
| 196,022 | 422,086 | 338,409 | 1,018,317 | 1,082,761 | 758,848 | 794,887 | 1,291,866 | 16 |
| 6,1971 | 125,481 | 156,150 | 188,062 | 521,0642 | 1,281,007 | 1,659,415 | 1,354,170 | 17 |
| 179,655 $1,242,151$ | 1,061,280 | 1,109,158 | 1,291,814 | 10,716,594 | 5,117,778 | 9,231,712 | 11,820,419 |  |
| 1,242, 5981 | 738,281 378,153 | 858,331 91,460 | 1,254,006 | 3,882,290 | $1,650,977$ $1,345,740$ | $3,134,683$ $1,631,947$ | $3,819,979$ $1,606,386$ | 18 |
| 2.001,389 | 655,771 | 723,403 | 18,915 | -842 | 1,34, 49 | -52,817 | , 34,997 | 20 |
| $67.844,842$ | 23,380,987 | 24,400,029 | 629,559 | 2,497 | 2,238 | 3,406,398 | 2,567,150 |  |
| 9,515,700 | 17,182 | 904 | 447,349 | 33,701,542 | 33,564,673 | 40,686,259 | 63,900, 286 | 21 |
| - | 10 | - | - | 59 | 426 | 417 | 1,465 | 22 |
|  | ${ }_{6}^{635}$ | - |  | 3,661 | 32,198 | 27,494 | 112,706 |  |
| 11,085,099 | 15, ${ }^{5301,224}$ | 15, $\begin{array}{r}592,398 \\ \hline\end{array}$ | $271,517$ | 1,123 47,796 | 18,685 765,206 | 30,231 $1,187,400$ | 27, 257 | 23 |
| 8,947 | 15,230, 29 | 15,02,739 | 8, $\begin{array}{r}\text { 54, } \\ \hline\end{array}$ | 51,611 | 765,206 62,537 | $1,187,400$ 31,070 | $1,188,436$ 3,366 | 24 |
| 111,862 | 446 | - | 712,552 | 678,876 | 763,594 | 330,625 | 44,451 |  |
| 2,233 | - | - |  | 869,633 | 467,719 | 344,058 | 493,864 | 25 |
| 11,199, 194 | 15,231,389 | 15,072,739 | 9,430,854 | 1,599,966 | 2,028,717 | 1,889,577 | 1.839,457 |  |
| 18,964 | 675,547 | 59,968 | 939,462 | 4,100,734 | 3,314,233 | 2,328,663 | 2,759,893 | 26 |
| 37,319,309 | 18,207.791 | 2,420,866 | 215,112 | 2,985, 298 | 4,690,552 | 7,003,717 | 7, 178,538 | 27 |
| 138,117,777 | 72,421,604 | 53,346,185 | 29,859,963 | 217,940,763 | 200,566,478 | 253,332,871 | 265,527,696 |  |

${ }^{1}$ Cwt.
14.-Principal Exports of Canadian Produce from Canada to All Countries,

the United Kingdom and the United States, 1948-51-continued

| United Kingdom |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 | 1949 | 1950 | 1951 | 1948 | 1949 | 1950 | 1951 |  |
| 950,721 | 225,618 | 144,257 | 572,153 | 695,408 | 596,754 | 1,421, 958 | 1,708,304 | 1 |
| 251,976 | 310,837 | 277,763 | 87,247 | 1,512,892 | 1,400,281 | 1,623,122 | 1,054, 114 | 2 |
| 1,081,403 | 1,261,821 | 794,716 | 271,621 | 2,762,848 | 1,997, $\begin{array}{r}3,641\end{array}$ | 5,990 $2,880,314$ | 2,036,751 | 4 |
| 492,611 | 580,897 | 453,681 | 267,127 | 1,447,354 | 927,379 | 1,940,525 | 1,924,194 |  |
| 22,215 | 28,891 | 4,315 | 5,527 | 5,782,287 | 2,448,710 | $3,133,140$ | 3,090,668 | 5 |
| 96,858 | 113,249 | 58,676 | 131,771 | 1,619,199 | 636,090 | 3,391,448 | 2,233,100 | 6 |
| 76,764 | 147,041 | 200,034 | 201,034 | 5,975,803 | 5,167,529 | 6,826,803 | 9,577,955 | 7 |
| 1,891,145 | 1,406,533 | 1,138,726 | 1,264,859 | 17,034,717 | 11,180,374 | 18,342,986 | 19,588,473 |  |
| 8,571 | 10,457 | 5,245 | 4,932 | 68,740 | 51,956 | 49,120 | 35,030 | 8 |
| 723,222 | 869,093 | 433,277 | 585, 238 | 3,611,252 | 2,648, 049 | 3,639,353 | 3, 815,306 |  |
| 1,189,463 | 1,203,361 | 27,987 | 61,345 | 64,219 | 59,247 | 38,477 | 25,415 | 9 |
| 3,297, 160 | 2,907,442 | 59,480 | 168,520 | 100,318 | 87,695 | 54,335 | 35,754 |  |
| 562,047 | 475, 220 | 275, 425 | 895,238 | 1,612,691 | 1,399,277 | 3,022,169 | 2,167,358 | 10 |
| 43,888, 185 | 37,400,400 | 20,353, 111 | 78,964,272 | 127,947, 843 | 100, 146, 138 | 249,599,076 | 196,780,626 |  |
| 3,606 | 2,048 | ${ }_{78} 693$ | 1,001 | 2,532 | 4,742 | 1,747 | 653 | 11 |
| 256,950 | 229,860 | 78,984 | 141,464 | 157,312 | 243,845 | 114,172 | 49,662 |  |
| - | . | 28,704 | 38,050 | 2,222,158 | 2,079,151 | 2,842,467 | 2,477,396 | 12 |
|  |  | 235,316 | 457,582 | 20,886,695 | 16,214,456 | 31,619,357 | 26,231,355 |  |
| 279,438 8,223 | 712,860 10,438 | 767,503 12,875 | 3, 229,904 7,085 | 42, 237,021 | $30,592,706$ 2,969 | 33,963,132 | $59,330,714$ 3,875 | 14 |
| 958,461 | 1,270,872 | 1,581,248 | 931,012 | 655,797 | 337,607 | 461,570 | 464,942 |  |
| 3,411,919 | 3,474,901 | 2,358,402 | 4,345,017 | 31,813,489 | 26,095,488 | 33, 888,883 | 36,628,212 | 15 |
| 21,369,417 | 19,337,925 | 13,128,894 | 37,770,627 | 184,972,898 | 141,612,317 | 191,005,507 | 276,760,578 |  |
| 719,492 | 232,797 | 28,689 | 285,032 | 1,368,895 | 1,295,621 | 1,389,975 | 1,623,995 | 16 |
| 4,266, 227 | 1,578,568 | 203,849 | 2,406,975 | 5,572,777 | 5,602,918 | 6,357,938 | 8,633,986 |  |
| 3,247 | 52 | - | 154 | 501,476 | 164,232 | 298,451 | 430,739 | 17 |
| 46,604 | 841 |  | 1,826 | 3,018,274 | 1,046,498 | 2,162,123 | 3,427,448 |  |
| 1,213,799 | 1,948,408 | 381,903 | 1,444,094 | 78,347,320 | 85,723,058 | 94,498,732 | 95, 498,938 | 18 |
| 5,319,660 | $1,850,012$ 18,001 | 1,861,980 | 7,488,187 | 340,334, 045 | 391,305,728 | 463,155,927 | 496,852,197 |  |
| 548, 199 | 167,749 | 24,801 195,362 | 76,817 864,501 | 63,910 663,272 | 26,643 127,528 | 43,452 289,450 | 82,528 831,600 | 19 |
| .. | 9,914 | - | 68,417 | 971,268 | 656,792 | 1,282,959 | 1,333,531 | 20 |
|  | 11,404,531 |  | 319,388 | 3,029,380 | 1,484,556 | 3,528,977 | 5,825,120 |  |
| 19,688,628 | 11,404,531 | 1,787,604 | 7,851,267 | 21,750,432 | 18,390,541 | 30,444,835 | 35,542,151 | 21 |
| 100,642,151 | 84,770,307 | 40,686,608 | 141,180,763 | 754,937,316 | 709,840,582 | 1,016,395,752 | 1,114,581,439 |  |
| - | 779,092 | 142,589 | 775,832 | 1,070, 277 | 1,771,207 | 2,031,646 | 2,184,708 | 22 |
| 63 | 3,658,101 | 707,013 | 3,796,025 | 5,300,742 | 10,459,070 | 12,329,032 | 13,121,180 |  |
| 9,63,912 | 67,405 | 44,894 | 52,057 | 95,635 | 752,573 | 72,935 | 132,569 | 23 |
| $9,970,109$ 17,683 | 10,182,762 | 5,236,921 | 8,772,649 | 12,481,345 | 7,104,030 | 11,073,470 | 21,659,692 |  |
| 1,746,773 | 389,688 | - | 134,160 | 621,473 | 4,543,034 | 21,303,200 | 14, $262,21,405$ | 24 |
|  |  | - |  | 5,214 | 39,975 | 21, 62,618 | , 39,804 | 25 |
|  | - | $\ldots$ |  | 186,640 | 1,009,203 | 2,034,221 | 1,615,678 |  |
| 344 3,476 | . | - |  | 180,881 | 172,065 | 309,986 | 502,644 | 26 |
| - 5,898 |  |  |  | 2,010,840 | 2,139,951 | 3,393,165 | 6,223,703 |  |
| 1,748,068 | 519,047 | 81,799 | 2,331,424 | -113, ${ }^{1144}$ | 38,747 $3,839,287$ | 27,833 | 16,518 | 27 |
| 6,199 | 1,200 | 1,340 | 2, 21,474 | 1,115,1985 | $3,839,287$ 34,327 | 2,836,621 | 2,582,323 | 28 |
| 22,642 | 5,331 | 32,468 | 32,658 | 51,230 | 246,970 | 647, 208 | 284,287 | 29 |
| 12,895 | 7,223 | 29,465 | 1,607 | 40,551 | 32,219 | 70,312 | 279,715 | 30 |
| 617,537 | 753,148 | 662,995 | 678,150 | 308,775 | 329,804 | 646,035 | 3,095,375 | 31 |
| 3,836,968 | 4,074,095 | 852,613 | 571,611 | 50,575, 122 | 70,213,783 | 70,660,697 | 83, 495, 253 | 32 |
| 2,129,584 | 1,350,219 | 1,581,564 | 1,523,514 | 991, 164 | 417,137 | 293,164 | 676,547 | 33 |
| 2,129,584 190 | 851,387 | 536,751 | 987,173 | 5,781,718 | 5,798,165 | 7,350,089 | 12,445,398 | 34 |
| 338,628 | 137 | . 46 |  | 19,091 | 5,302 | 31,994 | 77,059 | 35 |
|  | 13 | 3,300 | 53,67 | 247,423 | 245,396 | 175,909 | 263,294 | 36 |
| - | - | - | - |  |  | - |  | 37 |
|  |  |  |  |  | 5,863 |  | 9,734 |  |
| 47,867 | 36,998 | 180,490 | 332,603 |  | 6,637 |  |  | 38 |
| 260,127 | 39,281 | 34,487 | 26,791 | 1,793,785 | 925,218 | 854,276 | 2,793,824 | 39 |
| 1,997 | 721 | 3,789 | 7,169 | 10,161,112 | 930,111 | 1,883,383 | 1,751,478 | 40 |
| 309,991 | 77,000 | 218,766 | 366,563 | 11,971,582 | 1,867,829 | 2,756,027 | 4,571,314 |  |
| 116,766 | 99,283 | 154,458 | 637,213 | 359,701 | 449,669 | 754, 436 | 3,950,345 | 41 |
| 21,909,576 | 22,106,337 | 10,099,505 | 19,913,895 | 92,218,545 | 108,735,176 | 136,445,450 | 169,187,778 |  |

14.-Principal Exports of Canadian Produce from Canada to All Countries,

the United Kingdom and the United States, 1948-51-concluded

| United Kingdom |  |  |  | United States |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 | 1949 | 1950 | 1951 | 1948 | 1949 | 1950 | 1951 |  |
| 39,917.734 | 48,731,490 | 39,224,584 | 57,230,082 | 25, 874,738 | 21,632,877 | 49,532,763 | 40,976,605 | 1 |
| 405,954 | 298,050 | 263,662 | 945, 878 | 1,235,804 | 598,854 | 2,285,647 | 2,183,592 | 2 |
| 34,801,746 | 32,274,543 | 29, 275,343 | 28,588,864 | 17,763,112 | 37.347,965 | 41,940,025 | 31,116,178 |  |
| 14,535,514 | 14,458,125 | 2,157,474 | 12,246,268 | 18,157,509 | 20, 974,490 | 30,699,705 | 24,012,520 | 4 |
| 511, 106 | 565,309 | 432,887 | 626,842 | 1,928,652 | 1,730,508 | 1,770,850 | 1,767.873 | 5 |
| 12,626,831 | 20,545,673 | 18,997,379 | 32,323, 665 | 56,318,271 | 62,693,150 | 76,184,024 | 92,415,560 |  |
| 11,276,570 | 12,280,400 | 11,841,426 | 15,488, 835 | 13,795,573 | 15.201, 213 | 20,946,111 | 31,965.425 | 6 |
| 12,623,151 | 15,403,634 | 12,537,326 | 27,830,564 | 25,766,437 | 35, 187, 175 | 39,039,988 | 45,586.330 | 7 |
| 106,991 | 16,611 | 24,515 | 51.587 | 59,595 | 18,720 | 15,228 | 125.669 | 8 |
| 318,338 | 229,800 | 32,770 | 195, 013 | 583,847 | 1,210,362 | 2,683,428 | 3,497,388 | 9 |
| 2,803 | 434 | 8,051 | 3,368 | 72,957 | 48,797 | 22,984 | 34,358 | 10 |
| 5,250,845 | 3,653,473 | 3,038,148 | 6,730,651 | 6,918,333 | 1,978,217 | 3,693,283 | 6,095,036 | 11 |
| 131,866,477 | 147,892,233 | 117,400,678 | 181,634,775 | 166,546,176 | 196,891,820 | 267,043,186 | 278,008,661 |  |
| 3,261,431 | 2,765, 524 | 4,761,368 | 6,371,968 | 32,093,848 | 28,220.201 | 44,571,911 | 54,800,442 | 12 |
| 1,054 | 233 |  | 2,700 | 339,655 | 380,681 | 526,850 | 1,003,595 | 13 |
| - | - | - | 11,297 | 324,109 | 319.360 | 347,849 | 292.497 | 14 |
|  |  |  | 108,451 | 2,228.414 | 2,507,402 | 2,722,308 | 2,158,906 |  |
| 1,100 | 4,292 | 8,883 | 11,315 | 189,989 | 290,399 | 395.665 | 187.661 | 15 |
| 50,322 | 190,448 | 397,550 | 449,329 | 2,882.148 | 4,542,429 | 5, 535,752 | 3,120,931 |  |
| - |  |  |  | 3,489,019 | $4.168,818$ | 3,145,493 | 2,369.760 | 16 |
| - |  |  | - | 796,324 | 1,049,441 | 777,919 | 858.933 |  |
|  |  |  |  | 3,129 | 200 | 1,232 | 71,638 | 17 |
| 50,322 | 190,448 | 397, 550 | 557,780 | 5,910,015 | 8,099,472 | 9,037,211 | 6,210,408 |  |
| 5,391 | 1,450 | 42 | 383 | 60,943 | 49.950 | 320.898 | 270.444 | 18 |
|  |  |  |  | 39,581 | 32.607 | 60, 637 | 22,966 | 19 |
| - |  |  | - | 1848,629 | 162,053 <br> 61,913 | 165,592 | 435,041 | 20 |
| 929,758 | 4,777 |  | 907,267 | 1,236,530 | 976,575 | 73,519 | 851,357 | 21 |
| 2,219,131 | 3,006,018 | 3,504,469 | 4,428,128 | 15,955,743 | 12,807,392 | 16,714,275 | 23,263,608 | 22 |
| 1,216, 166 | 1,602,293 | 863,214 | 804,332 | 1,532,197 | 1,489.932 | 2,261,190 | 2,935,012 | 23 |
| 7,683,253 | 7,570,743 | 9,526,836 | 13,072,558 | 57,462,451 | 52,248,771 | 73,982,954 | 89,925,676 |  |
| 333,023 | 138,573 | 90,112 | 106, 194 | 822.875 | 480,459 | 1.234, 094 | 1,715,990 | 24 |
| 3,002,599 | 1,393,207 | 890,441 | 1,182,695 | 1,865,819 | 907,705 | 2,378, 180 | 4,032,478 |  |
| 9,992 | 323,655 | 14,263 | 6,969 | 2.480 | 778 | 70,953 | 18,016 | 25 |
| - | - | 7,443 | 43,951 | 14,542 | 7.853 | 48,896 | 213,430 | 26 |
| 102,315 | 29,433 | 32,554 | 39,082 | 66,924 | 245.846 | 209.523 | 220,134 | 27 |
| - |  |  | 235, 295 | 1,101 | 2.180 | 354,643 | 36,856 | 28 |
| - | - | - |  | 8,085, 290 | 8,741,503 | 10,943,891 | 10,724,633 | 29 |
| 287 |  |  |  | 20,497,577 | 23,416,056 | 28,595,218 | 30,800.905 |  |
| 3,601 | 4,356 | 942 | 7,735 | 1,512,640 | 1, ${ }_{4,378}$ | 2, 36,912 | 10,013 | 31 |
| 21,600 | .. | - | , | 8,924 | 8,126 | 10,942 | 7.350 | 32 |
| 2,160 |  |  |  | 1,937 | 2,214 | 1.066 | 1,318 |  |
| 1,197,822 | 751,530 | 569,075 | 1,174,420 | 4,146,583 | 3,430,996 | 4,920,977 | 8,336,226 | 33 |
| 2,727.856 | 2,689,923 | 4,148,579 | 6,894,513 | 5,053,775 | 4,024,797 | 19.069,140 | 19,846,714 | 34 |
| 7,313,638 | 5,546,469 | 5,993,095 | 10,370,451 | 33,568,378 | 33,358,815 | 58,498,824 | 67,253,116 |  |
| 85,688 | 72,676 | 67,503 | 117,146. | 241,584 | 205,927 | 189,322 | 192,611 | 35 |
| 1,612 |  |  |  | 38,037 | 10,381 | 14,225 | 10,701 | 36 |
| 60,552 | 87,984 | 85,290 | 100.101 | 395,465 | 378,156 | 464,008 | 463,304 | 37 |
| 250,472 | 155,415 | 109,894 | 229,465 | 272,466 | 135,549 | 152,801 | 250,092 | 38 |
| 2,503 | 二 |  |  | 178 224,030 | 307, ${ }^{468}$ | 283, 1834 | 645,095 | 39 40 |
| 366,535 | 341,422 | 306,501 | 619,982 | 725,995 | 1,025,776 | 697,464 | 2,126,443 | 41 |
| 25,918 | 14,124 | 30,986 | 3,565 | 973,641 | 549,906 | 485,738 | 656.242 | 42 |
| 955,641 | 18,683,188 | 296,041 | 161,670 | 4,529,408 | 3,219,973 | 2,527,437 | 5,943,677 | 43 |
| 3,818,798 | 1, 1,868 | ${ }^{110}$ |  | 36,359 | 44,142 | 38.523 | 65,422 | 44 |
| 3,818,798 | 2,904,765 | 2,026,797 | 1,346,941 | 14,518,767 | 14,121,794 | 15, 154,449 | 19,805,506 | 45 |
| 5,567,719 | 22,261,442 | 2,923,154 | 2,578,916 | 21,955,930 | 19,999,236 | 20,008,694 | 30,159,195 |  |
| 686,914,277 | 704,955,726 | 469,910,011 | 631,460,954 | 1,500,986,721 | 1,503,458,711 | 2,020,987,630 | 2,297,674,594 |  |

## 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 continents and countries.


The data of Tables 15 and 16 have been specially tabulated to show this information for all countries of any importance that trade with Canada. Table 17, on the other hand, gives historical statistics that indicate clearly the fluctuations in imports for home consumption of important raw materials used in Canadian manufacture, irrespective of their source. In a broad way, the data reflect the development of Canadian manufactures, although the industrial expansion for the purposes of war must be borne in mind in using the figures for the past decade.
15.-Imports according to Degree of Manufacture, by Countries and Continents, 1950 and 1951

| Country | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Raw Materials | Partly Manufactured | Fully or Chiefly Manufactured | Raw Materials | Partly Manufactured | Fully or Chiefly Manufactured |
|  | \$ 000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Commonwealth Countries |  |  |  |  |  |  |
| United Kingdom. | 14,55412 | 58,326 | 331,334 | 13,993 | 63,969 | 343,022 |
| Aden........... |  | 9,590 | 1,756 | $\begin{aligned} & 6,724 \\ & 1,456 \end{aligned}$ | 2,789 | 1,35138 |
| Southern Rhodesia. | 392 | - |  |  | - 2 |  |
| Northern Rhodesia. | 50 |  |  |  |  | -1,792 |
| Union of South Africa. | 1,908 | 715122 | 2,341 | 2,2916,960 | 1,288 |  |
| Gold Coast. | 8,866 |  | - 1 |  | 151 32 | 1 |
| Nigeria..... | $\begin{array}{r}1,479 \\ \hline 294\end{array}$ | - 5 |  |  | - 32 | - ${ }^{2}$ |
| Sierra Leone..... |  | - 53 | - |  | 58 | - |
| India.................. | 6,584, | 885881 | 29,792 | $\begin{array}{r} 5,107 \\ 80 \end{array}$ | 4,561 | 30,549464 |
| Pakistan | 567 |  |  |  | 1,689 |  |
| Ceylon. | 3,185 | 2,229 | 12,190 | 6,025 | 1,726 | 8.646374 |
| Federation of Malaya | 23,272 | 5,066 | 515 | 48,4484,623 | $\underline{9,159}$ |  |
| Other British East Indies. | 46 |  |  |  |  |  |
| Bermuda...... | $7{ }^{4}$ | $\begin{array}{r} 29 \\ 13,659 \end{array}$ |  | $\begin{array}{r} 8 \\ 9,420 \end{array}$ | $\begin{array}{r} 16 \\ 14,833 \end{array}$ | 772 |
| British Guiana. | 7,092 |  | 812.7811 |  |  |  |
| British Honduras | 224 | 140 |  | -294 | 10.974 | 67 3,155 |
| Barbados. |  | 16,388 | 2,781 1,589 | 947 | $\begin{array}{r} 14,204 \\ 14.590 \\ 8,159 \end{array}$ | 2,504 |
| Trinidad and Tobago | 5,786 | 7,664 | 1,756 | 6,380 |  | 543162 |
| Bahamas.. | 235 |  | 298 <br> 177 | 184176 |  |  |
| Leeward and Windward Islands. | 205 | 13$-\quad 1$ |  |  | 702 | 79 |
| Gibraltar... | , |  | 1,876. | 711 |  | - 2,272 |
| Hong Kong | 259 | - 67 |  | 711 |  |  |
| Austra |  | 12,705 8,772 |  | 20,310 | $\overline{16,012}$ | 9,906 |
| Fiii. |  | 10,1321,821 |  | $21,42$ | $\begin{aligned} & 5,944 \\ & 3,361 \end{aligned}$ | 5 47 |
| New Zealand | 8,424 |  |  |  |  | 5,322 |
| Totals, Commonwealth Countries. . | 93,587 | 147,767 | 398,270 | 156,506 | 159,411 | 411,172 |
| Foreign Countries |  |  |  |  |  |  |
| Afghanistan. | $\begin{array}{r} 109 \\ 28,114 \\ 4,184 \end{array}$ | - | - | r $\begin{array}{r}51 \\ 22,651\end{array}$ | - | - |
| Arabis... |  |  | 5,826 |  |  | 10,069 |
| Argentins |  | -902 |  | 2,108 | 1,777 |  |
| Belgium and Luxembour | -663 | 3,688 | 18,444 | 567 | 3,426 | $\begin{array}{r} 2,980 \\ 35,102 \end{array}$ |
| Belgian Congo.. | 157 | 1,282 | [42 | 9601,791 | 2,014 | 94837 |
| Bolivia.. | 2,408 |  |  |  | 1,548 |  |
| Brazil. | 23,007 | $-146$ | 5,025 | 34,481 |  | 4,598 |
| Bulgaria. |  |  | $-{ }^{4}$ | 二 | - | 4 |
| Burms.. | 1.258 | - 19 |  |  |  | 44.77 |
| Chins. | 1,258 |  | 2,515 | 2,033 | 44 12 | 1,542 |
| Colombia | 13,038 | 30 | - 305 | 13,0238,785 | - | - 40 |
| Costa Rica | 3,378 | - |  |  |  |  |
| Cuba.. | 1,922 | 432 | $\begin{aligned} & \mathbf{1}, 780 \\ & \mathbf{5}, 966 \end{aligned}$ | 2,264 | 3,543 | 2,526 |
| Czechoslovakia | 54 |  |  | 98 |  | 4,5532,895 |
| Denmark. | 680 | 12 | $714$ | 830550 |  |  |
| Dominican Republic | 553 | [117 11 | 21343 |  |  | - 24 |
| Ecusdor. | 1,419 |  |  | 2,401 | 7 | 30 |
| Egypt...... | 611 |  | 42 | 550 | 10 | 152 |
| El Salvador | 847 | - | - 30 | 1,027 | 153 | ${ }^{2}$ |
| Ethiopia |  | - |  |  | - | 1 |
| Finland. | 182 | -- | 35 | 35 | 2 | 121 |
| France. | 535 | 1,416 | 12,717 | 1,160 | 802 | 22,012 |
| French Africa | 68 | 433 |  | 311 | 15 | 73 |
| French Oceania | 54 | 420 | 3 | 360 | - | - |
| Madagascar. | 8 |  |  | 29 | - | - |
| St. Pierre and Miquelo | 3 | 2 | 12 | 2 | - | 23 |
| Greece.. | 196 | 1,153 | 9,677 | 211 | 1,158 | 29,567 |
| Guatemala | 5,765 | 14 14 | 2 | 4,592 | 12 | 15 |
| Haiti...................................... | 1,753 | ${ }_{3}$ | 13 | 2,996 | 2 | 22 |

## 15.-Imports according to Degree of Manufacture, by Countries and Continents, 1950 and 1951-concluded


## 16.-Exports of Canadian Produce according to Degree of Manufacture, by Countries and Continents, 1950 and 1951

| Country | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Raw Materials | $\begin{gathered} \text { Partly } \\ \text { Manu- } \\ \text { factured } \end{gathered}$ | Fully or Chiefly Manufactured | Raw Materials | Partly Manufactured. | Fully or Chiefly Manufactured |
| Commonwealth Countries | \$'000 | \$'000 | \$'000 | \$'000 | \%'000 | \$'000 |
| United Kingdom. | 217,314 | 144,888 | 107,708 | 244,338 | 284,095 | 103,028 |
| Aden....... |  | - | 31 | - |  |  |
| Africa, British East |  |  | $848{ }^{\circ}$ |  | 1.584 | 1,430 |
| Southern Rhodesia. |  | 602 | 589 | 22 | 1,584 | 1,064 |
| Northern Rhodesia | -16.138 | 577 | 318 | -11 | ${ }^{52}$ | ${ }^{228}$ |
| Union of South Africa | 16,138 | 5,656 | 20,767 | 11,112 | 8,486 | 33,138 |
| Other British South Africa. |  | - |  | - |  |  |
| Gambia. | - | - | 12 | $\sim$ | - | 26 |
| Gold Coast |  |  | 580 | - | - | 980 |
| Nigeria. | - |  | 247 | - |  | 796 |
| Sierra Leone |  |  | 219 | - | - | 200 |
| Other British West Africa | - |  |  | - | - |  |
| Anglo-Egyptian Sudan. |  | ${ }^{2}$ |  | , 677 |  | ${ }^{34}$ |
| India...... | 5,207 | 6,677 | 19,636 | 18,677 | 5,028 | 12,031 |
| Pakistan | 5 | 319 | 8,357 |  | 269 | 4,217 |
| Ceylon. | - | 9 | 4,344 |  | 24 | 3,445 |
| Federation of Malaya | 39 | 180 | 3,878 | 172 | 110 | 10,513 |
| Other British East Ind | - 731 | - 110 | - 32 | - 843 | - 141 |  |
| Bermuda... | 734 | 110 | 2,148 | 843 | 141 | 2,709 |
| Rritish Guiana. | 572 | 67 | 3,413 | 534 | 79 | 4,695 |
| British Hondura | 7 | - | 484 | 4 | - | 568 3,118 |
| Barbados. | 242 | 373 70 | 2,359 | 420 | 1,046 | 3,118 |
| Jamaica. | 723 | 70 | 6,702 | 881 | 157 | 9,175 |
| Trinidad and Tobag | 941 | 308 | 6,227 | 1,093 | 358 | 8.499 |
| Bahamas | 165 | 125 | 1,646 | 158 | 144 | 1,833 |
| Leeward and Windward Islands | 134 | 255 | 2,824 | 201 | 377 | 3,652 |
| Falkland Islands. | - | - | 1 | - | - |  |
| Gibraltar. | - |  | 324 | - | 39 | 609 |
| Hong Kong | 197 | 829 | 6,978 | 593 | 1,691 | 9,749 |
| Malta. | 4,532 | 72 | 75 | 1,359 | 45 | 746 |
| Australia | 335 | 9,352 | 25,759 | 1,260 | 16, 484 | 31,336 |
| Fiji. | - | 185 | 49 | 32 | 604 | 167 |
|  | 12 | 1,220 | 9,751 | 19 | 2,928 | 18,810 |
| Other British Oceania. <br> Totals, Commonwealth Countries. |  | 9 | 6 | - | 73 | 9 |
|  | 247,309 | 171,391 | 236,389 | 281,725 | 323,844 | 266,838 |
| Afghanistan............... | - | 二 |  |  | - | 97 |
| Albania. . | - | - | - | - |  |  |
| Arabia | 128 | 104 | 642 | 96 | 258 | 1,060 |
| Argentina | 166 | 193 | 13,000 | 139 | 2,737 | 6,008 |
| Austria. | 467 | 615 | 1,287 | 329 | 623 | 1,215 |
| Belgium and Luxembourg | 49,456 | 3,870 | 13,025 | 73,093 | 8,834 | 12,530 |
| Belgian Congo. | 15 | 78 | 2,378 | 4 | 97 | 4,217 |
| Bolivia | 1,612 | 52 | 603 | 1,651 | 150 | 1,683 |
| Brazil. | 1,913 | 3,444 | 10,449 | 6,858 | 13,220 | 33,606 |
| Bulgaria |  |  | 215 | 6, |  | ${ }^{8}$ |
| Burma. | - |  | 30 | - | $\sim$ | 279 |
| Chile. | 4,375 | 581 | 1,908 | 6,653 | 2,077 | 5,021 |
| China. | , | 542 | 1,506 | 13 | 44 | 310 |
| Colombia | 5,306 | 1,440 | 8,059 | 2,114 | 1,506 | 8,690 |
| Costa Rica | -353 | 131 | 1,828 | , 99 | 1,62 | 2,013 |
| Cuba. | 727 | 2,119 | 15,159 | 1,185 | 1,880 | 17,359 |
| Czechoslovakia | 1,174 | 543 | 462 | 25 | - | 467 |
| Denmark. | 108 | 128 | 687 | 3,478 | 625 | 1,485 |
| Greenland.... | 8 |  | 126 | 1 |  | 205 |
| Dominican Republic | 91 | 133 | 2,730 | 119 | 216 | 3.726 |
| Ecuador. | 554 | 10 | 868 | 180 | 7 | 2,526 |
| Exypt...... | 2,343 | 164 | 1,209 | 925 | 257 | 1,284 |
| El Salvador |  | 126 | 1,267 | - | 202 | 1,800 |
| Finland. | - |  | 54 |  |  | 198 |
| France. | 2.230 | $8{ }^{4}$ | 367 | 981 | 102 | 2.047 |
| French Africa |  | 8,200 | 8,199 | 12,864 | 19,887 | 13,788 1,976 |
| French East Indies. |  |  | 1,628 | 4,530 | 241 | 1,976 223 |
| French Guiana. | - | - | 5 | - |  | 4 |
| French Oceania |  | 191 | 544 | 2 | 411 | 214 |
| French West Indies | - | - 1 | 38 | - |  | 37 |
| St. Pierre and Miquelon.................. | - ${ }_{393}$ | - ${ }_{66}$ | ${ }_{603}^{117}$ | ${ }^{430}$ | - 70 | 102 |

16.-Exports of Canadian Produce according to Degree of Manufacture, by Countries and Continents, 1950 and 1951-concluded

| Country | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Raw Materials | Partly <br> Manu- <br> factured | Fully or Chiefly Manufactured | Raw Materials | Partly <br> Manu- <br> factured | Fully or Chiefly Manufactured |
| Foreign Countries-concluded | \$'000 | 8 '000 | \$'000 | $8{ }^{\prime} 000$ | \$'000 | \$'000 |
| Germany | 1,925 | 1,873 | 5,075 | 18,506 | 10,389 | 8,133 |
| Greece. | 55 | 417 | 1,361 | - | 1,385 | 1,319 |
| Guatemala | 7 | 106 | 2,288 | 27 | 147 | 2,192 |
| Haiti.. | 17 | 6 | 2,489 | 13 | 4 | 2,572 |
| Honduras | 200 | 52 | 360 | 16 | 16 | 3,543 |
| Hungary. | 24 | . | 61 | 12 | - | 18 |
| Iceland. |  | 55 | 793 |  | 46 | 632 |
| Iran. | 二 | 16 | 977 | - | 7 | 993 |
| Iraq... | 9.029 | 1.339 | \%66 | - 23 | 82 | 980 |
| Ireland | 9,029 | 1,339 | 2,954 | 13,283 | 3,826 | 3,812 |
| Israel. | 6,456 | 438 | 5,231 | 3,292 | 2,308 | 6,216 |
| Tripol | 5,969 | 2,246 | 7,261 | 23,809 | 7,576 | 17,379 |
| Other Italian Africa | 184 | - | $-2$ | -2,021 | - | 8 |
| Japan. | 13,935 | 1,408 | 5,190 | 44,475 | 20,203 | 8,298 |
| Korea. |  | , | 1,108 | , | 20,203 | 213 |
| Liberia. |  | - | 108 | - | - | 1,372 |
| Lithuania | - | - |  | - | - |  |
| Mexico. | 524 | 3,252 | 13,848 | 383 | 5,564 | 23,932 |
| Moroceo | 9 | 84 | 1,607 | 538 | 67 | 2,776 |
| The Netherlands | 2,547 | 2,980 | 3,090 | 19,275 | 3,766 | 3,150 |
| Indonesia. |  | 7 | 3,010 | 7 | 61 | 5.159 |
| Surinam. | - | - | 863 | 9 | 2 | 923 |
| Netherlands Antilles | 62 | 109 | 4,293 | 47 | 100 | 1,687 |
| Nicaragua.. | 8 | 83 | 665 | - | 75 | 1,022 |
| Norway. | 14,935 | 179 | 3,810 | 26,698 | 222 | 5,278 |
| Panama | 81 | 385 | 8,553 |  | 150 | 5,741 |
| Paraguay |  | 10 | 100 | - |  | 167 |
| Peru. | 354 | 721 | 2,670 | 390 | 942 | 3,722 |
| Philippine | 27 | 692 | 10,110 | 48 | 761 | 14,789 |
| Poland. | 24 | 846 | 563 | 1 | 21 | 72 |
| Portugal. | 10 | 499 | 5.131 | 575 | 236 | 3,853 |
| Azores and Madeira | - | - | ${ }^{210}$ |  |  | , 259 |
| Portuguese Africa. | 14 | 1,426 | 1,262 | 5 | 1,590 | 1,232 |
| Portuguese Asia. | - |  | 103 |  | 二 | 10 |
| Roumania | - |  | 122 1,169 | 41 | 1 | 2,335 |
| Siam (Thailan | 5,233 | 10 73 | 1,169 | 102 | 245 | 394 |
| Canary Islands |  |  | 237 | - | - | 107 |
| Spanish Africa. |  |  | 62 |  | $\checkmark$ | 75 |
| Sweden | 283 | 1,489 | 2.478 | 3,188 | 5,027 | 3,910 |
| Switzerland | 19,966 | 1,556 | 4,912 | 14,303 | 3,798 | 7,244 |
| Syria.. | 9 | 118 | 1,335 | 2,964 | 247 | 3,826 |
| Jordan | - | - | 46 | 991 | - | 81 |
| Turkey .................. | 162 | - | 3,582 | 918 | 8 | 2,036 |
| Union of Soviet Socialist Republics |  |  | $7{ }^{182}$ |  |  |  |
| United States. | 466,997 | 755,760 | 798,231 | 578,812 | 809,049 | 909,813 |
| Alaska. | 757 | 25 | 177 | 762 | 129 | 1,373 |
| American Virgin Islands | 1 | 30 | 125 | 11 | 22 | 147 |
| Hawaii................. | 592 | 1,467 | 4,770 | 530 | 1,286 | 4,602 |
| Puerto Rico. | 734 | 1,045 | 5,864 | 695 | 664 | 6,761 |
| United States Oceania |  | ${ }^{7}$ | 198 | 339 |  | - 5.181 |
| Uruguay.. | 243 | 320 | 1,355 | -339 | 1,349 | 5,181 24,096 |
| Venezuela | 1,880 | 1,294 | 22,283 | 1,820 | 1,066 | 24,096 1,805 |
| Yugoslavia. | - | 37 | 781 | 933 |  | 1,805 |
| Totals, Foreign Countri | 625,241 | 805,485 | 1,032,571 | 875,706 | 935,950 | 1,230,397 |
| Grand Totals | 872,550 | 976,876 | 1,268,960 | 1,157,431 | 1,259,795 | 1,497,235 |
| Continents |  |  |  |  |  |  |
| Europe | 335,287 | 171,913 | 171,468 | 457,173 | 350,786 | 193,198 |
| North America | 473,980 | 764,672 | 881,033 | 586,279 | 820,578 | 1,014,154 |
| South America. | 16,974 | 8,133 | 65,576 | 20,687 | 23,135 | 96,323 |
| Asia | 26,266 | 11,354 | 77,484 | 72,287 | 31,102 | 86,985 |
| Oceania | 942 | 12,432 | 41,076 | 1,842 | 21,792 | 55,322 |
| Africa. | 19,101 | 8,373 | 32,322 | 19,164 | 12,403 | 51,252 |

## 17.-Imports of Certain Raw Materials Used in Canadian Manufactures, 1942-51

Notb.-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 only for 1926 and subsequent years; those for 1926-41 are given in the 1948-49 edition, pp. 927-928.

| Year | Sugar for Refining | $\begin{array}{\|c} \text { Vegetable } \\ \text { Oil for } \\ \text { Soap } \end{array}$ | Cottonseed Oil, Crude | Rubber, Raw (including Balata) and Latex | Tobacco, Raw | Hides and Skins | $\begin{gathered} \text { Cotton, } \\ \text { Raw } \\ \text { (including } \\ \text { Linters) } \end{gathered}$ | Hemp, Dressed or Undressed | Silk, etc. Raw |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | tons | gal. | cwt. | cwt. | lb. | cwt. | cwt. | cwt. | lb. |
| 1942 | 304,786 | 3,420,531 | 101,244 | 738,235 | 1,452,330 | 356,540 | 2,802,545 | - | 106,015 |
| 1943 | 412,699 | 3,089, 133 | 187,036 | 459,085 | 1,323,847 | 347,652 | 1,509,916 |  |  |
| 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 | 774,559r | 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 ${ }^{1}$ | 2,455,101 | 2,154 | 137,664 |
| 1951.... | 546,276 | 1,410,260 | 290,157 | 1,075,486 | 1,151,574 | 2,7151,601 | 2,140,281 | 2,501 | 70,187 |
|  | Wool, Raw ${ }^{2}$ | Noils, Waste and Tops, Wool | $\begin{gathered} \text { Artificial } \\ \text { Silk } \\ \text { Rovings, } \\ \text { Yarns, } \\ \text { etc. } \end{gathered}$ | Manila, Sisal, Istle, Tampico | Rags, Waste Paper, and Other Waste | Iron Ore | Alumina, Bauxite, Cryolite | Tin in Blocks, Ingots, etc. | Petroleum, Crude for Refining |
|  | cwt. | cwt. | lb . | vt. | cwt. | tons | cwt. | cwt. | '000 gal. |
| 1942. | 739,494 | 126,369 | 3,541,497 | 788,081 | 1,036,298 | 2,701,968 | 26,679,928 | 72,051 | 1,542,597 |
| 1943. | 795,033 | 80,884 | 3,317,187 | 740,955 | 944,393 | 3,906,425 | 60,661,690 | 26,311 | $1,739,505$ |
| 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 | 2,042,162 | 3,944,550 | 28,002,714 | 88,723 | 2,395,283 |
| 1848 | 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 | 127,971 | 22,646,972 | 440,487 | 1,583,833 | 2,517,235 | 35, 887, 446 | 82,332 | 2,587,709 |
| 1950. | 344,383 | 168,647 | 17,424,956 | 628,945 | 2,020,442 | 3,070,557 | 37,312,022 | 107,909 | 2,752,700 |
| 1951.... | 301,300 | 144,560 | 27,819,536 | 923,737 | 2,610,367 | 3,831,418 | 48,170,988 | 137,430 | 2,914,911 |

${ }^{1}$ Quantity given in number instead of by hundred-weight. $\quad 2$ Includes hair of the camel, alpaca, goat, etc.

## 18.-Imports according to Origin, by Groups and Degree of Manufacture, 1950 and 1951

| Origin | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | $\left\lvert\, \begin{gathered} \text { All } \\ \text { Countries } \end{gathered}\right.$ | United Kingdom | United States | All <br> Countries |
| Farm Origin | \$'000 | \$'000 | \$'000 | \$'000 | $\$^{\prime} 000$ | \$'000 |
| Canadian Farm Products-1 Field Crops- |  |  |  |  |  |  |
| Raw materials.. | 2,217 | 72,198 | 82,021 | 742 | 80,551 | 89,561 |
| Partly manufactured. | 25 | 1,783 | 2,593 | 2 | 3,257 | 4,020 |
| Fully or chiefly manufactured | 18,990 | 14,293 | 39,327 | 19,363 | 25,030 | 54,172 |
| Totals, Field Crops | 21,232 | 88,275 | 123,941 | 20,107 | 108,838 | 147,753 |
| Animal Husbandry - |  |  |  |  |  |  |
| Raw materials.... | 4,131 | 16,907 | 48,147 | 6,489 | 32,886 | 90,008 |
| Partly manufactured......... | 30,568 | 10,680 | 46,035 | 42,049 | 12,482 | 62,222 |
| Fully or chiefly manufactured | 46,277 | 13,136 | 76,769 | 58,150 | 19,073 | 111,277 |
| Totals, Animal Husbandr | 80,877 | 40,723 | 170,952 | 106,688 | 64,441 | 263,507 |
| All Canadian Farm ProductsRaw materials. |  |  |  |  |  |  |
| Partly manufactured | 30,594 | 89,106 12,463 | 130,168 48,628 |  | 113,438 15 | 179,568 66,243 |
| Fully or chiefly manufactured | 65,266 | 27,429 | 116,097 | 77,513 | 15,739 44,102 | 66,243 165,449 |
| Totals, Canadian Farm Products. | 102,209 | 128,988 | 294,893 | 126.795 | 173,279 | 411,260 |

For footnote, see end of table, p. 969.

## 18.-Imports according to Origin, by Groups and Degree of Manufacture, 1950 and 1951 -continued

| Origin | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | $\operatorname{Cll}_{\text {All }}$ | United Kingdom | United States | $\left\lvert\, \begin{gathered} \text { All } \\ \text { Countries } \end{gathered}\right.$ |
| Farm Origin-concluded | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Foreign Farm Products-1 <br> Field Crops- |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Raw materials. | 2,007 | 107,806 | 251,911 | 1,058 | 143,065 | 307,534 |
| Partly manufactured | 2.533 | 16,555 | 108,395 | 92 | 13,314 | 109,730 |
| Fully or chielly manufactured | 32,060 | 84,010 | 206,223 | 35,645 | 108,847 | 230,874 |
| Totals, Field Crops | 36,600 | 208,372 | 566,529 | 36,795 | 265,227 | 648,237 |
| Animal Husbandry |  |  |  |  |  |  |
| Raw materials.. | 353 | 7,250 | 8,471 | 895 | 5,580 | 7,114 |
| Partly manufactured |  | 12 | 12 | 1 | 10 | 11 |
| Fully or chiefly manufactured | 752 | 4,747 | 7,845 | 897 | 4,807 | 8,351 |
| Totals, Animal Husbandr | 1,105 | 12,009 | 16,328 | 1,792 | 10.397 | 15,476 |
| All Foreign Farm Products- |  |  |  |  |  |  |
| Raw materials...... | 2,560 2,533 | 115,056 16,567 | 260.382 108.406 | 1.953 93 | $\begin{array}{r}148.646 \\ 13,325 \\ \hline\end{array}$ | 314.648 109,741 |
| Fully or chiefly manufact | 32,812 | 88,757 | 214,069 | 36,542 | 113,653 | 239,325 |
| Totals, Foreign Farm Produc | 37,705 | 220,380 | 582,857 | 38,588 | 275, 624 | 663,713 |
| All Farm ProductsAll Field Crops- |  |  |  |  |  |  |
| Raw materials. . . . . | 4,224 | 180,004 | 333,932 | 1,801 | 223.617 | 397.094 |
| Partly manufactured | 2,558 | 18,339 | 110,987 |  | 16,572 | 113,750 |
| Fully or chiefly manufactured | 51.050 | 98,303 | 245,551 | 55,008 | 133.876 | 285.145 |
| Totals, All Field Crops................. | 57,832 | 296,646 | 690,470 | 56,902 | 374,065 | 795.990 |
| All Animal Husbandry- |  |  |  |  |  |  |
| Raw materials...... | 4,484 | 24,157 | 56,618 | 7,383 | 38,467 | 97.122 |
| Partly manufactured | 30,568 | 10.691 | 46,047 84,614 | 42,049 59.048 | 12,492 23,880 | 62,233 119,629 |
| Fully or chiefly manufac | 47,029 | 17,883 | 84,614 |  |  |  |
| Totals, All Animal Husbandry.... | 82,082 | 52,732 | 187,280 | 108,480 | 74,839 | 278,983 |
| All Farm ProductsRaw materials. Partly manufactured Fully or chiefly manufactured..... |  |  |  |  |  |  |
|  | 8,709 33,127 |  |  |  |  |  |
|  | 33,127 $\mathbf{9 8 , 0 7 9}$ | 29,030 116,186 | 157,034 330,165 | 42,143 $\mathbf{1 1 4 , 0 5 5}$ | 29,064 <br> $\mathbf{1 5 7 , 7 5 6}$ | 175,984 404,774 |
| Totals, Farm Origin. Wild-life Origin | 139,914 | 349,378 | 877,750 | 165,382 | 448,903 | 1,074,974 |
|  |  |  |  |  |  |  |
| Raw materials. | 71 | 9,515 | 9,685 | 536 | 7,821 | 9,254 |
| Partly manufactured | 76 | 612 | 760 | 268 | 1,076 | 1,368 |
| Fully or chiefly manufactured | 333 | 556 | 943 | 381 | 702 | 1,141 |
| Totals, Wild-life Origin. $\qquad$ Marine Origin | 481 | 10,683 | 11,388 | 1,185 | 9,599 | 11,763 |
|  |  |  |  |  |  |  |
| Raw materials. | 8 | 1,776 | 2,169 | 4 | 2,119 | 3.163 |
| Partly manufactured. <br> Fully or chiefly manufactured | 199 | -2,746 | 4,376 | - 266 | 3,772 | 6,342 |
| Totals, Marine Origin <br> Forest Origin | 206 | 4,521 | 6,546 | 270 | 5,891 | 9,504 |
|  |  |  |  |  |  |  |
| Raw materials.. | - | 3,764 | 3,976 | 1 | '6.981 | 31,287 |
| Partly manufactured. <br> Fully or chiefly manufactured. |  | 21,275 70,189 | 22,060 78,535 | 4, ${ }^{46}$ | 29,386 90,782 | 101,493 |
|  | 3,706 | 70,189 | 78,535 | 4,325 | 90,782 |  |
| Totals, Forest Origin. $\qquad$ Mineral Origin | 3,733 | 95,227 | 104,571 | 4,371 | 127,148 | 140,007 |
|  |  |  |  |  |  |  |
| Raw Materials. <br> Partly manufactured. <br> Fully or chiefly manufactured | 5,767 | 300,104 | 444,899 | 4,268 | 277,716 | 492.137 |
|  | 24,648 | 22.734 | 60,528 | 20.952 | 40.116 | + 79.371 |
|  | 193,474 | 1,096.983 | 1,357, 232 | 185, 106 | 1,518,880 | 1,811,664 |
| Totals, Mineral Origin. | 223,889 | 1,419,821 | 1,862,660 | 210,326 | 1,836,712 | 2,383,173 |

For footnote, see end of table, p. 969.

## 18.-Imports according to Origin, by Groups and Degree of Manufacture, 1950 and 1951-concluded


${ }^{1}$ 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, etc.

## 19.-Exports according to Origin, by Groups and Degree of Manufacture, 1950 and 1951



For footnote, see end of table, p. 970.

## 19.-Exports according to Origin, by Groups and Degree of Manufacture, 1950 and 1951-concluded

| Origin | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | $\left\lvert\, \begin{gathered} \text { All } \\ \text { Countries } \end{gathered}\right.$ | United Kingdom | United States | AII <br> Countries |
| Farm Origin-concluded | \$'000 | \$'000 | \$'000 | \$'000 | \$ 000 | §'000 |
| Formig Farm Products-concluded 1 All Foreign Farm Products- |  |  |  |  |  |  |
| Raw materials...... |  | 151 | 153 | - 2 | 1,731 | 1,731 |
| Partly manufactured. |  | 2,412 | 2,426 | 202 | 2,911 | 3,368 |
| Fully or chiefly manufactured. | 707 | 9,796 | 25,811 | 2,381 | 15,510 | 48,769 |
| Totals, Foreign Farm Products | 707 | 12,360 | 28,389 | 2,583 | 20,153 | 53,868 |
| All Farm ProductsAll Field Crops- |  |  |  |  |  |  |
| Raw materials....... | 186,089 | 116,746 | 453,245 | 183,289 | 178,483 | 649,041 |
| Partly manufactured | 278 | 7,398 | 11,482 | 290 | 7,180 | 12,029 |
| Fully or chiefly manufac | 42,978 | 59,854 | 186,116 | 48,665 | 87,903 | 253,853 |
| Totals. All Field Crops | 229,345 | 183,998 | 650,843 | 232,243 | 273,567 | 914,923 |
| All Animal Husbandry- |  |  |  |  |  |  |
| Raw materials. <br> Partly manufactured. <br> Fully or chiefly manuactured | 1,921 | 138,264 | 150,030 | 3,230 | 143,294 | 151,908 |
|  | 863 | 5,919 12,895 | 9,395 69,831 | 1,256 10,333 | 6,314 14,669 | 10,638 |
| Totals, All Animal Husbandry.......... | 44,768 | 157,078 | 229,256 | 14,819 | 164,277 | 203,035 |
| All Farm Products- |  |  |  |  |  |  |
| Raw Materials. | 188,010 | 255,010 | 603,275 | 186,518 | 321,777 | 800,949 |
| Partly manufactured | 1,141 | 13,318 | 20,877 | 1,546 | 13,494 | 22,667 |
| Fully or chiefly manufactured | 84,962 | 72,749 | 255,947 | 58,998 | 102,572 | 294,341 |
| Totals, Farm Origin. Wild-life Origin | 274,113 | 341,076 | 880,099 | 247,062 | 437,844 | 1,117,958 |
|  |  |  |  |  |  |  |
| Raw materials. | 4,000 | 19,493 | 23,840 | 7,314 | 20,461 | 28,364 |
| Partly manufactured. | 10 | 513 | ${ }^{633}$ | 10 | 809 | 918 |
| Fully or chiefly manu | 1 | 848 | 873 | 2 | 608 | 631 |
| Totals, Wild-life Origin. <br> Marine Orisin | 4,011 | 20,855 | 25,346 | 7,326 | 21,872 | 29,912 |
|  |  |  |  |  |  |  |
| Raw materials. | 86 | 64,360 | 64,651 | 128 | 68,003 | 68,496 |
| Partly manufactured. |  | 1,030 | 1,064 | 41 7008 | ${ }_{16,041} 752$ | 54,804 |
| Fully or chiefly manuf | 4,951 | 15,409 | 52,374 | 7,908 | 16,041 | 54,082 |
| Totals, Marine Origin $\qquad$ <br> Forest Origin | 5,038 | 80,800 | 118,089 | 8,077 | 84,796 | 123,382 |
|  |  |  |  |  |  |  |
| Raw materials. | 1,697 | 44,284 | 46,434 | 6,425 | 70,335 | 82,706 |
| Partly manufactured | 36,097 | 456,314 | 518,561 | 122,499 | 491,634 | 703,049 |
| Fully manufactured. | 2,913 | 515,818 | 548.000 | 12,302 | 552,630 | 613,411 |
| Totals, Forest Origin. Mineral Origin | 40,707 | 1,016,416 | 1,112,996 | 141,226 | 1,114,600 | 1,399,167 |
|  |  |  |  |  |  |  |
| Raw materials. | 23,521 | 83,850 | 134,350 | 43,953 | 98,237 | 176,915 |
| Partly manufactur | 107,641 | 284,079 | 435,229 | 159,998 | 301,886 | 531,836 |
| Fully or chiefly manufacture | 7,375 | 128,119 | 273,022 | 13,546 | 161,251 | 379,456 |
| Totals, Mineral Origin Mixed Origin | 138,537 | 496,048 | 842,600 | 217,496 | 561,374 | 1,088,207 |
|  |  |  |  |  |  |  |
| Raw materials...... | 二 | - ${ }_{505}$ | 51 | - 1 |  |  |
| Partly manufactured Fully or chiefly man | 7,506 | 65,287 | 138,743 | 10,273 | 76,711 | $\begin{array}{r} 521 \\ 155,314 \end{array}$ |
| Totals, Mixed Origin....... | 7,506 | 65,792 | 139,256 | 10,274 | 77,185 | 155,835 |
| Recapitulation |  |  |  |  |  |  |
| Raw materials. | 217,314 | 466,997 | 872,550 | 244,338 | 578,812 | 1,157,431 |
| Partly manufactured | 144,888 | 755,760 | -976,876 | 284,095 | 809,049 909,813 | 1,259,795 |
| Fully manufacturedGrand Totals. | 107,708 | 798,231 | 1,268,960 | 103,028 | 909,813 | 1,497,235 |
|  | 469,910 | 2,020,988 | 3,118,387 | 631,461 | 2,297,675 | 3,914,460 |

${ }^{1}$ In this classification the expression "Canadian Farm Products" refers to commodities actually produced, in their original state, on Canadian farms. "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, etc.

## 20.-Imports according to Purpose, by Groups, 1950 and 1951


20.-Imports according to Purpose, by Groups, 1950 and 1951-concluded

| Group and Purpose | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | $\left\lvert\, \begin{aligned} & \text { All } \\ & \text { Countries } \end{aligned}\right.$ | United Kingdom | United States | All Countries |
|  | \$'000 | \$'000 | \$'000 | $8{ }^{\prime} 000$ | \$'000 | \$'000 |
| Consumer Goods-concluded |  |  |  |  |  |  |
| Household goods. | 30,520 | 63,000 | 104, 195 | 33,352 | 96,122 | 142,041 |
| Jewellery, time pieces, etc. . . . . . . . . . . . | 2,471 | 8,769 | 24,094 | 1,922 | 9,337 | 23,282 |
| Books, educational supplies, etc......... | 2,858 | 33,086 | 38,128 | 3,255 | 39,781 | 46,054 |
| Recreational equipment, etc. ............ | 3,633 | 12,650 | 19,434 | 3,845 | 19,065 | 26, 208 |
| Medical supplies, etc Other. $\qquad$ | 2,188 1,589 | 29,601 4,308 | 34,264 6,718 | 2,247 1,490 | 36,184 4,398 | 41,843 6,837 |
| Totals, Consumer Goods | 81,849 | 276,297 | 636,200 | 83,336 | 374,082 | 752,441 |
| Totals, Munitions and War | 2,459 | 2,428 | 5,329 | 4,606 | 12,517 | 17,827 |
| Totals, Live Animals for Food | - | 20 | 20 | - | 25 | 25 |
| Totals, Unclassified | 13,638 | 152,347 | 174,325 | 19,080 | 215,798 | 252,504 |
| Grand Totals | 404,213 | 2,130,476 | 3,174,253 | 420,985 | 2,812,927 | 4,084,856 |

21.-Exports according to Purpose, by Groups, 1950 and 1951

| Group and Purpose | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | ${\underset{C o u n t r i e s ~}{\text { All }}}^{\text {Con }}$ | United Kingdom | United States | All Countries |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Producers' Materials <br> Farm Materials |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Fodders. | 8697 | $\begin{array}{r} 64,414 \\ 30.022 \\ 15,927 \\ 3,815 \end{array}$ | $\begin{array}{r} 73,894 \\ 40,398 \\ 17,853 \\ 3,885 \end{array}$ | $\begin{array}{r} 8,914 \\ 143 \\ -\quad 320 \end{array}$ | $\begin{array}{r} 100,633 \\ 31,706 \\ 14,737 \\ 5,713 \end{array}$ | $\begin{array}{r} 162,796 \\ 36,783 \\ 16,888 \\ 6,139 \end{array}$ |
| Fertilizers. |  |  |  |  |  |  |
| Seeds.. |  |  |  |  |  |  |
| Other. |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Manufacturers' Materials |  |  |  |  |  |  |
| Foodstuffs and beverages | $\begin{array}{r} 173,651 \\ 8,320 \end{array}$ | 28,528 35 | 325,667 | 159,179 13,491 | $\begin{array}{r} 65,074 \\ 20 \end{array}$ | $\begin{array}{r} 441,106 \\ 16,439 \end{array}$ |
| Tobacco, smokers' supplies |  | 7.350 | 15,490 | 7009,922 | 6,42736.983 | 18,215 |
| Textile, clothing, cordage. | 789 | 7,590 |  |  |  |  |
| Fur and leather goods. | 6,026512 | 32,354 | 44,954 | 727$-\quad 1$ | 3,865 | 50,224 5,132 |
| Sawmills.......... |  |  | $\begin{gathered} 448 \\ 1,380,996 \end{gathered}$ |  |  | , 757 |
| Rubber industries. | 150,269 | $\begin{array}{r} 446 \\ 1.096 .409 \end{array}$ |  | 265,922 | 1,283,257 | 1,796,814 |
| Totals, Manupacturers' | 339,567 | 1,169,116 | 1,782,739 | 449,942 | 1,396,378 | 2,328,687 |
| Bumding and Construction Materials. | 21,464 | 289,511 | 339,006 | 83,547 | 233,388 | 362,298 |
| Other Producers' Materials | - | 1,486 | 2,102 | - | 1,019 | 2.030 |
| Totals, Producers' Materials | 361,223 | 1,574,291 | 2,259,879 | 542,867 | 1,783,575 | 2,915,620 |
| Producers' Equipment |  |  |  |  |  |  |
| Farm | $\begin{array}{r} 882 \\ 5,049 \end{array}$ | $\begin{aligned} & 94,640 \\ & 27,145 \end{aligned}$ | $\begin{array}{r} 112,827 \\ 64,101 \end{array}$ | $\begin{array}{r} 596 \\ 6,795 \end{array}$ | $\begin{array}{r} 109,154 \\ 40,300 \end{array}$ | $\begin{array}{r} 133,956 \\ 98,012 \end{array}$ |
| Commerce and indust |  |  |  |  |  |  |
| Totals, Producers' Equipment | 5,931 | 121,784 | 176,928 | 7,391 | 149,454 | 231,968 |

21.-Exports according to Purpose, by Groups, 1950 and 1951-concluded

| Group and Purpose | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | United Kingdom | United States | All Countries | United Kingdom | United States | All Countries |
|  | $\mathbf{\%}^{\prime} 000$ | \$'000 | \$'000 | $\boldsymbol{\$} 000$ | \$'000 | \$'000 |
| Fuel, Electricity and Lubricants |  |  |  |  |  |  |
| Fuel. | 951 | 11,110 | 14,374 | 1.329 | 8,767 | 13,483 |
| Electricity |  | 6,102 | 6,102 |  | 7,938 | 7,938 |
| Lubricants | - | 54 | 107 | 1 | 14 | 197 |
| Totais, Fuel, Etc. | 951 | 17,266 | 20,583 | 1,330 | 16,718 | 21,618 |
| Transpert |  |  |  |  |  |  |
| Road | 218 | 1,979 | 48.041 | 369 | 4,785 | 98.569 |
| Rail. |  | 358 | 15,413 | 1 | 504 | 4,345 |
| Water | - | 467 | 22.603 |  | 628 | 8,638 |
| Aircraft | 296 | 2,356 | 4,383 | 162 | 5,814 | 7,524 |
| Totals, Transport. | 514 | 5,160 | 90,439 | 532 | 11,731 | 119,076 |
| Auxiliary Materials for Commerce and Industry |  |  |  |  |  |  |
| Containers. $\qquad$ <br> Other. | ${ }^{479}$ | 2,367 | 6,796 68 | 1,247 | 5,614 7 | 14.171 237 |
| Totals, Auxiliary Materials | 479 | 2,367 | 6,863 | 1,247 | 5,621 | 14,408 |
| Consumer Goods |  |  |  |  |  |  |
| Foods................................... | 92,362 | 145,513 | 344, 866 | 64,534 | 173.215 | 358,145 |
| Beverages........ | 378 | 35,501 | 43,937 | -640 | 46,514 | 56,929 |
| Smokers' supplies. | - 571 | 15 | +40 |  |  | 181 |
| Clothing................................. | 571 | 6,262 | 8.268 | 2,090 | 5,037 | 9,636 |
| Household goods. . . . . . . . . . . . . . . . . . | 283 | 2.780 | 8,918 | 467 | 3,048 | 12,681 |
| Jewellery, timepieces, etc................. | 43 | ${ }^{46}$ | ${ }^{473}$ | 75 |  | 1,216 |
| Books, educational supplies, etc......... | 163 | 2,011 | 5,072 | 244 | 3,325 | 9,456 |
| Recreational equipment, etc............ | 374 | 4,330 | 6,486 | 733 | 6,483 | 10,161 |
| Medical supplies, etc................... | 255 | 1,812 | 6.489 | 403 | 1,180 | 7,470 |
| Other............. | 2 | 72 | 349 | 18 | 134 | 924 |
| Totals, Consumer Goods. . . . . . . . . . . | 94,432 | 198,340 | 424,896 | 69,203 | 239,118 | 466,800 |
| Totals, Munitions and War Stores.... | 1 | 385 | 3,825 | 235 | 347 | 3,189 |
| Totals, Live Animals for Food. | - | 65,876 | 66,001 | - | 45,626 | 45,773 |
| Totals, Unclassified. . . . . . . . . . . . . . . | 6,379 | 35,519 | 68,974 | 8,656 | 45,484 | 96,009 |
| Grand Totals................... | 469,910 | 2,020,988 | 3,118,387 | 631,461 | 2,297,675 | 3,914,460 |

## Section 6.-Comparison of Value, Price and Volume of Foreign Trade

Since the end of World War II the value of Canada's exports and imports has increased steadily. At the same time, the level of prices at which exports are sold and imports purchased has risen consistently. Changes in the value of exports and imports are the joint product of changes in the volume of goods traded and the prices at which transactions are conducted. To obtain a clear picture of the fluctuations in Canada's merchandise trade it is desirable to isolate the contributions made to these fluctuations by the price and volume factors.

Special indexes of export and import prices have been developed to give this information. These indexes are based chiefly on average prices calculated from the trade statistics (supplemented in some cases by wholesale and other price
information) and combined according to the relative importance of the commodities in the trade of 1948. By dividing these price indexes into the trade values the effects of price change can be removed from the values; or, by dividing the price index into an index of values, an index is obtained showing changes in the volume of trade from year to year. Table 22 gives the declared value of trade (adjusted for pricing purposes), the index of values based on 1948, the price index used to deflate the value index, and the resulting volume index.

The grouping of commodities used in this calculation differs slightly from that of the trade statistics, changes being necessary to simplify the pricing problem. The chief difference is that the two trade statistics groups 'agricultural and vegetable products' and 'animals and animal products' have been combined as 'agricultural and animal products'. Rubber and rubber products have been transferred from this group to the 'miscellaneous' group, and a few other transfers have been made designed to improve the component material classification. The totals differ, from those usually published, by the exclusion of certain imports that are for the use of the United Kingdom Government and the governments of NATO countries.

Movements in price value and volume have not always been the same. Export prices have increased steadily in the post-war period, but the volume of exports declined in 1949 and 1950, and did not pass the 1948 peak until 1951. From 1947 to 1951 the value of exports rose 41 p.c., but volume increased by 5 p.c. Imports have expanded steadily in value, but the 1947 volume was not surpassed until 1951. From 1947 to 1951 import value gain was 59 p.c., and volume increase only 11 p.c. The tables do not give comparisons with a pre-war year, but in 1948 (the interim base of the indexes given) the comparison with 1938 was approximately as follows:-

22.-Declared Values, Prices and Physical Volume Indexes of Foreign Trade, by

\begin{tabular}{|c|c|c|c|c|c|}
\hline Commodity Group ${ }^{1}$ \& 1947 \& 1948 \& 1949 \& 1950 \& 1951 <br>
\hline \& \multicolumn{5}{|c|}{DECLARED VALUES} <br>
\hline \& 8'000 \& \$'000 \& \$'000 \& \$'000 \& \$'000 <br>
\hline Imports for Consumption- \& \& \& \& \& <br>
\hline Agricultural and animal products...... Fibres and textiles \& 414,457
390,589 \& 403,014
350,619 \& 422,469
333,032 \& 522,763
364,509 \& 583,674
483,520 <br>
\hline Fibres and textiles....................... \& 877,236 \& 35,619
70,549 \& 82,461 \& 95,

979 \& 132,383 <br>
\hline Iron and steel and products \& 758,132 \& 783,401 \& 889,398 \& 977,582 \& 1,328,055 <br>
\hline Non-ferrous metals and products \& 167,840 \& 156,419 \& 177,861 \& 219,730 \& 297,353 <br>
\hline Non-metallic minerals and products.... \& 449,340 \& 603,271 \& 531,449 \& 608,445 \& 681,356 <br>
\hline Chemicals and fertilizer \& 115,943
187,383 \& 121,291
145,998 \& 134,540
188,061 \& 161,517
222,819 \& 194,992
375,749 <br>
\hline Miscellaneous. \& 187.383 \& 145,998 \& 188,061 \& 222,819 \& <br>
\hline Totals, Adjusted Imports ${ }^{2}$. \& 2,570,920 \& 2,634,562 \& 2,759,271 \& 3,173,224 \& 4,077,083 <br>
\hline Imports for U.K. and NATO Governments. \& 3,024 \& 2,383 \& 1,936 \& 1,029 \& 7,773 <br>
\hline Totals, Declared Values of Imports. \& 2,573,944 \& 2,636,945 \& 2,761,207 \& 3,174,253 \& 4,084,856 <br>
\hline
\end{tabular}

# 22.-Declared Values, Prices and Physical Volume Indexes of Foreign Trade, by Commodity Groups, 1947-51-continued 



[^321]
## 22.-Declared Values, Prices and Physical Volume Indexes of Foreign Trade, by Commodity Groups, 1947-51-concluded

| Commodity Group ${ }^{1}$ | 1947 | 1949 | 1950 | 1951 | P.C. Change |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | 1947 to 1951 | 1950 to 1951 |
|  | $\underset{(1948=100)}{\text { VOL XME IND }}$ |  |  |  |  |  |
| Imports for Consumption- |  |  |  |  |  |  |
| Agricultural and animal products. | $110 \cdot 9$ | 106.2 | 119.9 | 119.7 | +7.9 | $-0.2$ |
| Fibres and textiles............... | $127 \cdot 6$ | $94 \cdot 7$ | $95 \cdot 2$ | 86.9 | -31.9 | $-8.7$ |
| Wood products and paper. | $134 \cdot 3$ | $110 \cdot 6$ | 121.8 | 158.4 138.4 | +17.9 +26.3 | $+30.0$ |
| Non-ferrous metals and products. | $115 \cdot 3$ | $107 \cdot 9$ | 131.4 | $154 \cdot 3$ | +33.8 | +17.4 |
| Non-metallic minerals and products. | $94 \cdot 1$ | 86.7 | $96 \cdot 6$ | $104 \cdot 1$ | +10.6 | + 7.8 |
| Chemicals and fertilizers........ | 98.0 | $110 \cdot 9$ | $129 \cdot 6$ | $137 \cdot 2$ | $+40.0$ | +5.9 |
| Miscellaneous. | $134 \cdot 6$ | $132 \cdot 0$ | $125 \cdot 6$ | $155 \cdot 1$ | +15.2 | +23.5 |
| Totals, Imports ${ }^{2}$. | 110.9 | 102.0 | 109-2 | 122.9 | +10.8 | +12.5 |
| Exports of Domestic Products- |  |  |  |  |  |  |
| Agricultural and animal products. | 98.4 128.2 | $100 \cdot 4$ 53.6 | 89.7 57.5 | 102.2 57.9 | +3.9 +54.8 | +13.9 +0.7 |
| Fibres and textiles........... | $128 \cdot 2$ 101.0 | $53 \cdot 6$ 93.8 | 57.5 111.1 | 57.9 119.9 | -54.8 +18.7 | +13.9 +0.7 +7.9 |
| Iron and steel and products | 92.8 | $82 \cdot 6$ | $66 \cdot 2$ | $76 \cdot 6$ | $-17.5$ | +15.7 |
| Non-ferrous metals and products | 88.4 | 101.8 | $100 \cdot 3$ | 104.0 | $+17.6$ | $+3.7$ |
| Non-metallic minerals and products | $89 \cdot 1$ | $69 \cdot 1$ | $90 \cdot 7$ | 105.2 | +18.1 | $+16.0$ |
| Chemicals and fertilizers...... | 116.9 | $84 \cdot 4$ | 120.8 | 141.3 | +20.9 | +17.0 |
| Miscellaneous. | $112 \cdot 0$ | $101 \cdot 1$ | $46 \cdot 6$ | $63 \cdot 7$ | $-43 \cdot 1$ | +36.7 |
| Totals, Exports ${ }^{3}$. | 98.5 | 94.2 | 93.6 | 103.9 | $+5.5$ | +11.0 |

[^322]
## PART III.-EXTERNAL TRANSACTIONS*

## Section 1.-Canadian Balance of International Payments

Both the current and capital account of the balance of payments have shown wide fluctuations in recent years. Current account deficits appeared in 1950 and 1951 for the first time since 1933 . These deficits, amounting to $\$ 329,000,000$ in 1950 and $\$ 524,000,000$ in 1951 , contrasted sharply with surpluses in the previous four post-war years and were influenced by the growth in the volume of imports in response to high levels of economic activity in Canada. The largest net contributors to the current deficit in both years were, however, payments of interest and dividends and miscellaneous current transactions. Another significant factor was the steady decline since 1948 of the surplus of tourist and travel expenditure until, in 1951, a deficit appeared on this account.

Although the deficits were substantial, they were less than 10 p.c. of total current credits in 1950 and in 1951. By contrast, the deficit of $\$ 337,000,000$ in 1930, which is comparable to that of 1950 , was 26 p.c. of total current credits in that year. Furthermore, the deficits on current account were concentrated most heavily in the fourth quarter of 1950 and the first half of 1951. The deficit was much smaller in the third quarter of 1951, while in the fourth quarter a surplus appeared with heavier export volume overseas and declining import prices and volume.

[^323]One important feature of Canada's current account in the post-war period was the lack of balance in transactions with the United States and with overseas countries. This condition of heavy current account deficits with the United States and large surpluses in overseas transactions was sharply modified in 1950. Revival of United States demand after the business readjustments of 1949, and the defence activity in that country after the outbreak of the Korean conflict, combined with a curtailment in dollar expenditure by overseas countries led to a marked shift in Canadian exports from overseas countries to the United States which, along with a rise in Canadian imports from overseas, resulted in a large decrease from $\$ 776,000,000$ in 1949 to $\$ 74,000,000$ in 1950 in the surplus with overseas countries. The deficit with the United States, which was $\$ 589,000,000$ in 1949 , fell to $\$ 403,000,000$ in 1950. In 1951, however, the more usual current account pattern reappeared; the current account surplus with overseas countries rose to $\$ 431,000,000$, while the deficit of $\$ 955,000,000$ with the United States was higher than in any year except 1947.

Capital Movements.-Despite the deficits on current account, the official reserves of gold and United States dollars rose in 1950 and in 1951. These increases were owing to heavy net capital inflows, amounting to $\$ 1,023,000,000$ and $\$ 563,000,000$ in 1950 and 1951, respectively, most of which were from the United States. In 1950 the reserves rose by $\$ 694,000,000$. The larger deficit and smaller capital inflow in 1951 led to a smaller increase in reserves of $\$ 39,000,000$.

The large inward movement of capital in 1950 was heavily concentrated in August and September, just before the announcement of the withdrawal of a fixed exchange rate by the Government at the beginning of October. Much of the movement in these months into Canadian dollar assets was owing to widespread speculation in the United States on the future value of Canadian currency. The largest and most characteristic inflow in the period of heaviest movements was United States demand for Canadian securities, particularly outstanding Government of Canada domestic issues. The large increase in non-resident balances in Canada and changes in short-term capital movements associated with the financing of trade, were also, in part, connected with the speculative inflow. On the other hand, some of the capital inflow was a continuation of the post-war interest, especially by United States investors, in building up long-term investments in Canada. New issues of Canadian securities in the United States amounted to $\$ 210,000,000$, and covered a large part of redemptions in 1950 . The direct investment inflow from the United States and other countries was $\$ 221,000,000$.

In contrast to 1950, the most characteristic capital inflows in 1951 were longterm movements connected with the financing of Canadian development. New issues of Canadian securities sold to non-residents amounted to $\$ 411,000,000$. About three-quarters of these sales were provincial and municipal bond issues, payable in United States dollars. Net new issues after retirements were $\$ 227,000,000$, in contrast to net redemptions of $\$ 73,000,000$ in 1950 . Inflows for direct investment in branches and subsidiaries of foreign concerns were higher in 1951 than in 1950. The development of industrial plants, which was the major element in the growth of direct investments in Canada in the earlier post-war years, continued to be important, but in 1950 and 1951 the movement of funds was accelerated particularly by the large scale development of petroleum and other mineral resources.

Despite these large capital inflows, non-resident financing of total capital investment in 1950 and 1951 was much smaller than in earlier periods of high investment activity. There are difficult statistical and conceptual problems in such a
comparison. The contribution by non-residents and foreign controlled companies to all types of investment in Canada, less Canadian contributions to investment abroad, was about one-seventh in these two years. If only foreign participation in Canadian investment is considered the proportion was still less than one-fifth. In contrast, Canada was a net exporter of capital for a long period before 1950.

Transactions with the Sterling Area.-A striking feature of current transactions in recent years has been the substantial changes in the credit balance with the Sterling Area. In 1950, the disequilibrium in Canada's current account with this group almost disappeared, the current surplus amounting to only $\$ 5,000,000$ compared with a credit balance of $\$ 574,000,000$ in 1949 , and a post-war record surplus of $\$ 874,000,000$ in 1947 . In 1951, however, the credit balance was again substantial, rising to $\$ 191,000,000$. The current account surplus with the United Kingdom accounted for the largest absolute changes, declining from $\$ 439,000,000$ in 1949 to $\$ 28,000,000$ in 1950 and rising to $\$ 220,000,000$ in 1951. For the rest of the Sterling Area the current account surplus of $\$ 135,000,000$ in 1949 changed to deficits of $\$ 23,000,000$ and $\$ 29,000,000$ in 1950 and 1951 , respectively.

The most important factor leading to the virtual disappearance of the surplus in 1950 was the large decrease in exports, about a half of which resulted from lower wheat shipments to the United Kingdom, although forest products and non-ferrous metals also fell significantly. In the case of other Sterling Area countries, lower exports of Canadian manufactured goods were particularly notable. The devaluations of 1949 and import restrictions on purchases in the dollar area were two of the factors at work here. While exports fell, Canadian imports from the Sterling Area rose, owing primarily to larger imports of metal products from the United Kingdom, and particularly the impressive increase in the volume of imports of British automobiles. A large increase in imports from other Sterling Area countries also occurred in 1950, owing partly to conspicuous increases in sterling prices of some commodities purchased by Canada from these countries. The balance of receipts from non-merchandise transactions with the Sterling Area declined. Lower receipts of inheritances and of immigrant funds, and lower freight and shipping receipts because of a decrease in exports, were the main factors in this connection.

One of the principal means of financing the large current account surpluses with the Sterling Area in earlier post-war years was the drawings on the 1946 loan to the United Kingdom. These drawings were reduced to $\$ 50,000,000$ in 1950 . The United Kingdom made a repayment of some $\$ 42,000,000$ on the loan of $\$ 700,000,000$ extended in 1942 , and a repayment of $\$ 9,100,000$ on the wartime loan from the Government of Newfoundland. With respect to private capital movements, there were repurchases by Canadians of Canadian securities amounting to some $\$ 35,000,000$, and redemptions of $\$ 18,000,000$. In 1950, there occurred also a significant outflow from Canada of capital connected mainly with changing positions of short-term commercial indebtedness.

In 1951, repayment by the United Kingdom consisted of the first instalment of $\$ 14,000,000$ on the post-war loan of 1946 and $\$ 33,800,000$ on the war loan of 1942. The amount outstanding on the post-war loan was reduced to $\$ 1,171,000,000$, while the war loan of $\$ 700,000,000$ was reduced to approximately $\$ 222,700,000$. Redemptions of Canadian securities, owned mainly in the United Kingdom, were $\$ 24,000,000$, and repurchases $\$ 16,000,000$. There were, however, some new issues for refinancing purposes. In contrast to 1950 , multilateral settlements of $\$ 174,000,000$ once more became important, as they were in 1946 to 1949 when large current surpluses existed in Canada's transactions with the Sterling Area.

Capital inflows for direct investment by British businesses in Canadian branches and subsidiaries amounted to $\$ 19,000,000$ and $\$ 28,000,000$ in 1950 and 1951 , respectively. These balance of payments transfers exclude reinvested earnings. In 1950, the value of all British direct investments in Canada increased by about $\$ 40,000,000$ to a total value of $\$ 447,000,000$.

Transactions with the United States.-In 1950, the current deficit with the United States was considerably reduced, declining from $\$ 589,000,000$ in 1949 to $\$ 403,000,000$ in 1950 . The chief reason was a rise of exports to the United States, which reached an unprecedented 65 p.c. of all Canadian exports. Part of the tremendous rise in exports of $\$ 525,000,000$ was offset by an increase in imports of $\$ 194,000,000$, and by substantially larger net payments to the United States on all other current items that rose by $\$ 145,000,000$.

About $\$ 300,000,000$ of the increase in the value of exports in 1950 was concentrated in the forest-products group, particularly in lumber exports. Non-ferrous metals, and animals and products also showed important increases. The volume of imports was up sharply in the closing months of 1950, spurred by high levels of Canadian prosperity and development and a general desire to secure commodities while they were still available. With respect to invisible items, non-monetary gold available for export rose over 1949. Net receipts on tourist account declined, however, and net payments for other accounts increased. Income payments to the United States reached a new peak of $\$ 410,000,000$, an increase of $\$ 85,000,000$ over 1949, almost all of which occurred in dividend payments.

In 1951, the current account deficit with the United States more than doubled, rising to $\$ 955,000,000$. The largest single change responsible for this deterioration was the rise in imports of $\$ 755,000,000$, or 36 p.c. The increase in value of exports was $\$ 280,000,000$, and that in the import balance was $\$ 475,000,000$. This was about ten times the size of the adjusted import balance in 1950 but still much less than the import balance of $\$ 890,000,000$ in 1947.

The increase in imports was widespread and closely related to high levels of defence activity, investment and consumption. A significant part of the increase seems to have been related to the inventory rise which was heavy when imports were at a peak. Almost a half of the increase resulted from greater imports of iron and products, although large increases occurred in textiles and non-ferrous metals and products. Most fuel imports fell slightly, while crude petroleum decreased a third. While the rise in imports was due primarily to volume, the increase in exports was, generally, a reflection of higher export prices.

The largest change in invisibles in 1951 was a sharp drop in net receipts on travel account from $\$ 67,000,000$ to $\$ 9,000,000$, being the third consecutive decrease on this account. A large rise in the travel expenditure of Canadians in the United States was the principal reason for this reduction in the balance of receipts and represented an increase in volume and in average expenditure. The number of visitors from the United States increased but average expenditure fell. The deficit with the United States on account of interest and dividends was reduced by $\$ 39,000,000$ to $\$ 321,000,000$, which was still much higher than in the years preceding 1950. The deficits on freight and shipping account and on all other current transactions rose in 1951, as they had in the previous year.

Most of the capital movements which featured Canada's accounts in 1950 and 1951 were those arising from the predominant movement of capital from the United States to Canada (see p. 977). The net inflow of capital from the United

States of $\$ 560,000,000$ in 1951 compared with $\$ 960,000,000$ in 1950 and only $\$ 47,000,000$ in 1949. Relatively more of the net inflow of capital in 1951 was in types of movement which usually represent long-term investment in Canada, such as direct investments and new issues of securities floated in the United States. Large declines occurred in inflows for the acquisition of outstanding domestic securities and short-term movements. Because of these capital inflows, and also because of such items as reinvested earnings which are not included in the balance of payments, the value of United States investment in Canada increased in 1950 by $\$ 670,000,000$, and a provisional estimate for 1951 indicates another increase of comparable size.

Transactions with Other Countries.-The current account surplus with non-sterling area OEEC* countries, mainly in Western Europe, fell by $\$ 78,000,000$ to $\$ 109,000,000$ in 1950 , but increased sharply to $\$ 220,000,000$ in 1951 . The same trend was apparent in transactions with the remaining countries in this group-a surplus of $\$ 15,000,000$ in 1949 becoming a deficit of $\$ 40,000,000$ in 1950 and a surplus of $\$ 20,000,000$ in 1951.

A large part of the rise in exports in 1951 was in food and raw materials to the OEEC countries. About one-third of Canadian exports to Europe in 1951 consisted of wheat and flour. Imports from the European Continent showed a striking increase in rolling-mill products. An outstanding development in trade in 1951 was the rise in exports to Japan, which were three times the 1950 value. Trade with Latin America increased in both 1950 and 1951.

Capital transactions with other overseas countries in 1951 included receipt of $\$ 20,000,000$ principal on Canadian export credits. Net sales of outstanding Canadian securities were $\$ 34,000,000$ compared with $\$ 1,000,000$ in 1950 and were made mainly to Switzerland. In 1951 there was an outflow from Canada of $\$ 16,000,000$, principally in connection with Canadian enterprises in Latin America. In the same year, $\$ 9,000,000$ was received from those countries for direct investment in Canada.

[^324]1.-Current Account between Canada and All Countries, 1928-51
(Net Credits $=+$ : Net Debits $=-$ )
(Millions of Canadian Dollars)

| Year | Current Receipts | Current <br> Expenditure | Net Balance on Current Account | Year | Current <br> Receipts ${ }^{1}$ | Current Expenditure ${ }^{2}$ | Net Balance | Mutual <br> Aid and Other Official Contributions in Current Account | Net Balance on Current Account |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | -32 | 1942. | 3,376 | 2,275 | +1,101 | -1,002 | +99 |
| 1929.... | 1,788 | 1,957 | -311 | 1943. | 4,064 | 2,858 | +1,206 | -518 | +688 |
| 1930... | 1,297 | 1,634 | -337 | 1944.. | 4,557 | 3,539 | +1,018 | -960 | +58 |
| 1931... | 972 | 1,146 | -174 | 1945... | 4,456 | 2,910 | +1.546 | -858 | +688 |
| 1932 | 808 | 904 | -96 | 1946... | 3,365 | 2,905 | $+400$ | -97 | + |
| 1933. | 829 | 831 | -2 | 1947... | 3,746 | 3,661 | +85 | - 38 | +45 |
| 1934.... | 1,020 | 952 | +68 | 1948... | 4,147 | 3,676 | +471 | -19 | +187 |
| 1935.. | 1,145 | 1,020 | +125 | 1949... | 4,077 | 4,890 | ${ }^{+1872}$ | -57 | -329 |
| 1936... | 1,430 | 1,186 | +244 +180 | 1950... |  | 5,700 | -359 | -165 | -524 |
| 1937.. | 1,593 | 1,413 | +180 +100 | 1951. | 5,341 | 5,700 | -359 |  |  |
| 1938... | 1,361 | 1,261 | +100 +126 |  |  |  |  |  |  |
| 1939 .. | 1,457 1,776 | 1,331 | +149 |  |  |  |  |  |  |
| 1990.... 1941 | 1,776 2,458 | 1,967 | +491 |  |  |  |  |  |  |

[^325]${ }^{2}$ Excludes Mutual Aid offsets.

## 2.-Geographical Distribution of the Balance on Current Account between Canada and Other Countries, 1928-51

Nort. - 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 Canadian Dollars)

| Year | United Kingdom ${ }^{1}$ | Other Overseas Countries ${ }^{2}$ | United States ${ }^{3}$ | $\underset{\text { All }}{\text { Countries }}$ | Year | United <br> Kingdom ${ }^{1}$ | Other Overseas Countries ${ }^{2}$ | United States ${ }^{3}$ | All Countries |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1928. | -21 | +338 | -349 | -32 | 1940... | +343 | +98 | -292 | +149 |
| 1929. | -99 | +225 | -437 | -311 | 1941.... | +734 | +75 | -318 | +491 |
| 1930.. | -106 | +113 | -344 | -337 | 1942.... | +1,223 | +58 | -180 | +1,101 |
| 1931. | -54 | +85 | -205 | -174 | 1943... | +1,149 | +76 | -19 | +1,206 |
| 1932. | -14 | $+86$ | -168 | -96 | 1944... | +746 | +241 | +31 | +1,018 |
| 1933. | +26 | +85 | -113 | -2 | 1945... | +747 | +763 | +36 | +1,546 |
| 1934. | $+46$ | +102 | -80 | +68 | 1946... | $+500$ | $+567$ | -607 | +460 |
| 1935. | +62 | +92 | -29 | +125 | 1947.. | +633 | $+587$ | $-1,135$ | +85 |
| 1936. | +122 | $+123$ | -1 | +244 | 1948... | +486 | +378 | -393 | +471 |
| 1937. | $+135$ | +122 | -77 | +180 | 1949r ... | +439 | +337 | -589 | +187 |
| 1938. | +127 | +122 | -149 | $+100$ | 1950. | +28 | +46 | -403 | -329 |
| 1939. | +137 | +105 | -116 | +126 | 1951. | +220 | +211 | -955 | -524 |

${ }^{1}$ Excludes whest exports diverted to other overseas countries, and exports of gold. ${ }^{2}$ Includes estimated value of wheat sold in European countries. ${ }^{3}$ Includes all net exports of non-monetary gold.
3.-Balance of International Payments between Canada and All Countries, 1946-51
(Millions of Canadian Dollars)

| Item | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 ${ }^{\text {D }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A. Current Credits |  |  |  |  |  |  |
| Merchandise exports (adjusted) | 2,393 ${ }^{1}$ | 2,723 ${ }^{1}$ | 3,030 ${ }^{1}$ | 2,989 ${ }^{1}$ | 3,139 | 3,950 |
| Official contributions........ |  |  |  |  | 57 | 165 |
| Net exports of non-monetary gol | 96 | 99 | 119 | 139 | 163 | 150 |
| Tourist and travel expenditure | 221 | 251 | 279 | 286 | 275 | 271 |
| Interest and dividends | 70 | 62 | 70 | 83 | 91 | 115 |
| Freight and shippi | 311 | 322 | 336 313 | 303 | 284 | 337 |
|  |  |  |  |  |  |  |
| Totals, Current Credit | 3,365 | 3,746 | 4,147 | 4,077 | 4,300 | 5,341 |
| B. Current Debits- |  |  |  |  |  |  |
| Merchandise imports (adjusted) | 1,822 | 2,535 | 2,598 | 2,696 | 3,129 |  |
| Tourist and travel expenditure. | 135 | 167 | 133 | 192 | 226 | 280 |
| Interest and dividends. | 312 | 337 | 325 | 390 | 474 | 447 |
| Freight and shipping | 219 | 278 | 279 | 253 | 301 | 347 |
| Official contributions. | 97 | 38 | 19 | - | 57 | 165 |
| All other current debits ${ }^{2}$ | 417 | 344 | 341 | 359 | 442 | 523 |
| Totals, Current Debits | 3,002 | 3,699 | 3,695 | 3,890 | 4,629 | 5,865 |
| C. Net Balance on Current Ac | +363 | +47 | +452 | +187 | -329 | -524 |
| D. Capital Transactions- |  |  |  |  |  |  |
| Net new issues or retirements of Canadian securities held abroad |  |  |  |  |  |  |
| Direct investment in Canada.................... | -321 +40 | -269 +61 | +36 +71 | -42 | +221 | +227 +296 |
| Net sales or purchases of outstanding securities.. | +215 | -15 | -7 | +26 + | +396 | +296 +50 |
| Loans and Advances by Government of Canada Loan of 1946 to United Kingdom | -540 | -423 | -52 |  |  |  |
| Post-war loans to other countries. | - 210 | -140 | -74 | -120 +13 | -50 +23 | +17 +20 |
| Repayments on War loans to United Kingdom. | +89 | +104 | +64 | +5 | +51 | +34 |
| Change in Canadian dollar holdings of foreigners. | +70 | -26 | -21 | +40 | +235 | -192 |
| Other capital movements ${ }^{3}$. | +43 | -82 | +27 | -69 | +220 | +114 |
| Net Movement of Capital Exclusive of Change in Ofyicial Holdings of Gold and U.S. Dollars | -614 | -790 | +44 | -53 | +1,023 | +563 |
| E. Change in Offictal Holdings. | -251 | -743 | +496 | +134 | +694 | +39 |

[^326]${ }^{2}$ Includes $\$ 104,000,000$ of Canadian overzpas expenditure

## 4.-Current Account Transactions between Canada and the United Kingdom,

(Millions of Canadian Dollars)

| Item | 1946 | 1947 | 1948 | 1949 | 1950 | 1951p |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A. Current Receipts- |  |  |  |  |  |  |
| Merchandise exports (adjusted). | 623 | 749 | 703 | 701 | 469 | 636 |
| Travel expenditure. | 3 | 7 | 9 | 11 | 7 | 8 |
| Interest and dividends | 7 | 8 | 9 | 9 | 6 | 30 |
| Freight and shipping..... | 107 | 114 | 105 | 89 | 61 | 88 |
| All other current receipts ${ }^{1}$ | 97 | 89 | 96 | 80 | 52 | 61 |
| Totals, Current Receipts | 840 | 967 | 922 | 890 | 595 | 823 |
| B. Current Payments- |  |  |  |  |  |  |
| Merchandise imports (adjusted) | 138 | 182 | 287 | 300 | 399 |  |
| Travel expenditure... | 3 | 9 | 12 | 17 | 19 | 20 |
| Interest and dividends | 54 | 53 | 50 | 55 | 55 | 59 |
| Freight and shipping........ | 32 | 32 | 34 | 32 | 36 | 43 |
| All other current payments ${ }^{2}$. | 113 | 58 | 53 | 47 | 58 | 64 |
| Totals, Current Payments | 340 | 334 | 436 | 451 | 567 | 603 |
| C. Current Account Ba | +500 | +633 | +486 | +439 | +28 | +220 |

${ }^{1}$ Includes $\$ 18,000,000$ for war services in $1946 . \quad{ }^{2}$ Includes Canadian overseas expenditure of $\$ 73,000,000$ in 1946.
5.-Current Account Transactions between Canada and United States, 1916-51
(Millions of Canadian Dollars)

| Item | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 ${ }^{\text {p }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A. Current Recripts- |  |  |  |  |  |  |
| Merchandise exports (adjusted) | 948 | 1,061 | 1,508 | 1,521 | 2,046 | 2,326 |
| Net exports of non-monetary gold. | 96 | 99 | 119 | 139 | 163 | 150 |
| Travel expenditure. | 216 | 241 | 267 | 268 | 260 | 255 |
| Interest and dividends | 47 | 35 | 37 | 40 | 50 | 57 |
| Freight and shipping | 101 | 104 | 131 | 126 | 157 | 164 |
| All other current receipt | 159 | 171 | 185 | 170 | 199 | 245 |
| Totals, Corrent Receipt | 1,567 | 1,711 | 2,247 | 2,264 | 2,875 | 3,197 |
| B. Current Payments- |  |  |  |  |  |  |
| Merchandise imports (adjusted). | 1,378 | 1,951 |  |  |  |  |
| Travel expenditure... | 130 | 152 | 113 | 164 | 193 | 246 |
| Interest and dividend | 250 | 274 | 267 | 325 | 410 | 378 |
| Freight and shipping. | 169 | 221 | 213 | 193 | 240 | 276 |
| All other current payments | 247 | 248 | 250 | 272 | 342 | 404 |
| Totals, Current Payments. | 2,174 | 2,846 | 2,640 | 2,853 | 3,278 | 4,152 |
| C. Current Account Balance. | -607 | -1,135 | -393 | -589 | -403 | -955 |

## 6.-Capital Transactions between Canada and the United States ${ }^{1}$, 1919-51 <br> (Millions of Canadian Dollars)



## Section 2.-Travel Between Canada and Other Countries

Travel expenditure constitutes an important item in Canada's commercial and financial transactions with other countries. A substantial credit balance has customarily arisen from travel between Canada and the United States and a small debit balance from travel with other countries. The credit balance with the United States has played an important part in assisting Canada to meet its current obligations in that country and during the past 25 years it has totalled almost $\$ 2,000,000,000$, a large part of which has been applied against a debit balance in commodity trade with the United States. During the same period, Canada's debit balance arising out of travel with countries, other than the United States, amounted to little more than $\$ 150,000,000$; thus the overall favourable balance with all countries during the past 25 years was over $\$ 1,750,000,000$.

In past years, Canada's annual credit balance from international travel has ranged from a minimum of $\$ 45,000,000$ in 1933 to a maximum of $\$ 145,000,000$ in 1948. The high level of the balance in 1948 was owing largely to reduced debits brought about by the emergency exchange conservation measures and withdrawal of these restrictions in subsequent years left Canadian travel freer to expand. In each year since 1948 Canadians have gone to other countries in ever increasing numbers until, in 1951, their expenditure was more than double the 1948 level. During the same period, expenditure in Canada by visitors from other countries has remained fairly stable. Thus, the overall credit balance was reduced from $\$ 145,000,000$ in 1948 to $\$ 92,000,000$ in 1949 and $\$ 49,000,000$ in 1950 , and was replaced in 1951 by a small debit balance of $\$ 6,000,000$. Travel with the United States alone, in 1951, resulted in a credit balance of $\$ 12,000,000$, whereas from 1950 to 1926 the annual credit balance with the United States was never less than $\$ 50,000,000$.

Although there was only a small difference in 1951 between incoming and outgoing expenditure on travel, the number of visits to Canada by non-residents was 34 p.c. greater than the number of visits by Canadians to other countries. Hence, the average visit by a Canadian to a foreign country takes more money out of the country than is brought in by the average visit of a non-reisdent to Canada. In 1951, the average expenditure rate per traveller for visits lasting longer than 48 hours was $\$ 85^{*}$ for Canadians visiting the United States against $\$ 53^{*}$ for U.S.A. residents visiting Canada. Even on short visits of 48 hours or less the average Canadian traveller spent more than the average U.S.A. visitor but the difference was less pronounced. If the population of the two countries is taken into consideration, total Canadian travel expenditure in the United States in 1951 amounted to almost $\$ 17.50$ per capita whereas United States expenditure in Canada was only about $\$ 1.70$ per capita.

United States Travel Expenditure in Canada.-The number of visits to Canada in 1951 by residents of the United States, including repeat visits, was $24,900,000$. This was more than the volume of traffic in each of the two preceding years and was exceeded only by the record volume of $25,100,000$ in 1948. Despite the increase in the number of visits, travel expenditure in Canada by residents of the United States was slightly lower in 1951 than in the previous year. The decrease was only 1 p.c.-from $\$ 260,000,000$ in 1950 to $\$ 258,000,000$ in 1951. Travel receipts from the United States have been at a consistently high level throughout

[^327]the four years 1948 to 1951, changes from year to year being of a minor nature. Receipts in each of these years have surpassed those of any other year on record by a margin of $\$ 17,000,000$ or more. A large part of this gain, of course, was owing to higher prices. United States travel expenditure adjusted for changes in price levels as reflected in the Canadian cost-of-living index reached a peak in 1947 and declined moderately in each succeeding year.

The decline in spending by United States visitors in 1951, accompanied by a gain in the number of visits, indicates lower average spending per visit, which may be due to shorter visits or lighter spending per day or a combination of the two. With regard to non-automobile traffic there appears to have been little change in the length of visit but average expenditure per day was 6 p.c. lower than in 1950. There has been a tendency for motorists to make shorter visits during recent years. If special groups such as summer residents and commuters are excepted there has been a decline of 16 p.c. between 1947 and 1951 in the average length of stay of motorists entering the country on customs permits. Much of this decline has occurred in Ontario where each year in-transit traffic accounts for a substantial part of the total number of entries. During recent years in-transit motorists have formed a steadily increasing proportion of the total number of entries into that Province.

Canadian Travel Expenditure in the United States.-Canadian travellers spent $\$ 246,000,000$ in the United States in 1951 -more than three and a half times the amount spent before 1939. Most of the increase of $\$ 53,000,000$ in 1951 over 1950 can be attributed to motorists travelling to the United States in greater numbers and staying for longer visits than in the previous year. Their expenditure of $\$ 94,000,000$ showed a gain of $\$ 27,000,000$. Canadian shopping in the United States was an important item in the spending of motorists-purchases declared under the $\$ 100$ customs exemption, at $\$ 47,000,000$ in 1951 , being 43 p.c. higher than in 1950.

Non-automobile travellers to the United States were 4 p.c. more numerous in 1951 than in 1950 and their expenditure rose by 21 p.c. The greatest contribution was made by train traffic which increased by $\$ 11,000,000$. Substantial gains were also made by air and bus traffic and a smaller increase by boat traffic.

Travel Between Canada and Overseas Countries.-The volume of travel between Canada and overseas countries is, normally, less than 1 p.c. of that between Canada and the United States. Overseas travellers, however, stay for longer visits and transportation costs are higher, hence their expenditure is more significant than the number of travellers might suggest. The sum of debits and credits in Canada's overseas travel in 1951 amounted to $\$ 50,000,000$, or 10 p.c. of travel expenditure between Canada and the United States. In contrast to travel with the United States which has produced an annual credit balance for 25 years or more, travel with overseas countries results generally in a debit balance. In 1951, the balance stood at $\$ 18,000,000$-unchanged from 1950 which was the highest on record.

The number of visitors arriving directly from overseas countries in 1951 was 18,200 . These were supplemented by an estimated 16,000 arriving from overseas countries via the United States. Expenditure of both groups, at $\$ 16,000,000$, was 7 p.c. higher than the 1950 total of $\$ 15,000,000$. Canadian travel expenditure in overseas countries in 1951, totalled $\$ 34,000,000$. The number of Canadian residents returning via Canadian ports was 44,200 , an increase of 1 p.c. over the
corresponding figure in 1950. Canadian travellers visiting overseas countries via the United States are estimated at 11,000 , resulting in a total of 55,200 travellers via Canadian and United States ports.

## 7.-Expenditure of Foreign Travellers in Canada and Canadian Travellers Abroad, 1950 and 1951

| Class of Traveller | 1950 |  |  | 1951 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Foreign Expenditure in Canada | Canadian Expenditure Abroad | Excess of Foreign Expenditure in Canada | Foreign Expenditure in Canada | Canadian Expenditure Abroad | Excess of Foreign Expenditure in Canada |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Travellers from and to overseas countries | 15,000 | 33,000 | -18,000 | 16,000 | 34,000 | -18,000 |
| Travellers from and to the United States- |  |  |  |  |  |  |
| Automobile................... | 148, 100 | 67,340 | +80,760 | 151,600 | 93,876 | $+57,724$ +14.658 |
| Rail. | 43,500 | 47,026 | - 3 , 525 | 43,600 | 58,258 | $+14,658$ $+6,595$ |
| Buat.................. | 13,700 20,800 | 3,450 42,028 | $+10,250$ $-21,228$ | 10,500 17,700 | 3,905 48,793 | $+6,595$ $-31,093$ |
| Aircraft. . . . . . . . . . . . . | 21,400 | 13,800 | +7,600 | 22,200 | 22,113 | +87 |
| Other (pedestrians, local bus, etc.).... | 12,200 | 19,097 | -6,897 | 12,400 | 19,000 | -6,600 |
| Totals, United States | 259,700 | 192,741 | +66,959 | 258,000 | 245,945 | +12,055 |
| Totals, All Countries. | 274,700 | 225,741 | +48,959 | 274,000 | 279,945 | -5,945 |

## 8.-Summary of Highway Traffic at Canadian Border Points, by Provinces,

 1950 and 1951| Province or Territory | FOREIGN VEHICLES INWARD |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Non-Permit Class Local Traffic |  | Travellers' Vehicle Permits |  | CommercialVehicles |  |
|  | 1950 | 1951 | 1950 | 1951 | 1950 | 1951 |
| Atlantic Provinces <br> Quebec. <br> Ontario. <br> Manitoba. <br> Saskatchewan. <br> Alberta. <br> British Columbia. <br> Yukon Territory | No. | No. | No. | No. | No. | No. |
|  | 865,466 | $890,596$ | 148,265 | $151,219$ | $79,272$ | 84,394 |
|  | 3,378,024 | 3,670,008 | 1,236.290 | 1,343,083 | 112,825 | 108,366 |
|  | 54,119 | 65,060 | 26,315 | 35,480 | 4,505 | 6,990 |
|  | 20,755 | 21,390 | 15,715 | 16,786 | 5,521 | 4,769 |
|  | 19,717 | 17,029 | 35,812 | 37,454 | 3,862 | 3,924 |
|  | 95,722 | 105,542 | 221,642 | 247,801 | 10,980 | 14,707 |
|  | 1,192 | 992 | 1,863 | 3,622 | 366 | 333 |
| Totals.................. | 4,711,226 | 5,058,243 | 2,060,148 | 2,219,601 | 261,569 | 268,790 |
| Percentage increase, 1951 over 1950.................... | +7.4 |  | +7.7 |  | +2.8 |  |
|  | CANADIAN VEHICLES RETURNING |  |  |  |  |  |
|  | After Stay of 24 Hours or Less |  | After Stay of Over 24 Hours |  | Commercial Vehicles |  |
|  | 1950 | 1951 | 1950 | 1951 | 1950 | 1951 |
|  | No. | No. | No. | No. | No. | No. |
| Atlantic Provinces.......... | 741,496 | 902,396 | 21,007 | 28,780 | 76,553 | 83,786 |
| Quebec.... | 368,932 | 457,655 | 77,137 | 109,660 | 49,802 | 61,866 |
| Ontario.... | 837,120 | 1,177,829 | 151,855 | 219,886 | 71,948 | 118,984 |
| Manitoba................... | 57,026 32.989 | 88,115 | 21,573 | 32,649 | 6,360 | 12,424 |
| Alberta...... | 27,725 | - 25,868 | 20,953 | 19,451 | 5,447 | 10.396 7,000 |
| British Columbia............ | 289,452 | 351,087 | 88,644 | 107,313 | 21,533 | 23,609 |
| Yukon Territory ............. | 42 | -10 | 8.64 | 10720 | 21, 29 | 15 |
| Totals. | 2,354,782 | 3,044,701 | 397,895 | 538,688 | 239,258 | 318,080 |
| Percentage increase, 1951 over 1950.................... | +29.3 |  | $+35 \cdot 4$ |  | +32.9 |  |

Tourist Information.-Tourist information generally is supplied by the Canadian Government Travel Bureau, Ottawa, while detailed information on the National Parks and Historic Sites may be obtained from the Department of Resources and Development, 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 under 'Tourist Trade', Directory of Sources of Official Information, Chapter XXVIII.)

## 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, owing largely to the fact that the productive capacity of Canada is greater than the ability of its population to consume the output of farms, factories, 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 as follows:-

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 in 40 countries 49 offices, 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, competitive conditions, trade and

[^328]exchange regulations, tariffs, shipping and packaging requirements, labelling, etc. Inquiries for Canadian goods are passed to the Department at Ottawa or directly to interested Canadian firms. For the Canadian importer, Trade Commissioners seek sources of supply of a wide variety of goods and, where necessary, furnish information on the Canadian market to the foreign exporter. 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 government 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 for Trade Commissioners from time to time. 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.

Following is a list of Foreign Trade Service representatives abroad, as at Nov. 15, 1952:-

## FOREIGN TRADE SERVICE REPRESENTATIVES ABROAD

Argentina.-C. S. Bissett, Commercial Secretary, Canadian Embassy, Bartolomé Mitré 478, Buenos Aires. Territory includes Paraguay and Uruguay.

Australia.-C. M. Croft, Commercial Counsellor for Canada, City Mutūal Life Bldg., 60 Hunter Street, Sydney, N.S.W. R. W. Blake, Commercial Secretary for Canada and Agricultural Secretary, 83 William Street, Melbourne.
Belgian Congo.-W. Gibson-Smith, Canadian Government Trade Commissioner, Forescom Building, Leopoldville. Territory includes Angola and French Equatorial Africa.
Belgium.-T. J. Monty, Commercial Secretary, Canadian Embassy, 35 rue de la Science, Brussels. Territory includes Luxembourg.

Brazil.-C. R. Gallow, Commercial Secretary, Canadian Embassy, Edificio Metropole, Ave. Presidente Wilson 165, Rio de Janeiro. C. J. Van Tighem, Consul of Canada and Trade Commissioner, Canadian Consulate, Edificio Alois, Rua 7 de Abril 252, São Paulo.

Ceylon.-Paul Sykes, Canadian Government Trade Commissioner, Galle Face Hotel, Colombo.

Chice.-M. R. M. Dale, Commercial Secretary, Canadian Embassy, Bank of London and South America Building, Santiago.
Colombis.-W. J. Millyard, Commercial Secretary, Canadian Embassy, Calle 19, No. 6-39, Bogota. Territory includes Ecuador.
Cuba.-A. W. Evans, Commercial Secretary, Canadian Embassy, Calle Infanta 16, Havana.

## FOREIGN TRADE SERVICE REPRESENTATIVES ABROAD-continued

Dominican Republic.-R. E. Gravel, Canadian Government Trade Commissioner. Edificio Copello 410, Calle el Conde, Ciudad Trujillo. Territory includes Haiti and Puerto Rico.

Egypr.-Acting Canadian Government Trade Commissioner, Osiris Building, Sharia Walda, Kasr-el-Doubara, Cairo. Territory includes Aden, Anglo-Egyptian Sudan, Cyprus, Ethiopia, Hashemite Kingdom of the Jordan and Saudi Arabia.
France.-R. G. C. Smith, Commercial Counsellor for Canada, 3 rue Scribe, Paris. Territory includes Algeria, French Morocco, French West Africa and Tunisia.
Germany.-B. A. Macdonald, Commercial Counsellor, Canadian Embassy, 22 Zitelmannstrasse, Bonn.
Greece.-H. W. Richardson, Commercial Secretary, Canadian Embassy, 31 Vassillissis Sophias Ave., Athens. Territory includes Israel and Turkey.
Guatrmala. - J. C. Depocas, Canadian Government Trade Commissioner, 28, 5 a Avenida Sud, Guatemala City. Territory includes Costa Rica, El Salvador, Honduras, Nicaragua, Panama and Canal Zone.
Hong Kong.-T. R. G. Fletcher, Canadian Government Trade Commissioner, Hong Kong and Shanghai Banking Corporation Building, Hong Kong. Territory includes Indo-China, Macao and Taiwan.

India.-Richard Grew, Commercial Counsellor, Office of the High Commissioner for Canada, 4 Aurangzeb Road, New Delhi.
B. I. Rankin, Commercial Secretary for Canada, Gresham Assurance House, Mint Road, Bombay. Territory includes Burma.
Ireland.-T. Grant Major, Commercial Secretary for Canada, 66 Upper O'Connell Street, Dublin.
Italy.-S. G. MacDonald, Commercial Secretary, 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 Secretary, Canadian Embassy, Tokyo. Territory includes Korea.
Lebanon.-G. F. G. Hughes, Canadian Government Trade Commissioner. Territory includes Iraq and Syria.
Mexico.-M. T. Stewart, Commercial Secretary, Canadian Embassy, Edificio Internacional, Paseo de la Reforma, Mexico, D.F.
The Netherlands.-J. A. Langley, Commercial Counsellor, Canadian Embassy, Sophialaan 1-A, The Hague.
New Zealand.-L. S. Glass, Commercial Counsellor, Office of the High Commissioner for Canada, Government Life Insurance Building, Wellington. Territory includes Fiji and Western Samoa.
Norway.-J. L. Mutter, Commercial Secretary, Canadian Legation, Fridtjof Nansens Plass 5, Oslo. Territory includes Denmark and Greenland.
Pakistan.-A. P. Bissonnet, Commercial Secretary, Office of the High Commissioner for Canada, Hotel Metropole, Victoria Road, Karachi. Territory includes Afghanistan and Iran.
Peru.-H. J. Horne, Acting Commercial Secretary, Canadian Embassy, Edificio Boza, Carabaya 831, Plaza San Martin, Lima. Territory includes Bolivia.
Philippines.-F. H. Palmer, Consul General of Canada and Trade Commissioner, Tuason Building, 8-12 Escolta, Binondo, 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.

## FOREIGN TRADE* SERVICE REPRESENTATIVES ABROAD-continued

Singapore.-D. S. Armstrong, Canadian Government Trade Commissioner, Room D-5, Union Building, Singapore. Territory includes Brunei, Federation of Malaya, Indonesia, North Borneo, Sarawak and Thailand.

South Arrica.-C. B. Birkett, Canadian Government Trade Cominissioner, Mutual Building, Harrison Street, Johannesburg. Territory includes Southern Rhodesia, Northern Rhodesia. Nyasaland, Portuguese Fast Africa, Kenya, Tanganyika, Uganda and Zanzibar.
K. F. Noble, Canadian Government Trade Commissioner, Grand Parade Centre Building, Adderley Street, Cape Town. Territory includes South-West Africa, Mauritius and Madagascar.

Sparn.-E. H. Maguire, Canadian Government Trade Commissioner, 70 Avenida Jose Antonio, Madrid. Territory includes Balearic Islands, Canary Islands, Gibraltar, Rio de Oro, Spanish Morocco and Tangier.

Sweden.-F. W. Fraser, Commercial Secretary, Canadian Legation, Strandvagen, 7-C, Stockholm. Territory includes Finland.

Switzerland.-Yves Lamontagne, Commercial Counsellor, Canadian Legation, Thunstrasse 95, 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 Com missioner for Canada, Canada House, Trafalgar Square, London, S.W.1.
R. Campbell Smith, Commercial Secretary, Office of the High Commissioner for Canada, Canada House, Trafalgar Square, London, S.W.1. Territory includes Iceland and British West Africa (Gambia, Gold Coast, Nigeria and Sierra Leone).
M. J. Vechsler, Canadian Government Trade Commissioner, Martins Ban's Building, Water Street, Liverpool.
T. Grant Major, Canadian Government Trade Commissioner, 36 Victoria Square, Belfast. Territory includes Northern Ireland.
United States.-J. H. English, Commercial Counsellor, Canadian Embassy, 1746 Massachusetts Ave., N.W., Washington, D.C. A. E. Bryan, Deputy Consul General of Canada and Trade Commissioner, Canadian Consulate General, 620 Fifth Avenue, New York City.
G. S. Patterson, Consul General of Canada, Canadian Consulate General, 532 Little Building, 80 Boylston Street, Boston 16.
D. S. Cole, Consul General of Canada, Canadian Consulate General, Chicago Daily News Building, 400 West Madison Street, Chicago.
B. C. Butler, Consul of Canada and Trade Commissioner, Canadian Consulate, 1035 Penobscot Building, Detroit 26.
V E. Duclos, Canadian Government Trade Commissioner, 510 West Sisth Street, Los Angeles.
G. A. Newman, Consul of Canada and Trade Commissioner, Canadian Consulate, 201 International Trade Mart, New Orleans.
Acting Consul General of Canada, Canadian Consulate General, 3rd Floor, Kohl Building, 400 Montgomery Street, San Francisco.

Venezuels.-J. A. Stiles, Consul of Canada and Trade Commissioner, Canadian Consulate General, Edificio Pan American, Puente Urapal, Caracas. Territory includes Netherlands Antilles.

## Agricultural Representatives

Argentina.-W. B. McCullough, 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.
Grrmany.-Wm. Van Vliet, Agricultural Secretary, Canadian Embassy, 22 Zitelmannstrasse, Bonn.
Italy.-Dr. C. F. Wilson, Agricultural Counsellor, Canadian Embassy, Via Saverio Mercadante 15, Rome.

## FOREIGN TRADE SERVICE REPRESENTATIVES*ABROAD-concluded

## Agricultural Representatives-concluded

The Netherlands.-C. J. Small, Acting Agricultural Secretary, Canadian Embassy, Sophialaan 1-A, The Hague. Territory includes Belgium, Denmark 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.
Untted States.-Dr. W. C. Hopper, Agricultural Counsellor, Canadian Embassy, 1746 Massachusetts Avenue, N.W., Washington, D.C.
Venezuela.-D. B. Laughton, Vice-Consul of Canada and Acting Agricultural Trade Commissioner, Canadian Consulate General, Edificio Pan American, Puente Urapal, Caracas. Territory includes Colombia.

## Fisheries Representatives

Italy.-M. S. Strong, Commercial Secretary (Fisheries), Canadian Embassy, Via Saverio Mercadante 15, Rome.

Jamaica.-E. M. Gosse, Canadian Trade Commissioner (Fisheries), Canadian Bank of Commerce Chambers, Kingston.

United States.-M. B. Bursey, Consul of Canada and Trade Commissioner (Fisheries), Canadian Consulate General, 620 Fifth Avenue, New York City.

## Timber Representative

United Kingdom.-R. D. Roe, Commercial Secretary (Timber), Office of the High Commissioner for Canada, Canada House, Trafalgar Square, London, S.W.1.

Commodities Branch.-Commodity trade promotion is the responsibility of the Commodities Branch. The Export and Import Divisions co-ordinate the work of the commodity specialists in the following sections: Automotive, Agricultural and Construction Equipment; Chemicals, Oils and Minerals; Imported Foods; Machinery and Metals; Textiles, Leather and Rubber; Wood and wood products, including newsprint; and a wide range of general products. The commodity officers specializing in these fields maintain contact with industry by personal visits and exchange of correspondence and with conditions abroad by communication with Canadian Government Trade Commissioners. The Export Division directs the attention of Trade Commissioners to supply conditions in Canada and, in turn, relays market news received from Trade Commissioners to Canadian manufacturers and exporters. Close attention is paid to opportunities for developing sales abroad of Canadian products and exporters are informed about regulations governing foreign trade. The Import Division obtains information on foreign supply conditions and directs the attention of Trade Commissioners to requirements in the Canadian market. This Division is concerned particularly with locating advantageous sources of supply of materials for manufactures and in promoting Canadian interests in international commodity markets.

Directories are maintained which include lists of Canadian manufacturers and other exporters, together with details of the products they are in a position to sell abroad and also lists of Canadian importing houses and details of their foreign connections and their interests in the import field. These directories are confidential and are supplied only to Canadian Government Trade Commissioners.

The function of the Transportation and Communications Division of the Branch is to facilitate, where necessary, the movement of merchandise from its point of origin to its ultimate destination. Active liaison is maintained with railways, steamship operators and agents, marine insurance companies, forwarding firms and
brokerage houses. New moves by foreign governments which affect the movement of Canadian goods, changes in rates and regulations established by private steamship companies and the pattern of Canada's foreign trade as related to its carrying services are all kept under constant review. The Division maintains a Canadian Trade Services Directory which contains information concerning Canadian customs requirements, invoicing, packaging, merchandising, forwarding facilities, steamship services, rail transportation and marketing data. This information enables the Trade Commissioners to obtain for Canada recognition as an organized market and to facilitate the establishment of closer working arrangements between Canadian firms and their foreign connections.

The Export and Import Permit Division is responsible for the administration of controls on the movement of scarce commodities and strategic materials subject to regulation under the powers of the Export and Import Permits Act. Control is exercised over the export of arms and munitions, implements of war, atomic energy materials and other strategic items. In collaboration with foreign governments, this Division also operates an import certificate and delivery verification procedure, instituted as an insurance against critically important shipments being diverted to undesirable destinations. The number and types of commodities under control change materially from time to time, reflecting the constant effort to remove restrictions as soon as the necessity for them disappears.

Agriculture and Fisheries Branch.-The section of the Commodities Branch engaged in trade promotional work on agricultural commodities, other than wheat and coarse grains, was established as a separate Branch in 1950. The Fisheries Section of the Commodities Branch and the Wheat and Grain Division were amalgamated with the new Agricultural Commodities Branch early in 1952, thus completing the centralization of the food and agricultural activities of the Department within the Agriculture and Fisheries Branch.

The primary function of the Agriculture and Fisheries Branch is to promote Canadian exports and imports of agricultural and fisheries products by assisting Canadian exporters in finding markets for their products abroad and in helping to locate sources of supply for products which Canadian importers wish to obtain from other countries. Canadian firms are given advice with respect to market conditions in other countries, competition to be met from other suppliers, import and exchange restrictions and related matters. In turn, Trade Commissioners are kept informed of production and price trends in Canada, products available for export and sources of supply.

In fish producing or importing countries, Trade Commissioners report to the Branch regularly on matters relating to fish. In addition, the four Fisheries Trade Commissioners located in important markets report on developments in those markets. This information is analysed and passed on to the industry and to provincial and federal government officials. Similarly, nine Agricultural Trade Commissioners located in important markets for Canadian agricultural products, or in countries which produce and export commodities competitive with Canada, report to the Branch on related economic conditions and agricultural developments in those countries. The information so received is analysed and made available to those interested. Reports by Trade Commissioners, in countries other than those covered by the Agricultural Trade Commissioners, are received from time to time and are handled in a like manner. Much of the material relating to agriculture and fisheries received from abroad is published in Foreign Trade.

Matters relating to Canada's grain trade are handled by the Wheat and Grain Division of the Branch. This Division assists foreign governments and other buyers in purchasing Canadian wheat, flour and other cereals, and serves as liaison between the Department of Trade and Commerce and the Canadian Wheat Board.

International Trade Relations Branch.-The International Trade Relations Branch is concerned with negotiations and consultations with other governments on matters affecting Canadian foreign trade policy and with the preparation of studies on international trade developments and the interpretation of the effect of these developments on the Canadian economy as a whole as well as on the domestic and foreign trade of Canada. This Branch compiles information on tariffs and customs regulations, foreign exchange and trade documentation of other countries for the use of Canadian exporters and other branches of the Government. A main function of the Branch is to analyse the foreign trade situation and the effects of changing foreign tariffs and customs practices in preparation for meetings of the General Agreement on Tariffs and Trade. The Branch co-operates with academic institutions and individuals engaged in commercial research.

Economics Division.-The Economics Division maintains a continuous review of business conditions in Canada. To do this, it is necessary to analyse foreign trade trends and to appraise their effect on economic development in Canada. Other aspects of the general economic situation considered include investment, consumption, production, prices, incomes and employment, as well as conditions in industries and localities.

The Industrial Development Division.-This Division co-ordinates the assistance offered by the Federal Government in the establishment of new industries in Canada. Acting in this capacity, the Division provides information on a multiplicity of matters pertaining to industry establishment and assists in solving the variety of particular problems that Canadian and foreign businessmen encounter.

The Division 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 Division 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.

The Division 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, the weekly 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 advertising at home and abroad, through the daily press, periodicals and trade papers, as well as films and radio. Although the Information Branch is part of the Foreign Trade Service, its functions were expanded to include assistance to the associated agencies of the Department of Trade and Commerce concerned with the development of foreign trade. For example, it handles publicity connected with the projects undertaken by the Canadian Government Exhibition Commission in this and other countries.

Canadian Government Exhibition Commission.-The Canadian Government Exhibition Commission by graphic media of all kinds publicizes Canada and helps to sell Canadian products abroad. Under the terms of reference, the Commission is solely responsible for the construction and administration of all Federal Government exhibits in international expositions, trade fairs and displays outside Canada in which the Government of Canada may decide to participate, and of all international expositions and trade fairs held in Canada and sponsored by the Government of Canada. The Commission's first fulfilment of the latter half of this responsibility was the development of the Canadian International Trade Fair, held annually at Toronto since 1948. Manufacturers and producers in Canada and other countries have an opportunity of displaying their products at this Fair.

The Commission also co-operates with Canadian exporters in securing representation for goods at trade fairs and trade promotional displays and, on request, is prepared to advise individual Canadian companies in the preparation of their exhibits. Moreover, it distributes at its various presentations large quantities of materials produced by other Canadian Government Departments and agencies.

Export Credits Insurance Corporation.-The Export Credits Insurance Corporation was established under the provisions of the Export Credits Insurance Act, 1944, and as amended in August 1946 and May 1948. 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 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 by Export Credits Insurance Policies 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. Coverage 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 which covers 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 longer 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 exporter in the proportions of 85 and 15 p.c., respectively.

The Corporation, from its inception to Dec. 31, 1951, issued policies having a total value of $\$ 315,704,750$. Claims paid to exporters, during the same period, covering losses sustained by them under the terms and conditions of their policies, amounted to $\$ 705,894$. A large majority of these claims resulted from exchange transfer difficulties, with relatively few arising from insolvencies. Recoveries made amounted to $\$ 508,529$. Excess of income over expenditure to Dec. 31, 1951, was $\$ 1,985,083$, which was added to its underwriting reserve in accordance with the practice followed by the Corporation since it began operations.

International Economic and Technical Co-operation Division.-This Division is responsible for the supervision of all Canadian commitments under the Colombo Plan for the Economic Development of South and South-East Asia. This includes the capital development program of tangible assistance, as well as the technical training and guidance provided through the Technical Co-operation Service. It is closely associated with the Technical Assistance Administration and other specialized agencies of the United Nations concerned with the betterment of conditions in the underdeveloped areas of the world.

## Section 2.-The Development of Tariffs

A short sketch of trade and tariffs prior to Confederation is given at pp. 480-482 of the 1940 edition of the Year Book. The 1942 Year Book, at 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 can be found.

## Subsection 1.-The Canadian Tariff Structure

The Canadian Tariff consists mainly of three sets of tariff rates-British Preferential, Most-Favoured-Nation, and General. British Preferential rates consisted at first (1898) of a remission of 25 p.c. of the duties ordinarily paid but later (1900) were advanced to $33 \frac{1}{3}$ p.c. and, after 1904 , took the form of a specially
low rate of duty on almost all imported dutiable commodities. This is the first broad category of the tariff structure and these rates are applied to specified goods from Commonwealth countries if shipped direct to Canada. On certain goods special rates may be applied under the British Preferential Tariff; these special rates are lower on those goods than the ordinary British Preferential scale.

The second scale is the Most-Favoured-Nation Tariff. These rates apply to goods from countries that have been accorded tariff treatment more favourable than the General Tariff but which are not entitled to the British Preferential rate. To certain non-Commonwealth countries, a special concession under the Most-Favoured-Nation rates may be granted and rates lower than those of the Most-Favoured-Nation tariff may apply by agreement.

The third class of duties is the General Tariff, which is levied on all imports that do not qualify for Preferential or Most-Favoured-Nation tariff treatment.

British Preferential rates apply to all countries within the Commonwealth. They may, however, be modified downward in their application to specific countries when trade agreements are being revised or discussed between Canada and other Commonwealth countries. The whole tariff structure is very complicated. Almost every Budget brought down in the House of Commons changes the incidence of the tariff in some particulars, so that it would be impossible to attempt here a discussion of tariff schedules. 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.

In all cases where the tariff applies, there are provisions for drawbacks of duty on imported materials used in the manufacture of products later exported. The purpose of these drawbacks is to give Canadian manufacturers a fair basis of competition with foreign producers of similar goods, where it is felt to be warranted. A second class of drawbacks known as 'home consumption' drawbacks apply mainly to imported materials and parts used in the production of specified classes of goods manufactured for home consumption.

Too often one-sided competition arises out of unfair practices, such as dumping or the manipulation of exchange advantages. Wide powers have been given, in certain instances, to supplement tariff provisions. Thus, the Minister of National Revenue or, through him, the customs officials have been empowered at times to establish a 'fair market value' as a basis of applying duties to be collected. The term 'fair market value' is vague and open to various interpretations and has been frequently criticized but, in exceptional cases of imports from General Tariff countries, arbitrary valuations have proved effective.

The exchange situation as it affects the Tariff is a different problem. A foreign currency that has become considerably depreciated in relation to the Canadian dollar enables the country concerned to export goods to Canada under a very definite advantage and customs officials have been given power, under.conditions such as these, to value imports from such countries at a 'fair rate of exchange'. Much, of course, depends on the manner in which the above powers are applied by the administrative officials and their understanding of the reasons for their application and, while the powers of fixing 'fair market value' and 'fair rate of exchange' have been applied to meet extraordinary conditions in the past, these powers have now been modified by clauses in trade agreements drawn up with individual countries.

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. Under a provision of the Act, 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 Relationships with Other Countries

General Agreement on Tariffs and Trade.*-The General Agreement on Tariffs and Trade is by far the most important trade agreement in which Canada is participating at the present time. Fundamentally, it is a multilateral agreement which applies equally to all the 34 contracting parties.

The Agreement consists of three parts corresponding to the several distinctive aspects of trade negotiations:-

Part I (Articles 1 and 2) deals with tariff rates. The general provisions regarding the application of rates of duty negotiated under the Agreement are set forth and the schedules of negotiated duties are also included.

Part II (Articles 3 to 23) covers all non-tariff matters which have a direct bearing on international trade: The principles set forth in this Part constitute an international code of regulations for conducting foreign trade.

Part III (Articles 24 to 34) deals with matters concerning the administration and the relationship of the Agreement to the Charter for an International Trade Organization.

Part I defines the meaning and application of the principle of most-favourednation treatment, which is the key provision of the Agreement. Briefly, it requires that each contracting party will accord the same advantages and privileges with respect to international trade to all other contracting parties. An exception is made to permit existing preferences to be maintained, but these cannot be increased. In connection with Part I, there are schedules listing the products on which each country has agreed to bind or reduce its tariff. As a rule, tariff negotiations are

[^329]initiated by the principal supplier and, in every case, the rate of duty finally agreed upon becomes the rate which would apply to a similar product sold by any country which is a contracting party to the Agreement.

Under this new system of multilateral tariff negotiations, 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 edition of the Year Book, pp. 875-877, and those negotiated at Annecy are discussed in the 1950 edition of the Year Book, pp. 968-970.

The rates in the Geneva and Annecy Schedules were bound against increase for a definite period to January 1951. After that time, countries were entitled to modify their schedules by negotiation or consultation with other contracting parties.

The Torquay Conference followed the same pattern as the previous negotiations, and the most recent agreements are really an extension of the agreements drawn up in the previous years. Under the most-favoured-nation principle, all tariff concessions agreed to at Torquay are available to Canada, whether or not these concessions were negotiated directly with Canada. Similarly, Canada extends its own tariff concessions to each of the other participating countries.

The results of the Torquay negotiations were important in a number of ways. Arrangements were made to extend the Geneva and Annecy concessions for a further firm period of three years. The General Agreement also was expanded to include the following four new members: Austria, the German Federal Republic, Peru and Turkey (see footnote 1 at pp. 1003 and 1004). Finally, new tariff negotiations took place between present members to cover a broader range of commodities and, in many cases, to provide for further reductions on products previously negotiated. The new tariff concessions, together with the Geneva and Annecy concessions, are to remain in force until Jan. 1, 1954.

As part of the undertaking to extend the previous agreements for a further firm period of three years, countries had a right under the General Agreement to make modifications or withdrawals of previous tariff concessions and, in a few cases, concessions were withdrawn from Canada. In such instances, compensation was made by way of tariff concessions on other products so that the over-all value to Canada of the previous agreements was not impaired. The original tariff concessions exchanged among the United States, the United Kingdom, Canada and a number of other important countries were, however, maintained in their entirety.

Part II of the Agreement sets forth in considerable detail the rules and regulations designed to reduce and eventually eliminate discriminatory practices in international trade. Traditionally, the tariff was the chief instrument for regulating the volume of imports which each country was willing to accept. To-day, however, the most effective and widely adopted method of regulating the flow of imports is through the application of more drastic measures, such as quantitative restrictions, exchange controls, state barter deals and bilateral agreements. The contracting parties agree to apply the provisions of Part II "to the fullest extent not inconsistent with existing legislation", and it is on this basis that the terms of Part II of the Agreement are observed to-day. The most significant clauses include those dealing with taxes on imported goods, various forms of quantitative restrictions, special considerations for countries in balance-of-payment difficulties, and special considerations for countries undertaking defined programs of economic development or reconstruction. (See the 1948 edition of the Year Book, p. 874, and the 1950 edition, p. 967.)

Part III of the Agreement deals with the mechanics of administration. Representatives of the contracting parties are required to meet at frequent intervals, usually about every six months, to carry out the provisions of the Agreement which require joint action and generally to facilitate the operation of the Agreement. These meetings are referred to as "sessions" of the contracting parties and seven sessions (including the three conferences at which tariff negotiations were also conducted) have taken place to Nov. 30, 1952.

Other Tariff Relations.-The General Agreement on Tariffs and Trade is a blanket agreement applicable to all contracting parties on the same basis. However, there are also other tariff arrangements in effect to-day which were negotiated prior to the provisional adoption of the General Agreement. In many cases, these earlier trade arrangements are allowed to stand. The contracting parties are also permitted to negotiate new trade agreements, subject to the qualifications of the General Agreement, but they cannot increase any margins of preference or extend new preferences.

Canada has a number of reciprocal tariff arrangements with members of the Commonwealth and other countries. They are grouped as follows:-
(1) application to Canada of some old commercial treaties of the United Kingdom;
(2) participation in commercial treaties of the United Kingdom by Canadian Acts of Parliament or Orders in Council;
(3) Canadian Conventions of Commerce or Trade Agreements; and
(4) exchanges of notes respecting tariff matters.

Canada extended preferential rates for the first time to the United Kingdom in 1898, and after World War I most-favoured-nation agreements were made with countries outside the Empire. By the late 1930's, Canada had trade agreements with 32 countries but some of these lapsed during World War II and have not been replaced.

New commercial agreements were made during the War with several South American countries that had expanded their trade with Canada and, since the end of the War, most-favoured-nation agreements have been made with Turkey, Greece, Italy, China, Nicaragua, the Federal Republic of Germany, and Austria.

Many of Canada's reciprocal trade treaties are simply exchanges of most-favoured-nation treatment and do not include schedules of tariff concessions. However, some important agreements, such as the Canada-United States trade treaties of 1935 and 1938, do include lists of negotiated tariff rates. Practically all the items bound in these earlier agreements are now covered by the General Agreement.

The benefit received by Canadian exports under most-favoured-nation treatment in any country depends upon the tariff and treaty system in force. Some countries possess a single-column tariff and extend whatever concessions they make to all countries without discrimination. Other countries have minimum, intermediate and maximum tariff rates and their most-favoured-nation rates are either the minimum or intermediate schedules. Sometimes, most-favoured-nation treatment is subject to certain reservations concerning preferential rates granted by one state to another on special historical, political or geographical grounds.

Various modifications in tariff rates have been made under special trade arrangements, but the British Preferential rates, which are applicable to numerous types of goods from many parts of the Commonwealth, are always the most favourable. In return for this special treatment, Canadian goods enjoy similar tariff advantages in many Commonwealth countries.

Tariff Arrangements in Force as of Nov. 30, 1952.-In the following list, contracting countries under the General Agreement on Tariffs and Trade (G.A.T.T.) are indicated. In the case of a number of countries belonging to G.A.T.T., other trade arrangements with Canada remain in force and the terms of these are given in the statement.

## Tariff and Trade Arrangements with Commonwealth Countries, as at Nov. 30, 1952

| Country | Treaty or Convention | Terms |
| :---: | :---: | :---: |
| United Kingdom..... | Trade Agreement signed Feb. 23, 1937; in force Sept. 1, 1937. Modified by an Exchange of Letters Nov. 16, 1938, resulting from United Kingdom - United States Trade Agreement of Nov. 17, 1938. Further modified by General Agreement on Tariffs and Trade and Exchange of Notes Oct. 30, 1947. <br> G.A.T.T. effective Jan. 1, 1948. | Various concessions by both countries, including exchange of lowest tariff rates (some minor reservations by Canada) and binding against increase of scheduled preferential duties. Extends also to Colonial Empire. |
| Australia............. | Trade Agreement signed July 8, 1931, in force Aug. 3, 1931. <br> G.A.T.T. effective Jan. 1, 1948. | Each country accords the other reduced rates on schedules of goods, and otherwise (with a few exceptions in Australia) exchanges its British Preferential Tariffs with the other. Made for one year and thereafter until terminated on six months notice. |
| New Zealand......... | Trade Agreement signed Apr. 23, 1932; in force May 24, 1932. <br> G.A.T.T. effective July $26,1948$. | Exchange specific preferences on scheduled goods and otherwise concede British Preferential Tariffis reciprocally. Made for one year, but kept in force by short-term extensions. Since Sept. 30, 1941, in force until terminated on six months notice. |
| Union of South Africa | Trade Agreement signed Aug. 20, 1932; in force Oct. 13, 1932. <br> G.A.T.T. effective June 14, 1948. | Agreement extends list of preferences formerly exchanged in absence of formal Agreement. Made for five years and thereafter until terminated on six months notice. |
| Southern Rhodesia.. | Trade Agreement of Aug. 20, 1932, terminated on Jan. 2, 1938, on notice from Southern Rhodesia. Provisions have, nevertheless, continued in force. <br> G.A.T.T. effective May 19, 1948. | Canada accords British Preferential Treatment and Southern Rhodesia tariff preferences granted to other Commonwealth Countries. |

Tariff and Trade Arrangements with Commonwealth Countries, as at Nov. 30, 1952
-concluded

| Country | Treaty or Convention | Terms |
| :---: | :---: | :---: |
| India. | Canada since 1897 accords India British Preferential treatment but without contractual obligation. <br> G.A.T.T. effective July 8, 1948. |  |
| Pakistan. | Canada since 1897 accords Pakis$\tan$ British Preferential treatment but without contractual obligation. <br> G.A.T.T. effective July $30,1948$. |  |
| Ceylon. | Ceylon participates in Trade Agreement of 1937 between United Kingdom and Canada. G.A.T.T. effective July 29, 1948. | Canada and Ceylon exchange Preferential tariff treatment. |
| British West Indies, Bermuda, British Guiana and British Honduras | Trade Agreement signed July 6, 1925; in force Apr. 30, 1927. Covers the following ColoniesBahamas, Barbados, Bermuda, British Guiana, British Honduras, Jamaica, Leeward Islands, Trinidad and Tobago, Windward Islands. <br> Note.-The B.W.I. with the exception of Jamaica are parties to the G.A.T.T. | Exchange of specific margins of preferences. Made for 12 years and thereafter until terminated on one years notice. A Canadian notice of Nov. 23, 1938, terminating the Agreement, was replaced by one of Dec. 27, 1939, continuing the Agreement subject to termination on six months notice. |
| Irgland.............. | Trade Agreement signed Aug. 20, 1932; in force Jan. 2, 1933. | Canada concedes British Preferential Tariff in return for most - favoured - nation treatment (including any preferential rates in force) in Eire. Made for five years and thereafter until terminated on six months notice. |

Tariff and Trade Arrangements with Non-Commonwealth Countries, as at Nov. 30, 1952

| Country | Treaty or Convention | Terms |
| :---: | :---: | :---: |
| Argentina.. | Trade Agreement signed Oct. 2, 1941; provisionally in force Nov. 15, 1941. | Exchange of most - favoured nation treatment. Provisional application may be terminated on three months notice. To come into force definitively 30 days after exchange of ratification for two years and thereafter until terminated on six months notice. |
| Austria. | G.A.T.T. effective Oct. 19, 1951. |  |
| Benelux (Belgium, Luxempourg and The Netherlands) | Convention of Commerce with Belgium (including Luxembourg and Belgian colonies) entered into effect Oct. 22, 1924 | Exchange of most - favoured nation treatment in tariff matters. Made for four years and thereafter until terminated on one years notice. |

# Tariff and Trade Arrangements with Non-Commonwealth Countries, as at 

 Nov. 30. 1952-continued

Tariff and Trade Arrangements with Non-Commonwealth Countries, as at Nov. 30, 1952-continued

| Country | Treaty or Convention | Terms |
| :---: | :---: | :---: |
| Denmark, including Greenland | Treaties of Peace and Commerce with United Kingdom of Feb. 13,1660 , and July 11,1670 , apply to Canada. <br> G.A.T.T. effective May $28,1950$. | Exchange of most - favoured nation treatment. Declaration of May 9,1912 , provides means for separate termination by Canada on one years notice. |
| Dominican Republic | Trade Agreement signed Mar. 8, 1940; in force provisionally Mar. 15, 1940, and definitively Jan. 22, 1941. | Exchange of most-favoured nation treatment. Dominican Republic accords scheduled rates on dried fish and free entry for seed potatoes. Made for three years from Jan. 22, 1941, and thereafter until terminated on six months notice. |
|  | G.A.T.T. effective May 19, 1950. |  |
| Ecuador. | Modus vivendi signed Nov. 10, 1950, in force Dec. 1, 1950. | Exchange of most - favoured nation treatment. Made for one year to continue thereafter subject to termination on three months notice. |
| El Salvador......... | Exchange of Notes of Nov. 2, 1937; in force Nov. 17, 1937. | Exchange of most-favoured nation treatment. Made for one year and thereafter unti! terminated on four months notice. |
| Finland............... | Exchange of Notes of Nov. 13-17, 1948, effective Nov. 17, 1948. | Exchange of most - favoured nation treatment. Effective until a Trade Agreement concluded or, alternatively, for a period of one year and thereafter until terminated on three months notice. |
|  | G.A.T.T. effective May 25, 1950. |  |
| France and French Overseas Territories | 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. G.A.T.T. effective Jan. 1, 1948. | Exchange of most - favoured nation treatment including scheduled concessions. |
| Federal Republic of Western Germany | G.A.T.T. effective Oct. 1, 1951. |  |
| Greece. | Modus vivendi by Exchange of Notes of July 24-28, 1947; effective Aug. 28, 1947. <br> G.A.T.T. effective Mar. 1, 1950. | Exchange of most - favoured nation treatment. Made for a period of one year and thereafter until terminated on three months notice. |
| Greenland. | (Sec Denmark.) |  |
| Guatemala........... | Trade Agreement signed Sept. 28, 1937; in force Jan. 14, 1939. | Exchange of most - favoured nation treatment. Made for three years and thereafter until terminated on six months notice. |

Tariff and Trade Arrangements with Non-Commonwealth Countries, as at
Nov. 30, 1952-continued

| Country | Treaty or Convention | Terms |
| :---: | :---: | :---: |
| Hatri. | Trade Agreement signed Apr. 23, 1937; in force Jan. 10, 1939. <br> G.A.T.T. effective Jan. 1, 1950. | Exchange of most - favoured nation treatment. Made for one year and thereafter until terminated on six months notice. |
| Iceland. | Canada and Iceland honour the terms of a treaty originally concluded between Denmark and the United Kingdom of Feb. 13, 1660. | Exchange of most-favoured nation treatment. |
| Indonesia. | G.A.T.T. effective Mar. 1, 1948. |  |
| Iran. | Special arrangement Feb. 1, 1951.. | Exchange of most - favoured nation treatment. |
| IRAQ.. | Special arrangement Sept. 15, 1951. | Exchange of most - favoured nation treatment. |
| Italy. | Modus vivendi by Exchange of Notes of Apr. 23-28, 1948; effective Apr. 28, 1948. <br> G.A.T.T. effective May 30, 1950. | Exchange of most-favoured nation treatment. For one year and thereafter until terminated on three months notice. |
| Korea. . | 1 |  |
| Lebanon. | Special Arrangement by Order in Council of Nov. 19, 1946. <br> Withdrew from G.A.T.T., effective Mar. 1, 1951. | Exchange of most - favoured nation treatment. |
| Liberia. | G.A.T.T. effective Jan. 1, 1950. |  |
| Mexico. | Trade Agreement signed Feb. 8, 1946; in force provisionally same date. Ratifications exchanged on May 6, 1947. | Exchange of most - favoured nation treatment. Entered into force definitively 30 days after exchange of ratifications for two years and thereafter until termination on six months notice. |
| Nicaragua. | Trade Agreement signed Dec. 19, 1946, in force provisionally same date. <br> G.A.T.T. effective May 28, 1950. | Exchange of most - favoured nation treatment. Provisional application may be terminated on three months notice. To come into force definitively 30 days after exchange of ratifications for one year and thereafter unless terminated on six months notice. |
| Norway. | Convention of Commerce and Navigation with United Kingdom of Mar. 18, 1826, applies to Canada. <br> G.A.T.T. effective July $10,1948$. | Exchange of most - favoured nation treatment. Convention of May 16, 1913, provides means for separate termination by Canada on one years notice. |

[^330]Tariff and Trade Arrangements with Non-Commonwealth Countries, as at Nov. 30, 1952-continued

| Country | Treaty or Convention | Terms |
| :---: | :---: | :---: |
| Panama. | Order in Council of July 20, 1935, accepted Article 12 of the United Kingdom Panama Treaty of Commerce of Sept. 25, 1928. | Exchange of most - favoured nation treatment. The United Kingdom - Panama Treaty terminated in 1942 but Canada and Panama continue to extend most - favoured - nation treatment to one another. |
| Paraguay. | Exchange of Notes of May 21, 1940; in force June 21, 1940. | Canadian Intermediate Tariff exchanged for most-favourednation treatment in Paraguay. In force until terminated on three months notice. |
| Peru. | G.A.T.T. effective Oct. 8, 1951. |  |
| Philippines. | No agreement at present although most - favoured - nation treatment exchanged. ${ }^{1}$ |  |
| Poland. | Convention of Commerce signed July 3, 1935; in force Aug. 15, 1936. | Exchange of most - favoured nation treatment and special reductions for limited lists of goods. Made for one year and thereafter until terminated on three months notice. |
| Portugal, including Madeira, Porto Santo. and The Azores | Trade Agreements Act of June 11, 1928, accepted Article 21 of the United Kingdom Portugal Treaty of Commerce of Aug. 12, 1914; in force Oct. 1, 1928. | Exchange of most - favoured nation treatment. In force until terminated on one years notice. |
| Spain. | Spanish Treaty Act of June 11, 1928, sanctioned United King-dom-Spain Treaty of Commerce of Oct. 31, 1922 (revised Apr. 5, 1927); in force Aug. 1, 1928. | Exchange of most - favoured nation treatment. In force until terminated on six months notice. |
| Sweden.. | United Kingdom - Sweden Convention of Commerce and Navigation of Mar. 18, 1826, applies to Canada. <br> G.A.T.T. effective May 1, 1950. | Exchange of most - favoured nation treatment. Declaration of Nov. 27, 1911, provides means for separate termination by Canada on one years notice. |
| Switzerland.. | United Kingdom . Switzerland Treaty of Friendship, Commerce and Reciprocal Establishment of Sept. 6, 1855, applies to Canada. By Exchange of Notes, Liechtenstein is included under terms of this Agreement, effective Aug. 21, 1947. | Exchange of most - favoured nation treatment. Convention of Mar. 30, 1914, provides means for separate termination by Canada on one years notice. |
| Syria. | Special Arrangement by Order in Council of Nov. 19, 1946. <br> Withdrew from G.A.T.T. Aug. 6, 1951. | Exchange of most - favoured nation treatment. |

${ }^{1}$ The Philipines participated in the Torquay negotiations but has not as yet (November 1952) become a Contracting Party to the General Agreement on Tariffs and Trade.

# Tariff and Trade Arrangements with Non-Commonwealth Countries, as at <br> Nov. 30, 1952-concluded 


${ }^{1}$ This country participated in the Torquay negotiations but has not yet (November 1952) become a Contracting Party to the General Agreement on Tariffs and Trade.

## CHAPTER XXII.-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.

An article summarized from the Report of the Royal Commission on Prices is given in the 1950 Year Book, pp. 978-982.

## Section 1.-Wholesale Prices

Wholesale prices are not restricted in this Chapter to the normal meaning of that word, but 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 change. An example of this is the price increase which 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 D.B.S. 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 83.9 in July 1914. By 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 $133 \cdot 8$ 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. Irregular recovery then continued until 1937, but the highest point reached, $110 \cdot 6$ 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

[^331]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 bad 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 percentage increases in wholesale prices amounted to only $3 \cdot 1$ and $5 \cdot 2$ during the years 1942 and 1943, respectively, while 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 large 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.

Wholesale prices rose slightly during the first five months of 1950 to reach an index level of $204 \cdot 7$ by May. In June, a sharp gain to $209 \cdot 2$ occurred, due mainly to rapidly advancing prices for live stock, lumber, iron and steel products and nonferrous 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 $221 \cdot 0$ for October. 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.

## 1.-Annual Index Numbers of Wholesale Price Groups, 1942-51, and Monthly Index Numbers, January 1950-October 1952

$(1935-39=100)$

| $\begin{gathered} \text { Year } \\ \text { and } \\ \text { Month } \end{gathered}$ | General Wholesale | Raw and Partly Manufactured Goods | Fully and Chiefly Manufactured Goods | Building and Construction Materials | Industrial Materials | Canadian Farm Products ${ }^{2}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | Field | Animal | Total |
| 1942. | 123.0 | 123.0 | 123.7 | $131 \cdot 1$ | $135 \cdot 1$ | 109.7 | $144 \cdot 6$ | $127 \cdot 1$ |
| 1943. | $127 \cdot 9$ | $131 \cdot 1$ | 126.9 | 137.9 | $140 \cdot 0$ | 129.0 | 161.8 | $145 \cdot 4$ |
| 1944. | $130 \cdot 6$ | $134 \cdot 4$ | $129 \cdot 1$ | 144.8 | $143 \cdot 1$ | 144.5 | 166.1 | $155 \cdot 3$ |
| 1945 | $132 \cdot 1$ | $136 \cdot 2$ | 129.8 | $144 \cdot 8$ | 143.2 | 162.5 | $170 \cdot 2$ | $166 \cdot 4$ |
| 1946 | 138.9 | $140 \cdot 1$ | 138.0 | 153.4 | $148 \cdot 6$ | 177.9 | 181.2 | 379.5 |
| 1947. | $163 \cdot 3$ | $164 \cdot 3$ | $162 \cdot 4$ | $189 \cdot 3$ | 187.0 | 184.1 | $200 \cdot 2$ | 192-2 |
| 1948. | 193-4 | 196.3 | 192.4 | $222 \cdot 6$ | 222 -7 | $200 \cdot 6$ | 263.7 | $232 \cdot 1$ |
| 1949. | $198 \cdot 3$ | $197 \cdot 1$ | $199 \cdot 2$ | $229 \cdot 2$ | 218.0 | 191.9 | $265 \cdot 4$ | 228.7 |
| 1950. | $211 \cdot 2$ | $212 \cdot 8$ | 211.0 | $249 \cdot 9$ | 244 -6 | 191.9 | 281.4 | 236.7 |
| 1951. | $240 \cdot 2$ | $237 \cdot 9$ | $242 \cdot 4$ | $289 \cdot 8$ | 295.1 | 193.4 | $336 \cdot 9$ | $265 \cdot 1$ |
| 1950 |  |  |  |  |  |  |  |  |
| January. | $199 \cdot 0$ | 197.7 | $200 \cdot 1$ | 229.0 | 216.5 | 189.9 | 253.5 | $221 \cdot 7$ |
| February | $200 \cdot 0$ | 199.0 | 201.0 | 231.7 | $219 \cdot 3$ | 189.3 | $259 \cdot 6$ | 224.5 |
| March. | 201.5 | $200 \cdot 6$ | $202 \cdot 4$ | $233 \cdot 3$ | 221.4 | 192.8 | $266 \cdot 0$ | 229.4 |
| April. | $202 \cdot 5$ | $202 \cdot 3$ | $203 \cdot 1$ | $234 \cdot 5$ | $223 \cdot 7$ | 194.7 | $268 \cdot 0$ | $231-3$ |
| May. | $204 \cdot 7$ | 206.9 | 204-2 | 238.5 | $230 \cdot 2$ | 195.4 | $272 \cdot 8$ | $234 \cdot 1$ |
| June. | $209 \cdot 2$ | $214 \cdot 6$ | $207 \cdot 1$ | 248.5 | $237 \cdot 6$ | 197.7 | 289.1 | $243 \cdot 4$ |
| July.. | $212 \cdot 0$ | 218.8 | $209 \cdot 3$ | $255 \cdot 3$ | $243 \cdot 8$ | $197 \cdot 2$ | 296.4 | 246.8 |
| August. | $215 \cdot 7$ | 221.2 | 213.7 | 258.5 | $251 \cdot 5$ | 191.8 | 298.5 | $245 \cdot 1$ |
| September | $222 \cdot 6$ | $226 \cdot 0$ | $221 \cdot 6$ | $270 \cdot 0$ | $265 \cdot 2$ | 190.2 | 297.1 | 243.7 |
| October | $220 \cdot 0$ | $220 \cdot 0$ | $220 \cdot 8$ | 267.0 | $269 \cdot 3$ | 187.8 | 286.8 | $237 \cdot 3$ |
| November | $222 \cdot 4$ | 221.9 | $223 \cdot 2$ | $265 \cdot 2$ | $275 \cdot 6$ | 187.9 | $290 \cdot 5$ | $239 \cdot 2$ |
| December | $225 \cdot 2$ | $225 \cdot 1$ | $225 \cdot 7$ | $268 \cdot 1$ | $280 \cdot 9$ | 188.2 | 298.4 | $243 \cdot 3$ |
| 1951 |  |  |  |  |  |  |  |  |
| January. | $232 \cdot 5$ | $231 \cdot 2$ | 233.9 | $280 \cdot 1$ | 294-0 | 191.1 | $310 \cdot 7$ | $250 \cdot 9$ |
| Februar | $238 \cdot 6$ | $237 \cdot 1$ | 2401 | $287 \cdot 1$ | $304 \cdot 1$ | 195.5 | $329 \cdot 6$ | 262.5 |
| March. | 241.9 | $239 \cdot 4$ | $24+10$ | $293 \cdot 3$ | 306.0 | 198.8 | $347 \cdot 1$ | 272.9 |
| April. | 242.4 | $239 \cdot 2$ | 244.8 | 293.9 | 307.0 | 199.2 | $331 \cdot 6$ | $265 \cdot 4$ |
| May. | 241.9 | $239 \cdot 3$ | $244 \cdot 3$ | $29+0$ | $306 \cdot 1$ | $194 \cdot 6$ | $336 \cdot 1$ | $265 \cdot 3$ |
| June. | $243 \cdot 0$ | $244 \cdot 0$ | $243 \cdot 6$ | 293.2 | $304 \cdot 0$ | 192.0 | $353-1$ | $272 \cdot 6$ |
| July. | $243 \cdot 7$ | $242 \cdot 5$ | $2+5 \cdot 6$ | 289.8 | $297 \cdot 0$ | $195 \cdot 4$ | 358.9 | $277 \cdot 1$ |
| August. | 241.4 | $237 \cdot 1$ | $245 \cdot 0$ | $290 \cdot 4$ | $287 \cdot 4$ | 178.3 | 318.3 | $263 \cdot 3$ |
| September | $240 \cdot 0$ | $235 \cdot 7$ | $243 \cdot 7$ | 291 -1 | 285.8 | 181.7 | 339.2 | 260.5 |
| October. | $239 \cdot 6$ | $236 \cdot 3$ | 242.7 | 291.4 | 289.4 | 188.1 | $330 \cdot 4$ | 259.3 |
| November | $239 \cdot 1$ | $237 \cdot 1$ | 241.5 | $289 \cdot 3$ | 287.5 | 201.4 | 328.5 | $264 \cdot 9$ |
| December. | 237-7 | $236 \cdot 0$ | $239 \cdot 8$ | 289.5 | $284 \cdot 6$ | $204 \cdot 4$ | 328.9 | 266.7 |
| 1952 |  |  |  |  |  |  |  |  |
| January. | 236.8 | $233 \cdot 3$ | $239 \cdot 7$ | $289 \cdot 3$ | 281.4 | 208.0 | 318.2 | 263.1 |
| February | $232 \cdot 6$ | $227 \cdot 8$ | 236.2 | $289 \cdot 6$ | $270 \cdot 7$ | $205 \cdot 1$ | $297 \cdot 3$ | 251.2 |
| March. | $230 \cdot 8$ | 225.5 | $234 \cdot 6$ | $288 \cdot 1$ | $265 \cdot 1$ | 213.3 | $283 \cdot 3$ | 248.3 |
| April. | 226.9 | 221.3 | $230 \cdot 7$ | $286 \cdot 2$ | 258.4 | 217.1 | 273.7 | $245 \cdot 4$ |
| May. | $224 \cdot 8$ | $220 \cdot 2$ | 228.1 | 286.9 | 251.0 | 223.2 | 265.4 | $244 \cdot 3$ |
| June. | 226.5 | $220 \cdot 6$ | $230 \cdot 6$ | 286.7 | 248.5 | $227 \cdot 6$ | 271.4 | 249.5 |
| July.. | 225.5 | 218.5 | $230 \cdot 0$ | 287.5 | 248.0 | 213.3 | $275 \cdot 3$ | $244 \cdot 3$ |
| August. | 223.9 | 216.3 | 228.8 | 288.4 288.3 | 244.7 241.0 | 105.3 181.9 | $277 \cdot 2$ 269.1 | 236.2 225 |
| Septemb | 222.1 221.0 | 212.5 203.9 | $228 \cdot 0$ 227 | 288.3 283.4 | $241 \cdot 0$ 239.7 | $181 \cdot 9$ $173 \cdot 7$ | 269.1 263.0 | $225 \cdot 5$ 221.3 |
| October | $221 \cdot 0$ | 203.9 | $227 \cdot 7$ | $283 \cdot 4$ | $239 \cdot 7$ | $173 \cdot 7$ | $263 \cdot 0$ | 221.3 |

${ }^{1}$ Arithmetically converted from base $1926=100$.
${ }^{2}$ The wheat prices used are those 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 ended July 31, 1951, the price included was $\$ 1.85$ per bu. The initial payment for the crop year beginning Aug. 1, 1951, was $\$ 1 \cdot 40$ per bu., increased to $\$ 1.60$ effective Feb. 1, 1952, retroactive to Aug. 1, 1951. 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. Final payments for the crop year ended July 31, 1951, were announced Sept. 26, 1951, for western oats and barley. Increases in initial payments for barley for the crop year 1951-52 became effective Mar. 1, 1952, retroactive to Aug. 1, 1951.

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 D.B.S. bulletin, Price Index Numbers of Residential Building Materials, 1926 to 1948.

In 1951, residential building material prices continued the advance recorded in 1950, closing the year at $288 \cdot 8,9 \cdot 7$ p.c. above the December 1950 level. Electrical equipment, plumbing and heating equipment and lumber showed the most substantial increases for the year. These groups, however, reversed direction in the final month of 1951 inaugurating a decline which continued well into 1952. On the other hand, prices for cement, sand, gravel, and brick and tile reached new peak levels during the first ten months of 1952.

## 2.-Wholesale Price Index Numbers of Residential Building Materials, 1942-51, and Monthly Indexes, January 1950-October 1952

$(1935-39=100)$

| Year and Month | Composite Index | Principal Components |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Cement, Sand and Gravel | Brick, Tile and Stone | Lumber and Lumber Products | Lath, Plaster and Insulation | Roofing Material | Paint and Glass | Plumbing and Heating Equipment | Electrical Equipment and <br> Fixtures | Other Materials |
| 1942 | $130 \cdot 9$ | $100 \cdot 8$ | 109.0 | $153 \cdot 2$ | $104 \cdot 8$ | 123.4 | 146.9 | $120 \cdot 0$ | $110 \cdot 3$ | $117 \cdot 6$ |
| 1943 | 139 -1 | 101.2 | $113 \cdot 1$ | $171 \cdot 3$ | $104 \cdot 8$ | $130 \cdot 1$ | $149 \cdot 4$ | 120.0 | $110 \cdot 3$ | 117.9 |
| 1944 | $1+6.6$ | 101.8 | 114.9 | 188.4 | $104 \cdot 8$ | $136 \cdot 0$ | $146 \cdot 6$ | $120 \cdot 0$ | $110 \cdot 3$ | $117 \cdot 9$ |
| 1945 | 148.3 | $102 \cdot 1$ | 116.4 | $191 \cdot 3$ | $104 \cdot 8$ | $135 \cdot 5$ | 142.2 | 122-2 | 111.4 | 118.0 |
| 1946 | 154.5 | $102 \cdot 0$ | 121-0 | $202 \cdot 1$ | $104 \cdot 2$ | $146 \cdot 2$ | $144 \cdot 2$ | $127 \cdot 2$ | 116.9 | 126.4 |
| 1947 | $180 \cdot 4$ | $109 \cdot 7$ | 133.4 | 242.0 | 107.3 | 172 -3 | $169 \cdot 6$ | $145 \cdot 2$ | 147-4 | $143 \cdot 0$ |
| 1948. | 217.5 | $122 \cdot 3$ | $143 \cdot 1$ | $305 \cdot 8$ | $116 \cdot 7$ | $201 \cdot 6$ | 183.1 | $168 \cdot 3$ | 169.8 | $162 \cdot 3$ |
| 1949 | 228.0 | 127.0 | 151.0 | $322 \cdot 1$ | $118 \cdot 1$ | $190 \cdot 5$ | 179.6 | 180.2 | $173 \cdot 4$ | $174 \cdot 7$ |
| 1950 | 242.7 | $131-3$ | $163 \cdot 8$ | $349 \cdot 2$ | $116 \cdot 7$ | 235.4 | 174.8 | 183.2 | 184.5 | $181 \cdot 1$ |
| 1951. | 286.2 | $140 \cdot 9$ | $180 \cdot 7$ | $425 \cdot 0$ | 126-3 | $235 \cdot 8$ | $197 \cdot 8$ | $210 \cdot 4$ | $213 \cdot 3$ | $212 \cdot 7$ |
| 1950 |  |  |  |  |  |  |  |  |  |  |
| January | 227.2 | 128-3 | 157-1 | $320 \cdot 6$ | $114 \cdot 8$ | 194.9 | 175-1 | $180 \cdot 1$ | 175-4 | $172 \cdot 0$ |
| February | 227.4 | 128.7 | 157 -1 | $320 \cdot 8$ | 114.8 | $199 \cdot 5$ | 173.4 | $180 \cdot 1$ | 175.4 | $172 \cdot 0$ |
| March. | 227.0 | 129.6 | 157-1 | 319.8 | 114.8 | $202 \cdot 5$ | 173.4 | $179 \cdot 4$ | 175-4 | $172 \cdot 0$ |
| April | 227.2 | 129.1 | 157-1 | 319.2 | 114.8 | 211.5 | 173.4 | 179.8 | $175 \cdot 4$ | 174.8 |
| May | $230 \cdot 7$ | 129.2 | 157-1 | $325 \cdot 6$ | 114.8 | $232 \cdot 7$ | 168.2 | 179.9 | $179 \cdot 1$ | $177 \cdot 7$ |
| June | $238 \cdot 3$ | $129 \cdot 2$ | 157-1 | $341 \cdot 6$ | 114.8 | $245 \cdot 1$ | 168.2 | $180 \cdot 0$ | 188.6 | 178.4 |
| July. | $245 \cdot 2$ | $131 \cdot 8$ | $157 \cdot 1$ | 355.0 | $115 \cdot 5$ | $270 \cdot 9$ | 168.6 | $180 \cdot 1$ | $188 \cdot 6$ | $180 \cdot 9$ |
| August. | $247 \cdot 6$ | 131.8 | 164-6 | 358.5 | $115 \cdot 5$ | $280 \cdot 0$ | $177 \cdot 2$ | $180 \cdot 1$ | 188.6 | 181.1 |
| September | 256 -3 | 131.9 | $175 \cdot 2$ | $370 \cdot 6$ | $120 \cdot 0$ | $292 \cdot 1$ | 178.5 | 187.9 | 195.0 | 189.4 |
| October | $260 \cdot 4$ | $134 \cdot 8$ | $175 \cdot 2$ | 383.0 | $120 \cdot 0$ | $237 \cdot 6$ | 178.5 | 189.1 | 191.8 | $191 \cdot 4$ |
| November | 262.1 | $134 \cdot 8$ | $175 \cdot 2$ | 387.8 | $120 \cdot 0$ | $222 \cdot 5$ | $181 \cdot 2$ | $189 \cdot 1$ | $190 \cdot 5$ | $191 \cdot 7$ |
| Decembe | $263 \cdot 3$ | 136.0 | 175-2 | 387.8 | $120 \cdot 8$ | $234 \cdot 9$ | $182 \cdot 1$ | $192 \cdot 2$ | $190 \cdot 5$ | 192.3 |
| 1951 |  |  |  |  |  |  |  |  |  |  |
| January | $270 \cdot 1$ | 136.4 | $175 \cdot 2$ | 398.7 | 124.5 | $250 \cdot 0$ | $193 \cdot 6$ | 194-1 | 199.5 | $196 \cdot 9$ |
| Fobruar | $275 \cdot 0$ | $136 \cdot 7$ | $176 \cdot 3$ | $408 \cdot 3$ | 124.5 | $260 \cdot 6$ | $194 \cdot 5$ | $194 \cdot 4$ | 199.5 | $204 \cdot 6$ |
| March | $282 \cdot 6$ | $140 \cdot 3$ | $176 \cdot 3$ | $420 \cdot 5$ | $126 \cdot 6$ | 257 -1 | 193.2 | 205-2 | 199.5 | 204.8 |
| April | $287 \cdot 6$ | 139.4 | 181.8 | 428.5 | $126 \cdot 6$ | $257 \cdot 1$ | 198.3 | 208.8 | $207 \cdot 3$ | 208.5 |
| May. | 289.5 | $140 \cdot 8$ | 181.8 | 432.9 | $126 \cdot 6$ | 248.0 | 198.3 | $209 \cdot \mathrm{C}$ | $210 \cdot 1$ | $209 \cdot 2$ |
| June. | 289.2 | 139.9 | 181.8 | 431.2 | 126.7 | $225 \cdot 8$ | 199.6 | 212.9 | $220 \cdot 8$ | $209 \cdot 2$ |
| July. | 289.8 | 139.9 | 181.8 | 431.2 | $126 \cdot 7$ | $222 \cdot 8$ | 198.8 | 214.2 | 221.5 | 218.1 |
| August. | $290 \cdot 4$ | 143.5 | 181.9 | 431.2 | 126.7 | 225.8 | $199 \cdot 6$ | 215.7 | $220 \cdot 2$ | 218.1 |
| Septemb | $290 \cdot 8$ | 143.0 | 181.9 | $431 \cdot 2$ | 126.7 | 225.8 | 199.6 | 217.4 | $220 \cdot 2$ | 219.8 |
| October | $290 \cdot 8$ | $143 \cdot 1$ | 183.2 | 431.2 | 126.7 | 222.9 | $199 \cdot 6$ | 217.4 | $220 \cdot 2$ | 219.8 |
| Novembe | 289.4 | 143.1 | $183 \cdot 2$ | 427.8 | 126.7 | 219.9 | 199.6 | 217.9 | $220 \cdot 2$ | 221.2 |
| December | 288.8 | 145.0 | 183.2 | 426.7 | 126.7 | 213.9 | 198.3 | $217 \cdot 3$ | $220 \cdot 1$ | $222 \cdot 1$ |
| 1952 |  |  |  |  |  |  |  |  |  |  |
| January.......... | 287.9 | $148 \cdot 3$ | 183.2 | 424.7 | 126.7 | 210.9 | 197.9 | 216.9 | 218.8 | 222.1 |
| February | 287.9 | 148.9 | 183.2 | $423 \cdot 6$ | $126 \cdot 7$ | 223.0 | $200 \cdot 5$ | 216.9 | $215 \cdot 9$ | 222.1 |
| March. | $286 \cdot 8$ | 148.9 | $192 \cdot 5$ | 420.9 | 126.7 | $220 \cdot 0$ | $199 \cdot 7$ | 216.6 | $211 \cdot 6$ | $222 \cdot 1$ |
| April | 285.2 | 148.1 | 192.5 | 416.4 | 129.1 | 216.9 | 198.5 | 216.9 | 208.4 | 227-4 |
| May. | 284.4 | 148-1 | 198.8 | $414 \cdot 6$ | $129 \cdot 1$ | 213.9 | $193 \cdot 7$ | 216.2 | $208 \cdot 4$ | 227.4 |
| June. | $284 \cdot 0$ $284 \cdot 3$ | $148 \cdot 1$ 148.3 | 198.8 198.8 | $414 \cdot 6$ 414.3 | $129 \cdot 1$ | 210.9 | 194.2 | 215.1 | 203.6 | 227.4 |
| August | $284 \cdot 3$ $284 \cdot 6$ | $148 \cdot 3$ $150 \cdot 3$ | 198.8 198.8 | 414.3 414.3 | $129 \cdot 1$ $129 \cdot 1$ | 216.9 223.0 | 192.4 192.4 | $215 \cdot 2$ | $212 \cdot 9$ $212 \cdot 6$ | 227.4 227.4 |
| Septemb | $284 \cdot 6$ | 151 -1 | 198.8 | 414.3 | 129.1 | $220 \cdot 0$ | 192.4 | 215.2 | $212 \cdot 6$ 212 | 227.4 |
| October | $284 \cdot 3$ | 151.1 | 198.8 | 413.7 | 129-1 | $220 \cdot 0$ | 192.4 | $215 \cdot 2$ | $212 \cdot 2$ | 227.4 |

World Wholesale Price Indexes.-Price changes within different countries have varied widely since the years before World War II. Comparisons between Canadian wholesale price changes and those that have occurred in other countries are provided in Table 3.

## 3.-Index Numbers of Wholesale Prices in Canada and other Countries, 1949, and December, 1950 and 1951

Note.-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- |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1950 | 1951 |  |  | 1950 | 1951 |
| Australia | 112 | 143 | 173 | New Zealand. | 99 | 113 | 135 |
| Canada | 193 | 116 | 123 | Norway | 102 | 127 | 149 |
| Chile.. | 114 | 151 | 192 | Peru (Lima). | 140 | 178 | 203 |
| Denmark | 102 | 129 | 151 | Portugal (Lisbon) | 102 | 100 | 117 |
| Finland. | 101 | 132 | 177 | Sweden. | 101 | 118 | 149 |
| France. | 100 | 120 | 152 | Switzerland. | 95 | 101 | 105 |
| India. | 104 | 112 | 118 | Union of South Afric | 106 | 119 | 142 |
| Mexico (Mexico City) | 110 | 129 | 154 145 | United Kingdom. | ${ }^{105}$ | 133 107 | ${ }_{109}^{151}$ |
| The Netherlands.... | 104 | 128 | 145 | United States. | 95 | 107 | 109 |

## Section 2.-The Consumer Price Index

A new measurement of retail prices entitled, "The Consumer Price Index", was introduced by the Dominion Bureau of Statistics in October 1952. This index has been constructed to replace the Cost-of-Living Index and marks the most thorough and comprehensive index of retail prices ever constructed in Canada. The new index was introduced in a Bureau publication entitled The Consumer Price Index, January 1949-August 1952, which contains detailed information on such aspects of the new index as purpose, family coverage, base period, and provides details of the items included as well as their relative importance. It also gives the formula used in calculating the index, outlines methods of price collection and explains the special features of the new index.

The purpose of the Consumer Price Index is essentially the same as that of the Cost-of-Living Index; that 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 new index, however, are somewhat different from those represented in the Cost-of-Living Index and consist of those families who, during the survey year ended Aug. 31, 1948, 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 $\$ 4,050$.

To measure the influence of price change upon the cost of goods and services purchased by such families, the Consumer Price Index contains 225 items, nearly 40 p.c. more than the Cost-of-Living Index. This expanded list of items reflects changes in consumption habits of Canadian families that occurred over the decade

1938-1948, as well as the broader sampling that has been possible in the new index. The index content is purely factual in its nature, and no attempt has been made to distinguish between 'luxuries' and 'necessities'.

Pre-war levels of prices now constitute an unsatisfactory reference level and the base period of the index is the year 1949, as compared to the average of the years 1935-39 in the case of the Cost-of-Living Index. Of the post-war years, 1949 was selected as the base period because price levels then were relatively stable, and because of the unsatisfactory nature of other post-war years. 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 also of considerable importance.


With the change to 1949 , the Consumer Price Index measures the percentage change in retail prices between that year and, for example, October 1952, rather than between October 1952 and 1935-39 as in the case of the Cost-of-Living Index. Since prices were substantially higher in 1949 than in 1935-39, indexes that take this higher price level as their reference base are considerably lower in absolute numbers. Thus, the Cost-of-Living Index for October 1952 was $185 \cdot 0$ while the comparable Consumer Price Index for the same date was $116 \cdot 0$. However, when both indexes are placed on the same base period, it will be seen that the two indexes have moved closely together over the period during which it is possible to compare them. The Consumer Price Index has been calculated forward from January 1949 and the accompanying chart compares monthly movements since that date with the movements of the Cost-of-Living Index.

It is notable that the 1948 survey of family expenditure indicated that the major economic changes during the decade 1938-1948 did not influence the percentage distribution of family expenditure as greatly as might have been expected. The following statement provides a comparison of the base period group weights of the two indexes.

| Budget Group | Consumer Price Index | Cost-of Living Index |
| :---: | :---: | :---: |
| Foods.. | ${ }^{\text {p.e. }} 32$ | ${ }_{31}{ }^{\text {p.e. }}$ |
| Clothing | 11 | 12 |
| Shelter . . $\ldots$....... | 15 | 19 |
| Household operation.... | 17 | ${ }_{15}^{15}$ |
| Fuel and light..........vices. | - | ${ }_{9}^{6}$ |
| Other commodities and services... | 25 |  |
| Miscellaneous. | -- | 23 |
| Totals | 100 | 100 |

The Consumer Price Index and Prices of Staple Foods.-The Consumer Price Index rose steadily throughout 1951 from $107 \cdot 7$ as at January of that year to a post-war peak of $118 \cdot 2$ for January 1952. During this period, all groups of the Consumer Price Index advanced, with foods showing the sharpest increase from $109 \cdot 0$ to $122 \cdot 4$. In 1952, the index declined steadily until May, and remained fairly stable between that date and October 1952.

## 4.-Consumer Price Index, 1942-51 and by Months, January 1951 to October 1952

| $(1949=100)$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year and Month | Food | Shelter | Clothing | Household Operation | Other Commodities and Services | Total Consume Price Index |
| 1942. | $63 \cdot 4$ | $90 \cdot 7$ | $65 \cdot 8$ | 76.0 | 82.0 | 72.9 |
| 1943. | $65 \cdot 2$ | $90 \cdot 9$ | $66 \cdot 1$ | $76 \cdot 1$ | 84.8 | $74 \cdot 2$ |
| 1944. | $65 \cdot 5$ | $91 \cdot 2$ | $66 \cdot 6$ | $75 \cdot 7$ | 86.1 | $74 \cdot 6$ |
| 1945 | $66 \cdot 3$ | 91.4 | 66.9 | 74.9 | 86.4 | $75 \cdot 0$ |
| 1946. | $70 \cdot 0$ | 91.8 | $69 \cdot 2$ | $77 \cdot 2$ | $88 \cdot 7$ | $77 \cdot 5$ |
| 1947. | 79.5 | $95 \cdot 1$ | 78.9 | 86.2 | $91 \cdot 6$ | 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 -4 | 103.1 | 102.9 |
| 1951. | $117 \cdot 0$ | 114.4 | 109.8 | $113 \cdot 1$ | 111.5 | $113 \cdot 7$ |
| 1351 |  |  |  |  |  |  |
| January... | 109.0 | $110 \cdot 0$ | $102 \cdot 6$ | $107 \cdot 1$ | 107.4 | 107.7 |
| February | 111.0 | $110 \cdot 4$ | $105 \cdot 1$ | $108 \cdot 6$ | $108 \cdot 0$ | $109 \cdot 1$ |
| March. | $114 \cdot 1$ | 111.5 | $106 \cdot 7$ | $110 \cdot 5$ | $108 \cdot 3$ | $110 \cdot 8$ |
| April. | $115 \cdot 5$ | 111.8 | $108 \cdot 5$ | 111.4 | $108 \cdot 6$ | $111 \cdot 7$ |
| May. | $114 \cdot 3$ | $112 \cdot 4$ | $109 \cdot 0$ | $112 \cdot 7$ | 110.4 | 112.2 |
| June.. | $115 \cdot 8$ | $115 \cdot 2$ | $109 \cdot 5$ | 113.8 | 111.8 |  |
| July. | 117.9 | $115 \cdot 5$ | $109 \cdot 7$ | 114.3 | 112.2 113.4 | 114.6 115.5 |
| August. | 119.0 | $115 \cdot 8$ | $110 \cdot 7$ | $115 \cdot 1$ | $113 \cdot 4$ 113.6 | $115 \cdot 5$ 116.5 |
| September | $120 \cdot 5$ 121.3 | 117.2 117.2 | 111.9 114.1 | 115.5 115.8 | $113 \cdot 6$ $114 \cdot 1$ | 116.5 117.1 |
| October... | $121 \cdot 3$ 122 | $117 \cdot 2$ $118 \cdot 2$ | $114 \cdot 1$ $114 \cdot 5$ | 115.8 115.9 | 114.1 114.8 | 117.9 |
| December.. | $122 \cdot 5$ | 118.2 | $115 \cdot 2$ | 116.4 | 115.0 | 118.1 |
| 1952 |  |  |  |  |  |  |
| January. | 122.4 | $118 \cdot 3$ | $114 \cdot 9$ | 116.4 | 115.5 | 118.2 |
| February | 120.8 | $118 \cdot 3$ | $113 \cdot 5$ | 116.3 | $115 \cdot 8$ | $117 \cdot 6$ |
| March.. | $117 \cdot 6$ | $119 \cdot 1$ | $112 \cdot 9$ | 116.9 | 116.4 | 116.9 |
| April. . | 117.2 | 119.4 | $112 \cdot 5$ | 116.8 | $116 \cdot 6$ 115.6 | 116.8 115.9 |
| May.. | $115 \cdot 5$ | $119 \cdot 6$ | $112 \cdot 3$ 111.8 | 116.2 115.9 | $115 \cdot 6$ | 115.9 116.0 |
| June...... | $115 \cdot 7$ | $120 \cdot 4$ | 111.8 111.7 | 115.9 115.9 | $115 \cdot 7$ $115 \cdot 6$ | 116.1 |
| July ............. | 116.0 | $120 \cdot 6$ | 111.7 111.6 | $115 \cdot 9$ $115 \cdot 8$ | $115 \cdot 6$ $115 \cdot 8$ | 116.0 |
| August. | $115 \cdot 7$ $115 \cdot 8$ | $120 \cdot 6$ | 111.6 110.9 | $115 \cdot 8$ 116.0 | 115.8 115.8 | 116.1 |
| Septermber | $115 \cdot 8$ $115 \cdot 1$ | 121.2 121.5 | 110.9 109.9 | $116 \cdot 0$ 116.2 | 116.8 | 116.0 |

Table 5 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.

## 5.-Urban Average and Relative Retail Prices of Staple Foods, 1942-51, and by Months, January 1951-October 1952

$(1919=10 ?)$

| 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, per quart |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average Price | Relative Price | Average Price | Relative Price | Average Price | Relative Price | Average Price | Relative Price | A verage Price | Relative Price |
|  | cts. | cts. | cts. | cts. | ets. | cts. | cts. | cts. | cts. | cts. |
| 1942. | $35 \cdot 8$ | 50.8 | $34 \cdot 8$ | $54 \cdot 5$ | $15 \cdot 1$ | $64 \cdot 2$ | $43 \cdot 1$ | $70 \cdot 1$ | $12 \cdot 1$ | $67 \cdot 7$ |
| 1943. | 39.2 | $55 \cdot 6$ | 37.0 | 57.9 | $17 \cdot 5$ | 74.5 | $48 \cdot 3$ | 78.5 | $10 \cdot 3$ | $57 \cdot 7$ |
| 1944. | $41 \cdot 3$ | $58 \cdot 6$ | $37 \cdot 7$ | $59 \cdot 1$ | $16 \cdot 4$ | 69.7 | 4.8 | 72.9 | $10 \cdot 3$ | 57.8 |
| 1945. | $42 \cdot 9$ | $60 \cdot 9$ | 38.9 | 60.9 | 17.0 | $72 \cdot 5$ | $47 \cdot 2$ | 76.7 | $10 \cdot 3$ | 57.8 |
| 1946. | $44 \cdot 2$ | $62 \cdot 7$ | $42 \cdot 3$ | $66 \cdot 2$ | 18.5 | 78.9 | 48.7 | 79.2 | $12 \cdot 2$ | 68.6 |
| 1947. | 48.3 | $68 \cdot 6$ | $46 \cdot 5$ | 72.9 | 25.5 | $108 \cdot 6$ | $50 \cdot 3$ | 81.8 | $15 \cdot 2$ | 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. | $70 \cdot 4$ | $100 \cdot 0$ | $63 \cdot 8$ | $100 \cdot 0$ | 23.5 | $100 \cdot 0$ | 61.5 | $100 \cdot 0$ | 17.8 | $100 \cdot 0$ |
| 1950. | 82.8 | $117 \cdot 6$ | $63 \cdot 4$ | $99 \cdot 3$ | 22.4 | $95 \cdot 3$ | 56.5 | 91.8 | 18.3 | 102.9 |
| 1951. | $101 \cdot 1$ | $143 \cdot 5$ | $73 \cdot 3$ | $114 \cdot 8$ | 28.4 | $121 \cdot 1$ | 71-6 | 116.5 | $19 \cdot 6$ | $110 \cdot 0$ |
| 1951 |  |  |  |  |  |  |  |  |  |  |
| January. | $87 \cdot 4$ | $124 \cdot 1$ | $66 \cdot 4$ | $104 \cdot 0$ | 26.8 | $114 \cdot 0$ | $60 \cdot 1$ | $97 \cdot 7$ | $19 \cdot 1$ | $107 \cdot 2$ |
| February | $92 \cdot 3$ | 131.0 | $67 \cdot 8$ | $106 \cdot 2$ | 28.5 | $121 \cdot 6$ | $54 \cdot 4$ | 88.5 | $19 \cdot 2$ | 107.8 |
| March. | 96.3 | 136.7 | 69.5 | $108 \cdot 9$ | $30 \cdot 1$ | $128 \cdot 3$ | $64 \cdot 0$ | $104 \cdot 0$ | $19 \cdot 2$ | 107.8 |
| April. | 98.5 | 139.9 | 68.0 | $106 \cdot 5$ | $30 \cdot 8$ | $131 \cdot 2$ | $63 \cdot 0$ | $102 \cdot 4$ | $19 \cdot 3$ | $108 \cdot 3$ |
| May.. | 99.7 | $141 \cdot 6$ | $67 \cdot 2$ | $105 \cdot 3$ | $30 \cdot 1$ | 128.3 | $67 \cdot 7$ | $110 \cdot 1$ | $19 \cdot 4$ | 108.9 |
| June. | $100 \cdot 4$ | 142.5 | 70.9 | 111.1 | $29 \cdot 1$ | $124 \cdot 1$ | $71 \cdot 1$ | $115 \cdot 6$ | 19.5 | 109.5 |
| July . | 105.9 | $150 \cdot 4$ | $79 \cdot 3$ | $124 \cdot 3$ | 28.3 | 120.7 | $79 \cdot 6$ | 129.4 | 19.5 | 109.5 |
| August. | 106.8 | 151.7 | 82.7 | $129 \cdot 6$ | 27.5 | 117.0 | $81 \cdot 6$ | 132.7 | $19 \cdot 6$ | $110 \cdot 0$ |
| September | $107 \cdot 0$ | 151.9 | $85 \cdot 4$ | 133.8 | $27 \cdot 8$ | 118.3 | 83.5 | $135 \cdot 8$ | $19 \cdot 6$ | 110.0 |
| October. | 106.8 | $151 \cdot 6$ | $80 \cdot 0$ | $125 \cdot 4$ | 28.0 | $119 \cdot 1$ | 82.2 | 133.6 | $19 \cdot 7$ | $110 \cdot 6$ |
| November. | $106 \cdot 1$ | $150 \cdot 7$ | 76.8 | $120 \cdot 3$ | 28.1 | 119.5 | $78 \cdot 6$ | 127.8 | $20 \cdot 3$ | 114.0 |
| December. | $105 \cdot 6$ | 149.9 | $65 \cdot 0$ | 101.8 | 26.2 | $111 \cdot 6$ | $74 \cdot 0$ | 120.4 | $20 \cdot 8$ | 116.8 |
| 1952 |  |  |  |  |  |  |  |  |  |  |
| January.......... | 106.8 | $151 \cdot 6$ | 66.8 | $104 \cdot 6$ | 24.7 | $105 \cdot 3$ | $57 \cdot 6$ | 93.7 | 21.0 | 118.0 |
| February........ | $105 \cdot 3$ | $149 \cdot 5$ | 62.8 | 98.4 | $22 \cdot 3$ | 94.9 | 51.5 | 83.8 | $21 \cdot 0$ | 118.0 |
| March. | 97.3 | 138.2 | $59 \cdot 4$ | $93 \cdot 1$ | 18.9 | $80 \cdot 6$ | $49 \cdot 9$ | $81 \cdot 1$ | $21 \cdot 1$ | 118.5 |
| April | 94.0 | 133.5 | $60 \cdot 1$ | $91 \cdot 2$ | $17 \cdot 3$ | 73.9 | $49 \cdot 2$ | $80 \cdot 0$ | $21 \cdot 1$ | 118.5 |
| May. | $92 \cdot 1$ | $130 \cdot 8$ | $59 \cdot 4$ | $93 \cdot 1$ | $15 \cdot 1$ | $64 \cdot 3$ | $48 \cdot 9$ | 79.5 | $21 \cdot 1$ | 118.5 |
| June.. | 91.8 | $130 \cdot 4$ | $62 \cdot 6$ | 98.0 | $14 \cdot 3$ | $60 \cdot 9$ | $48 \cdot 6$ | 79.0 | $21 \cdot 1$ | 118.5 |
| July... | $94 \cdot 2$ | 133.8 | $64 \cdot 3$ | $100 \cdot 7$ | $15 \cdot 0$ | 63.9 | $59 \cdot 1$ | 96.1 | $21 \cdot 1$ | 118.5 |
| August. | $96 \cdot 3$ | 136.8 | 63.4 | 99.3 | 15.0 | 63.9 | $68 \cdot 3$ | 111.0 | $21 \cdot 1$ | 118.5 |
| September | 94.4 | 134.1 | 63.7 | 99.8 | 14.6 | $62 \cdot 2$ | 69.2 | 112.5 | $21 \cdot 1$ | 118.5 |
| October. | 86.7 | 123.1 | $65 \cdot 3$ | $102 \cdot 3$ | $14 \cdot 6$ | $62 \cdot 2$ | 70.6 | 114.8 | $21 \cdot 1$ | 118.5 |

5.-Urban Average and Relative Retail Prices of Staple Foods, 1942-51, and by Months, January 1951-October 1952-concluded

| Year and Month | Flour, per lb. |  | Tomatoes, canned, $2 \frac{1}{2}$ 's, tin |  | Potatoes, 10 lbs . |  | Sugar, granulated, per lb. |  | Bread, per lb. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average <br> Price | Relative Price | Average Price | Relative Price | $\begin{aligned} & \text { Aver- } \\ & \text { age } \\ & \text { Price } \end{aligned}$ | Relative Price | Aver- age Price | Relative Price | Average Price | Rela- <br> tive <br> Price |
|  | ets. | ets. | cts. | cts. | cts. | cts. | cts. | cts. | cts. | cts. |
| 1942. | $4 \cdot 1$ | 58.4 | $12 \cdot 8$ | $64 \cdot 0$ | 29.2 | 83.9 | $8 \cdot 0$ | 87.2 | $6 \cdot 6$ | 66.7 |
| 1943 | $4 \cdot 1$ | 58.4 | $13 \cdot 1$ | $65 \cdot 2$ | $32 \cdot 1$ | $92 \cdot 2$ | $8 \cdot 1$ | $87 \cdot 5$ | $6 \cdot 6$ | 66.7 |
| 1944 | $4 \cdot 1$ | 58.4 | 13.5 | $67 \cdot 3$ | $30 \cdot 2$ | 86.8 | $8 \cdot 1$ | 87.5 | $6 \cdot 6$ | $66 \cdot 7$ |
| 1945 | $4 \cdot 0$ | 57.0 | 13.5 | $67 \cdot 1$ | $34 \cdot 9$ | $100 \cdot 3$ | $8 \cdot 1$ | 87.5 | $6 \cdot 6$ | $66 \cdot 7$ |
| 1946 | 4.0 | 56.8 | 14.2 | $70 \cdot 7$ | $34 \cdot 3$ | 98.4 | $8 \cdot 1$ | 87.5 | $6 \cdot 6$ | $66 \cdot 7$ |
| 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 | $24 \cdot 4$ | 121.7 | $40 \cdot 4$ | 116.1 | $9 \cdot 1$ | $98 \cdot 6$ | $9 \cdot 1$ | $92 \cdot 2$ |
| 1949 | $7 \cdot 0$ | $100 \cdot 0$ | $20 \cdot 1$ | $100 \cdot 0$ | 34.8 | $100 \cdot 0$ | $9 \cdot 2$ | $100 \cdot 0$ | 9.9 | $100 \cdot 0$ |
| 1950 | $7 \cdot 3$ | $104 \cdot 8$ | $17 \cdot 7$ | 88.0 | 33.2 | $95 \cdot 4$ | $10 \cdot 6$ | 114.4 | 10.3 | $104 \cdot 6$ |
| 1951. | $7 \cdot 5$ | $106 \cdot 9$ | $23 \cdot 1$ | $115 \cdot 0$ | $34 \cdot 8$ | 99.9 | $12 \cdot 0$ | 129.8 | 11.4 | 115.5 |
| 1951 |  |  |  |  |  |  |  |  |  |  |
| January.......... | $7 \cdot 4$ | $106 \cdot 2$ | $19 \cdot 6$ | 97.9 | 27.0 | $77 \cdot 4$ | $11 \cdot 6$ | $125 \cdot 6$ | 10.8 | 109.4 |
| February........ | $7 \cdot 4$ | $106 \cdot 2$ | 20.1 | $100 \cdot 3$ | 28.1 | $80 \cdot 6$ | 11.6 | $125 \cdot 6$ | 11.0 | 111.4 |
| March. | $7 \cdot 4$ | $106 \cdot 2$ | $20 \cdot 7$ | $103 \cdot 2$ | $29 \cdot 3$ | 84.0 | $11 \cdot 6$ | $125 \cdot 6$ | 11.3 | 114.5 |
| April. | $7 \cdot 4$ | $106 \cdot 2$ | 21.2 | 105-7 | 29.0 | $83 \cdot 1$ | $11 \cdot 6$ | 125.6 | 11.3 | 114.5 |
| May.. | $7 \cdot 4$ | $106 \cdot 2$ | 21.8 | $108 \cdot 6$ | 28.8 | $82 \cdot 6$ | 11.6 | $125 \cdot 6$ | 11.3 | 114.5 |
| June. | $7 \cdot 4$ | $106 \cdot 2$ | $22 \cdot 8$ | $113 \cdot 8$ | 29.7 | 85.2 | 11.8 | $127 \cdot 7$ | $11 \cdot 3$ | 114.5 |
| July. | $7 \cdot 5$ | $107 \cdot 6$ | 23.7 | 118.2 | $39 \cdot 3$ | $112 \cdot 9$ | $12 \cdot 3$ | 133.0 | 11.3 | 114.5 |
| August. | $7 \cdot 5$ | $107 \cdot 6$ | $24 \cdot 1$ | $120 \cdot 1$ | $38 \cdot 3$ | $110 \cdot 0$ | $12 \cdot 4$ | $134 \cdot 1$ | 11.5 | 116.6 |
| September | $7 \cdot 5$ | $107 \cdot 6$ | 24.5 | $122 \cdot 0$ | $34 \cdot 5$ | 98.9 | $12 \cdot 4$ | $134 \cdot 1$ | 11.5 | 116.6 |
| October. | $7 \cdot 5$ | $107 \cdot 6$ | $24 \cdot 7$ | $123 \cdot 0$ | $35 \cdot 1$ | $100 \cdot 8$ | $12 \cdot 4$ | $134 \cdot 1$ | 11.8 | 119.7 |
|  | $7 \cdot 5$ | $107 \cdot 6$ | 26.2 | $130 \cdot 8$ | $43 \cdot 3$ | $124 \cdot 3$ | $12 \cdot 3$ | 133.0 | 11.8 | 119.7 |
| December. | $7 \cdot 5$ | 107•6 | $27 \cdot 4$ | 136.5 | $55 \cdot 3$ | 158.8 | $12 \cdot 3$ | 133.0 | 11.8 | $119 \cdot 7$ |
| 1952 |  |  |  |  |  |  |  |  |  |  |
| January......... | $7 \cdot 5$ | $107 \cdot 6$ | 28.2 | $140 \cdot 4$ | $60 \cdot 4$ | $173 \cdot 5$ | $12 \cdot 3$ | 133.0 | 11.8 | $119 \cdot 7$ |
| February........ | 7.5 | $107 \cdot 6$ | 28.9 | $144 \cdot 2$ | $62 \cdot 4$ | $179 \cdot 2$ | $12 \cdot 2$ | 132.0 | 11.8 | 119.7 |
| March. | $7 \cdot 5$ | 107•6 | 29.3 | $146 \cdot 2$ | $62 \cdot 6$ | $179 \cdot 7$ | $12 \cdot 0$ | 129.8 | 11.8 | 119.7 |
| April. | $7 \cdot 5$ | $107 \cdot 6$ | $29 \cdot 7$ | $148 \cdot 1$ | $72 \cdot 3$ | $207 \cdot 5$ | 11.7 | 126.7 | 11.8 | 119.7 |
| May............. | $7 \cdot 4$ | $106 \cdot 2$ | 29.8 | $148 \cdot 6$ | 78.2 | $224 \cdot 6$ | 11.3 | 122.5 | 11.8 | $119 \cdot 7$ |
| June.. | $7 \cdot 4$ | $106 \cdot 2$ | $30 \cdot 1$ | $150 \cdot 0$ | 90.8 | $260 \cdot 6$ | $11 \cdot 0$ | $119 \cdot 3$ | 11.8 | 119.7 |
| July. | $7 \cdot 3$ | $104 \cdot 7$ | $30 \cdot 2$ | $150 \cdot 5$ | 88.8 | $254 \cdot 9$ | $10 \cdot 9$ | 118.2 | 11.8 | $119 \cdot 7$ |
| August | $7 \cdot 3$ | $104 \cdot 7$ | $30 \cdot 2$ | $150 \cdot 5$ | 76.5 | $219 \cdot 6$ | $10 \cdot 8$ | 117.0 | 11.8 | 118.7 |
| September. | $7 \cdot 3$ | $104 \cdot 7$ | 29.1 | $145 \cdot 0$ | 66.4 | $190 \cdot 6$ | $10 \cdot 6$ | 114.9 | 11.8 | 119.7 |
| October... | $7 \cdot 3$ | $104 \cdot 7$ | 27.2 | $135 \cdot 6$ | $54 \cdot 8$ | $157 \cdot 3$ | $10 \cdot 4$ | 112.7 | 11.7 | 118.7 |

Regional Changes in Living Costs.-Cost-of-Living Indexes for nine regional cities are shown in Table 6. The index for St. John's, N'f'ld., was prepared subsequent to the date Newfoundland joined Confederation, and is calculated on the base June $1951=100$, whereas indexes for the other cities are on the base August $1939=100$. The city indexes are patterned after the Cost-of-Living Index and will not be compiled on the same basis as the Consumer Price Index until some time in 1953.

The city 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 show the extent of price change within each city.

## 6.-Index Numbers of Living Costs in Nine Cities, 1942-51, and by Months, January 1951-October 1952

(August 1939100)

| Year and Month | $\begin{gathered} \text { St. } \\ \text { John's } \end{gathered}$ | Halifax | $\begin{aligned} & \text { Saint } \\ & \text { John } \end{aligned}$ | Montreal | Toronto | Winnipeg | Saskatoon | $\begin{aligned} & \text { Edmon- } \\ & \text { ton } \end{aligned}$ | Vancouver |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1942. | ... | 114.5 | 116.0 | 118.4 | $115 \cdot 6$ | 113.7 | 116.7 | $112 \cdot 7$ | $114 \cdot 2$ |
| 1943. | ... | 117.0 | 117.7 | $120 \cdot 4$ | 116.5 | 115.0 | $118 \cdot 1$ | $115 \cdot 3$ | 117.3 |
| 1944 | ... | 118.3 | 118.8 | $120 \cdot 7$ | $117 \cdot 1$ | $115 \cdot 7$ | $119 \cdot 4$ | $116 \cdot 3$ | $117 \cdot 9$ |
| 1945 | ... | $119 \cdot 3$ | $119 \cdot 4$ | 122.0 | 117.7 | 116.8 | $120 \cdot 2$ | 117.5 | 119.2 |
| 1946 |  | $122 \cdot 5$ | $122 \cdot 7$ | $126 \cdot 0$ | 121.8 | $120 \cdot 4$ | $124 \cdot 4$ | $121 \cdot 3$ | 123.0 |
| 1947. | $\ldots$ | 132-7 | $133 \cdot 3$ | $138 \cdot 1$ | $133 \cdot 7$ | $130 \cdot 9$ | $137 \cdot 1$ | 131.9 | 134.9 |
| 1948. | ... | 148.9 | 152.7 | $158 \cdot 3$ | 151.7 | 148.8 | $157 \cdot 4$ | 149.9 | $155 \cdot 6$ |
| 1949. | ... | $153 \cdot 8$ | 157.5 | 163.9 | 156.4 | $155 \cdot 3$ | $162 \cdot 5$ | $156 \cdot 0$ | 162.0 |
| 1950. |  | 157.0 | $162 \cdot 8$ | $170 \cdot 0$ | $162 \cdot 8$ | $161 \cdot 2$ | 166.1 | $162 \cdot 1$ | 167.8 |
| 1951. | 2 | 172-4 | $179 \cdot 6$ | 190-3 | $180 \cdot 4$ | $178 \cdot 0$ | $181 \cdot 4$ | 177-1 | $185 \cdot 2$ |
| 1951 |  |  |  |  |  |  |  |  |  |
| January. | ... | $160 \cdot 2$ | 168.4 | $177 \cdot 8$ | $168 \cdot 6$ | 167.8 | 170-2 | 166.0 | $172 \cdot 6$ |
| February | $\ldots$ | $162 \cdot 3$ | 171.2 | $180 \cdot 6$ | 171.5 | $170 \cdot 1$ | $172 \cdot 6$ | 169.0 | $175 \cdot 8$ |
| March. | ... | $167 \cdot 1$ | $174 \cdot 8$ | 184-3 | $176 \cdot 4$ | $173 \cdot 6$ | 177.8 | $172 \cdot 8$ | $179 \cdot 2$ |
| April. | ... | $169 \cdot 2$ | $176 \cdot 9$ | 186.3 | $178 \cdot 3$ | $175 \cdot 6$ | 178.9 | 174.7 | $182 \cdot 6$ |
| May. |  | $169 \cdot 4$ | $177 \cdot 4$ | 187.2 | $178 \cdot 6$ | $175 \cdot 7$ | 179.0 | 175-3 | 182.9 |
| June. | $100 \cdot 0$ | 171.5 | $179 \cdot 3$ | $190 \cdot 4$ | 179.9 | 177.4 | $180 \cdot 3$ | $176 \cdot 4$ | $185 \cdot 3$ |
| July. | 101.3 | 176-3 | $182 \cdot 5$ | $195 \cdot 3$ | 183.5 | 181.8 | 184.4 | $179 \cdot 6$ | 188.8 |
| August. | $102 \cdot 8$ | 177.9 | $184 \cdot 2$ | 194.8 | 184.5 | $182 \cdot 4$ | 186.0 | 181.7 | 189.8 |
| September | 102.7 | $177 \cdot 5$ | $184 \cdot 2$ | 196.0 | $185 \cdot 4$ | $182 \cdot 2$ | $186 \cdot 2$ | 181.5 | 190.2 |
| October | 103.0 | $178 \cdot 2$ | $185 \cdot 1$ | 196.4 | $185 \cdot 8$ | $183 \cdot 1$ | $187 \cdot 0$ | 181.9 | $190 \cdot 0$ |
| November | $103 \cdot 2$ | $179 \cdot 4$ | $185 \cdot 6$ | $197 \cdot 4$ | $186 \cdot 5$ | $183 \cdot 0$ | $187 \cdot 5$ | $182 \cdot 3$ | 192.0 |
| December. | $103 \cdot 5$ | 179-3 | 186.1 | $197 \cdot 3$ | 186.0 | $183 \cdot 3$ | $187 \cdot 2$ | $183 \cdot 6$ | $192 \cdot 8$ |
| 1952 |  |  |  |  |  |  |  |  |  |
| January | 103.9 | 179-3 | 188.0 | $198 \cdot 1$ | $187 \cdot 1$ | 183.7 | $187 \cdot 0$ | 183.4 | $193 \cdot 6$ |
| Februar | $103 \cdot 7$ | 178.2 | 187.5 | $197 \cdot 1$ | $186 \cdot 0$ | $183 \cdot 4$ | 187.1 | $183 \cdot 2$ | $192 \cdot 5$ |
| March. | $104 \cdot 0$ | $177 \cdot 8$ | 187.0 | 195.4 | 184.4 | $182 \cdot 0$ | $185 \cdot 6$ | $181 \cdot 2$ | $192 \cdot 2$ |
| April. | $103 \cdot 8$ | $177 \cdot 8$ | $186 \cdot 8$ | $193 \cdot 8$ | 184.8 | 181.9 | 183.7 | $180 \cdot 0$ | $192 \cdot 3$ |
| May. | $103 \cdot 1$ | $177 \cdot 4$ | 184.2 | 191.0 | $182 \cdot 9$ | $180 \cdot 5$ | 181.0 | 177.8 | $190 \cdot 6$ |
| June. | $102 \cdot 7$ | $179 \cdot 2$ | $185 \cdot 6$ | $192 \cdot 5$ | $184 \cdot \frac{1}{4}$ | $180 \cdot 6$ | $180 \cdot 9$ | $177 \cdot 5$ | $190 \cdot 6$ |
| July | 103.9 | $179 \cdot 6$ | $186 \cdot 4$ | $193 \cdot 4$ | $184 \cdot 4$ | 181.0 | 183.0 | 178.5 | 189.8 |
| August | $105 \cdot 3$ | $179 \cdot 0$ | 186.1 | 191.7 | $18+2$ | 180.0 | 183.9 | 179.1 | 189.5 |
| Septembe | $103 \cdot 6$ | 176.7 | 183.9 | 191.7 | $183 \cdot 3$ | $179 \cdot 0$ | 182.7 | $177 \cdot 7$ | 189.0 |
| October | 103.0 | $174 \cdot 0$ | $181 \cdot 6$ | $189 \cdot 8$ | 181.8 | $177 \cdot 5$ | $181-5$ | $177 \cdot 0$ | $187 \cdot 3$ |

[^332]World Retail Price Indexes.-In order to place changes in Canadian retail prices in perspective with those occuring in other countries, Table 7 provides retail price indexes for selected countries and dates. It will be noted that increases in retail prices have been world-wide. These indexes also measure price change only and should not be used to compare living costs from country to country.

## 7.-Index Numbers of Retail Prices In Canada and other Countries, 1949 and December 1950 and 1951

Norg.-Base: $1948=100$ except for France and The Netherlands, where $1949=100$.

| Country | 1949 | MonthofDecember- |  | Country | 1949 | Month <br> of <br> December- |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1950 | 1951 |  |  | 1950 | 1951 |
| Australia. | 109 | 127 | 158 | The Netherlands. | 100 | 113 | 119 |
| Canada. | 103 | 110 | 122 | New Zealand | 102 | 111 | 125 |
| Chile (Santiago) | 119 | 149 | 183 | Norway... | 100 | 112 | 127 |
| Denmark | 101 | 109 | 121 | Peru (Lima) | 115 | 136 | 146 |
| Finland. | 102 | 127 | 137 | Sweden. | 102 | 107 | 126 |
| France (cost of food in Paris). | 100 | 118 | 139 | Switzerland. | 99 | 99 | 105 |
| Ineland (Reykjsvik) ......... | 102 | 139 | 165 | Union of South Af | 104 | 112 | 121 |
| India (Bombay) ${ }_{\text {Mexico (Mexico }}$ City) $\ldots . . . . .$. | 101 | 102 115 | 109 136 | United Kingdom. | 103 | 107 | 120 |

## 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 during World Wars I and II.

Common Stocks.-Common stock prices advanced substantially during 1951 despite two major intermediate declines. From a level of $146 \cdot 3$ for December 1950, the composite index for 105 industrial, utility and bank stocks moved up to $166 \cdot 5$ by February 1951. A drop to $160 \cdot 7$ in June ensued, followed by another sharp rise to a 22 -year monthly peak of $183 \cdot 3$ by October. The final level for the year of $177 \cdot 3$ in December was an increase of $21 \cdot 2$ p.c. over the same month of 1950 . In January 1952, the composite index opened on a firm note at 181.7 but subsequent weakness developed, coinciding with lower commodity prices, to reduce the index to $163 \cdot 6$ by October.

## 8.-Investors Index Numbers of Common Stocks, by Months, 1951, and from January to October 1952

$(1935-39=100)$

| Year and Month | Types of Stocks |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Industrials |  |  |  |  |  |  |  |  |  |
|  | Machinery and Equipment | Pulp and Paper | Milling | Oils | Textiles and Cloth ing | Food and Allied Products | Beverages | Building Material | Industrial Mines | Industrials, Total |
| 1951 |  |  |  |  |  |  |  |  |  |  |
| January. | 401.9 | $481 \cdot 6$ | $104 \cdot 7$ | $110 \cdot 1$ | 359-3 | $125 \cdot 6$ | $4+2 \cdot 4$ | $244 \cdot 8$ | 118.1 | 154.8 |
| February | $422 \cdot 2$ | $531 \cdot 6$ | $110 \cdot 5$ | 126.9 | $399 \cdot 6$ | 127.8 | $463 \cdot 4$ | $259 \cdot 7$ | $125 \cdot 6$ | 168.0 |
| March | 411.1 | $513 \cdot 3$ | $107 \cdot 1$ | $133 \cdot 6$ 138.2 | $383 \cdot 0$ 369.0 | $124 \cdot 4$ 123.4 | $441 \cdot 2$ $445 \cdot 4$ | $251 \cdot 6$ $260 \cdot 9$ | 117.1 118.3 | $165 \cdot 0$ 169.1 |
| April. | $415 \cdot 8$ $406 \cdot 4$ | 568.3 579.2 | $106 \cdot 1$ $104 \cdot 7$ | 138.2 138.9 | $369 \cdot 0$ 363.0 | $123 \cdot 4$ $121 \cdot 0$ | $445 \cdot 4$ $436 \cdot 3$ | $260 \cdot 9$ 264 | 118.3 117.2 | 1688.3 |
| June. | $396 \cdot 4$ | $562 \cdot 2$ | $104 \cdot 1$ | $134 \cdot 1$ | 359.8 | 117.9 | $425 \cdot 6$ | $257 \cdot 6$ | 117.0 | 164.4 |
| July. | $405 \cdot 0$ | $568 \cdot 1$ | 111.3 | $135 \cdot 1$ | 355.5 | $115 \cdot 2$ | 421.8 | 264-6 | 118.1 | $165 \cdot 8$ |
| August | 419.2 | 588.5 | 117.7 | $145 \cdot 3$ | $366 \cdot 6$ | 118.4 | 419.9 | $277 \cdot 8$ | 127-1 | $174 \cdot 5$ |
| September | $445 \cdot 4$ | 609.8 | $124 \cdot 0$ | $156 \cdot 6$ | $371 \cdot 6$ | 119.7 | $436 \cdot 5$ | 308.8 | $135 \cdot 4$ | 185.4 |
| October.. | $462 \cdot 5$ | $595 \cdot 5$ | $122 \cdot 6$ | $162 \cdot 6$ | $346 \cdot 3$ | $114 \cdot 2$ | 445.9 | $305 \cdot 8$ | 141.0 | 189.5 |
| November | 431.7 | 562-3 | 121.9 | $150 \cdot 8$ | $314 \cdot 1$ | $110 \cdot 9$ | $425 \cdot 2$ | $284 \cdot 7$ | $136 \cdot 6$ | 178.8 |
| December. | $430 \cdot 4$ | $573 \cdot 6$ | $119 \cdot 3$ | 154.7 | 308.2 | $108 \cdot 5$ | 405.9 | $290 \cdot 0$ | $140 \cdot 2$ | $180 \cdot 6$ |
| 1952 |  |  |  |  |  |  |  |  |  |  |
| January. | $452 \cdot 0$ | 582.8 | 118.5 | 161.0 | $301 \cdot 2$ | 111.8 | 396.5 | 295-3 | $148 \cdot 1$ | 186.7 |
| February | $450 \cdot 3$ | 563-7 | $120 \cdot 4$ | $159 \cdot 8$ | $285 \cdot 7$ | 111.8 | 371.8 | $293 \cdot 3$ | $151 \cdot 3$ | $185 \cdot 2$ 182.6 |
| March... | $443 \cdot 3$ | $546 \cdot 1$ | 120.9 | 162.8 | $277 \cdot 1$ | 110.4 | 371.7 | 286.4 | $143 \cdot 2$ | $182 \cdot 6$ |
| April. | $417 \cdot 6$ | $510 \cdot 8$ | $120 \cdot 1$ | 172.7 | 261.2 | $107 \cdot 8$ | $352 \cdot 0$ 343.3 | $274 \cdot 0$ | 137.8 131.5 | $180 \cdot 5$ 172.4 |
| May.. | 414.9 | 488.9 | 117.8 | 160.9 | 258.9 | $102 \cdot 5$ | 343.3 357.9 | 264.5 | 131.5 138.7 | $172 \cdot 4$ $174 \cdot 8$ |
| June. | $420 \cdot 2$ | $506 \cdot 5$ 518.4 |  |  | $268 \cdot 2$ 272 | $101 \cdot 5$ | 357.9 367.5 | 281.4 | 143.9 | $178 \cdot 6$ |
| July... | $422 \cdot 5$ 441.8 | 518.4 519.9 | $135 \cdot 5$ $152 \cdot 3$ | 158.7 153.4 | $282 \cdot 7$ 297 | $104 \cdot 6$ 107.5 | $375 \cdot 6$ 3 | 299.4 | $145 \cdot 0$ 1 | 179.8 174 |
| September | 434.7 | 499.1 | $145 \cdot 4$ | $146 \cdot 6$ | 286.8 | $109 \cdot 7$ | 363.8 | $290 \cdot 7$ | $141 \cdot 2$ | 174.3 |
| October..... | 407.5 | $471 \cdot 9$ | $143 \cdot 4$ | $138 \cdot 1$ | $271 \cdot 9$ | $110 \cdot 2$ | $350 \cdot 4$ | $277 \cdot 5$ | $132 \cdot 2$ | $164 \cdot 9$ |

8.-Investors Index Numbers of Common Stocks, by Months, 1951, and from January to October 1952-concluded

| Year and Month | Types of Stocks |  |  |  | Banks, Total | Grand Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Public Utilities |  |  |  |  |  |
|  | Transportation | Telephone and Telegraph | Power and Traction | Public Utilities, Total |  |  |
| 1951 |  |  |  |  |  |  |
| January.. | $266 \cdot 5$ | $102 \cdot 5$ | $135 \cdot 8$ | $148 \cdot 6$ | 155.6 | $153 \cdot 8$ |
| February. | $315 \cdot 2$ | $104 \cdot 6$ | 146.0 | 163.2 | 158.5 | 166.5 |
| March.... | $301 \cdot 8$ | $104 \cdot 0$ | 142.4 | 158.9 | $150 \cdot 0$ | 162.9 |
| April... | 304-7 | $102 \cdot 9$ | 143.9 | 159.7 | 144.1 | 165•6 |
| May. | 296.4 290.7 | $102 \cdot 0$ 101.2 | $139 \cdot 8$ 136.0 | 156.0 153.0 | 141.7 | $164 \cdot 2$ |
| July.. | 299.6 | 101.2 | 137.7 | $155 \cdot 4$ | 140.0 | 162 -0 |
| August. | $328 \cdot 8$ | $100 \cdot 5$ | $142 \cdot 1$ | $162 \cdot 6$ | 137.2 | 169.- |
| September | $368 \cdot 8$ | $100 \cdot 8$ | $147 \cdot 6$ | $172 \cdot 3$ | $140 \cdot 2$ | $179 \cdot 8$ |
| October. | $378 \cdot 4$ | $99 \cdot 2$ | $149 \cdot 1$ | $174 \cdot 0$ | $141 \cdot 5$ | $183 \cdot 3$ |
| November. | $354 \cdot 4$ | 99.2 | $143 \cdot 4$ | 167.2 | 141.0 | $174 \cdot 0$ |
| December... | $402 \cdot 1$ | $99 \cdot 0$ | $146 \cdot 0$ | $177 \cdot 0$ | $144 \cdot 2$ | $177 \cdot 3$ |
| 1952 |  |  |  |  |  |  |
| January... | . 388.0 | $98 \cdot 6$ | 147.9 | $175 \cdot 0$ | 146.5 | 181 -7 |
| February. | -375.7 | $97 \cdot 3$ | $141 \cdot 2$ | $169 \cdot 5$ | 143.8 | $179 \cdot 5$ |
| March.. | $390 \cdot 2$ | $93 \cdot 8$ | $140 \cdot 8$ | $170 \cdot 4$ | $143 \cdot 6$ | $177 \cdot 6$ |
| April. | $404 \cdot 1$ | $90 \cdot 3$ | 138.2 | $170 \cdot 4$ | $140 \cdot 1$ | $175 \cdot 8$ |
| May.. | $390 \cdot 6$ | $90 \cdot 6$ | $133 \cdot 6$ | $166 \cdot 2$ | 141.2 | $169 \cdot 0$ |
| June.. | $388 \cdot 6$ | 91.7 | $138 \cdot 4$ | $168 \cdot 1$ | $146 \cdot 6$ | $171 \cdot 6$ |
| July.. | $389 \cdot 1$ | $92 \cdot 1$ | $140 \cdot 7$ | $169 \cdot 3$ | 149.5 | 174.9 |
| August. | 382.4 | $94 \cdot 7$ | $142 \cdot 1$ | 169.9 | 152.4 | $176 \cdot 0$ |
| September | $367 \cdot 4$ | $95 \cdot 0$ | $139 \cdot 6$ | $166 \cdot 5$ | $155 \cdot 2$ | $171 \cdot 6$ |
| October.. | 346.8 | $94 \cdot 8$ | $138 \cdot 1$ | $162 \cdot 1$ | $153 \cdot 7$ | $163 \cdot 6$ |

Preferred Stocks.-Preferred stock movements paralleled industrial and utility common stocks during 1951, though the range of fluctuation was smaller. Following an increase from $160 \cdot 2$ in December 1950 to $169 \cdot 3$ in February 1951, prices declined slowly to $162 \cdot 2$ by June, followed by an advance to $166 \cdot 4$ in September. The final figure for the year was $159 \cdot 5$ for December. Continued weakness in 1952 lowered the index a further $2 \cdot 3$ points to $157 \cdot 2$ by May but by October it had advanced to $161 \cdot 2$.
9.-Index Numbers of Preferred Stocks, by Months, 1942-52
$(1935-39=100)$
Nore.-Figures for 1927-41 are given in the 1948-49 Year Book, p. 958.

| Year | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1942. | $99 \cdot 6$ | 96.8 | $95 \cdot 6$ | 94.5 | $95 \cdot 4$ | 96.5 | $95 \cdot 7$ | $95 \cdot 8$ | $95 \cdot 6$ | $96 \cdot 2$ | 97.5 | $100 \cdot 4$ |
| 1943 | 102.7 | 105.5 | 106.4 | $108 \cdot 2$ | $110 \cdot 1$ | 113.3 | 117-3 | 117.8 | 118.0 | 118.2 | $115 \cdot 3$ | 115.8 |
| 1944 | 118.3 | 118.6 | 119.2 | 118.7 | 118.5 | $122 \cdot 2$ | 124.7 | 125.9 | $126 \cdot 3$ | 126.7 | 128.8 | 129.8 |
| 1945 | 131.8 | $132 \cdot 1$ | 130.9 | $130 \cdot 3$ | $132 \cdot 4$ | 137.2 | 138.0 | 137.8 | 139 -4 | 142.5 | 145.0 | 146.6 |
| 1946 | 152.1 | $154 \cdot 1$ | 154.5 | 157.8 | 159.7 | 161.6 | 157.5 | 157.9 | 151.4 | 153.6 | $154 \cdot 7$ | 153.5 |
|  | 157.5 | 158.5 | 156.0 | $153 \cdot 1$ | 154.3 | $155 \cdot 8$ | $155 \cdot 4$ | 153.5 | $153 \cdot 6$ | 152.0 | $150 \cdot 2$ | 148.1 |
| 1948 | 144.5 | 141.0 | 138.9 | 144.2 | $147 \cdot 0$ | 148.2 | 147.5 | 146.4 | $144 \cdot 8$ | 143.7 | $144 \cdot 6$ | 144.6 |
| 1949 | $144 \cdot 7$ | 144.0 | $142 \cdot 8$ | 140.9 | 139.9 | 136.3 | 138.6 | $140 \cdot 4$ | 141.8 | 145.8 | $150 \cdot 0$ | $150 \cdot 7$ |
| 1950 | 152.4 | 153.0 | 153.7 | $154 \cdot 4$ | $157 \cdot 3$ | 158.2 | $154 \cdot 6$ | $155 \cdot 6$ | 158.2 | 161 -1 | $161 \cdot 1$ | $160 \cdot 2$ |
| 1951 | 166.0 | 169.3 | 166.0 | $165 \cdot 2$ | $164 \cdot 3$ | 162.2 | 163 -1 | $165 \cdot 2$ | 166.4 | $164 \cdot 2$ | $162 \cdot 8$ | 159.5 |
| 1952 | 161.4 | $160 \cdot 6$ | 159.5 | $157 \cdot 2$ | 157.2 | 157.7 | 159.8 | 163.6 | 162 -4 | 161.2 | $160 \cdot 3$ | 160.8 |

Mining Stocks.-Mining stock price movements were broadly similar to those of industrials and utilities, the composite index for 30 representative golds and base metals advancing from $88 \cdot 2$ in December 1950 to $104 \cdot 7$ in February 1951, declining to $90 \cdot 6$ in June and recovering to $107 \cdot 5$ in October. The December 1951 figure of $103 \cdot 4$ registered a net gain over the year of $17 \cdot 2$ p.c. In the first four months of 1952, mining stock prices moved within a narrow range, the April index standing at $102 \cdot 8$. The August index rose to a peak of 110.2 but declined to 99.1 by October. Among group changes the gold series index advanced from 59.8 for December 1950 to $73 \cdot 2$ by December 1952. In the same interval the base metals index moved from $146 \cdot 0$ to $172 \cdot 5$ although the latter figure was considerably below the August 1952 peak of $184 \cdot 9$.
10.-Weighted Index Numbers of Prices of Mining Stocks, by Months, 1949-52
$(1935-39=100)$

| Year and Month | Gold | Base Metals | Total | Year and Month | Gold | $\begin{aligned} & \text { Base } \\ & \text { Metals } \end{aligned}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1949 |  |  |  | 1951 |  |  |  |
| January. | $69 \cdot 1$ | $128 \cdot 6$ | 88.9 | January . | 68.8 | 163.5 | 97.6 |
| February | $68 \cdot 8$ | 119.5 | 85.9 | February | $74 \cdot 3$ | $174 \cdot 5$ | 104.7 |
| March | $67 \cdot 1$ | $113 \cdot 7$ | $82 \cdot 8$ | March.. | 71.2 | 166.7 | $100 \cdot 3$ |
| April. | $72 \cdot 3$ | $112 \cdot 1$ | 86.0 | April. | $66 \cdot 8$ | $165 \cdot 3$ | 96.7 |
| May. | $69 \cdot 4$ | $107 \cdot 5$ | $82 \cdot 5$ | May. | $63 \cdot 7$ | $158 \cdot 6$ | $92 \cdot 5$ |
| June. | $66 \cdot 5$ | $102 \cdot 3$ | 78.9 | June.. | $63 \cdot 7$ | $152 \cdot 3$ | 90.6 |
| July. | $70 \cdot 6$ | $112 \cdot 3$ | 84.9 | July. | $65 \cdot 5$ | $155 \cdot 0$ | 92.7 |
| August. | $75 \cdot 3$ | 116.8 | $89 \cdot 6$ | August. | 69.7 | $161 \cdot 7$ | $97 \cdot 7$ |
| September | $75 \cdot 0$ | 118.8 | 89.9 | September | $73 \cdot 7$ | $173 \cdot 6$ | 104.0 |
| October... | 74.9 | $124 \cdot 1$ | 91.5 | October... | $75 \cdot 3$ | $181 \cdot 2$ | 107.5 |
| November | $77 \cdot 3$ | $130 \cdot 1$ | $95 \cdot 2$ | November | 71.9 | $172 \cdot 3$ | $102 \cdot 4$ |
| December. | $74 \cdot 2$ | 128.4 | $92 \cdot 4$ | December | $73 \cdot 2$ | $172 \cdot 4$ | $103 \cdot 4$ |
| 1950 |  |  |  | 1952 |  |  |  |
| January. | 75.0 | $127 \cdot 8$ | 92.8 | January. | 72.0 | $177 \cdot 7$ | 104.2 |
| February | $73 \cdot 2$ | $127 \cdot 2$ | 91.3 | February | 71.2 | $174 \cdot 6$ | $102 \cdot 6$ |
| March... | 73.9 | $124 \cdot 5$ | 91.0 | March... | $73 \cdot 4$ | $169 \cdot 6$ | 102.7 |
| April. | $75 \cdot 4$ | $127 \cdot 5$ | 93.0 | April. | 77.0 | $162 \cdot 1$ | 102.8 |
| May. | $73 \cdot 6$ | $129 \cdot 2$ | $92 \cdot 3$ | May. | $75 \cdot 1$ | $161 \cdot 6$ | 101.4 |
| June. | $70 \cdot 2$ | $130 \cdot 8$ | 90.5 |  | $75 \cdot 5$ | $162 \cdot 6$ | 102.0 |
| July | 58.5 | $126 \cdot 1$ | 80.9 | July | $76 \cdot 6$ | $176 \cdot 6$ | 107.0 |
| August. | $61 \cdot 6$ | $138 \cdot 2$ | 86.9 | August | 77.6 | 184.9 | $110 \cdot 2$ |
| September | $62 \cdot 7$ | $145 \cdot 1$ | 90.0 | September....... | $74 \cdot 4$ | $180 \cdot 2$ | 106.6 |
| October... | $64 \cdot 0$ | $147 \cdot 6$ | 91.7 | October | 69.5 | 166.9 | $99 \cdot 1$ $100 \cdot 8$ |
| November | $61 \cdot 1$ 59.8 | $148 \cdot 6$ 146.0 |  |  |  |  | $100 \cdot 8$ 103.4 |
| December | $59 \cdot 8$ | $146 \cdot 0$ | $88 \cdot 2$ | Decemb | $73 \cdot 2$ | $172 \cdot 5$ | $103 \cdot 4$ |

## 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 11. This series $(1935-39=100)$ has been
computed from January 1937 on the basis of yields computed from a 15 -year, 3 p.c. theoretical issue. Quotations for the theoretical yields are computed by the Bank of Canada.

Evidence of underlying strength for government obligations continued to be felt during 1950 as indicated by the narrow limits within which Government of Canada long-term bond yields moved during the year. From the index of 90.3 for December 1949 the yield rose to $91 \cdot 0$ in July 1950. The slightly easier price tone for Government obligations which commenced in the second half of 1950 accelerated in 1951. This was reflected by a change in the long-term bond yield index from $96 \cdot 7$ for December 1950 to $112 \cdot 0$ by December 1951. Further advances in yields in 1952 to an index level of $116 \cdot 2$ by December were noted.

> 11.-Index Numbers of Government of Canada Long-Term Bond Yields, by Months, 1943-October 1952
$(1935-39=100)$

| Month | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| January. | 98.8 | 97.3 | 96-7 | 90.0 | 84.9 | $92 \cdot 1$ | 95.4 | $90 \cdot 1$ | $97 \cdot 9$ | $113 \cdot 4$ |
| February | 98.5 | $97 \cdot 3$ | 96.6 | 85.9 | $84 \cdot 7$ | $92 \cdot 1$ | $95 \cdot 2$ | $90 \cdot 3$ | $97 \cdot 7$ | 113.9 |
| March. | $97 \cdot 6$ | 97-3 | 96.3 | 83.8 | $84 \cdot 6$ | 96.7 | $94 \cdot 7$ | $90 \cdot 2$ | $104 \cdot 6$ | $115 \cdot 1$ |
| April. | $97 \cdot 3$ | $97 \cdot 3$ | 96.0 | 84.3 | 84.8 | 96.5 | $94 \cdot 4$ | $90 \cdot 7$ | 104.9 | 115-3 |
| May. | 97-3 | $97 \cdot 2$ | 96.0 | $85 \cdot 1$ | $84 \cdot 6$ | $95 \cdot 3$ | $94 \cdot 4$ | $90 \cdot 2$ | $104 \cdot 9$ | $112 \cdot 6$ |
| June. | 97-3 | 97.0 | $95 \cdot 6$ | 84.9 | $84 \cdot 3$ | $95 \cdot 4$ | $94 \cdot 4$ | $90 \cdot 2$ | $105 \cdot 3$ | 114.0 |
| July. | 97-3 | 97.0 | $94 \cdot 6$ | $85 \cdot 1$ | 83.8 | $95 \cdot 6$ | 93.8 | 91.0 | 104.7 | $117 \cdot 3$ |
| August | 97-3 | 97.0 | 94.4 | $85 \cdot 0$ | 83.9 | 96.2 | 92.7 | 90.5 | 104.9 | 119.1 |
| September | 97-3 | $97 \cdot 0$ | $94 \cdot 6$ | 84.9 | 84.0 | 96.1 | 91.8 | 89.8 | 105.0 | $119 \cdot 6$ |
| October. | $97 \cdot 3$ | $97 \cdot 0$ | 94.4 | $85 \cdot 0$ | $84 \cdot 2$ | 96.3 | $89 \cdot 1$ | $92 \cdot 0$ | 105.7 | $118 \cdot 6$ |
| Novembe | $97 \cdot 3$ | $97 \cdot 0$ | 93.9 | $85 \cdot 0$ | 84.4 | $95 \cdot 7$ | $89 \cdot 2$ | $93 \cdot 9$ | 107.8 | 118.0 |
| Decembe | 97-3 | 96.9 | $92 \cdot 2$ | 85.0 | $84 \cdot 8$ | $95 \cdot 5$ | 90-3 | 96.7 | 112.0 | 116.2 |

## CHAPTER XXIII.-PUBLIC 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.

## Section 1.-Combined Statistics of Public Finance for all Governments

Combined statistics of public finance of 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 show details of the federal, provincial and municipal net combined revenue by sources and net combined current and capital expenditure by services. 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, exclusive of sinking fund earnings. 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 1 and 3 in order to prevent duplication and to provide additive totals. Owing to accounting practices of governments and variations in fiscal year-ends, discrepancies appear between the amounts recorded as inter-governmental transfers in Tables 1 and 3.

## 1.-Combined Revenue of All Governments, 1948 and 1949

Note.-Figures for the fiscal years ended nearest Dec. 31.

| Year and Item | Federal | Provincial | Municipal ${ }^{1}$ | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1948 | \$'000 | 8'000 | \$'000 | \$'000 |
| Taxes- |  |  |  |  |
| Corporation. | 540,287 | 106,009 | - | 646,296 |
| Customs duties and import | 223,786 |  |  | 223,786 |
| Gasoline. |  | 124.305 | $\overrightarrow{14}$ | 124,305 |
| General sales | 377.303 | 48,351 | 14,848 | 440,502 |
| Income-persons | 762,563 | 1286 | - | 762,749 |
| Liquor ${ }^{2}$. | 100,875 | 128,837 | - | 229,712 |
| Real and personal property | 25,550 | 29,122 4,709 | $\overline{3} \overline{6} .556^{\circ}$ | $\begin{array}{r}54,672 \\ 341.265 \\ \hline\end{array}$ |
| Tobacco .............. | 190,501 | 8,897 | 336,550 | 199.398 |
| Withholding | 43,445 171,832 |  |  | 43,445 |
| Other.. | 171,832 | 24,471 | 41,147 | 237,450 |
| Totals, Taxes. | 2,436,142 | 474,887 | 392,551 | 3,303,580 |
| Licences, Permits and Fees- |  |  |  |  |
| Motor-vehicle. | - | 51.471 | - | 51,471 |
| Other | 2,977 | 16,118 | 11,698 | 30,793 |
| Totals, Licences, Permits and Fees. | 2,977 | 67,589 | 11,698 | 82,264 |
| Public domain. | 2,315 | 71,913 | - | 74.228 |
| Public utility contributions to municipalities |  |  | 20,415 | 20,415 |
| Post Office (net). | 3,011 | - |  | 3,011 |
| Bank of Canada profits | 19.107 | - | - | 19,107 |
| Bullion and coinage. | 3,253 |  | $\overline{38}$ | 3,253 |
| Miscellaneous revenue | 108,709 ${ }^{\text {4 }}$ | 21,308 | 38,313 | 168,330 |
| Totals, Revenue (excluding Inter-governmental transfers). | 2,575,514 | 635,697 | 463.977 | 3,674,188 |
|  |  |  |  |  |
| Inter-governmental Transfers- |  |  |  |  |
| Federal subsidies to provinces. | - | 17,034 | - | 17,031 |
| Provincial subsidies to municipalities. | - |  | 8.192 | 8,192 |
| Dominion-Provincial Taxation Agreements | - | 84,279 | - | 84,279 |
| Nova Scotia highway tax. | - | 342 | - | 342 |
| Manitobs Municipal Commissioner's levy......... | - | 1,303 | - | 1,303 |
| Fund Debentures.............................. | - | 1,466 | - | 1,466 |
| Totals, Inter-governmental Transfers | - | 104,424 | 8,192 | 112,616 |
| Grand Totals, 1948. | 2,575,514 | 740,121 | 471,169 | 3,786,804 |
| Taxes- 1949 |  |  |  |  |
| Corporation |  |  | - |  |
| Customs duties and import | 226,403 |  | - | 226,403 |
| Gasoline. |  | 137,759 |  | 137,759 |
| General sales.... | 403,437 | 61,899 | 16.007 | 481,343 |
| Income-persons | 621,982 | 122 | - | 622,104 |
| Succession duties | 107,077 | 134,436 | - | 241.513 |
| Real and personal property | 29,920 | 29.164 4.450 | $\overline{369,3093}$ | 59,084 373,759 |
| Tobacco.................. | 206,334 | 9.578 |  | 215,912 |
| Withholding | 47;475 |  | $\overline{7}$ | 47,475 |
| Other. | 75,174 | 45,372 | 47,810 | 168,356 |
| Totals, Taxes. | 2,323,117 | 549,845 | 433.126 | 3.306,088 |
|  |  |  |  |  |
| Other.. | -3,430 | $\begin{aligned} & 58,198 \\ & 17,130 \end{aligned}$ | 12,912 | $\begin{aligned} & 58,198 \\ & 33,472 \end{aligned}$ |
| Totals, Licences, Permits and Fees. | 3.430 | 75,328 | 12,912 | 91,670 |

Fur footnotes, see end of table, p. 1022.
1.-Combined Revenue of All Governments, 1948 and 1949-concluded

| Year and Item | Federal | Provincial | Municipal ${ }^{1}$ | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1949-concluded | \$'000 | \$'000 | $8^{\prime} 000$ | \$'000 |
| Public domain. | 1,790 | 92,428 | - | 94,218 |
| Public utility contributions to municipalities |  | - | 23,718 | 23,718 |
| Post Office (net)....... | 1,933 |  |  | 1,933 20.442 |
| Bullion and coinage..... | 4,524 | 二 | - | 20,442 4,524 |
| Miscellaneous revenue | $55,982{ }^{5}$ | 13,241 | 42,079 | 111,302 |
| Totals, Revenue (excluding inter-governmental transfers) | 2,411,218 | 730,842 | 511,835 | 3,653,895 |
| Inter-governmental Transfers- |  |  |  |  |
| Federal subsidies to provinces... | - | 19,109 | - | 19,109 |
| Provincial subsidies to municipalities.............. | - |  | 9,569 | 9,569 |
| Transitional grant to Newfoundland............... | - | 6,500 | , | 6,500 |
| Dominion-Provincial Taxation Agreements | - | 79,780 | - | 79,780 |
| Share of income tax on power utilities. | - | 1,515 | - | 1,515 |
| Nova Scotia highway tax.. | - | 251 | - | 251 |
| Manitoba Municipal Commissioner's levy | - | 527 | - | 527 |
| Interest on Common School Fund and School Lands Fund Debentures. | - | 1,466 | - | 1,466 |
| Totals, Inter-governmental Transfers. | - | 109,148 | 9.569 | 118,717 |
| Grand Totals, 1949 | 2,411,218 | 839,990 | 521,404 | 3,772,612 |

[^333]
## 2.-Combined Revenue of All Governments, Exclusive of Inter-governmental Transfers, 1946-49

Note.-Figures for the fiscal years ended nearest Dec. 31.

| Item | $1946{ }^{1}$ | $1947{ }^{1}$ | $1948{ }^{1}$ | 19491, ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | 8 '000 | \$'000 |
| Taxes- |  |  |  |  |
| Corporation............. | 690,995 | 670,600 | 646,296 223,786 | $\begin{aligned} & 732,380 \\ & 226,403 \end{aligned}$ |
| Customs duties and import Gasoline................. | 239,568 109,510 | 295,737 113,195 | 223,786 124,305 | $\begin{aligned} & 226,403 \\ & 137,759 \end{aligned}$ |
| General sales | 334,699 | 416, 308 | 440,502 | 481,343 |
| Income-persons | 670,779 | 659,932 | 762,749 | 622,104 |
| Liquor ${ }^{3}$. ${ }^{\text {a }}$. | 220.690 | 222, 266 | 229,712 | 241,513 |
| Succession duties | 57,642 | 61,883 | 54,672 | 59,084 |
| Real and personal property ${ }^{4}$ | 284,909 ${ }^{\text {r }}$ | 307,805 ${ }^{\text {² }}$ | 341,265 | 373,759 |
| Tobacco.................. | 190,269 | 183,977 | 199,398 | 215,912 |
| Withholding | 30.136 | 35,889 | 43,445 | 47,475 |
| Other....... | 201, 027 r | 234,877 | 237,450 | 168,356 |
| Totals, Taxes | 3,030,224r | 3,202,469 | 3,303,580 | 3.306,088 |
| Licences, Permits and Fees- |  |  |  |  |
| Motor-vehicie <br> Other. | $38,107 \mathrm{r}$ | 46,475 29.503 | 31,471 30,793 | 33.472 |
| Totals, Licences, Permits and Fees. | $67,720^{\text { }}$ | 75,978 | 82,264 | 91.670 |
| Public domain | 54,750 | 57,209 | 74,228 | 94.218 |
| Public utility contributions to municipalities. | 16,380 ${ }^{\text {r }}$ | 19,852 ${ }^{\text {r }}$ | 20,415 | 23,718 1,933 |
| Post Office (net)......... | 9,076 | 9,857 | 3,011 | 1,933 20.442 |
| Bank of Canada profits. | 21,011 | 18,828 | 19,107 3 | 20,442 4.524 |
| Bullion and coinage... | $\stackrel{21098}{313,390}$ | 224, ${ }^{1,734}$ \% | 3,253 168,330 | 111,302 |
| Miscellaneous revenue | $313,390^{\mathrm{r}}$ | 224,594. | 168,330 | 11.302 |
| Totals, Revenue (excluding inter-governmental transfers) | 3,514,649 ${ }^{\text {\% }}$ | 3,610,518 | 3,674,188 | 3,653,895 |

[^334] which is inseparable from other taxes.

## 3.-Comblned Expenditure of All Governments, 1948 and 1949

Note.-Figures for the fiscal years ended nearest Dec. 31.

| Year and Item | Federal | Provincial | Municipal ${ }^{1}$ | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1948 | \$'000 | \$'000 | \$'000 | \$'000 |
| Public Welfare |  |  |  |  |
| Labour and unemployment insurance | 41,965 | -3,561 | 3,222 | 45,466 |
| Relief................................. |  | 6,927 | 4,065 | 10,992 |
| Old age pensions | 64,296 | 29,308 | 334 | 93,938 |
| Family allowances | 272,608 16,131 | $\overline{29.536}$ | 53,038 | 272,608 98,705 |
| Totals, Public Welfare. . . . . . . . . . . . . . . . . . . . . | 406,031 | 162,757 | 90,659 | 659,447 |
| Education | 37,040 | 139,054 | 188,311 | 364,405 |
| Transportatio | 119,810 | 257,738 | 90,155 | 467,703 |
| Agriculture.. | 67,879 | 22,092 |  | 89,971 |
| Public domain | 38,416 | 52,888 | - | 91,304 |
| National defence | 256,092 |  |  | 256,092 |
| Veterans' pensions and | 235,578 | - | - | 235,578 |
| Expansion of industry ..... |  | 二 | - |  |
| Price control and rationing.............. | $\begin{array}{r} 30,721 \\ 395.242 \end{array}$ | $\stackrel{\rightharpoonup}{51,491}$ | 28,403 | $\begin{array}{r} 30,721 \\ 475.136 \end{array}$ |
| Debt charges, net (excluding retirements) Other expenditure....................... | $\begin{aligned} & 395,242 \\ & 212,595 \\ & \hline \end{aligned}$ | 51,491 <br> 89,794 | - $\begin{array}{r}28,403 \\ \hline\end{array}$ | $\begin{array}{r} 475,136 \\ 450,257 \\ \hline \end{array}$ |
| Totals, Expenditure (excluding inter-governmental transfers) | 1,799,404 | 775,814 | 545,396 | 3,120,614 |
| Inter-governmental Transfers- <br> Federal subsidies to provinces <br> Provincial subsidies to municipalities. <br> Dominion-Provincial Taxation Agreements. <br> Nova Scotia highway tax <br> Manitoba Municipal Commissioner's levy. <br> Interest on Common School Fund and School Lands Fund Debentures. <br> Totals, Inter-governmental Transfers. <br> Grand Totals, 1948 |  |  |  |  |
|  | 17,095 | - 0 | - | 17,095 |
|  |  | 10,930 | - | 10,930 |
|  | 84.387 |  | 321 | 84,387 |
|  |  |  | 1.314 | 1.314 |
|  |  | - |  | 1,314 |
|  | 1,466 | -- | - | 1,466 |
|  | 102.948 | 10,930 | 1,635 | 115.513 |
|  | 1,902,352 | 786,744 | 547,031 | 3,236,127 |
| 19493 |  |  |  |  |
| Public Welfare- |  |  |  |  |
| Health and hospital care | 19,451 | 138,549 | 36,579 | 194,579 |
| Labour and unemploymen | 48,310 | 3.872 |  | 52,182 |
| Relief... |  | 13,267 | 5,487 | 18,754 |
| Family pensions | 89.725 | 38,18 |  | 127,906 |
| Family allowanc Other. | $\begin{array}{r}299,347 \\ 20,482 \\ \hline\end{array}$ | 31,754 | 65,576 | 299,347 117,812 |
| Other.als, Publie Welfare Totale | 477,315 | 225.623 | 107.642 | 810.580 |
| Education | 28,691 | 157,346 | 220.553 | 406,590 |
| Transportatio | 157,612 | 254,597 | 101,813 | 514,022 |
| Agriculture | 82,339 | 25,361 | - | 107,700 |
| Public domain | 53,574 | 50,028 | - | 103,602 |
| National defence | 372,596 |  | - | 372,596 |
| Veterans' pensions and after | 202,466 $=$ |  | - | 202,466 |
| Expansion of industry. |  | - | - |  |
| Price control and rationing | 2,748 |  |  | 2,748 |
| Debt charges, net (excluding retirements) | 406,766 | 52,593 | 30,800 | 490, 159 |
| Other expenditure.......... | 226,480 | 108,381 | 158.298 | 493,159 |
| Totals, lxpenditure (excluding inter-governmental transfers). | 2,010,588 | 873,929 | 619,106 | 3,503,622 |
| Inter-governmental Transfers- |  |  |  |  |
| Federal subsidies to provinces. | 19,170 |  | - | 19,170 |
| Provincial subsidies to municipalities |  | 12,674 | - | 12,674 |
| Transitional grant to Newfoundland | 6,500 |  |  | 6,500 |
| Dominion-Provincial Taxation Agreements | 76,881 | - | - | 76,881 |
| Share of income tax on power utilities | 1,375 | - | - | 1.375 |
| Grants in lieu of taxes on Federal property | 200 | - | - | 200 |
| Nova Scotis highway tax........ | - | - | 246 | 246 |
| Manitobs Municipal Commissioner's levy ........... | - | - | 473 | 473 |
| Interest on Common School Fund and School Lands | 1,466 | - | - | 1,466 |
|  | 105,592 | 12,674 | 719 | 118.985 |
| Totals, Inter-governmental Transiers Grand Totals, 1949............ | 2,116,179 | 886,603 | 619,825 | 3,622,607 |
| ${ }^{1}$ Includes an estimate for Quebec. ${ }^{2}$ Refun foundland. | ${ }^{2}$ Refunds exceeded expenditure. |  | ${ }^{3}$ Includes New- |  |

## 4.-Combined Expenditure of All Governments, Exclusive of Inter-governmental Transfers, 1946-49

Note.-Figares for the fiscal years ended nearest Dec. 31. Estimates of municipal statistics for Quebec are included for each year.

| Item | 1946 | 1947 | 1948 | 19491 |
| :---: | :---: | :---: | :---: | :---: |
| Public Welfare- | 8 '000 | \$'000 | \$'000 | \$'000 |
| Health and hospital care. | 76, 815 r | 100,079 r | 137,738 | 194,579 |
| Labour and unemployment insurance. | 45,208 | 41,502 | 45,466 | 52,182 |
|  | 8,070 ${ }^{\text {r }}$ | 10,032 | 10,992 | 18,754 |
| Old age pensions. | $63,884 \mathrm{r}$ | 80.820 r | 93,938 | 127,906 |
| Family allowances | 246,837 | 264,780 | 272,608 | 299,347 |
| Other | $65,506{ }^{\text {r }}$ | 81,145 r | 98,705 | 117,812 |
| Totals, Public Welfare. | 506,320 r | 578,358 - | 659,447 | 810,580 |
| Education. | $240,457 \mathrm{r}$ | 282, 227 T | 364,405 | 406,590 |
| Transportation | 243,124 r | $364,495 \mathrm{r}$ | 467,703 | 514,022 |
| Agriculture... | 94,551 | 128,749 | 89,971 | 107,700 |
| Public domain. | 45,817 | $69,727 \mathrm{r}$ | 91,304 | 103,602 |
| National defence | 365,938 | 154,263 | 256,092 | 372,596 |
| Veterans' pensions and aftercare. | 584,655 | 311,856 | 235,578 | 202,466 |
| Price control and rationing | 177,480 | 59,011 | 30,721 | 2,748 |
| Debt charges, net (excluding retirements) | 519, 564 r | 495, 064 r | 475,136 | 490,159 |
| Other expenditures.. | 319,263 r | 398,738 r | 450.257 | 493,159 |
| Totals, Expenditure (excluding inter-governmental transfers). | 3,097,169 ${ }^{\text {r }}$ | 2,842,488 r | 3,120,614 | 3,503,622 |

${ }^{1}$ Includes Newfoundland.
Combined Debt.-It should be noted that the increased direct and indirect debt reflected in 1949 is partially attributable to the inclusion for the first time of debt of the provincial and municipal governments of Newfoundland amounting to slightly less than $\$ 13,300,000$. Debt of each level of government can be ascertained for 1948 and 1949 by reference to Table 6.

## 5.-Combined Debt of All Governments, 1946-49

Note.-Figures for Giscal years ended nearest Dec. 31. Estimates for Quebec are included for each year.

| Item | 1946 | 1947 | 1948 | 19491 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | §'000 | \$'000 | \$'000 |
| Direct DebtFunded debt |  | 16,764,727 ${ }^{\text {r }}$ | 16,810,054 | 16,763,373 |
| Less Sinking Funds. | 17.375,359 | $16,764,729$ 373 | - 399,158 | 10,499,992 |
| Net funded debt | 16,928.427 | 16,390,998 | 16,410,896 | 16, 263,381 |
| Treasury bills.. | 1,314,832 | 1,340,457 | 1,339, 872 | 1,339,681 |
| Savings deposits | 100, 108 | 101.914 | 104,761 | 107,746 |
| Temporary loans | 30,124 | 65,417\% | 71,409 | $\begin{array}{r}87,896 \\ \hline 72761\end{array}$ |
| Other direct liabilities | 2,198,473 | 2,310,157 | 2,196,743 | 2,372,761 |
| Totals, Direct Debt (less Sinking Funds).. | 20,571,964 | 20,208,943r | 20,123,681 | 20,171,465 |
| Indirect Debt- |  |  |  |  |
| Guaranteed bonds.... . . .... ... Less Sinking Funds... . . . . . | $\begin{array}{r} 834,102 \\ 14,183 \end{array}$ | $\begin{gathered} 1,066,342 \mathrm{r} \\ 24,326 \end{gathered}$ | $1,194.630$ 31,331 | $\begin{array}{r}1,405,206 \\ 29,738 \\ \hline\end{array}$ |
|  | 819,919 | 1.042,016 | 1,163,299 | 1,375,468 |
| Guaranteed bank loans and other indirect liabilities | 45,882 | 1.042.531 | 80,637 | 116,507 |
| Totals, Indirect Debt (less Sinking Funds) | 865,891 | 1,039,547 | 1,243,936 | 1,491,975 |
| Grand Totals | 21,437,765 | 21,308,490 r | 21,367,617 | 21,663,440 |

[^335]
## 6.-Composition of Total Debt of All Governments, 1948 and 1949

Notz.-Figures for fiscal years ended nearest Dec. 31.

| Item | Federal | Provincial | Municipal ${ }^{1}$ | Total | Deduct Inter-governmental Debt | Combined Governmental Debt |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 |
| Direct Debt- <br> Funded debt. <br> Less Sinking Funds. $\qquad$ | 14,092, 268 | $\begin{array}{r}1,766,978 \\ 264,059 \\ \hline\end{array}$ | $\begin{aligned} & 959,511 \\ & 135,099 \end{aligned}$ | $\begin{array}{r} 16,818,757 \\ 399,158 \end{array}$ | 8,703 | $\begin{array}{r} 16,810,054 \\ 399,158 \end{array}$ |
| Net funded debt. | 14,092,268 | 1,502,919 | 824,412 | 16,419.599 | 8,703 | 16,410,896 |
| Treasury bills. | 1,300,000 ${ }^{2}$ | 137,353 | 1,547 | 1,438,900 | 99,028 | 1,339,872 |
| Savings deposits | 37,741 | 67,020 |  | 104,761 |  | 104,761 |
| Temporary loans. |  | 7,382 | 64,027 | $\begin{array}{r}71,409 \\ \hline 2.2550\end{array}$ |  | $\begin{array}{r}71,409 \\ \hline\end{array}$ |
| Other direct liabilities.... | 2,030,626 ${ }^{3}$ | 105,517 | 119,207 | 2,255,350 | 58,607 | 2,196,743 |
| Totals, Direct Debt (less Sinking Funds) | 17,460,635 | 1,820,191 | 1,009,193 | 20,290,019 | 166,338 | 20,123,681 |
| Indirect Debt- |  |  |  |  |  |  |
| Guaranteed bonds.. | 645,5884 19,5045 | 502,423 3,463 | 58,120 11,114 | 206,131 34,081 | 11,501 2,750 | $1,194,630$ 31,331 |
| Net guaranteed bonds | 626,084 | 498,960 | 47,006 | 1,172,050 | 8,751 | 1,163,299 |
| Loans under the Municipal Improvement Assistance Act, 1938. | - | 4,723 | - | 4,723 | 4,723 | - |
| Guaranteed bank loans and other indirect liabilities. | 28,719 ${ }^{6}$ | 60,826 | - | 89,545 | 8,908 | 80,637 |
| Totals, Indirect Debt (less Sinking Funds) | 654,803 | 564,509 | 47,006 | 1,266,318 | 22,382 | 1,243,936 |
| Grand Totals, 1948.. | 18,115,438 | 2,384,700 | 1,056,199 | 21,556,337 | 188,720 | 21,367,617 |
| 1949 |  |  |  |  |  |  |
| Direet Debt ${ }^{\text {- }}$ |  |  |  |  |  |  |
| Funded debt....... | $\begin{array}{r} 13,750,135 \\ 17,203 \end{array}$ | $1,955,095$ 343,986 | $1,066,284$ 138,803 | $\begin{array}{r} 16,771,514 \\ 499,992 \end{array}$ | 8,141 | $\begin{array}{r} 16,763,373 \\ 499,992 \end{array}$ |
| Net funded debt. | 13,732,932 | 1,611,109 | 927,481 | 16,271,522 | 8,141 | 16,263,381 |
| Treasury bills. | 1,300,000 ${ }^{2}$ | 133,083 | 1,802 | 1,434,885 | 95,204 | 1,339,681 |
| Savings deposits | 38,755 | 68,991 | - | 107,746 | - | 107,746 |
| Temporary loans. |  | 9,998 | 77,898 | 87,896 |  | 87,896 |
| Other direct liabilities. | 2,227,977 ${ }^{3}$ | 118,760 | 121,745 | 2,468,482 | 95,721 | 2,372,761 |
| Totals, Direct Debt (less Sinking Funds) | 17,299,664 | 1,941,941 | 1,128,926 | 20,370,531 | 199,066 | 20,171,465 |
| Indirect Debt- |  |  |  |  |  |  |
| Guaranteed bonds. Less Sinking Funds.. | $\begin{array}{r} 676,7284 \\ 17,1896 \end{array}$ | $\begin{array}{r} 681,506 \\ 3,625 \end{array}$ | $\begin{aligned} & 58,110 \\ & 11,861 \end{aligned}$ | $\begin{array}{r} 1,416,344 \\ 32,675 \end{array}$ | $\begin{array}{r} 11,138 \\ 2,937 \end{array}$ | $\begin{array}{r} 1,405,206 \\ 29,738 \end{array}$ |
|  | 659.539 |  |  |  |  |  |
| Loans under the Municipal | 659,539 | 677,881 | 46,249 | 1,383,669 | 8,201 | 1,375,468 |
| Improvement Assistance Act, 1938 | - | 4.470 | - | 4,470 | 4,470 | - |
| Guaranteed bank loans and other indirect liabilities. | 70,217 ${ }^{6}$ | 55,519 | - | 125,736 | 9,229 | 116,507 |
| Totals, Indirect Debt (less Sinking Funds) | 729,756 | 737,870 | 46,249 | 1,513,875 | 21,900 | 1,491,975 |
| Grand Totals, 1949... | 18,029,420 | 2,679,811 | 1,175,175 | 21,884,406 | 220,966 | 21,663,440 |

[^336]
## Section 2.-Federal Public Finance*

A sketch of public finance, from the French régime to the outbreak of World War I appears at pp. 742-743 of the 1941 Year Book, while 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 at pp. 918-923 of the 1945 Year Book. Budgets for the fiscal years 1945-46 to 1950-51 will be found in preceding Year Books commencing with the 1946 edition. The more important post-war changes are given in the following summary.

Post-War Federal Finance.-As soon as victory was gained in Europe in May 1945, attention was focused on the problems of changing from a wartime economy to production for civilian needs while continuing the war against Japan. To encourage and facilitate the rapid resumption of production for home and export markets and to avoid uncertainty and delay in the expansion of essential civilian production an Order in Council was passed to become effective on May 14, 1945, rescinding or reducing a number of taxes that had been imposed during the War to discourage production and purchasing. By this Order, the sales tax and the war exchange tax were removed on most building materials, the war exchange tax was rescinded on machinery and apparatus used in the manufacture or production of goods, and also the 25 p.c. excise tax on electrical or gas fixtures and appliances. The wartime tax on automobiles which ranged from 25 p.c. on the first $\$ 900$ to 80 p.c. on the value in excess of $\$ 1,200$ was reduced to a flat 10 p.c. and the 25 p.c. excise tax on cameras, radios and phonographs was reduced to 10 p.c.

The Budget for the year 1945-46, presented to Parliament in October 1945, was, to a considerable extent, a war budget because war and demobilization expenses continued for some time at a very high level. The forecast of expenditure for $1945-46$ was $\$ 4,650,000,000$, about $\$ 670,000,000$ below the wartime peak. The forecast of revenue, before tax changes, was $\$ 2,500,000,000$ leaving a deficit of $\$ 2,150,000,000$. Despite this expected deficit a number of important tax changes were announced to reduce costs, restore incentives, promote efficiency and encourage investment in the expansion of industry. These tax changes included the repeal of the war exchange tax and the exemption from the sales tax of machinery and apparatus used directly in the manufacture or production of goods. The tax levied on business proprietors and partnerships, under the Excess Profits Tax Act, was reduced and the minimum standard profits for all business was increased for purposes of computing the excess profits tax. As an interim step towards the ultimate abolition of this tax, the 20 p.c. refundable portion of the excess profits tax was abolished and the rate of tax on excess profits of corporations was reduced from 100 p.c. to 60 p.c. These changes in the excess profits tax became effective from Jan. 1, 1946. The individual income tax was also abated by 16 p.c. commencing on Oct. 1, 1945 and resulted in a reduction of 4 p.c. in the tax liability for 1945.

Experience proved that the forecasts of revenue and expenditure for 1945-46 were too low and the deficit of $\$ 2,123,000,000$ was slighly less than had been anticipated and was financed by the Ninth Victory Loan, launched towards the end of 1945. This deficit brought the net debt of Canada to the all-time peak of $\$ 13,421,000,000$ and marked the end of wartime budgeting.

[^337]The Budget for 1946-47, presented to Parliament in June 1946, proposed further tax reductions. Personal income tax structure was revised completely with lower rates and higher exemptions of $\$ 750$ for single status and $\$ 1,500$ for married status becoming effective from Jan. 1, 1947. From this date also the excess profits tax was removed from partnerships and sole proprietors and the rate on corporations was reduced to 15 p.c. on profits in excess of $116 \frac{2}{3}$ p.c. of standard profits. The flat rate of 22 p.c. on profits levied under the Excess Profits Tax Act was repealed and the corporation income tax rate was changed from 18 p.c. to 30 p.c. resulting in a 10 p.c. reduction in the combined over-all flat rate on corporations, in keeping with the Federal Government's obligation under the wartime tax agreements with the provinces.

During the fiscal year 1946-47, all wartime tax agreements between the Federal Government and the provinces expired. Under these agreements the provinces, in return for compensation, suspended their taxes on corporations and on personal income tax. It was apparent that without new agreements several provinces would be faced with difficult budget problems and a chaotic tax situation was likely to arise. When complete agreement could not be reached on a comprehensive plan put forward by the Federal Government for renewal and extension of these agreements a further offer was made in the Budget of June 1946, which the individual provinces could choose to accept or reject. As a result of this offer the DominionProvincial Tax Rental Agreements were completed in 1947 with all provinces except Ontario and Quebec, and with Newfoundland in 1949, when it became a province. These Agreements are dealt with in detail in the 1951 Year Book at pp. 1005-1008. As a corollary to that part of the offer which dealt with succession duties it was necessary for the Federal Government to double its rates of succession duties commencing Jan. 1, 1947, and to allow a credit up to one-half the federal duty for duties paid to a province.

Although a deficit had been forecast for 1946-47 very buoyant revenue resulted in a surplus of nearly $\$ 374,000,000$ for the year, reflecting the rapid and highly successful transition from a wartime to a peacetime economy.

The Budget for 1947-48, presented to Parliament in April 1947, continued the program of gradual tax reduction. A new and lower schedule of rates on personal incomes was introduced to become effective on July 1, 1947, the excess profits tax was discontinued after Dec. 31, 1947, and the excise tax of 3 cents per gallon on gasoline was repealed from Apr. 1, 1947.

During 1947, the drain on Canada's reserve of United States dollars increased very rapidly as a result of the large capital expansion program and the high level of purchasing power in Canada and the inability to convert earnings in sterling into United States dollars. As a result, restrictions were placed on certain imports from the United States and, effective from Nov. 18, 1947, a number of new or increased excise taxes were imposed on goods manufactured in or imported into Canada. These taxes were levied on automobiles, cameras, radios and phonographs, electrical appliances, refrigerators, firearms, outboard motors and motorcycles but the excise tax on sugar and the sales tax on electricity and gas used in dwellings were repealed.

The accounts for 1947-48 finally showed a surplus for the year and the net debt was reduced by the amount of $\$ 676,000,000$.

Because of continuing inflationary pressures and the desirability of budgeting for supluses while times were good, the Budget of 1948-49, presented to Parliament in May 1948, proposed no general tax reduction. The Income Tax Act was amended
to allow an additional exemption of $\$ 500$ to taxpayers over 65 years of age and the sales tax was amended to exempt substantially food items not previously exempt. In addition, excise taxes on admission to places of amusement and on expenditure in other places of entertainment as well as the tax on pari-mutuel bets were repealed. The Succession Duty Act, as amended effective from Jan. 1, 1948, exempted from duty all estates under $\$ 50,000$. Changes were made also in the customs tariff in accordance with the General Agreement on Tariffs and Trade concluded at Geneva in 1947.

Canada's exchange difficulties improved sufficiently to permit the withdrawal on July 31, 1948, of all the special excise taxes levied the previous November.

The final accounts for the year 1948-49 showed expenditure of $\$ 2,176,000,000$, the lowest in the post-war period under review. Revenue for the year amounted to $\$ 2,771,000,000$, resulting in a surplus of $\$ 595,000,000$.

The Budget for 1949-50, presented to Parliament in March 1949, brought further important tax reductions. Effective from Jan. 1, 1949, the exemptions for personal income tax were raised to $\$ 1,000$ for single status and $\$ 2,000$ for married status and the schedule of rates was reduced for all levels of taxable income. The flat rate of 30 p.c. on corporations was changed to 10 p.c. on profits up to $\$ 10,000$ and 33 p.c. on profits in excess of $\$ 10,000$. As a step towards removing the double taxation of corporate earnings a provision was introduced permitting individuals to deduct from their income tax an amount equal to 10 p.c. of their net dividend income from Canadian taxpaying corporations. The excise taxes on soft drinks, candy and chewing gum, transportation tickets and long-distance telephone calls, telegrams and cables were repealed. The excise taxes on a group of items including toilet articles, luggage, smokers' supplies and matches, were reduced to 10 p.c. The 25 p.c. retail purchase tax on jewellery, clocks, watches, plated-ware and similar items was changed to a 10 p.c. excise tax on the manufacturer's price.

As Parliament was dissolved before the tax changes proposed in the Budget became law these measures were introduced again to Parliament in October 1949, approximately in the same form. In addition, the sales tax was removed from fucloil used for heating or lighting in homes or in industry, effective from Oct. 20, 1949.

Increased costs of social security and national defence and the entry of Newfoundland into Confederation resulted in the fiscal year 1949-50 showing a reversal in the trend of lower expenditure for each year following the end of the War. Expenditure for the year amounted to $\$ 2,449,000,000$, an increase of $\$ 273,000,000$ over the previous year. Revenue amounted to $\$ 2,580,000,000$, giving a surplus of $\$ 131,000,000$ for the fiscal year 1949-50.

The Budget for 1950-51, presented to Parliament in March 1950, forecast almost equal expenditure and revenue of $\$ 2,410,000,000$ and $\$ 2,430,000,000$, respectively, for the fiscal year. As a result, only minor tax changes were proposed, including a provision, under the Income Tax Act, for closely held companies to pay a 15 p.c. tax on their undistributed income. Changes were made also under the Excise Tax Act by adding ice cream and drinks prepared from fresh milk to the items
exempt from the sales tax. Exempted also from the sales tax were purchases by certain institutions caring for orphans or the incapacitated and the 5 p.c. excise tax on toilet soap was repealed.

The Budget presented in March 1950, ended one phase of post-war financing. Special post-war demobilization and transitional expenditure was nearly completed but the Government was faced with heavy fixed charges for interest on the public debt, national defence and social security. The Minister of Finance pointed out that the prospects were for Budgets to continue to call for expenditure of about $\$ 2,400,000,000$ for some years to come. On the other hand, taxes had been reduced substantially from the wartime level and foreseeable revenue for future years appeared little more than adequate to cover expenditure. All this was changed, however, by the outbreak of war in Korea in June 1950.

In September 1950, new budgetary proposals were presented by the Minister of Finance to meet the rapid step-up in defence expenditure and the sharp increase in economic activity and inflationary pressures which followed the commencement of war in Korea. To maintain a pay-as-you-go policy, a number of tax increases were introduced to cover the increased defence expenditure. The corporation income tax was increased from 10 p.c. to 15 p.c. on the first $\$ 10,000$ of profits and from 33 p.c. to 38 p.c. on profits over $\$ 10,000$. Taxes on alcoholic beverages were increased by raising the tax on spirits from $\$ 11$ to $\$ 12$ per gallon and the tax on malt from 16 to 21 cents per $1 b$. Under the excise taxes all items formerly subject to a tax at the rate of 10 p.c. became taxable at 15 p.c. and a new tax of 30 p.c. was imposed on soft drinks, candy and chewing gum.

These new taxes, together with increased revenue as a result of rising prices and increased economic activity, were expected to bring revenue for 1950-51 to a level barely sufficient to cover expenditure. However, the effect of inflationary pressures was greater than expected with the result that revenue amounting to $\$ 3,113,000,000$ exceeded expenditure of $\$ 2,901,000,000$, giving a budgetary surplus of $\$ 212,000,000$ for $1950-51$.

The Budget for 1951-52*, presented to Parliament in April 1951, indicated that sources would have to be found to produce $\$ 375,000,000$ additional revenue and a defence surtax of 20 p.c. for this purpose was imposed on incomes of individuals and corporations. Because it could only be applied to deductions from salary and wages starting on July 1, 1951, the surtax on personal income was levied at 10 p.c. of total income in 1951. For corporations the surtax applied to profits in excess of $\$ 10,000$ only, raising the rate of tax on these profits to $45 \cdot 6$ p.c. Further revenue was derived from the corporation income tax as a result of a provision designed to combat inflationary pressures which deferred, for four years, capital cost allowances on certain capital assets acquired after Apr. 10, 1951. The tax on cigarettes was increased by $\$ 1.50$ per 1,000 ; on manufactured tobacco it was increased by 48 cents per lb., although part of this increase was offset by the repeal of the tax on cigarette papers and tubes. All items formerly subject to an excise tax of 15 p.c. became

[^338]taxable at 25 p.c. and a new 15 p.c. tax was levied on refrigerators, stoves and washing machines. The 30 p.c. excise tax on candy, confectionery and chewing gum, proved by experience to be too severe, was reduced to 15 p.c. A very important change was made by increasing the sales tax rate from 8 p.c. to 10 p.c.

The Old Age Security Act passed in November 1951, provided for pensions to persons 70 years of age or over; and it became necessary to levy taxes to provide a fund from which these pensions would be paid. Under authority of the Old Age Security Act, a tax of 1 p.c. with a maximum of $\$ 30$ was levied on personal incomes for 1952 to become 2 p.c. with a maximum of $\$ 60$ thereafter. A tax of 2 p.c. was levied on the income of corporations commencing Jan. 1, 1952. The sales tax, levied under the Excise Tax Act, was reduced from 10 p.c. to 8 p.c. commencing Jan. 1, 1952, but a 2 p.c. sales tax was levied as an old age security tax from the same date.

At the end of 1951-52 the accounts showed that the tax structure had produced total revenue of $\$ 3,981,000,000$ ( $\$ 4,007,000,000$ including the revenue from old age security taxes). Expenditure for the year amounted to $\$ 3,733,000,000$, giving a budgetary surplus of $\$ 248,000,000$.

The Budget for 1952-53, presented to Parliament in April 1952, consolidated and adjusted some of the temporary tax increases introduced in the previous year. The 20 p.c. defence surtax on personal income was repealed but a new schedule of rates was introduced effective from July 1, 1952, which incorporated over twothirds of the weight of the surtax. The rate of tax on corporation income was changed to incorporate the 20 p.c. defence surtax as well as the 5 p.c. corporation income tax formerly levied by provinces which had entered into tax rental agreements. As a result of these changes the rates of tax on 1952 incomes of corporations (not including the 2 p.c. old age security tax) became 20 p.c. on the first $\$ 10,000$ plus 50 p.c. on the excess over $\$ 10,000$ with a credit against the tax of an amount equal to 5 p.c. of the profits earned in provinces which continue to levy a corporation income tax. The tax on cigarettes was reduced by $\$ 1.50$ per 1,000 to return this tax to its previous level, and minor adjustments were made in the other tobacco taxes. The tax on goods bearing an excise tax of 25 p.c. under the Excise Tax Act was reduced to 15 p.c., the tax of 30 p.c. on soft drinks was reduced to 15 p.c., and the 15 p.c. tax on stoves, refrigerators and washing machines was repealed.

## Subsection 1.-Balance Sheets of the Federal Government

Table 7 shows the balance sheets of the Federal Government for 1949-52 but these figures are not on a basis comparable to those in earlier Year Books. On the asset side, accounts classified as active assets are shown; these represent cash or investments that are interest-producing or have a readily realizable cash value. On the liability side, such liabilities are given as have been ascertained and brought into the accounts. No liability is shown for interest accrued but not due, nor for current obligations incurred for supplies or services but not paid for at the end of the fiscal year. Indirect liabilities under guarantees are not reflected in the balance sheets, but are set out in a special schedule. (See p. 1063.)

The excess of liabilities over active assets, designated the net debt, is analysed in a statement appended to the Balance Sheet and is apportioned to non-active assets, which include capital expenditure and non-productive investment, and to accumulated deficits in the Consolidated Deficit Account.

## 7.-Balance Sheet of the Federal Government as at Mar. 31, 1949-52

| Assets and Liabilities | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | $\delta$ | \$ | \$ |
| Active Assets- <br> Cash in current and special deposits. | 90,671,289 | 143,420,566 | 88,949,781 | 21,229,762 |
| Other Liquid Assets- <br> Foreign Exchange Control BoardCash and securities. Securities investment account. ............ |  |  |  |  |
|  | 1,071,192,875 | 1,250,000.000 | 1,681,165,473 | 1,799,403,755 |
|  | 455, 769,619 | 18,690,528 | 9,644,206 | 58,896,205 |
| Working Capital Advances- |  |  |  |  |
| Departmental. | 21,919,461 | 41,714, 212 | 22,662,972 | 117,729,875 |
| Crown corporations. | 20,705,421 | 16,818,487 | 17,818,487 | 23,927,192 |
| Totals, Liquid Asse | 1,660,258,665 | 1,470,643,793 | 1,820,240,919 | 2,021,186,789 |
| Loans to, and Investments in Crown Agencies- |  |  |  |  |
| Bank of Cansda capital stock | 5,920,000 | 5,920,000 | 5,920,000 | 5,920,000 |
| Central Mortgage and Housing Corpora-tion-capital and loans. | 115,500,000r | 206,960,455 | 286,349,091 | 359,973,294 |
| Canadian Farm Loan Board | 22,172,357 | 24,122.107 | 26,021,852 | 27,321,572 |
| Railway and steamship com | $764,792,373$ | 743,829,650 | 764,017,524 | 903,865, 398 |
| Miscellaneous. | 150,551,534 | 174,138, 188 | 174,952,454 | 175,637,641 |
| Other Loans and Investments- |  |  |  |  |
| To provincial and municipal governments. To United Kingdom and other govern- | 102,369,003 | 98,337,507 | 95, 157, 898 | 91,028,508 |
| Canada's Subscription to Capital of - | 1,923,783,303 | 2,028, 424,300 | 1,985,066,813 | 1,925,668,362 |
|  |  |  |  |  |
| International Bank for Reconstruction | 300,003 | 322,502,497 | 322,502, | 322,502,497 |
| natruction and Development. | 65, 035,750 | 70,694, 043 | 70,694,043 | 70,864,349 |
| Miscellaneous. | 187,415,470 | 191,006,946 | 204,535,002 | 215,676,646 |
| Totals, Loans and Investments......... | 3,637,542,940 | 3,865,935,693 | 3,935, 217, 174 | 4,098,458,267 |
| Sinking F | 2,296,152 | $\begin{array}{r} 7,991,103 \\ 2,296,152 \end{array}$ | $\begin{array}{r} 22,701,814 \\ 2,296,152 \end{array}$ | $\begin{array}{r} 25,902,746 \\ 2,296,152 \end{array}$ |
| Provincial debt accoun |  |  |  |  |
| Deferred charges, including unamortized discounts and commissions on loans...... | 65,78 | 62,561,974 | 60,049, 489 | 268,293,455 |
| Sundry suspense accounts................... | 54, 256, 183 | 17,585,720 | 45,353, 920 | 127,117,108 |
| Gross Totals, Active Assets. | 5,420,138,832 | 5,427,014,435 | 5,885,859,468 | 6,543,254,517 |
| Less: Reserve for possible losses on ultimate realization of active assets. | 245, 869, 188 | 320,867,388 | 395,867,388 | 470,867,388 |
| Net Totals, Acthre Assets | 5,174,269,644 | 5,106,147,047 | 5,489,992,080 | 6,072,387,129 |
| Non-Active Assets- |  |  |  |  |
| Capital expenditure. Other. $\qquad$ | 1,051,576,513 | 1,074,433, 447 | 1,089,902,701 | 1,103,805,519 |
|  | 564,329.772 | 590,261,999 | 581,846,992 | 552,827,423 |
| Consolidated deficit account.................. | 10, 160,227,867 | 9,979,913,753 | 9,761,565,255 | 9,528,648,605 |
| Totals, Net Debt | 11,776, 134,152 | 11,644,609,199 | 11,433,314, 348 | 11,185,281,547 |
| Totals, Gross Debt | 16,950, 403,796 | 16,750,756,246 | 16,923,307,028 | 17,257,668,676 |
| Labillies-1 |  |  |  |  |
| Floating debt. | 450,699, 831 | 505,564, 076 | 486,388,748 | 558,111,586 |
| Deposit and trust accounts | 107,500,584 | 132,720,076 | 122,019,091 | 131, 844, 275 |
| Insurance pension and guaranty acco | 718,015,689 | 810, 871,203 | 979,287,649 | 1,416,278,517 |
| Sundry suspense | 4, ${ }^{4} 950,636$ | 10,978,984 | 11,607,034 | 105, 183, 065 |
| Provincial debt accour | 11,919,969 | 11, 919 , 460 | 258,436,251 | 304,452,433 |
| Reserve for conditional benefits - Veterans' Land Act, 1943. | 13,262,872 | 11,919,969 | $11,919,969$ $26,868,640$ | 11,919,969 |
| Funded debt, unmatured | $15,585,036,580$ | $15,188,138,961$ | $\begin{array}{r} 26,868,640 \\ 15,026,79,646 \end{array}$ | $\begin{array}{r} 34,468,380 \\ 14,695,410,451 \end{array}$ |
| Totals, Liablilties or Gross Debt | 16,950,403,785 | 16,750,756,246 | 16,923,307,028 | 17,257,668,676 |

[^339]
## Subsection 2.-Revenue and Expenditure

In the fiscal year ended Mar. 31, 1952, Federal Government revenue amounted to $\$ 3,981,000,000$ compared with $\$ 3,113,000,000$ in the previous year, an increase of $\$ 868,000,000$. Expenditure amounted to $\$ 3,733,000,000$ compared with $\$ 2,901,000,000$ in the previous year, an increase of $\$ 832,000,000$. The surplus of revenue over expenditure for the fiscal year was $\$ 248,000,000$.

Tax revenue was $\$ 872,000,000$ greater and non-tax revenue $\$ 49,000,000$ greater than in the previous fiscal year but special receipts and other credits showed a decrease of $\$ 51,000,000$.

Expenditure on national defence in 1951-52 increased by $\$ 633,000,000$ over the previous year and amounted to 38 p.c. of total expenditure for the year. Added to the increase in expenditure in 1951-52 were two items not found in previous years; these were an adjustment amounting to $\$ 88,000,000$ required to place interest on the public debt on an accrual basis and a transfer of almost $\$ 50,000,000$ to cover the deficit in the old age security fund.

## 8.-Details of Revenue, Years Ended Mar. 31, 1949-52

| Revenue | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| Ordinary RevenueTax Revenue - |  |  |  |  |
| Customs import duties. | 222,975,471 | 225, 877,683 | 295,721,750 | 346,364,563 |
| Excise duties.. | 204,651,969 | 220,564,504 | 241,046, 174 | 217,939,983 |
| Income tax. | 1,297,999,404 | 1,272,650,191 | 1,513, 135,510 | 2,161,373,408 |
| Excess profits ta | 44,791,918 | -1,788,388 | 10.140,910 | 2,364,909 |
| Sales tax (net). | 377,302,763 | 403,437, 159 | 460, 120,405 | 573,470.562 |
| Succession duties | 25,549,777 | $29,919,780$ $172,456.150$ | 33,599,089 | $38,207,985$ 318,053 |
| Other taxes. | 262, 870,974 | 172,456.150 | 231,586.061 | 318,053,672 |
| Totals, Tax Revenue | 2,436,142,276 | 2,323,117,079 | 2,785, 349,899 | 3,657,775,082 |
| Non-Tax Revenue- $80,604,216$ $84,511,786$ $90,443,216$ $104,610,122$ |  |  |  |  |
|  |  |  |  |  |
| Return on investments ${ }^{1}$ | 107, 888,905 | 91,528,987 | 89,529,233 | 117,621,906 |
| Bullion and coinage | 3, 253,179 | 4,523,656 | $4,708,370$ $48,667,563$ | $4,838,495$ $54,901,137$ |
|  |  |  |  |  |
| Totals, Non-Tax Revenue.............. | 212,947,551 | 205,599,358 | 233,348,382 | 281,971,660 |
| Totals, Ordinary Revenue | 2,649,089,827 | 2,528,716,437 | 3,018,698,281 | 3,939,746,742 |
| Special Receipts (sundry receipts and credits) | 119,854,831 | 51,325,855 | 92,143,943 | 41,085,866 |
| Other Credits- |  |  |  |  |
| Refunds on capital account... | $\begin{array}{r} 2,325,439 \\ 124,978 \end{array}$ | $\begin{aligned} & 66,652 \\ & 31,671 \end{aligned}$ | $\begin{array}{r} 124,990 \\ 1,568,734 \end{array}$ | $\begin{array}{r} 70,653 \\ 5,391 \end{array}$ |
| Totals, Other Credits | 2,450,417 | 98,323 | 1,693,724 | 76,044 |
| Grand Totals, Reven | 2,771,395,075 | 2,580,140,615 | 3,112 535,948 | 3,980,908,652 |

[^340]
## 9.-Detalls of Expenditure, Years Ended Mar. 31, 1949-52

| Expenditure | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| Finance. <br> Public Debt Charges- <br> Interest on public debt. <br> Annual amortization of bond discounts and commissions. <br> Servicing of public debt. <br> Cost of loan flotalion. | 701,178,588 | 745,239,512 | 752,572,062 | 873,613,548 |
|  |  |  |  |  |
|  | 465,137,958 | 439,816,935 | 425,217,500 | $519,883,151{ }^{1}$ |
|  | 8,517,772 | 9,738, 818 | 12,508,005 | 9,665,295 |
|  | 830,912 | 477,766 | 448,516 | 384,889 |
|  | 1,227,379 | 811,805 | 846,278 | 1,051,474 |
| Totals. Debt Charges...................... . | 4 | 450,859.724 | 459,020,299 | 651,084, 809 |
| Subsidies to provinces. Transiiional grant to Newfoundland. Trax Rental Agreements. . Sections 7 of the Tax Rental Agreements Act. | 17,094.682 | 19,169,753 | 18,734,729 | 20,108,103 |
|  |  | 6,500,000 | 6,500,000 | 6,500,000 |
|  | 84,386,923 | 76,880,719 | 94,128,887 | $96,867,745$ |
|  | - | 1,375,400 | 4,565,555 | 3,738,288 |
| Government contribution to Civil Service superannustion account...................... | 4,050,000 | 5,461,544 | 81,831,262 | 110,910,777 |
| Reserve for possible losses on rcalization of active assets. | 75,000,000 | 75,000,000 | 75,000,000 | 75,000,000 |
| Premium, discount and exchange. | 110,805 | 19,740,244 | - | - |
| Assumption of part of Newfoundland debt under terms of union. | - | 62,292,609 | - |  |
| Cancellation of Canadian Farm Loan Board capital stock. |  | 250 | 255 |  |
| Grants to universities......... | - | - | - 18.000 | 6,993,000 ${ }^{2}$ |
| Grants re Red River Valley flo |  | - | 12,500,000 | - |
| Write-down from active to non-ac |  | $8.425,120$ | - 907.075 | - $\overline{0 \%}$,0002 |
| Other. | 45,322,157 | 19,554,155 | 20,297,075 | 22, 467,0002 |
| Agriculture. <br> Western drought area relief. <br> Canadian Wheat Board. <br> Freight assistance of western feed grains <br> Other. | 61,772,531 | 75,046,567 | 142,785, 183 | 67,134,389 |
|  | 9,042,559 | 13,575,253 | 4,708,409 |  |
|  |  |  | 65,000,000 | - |
|  | 18,153,585 | 16,764,011 | 15,637,786 | 14,999,240 |
|  | 34,576,987 | 44,707,503 | 57,438,988 | 52,185,149 |
| Auditor General's Office. Citizenship and Immigration...................... <br> Civil Service Commission. <br> Chief Electoral Officer. $\qquad$ <br> Defence Production. <br> Capital assistance to defence industry $\qquad$ <br> Other. $\qquad$ | 533,092 | 561,804 | 573,777 | 601,128 |
|  |  | 17,701,414 | 20,672,564 | 23,240,788 |
|  | 1,364,297 | 1,512,851 | 1,580,319 | 1,691.663 |
|  | 287,092 | 4,456,108 | 276,925 | 367,736 |
|  | ... | ... | ... | 30.978,479 |
|  | ... | ... | ... | 22,694,911 |
|  |  |  |  | 8,283,568 |
| External Affairs. <br> Memberghip in Commonwealth and International organization. <br> Assistance to other countries and international organizations. $\qquad$ Other $\qquad$ | 14,514,056 | 16,680,410 | 22,079,561 | 37,582,459 |
|  | 2,048,075 | 2,669,178 | 2,960,752 | 2,724,000 ${ }^{2}$ |
|  | 5,810,695 | 6,959,021 | 11,46s,497 |  |
|  | 6,655,286 | 7,052,211 | 7,655,812 | 8,490,0002 |
| Fisheries...................................... | 5,423,415 | 7,586,370 | 8,964,464 | 8,733,025 |
|  | 242,380 | 274,025 | 244,239 | 275,114 |
|  | 262,937 | 311,486 | 368,741 | 403,336 |
| Insurance. <br> Justice, including penitentiaries. <br> Labour | 9,887,873 | 10,959,086 | 12,406,679 | 14,038,715 |
|  | $60,427,224$ | $56,143,234$ | 62, 628,099 | 64,302,099 |
| Labour. <br> Unemployment Insurance Act, administration and government contribution <br> Government Annuilies (payment required to maintain reserve). <br> Other. | 39,068,134 | 45,117,960 | 52,988,309 | 65,844,691 |
|  | 11,408,468 | 1,255,772 | 659,787 | 940,198 |
|  | 9,950,622 | 9,769,502 | 9,080,009 | 9,517,270 |
| Legislation. <br> Mines and Resources ${ }^{4}$ <br> Emergency gold mining assistance. <br> Reduction of seed grain and relief accounts. <br> Other. | 3,763,152 | 5,229,174 | 4,710,966 | 5,945,263 |
|  | 47,498,079 | ... | ... | $\cdots$ |
|  | 9,489,494 | 5 | , | 5 |
|  | -44,666 | 6 | 6 | 6 |
|  | 38,019,919 | $\cdots$ |  |  |
| Mines and Technical Surveys ${ }^{4}$ <br> Emergency gold mining assistance. <br> Dominion Coal Board. <br> Write-down from active to non-active assets. Othér. |  | 25,356,752 | 17,556,401 | 27,751,836 |
|  | 7 | 13,715,779 | 7,114,214 | 11,841,0002 |
|  | 8 |  | 8 | $5,158,000^{2}$ |
|  | $\ldots$ | 1,802,107 | - 10 , 187 |  |
|  |  | 9,838,866 | 10,442,187 | 10,779,000 ${ }^{2}$ |
| National Defence. Defence A ppropriation Act Other. | 268,804,813 | 384,879,008 | 782,457 272 | $1,415,473,862$ |
|  |  |  | 195,417,216 | 126, 415,799 |
|  | 268,804,815 | 384,879,008 | 587,040,056 | 1,289,058,063 |

For footnotes, see end of table, p. 1034.
9.-Details of Expenditure, Years Ended Mar. 31, 1949-52-concluded

| Exoenditure | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | 8 | \$ | \$ |
| National Health and Welfare | 359,613,619 | 423.320,122 | 448,852,907 | 498,752,115 |
| General health grants | 7,588,358 | 15,716,261 | 18,874,786 | 24,322, 497 |
| Family allowance. | 270, 209,779 | 297,514,093 | 309,465,461 | 320,457,673 |
| Old age pension and pensions to blind persons.. | 66,764,285 | 98,188,994 | 103,169,115 | 83,204,713 |
| Other |  |  |  | 49,668,855 |
|  | 14,411,197 | 16,900,893 | 17,348, 545 | 21,098, 577 |
| National Revenue. Canadian Broadcasting Corporation Other. | 49,323,139 | 50,604,219 | 48,460,884 | 54,063,557 |
|  | S,980,804 | 2,772,004 | 2,405,031 | 8,500,278 |
|  | 45,402,335 | 47,852,215 | 46,055,853 | 46,762,585 |
| Post Office....................................... | 77,642,621 | 82,639,741 | 91,781,466 | 97,973,263 |
|  | 105,605 | 120,142 | 124,315 |  |
| Privy Council Office........................Federal District Commission.......... | 4,350,616 | 4,008,269 | 4,125,791 |  |
|  | 4,810,500 | 3,704,500 | 3,738,000 | 4,057,687 |
| Other. | 140,116 | S03,769 | 392,791 |  |
|  |  |  |  |  |
| Public Archives.... ${ }_{\text {Public Printing and Stationery } . . . . . . . . . . . . . . . . . . . . . . ~}^{\text {S }}$ | 172,578 | 198,134 | 205,960 | 251,018 |
|  | 753,345 | 866,069 | 706,201 | 1,103,156 |
| Public Works................................. | 51,067,102 | 67,058,184 | 73.646,433 | 77,544,088 |
| Reconstruction and SupNational Film Board. | 4,780,519 | - | $\ldots$ | , |
|  | 1,958,542 | 6 | 8 | 6 |
| Other. | 2,821,977 | ... | $\ldots$ |  |
| Resources and Development ${ }^{1}$. National Film Board. Trans-Canada Highway contributions. Reduction in seed grain and relief accounts. Other. |  | 25,388,855 | 31,200,626 | 34,432,805 |
|  | 10 | 2,122,854 | 2,807,805 | 2,662,388 |
|  |  |  | 5,868,887 | 12,566,028 |
|  | 7 | $\begin{array}{r} 19,580 \\ 28,246,421 \end{array}$ | 23, $\overline{025,994}$ | 19,204,444 |
|  |  |  |  |  |
| Royal Canadian Mounted Police Secretary of State. | 13,717,042 | 15,970,904 | 19,800,688 | 27,340,713 |
|  | 1,558,814 | 1,600,450 | 2,064,965 | 2,399,468 |
| Trade and Commerce.......................... | 58,698,315 | 50,758,895 | 48,878,312 | 46,896,842 |
| Canadian Wheat Board <br> Net Income deficit of Trans-Canada Airlines. | 4,454.250 | 4,470,531 | 2,585,942 | - |
|  | , | ... | 1,525,206 | - |
| National Research Council and Atomic Energy Control Board. | 13,081,928 | 16,169,600 | 18,013,509 | 25,079,896 |
| Dominion Coal Board....................... | 2,164,173 | 4,356,816 | 3,560,795 | 5 |
| Write-down of | 2,243,106 |  |  | 21, 816 |
|  | 96,754,858 | 25,761,948 | 23,442,860 | 21,816,946 |
| Transport.................................... | 101,269,992 | 127,766, 477 | 85,123,464 | 99,900,569 |
| Net Income deficits- <br> Canadian National Railways |  |  |  |  |
|  | 38,532,741 | 49,043,087 | 3,261,285 | 15,031,996 |
| Canadian National (West Indies) Steamships Limited. | 29\% | 460,498 | 1,098,767 | 466,992 55,406 |
| National Harbours Board................ | 287,743 | 85,141 | 188,172 | 55,406 |
| Prince Edward Island Car Ferry and Terminals. | 1,219,881 | 1,221,230 | 1,266,999 | 1,565,286 |
| Trans-Canada Airlines.................... | 2,933,240 | 4,317,593 |  | ... |
| Loans and advances (Non-Active)National Harbours Board. | 1,739,201 | 4,236,174 | 1,465,087 | 1,258,000 ${ }^{2}$ |
| Other, including Canadian Maritime Commission. $\qquad$ | 61,607,186 | 75,404,814 | 77,919,314 | 81,729,000 ${ }^{2}$ |
| Veterans Affairs................... ..... | 276, 879,498 | 246,377,400 | 216,392,434 | 216,026,529 |
| Provision for reserve for conditional benefits under Veterans' Land Act. | 5,680,866 | 6,495,644 | 7,110,189 | $7,600,000{ }^{2}$ |
| Write-down of Soldier Settlement and Veterans Land Act Loans. |  | 11,769,987 |  | 13,000 ${ }^{2}$ |
| Other.................................... . | $270,248,530$ | 228,111,889 | 209,268,693 | 208,414,000 ${ }^{2}$ |
| Grand Totals, Expenditure | 2,175,892.334 | 2,448,615,662 | 2,901,241,698 | 3,732,875,250 |

[^341]
## 10.-Principal Items of Revenue, Years Ended Mar. 31, 1946-52

Note.-Figures for the years 1931-45, inclusive, are given at pp. 981-85 of the 1951 Year Book.


[^342]11.-Per Capita Revenue and Expenditure, Years Ended Mar. 31, 1941-52

Nots.-The years marked with an asterisk (*) are Census years; per capita figures are based on estimated populations (see p. 143) as at June 1 of the immediately preceding year in each case. See Tables 8 and $\rho$ for the figures of revenue and expenditure on which this table is based. Figures for the years 1868 1912, inclusive, will be found at p. 849 of the 1938 Year Book; those for 1913-30 at p. 932 of the 1945 edition; and those for 1931-40 at p. 987 of the 1951 edition.

| Year | Per Capita |  |  | Year | Per Capita |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Revenue from Taxation | Total Revenue | Total Expenditure |  | Revenue from Taxation | Total Revenue | Total Expenditure |
|  | \$ | \$ | \$ |  | \% | $\delta$ | § |
| 1941*. | 68.37 | 76.63 | 109.80 | 1947. | 197. 50 | 244-70 | $214 \cdot 30$ |
| 1942. | $118 \cdot 27$ | $129 \cdot 36$ | 163.82 | 1948. | $195 \cdot 37$ | 228.81 | 174.94 |
| 1943. | $177 \cdot 34$ | 193.02 | 376.45 | 1949. | 189.93 | $216 \cdot 13$ | 169.68 |
| 1944. | 206.60 | 234.42 | $451 \cdot 23$ | 1950 | 172.76 | 191.87 | 182.09 |
| $1945 .$. 1916. | $180 \cdot 36$ 182.44 | 224.96 249.60 | $438 \cdot 11$ | 1951**. | 203.13 | $\stackrel{226.99}{ }$ | 211.58 |
| 1976.. | 182-44 | $249 \cdot 60$ | +25.47 | 1952. | $261 \cdot 10$ | 284-17 | $266 \cdot 46$ |

## 12.-Per Capita Revenue and Expenditure, by Principal Items, Years Ended Mar. 31, 1949-52

Note.-See Tables 8 and 9 for revenue and expenditure on which these per capita figures are based, the basis of calculation being the estimated population as at June 1 of the immediately preceding year in each case

| Revenue | $19+9$ | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| Ordinary RevenueTax Revenue- |  |  |  |  |
|  |  |  |  |  |
| Customs import duties. | 17.39 15.96 | $16 \cdot 80$ $16 \cdot 40$ | $21 \cdot 57$ 17.58 | $24 \cdot 72$ $15 \cdot 56$ |
| Income Tax. | 101.23 | $94 \cdot 64$ | $110 \cdot 35$ | $154 \cdot 28$ |
| Excess Profits Tax | $3 \cdot 49$ | $-0.13$ | 0.74 | 0-17 |
| Sales tax (net)... | 29.42 | $30 \cdot 00$ | $33 \cdot 55$ | 40.94 |
| Succession duties | 1.99 | 2.23 | 2.45 16.89 | 2.73 |
| Other taxes...... | $20 \cdot 50$ | $12 \cdot 82$ | 16.89 | $22 \cdot 70$ |
| Totals, Tax Revenue.. .... .......... | 189.98 | $172 \cdot 76$ | $203 \cdot 13$ | 261 -10 |
|  |  |  |  |  |
| Post Office........ | 6.29 | 6.28 6.81 | 6.60 6.53 | 7.47 8.40 |
| Return on investments | 8.42 0.25 | 6.81 0.34 | 6.53 0.34 | 8.40 0.34 |
| Oultion and co..... | 1.65 | 1.86 | $3 \cdot 55$ | 3.92 |
| Totals, Non-Tax Revenue. | $16 \cdot 61$ | 15.29 | $17 \cdot 02$ | $20 \cdot 13$ |
| Totals, Ordinary Revenue | 206.59 | 188.05 | $220 \cdot 15$ | 281.23 |
| Special Receipts. | $9 \cdot 35$ | 3.81 | 6.72 | 2.93 |
| Other Credits- <br> Refunds on capital account | $0 \cdot 18$ | 0.01 | 0.01 | 0.01 |
| Credits to non-active account | 0.01 | - | $0 \cdot 11$ | - |
| Totals, Other Credits | $0 \cdot 19$ | 0.01 | $0 \cdot 12$ | 0.01 |
| Grand Totals, Revenue | 216.13 | 191.87 | 226.99 | $284 \cdot 17$ |
| Expenditure- |  |  |  |  |
| Finance- | 36.27 | 38.71 | 81.01 | $37 \cdot 11$ |
| Interest on public deol amortization of bond discounts and commissions. | 0.66 | 0.72 | 0.91 | 0.69 |
| Cost of loan flotations. | $0 \cdot 10$ | 0.06 | 0.06 | 0.08 |
| Totals, Public Debt Charges................ | 37.06 | 38.53 | 32.02 | 57.91 |
| Subsidies to provinces. <br> Transitional grant to Newfoundland. <br> T'ax Rental Agreements. <br> Section 7 of the Tax Rental Agreements Act. | $1 \cdot 83$ | 1.42 | 1.37 | 1.44 |
|  |  | 0.48 | $0 \cdot 47$ | $0 \cdot 46$ |
|  | 6.58 | 5.78 | 6.86 | 6.91 |
|  | - | $0 \cdot 10$ | 0.33 | 0.87 |
| Totals, Department of Finance...... . . . | 54-68 | $55 \cdot 42$ | 54.88 | $62 \cdot 36$ |
| Agriculture. | 4.82 | $5 \cdot 58$ | 10.41 | 4.79 |
| Auditor General's Office................. ......... ... | $0 \cdot 04$ | $0 \cdot 04$ | 0.04 0.02 | 0.04 |
| Chiet Electoral Officer. . | $0 \cdot 02$ | 0.33 1.32 | 0.02 1.51 | $1 \cdot 66$ |
| Citizenship and Immigration. |  | 1.32 0.11 | $1 \cdot 51$ 0.12 | $0 \cdot 12$ |
| Civil Service Commission ...... .... ........ .... | $0 \cdot 11$ | $0 \cdot 11$ | $0 \cdot 12$ | $2 \cdot 21$ |
| Defence Production..... .. ......... ... .. .... | 1.13 |  | 1. 61 | $2 \cdot 68$ |
| External Affairs..................... . . . . . . . | 0.42 | 0.56 | $0 \cdot 65$ | 0.62 |
|  | $0 \cdot 02$ | $0 \cdot 02$ | $0 \cdot 02$ | $0 \cdot 02$ |
| Governor Genera! and Lieutenant-Governors.................................. | 0.02 | 0.02 | 0.03 | 0.03 |
| Insurance. including Penitentiaries... ................ . . | 0.77 | $0 \cdot 82$ | 0.91 | -1.00 |
| Labour.......................... . . . . . . . . . . | 4.71 | 4.18 | $4 \cdot 57$ 0.34 | 4.59 0.43 |
| Legislation.................... ... ... ...... .. | 0.29 3.71 | $0 \cdot 39$ | $0 \cdot 34$ |  |
| Mines and Resources. | $3 \cdot 71$ | -1. 89 | 1. 28 | 1.98 |
| Mines and Technical Surveys.. ..... . .................. |  | 28.62 | 57.06 | 101.04 |
| National Defence.... ${ }_{\text {National }}^{\text {Health and Welfare }}$ | 28.04 | 31.48 | 32.73 | 35.60 3.86 |
| National Health and Welfare | 3.85 | $3 \cdot 76$ | $3 \cdot 53$ | $3 \cdot 86$ |

## 12.--Per Capita Revenue and Expenditure, by Principal Items, Years Ended Mar. 31, 1949-52-concluded

| Expenditure | 1913 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| Expenditure-concluded |  |  |  |  |
| Post Office........... | ${ }^{6.06}$ | $6 \cdot 15$ | 6-69 | 6.99 |
| Prime Minister's Office | 0.01 | 0.01 0.30 | 0.01 0.30 | $0 \cdot 29$ |
| Privy Council Office. | 0.34 0.01 | 0.30 0.01 | 0.30 0.02 | $0 \cdot 02$ |
| Public Printing and Stationery | 0.06 | 0.06 | 0.05 | 0.08 |
| Public Works............ | 3.98 | $4 \cdot 99$ | $5 \cdot 37$ | $5 \cdot 54$ |
| Reconstruction and Supply | $0 \cdot 37$ |  |  |  |
| Resources and Development. |  | 1.89 | $2 \cdot 28$ | $2 \cdot 46$ |
| Royal Canadian Mounted Police. | 1.07 | $1 \cdot 19$ | 1.44 | $1 \cdot 95$ |
| Secretary of State..... | 0.12 4.58 | $0 \cdot 12$ 3.77 | 0.15 3.57 | $0 \cdot 17$ $3 \cdot 35$ |
| Trade and Commerce. | 4.58 7.90 | 3.77 9.50 | $3 \cdot 57$ 6.21 | $3 \cdot 35$ $7 \cdot 13$ |
| Veterans Affairs | 21.59 | 18.32 | 15.78 | $15 \cdot 42$ |
| Grand Totals, Expenditure | 169.68 | 182.09 | 211.58 | 266.46 |

## Subsection 3.-Analysis of Revenue from Taxation

Table 13 gives total expenditure that has been met by taxation and from all sources of revenue for each of the fiscal years ended Mar. 31, since 1946. 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. In 1950, total expenditure was $\$ 131,524,953$ below total revenue, 95 p.c. of which was provided by taxation. In 1951 and 1952, 96 p.c. and 98 p.c. respectively, of total expenditure was met by taxation.

## 13.-Relationship of Total Expenditure to Taxation Revenue and to Total Revenue, Years Ended Mar. 31, 1946-52

Note.-Figures for the years 1940-45, inclusive, will be found at p. 989 of the 1951 Year Book.

| Year | Total Expenditure | Taxation Revenue | Total Revenue | Percentages of Total Expenditure Provided from- |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Taxation | All <br> Revenue |
|  | \$ | $\delta$ | $\delta$ | p.c. | p.c. |
| 1946. | 5,136,228,506 | 2,202,358,387 | 3,013,185,074 | 42.88 | 58.67 |
| 1947. | 2,634, 227,412 | 2,427,661,313 | 3,007,876,313 | $92 \cdot 16$ | 114.181 |
| 1948. | 2,195,626,454 | 2,452,075,395 | 2,871,746,110 | $111.68{ }^{1}$ | $130 \cdot 791$ |
| 1949. | 2,175,892,334 | 2,436, 142,276 | 2,771,395,075 | $111.96{ }^{1}$ | 127.371 |
| 1950. | 2,448,615,662 | 2,323,117, 079 | 2,580, 140,615 | 94.87 | $105 \cdot 37{ }^{1}$ |
| 1951.. | $2,901,241,698$ $3,732,875,250$ | 2,785, 349,899 | 3,112,535,948 | 96.01 | 107.28 |
| 1982.. | 3,732,875,250 | 3,657,775,082 | 3,980,908,652 | 97-99 | $106 \cdot 64$ |

${ }^{1}$ See text above for explanation.
The revenue from customs and excise duties, the two most important sources prior to World War I amounted, in 1952, to 15 p.c. of the revenue derived from taxation while revenue from ineome tax formed 59 p.c. of the tax revenue.

The following analysis of taxation revenue is confined to excise duties, excise taxes, income tax revenue and succession duties; customs receipts constitute a single item in the Public Accounts and cannot be further analysed here.

## Excise Duties and Taxes

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 excisable goods taken out of bond.

Canadian Excise Tariff.-The following is a statement of the Canadian excise tariff, as at Apr. 8, 1952:-


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 to universities, scientific or research laboratories, or to any bona fide public hospital, for medicinal purposes only.

Revenue from Excise Duties.-In the year ended Mar. 31, 1952, tobacco, including cigarettes, supplied about 45 p.c. of the revenue from excise duties.
14.-Gross Excise Duties collected, Years Ended Mar. 31, 1947~52

| Item | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | S | 5 | 8 | \$ | \$ | \$ |
| Spirits. | 45,060,831 r | 39,391,092 r | 40,634,697x | 46,547,587 | 60,126.300 | 45,944,724 |
| Validation fee | 947,710 | 770,880 | 825,371 | 790,587 | 1,108,252 | 1,223,933 |
| Beer or malt liquor | 2,511,311 | 3,819,875 | 3,740,065 | 3,678,316 | 2,745, 851 | 3,812,065 |
| Malt syrup | -91,700 | 53, 67, 878 | 551,825 | $56,018,292$ | 65, 409, 427 | 73,748,003 |
| Tobacco (incl. cigarettes)... | 100,867,668 | 101,900,638 | 106,033,181 | 115,778,732 | 114, 282,662 | 100,547,951 |
| Cigars....................... | 294,844 | 215,479 | 207,823 | 203,043 | 203,945 | 162,968 |
| Licences | 39,690 | 37,468 | 39,115 | 38,241 | 38,009 | 36,092 |
| Totals ${ }^{1}$ | 199,022,570 r | 199,828,603 - | 207,385,132 | 223,054,798 | 243,914,446 | 225,475,736 |

${ }^{1}$ These totals do not agree with net excise duties as shown in Table 8 owing to refunds and drawbacks and in the case of spirits, a transfer tax which is included here.

Statistics of Licences and Distillation.-Secondary to the collection of excise duties, statistics are compiled of excise licences issued and of distillation.
15.-Statistics of Licences and Distillation, Years Ended Mar. 31, 1947-52

| Item | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Licences issued. ........ No. | 24 | 25 | 27 | 28 | 28 | 29 |
| Licence fees.............. \$ | 6,625 | 6,250 | 6,750 | 7,250 | 8,000 | 7,375 |
| Grain, etc., Used for Distillation- |  |  |  |  |  |  |
| Malt................. lb. | 38,118,151 | 49,997,856 | 31,699,705 | 26,764,523 | 31,914, 170 | 33,688,521 |
| Indian corn........... " | 91, 807,930 | 248,056,463 | 176,368,186 | 162,568,138 | 209,060,163 | 211,851,336 |
| Rye.................. | 24,545,992 | 25,694, 278 | 30, 189, 564 | 37,525,049 | 32,137, 858 | 29,427,040 |
| Wheat and other grain. | 133,173,559 | 34,616, 203 | 15,462,635 | 2,887,990 | 13,174,382 | 17,925, 256 |
| Totals, Grain Used. lb. | 287,645,632 | 358,364,800 | 253,720,090 | 229,745,700 | 286,286,573 | 292,892,153 |
| Molasses used......... lb. | 71,690,199 | 111,812,928 | 128,034,436 | 61,951,935 | 32,836,406 | 26,989,288 |
| Wine and other materials | 4,305,252 | 5,467,095 | 8,733,086 | 5,231,900 | 8,496,194 | 8,330,301 |
| Sulphide liquor........ gal. | 74,126,650 | 95,063,070 | 98,080,000 | 89,712,658 | 86,454,960 | 99,344,940 |
| Proof spirits manufactured...............proof gal. | 21,571,074 | 28,198,327 | 23,643,036 | 20,741, 268 | 23,551,259 | 24,742,386 |

The quantity of spirits manufactured bas fluctuated greatly since 1920, varying from the low of $2,356,329$ proof gal. in that year to the high of $35,555,059$ proof gal. recorded in 1945.

Alcohol and Tobacco Taken Out of Bond.-For the amounts of spirits, malt liquor, malt and cigarettes taken out of bond for consumption in 1951 see Table 15, p. 884.

## Excise Taxes

The statistics given in Table 16 represent gross excise tax collections by the Excise Division of the Department of National Revenue; these differ from the figures shown in Table 10 (in the column "Sales and Other Excise Taxes"), which represent net revenue received, by the amounts of the refunds shown in footnote 1 to Table 16.

## 16.-Excise Taxes collected, by Commodities and Provinces, Years Ended Mar. 31, 1947-52

(Accrued Revenue)

| Commodity | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Commodity | \$ | \$ | \$ | $\delta$ | \$ | \$ |
| Domestic- |  |  |  |  |  |  |
| Amusements............. | 17,061,849 | 17,887,217 | 2,587,398 | ... | ... | ... |
| Automobiles, tires and tubes. | 12,147,218 | 26,203,014 | 32,976,441 | 32,988,931 | 59,791,585 | 89,111,798 |
| Beverages...............$~_{\text {. }}$ | 18,629,492 | 23, 751,434 | 27,684, 207 | 1,627,143 | 7,187,086 | 19,159,576 |
| Candy and chewing gum.. | 12,793, 120 | 17,138,611 | 19,543,584 | 1,030,143 | 9,914,041 | 10,845, 824 |
| Carbonic acid gas. | 296,050 | 352,073 | 332,677 |  | 150,827 | 377,207 |
| Cigarette papers and tubes | 6,508,877 | 6,124,539 | 6,706,224 | 6,887,029 | 7,369,511 | 382,121 |
| igars, cigarettee and tobacco. | 76,137,520 | 68,450,719 | 77,529,716 | 82,574,363 | 84,203,237 | 104, 806,864 |
| Electrical and gas apparstus. |  |  |  |  |  |  |
| Embossed cheques (de- | 6,918 | 2,164,381 | 3,619,983 | ... | 1,607,101 | 3,731,560 |
| partmental). | 370,072 | 372,698 | 409,974 | 359,617 | 391,377 | 433,667 |
| Furs. | 2,732,627 | 2,860,355 | 3,570,044 | 2,773,723 | 4,165,195 | 4,221,843 |

For footnotes, see end of table, p. 1040.

## 16.-Exclse Taxes collected, by Commodities and Provinces, Years Ended Mar. 31, 1947-52-concluded

| Commodity or Province | 1947 | 1948 | 1949 | 1930 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | \$ |
| Commodity-concluded <br> Domestic-concluded |  |  |  |  |  |  |
| Gasoline. | 35,013,531 | 2,193,131 |  |  |  |  |
| Licences. | 91,227 | 90,139 | 90,006 | 84,004 | 85, 831 | 81,663 |
| Lighters. | 318,822 | 350,099 | 403, 537 | 269,302 | 242,495 | 320,122 |
| Matches. | 3,616,155 | 3,498,106 | 2,994,124 | 756,837 | 755,311 | 1,387,225 |
| Other manufactures' tax. | 15,759,737 | 14,855, 135 | 16,739,711 | 6,911,787 | 9,235,677 | 22,779,222 |
| Phonographs, radios and tubes. | 2,202,202 | 4,863,237 | 3,499,260 | 3,065, 057 | 5,372,408 | 7,912,329 |
| Playing cards............ | 691,400 | 512,414 | 614,400 | 648,000 | 834,400 | 665,200 |
| Sales, domes | 278,824,448 | 323, 670, 079 | $342,075,177$ | 363,308, 872 | 406,350,795 | 521,173,389 |
| Stamps. | 15, 901, 819 | 15,514, 256 | 13,605,236 | 9,014,763 | 10,553,385 | 10,912,768 |
| Sugar | 10,877, 731 | 10,100,679 |  |  |  |  |
| Toilet preparations Transportation and transmission. ................. | 7,106,755 | 6,813,907 | 7,582,907 | 4,246,481 | 4,452,144 | 8,233,581 |
|  | 27,930, 562 | 27,530,884 | 29,034,392 | 3,967,088 |  |  |
| Wines. | 2,393,718 | 2,341,585 | 2,059,639 | 2,125,606 | 2,224,885 | 2,167,267 |
| Penalties and interest..... | 222,078 | 286,070 | 291,819 | 286,054 | 286,513 | 381,055 |
| Totals, Domestic....... | 547,633,928 | 577,924,762 | 593,950,456 | 522,924,800 | 615, 173, 804 | 809,084,287 |
| Importe | 61,234,900 | 73,516,745 | 55, 058,635 | 60,317,200 | 82,100,696 | 114,865,035 |
| Grand Totals ${ }^{\text {²,... }}$ | 608,868,828 | 651,441,507 | 649,009,091 | 583,242,000 | 697,274,500 | 923,949,323 ${ }^{2}$ |
| Province |  |  |  |  |  |  |
| Newioundland |  |  |  | 2,928,142 | 3,071,105 | 4,222,529 |
| Prince Edwa | 537, 640 | 498,170 | 354,308 | 175, 093 | 192,576 | 294,581 |
| Nova Scotia | 8,816,771 | 10,409,922 | $9,712,259$ | 7,297,503 | 8,237,983 | 11,085,795 |
| New Brunsw | 7,815,592 | 8,721,379 | 65,092,221 | $4,765,769$ | 5,410,375 | 7,020,959 |
| Quebec. | 242,967,151 | 249,820,294 | 259,953,961 | ${ }_{285}^{234}, 362,155$ |  | 330, $433,684,889$ |
| Ontario. | $279,023,635$ $21,403,741$ | 306,183,730 | $311,081,866$ $20,255,931$ | $285,628,445$ $15,186,782$ | $364,386,263$ $16,957,296$ | $493,684,889$ $23,477,085$ |
| Manitob | $21,403,741$ $6,806,167$ | $22,214,291$ $6,952,275$ | $12,255,931$ $5,207,665$ | $15,186,782$ $3,712,245$ | $16,9578,296$ 4,06819 | 23,477, 5,780,443 |
| Alberta. | 13,878,365 | 14,071,770 | 10,760,329 | 7,784,071 | 8,716,339 | 13,415,997 |
| British Columbia | 26,897,614 | 31.746,420 | 24,972.017 | 20,785, 415 | 26,010.974 | 33,957,805 |
| Yukon Territory............ | 189,513 | 202,788 | 203,295 | 208,220 | 180,873 | 267,536 |
| General for Canada- |  |  |  |  |  |  |
| Departmental sales. | 488,296 | 616.815 3,060 | 409,974 |  |  |  |
| Miscellaneous............. | 1,925 | 3,060 563 | $2,334{ }^{\text {r }}$ 2,932 | 46,268 2,272 | 52,484 1,485 | 71,163 |
| British post-office parcels <br> Departmental War Ex- <br> change Tax.............. | 642 41,776 | 563 | 2,932 | 2,272 | 1,485 | 1,163 |

${ }^{1}$ Includes refunds and drawbacks of $\$ 29,845,228$ in $1947 ; \$ 10,683,238$ in $1948 ; \$ 12,871,403$ in $1949 ; \$ 11,784,520$ in 1950; $\$ 10,506,408$ in 1951; and $\$ 13,723,039$ in 1952 . ${ }^{2}$ Includes 2 p.c. Old Age Security sales tax of $\$ 24,297,979$ credited to the Old Age Security Fund.

## Income Tax*

The income tax was instituted in 1917 as a part of war-tax revenue. Before the outbreak of World War II, it had become a permanent and important part of the taxation structure and the chief source of raising ordinary revenue. In many respects, it is an ideal form of direct taxation and the experience and machinery for the collection of this tax has been built up over a long period of years.

Income tax rates were increased to help finance World War II, and a compulsory savings feature was adopted with respect to individuals and to corporations. A refundable portion of approximately $\$ 295,000,000$ was collected from individuals under the personal income tax, and approximately $\$ 220,000,000$ from individuals

[^343]and corporations under the excess profits tax. Repayment of the refundable portion of personal income tax was completed in 1949 and the refundable portion of excess profits tax was repaid by March 1952.

Since the end of the War, the weight of individual income tax was reduced each year up to and including 1949 and higher exemption allowances were given. However, the expansion of personal incomes and the growth of the labour force offset to a considerable extent the effect of the reduction in rates. Following the outbreak of war in Korea in 1950, rising defence costs increased the rates of personal income tax. A defence surtax of 20 p.c. was introduced in 1951-52 but this applied at the rate of 10 p.c. to 1951 incomes. The Budget of 1952-53 announced a new schedule of rates that incorporated the greater part of the 20 p.c. defence surtax.

Taxes on corporation incomes were reduced following the end of World War II. Excess profits tax rates were also reduced and finally ceased to apply after Jan. 1, 1948. Concurrently with the ending of the excess profits tax, corporation income tax rates were raised from 18 p.c. to 30 p.c.

To help small businesses the tax rate on the first $\$ 10,000$ of profits was reduced to 10 p.c. in 1949 but, at the same time, the rate on profits in excess of $\$ 10,000$ was increased to 33 p.c. In 1950-51 it became necessary to increase sharply the rates of tax on corporation profits and, following the Budget of 1952-53, the rates became 20 p.c. on the first $\$ 10,000$ of profits, plus 50 p.c. on the excess over $\$ 10,000$, with a credit against the tax equal to 5 p.c. of the profits earned in provinces which continued to levy a corporation income tax.

Details of income tax changes in the Budgets of 1945-46, 1946-47, 1947-48 and 1948-49 are given at pp. 1008-1009 of the 1948-49 Year Book. Details of the tax changes in the 1949-50 Budget are given at p. 1002 of the 1950 Year Book. The change made in income tax rates in the 1950-51 Budget concerned corporation taxes only and is given at p. 979 of the 1951 Year Book. Changes made in the 1951-52 and 1952-53 Budgets are given at pp. 1029-1030.

The tax on dividends and interest and on rents and royalties is levied at the rate of 15 p.c. on payments going to non-residents of Canada. The payments subject to tax include income from an estate or trust, alimony payments, rents from real property, and rents, royalties or similar payments for the use in Canada of property, trade names or inventions. There is no non-resident tax on interest from Government of Canada bonds or bonds guaranteed by the Government of Canada or where the interest is payable in other than Canadian currency. Where the payments are for interest from bonds of, or guaranteed by, a province of Canada or are dividends paid by a wholly owned subsidiary to its parent company outside Canada the rate of tax is only 5 p.c.

The gift tax is imposed at the rate of 10 p.c. on gifts of up to $\$ 5,000$ and at rates varying from 11 p.c. to 28 p.c. on gifts from $\$ 5,000$ to $\$ 1,000,000$ or over.

Income tax revenue in Table 17 is as shown in the Public Accounts and represents collections made by the Taxation Division of the Department of National Revenue under the authority of the Income War Tax Act (R.S.C. 1927, c. 97) as amended and the Income Tax Act (11-12 Geo. VI, c. 52).*

[^344]
## 17.-Collections under the Income Tax Act, Years Ended Mar. 31, 1946-52

(Tax and Applicable Section of the Act)
Note.-Figures for 1919-34 will be found at p. 966 of the 1947 Year Book and for the years 1935-45 at p. 993 of the 1951 edition.

| Year | General <br> Income Tax | Tax on Dividends and Interest (Sect. 9B) | Tax on Rents and Royalties (Sect. 27) | Gift Tax (Sect. 88) | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Individual and Corporation (Sect. 9-1 and 9-2) |  |  |  |  |
|  | \$ | \$ | \$ | \$ | \$ |
| 1946.. | 907,340,303 | 26,823,894 | 1,485,725 | 770,369 | 937,729, 2731, ${ }^{2}$ |
| 1947. | 888,808,484 | 28,428,143 | 1,708,003 | 1,538,888 | 963,458,2451, ${ }^{\text {a }}$ |
| 1948. | 1,008,408,409 | 33,928,935 | 1,960,093 | 2,268,845 | 1,059, 848,3574 |
| 1949.. | 1,248,701,580 | 40,965,426 | 2,480,337 | 1,632,930 | 1,297,999,4045 |
| 1950. | 1,221,335,985 |  |  | 2,089,821 | 1,272,650,191 ${ }^{6}$ |
| 1951. | 1,360,239,389 |  |  | 3,118,019 | 1,513, 135,510 ${ }^{7}$ |
| 1952... | 2,091,743,522 ${ }^{8}$ |  |  | . | 2,161,373,408 |

[^345]Collection by the Department of National Revenue on a Fiscal-Year Basis.-Collection statistics are gathered at the time the payments are made and, therefore, have the value of being very up-to-date. Their timeliness has been enhanced within the past few years by the adoption of the "pay-as-you-go" system which results in collecting most of the tax during the year in which the income is earned and, on the average, about ten months prior to the actual filing of an income-tax return by the taxpayer. The payments on behalf of most taxpayers, however, are made by their employers and a cheque from one employer may cover the tax payments of hundreds of employees. At this stage, therefore, it is not possible to link the moneys received to the individuals who are, in the final analysis, contributing the tax. Collection statistics, for this reason, are not capable of being closely related to the persons who are being taxed and any statistical tables that attempt to describe the taxpayer by occupation or income class must be based on the income-tax return which is filed by the taxpayer many months after the payment of his tax. However, collection statistics, if interpreted along with the tax rate, do serve the purpose of indicating the general trend of income upon which tax is levied well in advance of the assessment data.

The statistics given in Table 18 represent collections on the Federal Government's fiscal-year ended Mar. 31 basis, under the three Acts administered by the Taxation Division, Department of National Revenue.

## 18.-Tares Collected by the Taxation Division of the Department of National Revenue, Years Ended Mar. 31; 1946-52

Norz.-Figures for 1917-34 will be found in the 1947 Year Book, at pp. 999-1000 and for 1935-45 in the 1951 edition, p. 994.

| Year <br> Ended <br> Mar. 31- | Income Tax |  |  | Excess Profits Tax | Succession Duties | Total Collections |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Individuals | Corporations | Total |  |  |  |
|  | § | S | \$ | \$ | \$ | \$ |
| 1916. | 719,895,733 ${ }^{1}$ | 217, 833,540 | 937,729, 2731 | 494, 196,483 ${ }^{1}$ | 21,447,574 | 1,453,373,3301 |
| 1947. | 724,666, $292{ }^{1}$ | 238,791, 953 | $963,458,245$, | 448,697,4431 | 23,576,071 | 1,435,731,7591 |
| 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 | 1,132,680,074 | 2,163,473,408 ${ }^{3}$ | 2,364,909 | 38,207,985 | 2,204,046,302 |

${ }^{1}$ Includes refundable portion of taxes. $\quad{ }^{2}$ Refunds arising out of renegotiation of war contracts were in excess of collections. ${ }^{\mathbf{3}}$ Includes Old Age Security taxes.

Individual Income-Tax Statistics.-Individual income-tax statistics are presented herein on a calendar-year basis. These data are compiled from a 10 p.c. sample of all returns received.

## 19.-Taxpayers, Income and Tax, by Occupational Classes and Provinces, 1949-50

| Class and Province | Taxpayers | Total Income Declared | Total Tax Declared | Class and Province | Taxpayers | Total Income Declared | Total Tax Declared |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1949 | No. | \$'000 | \$'000 | 1950 | No. | \$'000 | \$'000 |
| Primary producers. | 56,150 | 214,307 | 19,298 | Primary producers. | 42,630 | 160,975 | 14,601 |
| Professional........ | 23,180 | 161,010 | 28,202 | Professional........ | 25,640 | 190,291 | 34,523 |
| Employees. | 1,947,340 | 5,042,344 | 310,417 | Employees. | 2,084,590 | 5,578,592 | 372,053 |
| Salesmen. | 20,130 | 86,304 | 8,627 | Salesmen... | 24,900 | 111,198 | 11,323 |
| Business proprietors | 131,000 | 647,554 | 87,160 | Business proprietors | 137,970 | 683,781 | 92,306 |
| Financial. | 47,170 | 257,845 | 44,315 | Financial. | 50,350 | 279,626 | 49,224 |
| Estates. | 3,000 | 4,702 | 730 | Estates. | 3,990 | 10,851 | 2,715 |
| Deceased | 3,450 | 15,566 | 2,128 | Deceased | 3,430 | 15,033 | 1,957 |
| Unclassified | 550 | 1,634 | 112 | Unclassified | 740 | 2,456 | 234 |
| Totals, 1949 | 2,231,970 | 6,431,266 | 500,989 | Totals, 1950 | 2,374,240 | 7,032,803 | 578,936 |
| 1949 |  |  |  | 1950 |  |  |  |
| Newfoundland | 16,960 | 50,827 | 1,889 | Newfoundland | 18,590 | 57,762 | 4,449 |
| P. E. Island. | 4,500 | 13,324 | 1,076 | P. E. Island. | 5,180 | 13,993 | 855 |
| Nova Scotia | 62,710 | 170,502 | 10,985 | Nova Scotia | 68.990 | 194,118 | 12,965 |
| Quebec...... | 474,560 | 1,398,894 | 116,429 | New Brunsw | 46,330 504,570 | 1 129,684 | 8,738 127107 |
| Ontario | 1,025,850 | 2,936,604 | 229,482 | Ontario | 1,092,520 | 3,246,039 | 271,313 |
| Manitoba | 122,020 | 339,942 | 24,664 | Manitobs | 128,950 | 362,420 | 31,695 |
| Saskatche | 90,700 | 266,181 | 20,151 | Saskatchewan | 85,540 | 247,202 | 18,524 |
| Alberta. | 143,930 | 435,589 | 36,576 | Alberta | 150,550 | 450,789 | 36,853 |
| British Columbia. | 245,680 | 696,758 | 51,584 | British Columbia... | 260,660 | 769,035 | 62,632 |
| Yukon Territory. | 1,870 | 5,331 |  | Yukon Territory... | 2,540 9,820 | $\begin{array}{r} 7,785 \\ 27,143 \end{array}$ | 599 3,206 |
| Totals, 1949..... | 2,231,970 | 6,431,266 | 0,989 | Totals, | 2,374,240 | 7,032,803 | 578,936 |

20.- Individual Income-Tax Statistics, 1949 and 1950

| Income Class | Taxpayers |  | Total Income Declared |  | Total Tax Declared |  | Average Tax |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 | 1950 | 1949 | 1950 | 1949 | 1950 | 1949 | 1950 |
|  | No. | No. | $8{ }^{\prime} 000$ | \$'000 | \$'000 | \$'000 | \$ | 8 |
| Under $\$ 800$ | 4.290 | $\ldots$ | 1,547 | ... | 147 | $\cdots$ | 34 |  |
| $\$ 800$ to $\$ 900$ | 599 | ... | 495 | ... | 33 | $\ldots$ | 56 | $\ldots$ |
| \$900 to \$1,000 | 570 | ... | 528 | ... | 38 | ... | 67 |  |
| Under \$1,000 | 5,450 | 7,700 | 2,570 | 4,163 | 218 | 354 | 40 | 6 |
| $\$ 1,000$ to $\$ 1,100$ $\$ 1,100$ | 64,440 77,580 | 57,340 77,220 | 67,750 88,853 | 60,689 88,622 | 490 1,502 | ${ }_{5}^{503}$ | 19 | 20 |
| \$1,200 to $\$ 1,309$ | 83,010 | 79,890 | 103,303 | 88,622 99,869 | 2,733 | 1,538 2,607 | 19 33 | 20 |
| \$1,300 to $\$ 1,400$ | 83,750 | 82,750 | 112,537 | 111,275 | 3,901 | 3,826 | 47 | 3 |
| \$1,400 to \$1,500 | 79,880 | 78,530 | 115,355 | 113,688 | 4,781 | 4,678 | 60 | 60 |
| \$1,500 to $\$ 1,600$ | 80.700 | 81,030 | 124,659 | 125,526 | 5,769 | 5,349 | 71 | 72 |
| \$1,600 to \$1,700 | 73,960 | 74,150 | 121,726 | 122,020 | 6,293 | 6,476 | 85 | 87 |
| \$1,700 to \$1,800 | 68,780 | 73,690 | 119,952 | 128,678 | 6,720 | 7,157 | 98 | 97 |
| \$1,800 to $\$ 1,900$ | 67,710 | 71,130 | 124,841 | 131,283 | 7,470 | 7,743 | 110 | 109 |
| \$1,900 to \$2,000 | 60,26¢ | 63,630 | 117,170 | 123,995 | 7,325 | 7,788 | 122 | 122 |
| $\$ 1,000$ to, but not including 82,000. | 740,070 | 739,360 | 1,096,146 | 1,105,645 | 46,984 | 48,165 | 63 | 65 |
| \$2,000 to \$2,100 | 72,226 | 78,720 | 147,873 | 161,316 | 7,709 | 8,654 | 107 | 110 |
| \$2,100 to \$2,200 | 78,070 | 80,540 | 167,567 | 172,932 | 7,960 | 8,499 | 102 | 105 |
| \$2,200 to \$2,300 | 84,640 | 85,560 | 190,003 | 192,242 | 8,209 | 8,764 | 97 | 102 |
| \$2,300 to $\$ 2,400$ | 92,560 | 89,880 | 217,068 | 211,216 | 8,668 | 8,884 | 94 | 99 |
| 32,400 to 82,500 | 94,330 | 97,260 | 230,660 | 237,907 | 8,891 | 9,820 | 94 | 101 |
| \$2,500 to $\$ 2,600$. | 96,680 | 99.230 | 245,976 | 253,056 | 9,293 | 10,055 | 96 | 101 |
| \$2,600 to $\$ 2,700$ | 94,620 | 101,180 | 250,125 | 267,547 | 9,469 | 10,537 | 100 | 104 |
| \$2,700 to $\$ 2,800$ | 87,670 | 94,060 | 240,516 | 258,224 | 9,287 | 10,700 | 106 | 114 |
| \$2,800 to \$2,900 | 78,750 | 85,280 | 223,960 | 242,712 | 9,180 | 10,336 | 117 | 121 |
| \$2,900 to \$3,000 | 69,420 | 78,190 | 204,398 | 230,195 | 8,767 | 10,255 | 126 | 131 |
| $\$ 2,000$ to, but not including $\$ 3,000$. | 848,960 | 889,900 | 2,118,146 | 2,227,34ī | 87,433 | 96,504 | 103 | 108 |
| \$3,000 to $\$ 3,500$ | 243,220 | 288,490 | 782,522 | 928,102 | 38,590 | 47,650 | 159 | 165 |
| \$3,500 to 84,000 | 124,870 | 145,710 | 464,518 | 543,006 | 27,913 | 37,326 | 224 | 256 |
| \$4,000 to \$4,500 | 72,590 | 82,870 | 306,610 | 349, 964 | 21,473 | 24,738 | 296 | 298 |
| \$4,500 to \$5,000 | 44,450 | 51,510 | 210,086 | 243,318 | 16,989 | 19,485 | 382 | 378 |
| $\$ 3,000$ to, but not including, $\$ 5,000 \ldots . . . . . . . . . . . . . . . . . . . ~$ | 485,130 | 568,580 | 1.763,736 | 2,064,390 | 104,965 | 129,199 | 216 | 227 |
| \$5,000 to \$6,009 | 49,110. | 54,940 | 266,366 | 298,143 | 24,851 | 31,090 | 506 | 566 |
| \$6,000 to \$7,000 | 26,870 | 30,500 | 173,227 | 196,333 | 18,684 | 21,278 | 695 | 698 |
| \$7,000 to $\$ 8,000$ | 17,420 | 18,190 | 129,683 | 135,935 | 15,629 | 16,361 | 897 | 899 |
| \$8,000 to $\$ 9,000$ | 11,640 | 12,720 | 98,400 | 107,456 | 12,927 | 14,172 | 1,111 | 1,114 |
| \$9,000 to $\$ 10,000$ | 8,530 | 9.070 | 80,854 | 86,096 | 11,626 | 12,308 | 1,363 | 1,357 |
| $\$ 5,000$ to, but not including, $\$ 10,000$. | 113,570 | 125,420 | 748,530 | 823,957 | 83,717 | 95,209 | 737 | 759 |
| \$10,000 to \$15,000 | 21,770 | 23,390 | 260,963 | 231,634 | 44,996 | 48,471 | 2,067 | 2,072 |
| \$15,000 to \$20,000 | 7,810 | 9.410 | 134,822 | 161,696 | 30,734 | 36,586 | 3,935 | 3,888 |
| \$2J,000 to $\$ 25,000$. | 3,880 | 4,090 | 86,648 | 90,714 | 23,066 | 24,158 | 5,945 | 5,907 |
|  | 33,460 | 36,890 | 482,433 | 534,044 | 98,796 | 109,215 | 2,953 | 2,960 |
| \$25,000 to $\mathbf{8 5 0 , 0 0 0}$ | 4,240 | 5, 050 | 138,600 | 169,399 | 45,070 | 55,317 | 10,630 | 10,954 |
| \$50,000 or over. | 1,090 | 1,340 | 81,105 | 103,858 | 33,806 | 44,973 | 1,015 | 33,562 |
| \$25,000 or over | 5,330 | 6,390 | 219,705 | 273,257 | 78,876 | 100,290 | 14,798 | 15,695 |
| Grand Totals. | 231,970 | 374,240 | 6,431,266 | 7.032,803 | 500,989 | 578,936 | 224 | 244 |

Corporation Income-Tax Statistics.-In the following tables, corporation statistics are presented on a taxation-year basis prior to assessment. The data have been extracted and compiled from the returns shortly after they have been 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, caused by the fact that many large companies which operate across Canada file their returns in one or other of these two Provinces.
21.-Summary Statisties for Corporations Reporting a Profit, Taxation Year 1949 ${ }^{1}$

| Item | Companies Reporting | Current <br> Year <br> Profit | $\begin{gathered} \text { Income } \\ \text { Tax } \\ \text { Declared } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
|  | No. | \$'000 | \$'000 |
| Active taxable companies-excluding co-operatives. | 26,091 | 1,857,365 | 570,186 |
| Inactive companies. | 725 1.754 | 314 6,903 | $\begin{array}{r} 42 \\ 1,744 \end{array}$ |
| Totals, Taxable Companies | 28.570 | 1,864.582 | 571,972 |
| Personal corporations. | 1,012 | 15,389 | - |
| Other exempt companies ${ }^{2}$. | 660 | 5,953 | 10 |
| Grand Totals-Taxable and Exempt......... | 30.242 | 1,885,924 | 571,982 |

${ }^{1}$ Excludes Newfoundland. $\quad{ }^{2}$ Includes foreign business corporations paying $\$ 100$ filing fee which is recorded here as tax declared.
22.-Distribution of Active Taxable Companies Reporting a Profit, by Income Classes, Industrial Divisions and Provinces, Taxation Year $1949{ }^{1}$

| Income Class, Industrial Division or Province | Companies Reporting | Current <br> Year <br> Profit | Income Tax Declared |
| :---: | :---: | :---: | :---: |
| Income Class | No. | \$'000 | \$'000 |
| Under \$1,000. | 3,727 | 1,619 | 204 |
| \$ 1,000 to $\$ 2,000$. | 2,398 | 3,475 | 472 |
| \$ 2,000 to \$ 3,000 . | 1,799 | 4,400 | 635 |
| \$ 3,000 to $\$ 4,000$. | 1,537 | 5,318 | 780 |
| 8 4,000 to $85,000$. | 1,261 | 5,640 | 816 |
| \% 5,000 to 10,000 . | 4,461 | 32,536 | 4,850 |
| \$ 10,000 to \$ 15,000 . | 2,333 | 28,398 | 5,133 |
| \$ 15,000 to 20,000 . | 1,357 | 23,427 | 5,170 |
| \$ 20,000 to \$ 25,000 . | 961 | 21,527 | 5,258 |
| \$ 25,000 to \$ 50,000 . | 2,437 | 86,806 | 23,304 |
| \$ 50,000 to \$ 100,000 . | 1,533 | 108,250 | 31,393 |
| \$ 100,000 to 250,000 . | 1,269 | 196,930 | 60,440 |
| \$ 250,000 to \$ 500,000 . | 479 | 166,948 | 52,232 |
| \$ 500,000 to $\$ 1,000,000$. | 259 | 179, 181 | 57,026 |
| \$1,000,000 to $\$ 5,000,000$. | 236 | 465,853 | 150,645 |
| Over $\$ 5,000,000$. | 44 | 527,057 | 171,828 |
| Totals. | 26.091 | 1,857,365 | 570,186 |
| Industrial Division |  |  |  |
| Agriculture, fishing and forestry | 463 | 10,467 | 2,813 |
| Mining. ........................ | 444 | 130,478 | 41,550 |
| Manufacturing | 7,134 | 1,043,202 | 330,777 |
| Construction. | 1,272 | 45,717 | 12,939 |
| Public utilities. | 1,250 | 118,679 | 127,423 |
| Wholesale trade | 4,329 | 162,078 | 47,558 |
| Retail trade | 5,139 | 169,562 | 49,383 |
| Service.. | 2,760 | 47,223 | 12,698 |
| Finance ${ }_{\text {Unclassified }}$ | 3,295 5 | 129,924 35 | 35,036 9 |
| Province |  |  |  |
| Prince Edward Island. | 163 | 4,708 | 930 |
| Nova Scotia.... | 979 | 37,121 | 11,246 |
| New Brunswick | 661 | 22,381 | 6,642 |
| Quebec... <br> Ontario... | 6,950 | 557,884 | 172,445 |
| Manitoba | 9,243 1,611 | 891,991 83,679 | 275,759 |
| Saskatchewan. | ${ }^{773}$ | 17,441 | + 4,868 |
| Alberta | 1,723 | 63,423 | 18,506 |
| British Columbia | 3.988 | 178,737 | 54,320 |

[^346]
## 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.

Table 23 shows the receipts of the various Governments from this source from 1947.

In 1947, seven provinces-Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia - withdrew from the succession duty field. This action was consequent upon the acceptance of an offer made on June 27, by the Federal Minister of Finance in the 1946 Budget Speech, to "rent" from the provinces certain tax fields for a five-year period in return for compensation. By the terms of this offer a province had the option of "renting" its succession duty field to the Federal Government or of continuing to cultivate it and having its compensation appropriately reduced. To keep the succession duty burden approximately equal in all provinces a complementary measure was implemented by the Government whereby, the rates of federal succession duty were doubled and a credit of up to one-half the federal duty was allowed against it for succession duty paid to a province.

The seven provinces mentioned above entered into tax-rental agreements and also elected 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 provinciai succession duties was replaced by a single federal succession duty at double the previous federal level which, in most cases, resulted in a combined duty approximately the same as previously levied under the separate federal and provincial duties. On the other hand, the Provinces of Quebec and Ontario did not enter into the agreements but the doubled rates of federal duty were applied and were capable of being reduced up to one-half by a credit for the duty paid to the Province.

The Yukon Territory in 1948, and the Province of Newfoundland in 1949, entered into a similar tax-rental agreement and elected to rent out succession duty fields for the periods Apr. 1, 1948 to Mar. 31, 1952, and Apr. 1, 1949 to Mar. 31, 1952, respectively.

In 1952, the tax rental agreements expired but new five-year agreements were negotiated with the same eight provinces which again elected not to cultivate their succession duty fields. The Province of Ontario also entered into an agreement but elected to continue to cultivate 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.

The Dominion Succession Duty Act was enacted as $4-5$ Geo. VI, c. 14. Certain amendments were made to the Act by 5-6 Geo. VI, c. 25; 7-8 Geo. VI, e. 37; 8-9 Geo. VI, c. 18; and the doubling of rates and provision of the tax credit mentioned
above by 10 Geo. VI, c. 46. Two important amendments were made to the Act in 1948. The former provision by which bequests to non-profit charitable organizations in Canada were exempt only up to 50 p.c. of the aggregate net value of the estate was changed to remove this limit entirely. A second change exempted from duty all successions derived from an estate of an aggregate net value not exceeding $\$ 50,000$; formerly this exemption had applied only up to an aggregate net value of $\$ 5,000$. While estates in excess of $\$ 50,000$ remain dutiable in full, it was provided at the same time that in no case would the duty reduce the value of the estate below $\$ 50,000$. In 1952 , several amendments of a technical nature were made in order to clarify certain positions and remove anomalies.

A common feature of both federal and provincial duties is the variation of rates by the degree of relationship of the beneficiary to the deceased. The four classes of beneficiaries established under federal law (see p. 1048) have, for example, specific rates that change with each classification, while in Ontario there are three classes of beneficiaries with different rates of duty attached to each class. A common feature of both federal and provincial Acts is an initial rate of duty to be charged, based on the total value of the estate, and an additional rate based on the bequest received by each individual. Thus, in the case of the Federal Government, a person who receives a bequest of $\$ 50,000$, out of an estate of $\$ 500,000$ is charged the rate for a $\$ 500,000$ estate plus an additional rate for $\$ 50,000$, and the total rate is then applied in calculating the tax on his bequest.

Double taxation of estates resulting from taxation of the same property by more than one province has been common in the past, but the withdrawal of eight of the provinces from the field and the credit provision mentioned above have 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. One of the terms of this convention is that shares in a corporation organized in or under the laws of the United States or any of the individual States shall be deemed to be property situated within the United States, and shares in a corporation organized in or under the laws of Canada, or of the provinces or territories of Canada, shall be deemed to be property situated within Canada.

An agreement respecting succession duties was signed June 5, 1946, between Canada and the United Kingdom.

In these circumstances, the difficulties of working out succession duty tables so as to show the combined effects of federal and provincial duties is easily 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 in such cases. This has been attempted in the following series of tables in the hope that it will be useful in presenting to the student of this subject a general knowledge of the incidence of succession duties in Canada under conditions existing at present.

## 23.-Federal and Provincial Net Revenue from Succession Duties, Fiscal Years Ended Mar. 31, 1947-52

Note.-The fiscal year of Nova Scotia ended Nov. 30, and that of New Brunswick Oct. 31, up to and including 1949.

| Province |  |
| :--- | ---: | ---: | :---: | :---: | :---: | :---: | :---: |

[^347]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 in the case of 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, in cases where dependent children do not benefit, the widow's exemption is increased by $\$ 5,000$ for each child who does not benefit. In the case of 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), thereafter, 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.

Examples of the rates of duty and duty levied are given in Table 24.
24.-The Incidence of Succession Duties in all Provinces (except Quebec and Ontario) on Typical Estates

| Class | Aggregate <br> Net Value | Dutiable Value | Rate | Dety |
| :---: | :---: | :---: | :---: | :---: |
| A. Widow only.................................. | \$ | \$ | p.c. | \% |
|  | 60,000 | 40,000 | 10.6 | 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 18 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 | 40.7 | 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 | 30.7 | 92,100 |
|  | 500,000 | 500.000 | 36.7 | 183,500 |
|  | 1,000,000 | 1,000,000 | 42.7 | 427,000 |
| D. Stranger................................... | 60,000 | 60,000 | 15.9 | 9,540 |
|  | 100,000 | 100,000 | 20.7 | 20,700 |
|  | 300,000 | 300,000 | $32 \cdot 7$ | 98,100 |
|  | 500,000 | 500,000 | 38.7 | 193.500 |
|  | 1.900 .000 | 1,000,000 | $44 \cdot 7$ | 447,000 |

The Incidence of Combined Federal and Provincial Succession Duties.As described at pp. 1046-47, only the Provinces of Quebec and Ontario have retained their own succession duties. As already mentioned, seven provinces elected to "rent" their succession duties for the periods from Apr. 1, 1947, to Mar. 31, 1952, and from Apr. 1, 1952 to Mar. 31, 1957, and one (Newfoundland) for the periods Apr. 1, 1949, to Mar. 31, 1952, and from Apr. 1, 1952 to Mar. 31, 1957. As a consequence, the tables showing combined rates of federal and provincial duty for each province, which appeared at pp. 942-950 of the 1946 Year Book, have been deleted with the exception of those for the two above-mentioned provinces. The new condition of
doubled federal duties and a tax credit of up to 50 p.e. for the provincial duty has been taken into account in Tables 25 and 26. The rates under the heading "Dominion Duty" shown in the 1946 Year Book have been doubled and under "Combined Duty" the greater of (1) the amount of the federal duty (doubled rates), or (2) the provincial duty plus one-half the federal duty, is given.

In these two tables, the beneficiaries under all the classes show the duties collectable where the estate of given value is left to one beneficiary only, since it would be impossible to cover the many different classifications, exemptions and saving clauses to be found in the legislation of the respective provinces. In every case, the estate is assumed to be wholly situated within the province and the beneficiary domiciled therein to be the sole heir. The reader is referred to the legislation and to the taxing authority shown under each provincial heading for more complete information.

Quebec.-The current legislation under which succession duties are collected is R.S.Q. 1941, c. 80 , as revised by 7 Geo. VI, c. 18 . As stated at p. 1047, the following text and table can give only a broad outline of such duties as 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 between consort, between father- or mother -in-law and son- or daughter-in-law, between stepfather or step-mother and step-son or step-daughter. There is no limitation of degree in the direct ascending or descending line between 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). 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 Feb. 22, 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 that Province, provided that the province or State within which the work is to be carried out extends reciprocal privileges under its succession duty laws. Since February 1949, 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.
25.-The Incidence of Federal and Quebec Succession Duties on Typical Estates

| Class | Aggre gate Net Value | Federal Duty ${ }^{\text {l }}$ |  |  | Provincial Duty |  |  | Combined Duties ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Dutiable Value | Rate | Duty | Dutiable Value | Rate | Duty |  |
| A. Widow only....... | $\$$ | 8 | p.c. | \$ | $\delta$ | p.c. | \$ | \$ |
|  | 20,000 25,000 | 二 | 二 | - | 20,000 25,000 | 2.80 3.00 | 560 750 | 560 750 |
|  | 25,000 50,000 | - | - | - | 25,000 50,000 | 3.00 4.00 | 2,000 | 2,000 |
|  | 60,000 | 40,000 | $10 \cdot 60$ | 4,240 | 60,000 | $5 \cdot 60$ | 3,360 | 7,140 |
|  | 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 18 years. | 20,000 | , | - | - | 20,000 | 2.80 | 560 | 560 |
|  | 25,000 | - | - | - | 25,000 | 3.00 | 750 | 750 |
|  | 50,000 | - | - | $\overline{7}$ | 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 | 34.70 | 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 | - | - | - | 20,000 | $7 \cdot 80$ | 1,560 | 1,560 |
|  | 25,000 | - | - | - | 25,000 | $8 \cdot 50$ | 2,125 | 2,125 |
|  | 50,000 | - | - | - | 50,000 | 12.00 | 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 | $30 \cdot 70$ | 92,100 | 300,000 | 19.00 | 57,000 | 103,050 |
|  | 503,000 | 500,000 | 36.70 | 183,500 | 500,000 | 21.67 | 108,350 | 200,100 |
|  | 1,000,000 | 1,000,000 | $42 \cdot 70$ | 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 | 15.90 | 9,540 | 60,000 | 18.00 | 10,800 | 15,570 |
|  | 100,000 | 100,000 | $20 \cdot 70$ | 20,700 | 100,000 | 22.00 | 22,000 | 32,350 |
|  | 300,000 | 300,000 | $32 \cdot 70$ | 98,100 | 300,000 | $25 \cdot 75$ | 77,250 | 126,300 |
|  | 500,000 | 500,000 | 38.70 | 193,500 | 500,000 | 28.25 | 142,250 | 239,000 |
|  | 1,000,000 | 1,000,000 | 44.70 | 447,000 | 1,000,000 | $34 \cdot 50$ | 345,000 | 568,500 |

[^348]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.
(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 $\$ 50,000$ devised to persons in Class (1), nor on those not exceeding $\$ 10,000$ devised 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, while 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．

26．－The Incidence of Federal and Ontario Succession Duties on Typical Estates

| Class | Aggre－ <br> gate <br> Net <br> Value | Federal Duty ${ }^{1}$ |  |  | Provincial Duty |  |  | Combined Duties ${ }^{1}{ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Dutiable Value | Rate | Duty | Dutiable Value | Rate | Duty |  |
| A．Widow only．．．．．．． | 8 | \＄ | p c． | 8 | 8 | p．c． | 8 | 8 |
|  | 20，000 | 二 | I | － | － | － | － | － |
|  | 25,000 50,000 | 二 | － | － | － | 二 | － | 二 |
|  | 60，000 | 40，000 | 10.60 | 4，240 | 60，000 | $4 \cdot 60$ | 3，174 ${ }^{3}$ | 5，294 |
| B．Only child over 18 years．．．．．．．．． | 100，000 | 80,000 | 14.70 | 11，760 | 100，000 | 7.50 | 8，625 ${ }^{3}$ | 14，505 |
|  | 300，000 | 280.600 | 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 | 71，8753 | 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 | － | － | － | － | － | － | 二 |
|  | 50，000 | － | － | － | 50，000 | $2 \cdot 50$ | 1，4383 | 1，438 |
|  | 60，000 | 60，000 | 11.80 | 7，140 | 60，000 | $4 \cdot 60$ | 3，1743 | 7，140 |
| C．Brother or sister．．． | 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 ${ }^{2}$ | 173，500 |
|  | 1，000，000 | 1，000，000 | $40 \cdot 70$ | 407，000 | 1，000，000 | 18.00 | 207，000 ${ }^{3}$ | 410,500 |
|  | 20，000 | － | － | － | 20，000 | $8 \cdot 60$ | 2.0644 | 2，064 |
|  | 25，000 | － | －－ | － | 25，000 | $9 \cdot 15$ | 2，7444 | 2，744 |
|  | 50，000 | － | － | － | 50,000 | 11.90 | 7，1404 | 7，140 |
| D．Stranger．．．．．．．．．． | 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 | $15 \cdot 20$ | 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 | $20 \cdot 50$ | 123，0004 | 214，750 |
|  | 1，000，000 | 1，000，000 | $42 \cdot 70$ | 427，000 | 1，000，000 | 26.00 | 312，000 ${ }^{4}$ | 525，500 |
|  | 20，000 | － | － | － | 20，000 | $13 \cdot 10$ | 3，2755 | 3，275 |
|  | 25，000 | － | － | － | 25，000 | $13 \cdot 40$ | 4，1875 | 4，187 |
|  | 50,000 | － | － | － | 50,000 | $15 \cdot 00$ | 9，3755 | 9，375 |
|  | 60，000 | 60，000 | $15 \cdot 90$ | 9，540 | 60，000 | 15.50 | 11，625 | 16，395 |
|  | 100，000 | 100，000 | 20.70 | 20，700 | 100，000 | 17.50 | 21，875 ${ }^{5}$ | 32，225 |
|  | 300，000 | 300,000 | 32.70 | 98， 100 | 300,000 | 22.50 | 84，3755 | 133，425 |
|  | 500，000 | 500，000 | 38.70 | 193，500 | 500，000 | 27.50 | 171，875 ${ }^{5}$ | 268，625 |
|  | 1，000，000 | 1，000，000 | 44－70 | 447，000 | 1，000，000 | 35.00 | 437，500 ${ }^{\text {s }}$ | 661，000 |

${ }^{1}$ The rates of federal duty shown are those actually applied but a credit may be made to the taxpayer up to one－half of this amount on account of duty paid to the provinces，see p． $1046 .{ }_{2}$ Includes surtax on provincial duty．${ }^{3}$ Includes a surtax of 15 p．c．${ }^{4}$ Includes a surtax of 20 p．c．${ }^{5}$ In－ cludes a surtax of 25 p．c．

## Subsection 4．－Subsidies and Taxation Agreements with the Provinces

Subsidies．－By the provisions of the British North America Act and sub－ sequent arrangements entered into from time to time，the Federal Government makes certain annual payments to the provinces：these are summarized as follows：－－

Interest on Debt Allowances．－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 in the case of 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. The aggregate annual payment by the Federal Government to the provinces in respect of interest on debt allowances is $\$ 1,609,386$.

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 |  | 100,000 |
| 150,000, but does no | exceed 200,000 | 150,000 |
| 200,000, " | " 400,000 | 180,000 |
| 400,000, | 800,000 | 190,000 |
| $800,000,{ }^{\text {a }}$ | " 1,500,000 | 220,000 |
| Over 1,500,000. |  | 240,000 |

Aggregate annual allowances presently paid under this head amount to $\$ 1,990,000$, including the $\$ 180,000$ which became payable to Newfoundland upon union with Canada in 1949.

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 Census. The allowances paid to the provinces in the year ended Mar. 31, 1952, amounted to $\$ 10,580,361$.

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.

SpecialGrants.-In the case of certain of the provinces, grants have been added to the original scale of subsidies in view of special circumstances obtaining which, for the year ended Mar. 31, 1952, amounted, in the aggregate, to $\$ 2,468,380$ as follows:-

Prince Edward Island.-A special grant of $\$ 195,000$ less a deduction of $\$ 39,120$ (net grant of $\$ 155,880$ ).
New Brunswick.-An annual grant of $\$ 150,000$ since 1875 in consideration of the repeal of lumber duties reserved to the Province by the B.N.A. 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.
British Columbia.-A special grant amounting at present to $\$ 100,000$ per annum.
27.-Subsidy Allowances to Provincial Governments, Years Ended Mar. 31, 1946-52

| Province | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | 8 | \$ | 8 |
| Newfoundland. |  |  |  |  | 1,825,000 | 1,540,000 | 1,569,133 |
| Prince Edward Islan | 381,932 | 381,932 | 656,932 | 656,932 | 656,932 | 656,932 | 656,932 |
| Nova Scotia | 705, 140 | 705,140 | 2,005,140 | 2,005,140 | 2,005,140 | 2,005,140 | 2,056,838 |
| New Brunswick | 732,386 | 732,386 | 1,632,386 | 1,632,386 | 1,632,386 | 1,632,386 | 1,679,023 |
| Quebec. | 2,866,590 | 2,866,590 | 2,866,590 | 2,866,590 | 2,866,590 | 2,866,590 | 3,300,869 |
| Ontario | 3,151,007 | $3,155,007$ | $3,155,007$ | $3,155,007$ | 3,155,007 | 3,155,007 | $3,640,940$ |
| Manitoba | 1,717,284 | 1,709,043 | 1,722,202 | 1,715,623 | 1,767,315 | 1,750,084 | 1,755,317 |
| Saskatch | 2,049,775 | 2,034,650 | 10,079,6511 | 2,041,525 | 2,071,900 | 2,061,775 | 2,040,757 |
| Alberta. | 1,835,075 | 1,794,561 | 10,272,7671 | 2,018, 039 | 2,086,043 | 2,063,375 | 2,126,976 |
| British Columbia | 1,003,440 | 1,003,440 | 1,003,440 | 1,003,440 | 1,003,440 | 1,003,440 | 1,281,319 |
| Totals | 14,446,629 | 14,382,749 | 33,394,115 | 17,094,682 | 19,169,753 | 18,734,729 | 20,108,104 |

${ }^{1}$ Includes a payment of $88,031,250$ to each of the Provinces of Saskatchewan and Alberta under authority of the Western Provinces Treasury Bills and Natural Resources Settlement Act.
28.-Subsidy Allowances to Provincial Governments, July 1, 1867 to Mar. 31, 1952 ${ }^{1}$

| Province | Allowances for Government | Allowances on Basis of Population | Special Grants?, | $\begin{gathered} \text { Interest } \\ \text { on Debt } \\ \text { Allowances } \end{gathered}$ | Total ${ }^{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | S | \$ | \$ | 8 |
| Newfoundland. | 585,000 | 874,133 | 3,575,000 |  | 5,034,133 |
| Prince Edward İland | 5,520,000 | 6,796, 165 | $8,845,142$ | 3,262, 268 | 24, 2732,575 |
| Nova Scotia. | 10,950,000 | 31,321,710 | 7,326,980 | 4,132,583 | ${ }_{5}^{53,731,273}$ |
| New Brunswic | 10,310,000 | 24,135,868 | 16,980,000 | 1,874,004 | 53,299,872 |
| Quebec | 13,600,000 | 125,928, 104 | - | 7,491,084 | 147,019,188 |
| Ontario | 14,000,000 | 150,976,512 |  | 7,449,565 | 172,426,077 |
| Manitoba | 10,155,000 | 27,316,384 | 30,019, 233 | 20,219, 135 | 87,709,752 |
| Saskatchew | 9,456,667 | ${ }_{2}^{28,121,342}$ |  | $19,052,625$ 19 19 | - $95,193,134$ |
| Alberta | $8,831,667$ 9880,000 | $23,581,005$ $23,540,296$ | $34,375,000$ $9,100,000$ | $19,052,625$ $2,371,020$ | $85,840,297$ $44,891,316$ |
| Totals | 93,288,334 | 442,591,519 | 148,783,855 | 84,904,909 | 769,568,617 |

[^349]Additional Special Grants.-Additional special grants were voted annually to the Maritime Provinces, Manitoba, Saskatchewan and British Columbia until 1941.

These additional special grants were suspended with the coming into force of the Wartime Tax Agreements, 1942. 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 that province by reason of geography and its sparse and scattered population.

Tax Rental Agreements.-The Tax Rental Agreements, 1947.-The Wartime Tax Agreements 1942 (see Year Book 1946, pp. 900-901) lapsed in the period from Oct. 30, 1946, to Mar. 31, 1947, and were succeeded by the Tax Rental Agreements, 1947. These, in turn, were succeeded by the Tax Rental Agreements, 1952. By the 1947 and 1952 Agreements, a province agrees to refrain from levying certain direct taxes, for a period of five years, in return for compensation from the

Federal Government. The main purposes of these Agreements are to establish a more equitable system of taxation throughout Canada by reducing duplication of direct taxation and duplication of machinery for the collection of direct taxes, to give a greater measure of stability to the revenue of the Provinces and to enable the Federal Government, together with the Provincial Governments, to carry out national policies intended to maintain high levels of employment and production.

The 1947 Tax Rental Agreements were entered into by the Federal Government pursuant to the Dominion-Provincial Tax Rental Agreements Act, 1947. Seven Provinces-Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia-entered into these Agreements for the full five year period, the Yukon Territory for four years, and the new Province of Newfoundland for three years. The Agreements contained the basic provisions of the Wartime Tax Agreements whereby the provinces and their municipalities withdrew their income taxes, corporation income taxes and special taxes on corporations for the war period, in return for compensation from the Federal Government. The Agreements contained significant changes and additions which had been worked out at the meetings of the Dominion-Provincial Conference on Reconstruction in 1945 and 1946, and in the negotiations which followed the June 1946 Budget offer of the Federal Minister of Finance. The main features of this offer, which were embodied in the Agreements, are outlined in the Year Book 1946, pp. 883-884.

Under the 1947 Agreements, a province and its municipalities were required to refrain from levying personal income taxes, corporation income taxes and special taxes on corporations for the period Jan. 1, 1947, to Dec. 31, 1951. (Shorter periods were required of the Yukon Territory and Newfoundland.) However, a province was encouraged to levy a corporation income tax of 5 p.c. in order to keep the level of income taxes on corporations in all provinces-whether or not they had entered into Agreements-approximately uniform, and such a tax was levied by all the provinces and the Yukon Territory. The tax was imposed on the income of a corporation attributable to its operations in the province, and the Agreements provided a set of rules according to which an appropriate allocation could be made of a corporation's income to the province. As provided in the Agreements, the tax was imposed under the same general provisions as those of the Income War Tax Act and The Income Tax Act, and was administered by the Federal Government without cost to the provinces. The revenue from the tax was paid over to each province but a corresponding reduction was made in the amount of compensation otherwise payable under the Agreements.

The 1947 Agreements were concerned also with another tax field-that of succession duties; for details see pp. 1046-1047.

The Agreements expressly permitted the imposition by a province of roya!ties and rentals on natural resources when such royalties and rentals were of a nature conforming with the definitions set forth in the Agreements. Provincial taxation of income derived from logging and mining operations, as defined in the Agreements,
was also permitted. Furthermore, the Federal Government was obligated by the Agreements to allow such royalties, rentals and taxes to be deducted in the computation of income for federal income tax purposes for the term of the Agreements.

The basis of compensation in the 1947 Agreements differed considerably from that of the Wartime Tax Agreements, 1942, and also from that in the 1946 Budget offer. The provinces were given a choice of two alternative bases. The components of the first option were $\$ 12.75$ per capita of provincial population in 1942, plus 50 p.c. of the province's 1940 revenue from personal and corporate income taxes and corporation taxes, plus the statutory subsidies payable in 1947. The components of the second option were $\$ 15.00$ per capita of provincial population in 1942, plus the statutory subsidies payable in 1947. A special arrangement was made for Prince Edward Island which was offered a flat amount of $\$ 2,100,000$-a sum slightly in excess of the amount determined by either of the two formulas.

An important difference in this basis of compensation from that used in the Wartime Tax Agreements, 1942, was that the amounts determined under these options constituted only floor payments or guaranteed minimum payments. These were subject to upward adjustment for increases in gross national product per capita and provincial population between the base year of 1942 and the average of the three calendar years preceding the year of payment. If, in any of the three years concerned, the amount calculated was less than the amount of the minimum payment, then the amount of the minimum payment was substituted. The use of these upward :idjustment factors was designed to insulate the Provinces against the effects of rising costs, while the use of the three year average was intended to inject a stabilizing element into the payments and, with the guaranteed minimum, to offer protection against the effects of a depression.

The guaranteed minimum annual payments to the provinces under the most favourable option and the adjusted annual payments for the period of the Agreements are shown in Table 29.

An interesting feature of the Agreements was the provision that, in the year following their termination, provincial taxpayers were to be allowed, by the Federal Government, tax credits of a maximum of 5 p.c. of the federal income tax, 50 p.c. of federal succession duties, and one-seventh of federal corporation income tax for similar taxes and duties paid to provincial governments. The main purpose of this provision was to enable the provinces to re-enter these tax fields with greater ease, if they so desired, after the termination of the Agreements

Under an offer, ancillary to the Agreements, but one which applied to all provinces, whether agreeing or not, the Federal Government pays to each province one-half of the federal corporation income tax collected on income of corporations derived, in the province, from generating and/or distributing to the public, electric energy, gas or steam, where this is the main business of the corporation. This arrangement originally had effect for the five taxation years ending Dec. 31, 1951, but has now been extended under the Tax Rental Agreements Act, 1952, to the five taxation years ending Dec. 31, 1956.
29.-Guaranteed Minimum Annual Payments ${ }^{\mathbf{1}}$ to Provinces and Yukon Territory under Most Favourable Option, and Adjusted Annual Payments, ${ }^{1}$ as Finally Calculated, ${ }^{2}$ for Years Ended Mar. 31, 1948-52.

| Province and Option | Guaranteed Minimum Annual Payment | $\left\lvert\, \begin{gathered} \text { Adjusted } \\ \text { Payment } \\ 1948 \end{gathered}\right.$ | $\begin{array}{\|} \text { Adjusted } \\ \text { Payment } \\ 1949 \end{array}$ | $\begin{gathered} \text { Adjusted } \\ \text { Payment } \\ 1950 \end{gathered}$ | $\left\lvert\, \begin{gathered} \text { Adjusted } \\ \text { Payment } \\ 1951 \end{gathered}\right.$ | $\begin{gathered} \text { Adjusted } \\ \text { Payment } \\ 1952 \end{gathered}$ | Total Adjusted Payments $1948-52$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | '000 | \$'000 | \$000 | \$'000 | 8'000 |
| Newfoundland (Second)...... Prince Edward Island (Special | 6,209 | ... | ... | 8,090 | 8,912 | 9,713 | 26,715 |
| arrangement) ............. | 2,100 | 2,322 | 2,420 | 2,641 | 2,891 | 3.131 | 13,405 |
| Nova Scotia (Second) | 10,870 | 11,994 | ${ }_{10}^{12,490}$ | 13.622 | 14.905 | 16.133 | 69, ${ }^{6} 544$ |
| Manitoba (First). | 13.540 | 14,485 | 15,002 | 16,359 | 17,971 | 19,531 | ${ }_{83,348}$ |
| Saskatchewan (Second) | 15.291 | 15,696 | 16,017 | 17,215 | 18,662 | 20,013 | 87.603 |
| Alberta (First). | 14,228 | 15,338 | ${ }^{16,029}$ | 17,740 | 19.847 | 21,958 | 90.912 |
| British Columbia (First | 18,120 | 21,621 | 23,087 | 25,784 | 28,818 | 31,853 | 131, 163 |
| kon Territory | 89 |  | 141 | 159 | 177 | 195 | 672 |
| Tot | 89,220 | 91,212 | 95,372 | 112,747 | 124,397 | 135,778 | 559,506 |
| Quebec (First) ${ }^{3}$ <br> Ontario (First) | 56,382 67,158 | $\begin{aligned} & 64,403 \\ & 7.409 \end{aligned}$ | $\begin{gathered} 67.837 \\ 80.380 \end{gathered}$ | $\begin{aligned} & 74.800 \\ & 88.524 \end{aligned}$ | $\begin{aligned} & 82,658 \\ & 97,717 \end{aligned}$ | $\begin{array}{r} 90,358 \\ 106.705 \end{array}$ | $\begin{aligned} & 380,056 \\ & 449,735 \end{aligned}$ |
| Grand Tot | 212,760 | 232,024 | 243,589 | 276,071 | 304,772 | 332,841 | 1,389,297 |

[^350]The Tax Rental Agreements, 1952.-In December 1950, a Federal-Provincial Conference was held primarily to discuss fiscal and social security matters. At the Conference the Federal Government made an offer for new tax rental agreements which was modified subsequently in minor respects only. This new offer, apart from the amount of the guaranteed minimum payments, contained substantially the same provisions as the 1947 Agreements. The provinces were again to repeal or suspend the same taxes for periods of five years, and were to be compensated in much the same manner although on a larger scale.

One important difference in the 1952 Agreements was that the provincial 5 p.c. corporation income tax levy was abolished; its purpose was fulfilled by an amendment to the federal Income Tax Act by which 5 p.c. was added to the federal rate and a credit of 5 p.c. given on corporation income earned within a non-agreeing province. Another significant difference was that the 1952 Agreements contained additional protection for the provinces in the event of their re-entering the tax fields (temporarily given up) after the end of the five year periods. The credits for personal income and succession duty were unchanged, but the corporation incometax credit was raised to 7 p.c., and all agreements were guaranteed for five years.

On the compensation side there were several differences. The new guaranteed minimum payments were determined by increasing the guaranteed minimum payments of the 1947 Agreements by the ratio of change in provincial population and in per capita gross national product between 1942 and 1948, the total increase being almost 50 p.c. In addition, a new option was provided which was designed to provide a more up-to-date evaluation of the rental value of the tax fields being rented.

Under this option the guaranteed minimum payment was made up in the following way:-
(1) The yield of a personal income tax at 5 p.c. of 1948 federal rates applied to 1948 incomes in the province.
(2) The yield of a tax of $8 \frac{1}{2}$ p.c. on corporation profits earned in the province in 1948. (The rate of $8 \frac{1}{2}$ p.c. was taken as a fair measure of the corporation tax potential, since it took account of the special taxes on corporations levied traditionally by provinces as well as taxes on corporate profits.)
(3) The average revenue received by the province from succession duties. (For the agreeing provinces this was the average of the revenue received during the last two years before their succession duties were suspended, and for Ontario and Quebec, the average of the three fiscal years 1946-47, 1947-48 and 1948-49.)
(4) Statutory subsidies payable to the province for 1948. This option was more favourable to only one Province-Ontario.
Under any one of the three options proposed these guaranteed minimum payments were subject to upward adjustment for changes in gross national product per capita and in provincial population from 1948. However, instead of using as adjustment factors the average of these ratios for the three years preceding the year of payment, there was a choice of the single year, or of the average of the two years preceding the year of payment. Another change was that the 'gross national product', used as an adjustment factor, was changed from the 'gross national product at market prices' to the 'gross national product at factor cost' in order to eliminate the effect of changes in indirect taxes.

All provinces, with the exception of Quebec, as well as the Yukon and Northwest Territories have signed Agreements. Ontario chose to retain its succession duties and will receive reduced compensation on this account.

The guaranteed minimum annual payments under the 1952 Agreements, and the estimated payments for the fiscal year 1952-53, are shown in Table 30.
30.-Guaranteed Minimum Annual Payments to Provinces and Territories under Most Favourable Option, and Adjusted Annual Payments as Estimated for the Year Ended Mar. 31, 1953 .

| Province and Option | Guaranteed Minimum Payments ${ }^{1}$ | Adjusted Payments in 1952-531, ${ }^{2}$ | Territory and Option | Guaranteed Minimum Payments ${ }^{1}$ | $\begin{aligned} & \text { Adjusted } \\ & \text { Pay- } \\ & \text { ments } \\ & \text { in } \\ & 1952-53^{1,2} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 |  | \$'000 | \$'000 |
| Newfoundland (First)Prince Edward Issand (First)..Nova Scotia (First)........New Brunswick (First) | 9,175 | 12,292 | Yukon Territory (First) <br> Northwest Territories (First) <br> Totals $\qquad$ | 170 186 | 230 239 |
|  | 2,977 | 3.916 |  | 186 |  |
|  | 15,348 | 20,150 16,625 |  | 231,527 | 311,701 |
| Ontario (Second) ${ }^{3}$ an.........Manitoba (First) | 101,80118,635 | 137,173 |  |  |  |
|  |  | 24,760 |  |  |  |
| Saskatchewan (First) | 20,026 | 25,571 | Quebec (First)4............. | 85,080 | 115,004 |
| Alberta (First) ${ }_{\text {British Columbia (First)....... }}$ | 20,986 29,647 | 29,369 41,376 | Can | 316,607 | 426,705 |

[^351]
## Subsection 5.-National Debt

The gross national debt of Canada at Mar. 31, 1914, was $\$ 544,391,369$ as against assets of $\$ 208,394,519$, leaving a comparatively small net debt of $\$ 335,996,850$ incurred almost completely for public works of general utility which, like the intercolonial and transcontinental railways and the canal system, remained assets, though perhaps not realizable assets, of the nation; the debt was also expanded by the subsidizing of enterprises like the Canadian Pacific Railway, which, though not govern-ment-owned, assisted greatly in extending the area of settlement as well as the productive and, therefore, the taxable capacity of the country. Broadly speaking, the debt was incurred for productive purposes and was held mainly outside the country, the principal of the Federal Government funded debt payable at London, England, being $\$ 302,842,485$ on Mar. 31, 1914, as against only $\$ 717,453$ payable in Canada.

From 1914 to 1920, the gross debt increased by almost $\$ 2,500,000,000$ to a total of $\$ 3,042,000,000$ due to heavy war and post-war expenditure and, while there was a slight reduction to a low point of $\$ 2,544,586,411$ at Mar. 31, 1930, additional expenditure during the depression years resulted in a gross debt of $\$ 3,710,610,593$ by Mar. 31, 1939.

From 1939 to 1946 there was an increase of $\$ 15,249,235,590$, incurred mainly for war purposes, bringing the total gross debt to $\$ 18,959,846,183$ at the end of March 1946. After deduction of active assets held by the Government, the net debt showed an increase of $\$ 10,268,846,135$ during this period, amounting to $\$ 13,421,405,449$ at the end of March 1946. At the end of March 1952, total gross debt had been reduced to $\$ 17,257,668,676$ and net debt to $\$ 11,185,281,546$.

The portion of the funded debt, payable in foreign currencies, decreased sharply during the war years, as was inevitable under conditions where almost the entire amount of the country's war financing was carried out through domestic operations. Of the total funded debt and treasury bills outstanding as at Mar. 31, 1952, amounting to $\$ 14,695,410,451,2 \cdot 70$ p.c. only was payable outside Canada: $\$ 53,119,649$ being payable at London and $\$ 343,432,500$ at New York.

## 31.-Summary of the Public Debt and Interest Payments thereon, Years Ended Mar. 31, 1941-5?

Nors.-Statistics for the years 1867-99 are given at pp. 775-776 of the 1942 Year Book; those for 1900-13 at p. 944 of the 1945 edition; those for 1914-35 at p. 972 of the 1947 edition; and those for 1936-40 at p. 1,009 of the 1951 edition.

| Year | Gross Debt | $\underset{\text { Active Assets }}{\text { Net }}$ | Net Debt | Net <br> Debt Per Capita ${ }^{1}$ | Increase or Decrease of Net Debt During Year | Interest Paid on Debt | Interest Received from Active Assets | Interest Paid Per Capita ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | \$ | \$ | \$ | 8 | \$ | $\$$ | \$ |
| 1941. | 5,018, 928, 037 | 1,370,236,588 | 3,648, 691, 449 | 317.08 | 377,431, 802 | 139,178,670 | 14,910,554 | $12 \cdot 10$ |
| 1942. | 6,648,823, 424 | 2, 603, 602,263 | $4,045,221,161$ | $347 \cdot 11$ | 396,529,712 | 155,017,901 | 21,748,701 | $13 \cdot 30$ |
| 1943. | 9,228, 252, 012 | 3, 045, 402, 911 | $6,182,849,101$ | $524 \cdot 19$ | 2,137,627,940 | 188,556,249 | 41,242,237 ${ }^{2}$ | 15.99 |
| 1944. | 12,359, 123,230 | $3,619,038,337$ | 8,740,084, 893 | $731-63$ | 2,557,235,792 | 242,681,180 | $48,281,313^{2}$ | $20 \cdot 31$ |
| 1945. | 15,712, 181,527 | 4,413,819,509 | 11,298,362,018 | 935.91 | 2,558,277,125 | 318,994,821 | $60,749,186^{2}$ | 26.42 |
| 1946.. | 18,959,846,183 | 5,538,440,734 | 13, 421, 405, 449 | 1,091-88 | 2,123,043,431 | 409,134,502 | 70,914,626 ${ }^{2}$ | 33-28 |
| 1947.. | 17,698, 195,740 | 4,650,439,192 | 13,047, 756,548 | 1,039 -58 | $-373,648,901$ | $464,394,876^{3}$ | $69,438,880^{2}$ | $37 \cdot 00$ |
| 1948... | 17, 197,348,981 | 4, $825,712,088$ | 12,371, 636, 893 | $964 \cdot 80$ | $-676,119,656$ | 455,455, 204 | $75,799,912^{2}$ | $35 \cdot 52$ |
| 1949... | 16,950, 403,795 | 5, 174, 269,643 | $11,776,134,152$ | $875 \cdot 74$ | $-595,502,741$ | 465,137,958 ${ }^{2}$ | 107,888,905 ${ }^{2}$ | $34 \cdot 59$ |
| 1950. | 16,750,756,246 | 5, 106, 147, 047 | 11,644,609,199 | 849.23 | -131,524,953 | 439,816,335 | 91,528,987 ${ }^{2}$ | 32.08 |
| $\begin{aligned} & 1951 . \\ & 1952 . \end{aligned}$ | $16,923,307,028$ $17,257,668,676$ | $5,849,992,080$ $6,072,387,129$ | 11,433, 314,948 | 816.14 775.14 | $-211,294,251$ $-248,033,402$ | $425,217,500$ $432,423,0824$ | $89,529,2332$ $117,621.9062$ | $30 \cdot 35$ 29.97 |
| 1952.. | $\|17,257,668,676\|$ | $6,072,387,129$ | 11.185,281.546 | $775 \cdot 14$ | -248,033,402 | 432,423,0824 | 117,621,906 ${ }^{2}$ | $29 \cdot 97$ |

[^352]Interest-Bearing Debt.--The interest-bearing debt of Canada has shown a sharp increase since 1939 , amounting to $\$ 16,201,876,542$ at Mar. 31, 1952. compared with $\$ 3,658,414,748$ at the same date in 1939 . The average rate of interest on this debt continued downward during the war years, reaching the low point of $2 \cdot 547$ p.c. at Mar. 31, 1945. Slight increases in 1946, 1947 and 1948 were recorded, and the rate stood at $2 \cdot 710$ p.c. at Mar. 31,1948 , but decreased slightly to 2.677 at Mar. 31, 1950, and increased to $2 \cdot 783$ at Mar. 31, 1950. This is in contrast with the experience of World War I, when the average interest rate on the direct debt of the nation rose from $3 \cdot 368$ p.c. at Mar. 31, 1913, to a high point of $5 \cdot 164$ p.c. at Mar. 31, 1922.

During the fiscal year ended Mar. 31, 1939, interest on the public debt absorbed about 26 p.c. of total Government receipts. Interest on the debt in later years has absorbed a smaller portion of revenue, amounting to less than 11 p.c. in the year ended Mar. 31, 1952, that is if the amount necessary to place interest on public debt on the accrual basis is excluded.

## 32.-Interest-Bearing Debt, Annual Interest Charges thereon and Average Rates of Interest, as at Mar. 31, 1946-52

Nors.-Statistics for the years 1913-35 चre given at p. 977 of the 1977 Year Book; and for 1936-45 at p. 1010 of the 1951 edition.


[^353]Funded Debt Operations.-Conversions and other national debt operations carried out between 1914 and 1930 are dealt with in the Year Book 1933, pp. 842-843, those between 1931 and 1934 in the Year Book 1934-35, pp. 905-907; those of the fiscal years 1935 to 1949 in subsequent editions.

T'reasury Bills.-Since 1934 a market for short-term treasury bills has proved highly satisfactory. Each issue, with two exceptions (where the bills were sold direct to the Bank of Canada), has been offered for public tender. Lists of treasury bills sold by public tender for the fiscal years ended 1934-46 appear in the respective

Year Books beginning with the 1937 edition. Details of the issues in continuation of the list published in the Year Book 1942 at p. 778 may be obtained on request from the Department of Finance, Ottawa, Ont.
33.-Unmatured Funded Debt and Treasury Bills as at Mar. 31, 1952, and Annual Interest Payable Thereon

| $\begin{gathered} \text { Date } \\ \text { of } \\ \text { Maturity } \end{gathered}$ | Description | Rate | Where Payable | Amount of Loan | Annual <br> Interest <br> Charge |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | p.c. |  | \% cts. | \$ cts. |
| 1952-May 1 | Treasury Notes | $1{ }^{1}$ | Canada | $200,000,00000$ | $2,250,00000$ |
| Aug. 27 | Deposit Certificates | $1{ }^{18}$ | Canada | 200,000,000 00 | 3,750,000 00 |
| Sept. 1 | Treasury Notes. | $1{ }^{1}$ | Canada | $550,000,00000$ | 7,562,500 00 |
| Nov. 1 | Loan of 1949. | $1 \frac{1}{2}$ | Canada | $300,000,00000$ | 4,500,000 00 |
| Nov. 1 | Loan of 1950 | $1 \frac{1}{6}$ | Canada | $300,000,00000$ | 5,250,000 00 |
| 1953-Mar. 1 | Bonds | 13 | Canada | $325,000,00000$ | 4,875,000 00 |
| Nov. 1 | Loan of 1951 | 2 | Canada | 200,000,000 00 | 4,000,000 00 |
| 1954-Mar. 1 | Second Victory Loan | 3 | Canada | $676,355,489001$ | 20,089,767 00 |
| Dec. 15 | Refunding Loan. | 2 | Canada | 395,000,000 00 | 7,900,000 00 |
| 1956-July | Loan of 1950. | $2 \frac{1}{4}$ | Canada | 400,000,000 00 | 9,000,000 00 |
| Nov. 1 | Third Victory Loan | 3 | Canada | 855,607,410 $50{ }^{2}$ | 25,414,081 50 |
| Nov. 1 | Canada Savings Series | $2{ }^{\text {a }}$ | Canada | 199,260,650 00 | 5,479,667 88 |
| 1957-May | Fourth Victory Loan | 3 | Canada | 1,111,261,650 00 | 33,337,849 50 |
| Nov. 1 | Canada Savings Serie | $2 \frac{1}{4}$ | Canada | 105,967, 40000 | 2,914,103 50 |
| 1958-June 1 | Loan of 1938-39 | 3 | Canada | 88,200,000 00 | 2,646,000 00 |
| Sept. 1 | Loans of 1933 . | 4 | London | 1,771,954 03 | 70,878 16 |
| Nov. 1 | Canada Savings S | $2{ }^{2}$ | Canada | 100,783,400 00 | 2,771,543 50 |
| 1959-Jan. 1 | Fifth Victory Loan | 3 | Canada | 1,197,324,750 00 | 35,919,742 50 |
| Nov. 1 | Canada Savings Series IV | $2 \frac{3}{4}$ | Canada | 148,278,250 00 | 4,050,151 87 |
| 1960-June 1 | Sixth Victory Loan | 3 | Canada | 1,165,300,350 00 | 34,959,010 50 |
| Nov. 1 | Canada Savings Series | $2{ }^{2}$ | Canada | 149, 146,900 00 | 4,074,039 75 |
| 1961-Jan. 15 | Loan of 1936 | $3 \frac{1}{4}$ | New York | 47,370,000 00 | 1,539,525 00 |
| 1962-Feb. 1 | Seventh Victory Loan | 3 | Canada | 1,315,639,200 00 | 39,469,176 00 |
| Aug. 1 | Canada Savings Series | $3 \frac{1}{2}$ | Canada | 357,649,750 00 | 12,517,741 25 |
| 1963-July | Loan of 1938 | $3 \frac{1}{4}$ | London | 1,960,698 43 | 63,722 70 |
| July 1 | Stock | 3 | London | 49,386,996 51 | 1,481,609 90 |
| Aug. 1 | Loan of 1948. | 3 | New York | 148,031,250 00 | 4,440,937 50 |
| Oct. 1 | Eighth Victory Loan | 3 | Canada | 1,295,819,350 00 | 38,874,580 50 |
| 1966-June 1 | Loan of 1936. | $3 \frac{1}{4}$ | Canada | 54,703,000 00 | 1,777,847 50 |
| Sept. 1 | Ninth Victory Loan | 3 | Canada | 1,691,796,700 00 | 50,753,901 00 |
| 1968--Jume 15 | Loan of 1950 | $2{ }^{\text {2 }}$ | Canada | 350,000,000 00 | 9,625,000 00 |
| 1974-Sept. 1 | Bonds | $2 \frac{1}{2}$ | New York | 98,687,500 00 | 2,713,906 25 |
| 1975-Sept. 15 | Bonds | $2 \frac{1}{3}$ | New York | 49,343,750 00 | 1,356,953 12 |
| Perpetual | Loan of 1936 | 3 | Canada | $55,000,00000$ | 1,650,000 00 |
| 1952-Apr. 4 | Treasury Bills. | 0.889 | Canada | 75,000,000 00 | 666,750 00 |
| Apr. 18 | Treasury Bills | 0.890 | Canada | 75,000,000 00 | 667,500 00 |
| May 2 | Treasury Bills, | 0.894 | Canada | 75,000,000 00 | 670,500 00 |
| May 23 | Treasury Bills. | 0.909 | Canada | 75,000,000 00 | 681,750 00 |
| June 6 | Treasury Bills. | 0.921 | Canada | 75,000,000 00 | 690,750 00 |
| June 20 | Treasury Bills | 0.943 | Canada | 75,000,000 00 | 707,250 00 |
|  | War Savings Certificate | 3 | Canada | 62,764,052 11 | 1,882,921 56 |
| Totals, Unmatured Funded Debt and Treasury Bills. |  |  |  | 14,695,410,450 58 | 392,046,657 94 |
|  | Payable in Canada. <br> Payable in London. <br> Payable in New York |  |  | $14,298,858,30161$$53,119,648$$343,432,50000$ |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

[^354]
## 34.-Federal Government New Security Issues during the Year Ended Mar. 31, 1952

(Payable in Canada)

| Security Issues | Issue Date | Maturity Date | $\left\|\begin{array}{c} \text { Inter- } \\ \text { est } \\ \text { Rate } \end{array}\right\|$ | $\left\lvert\, \begin{gathered} \text { Price } \\ \text { to } \\ \text { Gov- } \\ \text { ern- } \\ \text { ment } \end{gathered}\right.$ | $\begin{aligned} & \text { Yield } \\ & \text { at } \\ & \text { Price } \\ & \text { to } \\ & \text { Gov- } \\ & \text { ern- } \\ & \text { ment } \end{aligned}$ | Total Amount Issued | Renewals or Reconversion Included in Amount Issued | Amount Issued for Cash |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Feb. 27, 1952 | p.c. | 8 | p.c. | \$ | \$ | \$ |
| Issued to Chartered BanksDeposit certificates | Aug. 29, 1951 |  |  |  |  |  |  |  |
|  |  |  | 12 $\frac{1}{6}$ | 100.00 | $1 \cdot 125$ | 200,000,000 | 200,000,000 | - |
| Deposit certificates | Feb. 27, 1952 | Aug. 27, 1952 | $1{ }^{\frac{3}{8}}$ | 100.00 | 1.375 | 200,000,000 | 200,000,000 | - |
| Two-year loan..... | Nov. 1, 1951 | Nov. 1, 1953 | 2 | $99 \cdot 15$ | $2 \cdot 44$ | 64,994,000 | 64,994,000 | - |
| Totals |  |  |  |  |  | 464,994,000 | 464,994,000 | - |
| Issued to Bank of Canada-Six-month treasury notes. | May 1, 1951 | Nov. 1, 1951 | 1 | $100 \cdot 00$ | 1.000 | 200,000,000 | 200,000,000 | - |
|  |  |  |  |  |  |  |  |  |
| Six-month treasury notes. | Sept. 1, 1951 | Mar. 1, 1952 | 11 | $100 \cdot 00$ | $1 \cdot 125$ | 550,000,000 | 550,000,000 | - |
| Six-month treasury notes. | Nov. 1, 1951 | May 1, 1952 | $1 \frac{1}{6}$ | $100 \cdot 00$ | 1-125 | 200,000,000 | 200,000,000 | - |
| Six-month treasury notes. | Mar. 1, 1952 | Sept. 1, 1952 | $1 \frac{13}{3}$ | $100 \cdot 00$ | $1 \cdot 375$ | 550,000,000 | 550,000,000 | - |
| Two-year loan..... | Nov. 1, 1951 | Nov. 1, 1953 | 2 | 99.15 | $2 \cdot 440$ | 135, 006, 000 | 135,006,000 | - |
| Totals. |  |  |  |  |  | 1,635,006,000 | 1,635,006,000 | - |
| Issued to General Public- |  |  |  |  |  |  |  |  |
| Canada Savings Bonds Series VI, Net. | Nov. 1, 1951 | Aug. 1, 1962 | $3 \frac{1}{2}$ | 99.3125 | $\ldots$ | 357,649,750 | - | 357,649,750 |
| Grand Totals... | ... | ... | ... | $\cdots$ | ... | 2,457,649,750 | 2,109,000,000 | 357,649,750 |

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. With the commencement of business by the Bank of Canada 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 if the Bank suspends payment of any of its liabilities".

For full details of other guarantees also outstanding at Mar. 31, 1952, see Schedule "V" to the Public Accounts for 1952.

## 35.-Guaranteed Debt of the Federal Government (Amounts Held by the Public), as at Mar. 31, 1946-52

Nore.-Figures for the years 1914-23 are given at p. 837 of the 1943-44 Year Book; those for 1924-35 at p. 978 of the 1947 edition and those for 1936-45 at p. 1013 of the 1951 edition.

| Year | Railways, Guaranteed as to Principal and Interest | Railways. Guaranteed as to <br> Interest Only | Canadian <br> National <br> Steamships | Harbour Commissions | Other Guarantees | Bank of Canads | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | \$ | \$ | \$ |
| 1346..... | 502, 265, 560 | 8,358,001 | 9,400,000 | 20,958, 182 | $9,188,2941$ | 518, 135,599 | 1,068,305,636 |
| 1947..... | 528,505,889 | 8,309,454 | 9,400,000 | 20,739, 182 | 14,724, 473 ${ }^{1}$ | 536,264, 805 | 1,117,943,803 |
| 1948..... | 483,502,968 | 8,304,100 | 9,400,000 | 20,739, 182 | 20,631,122 ${ }^{1}$ | 519,211, 261 | 1,061,788,633 |
| 1949..... | 518,500,224 | 6,985,175 | 9,400,000 | 19,756,282 | 28, 718, 3531 | 540, 250, 731 | 1,123,610,765 |
| 1950..... | 553,433,724 | 6,985,175 | 9,400,000 | 671,282 | 70,217, $282{ }^{1}$ | 567,309, 813 | 1,208, 017, 276 |
| 1951..... | 559,433,723 | 6,985, 175 | 9,400,000 | 671,282 | 38,460, 8731 | 552, 915, 324 | 1,167,866,377 |
| 1952..... | 511,411,723 | 6,985,175 | 9,400,000 | 671,282 | 69, 204, 6831 | 656,529,140 | 1,254,202,003 |

${ }^{1}$ Excludes indeterminate amounts and amounts not yet determined.

## Section 3.-Provincial Public Finance*

Commencing with 1946, the statistics appearing in this Section have been prepared on a basis not strictly comparable with those given for previous years. Certain of the former major classifications have been eliminated or redistributed; in the case of tables dealing with debt, the totals are comparable with previous years but the classification has been revised.

In order to prepare comparable statistics it is essential that data be presented, to the greatest possible extent, in terms of uniform categories. In many instances, activities relating to a specific function are excluded by some provincial governments from their ordinary account, whereas similar activities are included by other provinces. The special or administrative funds of this nature so excluded are, therefore, added to provincial ordinary account to arrive at 'general' revenue and expenditure. For this reason it is obvious that total revenue and total expenditure presented herein will differ considerably from totals shown in provincial public accounts.

Fiscal periods dealt with are as nearly coincident as is possible in view of the variations in provincial fiscal year-ends. For example, figures shown for 1949 are for the following fiscal year-ends: Nova Scotia, Nov. 30, 1949; New Brunswick, Oct. 31, 1949; and all other provinces, Mar. 31, 1950.

[^355]
## 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. 1021 and 1023, because of differences in the methods used to compute 'net' figures.

Tables 36, 37 and 38 present a general summary of provincial government finance by combining ordinary and capital account revenue and expenditure on a net basis. These tables provide a more valid comparison between provinces and between years than those based on ordinary account alone because certain types of expenditure may be made through ordinary account in one year and through capital account in another. 'Net General Revenue' is arrived at by deducting from 'Gross General Revenue' as shown in Table 39: (a) all institutional revenue; (b) interest, premium, discount and exchange; and (c) grants-in-aid and shared-cost contributions received from other governments. This revenue is also deducted from the pertinent functions of expenditure to arrive at 'Net General Expenditure'. While the surplus position is the same in the gross and net presentation, the former emphasizes the gross administrative burden of services and the latter shows the net cost of these services. 'Net Capital Expenditure' is arrived at by deducting all capital revenue from 'Gross Capital Expenditure'.

The classification of revenue by source and of expenditure by function was revised considerably in 1946; details of these changes may be found in the Year Book 1951, p. 1,014 . In 1948 there were certain additional changes; motor-fuel and fuel-oil sales taxes were combined into one total and general retail sales taxes, which have grown in significance, were taken out of 'Sales Taxes-Other Commodities and Services' and shown as a separate item. In 1949, education expenditure previously classified as 'Employment Training Programs', is no longer shown separately but is included in 'Schools Operated by Local Authorities' or 'Universities, Colleges and Other Schools'.

Newfoundland is included in provincial financial statistics for the first time in 1949. Liquor Control revenue appears under five headings: 'Taxes-Alcoholic Beverages', 'Privileges, Licences and Permits-Liquor Control and Regulation', 'Fines and Penalties', 'Contributions from Government Enterprises - Liquor Profits', and 'Other Revenue'; the latter includes confiscations under liquor control.
36.-Net General Revenue and Net Combined General and Capital Expenditure of Provincial Governments, Fiscal Years 1946-49

| Province | Revenue |  |  |  | Expenditure |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1946 | 1947 | 1948 | 1949 | 1946 | 1947 | 1948 | 1949 |
|  | \$'000 | \$'000 | 8'000 | \$'000 | \$'000 | 8 '000 | \$'000 | \$'000 |
| Newfoundland..... |  |  |  | 17,424 5,091 |  |  |  | 26,077 6,743 |
| P. E. Island........ | 3,511 | 4,658 32 | 4,730 32 | 5,091 34,249 | 4,065 24, | 6,305 35,316 | 5,915 44,346 | 6,743 52,703 |
| Nova Scotia. ${ }_{\text {New }}$ Brunswick... | 21,659 20,055 | 32,389 28,844 | 32,667 28,453 | 34,249 29,431 | 24,614 25,547 | 35,316 34,130 | 44,346 42,484 | 54,037 40,03 |
| Quebec. | 151, 372 | 193,756 | 203, 258 | 207,040 | 148,670 | 189, 862 | 234,027 | 197,651 |
| Ontario. | 150,732 | 223,213 | 220,024 | 235, 421 | 161,752 | 203,539 | 250,738 | 280,550 |
| Manitoba..... | 22,729 ${ }^{1}$ | 34,004 | 35,902 | 38,042 | 19,2181 | 27,963 | 35,897 | 38.831 |
| Saskatchewan.. | 37,3701 | 53,312 | 56,332 | 61,275 | 35,337 ${ }^{1}$ | 52,539 | 55,375 | 60,446 |
| Alberta.......... | 36,598 57,763 | 47,510 72,004 | 62,957 100,678 | 88,363 124,265 | 32,353 57,322 | 43,989 85,032 | 55,938 109,550 | 58,729 163,267 |
| Totals. | 501,789 | 689,690 | 745,001 | 840,601 | 508,878 | 678,675 | 834,270 | 925,034 |

[^356]
## 37.-Detalls of Net General Revenue of Provincial Governments, Fiscal Years 1948 and 1949

| Item | 1948 | 19491 | Item | 1948 | 19491 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 |  | \$'000 | \$'000 |
| TaxesCorporation $\qquad$ | 22,509 | 20,928 | Other GovernmentsDominion - Provincial taxation agreement............. | 84,272 | 79,931 |
| IncomeCorporation. | 87,604 | 105,948 | Share income tax on power utilities. | , | 1,490 |
|  | 186 | 122 | Federal subsidies............ | 16,965 | 25,541 |
| Property. | 6,315 | 5,731 | Totals, Federal. | 101,237 | 106,962 |
| Sales- |  |  | Municipalities. | 1,727 | 865 |
| Alcoholic beverages <br> Amusements and admissions. | 1,470 16,918 | 1,477 20,533 | Totals, Other Governments. | 102,964 | 107,827 |
| Motor-fuel and fuel-oil. | 125,348 | 138,769 |  |  |  |
| General ${ }^{2}$. | 48,351 | 61,900 | Contributions from Govern- |  |  |
| Tobacco............... | 8,894 | 9,578 | ment Enterprises and Other Funds- |  |  |
| services................. | 2,992 | 3,265 | Liquor profits. | 102,521 | 106,803 |
| Succession dutie | 29,125 | 28,838 | Other.. | 4,615 | 3,816 |
| Other | 13,741 | 20,739 |  |  |  |
| Totals, Taxes | 363,453 | 417,828 | er Revenue. | 923 | 1,056 |
|  |  |  | enue and Surplus Receipts. | 741,857 | 837.831 |
| Liquor control and regulation | 25,011 | 25,932 | Non-Revenue and Surplus Re- |  |  |
| Motor-vehicle................ | 50,573 | 58,198 | ceipts- |  |  |
| Natural resources | 58,736 | 81,670 | Refunds of previous years' |  |  |
| Other. | 10,928 | 12,219 | expenditure..... | 481 | 530 |
| Totals, Privileges, Licences and Permits. | 145,248 | 178,019 | to revenue Other. $\qquad$ | $\begin{array}{r} 1,943 \\ 720 \end{array}$ | $\begin{array}{r} 2,219 \\ 21 \end{array}$ |
| Sales and Services. | 20,046 | 20,222 | Totals, Non-Revenue and Surplus Receipts. | 3,144 | 2,770 |
| Fines and Penalties. | 2,087 | 2,230 | Grand Totals. | 745,001 | 840,601 |

${ }^{1}$ Includes Newfoundland.
${ }^{2}$ Formerly included under 'Other commodities and services'.

## 38.-Details of Net Combined General and Capital Expenditure of Provincial Governments, Fiscal Years 1948 and 1949

| Item | 1948 | 19491 | Item | 1948 | 19491 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 |  | \$'000 | \$'000 |
| General GovernmentExecutive and administrative. | 27,752 | 28,066 | Transportation and Communi-cationsHighways, roads and bridges | 252,356 | 249,455 |
| Legislative................... | 6,240 | 4,292 | Railways................... |  | 2401 |
| Research, planning and statistics. | 288 | 314 | Telephone, telegraph and wireless. | 16 | 25 |
| Totals, General Government | 34,280 | 32,672 | Waterways. | 2,232 4 | 3,914 6 |
|  |  |  | Totals, Transportation and Communications. | 254,650 | 253,701 |
| Protection of Persons and Pro-perty- |  |  | Health and Social Welfare-Health- |  |  |
| Law enforvement.. | 9,347 | 10,494 | General. | 2,741 | 2,768 |
| Corrections..... | 9,674 8,574 8,53 | 10,807 12,706 | Public healith | 9,725 | 9,495 |
| Other.......... | 7,334 | 11,859 | tal and all services. | 4,327 | 4,984 |
| Totals, Protection of Persons |  |  | Hospital car | 85,568 | 125,804 |
| and Property. | 34,929 | 45,866 | Totals, Health | 102,361 | 143,051 |

${ }^{1}$ Includee Newfoundiand.
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## 38.-Details of Net Combined General and Capital Expenditure of Provincial Governments, Fiscal Years 1948 and 1949-concluded

| Item | 1948 | 19491 | Item | 1948 | $1849{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Health and Social Welfareconcluded | \$'000 | \$ 000 |  | \$'000 | \$'000 |
| Social Welfare- |  |  |  |  |  |
| Aid to aged persons......... | 30,764 | 40,059 | ment | 4,354 | 5,094 |
| Aid to blind persons......... Aid to unemployed employ- | 1,229 | 1,520 | Local Government Planning |  |  |
| ables and unemployables.. | 7,020 14,402 | 12,566 16,063 | and Develop | 1,270 | 1,289 |
| Child welfare. | 2,651 | 3,815 | Debt Charges ${ }^{\text {d }}$ | 88,131 | 101,341 |
| Labour | 2,793 | 2,017 |  |  |  |
| Other. | 2,737 | 4,013 | Contributions to Other Gov- |  |  |
| Totals, Social Welfare....... <br> Totals, Health and Social Welfare. | 61,596 | 80,053 | Shared-revenue contributions | 6,659 | 11,079 |
|  |  |  | dies |  | 3,797 |
|  | 163,957 | 223,104 | Totals, Contributions to |  |  |
| Recreational and Cultural Services..................... | 4,888 | 5,654 |  | 12,790 | 14,876 |
| Education- <br> Schools operated by local authorities. | 95,475 | 115,988 | Contributions to Government Enterprises and Other Funds. | 9,934 | 13,687 |
|  |  |  |  |  |  |
| Universities, colleges and other schools. | 33,024 | 32,069 | Other Expenditure. . . . . . . . . | 6,452 | 5,324 |
| Education of the handicapped Employment training programs. | 1,016 | 1,287 | Totals, Excluding Non-Expense and Surplus Payments |  |  |
|  | 2,964 |  |  | 832,486 | 923,000 |
|  | 9,251 | 10,909 |  |  |  |
| Totals, Education. | 141,730 | 160,253 |  |  |  |
| Natural Resources and Primary IndustriesFish and game | $\begin{array}{r} 6,296 \\ 22,472 \end{array}$ | Non-Expense and Surplus Pay-ments- |  |  |  |
| Fish and game.................. Forests |  | 7,405 28,523 | Advances...............; | 191 | 205 |
| Lands: settlement and agri- | 35,422 | $\begin{array}{r} 34,384 \\ 4,258 \end{array}$ | revenue.................... | 115 | 204 |
| culture.......... |  |  | Othe | 1,478 | 1,625 |
| Other | 7,569 | -14,4313 | tals, Non Expens |  |  |
| Totals, Natural Resources and Primary Industries... | 75,121 | 60,139 | Surplus Payments. | 1,784 | 2,034 |
|  |  |  | Grand Totals.. | 834,270 | 925,034 |

${ }^{1}$ Includes Newfoundland. versities, colleges and other schools'. offset against expenditure. $848,677,000$ in 1949.

## 39.-Gross General Revenue and Expenditure of Provincial Governments, Fiscal Years 1946-49

| Province | Revenue |  |  |  | Expenditure |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1946 | 1947 | 1948 | 1949 | 1946 | 1947 | 1948 | 1949 |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | 8 '000 |
| Newfoundland.... |  |  |  | 19,944 6,375 |  |  |  | 24,542 6,418 |
| P. E. Island....... | 4,017 27,645 | $\begin{array}{r}5,365 \\ 38,798 \\ \hline\end{array}$ | 5,697 40,253 4 | 6,375 44,426 | 3,857 24,331 | 5,092 29,306 | 5,086 35,371 | 6,418 |
| Nova Scotia. ${ }_{\text {New Brunswick.... }}$ | 27,645 24,420 | 38,798 33,791 | 40,253 34,026 | 44,426 36,885 | 24,331 22,200 | 29,306 27,217 | 35,371 32,176 | 46,997 |
| Quebec............ | 173,427 | 219,269 | 231,508 | 244,514 | 146,754 | 174,648 | 197,622 | 212,605 |
| Ontario. | 180,605 | 255, 876 | 254,901 | 280,914 | 169,450 | 211,237 | 258,059 | 291,425 |
| Manitoba | 28,7251 | 41,508 | 44,107 | 48,663 | 23,1701 | 33,343 | 39,182 | 43,340 |
| Saskatchewa | 45,1981 | 61,907 | 66,226 | 72,690 | 40,112 ${ }^{1}$ | 56,287 | 60,729 | 67,961 |
| Alberta. | 43,167 | 54,626 | 71,347 | 98,626 | 33,408 | 38,581 | 47,444 113,327 | 52,105 156,120 |
| British Columbia.. | 65,401 | 81,672 | 119,669 | 145,090 | 54,893 | 79,343 | 113,327 | 156,120 |
| Totals. | 592,605 | 792,812 | 867,734 | 998,127 | 518,175 | 655,054 | 788,996 | 935,814 |

[^357]
## Subsection 2.-Debt of Provincial Governments

The average coupon rate of gross bonded debt of Provincial Governments decreased each year from 4.12 p.c. in 1942 to 3.53 p.c. in 1949. Prince Edward Island had the lowest average coupon rate in 1949 and Alberta in 1950.
40.-Gross Bonded Debt (exclusive of Treasury Bills) of Provincial Governments, Fiscal Years 1946-50


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40.-Gross Bonded Debt (exclusive of Treasury Bills) of Provinclal Governments, Fiscal Years 1946-50.-concluded

| Year | Bonded Debt | Average Coupon Rate | Average Term of Issue | Bonded Debt | Average Coupon Rate | Average Term of Issue |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Saskatchewan |  |  | Alberta |  |  |
|  | \$'000 | p.c. | yrs. | \$'000 | p.c. | yrs. |
| 1946.. | 129,300 | $4 \cdot 30$ | 20.5 | 113,130 | 3.47 | 23.7 |
| 1947. | 138,329 | $4 \cdot 24$ | 20.0 | 108,565 | $3 \cdot 38$ | $22 \cdot 3$ |
| 1948. | 142,460 | $4 \cdot 20$ | $19 \cdot 4$ | 108,289 | $3 \cdot 37$ | $22 \cdot 3$ |
| 1949. | 130,822 | $4 \cdot 16$ | $19 \cdot 6$ | 168,700 | $3 \cdot 16$ | 20.5 |
| 1950. | 134.594 | $4 \cdot 02$ | 19.5 | 88,765 | $2 \cdot 86$ | $15 \cdot 0$ |
|  | British Columbia |  |  | Totals |  |  |
|  | \$'000 | p.c. | yrs. | \$'000 | p.c. | yrs. |
| 1946. | 120,069 | 3.94 | $21 \cdot 7$ | 1,672,225 | 3.73 | 20.2 |
| 1947... | 130,884 | $3 \cdot 82$ | 22.0 | 1,641,855 | $3 \cdot 66$ | $20 \cdot 3$ |
| 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 | $3 \cdot 53$ | 19.5 |
| 1950.. | 185,820 | $3 \cdot 36$ | 20.0 | 1,944,740 | $3 \cdot 46$ | $19 \cdot 3$ |

${ }^{2}$ Excludes bonds assumed by the Province.
41.-Total Gross Bonded Debt (exclusive of Treasury Bills) of Provincial Governments, by Currency of Payment, Fiscal Years 1946-50

| Payable in- | 1946 | 1947 | 1948 | 19491 | 19501, p |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | 8'000 | \$'000 | \$'000 | 8'000 |
| Canada only | 1,030,826 | 1,057,162 | 1,210,291 | 1,361,933 | 1,421,651 |
| Sondon (England) only ................. | 36,912 | 29,957 | 29,958 | 28,670 | 19,359 |
| London (England) and Canada . | 16,214 | 11,405 | 8,721 | 7,582 | 2,974 |
| New York only | 21,905 | 3,000 | - | - | 16.875 |
| New York and Canada | 335,395 | 318.753 | 301,787 | 346,182 | 300.867 |
| Jondon (England), New York and Canada | 226,237 | 221,578 | 216.221 | 210,728 | 183.014 |
| Other. | 4.736 | - | - | - | - |
| Totals | 1,672,225 | 1,641,855 | 1,766,978 | 1,955, 095 | 1,944,740 |

[^359]42.-Provincial Government Net Direct and Indirect Debt (less Sinking Funds), 1948

| Direct and Indirect Debt | P.E.I. | N.S. | N.B. | Que. | Ont. | Man. | Sask. | Alta. | B.C. | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Direct Debt | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | $\mathbf{s}^{\prime} 000$ | 8'000 | \$'000 | \$'000 |
| Bonded debt..... | $13,873$ | $\begin{array}{r} 124,470 \\ 13,200 \end{array}$ | $\begin{gathered} 137,967 \\ 22,044 \end{gathered}$ | $\begin{array}{r} 437,900 \\ 85,771 \end{array}$ | $\begin{aligned} & 583,349 \\ & 48,530 \end{aligned}$ | $\begin{aligned} & 74,686 \\ & 24,092 \end{aligned}$ | $\begin{array}{r} 142,460 \\ 44.053 \end{array}$ | 108,289 | $\begin{array}{r} 143,984 \\ 24,536 \end{array}$ | $\begin{array}{r} 1,766.978 \\ 264.059 \end{array}$ |
| Totals, Net Bonded Debt. | 12,040 | 111,270 | 115,923 | 352,129 | 534,819 | 50,594 | 98,407 | 108, 289 | 119,448 | 1,502,919 |
| Treasury BillsHeld by Federal Govern | - | - | - |  | - | 18,804 | 41,793 | 12,537 | 24,347 | 97,481 |
| Held by others...... | - | - | 3,500 | 7,100 | - | 7,340 | 6,262 | , | 15,670 | 39,872 |
| Totals, Treasury Bills. | - | - | 3,500 | 7,100 | - | 26,144 | 48,055 | 12,537 | 40,017 | 137,353 |
| Savings certificates and deposits | 1,561 | - | - | - | 64,408 | - | -- | 1,051 | - | 67.020 |
| Temporary losns and overdrafts | - | 1.485 | 5,897 | - | - | - | - |  | - | 7,382 |
| Bonds (or debentures) due.. | - | 270 | 156 |  | 1 | - | - | 12 | - | 439 |
| Bonds (or debentures) interest due | - | 142 | - | 187 | - | - |  | 629 | - | 958 |
| Acoounta and Other Payables- |  |  |  |  |  |  |  |  |  |  |
| Trust funds and other deposits. | 31 42 | -4,865 | 246 61 | 7,080 15,190 | 16,118 4,934 7 | 2,271 | 1,914 2,027 | 6,075 4,042 | 6,000 13,456 | 39,735 44.766 |
| Accrued interest and other accrued expenditure | - | 850 | 1,670 | 3,407 | 7,262 | 2,088 | 1,102 | 1,192 | 2,048 | 19,619 |
| Totals, Net Direct Debt (less Slnking Funds) | 13,674 | 118,882 | 127,453 | 385,093 | 627,542 | 81,246 | 151,505 | 138,827 | 180,969 | 1,820,191 |
| Indirect Debt |  |  |  |  |  |  |  |  |  |  |
| Guaranteed bonds or debentures. <br> Less Sinking Funds. | 二 | 1,184 91 | 2,871 270 | $\begin{array}{r} 240,716 \\ 182 \end{array}$ | $\begin{array}{r} 249.339 \\ 12 \end{array}$ | 935 | $\begin{aligned} & 330 \\ & 284 \end{aligned}$ | 38 | $\begin{aligned} & 7,010 \\ & 2,624 \end{aligned}$ | $\begin{array}{r} 502,423 \\ 3,463 \end{array}$ |
| Totals, Net Guaranteed Bonds or Debentures. | - | 1,093 | 2.601 | 240.534 | 249,327 | 935 | 46 | 38 | 4.386 | 498,960 |
| Guaranteed Bank Loans. <br> Municipal Improvement Assistance Act loans | 25 5 | 717 495 | 5,332 327 | 1,030 1,447 | 6.999 | ${ }^{-105}$ | 40 525 | 1,859 449 | 1,370 | 16,002 4,723 |
| Other guarantees............. | - | - |  | 41,042 | 2,900 | - | 41 |  | 841 | 44,824 |
| Totals, Net Indirect Debt (less Sinking Funds) | 30 | 2,305 | 8,260 | 284,053 | 259,226 | 1,040 | 652 | 2,346 | 6,597 | 564,509 |
| Totals, Net Direct and Indirect Debt (less Sinking Funds) | 13,704 | 121,187 | 135,713 | 669,146 | 888,768 | 82,286 | 152,157 | 136,173 | 187,566 | 2,384,700 |


| Direct and Indirect Debt | N＇t＇ld． | P．E．I． | N．S． | N．B． | Que． | Ont． | Man． | Sask． | Alta． | B．C． | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Direct Debt | \＄＇000 | \＄＇000 | \＄＇000 | \＄＇000 | \＄＇000 | \＄＇000 | \＄＇000 | \＄＇000 | \＄＇000 | s＇000 | \＄＇000 |
| Bonded debt．．．．．． | $\begin{aligned} & 6,223 \\ & 2,081 \end{aligned}$ | $\begin{gathered} 15,402 \\ 1.861 \end{gathered}$ | $\begin{array}{r} 141,098 \\ 14,382 \end{array}$ | $\begin{array}{r} 158,654 \\ 25,326 \end{array}$ | $\begin{array}{r} 419,450 \\ 90,880 \end{array}$ | $\begin{array}{r} 654,503 \\ 69,152 \end{array}$ | $\begin{aligned} & 91,480 \\ & 24,104 \end{aligned}$ | $\begin{array}{r} 130,822 \\ 24,812 \end{array}$ | $\begin{array}{r} 168,700 \\ 59,721 \end{array}$ | 168,763 31,667 | $\begin{array}{r} 1,955,095 \\ 343,986 \end{array}$ |
| Totals，Net Bonded Debt． | 4，142 | 13.541 | 126，716 | 133，328 | 328.570 | 585，351 | 67，376 | 106，010 | 108，979 | 137，096 | 1，611，109 |
| Treasury Bills－ <br> Held by Federal Government． Held by others | 二 | 二 | 二 | 500 | 17，950 | 二 | 18,306 7,795 | 39,539 700 | 12，187 | 23,671 12,435 | 93,703 <br> 39,380 |
| Totals，Treasury Bills | － | － | － | 500 | 17，950 | － | 26，101 | 40，239 | 12，187 | 36，106 | 133，083 |
| Savings certificates and deposits． Temporary loans and overdrafts． | 586 | 1，075 | 4，923 | 5，075 | － | 66，248 | 二 | － | 1，082 | 二 | 68,981 9,998 |
| Bonds（or debentures）due．．．．．． | － | － |  | ， 77 |  | － | － | － | 3 | － | 107 |
| Bonds（or debenture）interest due | － | － | 198 | － | 96 | － | － | － | 563 | － | 857 |
| Accounts and Other Payables－ Trust funds and other deposits Other | 7 | 73 45 | 573 5,416 | 213 81 | 8,922 16,248 | 17,197 4,843 | 2，107 | 1.793 1,643 1 | 6,997 3,580 1, | 6,701 19,680 | 44,576 51,706 |
| Accrued interest and other accrued expenditu | 214 | － | 1，105 | 1，997 | 16,144 3 | 8，040 | 2，092 | 1，344 | 1，340 | 2，238 | 21，514 |
| Totals，Net Direct Debt（less Sinking Funds）．．．． | 4，949 | 14，734 | 138，958 | 141，271 | 374，930 | 681，679 | 97，839 | 151，029 | 134，731 | 201，821 | 1，941，941 |
| Indirect Debt |  |  |  |  |  |  |  |  |  |  |  |
| Guaranteed bonds or debentures Less Sinking Funds． | 4.500 | 二 | 1.039 98 | 3,401 288 | 259,101 197 | 391,459 13 | 745 | 257 223 | 32 | 20,972 2,806 | $\begin{array}{r} 681,508 \\ 3,625 \end{array}$ |
| Totals，Net Guaranteed Bonds or Debentures． | 4，500 | － | 941 | 3，113 | 258，904 | 391，446 | 745 | 34 | 32 | 18，166 | 677，881 |
| Guaranteed bank loans <br> Municipal Improvement Assistance Act loans Other guarantees． | 525 | 15 5 | $\begin{array}{r}2,437 \\ \hline 476\end{array}$ | 6.783 308 | 839 1,402 38,040 | 2，995 | － 96 | $\begin{array}{r}95 \\ 484 \\ 41 \\ \hline\end{array}$ | $\begin{array}{r}2,707 \\ \hline\end{array}$ | $\overline{1,277}$ 1.042 | $\begin{array}{r} 16,396 \\ 4,479 \\ 39,123 \end{array}$ |
| Totals，Net Indirect Debt（less Sinking Funds）． | 5，025 | 20 | 3，854 | 10，204 | 299， 185 | 394，441 | 841 | 654 | 3，161 | 20，485 | 737，870 |
| Totals，Net Direct and Indirect Debt（less Sink－ ing Funds）．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．．． | 9，974 | 14，754 | 142，812 | 151，475 | 674，115 | 1，076，120 | 98，680 | 151，683 | 137，892 | 222.306 | 2，679，811 |

## 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. Four of the provinces have other miscellaneous types of assessment, the general nature of which will be noted from the footnotes to Table 44.

It should be noted that the figures in Table 44 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 1950 ranged from nil to 75 p.c. In the majority of cases, improvements were assessed for tax purposes at 50 p.c. of taxable values, but for all municipalities the total improvements actually taxed represented approximately 51 p.c. of total taxable values. It should also be noted that Table 45 does not include assessed valuations in Improvement Districts for either Saskatchewan or Alberta. In Saskatchewan these amounted to $\$ 26,874,190$ in 1946, $\$ 26,892,080$ in 1947 , $\$ 28,777,035$ in 1948 , $\$ 31,412,435$ in 1949 and $\$ 26,535,545$ in 1950; in Alberta the figures for the same years were $\$ 62,753,779, \$ 68,645,962$, $\$ 65,713,818, \$ 68,244,456$ and $\$ 53,557,822$, respectively. In addition, there are other intra-provincial inconsistencies between municipalities which, in turn, further affect interprovincial comparisons. These may be said to be owing to 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. Some provinces, however, have made considerable progress along these lines in recent years.

[^360]44.-Municipal Assessed Valuations, by Provinces, 1946-50

| Province and Year | Taxable Valuations on which Taxes were Levied |  |  |  |  | Total <br> Exemptions |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Real Property | Personal <br> Property | Business | Other ${ }^{1}$ | Total |  |
| N'f'ld.-1949...1950... | \$ | \$ | \$ | \$ | \$ | \$ |
|  | . | . | . | . | . |  |
|  |  |  | . | . | .. | $\cdots$ |
| P. E. I. - ${ }^{2}$ | 10,984,447 | 4,502, 720 |  |  |  |  |
| 1947... | 11,425,735 | 4,656,100 | $\ldots$ | $\ldots$ | $15,487,167$ $16,081,835$ | 6.101,500 |
| 1948. | 12,272,825 | 5,353,199 | $\ldots$ | ... | 16,081,835 | $6,176.500$ $7,456.500$ |
| 1949 | 13,714,935 | 5,777,847 | $\cdots$ | $\ldots$ | 17,626,024 | $7,456,500$ $7,456,500$ |
| 1950. | 16,872,045 | 6,085,510 | $\ldots$ | $\ldots$ | 22,957,555 | 8,588,500 |
| N. S.- |  |  |  |  |  |  |
| 1946. | 157,154,637 | 28,015,764 | 10,153,105 | 3,716,785 | 199,040,291 | 93,799,064 |
| 1947. | 163,793,261 | 30,708,957 | 10,473,500 | 3,831,875 | 208, 807,593 | $95,469,188$ |
| 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 |
| N. B.- |  |  |  |  |  |  |
| 1946. | 172,431,970 | 25,603,181 | 17,628, $210{ }^{3}$ | $\ldots$ | 215,663,361 |  |
| 1947. | 202,428,452 | 33,671,051 | 21,704, 1533 | $\cdots$ | 257, 803,656 | $\because$ |
| 1948. | 216,747,760 | 39, 148,968 | 24, 838,762 ${ }^{3}$ | . | 280,735,490 |  |
| 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 | 5,649,356 | 325, 112,684 | $\cdots$ |
| Que.- |  |  |  |  |  |  |
| 1946... | $\cdots$ | $\cdots$ | . | $\cdots$ | . | . |
| 1948... | . | . | $\cdots$ | .. | 2,870,933,000 | 909,585,000 ${ }^{4}$ |
| 1949.. | .. | . | .. | $\cdots$ |  |  |
| 1950.. | .. | . | .. | .. | 2,530,702,000 ${ }^{5}$ | $863,845,000+$ |
| Ont.- |  |  |  |  |  |  |
| 1946.. | 2,890,673,352 | $\ldots$ | 282,781,011 | $\cdots$ | 3,173,454,363 | 440,985,000 ${ }^{\text {6 }}$ |
| 1947. | 3,030,283,255 | ... | 316,084, 049 | $\ldots$ | 3,346,367,304 | 639,762,954 |
| 1948. | 3,097,590,198 | ... | 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 |
| Man.- |  |  |  |  |  |  |
| 1946. | 445,388, 974 | 5,655,410 | 12,442,215 | ... | 463,485,899 | 159,400,109 |
| 1947. | 459, 840,343 | 6,416,250 | 14,902,614 | $\ldots$ | 481,159, 207 | 156,403,203 |
| 1948. | 497,463,070 | 6.444,105 | 18,689,579 | ... | 522,596,754 | 145,537,582 |
| 1949. | 545, 455,305 | $6.765,685$ | 20,686,352 |  | 572,907,342 | 150,227, 268 |
| 1950. | 567,470,959 | 6,865,910 | 23,655,349 |  | 597,993,218 | 150,610,692 |
| Sask.- |  |  |  |  |  |  |
| 1946. | 782,937, 261 | ... | 40,073, 658 | 541,552 | 823,552,471 | 98,992,996 |
| 1947. | 807,306,328 | ... | $42,162,089$ | 374,900 | 849,843,317 | 105,992,261 |
| 1948. | 828,407,584 | $\ldots$ | 44,521,364 | 224,200 | 873,153,148 | 126,093,885 |
| 1949. | $820,489,189$ | $\ldots$ | $44,803,884$ | 74, 830 | 865,367,903 | 125,049,181 |
| 1950. | 840,894,583 |  | 45,421, 203 | 72,780 | 886,388,566 | 129,356.385 |
| Alta.- |  |  |  |  |  |  |
| 1946. | 516,607,849 | 13.026.153 | 13,120,380 | 3,297,738 | 546, 052, 120 | 65, 334,428 |
| 1947. | 558,870, 813 | 12,902,881 | 14,547,559 | 3,726,747 | 590,048,000 | 66,463,605 |
| 1948. | 589,099,501 | 18,205, 092 | 16,859,447 | 2,484,7C0 | 626,648,740 | 71,396,730 |
| 1949. | $635,773,891$ | 26,337,662 | 19,690,072 | ... | 681, 801,625 | 76,510,667 |
| 1950. | 696,367,285 | 26,501,370 | 24,392,850 | . | 747,261,505 | 88,450,368 |
| B. C.- |  |  |  |  |  |  |
| 1946. | 448,357,2767 | $\cdots$ | $\cdots$ |  | 448,357, 376 | 433,520,3198 |
| 1947. | 487,636,072 ${ }^{\text {7 }}$ | ... | ... | ... | 487,636,072 | 454,327,275 ${ }^{8}$ |
| 1948. | 528,714,7507 | $\cdots$ | $\ldots$ | ... | $528,714,750$ | 495, 603, $290{ }^{8}$ |
| 1949. | 573,460,2567 | $\ldots$ | ... | , | 573,460,256 | 530,676, $133{ }^{8}$ |
| 1950.... | 622,441,7217 | ... | ... | ... | 622,441,721 | $574.779 .149^{8}$ |

[^361]While complete figures for tax-exempt properties are not available for each province, 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 stimulus to business and industry in general arising from the War and the buoyancy of the economy in succeeding years.

## Subsection 2.-Municipal Taxation

Table 45 shows, by provinces, the taxes levied by municipalities in the years 1946-50 inclusive, and the total taxes outstanding at the end of those years. Although these figures are as nearly comparable as existing published reports permit, nevertheless, they still reflect some inconsistencies owing particularly to intraprovincial variations in the division of responsibility for tax administration between municipalities and school authorities. In some instances, school taxes are not included in the municipal levies.

## 45.-Municipal Taxation, by Provinces, 1946-50


#### Abstract

Notz. - These figures include school taxes only to the extent that such are levied and collected by the municipalities on behalf of local school authorities. Taxes are not included for schools outside incorporated municipal organizations.


| Province and Year | Tax Levy | Tax Collections, Current and Arrears |  | Taxes Receivable Current and Arrears | Property Acquired for Taxes | Total Taxes Receivable and Property Acquired for Taxes |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | P.C. of Levy |  |  | Total | $\left\lvert\, \begin{aligned} & \text { P.C. of } \\ & \text { Levy } \end{aligned}\right.$ |
|  | \% | \$ |  | \$ | § | \$ |  |
| Newfoundland- |  |  |  |  |  |  |  |
| 1949. | 931.215 | 845,334 | $90 \cdot 8$ | 265,703 | $\cdots$ | 265,703 | 28.5 |
| 1950. | 1,030,979 | 969,971 | $94 \cdot 1$ | 353,138 | ... | 353,138 | $34 \cdot 3$ |
| P. E. Island-1 |  |  |  |  |  |  |  |
| 1946......... | 393,791 | 403,666 | $102 \cdot 5$ | 132,449 | . | 132,449 | $33 \cdot 6$ |
| 1947. | 445,532 | 456,380 | $102 \cdot 4$ | 232, 808 | $\ldots$ | 232,808 | $52 \cdot 3$ |
|  | 472,380 | 472,589 | $100 \cdot 0$ | 222,960 | .. | 222,960 | $47 \cdot 2$ |
| 1949. | 777,767 | 781,625 | 97.9 | 225,577 | .. | 225,577 | 29.0 |
|  | 864,602 | 822,688 | $95 \cdot 2$ | 244,482 | .. | 244,482 | $28 \cdot 3$ |
| Nova Scotia- |  |  |  |  |  |  |  |
| 1946......... | 10,705,668 | 10,635,395 | $99 \cdot 3$ | 3,227,837 | 204,500 | 3,432,337 | $32 \cdot 1$ |
| 1947. | 12,054,778 | 11,437,476 | 94.9 | 3,713,902 | 198,637 | 3,912,539 | $32 \cdot 5$ |
| 1948 | 12,707,972 | 12,342,248 | $97 \cdot 1$ | 3,806,377 | 195, 841 | 4, C02,218 | 31.5 |
| 1949. | 13, 610,727 | 13,199,199 | 96.9 | 4,038, 184 | 179,418 | 4,217,602 | 31.0 |
| 1950. | 14,320,422 | 13,946,136 | 97.4 | 4,203,943 | 1,007,109 | 5,211,052 | 36.4 |
| New Brunswick- |  |  |  |  |  |  |  |
| 1946.............. | 7,350,4072 | 7,350,087 ${ }^{2}$ | $99 \cdot 3$ | 3,040, 178 |  | 3,040,178 | 41.4 |
| 1947. | 8,023, $491{ }^{2}$ | 7,673,308 ${ }^{2}$ | $95 \cdot 6$ | 2,704,833 | 93,674 | 2,798,507 | 34.9 |
| 1948. | $9,141,136^{2}$ $11,116.4711^{2}$ | 8,426,1732 ${ }^{\text {8 }}$ | 92.2 | 2,792,139 | 88,474 | 2,880, 613 | 31.5 |
| 1950. | 12,294,380 ${ }^{2}$ | 11, 178,375 ${ }^{2}$ | 91.8 91.0 | $3,544,853$ $4,356,118$ | 80,629 183,070 | $3,625,482$ $4,539,188$ | $32 \cdot 6$ 36.9 |
| Quebec-o |  |  |  |  |  |  |  |
| Ontario- |  |  |  |  |  |  |  |
| 1946. | 117,628,950 | 117,925,376 | $100 \cdot 3$ | 11,115,210 | 8,033,594 | 19,148,804 | 16.3 |
| 1947 | 135,402,232 | 133,406,269 | 98.5 | 10,885,288 | 5,135,715 | 16,021,093 | 11.8 |
| 1948. | 149,450,795 | 148,963,661 | 99.7 | 12,765,099 | 6,163,786 | 18,928,885 | 12.7 |
| 1950. | $170,378,640$ $188,959,809$ | $167,154,308$ $187,672,943$ | 98.1 99.3 | 16,223,329 | 5,385,640 | 21, 608,969 | $12 \cdot 7$ |

For footnotes, see end of table, p. 1074.
45.-Municipal Taxation, by Provinces, 1946-50-concluded

| Province and Year | Tax Levy | Tax Collections, Current and Arrears |  | Taxes 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 |
|  | \$ | \$ |  | \$ | \$ | $\delta$ |  |
| Manitoba- |  |  |  |  |  |  |  |
| 1946. | 21,850,851 | 24,078,551 | $110 \cdot 2$ | 3,321,263 | 5,875,686 | 9,196,949 | $42 \cdot 1$ |
| 1947. | 22,913,313 | 22,495,093 | 98.2 | 3,570,625 | 4,758,020 | 8,328,645 | 36.3 |
| 1943 | 27,154,286 | 26,210,912 | 96.5 | 4,447,077 | 4,549,261 | 8,996,338 | $33 \cdot 1$ |
| 1949 | 30,423,998 | 29,223, 263 | 96.1 | 5,528,560 | 4,266,927 | 9,795,487 | $32 \cdot 2$ |
| 1950. | 32,658,247 | 30,416,670 | $93 \cdot 1$ | 6,977,569 | 3,769,230 | 10,746,799 | 33.0 |
| Saskatchewan-4 |  |  |  |  |  |  |  |
| 1946. | 26,778,439 | 27,825,445 | 103.9 | $11,309,019$ | 11, 272,746 | 22,581,765 | 84.3 |
| 1947. | 29,337,261 | 28,712,019 | 97.9 | 10,392,172 | 10,605,292 | 20,997,464 | 71.6 |
| 1948. | 33,207,061 | $32,267,890$ $33,671,898$ | 97.2 93.6 | $9,665,762$ $10,412,745$ | $10,029,034{ }^{\text {r }}$ $9,407,765$ | $19,694,796$ $19,820,510$ | $59 \cdot 3 \mathrm{r}$ 55.1 |
| $\begin{aligned} & 1949 . \\ & 1950 . \end{aligned}$ | $35,960,687$ $38,177,754$ | $33,671,898$ $35,081,615$ | $93 \cdot 6$ 91.9 | $10,412,745$ $12,115,867$ | $9,407,765$ $8,725,251$ | $19,820,510$ $20,841,118$ | $55 \cdot 1$ 54.6 |
| Alberta-s |  |  |  |  |  |  |  |
| 1946. | 23,290,792 | 24,633,528 | $105 \cdot 8$ $100 \cdot 7$ | $6,748,050$ $6,380,108$ | 12,833,210 | $19,581,260$ $17,790,232$ | 84.1 67.7 |
| 1947. | 26,290,949 | $26,474,274$ $30,991,142$ | $100 \cdot 7$ $100 \cdot 5$ | $6,380,108$ $6,171,764$ | 11, $12,150,324$ | 18,322,088 | 69.7 59.4 |
| 1949. | 35,003,570 | 34,759,892 | 99.3 | 7,650,413 | 11,028,278 | 18,678,691 | 53.4 |
| 1950................. | 39,562,655 | 37,311,961 | $94 \cdot 3$ | 10,608, 071 | 10,772,481 | 21,380,552 | $54 \cdot 0$ |
| British Columbia- |  |  |  |  |  |  |  |
| 1946. | $22,623,665$ | $22,684,018$ | $100 \cdot 3$ 98.5 | $1,613,434$ $1,976,956$ | 8,207,688 $7,423,629$ | $9,821,122$ $9,400.585$ |  |
| 1947................. | $\begin{aligned} & 25,473,598 \\ & 28,694,669 \end{aligned}$ | $\begin{aligned} & 25,093, \text { C44 } \\ & 28,118.167 \end{aligned}$ | 98.5 98.0 | 1,976,956 | $\begin{aligned} & 7,423,629 \\ & 6,627,977 \end{aligned}$ | $9,400,585$ $9,175,174$ | 36.9 32.0 |
| 1948................. | 28,694,669 | $28,118,167$ $31,119,127$ | 98.0 98.6 | 2,547,197 | $6,627,977$ $6,160,178$ | $9,175,174$ $9,184,412$ | $32 \cdot 0$ 29.1 |
| 1950.................. | 33,292,455 | 33,555,169 | $100 \cdot 8$ | 3,135,089 | 5,989,343 | 9,124,432 | 27.4 |

[^362]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 45 as a basis for interprovincial comparisons of the relative burden of municipal taxation. Also, in Saskatchewan and Alberta, 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. The amounts of such taxes included in the municipal levies in these two provinces, are as follows:-

| Province and Tax 1946 | 1947 | 19/8 | 19.49 | 1950 |
| :---: | :---: | :---: | :---: | :---: |
| \$ | \$ | 8 | \$ | \$ |
| Saskatchewan - <br> Public revenue taxes (provincial) ., 1,661,667 | 1,636,076 | 1,662,404 | 1,689,059 | 1,756, 869 |
| Public revenue taxes (taprovi........ 2, 106,250 | 2,293,634 | 2,067,203 | 1,770,416 | 1,936,645 |
| Totals, Saskatchewan........3,767,917 | 3,929,710 | 3,729,607 | 3,459,475 | 3,693,514 |
| Alberta- <br> Educational and wild lands taxes (provincial) ..................... 1,009,951 ${ }^{1}$ |  |  |  |  |
|  | 9,965 | 11,864 | 9,101 | 16,561 |

[^363]There has been a slow steady rise in the trend of municipal tax levies in recent years. While most provinces show increases, this does not necessarily mean an increased burden on the individual taxpayer in all instances, but is the result, in part at least, of increased assessed valuations. In Nova Scotia and New Brunswick the increases are, to a considerable extent, owing to the establishment of larger school units, so that certain municipalities are now levying taxes formerly levied by rural school boards. During the years 1946-50, tax collections continued high in relation to total levies, resulting in substantial reductions in the amount of taxes outstanding, although these are still relatively high in most provinces. The situation varies considerably for different classes of municipalities.

Reference has been made heretofore to the Improvement Districts in Saskatchewan and Alberta which, although not incorporated municipalities, are maintained more or less as self-sustaining areas on such a basis by the provincial governments. Taxation figures for these Districts are excluded from Table 45, but by reason of the special significance attached to them in relation to municipal organization in these provinces, and the fact that they may become incorporated, or part of existing municipalities at some future date, the corresponding information with regard to them is shown in Table 46.
46.-Taxation in Improvement Districts of Saskatchewan and Alberta, 1946-50

| Province and Year | Tax Levy | Tax Collections, Current and Arrears |  | Taxes Receivable, Current and Arrears | Property Acquired for Taxes | Total Taxes Receivable and Property Acquired for Taxes |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | P.C. of Levy |  |  | Total | $\begin{aligned} & \text { P.C. of } \\ & \text { Levy } \end{aligned}$ |
| Saskatchewan-l | \$ | $\delta$ |  | \$ | \$ | \$ |  |
| 1946.................. | 686,023 | 716,446 | 104-4 | 1,202,423 | 233,457 | 1,435,880 | $209 \cdot 3$ |
| 1947.................. | 755,824 | 722,871 | $95 \cdot 6$ | 1,189,069 | 254,876 | 1,443,945 | $191 \cdot 0$ |
| 1948. | 936,871 | 981,978 | 104.8 | 1,097,074 | 269,016 | 1,366,090 | $145 \cdot 8$ |
| 1949................... | 1,059,128 | 998,933 | 94.3 | 998,607 | 316,755 | 1,315,362 | $124 \cdot 2$ |
| 1950................... | 922,214 | 807,596 | 87.5 | 896,170 | 385,940 | 1,282,110 | $139 \cdot 0$ |
| Alberta- |  |  |  |  |  |  |  |
| 1946. | 1,944,378 | 2.314,184 | 119.0 | 3,408,445 | .. | 3,408,445 | $175 \cdot 3$ |
| 1947. | 2,189, 138 | 2,380,949 | 108.8 | 2,851,758 |  | 2,851,758 | $130 \cdot 3$ |
| 1948 | 2,117,557 | 2,321,189 | $109 \cdot 6$ | 2,197,955 | . | 2,197,955 | 103.8 |
| 1949. | 2,826,748 | 2,707,741 | 95.8 | 2,021.843 | .. | 2,021,843 | 71.5 |
| 1950. | 2,338, 172 | 2,219,100 | 95.0 | 1,837,339 | .. | 1,837,339 | 78.6 |
| Totals- |  |  |  |  |  |  |  |
| 1946. | 2,630,401 | 3,030,630 | 115-2 | 4,610,868 | 233,457 | 4,844,325 | 184-2 |
| 1947 | 2,944,962 | 3,103,820 | $105 \cdot 4$ | 4,040,827 | 254,876 | 4,295,703 | 145.9 |
| 1948 | 3,054,428 | 3,303,167 | 108.1 | 3,295,029 | 269,016 | 3,564,045 | 116.7 |
| 1949. | 3,885,876 | 3,706,674 | 95.4 | 3,020,450 | 316,755 | 3,337,205 | 85.9 |
| 1950. | 3,260,386 | 3,026,496 | 92.8 | 2,733,509 | 385,940 | 3,119,449 | 95.7 |

${ }^{1}$ Includes public revenue (provincial) taxes amounting to $\$ 53,558$ in $1946, \$ 53,619$ in 1947, $\$ 56,636$ in 1948 , $\$ 62,329$ in 1949 and $\$ 52,834$ in 1950 .

## 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 the least important of which was the measure of control exercised by 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, that 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 to the needs of the Federal Government in meeting war financing requirements. Since the end of the War, however, municipalities, denied improvement programs for so long, have been getting these under way, resulting in increased amounts of debenture debt. Table 47 shows figures of municipal indebtedness for 1949 and 1950 and includes temporary loans and other liabilities in addition to debenture debt.

## 47.-Debt of Municipal and School Corporations for their Fiscal Years Ended in 1949 and 1950

Note.-Figures for Quebec are not available. 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 Edward Island |  | Nova Scotia |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 | 1950 | 1949 | 1950 | 1949 | 1950 |
|  | \$ | 8 | 8 | 8 | 8 | 8 |
| Direct Debt- |  |  |  |  |  |  |
| Debenture debt | $3,001,060$ 121,155 | $3,000,940$ 155,211 | $3,327,540$ $1,095,584$ | $3,302,461$ $1,108,682$ | $39,321,540$ $15,940,862$ | $\begin{aligned} & 42,797,170 \\ & 15,055.025 \end{aligned}$ |
| Net Debenture Debt..... | 2,879,905 | 2,845,729 | 2,231,956 | 2,193,779 | 23,380,678 | 27,742,145 |
| Temporary loans | 196,741 | 289,258 | 239,111 | 764,254 | 6,219,681 | 7,147,077 |
| Accounts payable and other liabilities. | 235,213 | 453,643 | 24,173 | 72,841 | 2,135,414 | $2.605,147$ |
| Totals, Direct Liabilities (less Sinking Funds). | 3,311,859 | 3,588,630 | 2,495,240 ${ }^{1}$ | 3,030,874 | 31,735,773 ${ }^{1}$ | 37,494,369 ${ }^{1}$ |
| Indirect Debt- <br> Guaranteed bonds, debentures, etc. Less Sinking Funds....... |  |  |  |  |  |  |
|  | . | .. | . | .. | 969,000 | 1,301,000 |
|  | .. | . | . | $\ldots$ | 140,402 | 171,843 |
| Totals, Indirect Liabilities (less Sinking Funds) | .. | .. | .. | .. | 828,598 | 1,129,157 |
| Grand Totals | 3,311,859 | 3,588,630 | 2,493,240 ${ }^{1}$ | 3,030,874 ${ }^{1}$ | 32,564,371 ${ }^{1}$ | 38,623,526 ${ }^{1}$ |

For footnote, see end of table.
47.-Debt of Municipal and School Corporations for their Fiscal Years Ended in 1949 and 1950-concluded

| Direct and Indirect Debt | New Brunswick |  | Ontario |  | Manitoba |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1949 | 1950 | 1949 | 1950 | 1949 | 1950 |
|  | § | 5 | 8 | \$ | \$ | \$ |
| Direct DebtDebenture debt Less Sinking Funds. $\qquad$ | 37,075,478 | 41,401,809 | 292,542,2362 | 363,577,852 ${ }^{2}$ | 55,058,894 | 55,037,724 |
|  | 9.607,397 | 9,627,802 | 15,824,031 | 14,290,227 | 23,901,211 | 21.889,961 |
| Net Debenture Debt...... | 27.468.081 | 31.774,007 | 276,718,205 | 349,287,625 | 31,157,683 | 33,147,763 |
| Temporary loans. Accounts payable and other liabilities. ....... | 2,450.526 | 3.169.979 | $34,338,259^{\circ}$ | $32,040,861^{3}$ | 9.004, 296 | 12,367.397 |
|  | 2.935.6014 | 2.458 .0604 | 37,512,020 | 40,514,265 | 6.572.628 | 7.380,899 |
| Totals, Direct Liabilities (less Sinking Funds). | 32,854,208 | 37,402,046 | 348,568,484 | 421,842,751 | 46,734,607 | 52,896,059 |
| Indireet Debt- <br> Guaranteed bonds, debentures, etc. <br> Less Sinking Funds....... | $\begin{aligned} & 796,500 \\ & 127.207 \end{aligned}$ | $\begin{array}{r} 689.500 \\ 37.396 \end{array}$ | $\begin{array}{r} 16,171,891 \\ 265,179 \end{array}$ | $\begin{array}{r} 13.710,555 \\ 514.746 \end{array}$ | $\begin{array}{r} 15,167,413 \\ 7,134,983 \end{array}$ | $\begin{array}{r} 14,882,640 \\ 7,313,921 \end{array}$ |
| Totals Indirect Liabil- (liles (less Sinking Fands)..................... | 669,293 | 652,104 | 15,306,712 | 13,195,809 | 8,032,430 | 7,568,719 |
| Grand Totals........ | 33,523,501 | 38,054,150 | 364,475,196 | 435,038,560 | 54,767,037 | 60,464,778 |
|  | Saskatchewan |  | Alberta |  | British Columbia |  |
|  | 1949 | 1950 | 1949 | 1950 | 1949 | 1950 |
| Direct Debt- <br> Debenture debt. <br> Less Sinking Funds. | \$ | \$ | \$ | S | 8 | 8 |
|  | 30,140.887 | 32,034, 973 | 63,184.998 | 80.428 .360 | 137,617.817 | 146,350.783 |
|  | 9.761.004 | 8,498,440 | 1.933,781 | 1,784,697 | 37,826,993 | 38.124.730 |
| Net Debenture Debt..... | 20,379,883 | 23,536.533 | 61,251,217 | 78,643,663 | 99,790,824 | 108, 226, 053 |
| Temporary loans. Accounts payable and other liabilities....... | 2.608,439 | 3.244 .202 | 2.744.762 | 3,606,304 | 932,500 | 1,266,477 |
|  | 12.024,670 | 14.256.868 | 12,368,619 ${ }^{\text {s }}$ | 21,066.724 ${ }^{\text {s }}$ | 9,438,392 | 6,806,785 |
| Totals, Direct Liabilities (less Sinking Funds). | 35,012,992 | 41,037,603 | 76,364,598 | 103,316,691 | 110,161,716 | 116,299,315 |
| Indirect Debt- <br> Guaranteed bonds, debentures, etc. <br> Less Sinking Funds........ | $\cdots$ | $\cdots$ | . | $\cdots$ | $\begin{array}{r} 21,233.152 \\ 4,193.586 \end{array}$ | $\begin{array}{r} 21,492,617 \\ 4,491,476 \end{array}$ |
| Totals, Indirect LabiliIties (less Sinking Funds)............... | .. | . | .. | . | 17,039,566 | 17,001,141 |
| Grand Totals....... | 35,012,992 | 41,037,603 | 76,364,598 | 103,316,691 | 127,201,282 | 133,300,456 |

[^364]of that decline. The decreases in debenture debt were due to the factors mentioned on p. 1076, while improved tax collections made it possible for municipalities to avoid heavy temporary borrowings and reduce other current liabilities. However, debenture debt figures are intended to represent only principal unmatured. In general, principal past due, whether in default or unpaid because of non-presentation, is included with accounts payable and other liabilities.
48.-Debenture Principal and Interest Due, by Provinces, 1946 and 1948-50

Note.-Figures for Quebec are not available.


# CHAPTER XXIV.-NATIONAL ACCOUNTS AND RELATED STATISTICS 

\author{

CONSPECTUS <br> \begin{tabular}{|c|c|c|}

\hline Section 1. National Accounts. . . . . . . 1079 \& | Section 3. Corporation Profits and |
| :--- |
| Income to Shareholders............ | \& \[

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1091
\end{gathered}
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\] <br>

\hline | Section 2. Canada's International In- |
| :--- |
| vertment Pobition. $\qquad$ | \& Section 4. Federal Incorporation of Companies. \& 109 <br>

\hline
\end{tabular}

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.-National Accounts*

The national accounts, in summarizing the nation's economic transactions, make possible the study of interrelationships in the economic system as a whole. They are particularly important to governments concerned with problems of full employment, taxation and prices, and to businessmen concerned with programs of investment and marketing.

The main body of the national accounts provides a summary of production and consumption in terms of prices established in the market. Thus, it is necessary to keep in mind that the value of the nation's production may change because of price changes as well as changes in the volume of output. When the resources of the economy are fully employed the volume of goods and services produced can increase but slowly from one year to the next in response to population growth and additions to the country's real wealth, or as a result of more efficient utilization of existing resources. Consequently, a rapid rise in the value of output under conditions of full employment is explained mainly by price increases. However, when there are unemployed resources in the country, a substantial increase in the value of production of goods and services may occur from one year to the next if these resources are brought into use, even though prices remain stable.

Data are now available showing volume changes as well as price changes in gross national expenditure. Gross national expenditure is shown in constant dollars (i.e., in terms of average prices prevailing in the period 1935-39) in Table 3. Since 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, and year-to-year changes in these tables must be considered in relation to price changes over the period.

The tables presented here cover the more important aspects of the national income analysis. Tables 1 and 2 show the main aggregates of national income, gross national product, gross national expenditure, and their components; Table 3 shows gross national expenditure in constant dollars and other tables are included

[^365]to show the source and disposition of personal income, government revenue and expenditure, and personal expenditure on consumer goods and services. Further information on national accounts can be obtained by reference to D.B.S. bulletins on National Accounts.*

National Income.-Net national income at factor cost or, more briefly, national income, is the income currently earned by persons in productive pursuits, whether their services are rendered to business, to governments or directly to the consuming public. It includes the earnings of residents of Canada from the current year's production of goods and services, that is, the sum of salaries and wages, supplementary labour income (employer contributions to unemployment insurance, pension funds, Workmen's Compensation funds and income in kind, etc.), profits, interest, net rent and net income of agriculture and other unincorporated business.

Gross National Product.-Gross national product is the market value of all final goods and services produced in the year. It is equal to national income plus net indirect taxes (indirect taxes less subsidies), plus depreciation allowances and similar business costs.

Gross National Expenditure.-Gross national expenditure measures the same aggregate as gross national product, namely, the total production of final goods and services at market prices. However, gross national product is measured in terms of costs, whereas gross national expenditure is obtained by adding together all sales and adjusting them for imports and changes in inventories. Four broad types of sales can be distinguished: sales to persons, to governments, to business on capital account (gross domestic investment including changes in inventories), and to non-residents (exports). The total of these sales includes imports of goods and services but as the purpose is to measure only domestic production available for Canadian residents, imports of goods and services, including net payments of interest and dividends to non-residents, are deducted.

Personal Income.-Personal income is the sum of current receipts of income whether or not these receipts represent earnings from production. Thus, it includes (in addition to salaries and wages, net income of unincorporated business, interest and dividends and net rental income of persons) transfer payments from governments, such as family allowances, unemployment insurance benefits and war service gratuities. It does not include undistributed profits of corporations and other elements of the national income not paid out to persons.

Historical Perspective.-Between 1926 and 1951-slightly less than a generation-gross national product increased four fold in value. A substantial part of this apparent growth was the result of rising prices; however, it will be seen from Table 3 that the growth in physical production was, nevertheless, 136 p.c. The population of Canada in this period increased by 48 p.c. so that the per capita growth in physical product was close to 60 p.c., an indication of the growth in living standards and prosperity that occurred during this period. This increase is the

[^366]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 3); the relative changes in the proportion of government revenue represented by direct and indirect taxes (Table 6); and changing consumer preferences as revealed by the composition of personal expenditure (Table 8).

Current Perspective.-Gross National Product and National Income.-Gross national product in 1951 was estimated at $\$ 21,200,000,000$, a 17 p.c. increase over the 1950 total of $\$ 18,100,000,000$. A substantial part of this increase was due to the general increase in prices at which the total output of goods and services is valued. After having made allowance for these price changes, however, there remained an increase in total real output of over 5 p.c. Further comment is made below on the manner in which this increase in real output was absorbed by major groups such as consumers, governments and businesses (for investment purposes). It should be noted that the figure of 5 p.c. is based on recently developed statistical procedures and that, while it is believed sufficiently accurate for the analytical conclusions based upon it, it must be regarded as a preliminary statistic. The increase in total output was accompanied by a gain of almost 3 p.c. in the employed labour force. There was a continuation of the shift from agricultural to nonagricultural pursuits, so that the increase in the employed non-agricultural labour force was in excess of the over-all increase.

National income in 1951 was estimated at $\$ 17,200,000,000$, an increase of 18 p.c. over the preceding year. Wages, salaries and supplementary labour income, the largest component of national income, amounted to $\$ 9,600,000,000$ in 1951 , a gain of 17 p.c. over 1950, while investment income, which consists of corporation profits, interest and net rental income received by persons, government investment income and a number of other items, showed an average increase of 18 p.c. over 1950 . In the unincorporated business sector, there was a very large increase of 38 p.c. in accrued net income of farm operators from farm production. Approximately 25 p.c. of the total increase in volume output of gross national product is accounted for by agriculture. A large part of the increase in net income was due to a nearrecord wheat crop. It should be noted that adverse weather conditions resulted in a large amount of grain being left in the fields, and this addition to farm inventories was included with the figure of farm net income. On the other hand, net income of non-farm unincorporated business, which includes unincorporated retailers, unincorporated manufacturing establishments, professionals and unincorporated service establishments, increased by only 5 p.c.
1.-National Income and Giross National Product, Selected Years, 1926-51
(Millions of dollars)

| Item | 1926 | 1929 | 1933 | 1939 | 1944 | 1946 | 19501 | $1951{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wages, salaries and supplementary labour income. | 2,358 | 2,929 | 1,778 | 2,575 | 4,940 | 5,323 | 8,271 | 9,640 |
| Military pay and allowances | 7 | 8 | 8 | 32 | 1,068 | 340 | 137 | 201 |
| Investment income... | 685 | 836 | 299 | 917 | 1,829 | 1,975 | 3,088 | 3,655 |
| Net Income of Unincorporated Business- |  |  |  |  |  |  |  |  |
| Accrued net income of farm operators from farm production.... | 619 | 408 | 74 | 385 | 1,185 | 1,112 | 1,547 | 2,138 |
| Net income of non-farm unincorporated business | 516 | 608 | 293 | 464 | 804 | 1,071 | 1,512 | 1,595 |
| Net National Income at Factor Cost | 4,185 | 4,789 | 2,452 | 4,373 | 9,826 | 9,821 | 14,555 | 17,229 |
| Indirect taxes less subsidies. | 612 | 681 | 537 | 733 | 1.111 | 1.269 | 2,005 | 2,386 |
| Depreciation allowances and similar business costs...................... | 558 | 709 | 547 | 610 | 957 | 903 | 1,607 | 1,763 |
| Residual error of estimate | -61 | -13 | 16 | -9 | 60 | 33 | -45 | -137 |
| Gross National Product at Market Prices. | 5,294 | 6,166 | 3,552 | 5,707 | 11,954 | 12,026 | 18,122 | 21,241 |

: Includes Newfoundland.
Gross National Expenditure.-Gross national expenditure indicates the manner in which the nation's output is absorbed. In 1951, 50 p.c. of the increase in total volume output was utilized by the Government sector, largely as a result of the growing defence program. The remainder was accounted for almost entirely by a continued high level of investment in durable physical assets. There was no increase in the real amount taken by consumers. A small increase occurred in the physical volume absorbed by inventory accumulation but this was partly offset by the change in the negative amount represented by the net foreign deficit.

The volume of personal expenditure failed to increase in 1951. since the over-all value increase of 10 p.c. was almost exactly matched by the price rise. Expenditure on durable goods declined significantly in physical terms, although in value terms 1951 expenditure was about equal to that of the previous year. Expenditure on goods and services by federal, provincial and municipal governments rose by $\$ 797,000,000$, or approximately 34 p.c., from $\$ 2,323,000,000$ in 1950 to $\$ 3,120,000,000$ in 1951. Most of this increase was accounted for by the rise in federal defence spending from $\$ 493,000,000$ in 1950 to $\$ 1,160,000,000$ in 1951 , a gain of 135 p.c. The major components of gross domestic investment showed divergent movements in 1951. Investment in new housing decreased by about 3 p.c. in value and by about 16 p.c. in volume and average cost was estimated to be about 15 p.c. higher than in the previous year. Investment in new non-residential construction increased by about 18 p.c. in value, however, the increase in volume was only 6 p.c. Investment in new machinery and equipment showed a very large increase, amounting to 18 p.c. in physical volume, the result of heavy spending in basic industries and utilities. The large inventory accumulation of $\$ 1,700,000,000$ in 1951 consisted of farm inventory increases of $\$ 400,000,000$ and increases in business inventories, totalling $\$ 1,300,000,000$.

For the second year in succession, net foreign investment was negative. The over-all deficit, represented by the difference between 'exports of goods and services' and 'imports of goods and services' in Table 2, was even larger than that experienced in 1950. Despite the deficit, the Canadian dollar strengthened its position on the international market and exchange reserves remained at a high level.

## 2.-Gross National Expenditure, Selected Years, 1926-51 <br> (Millions of dollars)

| Item | 1926 | 1929 | 1933 | 1939 | 1944 | 1946 | $1950{ }^{1}$ | $1951{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Personal expenditure on consumer goods and services. | 3,687 | 4,393 | 2,887 | 3,904 | 6,187 | 7,977 | 11,862 | 13,062 |
| Government expenditure on goods and services. | 521 | 682 | 526 | 735 | 5,022 | 1,832 | 2.323 | 3,120 |
| Gross Domestic InvestmentNew residential construction. | 212 | 247 | 76 | 185 | 225 | 371 | 801 | 778 |
| New non-residential construction. | 240 | 486 | 79 | 166 | 257 | 443 | 1,026 | 1,215 |
| New machinery and equipment. . | 357 | 597 | 84 | 254 | 377 | 584 | 1,389 | 1,814 |
| Change in inventories............. | 88 | 61 | -82 | 331 | -46 | 519 | 1,005 | 1,650 |
| Exports of goods and services...... | 1,650 | 1,632 | 826 | 1,451 | 3,561 | 3,210 | 4,185 | 5,099 |
| Deduct: Imports of goods and services. | -1,522 | -1,945 | -828 | -1,328 | -3,569 | -2,878 | -4,514 | -5,633 |
| Residual error of estimate | +61 | +13 | -16 | +9 | -60 | -32 | +45 | +136 |
| Gross National Expenditure at Market Prices. | 5,294 | 6,166 | 3,552 | 5,707 | 11,954 | 12,026 | 18,122 | 21,241 |

${ }^{1}$ Includes Newioundland.
3.-Gross National Expenditure in Constant (1935-39) Dollars, Selected Years, 1926-51
(Millions of dollars)

| Item |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |

[^367]Personal Income, Personal Saving and Spending.-Personal income in 1951 amounted to $\$ 15,818,000,000$, an increase of over 17 p.c. as compared with 1950 . The increase approximated that shown by important components such as wages and salaries, interest and dividends and net rental income of persons and the large increase in net income of farm operators also included in this figure. Direct personal tax collections rose sharply from $\$ 735,000,000$ in 1950 to $\$ 1,016,000,000$ in 1951 , a gain of $\$ 281,000,000$, or 38 p.c. This increase is almost wholly accounted for at the federal level owing to higher levels of personal income and to the defence surcharge imposed in the Budget of April 1951. Personal expenditure amounted to $\$ 13,100,000,000,10$ p.c. above 1950 . The composition of personal expenditure is shown in Table 8 at p. 1086.

Subtracting personal taxes and personal expenditure from personal income, personal saving of $\$ 1,740,000,000$ is obtained for 1951 . This represents the amount saved during the year, not the total accumulated savings of persons, which would be very much greater. Savings include not only liquid savings in the form of cash and government bonds but also net repayment of debt, increase in homeowner's equity and the reinvested earnings of farms and small businesses.

## 4.-Sources of Personal Income, Selected Years, 1926-51

(Millions of dollars)

| Item | 1926 | 1929 | 1933 | 1939 | 1944 | 1946 | $1950{ }^{1}$ | $1951^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wages, salaries and supplementary labour income. | 2,358 | 2,929 | 1,778 | 2,575 | 4,940 | 5,323 | 8.271 | 9,640 |
| Deduct: Employer and employee contributions to social insurance and government pension funds... | -17 | -27 | -21 | -35 | $-133$ | -149 | -259 | -316 |
| Military pay and allowances. | 7 | 8 | 8 | 32 | 1,068 | 340 | 137 | 201 |
| Net income received by farm operators from farm production...... | 607 | 407 | 103 | 435 | 1,206 | 1,090 | 1,446 | 2,191 |
| Net income of non-farm unincorporated business. | 516 | 608 | 293 | 464 | 804 | 1,071 | 1,512 | 1,595 |
| Interest, dividends and net rental income of persons. | 528 | 616 | 471 | 602 | 836 | 957 | 1,290 | 1,454 |
| Transfer payments (excluding in-terest)- | 74 | 93 | 181 | 229 | 259 | 1,106 | 1.012 | 1,001 |
| Charitable contributions from corporations. | 74 | 93 | 181 | 22 | 11 | 1,106 12 | 1.012 25 | 27 |
| Net bad debt losses of corporations. | 15 | 18 | 28 | 12 | 11 | 11 | 23 | 25 |
| Totals, Personal Income | 4,092 | 4,657 | 2,843 | 4,320 | 9,002 | 9,761 | 13,457 | 15,818 |

[^368]
## 5.-Disposition of Personal Income, Selected Years, 1926-51

(Millions of dollars)

| Item | 1926 | 1929 | 1933 | 1939 | 1944 | 1946 | 19501 | $1951{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Personal Direct Taxes- |  |  |  |  |  |  |  |  |
| Income taxes. | 22 | 34 | 38 | 62 | 772 | 711 | 612 | 890 |
| Succession duties. | 16 | 16 | 13 | 28 | 39 | 54 | 63 | 63 |
| Miscellaneous taxes................ | 15 | 18 | 18 | 22 | 27 | 31 | 60 | 63 |
| Purchases of goods and services. | 3,687 | 4,393 | 2,887 | 3,904 | 6,187 | 7,977 | 11,862 | 13,062 |
| Personal saving. . . . . . . . . . . . . . | 352 | 196 | -113 | 304 | 1,977 | 988 | 860 | 1,740 |
| Totals, Personal Income | 4,092 | 4,657 | 2,843 | 4,320 | 9,002 | 9,761 | 13,457 | 15,818 |

${ }^{1}$ Includes Newfoundland.
6.-Federal, Provincial and Municipal Government Revenue and Surplus or Deficit, Selected Years, 1926-51
(Millions of dollars)

| Item | 1926 | 1929 | 1933 | 1939 | 1944 | 1946 | 19501 | $1951{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Direct Taxes: Persons- |  |  |  |  |  |  |  |  |
| Income taxes. | 22 | 34 | 38 | 62 | 772 | 711 | 612 | 890 |
| Succession duties. | 16 | 16 | 13 | 28 | 39 | 54 | 63 | 63 |
| Miscellaneous taxes. | 15 | 18 | 18 | 22 | 27 | 31 | 60 | 63 |
| Direct Taxes: CorporationsIncome and excess profits taxes. | 34 | 48 | 37 | 115 | 598 | 654 | 1,023 | 1,444 |
| Withholding taxes................ | - | 18 | 5 | 10 | 27 | 29 | ${ }^{54}$ | 1, 56 |
| Indirect taxes. | 614 | 686 | 545 | 716 | 1,378 | 1,505 | 2,069 | 2,519 |
| Investment IncomeInterest $\qquad$ | 63 | 74 | 75 | 71 | 105 | 120 | 154 | 175 |
| Profits of government business enterprises. | 25 | 29 | -37 | 19 | 222 | 243 | 240 | 239 |
| Employer and employee contributions to social insurance and government pension funds....... | 17 | 27 | 21 | 35 | 133 | 149 | 259 | 316 |
| Deficit or surplus (on transactions relating to the national accounts). | -56 | -9 | +174 | +41 | +2,566 | +133 | -693 | -1,064 |
| Totals, Reven | 750 | 923 | 889 | 1,119 | 5,867 | 3,629 | 3,841 | 4,701 |

${ }^{1}$ Includes Newfoundland,
7.-Federal, Provincial and Municipal Government Expenditure, Selected Years, 1926-51
(Millions of dollars)

| Item | 1926 | 1929 | 1933 | 1939 | 1944 | 1946 | 19501 | 1951 ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Purchase of goods and services..... | 521 | 682 | 526 | 735 | 5,022 | 1,832 | 2,323 | 3,120 |
| Transfer Payments- |  |  |  |  |  |  |  |  |
| Interest. | 153 | 143 | 174 | 172 | 319 | 455 | 442 | 447 |
| Other. | 74 | 93 | 181 | 229 | 259 | 1,106 | 1,012 | 1,001 |
| Subsidies | 2 | 5 | 8 | -17 | 267 | 236 | 64 | 133 |
| Totals, Expenditure......... | 750 | 923 | 889 | 1,119 | 5,867 | 3,629 | 3,841 | 4,701 |

[^369]
## 8.-Personal Expenditure on Consumer Goods and Services, Selected Years, 1930-51

(Millions of dollars)

| Item | 1930 | 1939 | 1944 | 1946 | $1950{ }^{1}$ | $1951{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Food. | 1,068 | 919 | 1,769 | 2,085 | 3,040 | 3,436 |
| Tobacco and alcoholic beverages. | 277 | 281 | 624 | 846 | 1,072 | 1,158 |
| Clothing and personal furnishings. | 570 | 490 | 966 | 1,191 | 1,553 | 1,647 |
| Sheiter. | 692 | 629 | 807 | 866 | 1,354 | 1,517 |
| Household operation. | 551 | 522 | 660 | 935 | 1,492 | 1.547 |
| Transportation. | 374 | 392 | 465 | 771 | 1,441 | 1,546 |
| Personal and medical care and death expenses. | 273 | 257 | 369 | 478 | 748 | 826 |
| Miscellaneous............................... | 399 | 414 | 527 | 805 | 1,162 | 1,385 |
| Totals. | 4,204 | 3,904 | 6,187 | 7,977 | 11,962 | 13,062 |
| Durable goods. | 308 | 292 | 296 | 590 | 1,320 | 1,318 |
| Non-durable goods. | 2,363 | 2,210 | 3,928 | 5,073 | 7,115 | 7,864 |
| Services .... ... | 1,533 | 1,402 | 1,963 | 2,314 | 3,427 | 3,880 |

${ }^{1}$ Includes Newfoundland.

## 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 immediately before World War II which, in turn, were lower than the earlier peak period around 1930. Net indebtedness to other countries in 1950 was about $\$ 4,100,000,000$ compared with more than $\$ 6,000,000,000$ in 1930 . The 1950 figure was higher than that for 1949 at $\$ 3,730,000,000$, and there was also an increase in 1951.

British and 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 repatriations of securities. As a result of these divergent trends in British and United States investments, total non-resident investments in Canada increased only moderatcly during World War II.

[^370]In the post-war years there was a substantial increase in the value of United States capital invested in Canada. The largest increases occurred in the years following 1948, particularly in 1950 and 1951 when there were substantial net inflows of United States capital. The increase in the value of United States investments in Canada in the six years 1946 to 1951 amounted to about $\$ 2,250,000,000$. The growth in direct investments in Canadian branches, subsidiaries and controlled companies accounted for approximately $\$ 1,600,000,000$ of this increase and increased holdings of government and municipal bonds for about $\$ 450,000,000$. The accelerated rate in the later post-war years was due to the development of petroleum production and other resources. Throughout the period, reinvested earnings accounted for more than one-half the increased investment. Portfolio holdings of government and other securities increased each year, except for 1947. There were particularly large increases in holdings of Government of Canada issues in 1950 through a demand for outstanding domestic issues, and in 1951 in holdings of provincial and municipal bond sales in the United States. Direct investments in companies in Canada controlled in the United States made up the largest part of United States investments. In 1950 , such investments were valued at $\$ 3,442,000,000$ in 2,568 concerns. By the end of 1951 the value of this group of investments had risen to $\$ 3,900,000,000$ out of total investments of United States capital in Canada of approximately $\$ 7,235,000,000$.

At the end of 1951 , British investments of $\$ 1,772,000,000$ were only slightly higher in value than at the end of World War II. A considerable increase in these investments occurred in 1950 and 1951 in the direct investment group, and the totals since 1949 also increased significantly by the inclusion of British investments in Newfoundland. The principal change in the post-war period in investments of other countries in Canada occurred in 1951, when a substantial increase took place, mainly through larger portfolio holdings of Canadian stocks.

Canadian capital has been the principal source of financing for Canadian development in the past 20 years or more. Investment, which was subnormal during the 1930 's, showed notable expansion in certain fields during World War II and rose to peak levels in the post-war years. Even in 1950 and 1951, when capital inflows were very substantial, the proportion of investment financed by non-resident capital was minor. In those years the net contribution by non-residents and foreign controlled companies to the savings used for all types of investment in Canada was only about one-seventh 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. It is difficult to express this relationship in terms of any simple ratio, however, because of the variety of types of investment which must be compared. Important changes have taken place also in the relative positions of different types of investment. Non-resident holdings of Canadian bonds constitute a much smaller proportion of the outstanding funded debt of Canadian governments and corporations than before World War II. The external holdings of Canadian bonds represented only about 15 p.c. of the total Canadian funded debt at the end of 1951 compared with about one-third of the bonds outstanding in 1939. The most conspicuous feature in this change in ownership has been the great increase in Canadian holdings. As a result of wartime financing, Canadian holdings of Canadian bonds rose from about $\$ 6,500,000,000$ in 1939 to $\$ 19,200,000,000$ in 1951. Non-resident holdings did not change much in total between these two years and a decline in British holdings, through wartime repatriation, was offset by a rise in United States holdings in the past few years.

Non-resident ownership of Canadian industry, mines, railways and public utilities was estimated in 1950 to be about 32 p.c. of the total capital invested, a percentage less than the corresponding ratio at the beginning of World War II. The ratio of non-resident ownership in Canadian manufacturing companies in 1949 was estimated at about 44 p.c. The percentages for the different groups of the manufacturing industry varied considerably but was greatest in the non-ferrous metal industry, being close to 75 p.c., as compared with about 25 p.c. in the textile industry; in the chemical industry it was more than 50 p.c. and in the vegetable products, animal products, wood and paper products, iron and its products and the non-metallic minerals groups the ratio was between 33 p.c. and 50 p.c. Furthermore, in some subdivisions of these industries, non-resident ownership and control were predominant even though only the minor parts of the groups, when taken as a whole, were owned abroad. Other important industrial subdivisions were mainly Canadian owned and controlled, such as the primary iron and steel and the cotton textile industries.

Non-resident ownership of railways was large, being 43 p.c. in 1949. The mining and smelting field was also developed to an important extent by external capital, the ratio of non-resident ownership being 42 p.c. Some major units in this field were non-resident controlled.

In financial institutions, non-resident ownership was substantial but nonresident control was largely limited to branches of foreign insurance companies; Canadian banks, trust companies and most Canadian insurance companies were mainly Canadian controlled.

External capital has occupied a very important role in the development of the petroleum industry, United States investment in all branches of the industry amounting to about 50 p.e. of the total at the end of 1951 , as is shown in the following statement:-

Estimated Book Value of Investment in Canada in All Petroleum Compantes (exploration, development, refining, transportation and merchandising) Classified by Country of Control and Country of Ownership (Millions of dollars)

| Dec. 31,1951 | Investment of Residents of |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Canada | United | $\begin{aligned} & \text { United } \\ & \text { Kingom } \\ & \text { and Dther } \\ & \text { Countries } \end{aligned}$ | Total |
| Investment in Companies- |  |  |  |  |
| Controlled in Canada | 381 | 80 | $\overline{8}$ | ${ }_{759}^{461}$ |
| Controlled in United States............. | 197 | 556 |  |  |
| countries............................... |  |  | 5 | 5 |
| Totals.... | 578 | 636 | 11 | 1,225 |
| Dec. 31,1945 |  |  |  |  |
|  |  |  |  |  |
| Controlled in Canada ...................... | 115 57 | 108 | ${ }_{6}^{1}$ | 171 |
| Controlled in United Kingdom and other |  |  |  |  |
| countries................................. |  |  | 2 | 2 |
| Totals.. | 172 | 115 | 9 | 296 |
|  | $\underline{ }$ |  | $=$ |  |

From 1946 to 1951, capital inflow from the United States for petroleum investment amounted to about $\$ 532,000,000$, or over 33 p.c. of the net capital movement from that country to Canada. The book value of United States ownership in the
industry, which reflects profits and losses and accounting adjustments in addition to capital movements, rose from $\$ 115,000,000$ to $\$ 636,000,000$, or from 39 p.c. to 52 p.c. of the aggregate book value of the industry in Canada. United States investment in United States controlled companies in Canada was valued at $\$ 556,000,000$ or 45 p.c. of the industry at the end of 1951.
9.-Estimated British and Foreign Capital Invested in Canada, by Types of Investmant, as at Dec. 31, 1933, 1933, 1315 and 1913-53

| Type of Investment | 1933 | 1939 | 1946 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000.000 | \$'000,000 |
| Government Securities- | 751-9 | 823.0 | $750 \cdot 0$ | 823.0 | $975 \cdot 0$ | 1,141.0 |
| Provincial | 571.7 | 536.0 | 594.0 | $528 \cdot 0$ | $534 \cdot 0$ | $565 \cdot 0$ |
| Municipal. | 394-4 | $344 \cdot 0$ | $267 \cdot 0$ | 248.0 | $246 \cdot 0$ | $256 \cdot 0$ |
| Totals, Government Securities. | 1,718-0 | 1,703.0 | $1.611 \cdot 0$ | 1,599•0 | $1.755 \cdot 0$ | 1,962.0 |
| Public UtilitiesRailways. | 2.244-7 | $1.870 \cdot 6$ | 1,583.0 | 1,504•0 | 1,445•0 |  |
| Other.... | $625 \cdot 4$ | 1.849 .4 | 1,557.0 | 1, 468.0 | 1,491.0 | 1,543.0 |
| Totals, Public Utilities. | 2,870-1 | $2.420 \cdot 0$ | 2,140.0 | $1.972 \cdot 0$ | 1,939.0 | $1.999 \cdot 0$ |
| Manufacturing | 1,421.6 | 1,445-2 | 1,895.0 | 2,317.0 | $2.539 \cdot 0$ | 2,763.0 |
| Mining and smelting | 338.5 | $329 \cdot 1$ | $386 \cdot 0$ | $424 \cdot 0$ | $494 \cdot 0$ | $628 \cdot 0$ |
| Merchandising. | 191.5 | $189 \cdot 3$ | $238 \cdot 0$ | $262 \cdot 0$ | $279 \cdot 0$ | $310 \cdot 0$ |
| Financial institutions | $479 \cdot 6$ | $472 \cdot 7$ | $557 \cdot 0$ | $5+1 \cdot 0$ | $548 \cdot 0$ | 566.0 |
| Other enterprises. | $75 \cdot 2$ | 69.0 | 69.0 | 78.0 | 83.0 | 98.0 |
| Miscellaneous assets | $270 \cdot 0$ | $285 \cdot 0$ | $282 \cdot 0$ | 298.0 | $302 \cdot 0$ | $320 \cdot 0$ |
| Totals, Investment. | 7,361.5 | 6,913-3 | 7,178.0 | 7,491.0 | 7,939-0 | 8,646.0 |
| British ${ }^{1}$ | 2,682-8 | $2.475 \cdot 9$ | 1,668.0 | 1,593.0 | 1,694.0 | 1,723.0 |
| United States ${ }^{2}$ | 4,491.7 | 4,151-4 | 5,157.0 | 5,566.0 | 5.905.0 | 6,565.0 |
| Other countries | $190 \cdot 0$ | 286.0 | $353 \cdot 0$ | $332 \cdot 0$ | $340 \cdot 0$ | 358.0 |

${ }^{1}$ Includes some investments held in the United Kingdom for residents of other countries. ${ }^{2}$ Includes some investments held in the United States for residents of other countries.

## 10.-Estimated British and Foreign Capital Invested in Canada, by Types of Investment, Classified by Estimated Distribution of Ownership, as at D.s. 31, 1950

Notr.-Common and preference 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 Cana tian dollars at the par of exchange.

${ }^{1}$ Includes some investments held in the United Kingdom and the United States for residents of other countries.

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 liquid reserves in foreign currencies, rose from $\$ 1,876,000,000$ in 1939 to $\$ 5,454,000,000$ at the end of 1950 . 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 1950, Canadian Government credits outstanding totalled $\$ 1,990,000,000$. Included in this total was about $\$ 256,000,000$ outstanding on the 1942 loan to the United Kingdom, $\$ 1,185,000,000$ drawn on the 1946 loan to the United Kingdom and $\$ 535,000,000$ of post-war export credits and advances. In addition, at the end of 1950, official liquid reserves, including gold and official United States dollar balances, aggregated about $\$ 1,876,000,000$ and these reserves were higher at that date than in any earlier year. In addition, Canada had subscribed in 1946 and 1947 to the capital of the International Bank and the International Monetary Fund and by the end of 1951 such subscriptions 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 amounted to only a minor part of the total, chiefly because of the sharp rise in officially owned assets. Total privately owned portfolio investments abroad declined in value since 1939 because of the liquidations of Canadian holdings of United States securities. Portfolio holdings of foreign securities owned in Canada were reduced from $\$ 719,000,000$ at the end of 1939 to $\$ 598,000,000$ at the end of 1950. This decline was less than the total sales of these securities by private investors during the period, as there was a considerable increase in the book value of holdings of United States stocks. Appreciable gains occurred in Canadian direct investments in businesses outside Canada which had a value of $\$ 990,000,000$ at the end of 1950 compared with $\$ 671,000,000$ at the end of 1939. By the end of 1951, the value of this group of investments had risen to well over $\$ 1,100,000,000$.
> 11.-Canadian Assets Abroad, 1939, 1946 and 1948-50

Note.-Excludes investments of insurance companies.

| Assets | 1939 | 1946 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| Direct investments in businesses outside Canada... Portiolio holdings of foreign securities............. | 671 719 | 772 551 | 788 605 | 904 638 | 990 598 |
| Rortiolio holdings of foreign securities.................. | 31 | 1,362 | 1,878 | 2,000 | 1,990 |
| Official balances abroad and gold | 455 | 1,251 | 1,006 | 1,232 | 1,876 |
| Totals, Canadian Assets Abroad. | 1,876 | 3,936 | 4,277 | 4,774 | 5,454 |

12.-Estimated Canadian Investments Abroad, as at Dec. 31, 1950

Nore.-Excludes investments of insurance companies, banks, government credits, and liquid reserves. 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 were converted into Canadian dollars at current market rates.

| Location of Investment | Direct Investments | Portfolio Investments |  |  | Total Investments |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Stocks | Bonds | Total |  |
|  | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| United States. | 760 | 298 | 91 | 389 | 1,149 |
| United Kingdom.................. | 64 | 19 | 18 | 37 | 101 |
| Other Commonwealth countries. | 86 | ${ }^{6}$ | 8 | 14 | 100 |
| Other foreign countries. ......... | 80 | 125 | 33 | 158 | 238 |
| Totals. | 990 | 448 | 150 | 598 | 1,588 |

The privately owned Canadian investments abroad are chiefly in the United States, the total value of investments in that country at the end of 1950 being $\$ 1,149,000,000$. Investments in other foreign countries in 1950, chiefly in Latin America, were $\$ 238,000,000$, while investments in the United Kingdom were $\$ 101,000,000$, and in other Commonwealth countries $\$ 100,000,000$. These figures exclude the investments abroad of Canadian insurance companies and banks, as well as the official assets referred to in Table 12, and certain small amounts of miscellaneous investments that were difficult to evaluate.

## 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 1950 are based on the reports, Taxation Statistics, published 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 of Canadian corporations are shown in Table 13 for selected years 1926-51. From a high of $\$ 530,000,000$ in 1929, they dropped to $\$ 17,000,000$ in 1932 but, with the exception of a decline in 1938, rose steadily from 1932 to 1942, the wartime peak. From 1944 to 1948 corporation profits showed a continuous increase and after a slight decline in 1949 they rose to $\$ 2,850,000,000$ in 1951.

During the period 1926 to 1939, tax liabilities were much more stable than profits, ranging from a low of $\$ 32,000,000$ in 1932 to a high of $\$ 115,000,000$ in 1939. After the outbreak of war, tax rates rose sharply, largely owing to the imposition of the excess profits tax, and ranged from 40 p.c. to 50 p.c. of profits during the war period. In 1948, tax liabilities were 35 p.c. of profits, but increases in the next three years brought the tax rate up to over 50 p.c. in 1950, a percentage about the same as the wartime high. Since profits in 1951 were well above the level of any previous year, liabilities in 1951 of $\$ 1,444,000,000$ were $\$ 423,000,000$ more than in 1950 and $\$ 713,000,000$ over those of 1949.

Dividends paid out by corporations (excluding dividends paid to other corporations) follow a more even course than profits or taxes. Thus, in 1932, when corporation profits after taxes were $-\$ 15,000,000$, dividends paid amounted to $\$ 157,000,000$; while in 1951 profits after taxes were $\$ 1,406,000,000$ and dividends paid were $\$ 696,000,000$.

Undistributed corporation profits reached a peak in 1948 of $\$ 788,000,000$ and were lower in the three following years as a result of higher taxes and larger dividend payments. The low point of the series was reached in 1932 when corporations paid out in taxes and dividends $\$ 172,000,000$ more than they earned in profits.

Analysis by Industries.-Detailed data on profits by industries are available only for the years since 1944. Corporation profits as shown in Table 14 do not agree with those in the national accounts since the national accounts figures include depletion charges and charitable donations. Adjustments are made for renegotiation of war contracts and for conversion to a calendar-year basis in Table 14 and it should be noted that federal income taxes only are deducted from profits in arriving at profits after taxes. Provincial taxes were not significant in amount in the years 1944 to 1946 but, beginning with 1947, they were levied at the rate of 7 p.c. of profits in Ontario and Quebec and at 5 p.c. in the other provinces. Profits of Newfoundland corporations are included for 1950 only.

Between 1949 and 1950, profits of all corporations before taxes increased $28 \cdot 7$ p.c. Of the 34 sub-groups listed in the table, only five showed decreases. The most significant increases were in the other metal mining, pulp and paper, wood and wood products, petroleum products, rubber, machinery, chemicals, paints and drugs, automobiles, transportation communication and storage, wholesale trade and other financial institutions groups. The most significant declines were in transportation equipment except automobiles, and the chartered banks and insurance companie groups.

The structure of profits after taxes is very similar to that before taxes, since the rate increased only slightly between 1949 and 1950.
13.-Profits, Taxes and Dividends of Canadian Corporations, Selected Years, 1926-51
(Millions of dollars)

| Item | 1926 | 1929 | 1932 | 1933 | 1939 | 1942 | 1944 | 1946 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Corporation profits before taxes | 403 | 530 | 17 | 128 | 689 | 1,292 | 1,221 | 1,455 | 1,906 | 2,450 | 2,850 |
| Deduct: income and excess profits taxes.. | 34 | 48 | 32 | 37 | 115 | 629 | 598 | 654 | 731 | 1,023 ${ }^{2}$ | 1,444 ${ }^{\text {2 }}$ |
| Corporation profits after taxes.. | 369 | 482 | -15 | 91 | 574 | 663 | 623 | 801 | 1,175 | 1,427 | 1,406 |
| Deduct: dividends paid and charitable donations......... | 190 | 271 | 157 | 168 | 302 | 308 | 282 | 390 | 568 | 681 | 696 |
| Undistributed corporation profits. | 179 | 211 | -172 | -77 | 272 | 355 | 341 | 411 | 607 | 746 | 710 |

[^371]
14.-Corporation Profits, by Industries, Before and After Federal Income Taxes, 1916 and 1918-50
Nore.-Figures are for the company fiscal years ended in the calendar years 1946 and 1948-50. Source: Taxation Statistics, published annually by the Taxation Division, Department of National Revenue, Ottawa.

| Industry | Net Income Before Taxes |  |  |  | Net Income After Federal Income Taxes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1946 | 1948 | 1949 | 1950 | 1946 | 1948 | 1949 | 1950 |
|  | \$'000,000 | \$'000,000 | \$ 000,000 | \$ 060,000 | '000,000 | \$'000,000 | \$'000,000 | \$ 000,000 |
| Agriculture | $2 \cdot 2$ | $2 \cdot 6$ | $2 \cdot 1$ | $1 \cdot 7$ | 0.8 | 1.5 | 1.2 | 0.9 |
| F ishing. | $1 \cdot 3$ | 1.0 | 1.0 | $1 \cdot 3$ | $0 \cdot 8$ | 0.6 | $0 \cdot 6$ | 0.9 |
| Forestry | $3 \cdot 1$ | 9.8 | $4 \cdot 0$ | $12 \cdot 7$ | 1.2 | $6 \cdot 5$ | $2 \cdot 4$ | $8 \cdot 4$ |
| Gold mining. | 16.2 | 13.8 | 11.6 | 13.6 | $8 \cdot 2$ | 8.9 | $7 \cdot 4$ | 8.7 |
| Other metal mining | $54 \cdot 0$ | 106.4 | 94.8 | 125.8 | 28.7 | 73.7 | $63 \cdot 6$ | $82 \cdot 7$ |
| Other mining....... | 9.4 | 13.7 | 14.9 | 19.1 | 4.7 | 7.6 | $8 \cdot 8$ | $10 \cdot 8$ |
| Animal food products | 14.5 | 25.2 | $15 \cdot 2$ | 23.8 | $8 \cdot 2$ | 16.9 | $10 \cdot 3$ | $15 \cdot 8$ |
| Yegetable food produc | 46.9 | 67.4 | $60 \cdot 7$ | 61.4 | 24.9 | $45 \cdot 1$ | $40 \cdot 3$ | 39.8 |
| Alcoholic beverages | $69 \cdot 5$ | 58.8 | $59 \cdot 3$ | $64 \cdot 1$ | $32 \cdot 2$ | 39.8 | $40 \cdot 2$ | $42 \cdot 5$ |
| Tobacco.......i. | 11.6 | 13.6 | 13.2 | $15 \cdot 5$ | $6 \cdot 6$ | $9 \cdot 6$ | 8.9 | $10 \cdot 1$ |
| Textile and textile product | 67.8 | $92 \cdot 7$ | 81.2 | 81.2 | $35 \cdot 7$ | 63.0 | 54.4 | 53.4 |
| Wood and wood products. | 37.8 | 77.5 | $47 \cdot 3$ | 85.3 | $19 \cdot 1$ | 51.4 | 31.1 | $57 \cdot 0$ |
| Pulp and naper.... | 138.3 | 213.9 | 188.5 | 271.0 | 71.4 | $147 \cdot 1$ | 126.0 | $178 \cdot 1$ |
| Chemicals, paints and drug | $57 \cdot 1$ | 70.4 | 63.6 | 87.1 | 29.9 | 49.0 | $42 \cdot 3$ | $57 \cdot 6$ |
| Petroleum products | 41.5 | 38.2 | 29.6 | $64 \cdot 2$ | 26.5 | 27.8 | 20.5 | $42 \cdot 5$ |
| Rubber..... | 12.4 | $10 \cdot 8$ | $4 \cdot 6$ | $20 \cdot 3$ | $6 \cdot 5$ | $7 \cdot 5$ | $2 \cdot 8$ | 13.4 |
| Non-metallic mineral prod | 12.8 21.5 | $9 \cdot 3$ | ${ }^{6 \cdot 6}$ | 6.4 | $6 \cdot 5$ | $6 \cdot 0$ | $4 \cdot 3$ | $4 \cdot 2$ |
| Iron and steel products.. | 21.5 37.3 | 33.3 59.7 | 38.0 58.8 | 51.4 66.9 | 10.9 19.7 | 22.8 41.3 | 25.6 39.9 | $33 \cdot 8$ 44.4 |
| Primary iron and steel. | 18.0 | 41.8 | 58.8 | 66.8 60.1 | 19.7 10.0 | 41.3 29.0 | 39.9 33.8 | 44.4 30.6 |
| Non-ferrous smelting and refining and products. | 27.8 | 41.8 51.4 | 58.0 | $70 \cdot 4$ | 15.4 | 28.0 35.7 | 33.8 35.5 | 38.6 46.5 |

## 14.-Corporation Profits, by Industríés, Before and After Federal Incomé Tares, 1946 and 1948-50-concluded

| Industry | Net Income Before Taxes |  |  |  | Net Income After Federal Income Taxes |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1946 | 1948 | 1949 | 1950 | 1946 | 1948 | 1949 | 1950 |
|  | \$'000,000 | 8'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 | \$'000,000 |
| Machinery | 61.1 | 128.4 | $131 \cdot 4$ | $160 \cdot 1$ | $30 \cdot 1$ | 88.1 | 87.4 | 105.9 |
| Transportation equipment except automobiles. | $20 \cdot 2$ | 18.0 |  |  | 9.0 | 12.0 | 12.6 | 105.9 7.3 |
| Automobiles......................... | $10 \cdot 2$ | $18 \cdot 0$ $44 \cdot 3$ | 18.4 68.3 | $11 \cdot 6$ 94.0 | $9 \cdot 0$ $5 \cdot 3$ | ${ }_{32 \cdot 1}^{12 \cdot 0}$ | $12 \cdot 6$ | -3 |
| Miscellaneous manufactured products. | $15 \cdot 1$ | 14.0 | 13.5 | 16.4 | 7.2 | 32.1 9.2 | $9 \cdot 0$ | 11.0 |
| Construction | $11 \cdot 4$ | 35.0 | 41.1 | 50.9 | 7.2 | 9.2 23 | 9.0 28.1 | $11 \cdot 0$ 34.7 |
| Heat, light and power | $35 \cdot 7$ | 33.5 | 36.4 | $42 \cdot 7$ | $20 \cdot 2$ | $23 \cdot 3$ | $24 \cdot 6$ | $\stackrel{28.1}{ }$ |
| Iransportation, communication and storage. | $89 \cdot 6$ | 83.8 | $68 \cdot 6$ | $114 \cdot 1$ | 47.8 | $54 \cdot 8$ | 44.2 | 74.8 |
| Other public utilities................ | $3 \cdot 0$ | $5 \cdot 0$ | $3 \cdot 4$ | $3 \cdot 6$ | 1.6 | $5 \cdot 5$ | $2 \cdot 3$ | 2.4 |
| Wholesale trade | 119.9 | 156.4 | $150 \cdot 5$ | $203 \cdot 3$ | $60 \cdot 6$ | 105.9 | $102 \cdot 9$ | 137.8 |
| Retail trade | 148.8 | 173.9 | $163 \cdot 2$ | $176 \cdot 4$ | $66 \cdot 6$ | $115 \cdot 1$ | 113.8 | 120.8 |
| Services.. | 38.0 | $41 \cdot 1$ | 41.8 | $41 \cdot 3$ | $19 \cdot 7$ | $27 \cdot 1$ | 29.1 | 28.4 |
| Chartered banks and insurance companies | 28.8 | $42 \cdot 8$ | $60 \cdot 6$ | 51.9 | 13.5 | 31.0 | 42.9 | $34 \cdot 0$ |
| Other financial institutions | 51.6 | 63.9 | $57 \cdot 2$ | 86.2 | 31.1 | 46.8 | 39.7 | 59.7 |
| Companies not classified.. | 0.3 | 0.3 | - | 0.1 | $0 \cdot 1$ | $0 \cdot 1$ | - | - |
| Total Profits, All Corporations ${ }^{1}$. . | 1,334-7 | 1,851-7 | 1,752-5 | 2,255-9 | 685.9 | 1,265-5 | 1,182 - 4 | 1,497•7 |
| Adjustment to National Income Estimate ${ }^{1}$. | $120 \cdot 3$ | $103 \cdot 3$ | 153.5 | $194 \cdot 1$ | $115 \cdot 1$ | $4 \cdot 5$ | -7-4 | -70.7 |
| Total Profits, National Income Estimates. | 1,455.0 | 1,955.0 | 1,906.0 | 2,450.0 | $801 \cdot 0$ | 1,270-0 | 1,175.0 | 1,427.0 |

${ }^{1}$ Total profits of all corporations shown here differ from those presented in Table 13 which are used for national income purposes-see text at p. 1092.

## Section 4.-Federal Incorporation of Companies

Statistics of companies incorporated under the Companies Act are given in Table 15.
15.-Numbers and Capitalizations of Companies Incorporated under the Dominion Companies Act and Amendments, Years Ended Mar. 31, 1942-51
Note.-Statistics for the years 1900-25 will be found at p. 1061 of the 1938 Year Book and for 192f-41 at p. 934 of the 1942 edition. Capitalization includes consideration of the amounts of capital received on the issue of shares without nominal or par value.

| Year | New Companies |  | Old Companies with- |  |  |  | Gross Increase in Capitalization | Net Increase in Capitalization |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Increased Capitalization |  | Decreased Capitalization |  |  |  |
|  | No. | Capitalization | No. | Amount | No. | Amount |  |  |
|  |  | \$ |  | \$ |  | \$ | \$ | \$ |
| 1942. | 211 | 50,606,141 | 40 | 15.760,300 | 39 | 54,964.907 | 66.366,441 | 11,401,534 |
| 1943 | 205 | $51,630,000$ | 35 | 56.198,739 | 29 | 7,728,436 | 107.828.739 | 100,100.303 |
| 1944 | 217 | 53,462,000 | 59 | 31.351 .380 | 52 | 18,204,490 | 84, 813,380 | 66. 608.890 |
| 1945 | 412 | 56.719,900 | 51 | 108,411,400 | 20 | 10.680, 250 | 165.131,300 | $154.451,050$ |
| 1946. | 649 | 187,588,775 | 88 | 129,163,798 | 32 | 15.407.127 | 316.752,573 | 301,345,446 |
| 1947. | 910 | 206,547,650 | 121 | 147,084, 194 | 60 | 157.365, 948 | 353.631.844 | 196,265, 896 |
| 1948. | 717 | 176,891,600 | 109 | 109,305.261 | 54 | 68.941, 194 | 286, 196.861 | 217.255,667 |
| 1949. | 669 | 163,407,950 | 92 | 115, 233,095 | ${ }_{51} 61$ | 115,029,743 | ${ }^{278,641.045}$ |  |
| 1950. | 690 | 132,426,495 | 71 | 120,432,957 | 57 55 | $34,042.682$ $60,809,421$ | $252,859,452$ $628,092,515$ | $218,816,770$ $567,283,094$ |
| 1951. | 611 | 329,117,200 | 367 | 298,975,315 | 55 | 60,809,421 | 628,092,515 | 567,283,094 |

During the year ended Mar. 31, 1951, 148 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, 29 corporations without share capital were granted Letters Patent under Part II of The Companies Act, 1934.

## CHAPTER XXV.-CURRENGY AND BANKING; MISCELLANEOUS COMMERCIAL FINANCE

| 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.

## PART I.-GURRENCY AND BANKING

A historical sketch of currency and banking in Canada, tracing certain features of the central banking system that finally led up to the establishment of the Bank of Canada appears at pp. 900-905 of the 1938 Year Book. In chronological order these were:-
(1) Central Note Issue, permanently established with the issue of Dominion notes under legislation of 1868 .
(2) The Canadian Bankers' Association, established in 1900 and designed to effect greater co-operation among the banks in the issue of notes, in credit control and in various aspects of bank activities.
(3) The Central Gold Reserves, established by the Bank Act of 1913.
(4) Rediscount Facilities, originated as a war measure by the Finance Act of 1914, and made a permanent feature of the system by the Finance Act of 1923. This Act empowers the Minister of Finance to issue Dominion notes to the banks on deposit by them of approved securities, thus providing the banks with a means of increasing their legal tender cash reserves at will.

## Section 1.-The Bank of Canada

The Bank of Canada Act and Its Amendments.-The Bank of Canada was incorporated in 1934 and commenced operations on Mar. 11, 1935. An account of the capital structure of the Bank and its transition from a privately owned institution to one wholly government owned is given at p. 800 of the 1941 Year Book.

The Bank is authorized to pay cumulative dividends of $4 \frac{1}{2}$ p.c. per annum from its profits after making such provision as the Board thinks proper for bad and doubtful debts, depreciation in assets, pension funds, and all such matters as are properly provided for by banks. The Act provided that the remainder of the
profits were to be paid, in specified proportions, into the Rest Fund of the Bank (so long as it remained less than twice the paid-up capital) and the Consolidated Revenue Fund. Since 1944, when the transfer brought the Rest Fund up to slightly more than twice the paid-up capital, the whole of the remaining profits have been paid into the Consolidated Revenue Fund.

The Bank may buy and sell securities of the Government of Canada and Provincial Governments without restriction if of a maturity not exceeding two years, and in limited amounts if of longer maturity; short-term securities of the Government of Canada and Provincial Governments may be rediscounted. The Bank may buy and sell short-term securities of Commonwealth countries, the United States or France without restriction if maturing within six months, and such securities having a maturity exceeding six months in limited amounts. The Bank may buy and sell certain classes of commercial paper of limited currency and, if endorsed by a chartered bank, may rediscount such commercial paper. Advances for sixmonth periods may be made to chartered banks, Quebec Savings Banks, the Government of Canada or any Provincial Government against certain classes of collateral, and advances of specified duration may be made to the Government of Canada or any Provincial Government in amounts not exceeding a fixed proportion of such Government's revenue. The Bank may accept deposits that do not bear interest from the Government of Canada or Provincial Governments, or from any chartered bank or any bank inrorporated under the Quebec Savings Banks' Act. 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 provisions regarding the note issue of the Bank of Canada are dealt with at p. 1100 .

The Bank of Canada Act ( $24-25$ Geo. V, c. 43 , as amended) provides that the Bank shall maintain a reserve of gold equal to not less than 25 p.c. of its total note and deposit liabilities in Canada. Under the terms of the Exchange Fund Order, 1940, authorizing the transfer of the Bank's gold holdings to the Foreign Exchange Control Board, the minimum gold ressrve requirement wav temporarily suspended: this suspension was continued under the Foreign Exchange Control Act, 19:6, and suhsequently to July 4, 1952, under the Currency, Mint and Exchange Act (1 Eliz. II c 40. s 25). The reserve in addition to gold, may include silver bulliou; baianew in pounds sterling in the Bank of Enyland, in United States dollars in the F.deral Reserve Bank of New York and in gold rurrencies in ecentral hanks in gold-xtandard countries or in the Bank for Luternational Sertlements, traasury bills of the United Kingdom or the United States of Amerra having a maturity not exceeding three months; and bills of exchange having a maturity not exceeding 90 days. payable at London or Now York, or in a gold-standard country. less any liabilities of the Bank payable in the currency of the United Kingdom, the United States of America or a gold-standard country. In accordance with the terms of the Foreign Exchange Arquisition Order, 19+0, the Bank of Camada transferred forcign exchange with a Canadian dollar value of $\$ 27,734,444$ to the Foreign Exchunge Control Board.

The chartered banks are required to maintain a reserve of not less than 5 p.c. of their deposit liabilities, payable in Canadian dollars, in the form of deposits with, and notes of, the Bank of Canada.

The Bank acts as the fiscal agent of Canada without charge and may, by agreement, act as banker or fiscal agent of any province. The Bank does not accept deposits from individuals and does not compete with the chartered banks in commercial banking fields.

Head office of the Bank is at Ottawa and it has an agency in each province, in the cities of St. John's, Charlottetown, Halifax, Saint John, Montreal, Toronto, Winnipeg, Regina, Calgary and Vancouver.

The Governor of the Bank is its chief executive officer and Chairman of the Board of Directors; he is assisted by a Deputy Governor and an Assistant Deputy Governor. The first appointments were made by the Government and subsequent appointments are to be made by the Board of Directors subject to the approval of the Governor in Council.

At the first meeting of the shareholders on Jan. 23, 1935, seven directors were elected with terms as follows: one director, until the third annual general meeting (1938); two, until the fourth (1939); two, until the fifth (1940); and two, until the sixth annual general meeting (1941). Former directors continued in office when the Government took over the management of the Bank but directors are now appointed by the Minister of Finance, with the approval of the Governor in Council, for terms of three years. In 1951 there were twelve directors. In the transaction of the business of the Bank, each director has one vote.

There is also an Executive Committee of the Board of Directors consisting of the Governor, Deputy Governor and one member of the Board. Meeting once a week, this Committee has the same powers as the Board but every decision is submitted to the Board of Directors at its next meeting. The Board must meet at least four times a year. The Deputy Minister of Finance is an ex officio member of the Board of Directors and of the Executive Committee, but is without vote.

The Governor of the Bank or, in his absence, the Deputy Governor, has the power to veto any action or decision of the Board of Directors or the Executive Committee, subject to confirmation or disallowance by the Governor in Council.

The Bank of Canada and Its Relationship to the Canadian Financial System.-An article under this title is given in the 1937 Year Book, pp. 881-885. It deals with such subjects as the functions of the Bank, its control and regulation of credit and currency, the mechanism by which such control is exercised, the expansion and contraction of credit, the mitigation of general economic fluctuations, the control of exchange operations, the advisory function of the Bank and its duties as the Government's banker.

Bank of Canada Operations.-The expansion of Bank of Canada liabilities and assets in recent years has provided for increased Bank of Canada notes in active circulation (the chartered-bank note issue has been gradually retired) and has enlarged the cash reserves of the chartered banks.

## 1.-Assets and Liabilities of the Bank of Canada, Mar. 13, 1935, and Dec. 31, 1949-51

Source: Annual Statements of the Bank of Canada.

| Assets and Liabilities | Mar. 13, 1935 | Dec. 31, 1949 | Dec. 31, 1950 | Dec. 31, 1951 |
| :---: | :---: | :---: | :---: | :---: |
| Assets | \$ | \$ | \$ | \$ |
| Reserves (at market values)Gold coin and bullion Silver bullion. <br> Sterling and U.S.A. dollars. <br> Other currencies. | $\begin{array}{r} 106,584,356 \\ 986,363 \\ 394,875 \\ \hline \end{array}$ | $\xrightarrow{\substack{14,135,541 \\ 45,380}}$ | $\begin{array}{r} 111, \stackrel{\rightharpoonup}{415}, 812 \\ 265,130 \end{array}$ | $\underset{\substack{-117,833,770 \\ 90,262}}{ }$ |
| Totals, Reserves | 107,965,594 | 74, 180,921 ${ }^{1}$ | 111,680,942 | 117,924,032 |
| Subsidiary coin............................ | 297,335 | 131,325 | 408,039 | 374,485 |
| Investments (at not exceeding market values)Government of Canada and Provincial |  |  |  |  |
| Other Government of Canada and Provinial | 34,846,294 | 1,781,412,576 | 1,229,344,790 | 1,141,766,918 |
|  | 115,018,687 | $\begin{array}{r} 227,818,490 \\ 5,500,000 \\ \hline \end{array}$ | $\begin{aligned} & 712,458,568 \\ & 247,888,525 \end{aligned}$ | $\begin{array}{r} 1,049,343,356 \\ 89,033,508 \end{array}$ |
| Totals, Investmen | 149,859,931 | 2,014,731,066 | 2,189,686,683 | 2,280,143,156 |
| Industrial Development Bank capital stock. | $\cdots$ | 25,000,000 | 25,000,000 | 25,000.000 |
| Bank premises. All other assets | 1,191,897 | $3,649,273$ $8,189,042$ | $5,081,069$ $18,474,022$ | $5,069,987$ $15,585,338$ |
| Totals, Assets | 259,314,757 | 2,125,881,627 | 2,350,330,755 | 2,444,096,998 |
| Liabilities |  |  |  |  |
| Capital paid up | 4,981,640 | 5,000,000 | 5,000,000 | 5,000,000 |
| Rest fund.... |  | 10,050,367 | 10,050,367 | 10,050,367 |
| Notes in circulation | 97,805,665 | 1,307,424,146 | $1,367,421,840$ | 1,464,160,786 |
| Deposits- |  |  |  |  |
| Government of Canada. | 4,212,200 | 51,098,502 | 44, 378,088 | 118,901, 486 |
| Chartered banks. | 151,927,688 | 541,714,005 | $578,588,788$ | 618,996, 408 |
| Other. | 277,922 | 126,988,228 | 207,052,610 | 66,089,987 |
| Totals, Deposits. | 156,417,750 | 719,745,735 | 830,019,475 | 803,987,861 |
| Liabilities payable in sterling, United States and foreign gold currencies. | - | 79,635,541 | 133,560,519 | 155,573.289 |
| Dividends declared......... | - 702 | 112,500 | 112,500 | 112,500 |
| Other liabilities. | 99,702 | 3,913,338 | 4,166,054 | 5,212,195 |
| Totals, Liabilities. | 259,314,757 | 2,125,881,627 | 2,350,330,755 | 2,444,096,998 |

${ }^{1}$ The Exchange Fund Order, 1940, authorized the transfer of the Bank's gold holdings to the Foreign Exchange Control Board and temporarily suspended the requirement for a minimum gold reserve.

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."
The President of the Industrial Development Bank is the Governor of the Bank of Canada and the Directors are the Directors and Assistant Deputy Governor 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 honds 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 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.

Authorized and outstanding loans of the Industrial Development Bank as at Mar. 31, 1952, are classified by provinces, size of loans and industries in Table 2. Outstanding loans and investments at Dec. 31, 1951, amounted to $\$ 30,741,256$.
2.-Authorized and Outstanding Loans and Investments of the Industrial Development Bank, by Provinces, and Industry, as at Mar. 31, 1952

Nort.-Figures for the year ended Mar. 31, 1951, which have not appeared in the Canada Year Book, may be obtained from the Bank of Canada, Ottawa.

| Province | Authorized | Outstanding | Industry | Authorized | Outstanding |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\delta$ | \$ |  | \$ | \$ |
| New | 250,000 |  | Foods and beverage | 5,652,162 | 3,756,237 |
| Prince Edward Island.... | 90,000 | 29,475 | Leather products.......... | 987,500 | 519,864 |
| Nova Scotia ............ | 671.182 | 440,500 | Textile products (except |  |  |
| New Brunswic | 1,104,721 | 860,053 | clothing)............... | 3,015,908 | 2,588,679 |
| Quebec. | $21,461,562$ $11,988,498$ | $13,048,982$ $8,703,785$ | Clothing (textiles and fur) | 1,236,150 | 925, 602 |
| Manitoba | $1,581,250$ | $8,768,785$ 688,283 | Wood products. ${ }^{\text {Paper products (including }}$ | 7,499,835 | 5,391,533 |
| Saskatchewa | 2,087.658 | 1,402,685 | pulp) .................. | 4,300,600 | 3,967,046 |
| Alberta. | 2,616,200 | 1,127,096 | Printing, publishing and | 4,300,60 | 3,907,016 |
| British Columbia ${ }^{1}$ | 7,238,476 | 5,554,887 | allied industries........ | 695,500 | 407,488 |
| Canada. | 49,049,547 | 31,855,746 | (including machinery and |  |  |
|  |  |  | equipment)............. | 4,660,637 $2,655,664$ | $\begin{aligned} & 3,034,803 \\ & 1159179 \end{aligned}$ |
| Size of Loan | Authorized | Credits | Non-ferrous metal products | 295,500 | 242,180 |
|  |  |  | supplies. | 1,527,500 | 493,265 |
|  | 8 | No. | Non - metallic mineral products. | 2,499,484 | 1,781,373 |
| \$5,000 or under | 76,368 | 18 | Petroleum and coal prod- ucts | 1,340,000 | 782,661 |
| \$5,001 to 825,000 | 3,663,499 | 241 | Chemical products | 8,197,194 | 3,583,468 |
| \$25,001 to 856,000 | 4, 254,764 | 111 | Miscellaneous manufactur- |  |  |
| \$50,001 to $\$ 100,000$. | 7,254,155 | 98 | ing industries | 843,800 | 587,721 |
| \$100,001 to \$200,000 | 9,142,447 | ${ }_{41}^{60}$ | Refrigeration............ | 3,317,113 | 2,635,647 |
| \$200,001 or over. | 24,658,314 | 41 | Generating or distributing electricity. | 345.000 | 6,000 |
| Totals. | 49,049,547 ${ }^{2}$ | 569 | Totals | 49,049,547 | 31,855,746 |

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## Section 2.-Currency <br> 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 at pp. 900-905 of the 1938 Year Book. The main steps of this development that remained as permanent features of the system are outlined at pp. 809-810 of the 1941 Year Book.

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 am sunt 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 revision of the Bank Act cancelled the right of chartered banks to issue or reissue 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 and 1951 is not strictly comparable with the classification for earlier years. Dominion notes have been excluded from the denomination classification and their 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.-Classification of Bank of Canada Notes, by Denomination, and Other Notes in Circulation, 1950 and 1951

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.


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## 4.-Annual Averages of Note Circulation in the Hands of the Public, 1942-51

Norm.-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 comparable to those shown below for the years 1926-41 are given at p. 959 of the 1946 Year Book.

| Year | Annual Averages of Month-End Figures |  |  | Annual Averages of Daily Figures |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bank of Canada Notes ${ }^{1}$ | Chartered Bank Notes ${ }^{2}$ | Total | Amount ${ }^{3}$ | Per Capita ${ }^{4}$ |
|  | \$ | \$ | \$ | \$ | \$ |
| 1942. | 472,011,416 | $69,502,871^{5}$ | 541,514,287 | 523,000,000 | 44.88 |
| 1943. | $660,998.231$ | 49,082, $172{ }^{5}$ | 710,080.403 | 688,000,000 | 58.33 |
| 1944. | 821,330,660 | 37,056,187 | $858,386,847$ | 835,000,000 | 69.90 |
| 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 | 80.70 |
| 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 | $80 \cdot 84$ |
| 1950. | 1,100,898,470 | 6 | 1,101,322,513 | $1,085,000,000$ | $79 \cdot 13$ |
| 1951. | 1.151.201.531 | 6 | 1.151,481.161 | 1,132.000.000 | 80.81 |

${ }^{1}$ Total issue less notes held by chartered banks.
${ }^{2}$ 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 estimstes of population as given at p. 143; see headnote to this table. ${ }_{5}$ Gross note circulation less notes held by other chartered banks. ${ }^{6}$ 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.*-The present monetary standard of Canada is gold of 900 millesimal fineness ( $23 \cdot 22$ grains of pure gold equal to one gold dollar). Under the Uniform Currency Act of 1871, gold coin was authorized but only very limited issues were ever made. Gold coins have not been struck since 1919. The British sovereign and half-sovereign, and United States eagle, half-eagle and double eagle are legal tender. Subsidiary coin consists of $\$ 1$ and 50 -, 25 - and 10 -cent silver pieces, $\dagger$ 5 -cent nickel and 1 -cent bronze pieces. Subsidiary silver coin is legal tender to the amount of ten dollars. The 5 -cent piece is legal tender up to five dollars and the 1 -cent bronze coin up to 25 cents. There is no provision for the redemption of subsidiary coin. A table at p. 807 of the 1941 Year Book gives particulars of weight, fineness, etc., of current coins.

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## 5.-Circulation of Canadian Coin, as at Dec. 31, 1942-51

Note.-The figures shown are of net issues of coin. Figures for the years 1901-25 are given at p. 858 of the 1927-28 Year Book and for 1926-41 at p. 956 of the 1946 edition.

| Year | Silver | Nickel | Tombac | Steel | Bronze | Total | Per Capita ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | $\delta$ | \$ | \$ | \$ | \$ |
| 1942. | 44,011,038 | 4,827,596 | 169,424 | - | 5,422,131 | 54,430,189 | 4.67 |
| 1943 | 51,009,046 | 4,826.033 | 1,407,424 | - | 6,300,627 | 63,543, 130 | $5 \cdot 39$ |
| 1944. | 54,972,812 | 4,825,057 | 1,407,754 | 571,000 | 6,753,329 | 68,529,952 | $5 \cdot 74$ |
| 1945. | 58,327,590 | 4,823,237 | 1.407,462 | 1,521,170 | 7.499,263 | 73,578,722 | 6.09 |
| 1946 | 59,944,549 | 5,113,103 | 1,155,791 | 1,520.849 | 8,024.547 | 75.758,839 | $6 \cdot 16$ |
| 1947. | 61,049,986 | 5.503,117 | 863,994 | 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 | $6 \cdot 34$ |
| 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 | $7 \cdot 11$ |

${ }^{1}$ Per capita figures are based on estimates of population as given at p. 143.

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. By $21-22$ Geo. V, c. 48, it was constituted a branch of the Department of Finance and, by the Proclamation of Nov. 14, 1931, issued under Sect. 3 of that Act, it has, since Dec. 1, 1931, operated as the Royal Canadian Mint. The British North American provinces, and later the Dominion of Canada, obtained their coins from the Royal Mint at London or from The Mint, Birmingham, Limited, England. 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, 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. Most of the fine gold produced from the rough shipments from the mines is delivered to the Department of Finance (since Mar. 11, 1935, the Bank of Canada has acted as agent for the Government) in the form of bars of approximately 400 oz t . each, the rest being sold in convenient form to manufacturers. The fine silver extracted from the rough gold, when not required for coinage, is sold at New York or to local manufacturing firms.

## 6.-Annual Receipts of Gold Bullion at the Royal Canadian Mint, and Bullion and Coinage Issued, 1942-51

Notz.-Figures for 1926-41 are given at p. 957 of the 1946 Year Book.

| Year | Gold Received | Gold Bullion Issued | Silver Coin Issued | Nickel Coin Issued | Steel Coin Issued | Tombac Coin <br> Issued | Bronze Coin Issued |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | oz t. | oz t. | \$ | \$ | \$ | \$ | § |
| 1942. | 4.611 .982 | 4,611,892 | 3,764,000 | 361,576 | - | 169,424 | 783,500 |
| 1943 | 3,616,959 | 3,645,740 | 7,044,000 | - | $\vec{\square}$ | 1,238,000 | 881.300 |
| 1944 | 2,862,048 | 2.829,755 | 4,006.000 | $\cdots$ | 571,000 | 400 | 454.600 |
| $19+5$ | 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 | 2,859,034 | 1,186, $\mathbf{C 0 0}$ | 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 | 二 | - | 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 |

## Subsection 2.-General Public Holdings of Certain Liquid Assets

The Bank of Canada has developed recently a new presentation of statistics concerning the volume of money. This presentation 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. It is believed that the new series provides a better approach to the problem of measuring changes in the volume of money under present-day conditions. The Bank of Canada series has been carried back to 1938 only, whereas the former series of the Dominion Bureau of Statistics was available from 1919 (see 1947 Year Book, pp. 1022-1023).

## 7.-General Public Holdings of Certain Liquid Assets, as at Dec. 31, 1938-51

(Millions of dollars)

| As at Dec. 31- | Currency and Active Bank Deposits | Chartered Bank Notice Deposits ${ }^{1}$ | Government of Canada Securities ${ }^{2}$ | Total |
| :---: | :---: | :---: | :---: | :---: |
| 1938. | 1,131 | 1,472 | 3,228 | 5,831 |
| 1939. | 1,370 | 1,544 | 3,279 | 6,193 |
| 1940. | 1,563 | 1,438 | 3,670 | 6,671 |
| 1941 | 1,901 | 1,433 | 4,162 | 7,496 |
| 1942. | 2,349 | 1,436 | 5,344 | 9,129 |
| 1943. | 2,726 | 1,654 | 7,184 | 11,564 |
| 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 |

${ }^{1}$ 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 outatanding, 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.

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 about five-sixths of the total of such deposits at the present time.

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 most cases 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, 1938-51
(Millions of dollars)

| As at <br> Dec. 31- | Currency Outside Banks ${ }^{1}$ |  |  | Active Bank Deposits |  |  | Total <br> Currency and <br> Active Bank <br> Deposits |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Notes | Coin | Total Currency | Chartered Bank Net ${ }^{2}$ | Bank of Canada 'Other' Deposits ${ }^{3}$ | Total Active Bank Deposits |  |
| 1938... | 207 | 31 | 238 | 890 | 3 | 893 | 1,131 |
| 1939... | 247 | 34 | 281 | 1.071 | 18 | 1,089 | 1,370 |
| 1940.. | 341 | 38 | 379 | 1,174 | 10 | 1,184 | 1,563 |
| 1941. | 450 | 42 | 492 | 1.403 | 6 | 1,409 | 1,901 |
| 1942. | 633 | 49 | 682 | 1,648 | 19 | 1,667 | 2,349 |
| 1943... | 794 | 55 | 849 | 1,859 | 18 | 1,877 | 2,726 |
| 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 |
| 1949. | 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 |

${ }^{1}$ Note circulation excluding notes held by chartered banks together with total coin issued by the Mint, less 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.
${ }^{3}$ Excludes Government of Canada, chartered bank and foreign deposits.

## Section 3.-Commercial Banking

Since 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 the one historical sketch, which is given at pp. 900-905 of the 1938 Year Book. A list of the banks at Confederation appears at p. 897 of the 1940 Year Book and bank absorptions since 1867 are given at pp. $812-813$ of the 1941 edition. A table at pp. 894-895 of the 1937 Year Book shows the insolvencies from Confederation; the last insolvency occurred in 1923. A summary of the more important changes resulting from the revision of the Bank Act in 1944 is given at pp. 961-962 of the 1946 Year Book.

## Subsection 1.-Chartered Banks

Combined 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 9 in 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. Of interest to students of banking practice, the relative rates
of increase of capital and reserve funds may be noted, 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 notes in circulation to total liabilities to the public is also characteristic of the evolution of banking in recent times (see p. 1103).

## 9.-Assets and Liabilities of the Chartered Banks, 1937-51

Nors.-These statistics are yearly averages computed from the twelve monthly returns in each year. Figures for the years 1867-1880 will be found in the 1938 Year Book, pp. 918-919; for 1881-1915 in the 1941 edition, pp. 815-816; for 1916-26 in the 1946 edition, pp. 963-964; and for 1927-36 in the 1947 edition, pp. 10251026.

| Year | ASSETS |  |  |  |  |  | Public Liabilities to Total Assets |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gold Reserves, Notes of and Deposits with the Bank of Canıda | Government of Canada and Provincial Government Securities | Municipal Securities in Canada and Public Securities Elsewhers | Total Securities | Total Loans | Total Assets ${ }^{1}$ |  |
|  | \$ | \$ | \$ | \$ | \$ | \$ | c. |
| 1937. | 249,372,724 | 1,118,893, 938 | 181,972,016 | 1,426,371,394 | 1.200,574,223 | 3,317,087,132 | 91.22 |
| 1938. | 262.354,597 | 1,143.040,485 | 170,487, 703 | 1,439,666, 822 | 1,200,692,605 | 3,348,708,58C | 91.28 |
| 1939. | 279.161.539 | 1,234,066,994 | 179,924,335 | 1,540.330,246 | 1.243.616,409 | 3,591,564,586 | 91.84 |
| 1940. | 296,877,855 | 1,311,641,053 | 157,361,535 | 1,579,467,048 | 1,324,021,841 | 3,707.316,459 | 92.01 |
| 1941 | 318,039, 223 | 1,483, 299,697 | 149,467,128 | 1,726,543,416 | 1,403,181, 296 | 4,008,381,256 | 92-60 |
| 1942. | 349,729,409 | 1,806,891, 877 | 182,052,417 | 2,073,471,530 | 1,370,418,799 | 4,399, 820, 74 t | 93.24 |
| 1943 | 422,551,348 | 2,404,756,734 | 232,405.156 | 2,713,939,940 | 1,334,080,022 | 5,148,458,72¢ | $94 \cdot 19$ |
| 1944. | 538,236,187 | 2,991,047,582 | 283,417,399 | 3,353,259,736 | 1,343,938,364 | 5,990,410,887 | 94.98 |
| 1945. | 604,842,923 | 3,438,830,751 | 313,061,291 | 3,857,534,890 | 1,505,039.333 | 6,743,217,134 | $95 \cdot 48$ |
| 1946. | 686,368,427 | 3,734, 72,237 | 381,996,554 | 4,287,002, 710 | 1,642,519,066 | 7,429,608.029 | $95 \cdot 89$ |
| 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 | $95 \cdot 81$ |
| 1949. | 762,901,802 | 3,573,294.569 | 387,844,005 r | 4.370.052.504 | 2, 618,421,119 | 8,657.764,277 | 95.99 |
| 1950 | 769,951,696 | 3,563,018,724 | 402, 235,668 | 4,363,401, 201 | 2,872,411,227 | 9,015, 109,85? | 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 |

## LIABILITIES

|  | LiabilitiestoShareholders |  | 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 ${ }^{\mathbf{3}}$ |
|  | \$ | 8 | $\delta$ | \$ | $\delta$ | 8 | \$ |
| 1937. | 145,500,000 | 133.750.000 | 110,259,134 | 691.319,545 | 1,573,654,555 | 2,775,530,413 | 3,025.721,653 |
| 1938. | 145,500.000 | $133,750,000$ | 99,870,493 | 690,485,877 | $1,630,481,857$ | 2,823,686,934 | 3,056,684,905 |
| 1939. | 145,500,000 | 133,750,000 | 94,064,907 | 741,733,241 | 1,699,224.304 | 3.060.859.111 | $3.298,351.099$ |
| 1940.. | 145,500,000 | 133,750,000 | 91, 134,378 | 875, 059,476 | 1,646,891.010 | 3.179.523.062 | 3.411.104,825 |
| 1941.. | 145,500,000 | 133,916,667 | 81,620,753 | 1,088, 198,370 | 1,616, 129,007 | 3,464,781,844 | $3,711,870,680$ |
|  | 145,500,000 | 135.083.333 | 71,743.242 | 1,341,499,012 | 1.644,842,331 | 3,834,335,141 | 4,102,355,598 |
| 1943... | 145,500.000 | 136.750,000 | 50.230,204 | 1,619,407,736 | 1,864,177,700 | 4.592,336,705 | 4,849,222,532 |
| 1944. | 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 |
| 1945. | 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 |
| 1946 | 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 |
| 1947. | 145,500,000 | 178,000,009 | 19,675,994 | 2,138,771,178 | 3,681, 231,057 | 7,075,355.884 | 7,476,627,449 |
| 1948. | 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 |
| 1949 | 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 |
| 1950. | 145.500 .030 | 200.000.000 | 424.0434 | 2.562.813,591 | 4,547.880.387 | 8.220,886,332 | $8,660,173,804$ |
| 1951. | 146.502,115 | 200.837,564 | 279,6304 | 2,711,524,845 | 4,592,929.318 | 8.464.510,837 | 9,019.780,755 |

[^375]
## 10.-Analysis of Assets of Chartered Banks, 1949-51

Note.-The statistics in this table are averages computed from the twelve monthly returns in each year.

| Assets | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
| Cash reserves against Canadian deposits(as per Table 26) | 748,425,141 | 753,914,014 | 782.564.265 |
| Subsidiary coin..................................... | 11,775,044 | 13,647.917 | 14.567,622 |
| Notes of other Canadian | 332,915.5631 | 379,044.434 ${ }^{1}$ | 471,665.9671 |
| Gold and coin abroad. | $1,164,805$ $2,701,617$ | 1,132,255 | 877.118 2.17286 |
| Foreign currencies. | 95,022,567 | 70.328 .005 | 40,333.387 |
| Deposits at United Kingdom banks | 24,063,268 | 19.218.843 | 22,569.857 |
| Deposits at foreign banks. | 166, 103,764 | 222,287,683 | 237,614,233 |
| Securities- |  |  |  |
| Federal and Provincial Government securities. | 3,573,294,569 | 3,563,018,724 | 3,134,186.339 |
| Other Canadian and foreign public securities | 387,844,005 | 402,235, 668 | 384,481.994 |
| Other bonds, debentures and stocks. | 408,913,930 | 398,146,809 | 411,913,371 |
| Call and Short Loans- |  |  |  |
| In Canada. | 96,941,656 | 110,588,658 | 98,103,643 |
| Elsewhere. | 83,077,981 | 92,927,396 | 107,849,379 |
| Current Loans-Canada- |  |  |  |
| Loans to Provincial Governments. | 28,885,913 | 24,848,392 | 34,723,105 |
| Loans to cities, towns, municipalities and school districts. | 76,547,835 | 90,355.111 | 113,707,104 |
| Other current loans and discounts. | 2,111,561.048 | 2,330.155,352 | 2,867,753,460 |
| Elsewhere than in Canada. | 220,005,841 | 22,227,092 | 272,180,790 |
| Non-current loans, | 1,400,845 | 1,309,226 | 1,406,440 |
| Other Assets- |  |  |  |
| Real estate, other than bank premises. | 506,218 | 429,804 | 156,372 |
| Mortgages on real estate sold by the banks | 755.184 | 598.750 | 417.479 |
| Bank premises.................. | 83,771,861 | 94,026.032 | 116,185,897 |
| Bank circulation redemption fund | 879,942 | 68,506 |  |
| Liabilities of customers under letters of credit as per contra. | 180,036,708 | 200.960.794 | 255.207.737 |
| All other assets | 21,168,972 | 21,250,622 | 14,161,838 |
| Totals, Assets | 8,657,764,277 | 9,015,109,852 | 9,384,800,263 |

${ }^{1}$ Includes cheques of other banks.

## 11.-Analysis of Liabilities of Chartered Banks, 1949-51

Nore.-The statistics in this table are averages computed from the twelve monthly returns in each year.

| Liabilities | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: |
| Linblities to the Public | \$ | \$ | \$ |
| Notes in circulation. | 14,731,992 | 424,043 ${ }^{1}$ | 279,630 ${ }^{1}$ |
| Deposit Liabilities- |  |  |  |
| Government DepositsFederal | 328,647.051 | 193.005.487 | 229.123.262 |
| Provincial | 161,680,280 | 186,606,599 | 170.266,769 |
| Public Deposits- Demand....... | 2,353.033.907 | 2,562.813.591 | 2,711.524.845 |
|  | 4,333.888.999 | 4,547,880.387 | 4,592.929.318 |
| Other ${ }^{2}$. | 78.396.965 | 81.868 .085 | 99,007.261 |
| Foreign. | 666,047,561 | 648,712,183 | 661,659,382 |
| Inter-Bank Deposits- Canadian........... | 59,567,800 | 81,925.038 | 117,943,058 |
| United Kingdom | 38,633,071 | $39.206 .389$ | $45,176,237$ |
| Other $\qquad$ | 85,631,541 |  |  |
| Totals, Deposit Liabilities ${ }^{3}$ | 8,105,527,175 | 8,449,233,329 | 8,755,156,710 |
| Canadian currency (estimated). Foreign currency (estimated).. | $\begin{array}{r} 7,267,000,000 \\ 839,000,000 \end{array}$ | $\begin{array}{r} 7,597,000,000 \\ 858,000,000 \end{array}$ | $\begin{array}{r} 7,851,000,000 \\ 904,000,000 \\ \hline \end{array}$ |
| Totals, Note and Deposit Liabilities. | 8,120,259,167 | 8,449,657,372 | 8,755,436,340 |

[^376]11.-Analysis of Liabilities of Chartered Banks, 1949-51—concluded

| Liabilities | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: |
| Liabilities to the Public-concluded | \$ | \$ | $\boldsymbol{\delta}$ |
| Other Liabilities to the Public- |  |  |  |
| Letters of credit outstanding. .................. | $\begin{array}{r} 180,036,708 \\ 9,919,126 \end{array}$ | $\begin{array}{r} 200,960,794 \\ 9,555,638 \end{array}$ | $\begin{array}{r} 255,207,737 \\ 9,136,678 \end{array}$ |
| Totals, Liabilities to the Public. | 8,310,215,001 | 8,660,173,804 | 9,019,780,755 |
| Lisblitits to Shareholders |  |  |  |
| Capital. | 145,500,000 | 145,500,000 | 146.502,115 |
| Rest or reserve fund | 187,000,000 | 191,750,000 | 200,837,564 |
| Grand Totals, Liabilities.......... . . . . . . | 8,642,715,001 | 8,997,423,804 | 9,367,120,434 |

${ }^{1}$ 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.
${ }^{2}$ Deposits in currencies other than Canadian, expressed in Canadian dollars at current rate of exchange.
${ }^{3}$ Totals do not correspond with those in Table 9 because of the inclusion here of inter-bank deposits.

## 12.-Significant Ratio Comparisons of Assets and Liabilities of Chartered Banks, 1942-51

Note.-Yearly averages of month-end figures, except where otherwise specified. Figures for the years 1926-41 will be found 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. |
| 1942. | 10.5 10.9 | 10.2 10.4 | 52.1 57.4 | 34.5 28.2 |
| 1944. | 11.8 | 11.2 | 60.2 | $24 \cdot 1$ |
| 1945. | 11.4 | 11.0 | $61 \cdot 2$ | $23 \cdot 9$ |
| 1946..... | 11.4 | 11.2 | 61.8 | $23 \cdot 7$ |
| 1947. | 10.8 | $10 \cdot 6$ | 56.6 | 29.3 |
| 1948. | $10 \cdot 9$ | $10 \cdot 6$ | $54 \cdot 3$ | 31.5 |
| 1949. | $10 \cdot 4$ | $10 \cdot 3$ | 53.8 | $32 \cdot 2$ |
| 1950.... | $10 \cdot 1$ | $9 \cdot 9$ | $51 \cdot 6$ | $34 \cdot 0$ |
| 1951.............. | $10 \cdot 2$ | $10 \cdot 0$ | 44.9 | 39.9 |

${ }^{1}$ Figures supplied by the Bank of Canada.

## 13.-Deposits in Chartered Banks, according to Size and Currency, at Sept. 30, 1950 and 1951

| Class and Amount of Deposit | Deposit Accounts (Canadian Currency) | Deposits in Canadian Currency | Deposit Accounts (Other than Canadian Currency) | Deposits in Currencies other than Canadian |
| :---: | :---: | :---: | :---: | :---: |
| 1950 | No. | § | No. | \$ |
| Deposits Payable on Demand- |  |  |  |  |
| \$1,000 or less.. | 823,563 | 179,530.007 | 2,699 | 805,371 |
| \$1.000 to \$5,000. | 158,284 | 346,718,485 | 689 | 1,742.095 |
| \$5,000 to \$25,000. | 47,533 | 478,122,549 | 444 | 5,341,112 |
| \$25,000 to \$100,000 | 9,821 | 456.073,446 | 176 | 9,244.368 |
| Over \$100, 000. | 3,424 | 1,378,764,244 | 107 | 47.212,215 |
| Adjustment items ${ }^{1}$. | ... | -130,504,481 | ... | +8,068,208 |
| Totals. | 1,042,625 | 2,708,704,250 | 4,115 | 72,413,369 |
| Deposits Pryable After Notice- |  |  |  |  |
| \$1,000 or less................. | 6,170,130 | 993, 856, 873 | 97 | 19,388 |
| \$1,000 to $\$ 5.000$. | 817.334 | 1,729,514,376 | 4 | 8.791 |
| \$5,000 to \$25,000. | 130.538 6.630 | $1,098,788.807$ $285,942.789$ | 2 | 12,864 |
| Over \$100,000... | 1,181 | 462.690.210 | 1 | 107,968 |
| Adjustment iterns ${ }^{\text {2 }}$ | ... | +11.087.471 |  | , |
| Totals. | 7,125,813 | 4,581,880,526 | 104 | 149,011 |

For footnote, see end of table, p. 1108.

## 13.-Deposits in Chartered Banks, according to Size and Currency, at Sept. 30, 1950 and 1951-conclud d

| Class and Amount of Deposit | Deposit Accounts (Canadian Currency) | Deposits in Canadian Currency | Deposit Accounts (Other than Canadian Currency) | Deposits in Currencies other than Canadian |
| :---: | :---: | :---: | :---: | :---: |
| 1951 | No. | \$ | No. | \$ |
| Deposits Payable on Demand-- |  |  |  |  |
| \$1,000 or less. | 852.867 | 187,152,357 | 2,589 | 749.463 |
| \$1.000 to \$5,000. | 164,953 | 363,407,427 | 716 | 1,903.033 |
| \$5.000 to \$25.000. | 49.726 | 501,344,301 | 484 | 6.424.776 |
| \$25,000 to \$100,000 | 10,197 | 475,660.230 | 208 | 12,123,359 |
| Over $\$ 100.000 \ldots$. | 3,344 | 1,275, 890,807 | 145 | 64,736,559 |
| Adjustment items ${ }^{1}$ | ... | -152,347,068 | ... | +14.653.509 |
| Totals. | 1,081,087 | 2,651,108,054 | 4,142 | 100,590,699 |
| Deposits Payable After Notice- |  |  |  |  |
| \$1.000 or less.. | 6,415,911 | 1,021,377,846 | 60 | 15.734 |
| \$1.000 to $\$ 5,000$ | 821,593 | $1,737,639,550$ | 9 | 22,201 |
| \$5.000 to \$25,000 | 135,617 | 1,143.673.834 | 1 | 22.072 |
| \$?5.07n to \$100,000 | 6.688 | 289,032,606 |  | , |
| Ov 3 r \$100,000. | 1,128 | 393, 138,836 | 1 | 298,356 |
| Adjustment items ${ }^{1}$. | ... | +9,848.161 |  | +32 |
| Totals....................... | 7.380 .937 | 4.594.710.833 | 71 | 358.395 |

${ }^{1}$ Represents certified cheques, interest accrued on interest-bearing accounts, items in transit, etc.

## 14.-Loans of Chartered Banks, according to Class, Outstanding at Sept. 30, 1950 and 1951

Note.-The classification of chartered bank loans was revised in 1950; the figures in this table are. therefore, not comparable with those for 1947-49 in the 1951 Year Book, pp. 1043-1044.

| Class of Loan | 1950 | 1951 |
| :---: | :---: | :---: |
|  | \$'000 | \$'000 |
|  |  |  |
| Provincial Governments................. | 23,600 91,505 | 24,859 114.531 |
| Municipal Governments and school districts...... | 91,505 <br> 33.143 | $\begin{array}{r}114.531 \\ 45,912 \\ \hline\end{array}$ |
| Totals, Government and Other Public Services | 148.248 | 185,302 |
| Financial- |  |  |
| Investment dealers and brokers to the extent payable on call or within thirty days. | 101,177 | 107,091 |
| Trust, loan, mortgage, investment and insurance companies and other financial institutions. | 85,983 | 91.720 |
| Totals, Financial. | 187.160 | 198.811 |
| Personal- |  |  |
| Individuals, for other than business purposes, on the security of marketable stocks and bonds | 243.370 | 255,605 |
| Individuals, for other than business purposes, n.e.s . | 218,201 | 211.303 |
| Totals, Personal. | 461.571 | 466.908 |
| Agricultural, Industrial and Commercial- |  |  |
| Industry - |  |  |
| Chemical and rubber products. | 29,175 | 54,257 41,388 |
| Electrical apparatus and suppli | 122.310 | 41,388 171,968 |
| Food, beverages and tobacco Forest products............ | 122.514 76,057 | 171,968 115,685 |
| Forest products. | 76,057 16,188 | 19,776 |
| Iron and steel products | 53,389 | 97,509 |
| Mining and mine products | 26,015 | 33,381 |
| Petroleum and products. | 22.914 138.862 | - 213,377 |
| Textiles, leather and clothing. | 138.862 30.102 | 218,437 |
| Transportation equipment. Other products. | 30,102 55,180 | 63,118 |
| Public utilities, transportation and communication companies.......... | 53,912 | 87,937 |
| Construction contractors................................................ | 122.736 | 151.774 98.558 |
| Grain dealers and exporters... | $\begin{aligned} & 93,124 \\ & 96.476 \end{aligned}$ | 100.830 |
| Instalment finance companies.................................................. . . | 436,144 | 542.869 |
| Merchandisers. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . | 135492 | 133.937 |
| Totals, Agricultural, Industrial and Commercial | 1,778,373 | 2,302,692 |
| Grand Totals... ....................... | 2,575,352 | 3,153,713 |

Cheque Payments.-The monthly record of amounts of cheques charged to accounts at all banking offices situated in the clearing-house centres of Canada is available from 1924. Previous to that, statistics of "bank clearings" were obtained which included only dealings between two separate banks and took no account of cheque payments completed within one bank. No figures are currently available of the cheque transactions taking place outside of clearing-house centres, so that the coverage is still incomplete.

According to the trend indicated by cheques cashed, three major economic cycles have occurred since World War I. The first cycle reached its peak in 1920 with the low point of the succeeding depression in 1922. The high point was next achieved in 1929, owing partly to economic conditions involving heavy stock speculation. The low point was reached in 1932 and, with the exception of a minor set-back in 1938, an upward trend has continued to the present time.

The amount of cheques cashed in the clearing-house centres of Canada advanced year by year from 1938 to a maximum of $\$ 112,184,633,057$ in 1951 and 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 263 p.c. since 1938, was general in the five economic areas, British Columbia showing the greatest gain at 413 p.c. The Atlantic Provinces came second, followed by the Prairie Provinces, Ontario and Quebec. However, of the $881,000,000,000$ increase, Ontario and Quebec contributed $\$ 56,000,000,000$, or more than 69 p.c.

All clearing-house centres showed an advance in 1951 over 1950, although the magnitude of these gains varied. With the exception of Ottawa, a new maximum was established in each centre. Payments at Toronto, the leading centre, rose $6 \cdot 6$ p.c., those at Montreal nearly 12 p.c., Winnipeg 16 p.c. and Vancouver 19 p.c.
15.-Cheques Cashed at Individual Clearing-House Centres, 1947-51

Note.-Figures for earlier years will be found in the corresponding tables of previous Year Books.

15.-Cheques Cashed at Individual Clearing-House Centres, 1947-51-concluded

| Clearing-House Centre | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | 8 | \$ | \$ | \$ |
|  |  |  |  |  |  |
| Sudbury | 191, 809,314 | 231,991,381 | 267,190,931 | 290, 184,475 | 352,304,822 |
| Toronto | 20,210,585,424 | 22,655, 184,798 | 24,712,385, 631 | 30,276,045,017 | 32,273,836,720 |
| Winds | 1,131,583,994 | 1,308,938,613 | 1,460,893,330 | 1,655,860,938 | 1,872,210,810 |
| Totals, Ontar | 30,433, 876,385 | 33,381,605,192 | 36,469,080,580 | 43,146,166,945 | 47,046,956,487 |
| Prairie Provinces- |  |  |  |  |  |
|  | 114,364, 031 | 133,695,331 | 145,757,042 | 154,492,112 | 176,870,098 |
| Calgary | 1,779,369,851 | 2,072,825,960 | 2,507,516,671 | 2,870.683,290 | 3,349,247, 240 |
| Edmonto | 1,313,138, 121 | 1,568, 264,769 | 1,893,296,099 | 2,371,405.098 | 2,459.202,689 |
| Lethbridge | 168,987,463 | 219,442,238 | 246,492.056 | 284,387,678 | 309,577.383 |
| Medicine H | 98,231, 596 | 100,545,349 | 102,839,449 | 105,443,903 | 123,547.273 |
| Moose Jaw | 207,671,843 | 231,955,560 | 248,492,488 | 248,525,487 | 277,985,850 |
| Prince A | 108,770,342 | 123, 868,921 | 133,321,676 | 140,421, 297 | 154.870,799 |
| Regina. | 1,286,895,569 | 1,333,318,232 | 1,565, 139,921 | 1,640.419,630 | 1,759,586,765 |
| Saskatoo | 7 394,914,872 | 442,603,392 | 465,492,857 | 511,781,987 | 590.104,806 |
| Winnipeg | 7,381,392,595 | 8,375,790,546 | 9,186, 178, 131 | 8,960,145,720 | 10,373,940,214 |
| Totals, Prairie P | 12,853,736,283 | 14,602,310,298 | 16,494,526,390 | 17,287,706,202 | 19,574,933,117 |
| British Columbia- |  |  |  |  |  |
| Vancouver | 5,321,162,167 | 5,765,370,362 | 6,157,070,811 | 6,901,611,242 | 8,212,945,667 |
| Victoria. | -929,640,699 | 5, $951,290,865$ | 1,063,710,543 | 1,143,852,711 | 1,252,689,860 |
| Totals, British Columbia..Grand Totals......... | 6,539,916,229 | 7,043,619,628 | 7,540,592,213 | 8,446,566,739 | 9,945,578,848 |
|  | 74,498,092,978 | 80,687,447,561 | 87,554,362,843 | 100,635,458,839 | 112,184,633,057 |

Statistics of Individual Chartered Banks.-The principal assets and liabilities of the individual chartered banks are given for the five latest years in Tables 16 and 17.

## 16.-Principal and Total Assets of Individual Chartered Banks, 1947-51

Note.-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 Banks | Year | Cash Reserve <br> Against <br> Canadian <br> Deposits | Total <br> Securities | Total <br> Loans | Total |
| :---: | :---: | ---: | ---: | ---: | ---: |
| Assets |  |  |  |  |  |

[^377]16.-Principal and Total Assets of Individual Chartered Banks, 1947-51-concluded

| Chartered Banks | Year | Cash Reserve Against Canadian Deposits ${ }^{1}$ | Total Securities | Total Loans | Total Assets |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Canadian Bank of Commerce........ |  | S | $\delta$ | 8 | \$ |
|  | 1947 | 124,391,358 | 782,280,146 | 369,379,307 | 1,415,292,575 |
|  | 1948 | 130.729 .073 | 781,747,684 | 422,682,280 | 1,484,744,829 |
|  | 1949 | 125,794,695 | 821, 003,490 | 486, 636,542 | 1,589,480,484 |
|  | 1950 | 134,567.081 | $812,244,338$ | 542,079,465 | $1,669,015,086$ |
|  |  | 136,739,020 | 698,032,511 | 674,461,500 | 1,717,687,434 |
| Royal Bank of Canada.............. | 1947 | 147.566,895 | 1,084,949,594 | 540,365,479 | 2,118, 197, 065 |
|  | 1948 | 156,088,452 | 1,054,214,867 | 597,229,707 | 2,139,275,066 |
|  | 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 |
| Dominion Bank................... | 1947 | 35,421, 016 | 159,404,148 | 121,986, 102 | 355,193.069 |
|  | 1948 | 39,924,645 | 162,721, 210 | 136,833,775 | 381,433,720 |
|  | 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 |
| Banque Canadienne Nationale....... | 1947 | 37,873,976 | 189,986,112 | 126,880,830 | 382,157,076 |
|  | 1948 | 38,612,101 | 185,748, 804 | 145, 104,464 | 397, 555,711 |
|  | 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 |
| Imperial Bank of Canada............ |  |  |  |  | 410,446,539 |
|  | 1948 | 38, 164,439 | 189,916,690 | 177,358.980 | 451,886.227 |
|  | 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 |
| Barclays Bank (Canada)............ | 1947 | 3,071,374 | 20,473,541 | 3,672,918 | 35,318,321 |
|  | 1948 | 2,966.372 | 18,651,197 | 4,536,774 | 32,239,256 |
|  | 1949 | 3,621,232 | 16,536,402 | 6,437.069 | 32.588,143 |
|  | 1950 | 3,602,728 | 19,005,919 | ${ }_{8}^{6,170,825}$ | 34.376.570 |
|  | 1951 | 3,633,533 | 15, 494, 875 | 8,975,817 | 35,345,077 |
| Totals. | 1947 | 664,717,900 | 4,108,441,158 | 2,125,582,441 | 7,810,913,975 |
|  | 1948 | 705,355,667 | 4,120,137,032 | 2,388,597,680 | $8,140,145,708$ |
|  | 1949 | 748,425, 050 | 4,370,052,504 | 2,618,421,119 | $8,657,764,277$ |
|  | 1950 | $753,913,918$ | 4,363,401, 201 | $2,872,41,227$ | $9,015,109,852$ |
|  | 1951 | 782,564,224 | 3,930,581,704 | 3,495, 723, 921 | 9,384,800,263 |

${ }^{1}$ 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.

## 17.-Principal and Total Liabilities of Individual Chartered Banks, 1947-51

Nore.-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 Banks | Year | Notes in Circulation | Deposit Liabilities |  |  | Liabilities to Shareholders | Total Liabilities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Government | Public | InterBank |  |  |
| Bank of Montreal... |  | \$ | \$ | \$ | \$ | \$ | \$ |
|  | 1947 | 5,014,146 | 132,565,145 | 1,587,909,440 | 42,717,117 | 78,500,000 | 1,873,510,575 |
|  | 1948 | 4,392,455 | 112,637,481 | 1,691,430,471 | $40.517,831$ | 80,000.000 | 1,957,829,960 |
|  | 1949 | 3,762,901 | 143,557,605 | 1,775,070,481 | 47,430,907 | $81.000,000$ | 2,085, 150,943 |
|  | 1950 | 1 | $113,188,046$ | 1, $1,823,451,538$ | 59,927,419 | $84,000,000$ | $2,118,132,091$ |
|  |  | 1 | 129,684,548 | 1,860,667,574 | 81,557,845 | 84,750,000 | 2, 208,273,742 |
| Bank of Nova Scotia |  | 1,932,413 | 25,702,908 | 587,577,342 | 12,426.171 | 36,000,000 | 696.880,300 |
|  | 1948 | 1,535,056 | 20,634.134 | 624,644.899 | 13.016,868 | 36,000,000 | 725,864,470 |
|  | 1949 1950 | 1,267,888 | 25,405.279 | 681,721,012 | 13,417,246 | $36,000,000$ | 781,151.368 |
|  | 1950 1951 | 53,686 <br> 47,669 | 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 |

For footnote, see end of table, p. 1112.
17.-Principal and Total Liabilities of Individual Chartered Banks, 1947-51-concluded

| Chartered Banks | Year | Notes in Circulation | Deposit Liabilities |  |  | Liabilities to Shareholders | Total <br> Liabilities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Government | Public | InterBank |  |  |
|  |  | $\$$ | 8 | \$ | \$ | \$ | \$ |
| Bank of Toronto.... | 1947 | 696,467 | 17,051,657 | 324,308, 066 | 5,317,181 | 20,000,000 | 376,466,757 |
|  | 1948 | 631,158 | 13, 908, 247 | 362,944, 852 | 5,317,967 | 20,000,00C | 407.627. 107 |
|  | 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 |
|  |  | 1 | 17,682,531 | 422,591,985 | 15,031,086 | 20,000,000 | 481,528,415 |
| Provincial Bank of Canada..... | 1947 | 384,708 | 3,011,102 | 133,264,087 | 94,608 | 6,000,000 |  |
|  | 1948 | 316,766 | 2,662,392 | 143,949,047 | 1.656,324 | $6.000,000$ | 156,874,730 |
|  | 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 | 159,347,422 | 2,960,043 | 6,000,000 | 174, 104, 128 |
| Canadian Bank of Commerce. $\qquad$ | 1947 | 4,099,159 | 68,773.283 | 1,215, 393.902 | 19,689,013 |  |  |
|  | 1948 | 3,570,826 | 65, 890.265 | 1,280,048,414 | 19,949,550 | 60.000 .000 60.000 .000 | 1,412,882,716 |
|  | 1949 | 3,067,362 | 91,752,261 | 1,355,465.678 | 24,151,597 | 60.000,000 | 1.586,237,445 |
|  | 1950 | 31,268 | 76,413,172 | 1,435,888,140 | 34, 135,503 | 60.000.00c | 1.665,056,260 |
|  | 1951 | 25,909 | 82,882,336 | 1,459,848,644 | 42,592,363 | 60,000,00C | 1,712,711,379 |
| Royal Bank of Canada...... |  |  |  |  |  |  |  |
|  | 1947 | $5,098,648$ $4,500,346$ | $\begin{aligned} & 84.222 .561 \\ & 69.948 .684 \end{aligned}$ | 1,816,826,776 | $\begin{aligned} & 54,770,577 \\ & 51,905,653 \end{aligned}$ | $75.000,000$ | $2,116,395,179$ $2,136,124,395$ |
|  | 1949 | 3,948,699 | 104,372,640 | 1,936,689,313 | 56,516,637 | 79,000,00c | 2,235,394.252 |
|  | 1950 | 339.089 | 81,870.705 | 2,093,354,592 | 63,769,448 | 80,000,00C | $2.382,689.654$ |
|  | 1951 | 206,052 | 76,713,987 | 2,143,313,746 | 75,401,653 | 85, 333, 333 | $2,458,953,685$ |
| Dominion Bank..... | 1947 | 713.331 | 19.081,958 | 300.609,534 | 5,920,544 | 16, 250,000 | 354,014,415 |
|  | 1948 | 628,455 | 16,998,800 | 327,649.965 | 8,008,815 | 17,000,00c | 380,695,783 |
|  | 1949 | 517,692 | 24, 164, 802 | 345, 866,988 | 8,450,743 | 17,000,000 | 405, 657,911 |
|  | 1950 |  | 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 |
| Banque Canadienne <br> Nationale.......... | 1947 | 726.021 | 10,963,421 | 349,373,975 | 5,082, 650 | 14,000,000 | $381,717,338$ |
|  | 1948 | 637,615 | 10,928, 193 | 364.371,461 | $5,102,830$ | 14,000,000 | $397,093.101$ |
|  | 1949 | 563,659 | 14, 106,098 | 382.769,935 | 4,146,958 | 14,000,000 | 416,560.358 |
|  | 1950 |  | 9.639,856 | 394,021, 804 | 4, 093,873 | 14,000,00c | 422,940,949 |
|  | 1951 | 1 | 15,959,778 | 409, 827,537 | $5,130,031$ | 14,000,00c | 447,001,315 |
| Imperial Bank of Canada. | 1947 | 916.549 | 38,557.586 | 335,925, 845 | 8,906,301 | 15.500,000 | 409,270,368 |
|  | 1948 | 819.559 | 38,640.599 | 371,565.561 | 11,440,063 | 17.000.000 | 450.546.032 |
|  | 1949 | 726,098 | 56.621.027 | 400.899 .914 | 12,759,535 | 17.000.00c | 496,993, 803 |
|  | 1950 |  | 41.202 .187 | 428.550.979 | 15.635.653 | 17.000.00 | 511,693.047 |
|  | 1951 | 1 | 33,376,885 | 448,779,517 | 20,993,681 | 17,250,001 | 533,285,747 |
| Barclays Bank (Canada).... | 1947 |  | 4.111.656 | 19,625,642 | 6.876.702 | 2,250.000 | 35,214,083 |
|  | 1948 | 76.835 | 2,760,272 | 18,677,757 | 6.912.715 | $2.250,000$ | 32,119,375 |
|  | 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 | $3,000.000$ | 34,219.284 |
|  | 1951 | 1 | 1,774,343 | 21,916,647 | 6,417,316 | 3,000,00c | 35,173,869 |
| Totals............ | 1947 | 19,675,994 | 401,041,275 | 6,671,314,609 | 161,800,864 | 323,500,006 | 7,800,127,449 |
|  | 1948 | 17,109,071 | 355,009,067 | 7,947,767,885 | 163,828,616 | 327, 916, 667 | 8,126,827,002 |
|  | 1949 | 14,731,992 | 490,327,331 | 7,431,367,432 | 183,832,412 | 332,500,00 | 3,642,715, 001 |
|  | 1950 | 424,043 | 379,612,086 | 7,841,274,246 | 228,346,997 | 337,250, 006 | 3,997,423,804 |
|  | 19.1 | 279,630 | $399,390,031$ | 8,065,120,806 | 290,645,873 | 347,339,675 9 | 9,367,120,434 |

${ }^{1}$ After January 1950 the chartered banks' liability for such of their notes as then remained outstanding was transferred to the Bank of Canada.


Earnings 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.
18.-Net Profits of Chartered Banks and Rates of Dividend Paid, for their Business Years Ended 1949-51

| Chartered Banks | 1949 |  | 1950 |  | 1951 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Net Profits | Dividend Rate | $\begin{aligned} & \text { Net } \\ & \text { Profits } \end{aligned}$ | Dividend Rate | $\begin{gathered} \text { Net } \\ \text { Profits } \end{gathered}$ | Dividend Rate |
|  | \$ | p.c. | 5 | p.c. | \$ | p.c. |
| Bank of Montreal........... | 5.816.569 | $8{ }^{1}$ | 5,942,898 | 10 | 5,355,374 | $10^{1}$ |
| Bank of Nova Scotia........ | 2,299.311 | 14 | 2.297.542 | 141 | 2,428.256 | 16 |
| Bank of Toronto............ | 1,155.563 | $12^{1}$ | 1,207,816 | 141 | 1,116.234 | 141 |
| Provincial Bank of Canada. | 389.685 | $6^{62}$ | 336,494 | $6^{6}$ | 306.025 | $6{ }^{2}$ |
| Canadian Bank of Commerce | 3.615 .962 5.827 .522 | ${ }^{81}$ | 4, 015, 259 | 10 | $4.023,145$ | $10^{3}$ |
| Royai Bank of Canada...... | 5,827,522 $1,001.195$ | 10 | $6.559,725$ $1.245,679$ | 10 | 6.306.115 | 10 |
| Banque Canadienne Nationale | $1,01.195$ 618.275 | 10 | 1.245,679 | 10 | 1.169.064 | 10 |
| Imperial Bank of Canada. | 1.115.255 | 12 | 1.158.311 | 12 | 802.612 1.236 .400 | ${ }_{12}^{8}$ |
| Barclays Bank (Canada).. | . | ... | , | ... | , |  |
| Totals. Net Profl | 21,839,337 | ... | 23,429,363 | ... | 22,743,225 | ... |

[^378]Branches of Chartered Banks．－During the period from 1881 to 1901，the number of chartered banks doing business in Canada under the Bank Act remained almost the same（ 36 in 1881 and 1891，and 34 in 1901），but during the present century there has been in banking，as in industry，an era of amalgamations and the number of banks declined to 25 in 1913 and to 10 in 1931．That this has been far from involving a curtailment of banking facilities is seen in Table $\mathbf{9}$ ，which shows the development of the banking business since 1937，and in Table 19，which compares the number of branch banks existing in Canada at different periods and indicates a growth from 123 in 1868 to 4，676，inclusive of sub－agencies，at Dec．31， 1920．As at Dec．31，1943，the total stood at 3,084 （exclusive of 139 branches and 3 sub－agencies in other countries），the reduction resulting from the closing of some unprofitable branches and from contractions brought about by wartime conditions． By Dec．31，1951，the total had increased to 3，776（exclusive of 104 branches outside Canada）．

## 19．－Branches of Chartered Banks in Canada，by Provinces，as at Dec．31，for Certain Years 1868－1951

| or Territory | 1868 | 1902 | 1905 | $1920{ }^{1}$ | $1926{ }^{1}$ | $1930^{1}$ | $1940{ }^{1}$ | $1943{ }^{1}$ | $1946^{1}$ | $1948{ }^{1}$ | 19491 | $1950{ }^{1}$ | $1951{ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． | No． |
| Newfoundland．．． | … | 9 | 10 | 41 | 28 | 28 | 25 | 23 | 23 | 23 | 38 23 | 39 23 | 40 23 |
| Nova Scotia．．．．．． | 5 | 89 | 101 | 169 | 134 | 138 | 134 | 126 | 127 | 132 | 137 | 144 | 147 |
| New Brunswick．． | 4 | 35 | 49 | 121 | 101 | 102 | 97 | 93 | 96 | 97 | 98 | 100 | 101 |
| Quebec． | 12 | 137 | 196 | 1，150 | 1．072 | 1，183 | 1，083 | 1，041 | 1，067 | 1，118 | 1，145 | 1，164 | 1，184 |
| Ontario． | 100 | 349 | 549 | 1，586 | 1，326 | 1，409 | 1，208 | 1，092 | 1，117 | 1，176 | 1，219 | 1，257 | 1，304 |
| Manitoba． |  | 52 | 95 | 349 | 224 | 239 | 162 | 148 | 151 | 157 | 161 | 165 | 168 |
| Saskatchewan |  | 30 | 87 | 591 | 427 | 447 | 233 | 213 | 226 | 230 | 235 | 238 | 240 |
| Alberta．．．．．．．．． |  |  |  | 424 | 269 | 304 | 172 | 163 | 190 | 210 | 230 | 246 | 257 304 |
| British Columbia <br> Yukon and <br> N．W．T |  |  | 55 3 | 242 |  | 229 4 | 192 | 180 | 216 6 | 259 8 | 268 8 | 294 9 | 304 8 |
| Canada | 123 | 747 | 1，145 | 4，676 | 3，770 | 4，083 | 3，311 | 3，084 | 3，219 | 3，410 | 3，562 | 3，679 | 3，776 |

${ }^{1}$ Includes sub－agencies in Canada for receiving deposits for the banks employing them．
20．－Branches of Individual Canadian Chartered Banks in each Province and outside Canada，as at Dec．31， 1951

Note．－This table does not include sub－agencies which numbered 814 in 1951.

| Chartered Banks | New－ foundland | P．E． <br> Island | Nova Scotia | New <br> Brunswick | Quebec | Ontario | Manitoba |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No． | No． | No． | No． | No． | No． | No． |
| Bank of Montreal． | 8 | 1 | 16 | 14 | 111 | 185 | 26 8 |
| Bank of Nova Scotia． | 16 | 8 | 40 | 35 | 29 | 132 | ${ }_{14}^{8}$ |
| Bank of Toronto．．．．．．．．．．．． | － | 2 | 1 | 10 | $\stackrel{21}{111}$ | 123 | 14 |
| Provincial Bank of Canada．．． | 3 | 2 | 19 | 10 | 111 | 226 | 35 |
| Canadian Bank of Commerce． | ${ }_{9}$ | － 5 | 64 | 22 | 89 | 220 | 56 |
| Dominion Bank．．．．． | －－ | － | 1 | 2 | 10 | 107 | 13 |
| Banque Canadienne Nationale | － | － | － | － | 224 | 123 | 7 |
| Imperial Bank of Canada．．．． | 二 | 二 | 1 | 二 | 2 | 123 1 | ， |
| Totals． | 36 | 22 | 142 | 90 | 671 | 1，141 | 162 |

## 20.-Branches of Individual Canadian Chartered Banks in each Province and outside Canada, as at Dec. 31, 1951-concluded

| Chartered Banks | Saskatchewan | Alberta | British Columbia | $\begin{gathered} \text { Yukon } \\ \text { and } \\ \text { N.W.T. } \end{gathered}$ | Outside Canada | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No. | No. | No. | No. | No. |
| Bank of Montreal. | 36 | 50 | 63 | 2 | 5 | 517 |
| Bank of Nova Scotia. | 22 | 23 | 31 | - | 25 | 369 |
| Bank of Toronto.. | 24 | 14 | 17 | 1 | - | 215 |
| Provincial Bank of Canada. | - | - | - | - | - | 135 |
| Canadian Bank of Commerce | 46 | 48 | 75 | 3 | 9 | 544 |
| Royal Bank of Canada.. | 74 | 55 | 62 | 1 | 62 | 718 |
| Dominion Bank. . . . . | 4 | 10 | 5 | - | 2 | 154 |
| Banque Canadienne Nationale | - | ${ }^{2}$ | - | - | 1 | 240 |
| Imperial Bank of Canada.. | $-^{24}$ | $-^{28}$ | 17 | 1 | - | 208 4 |
| Totals. | 230 | 228 | 271 | 8 | 104 | 3,104 |

The number of branches of Canadian banks doing business outside Canada increased rapidly during World War I and the early post-war period, rising to a total of 206 in 1921; the number has gradually declined since.

## 21.-Branches of Individual Canadian Chartered Banks outside Canada, with their Locations, as at Dec. 31, 1950 and 1951

| Bank and Location | 1950 | 1951 | Bank and Location | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bank of Montreal- | No. | No. | Royal Bank of Canada- | No. | No. |
| United Kingdom. | 2 | 2 | United Kingdom...... | 2 | 2 |
| United States... | 3 | 3 | British West Indie | 12 | 12 |
|  |  |  | United States. | 1 | 1 |
|  |  |  | Cuba..... | 17 | 18 |
| Bank of Nova Scotia- |  |  | Puerto Rico...... | 3 | 3 |
| United Kingdom.. | 1 | 1 | Central and South America | 19 | 19 |
| British West Indies. | 13 | 13 | Haiti.............. | $\frac{1}{5}$ | 6 |
| Dominican Republi | 1 | 1 | France............. | 1 | 1 |
| United States. | 1 | 1 |  |  |  |
| Puerto Rico | 2 | 7 2 | Dominion Bank- |  |  |
|  |  |  | Unites Kingdom. | 1 | 1 |
|  |  |  |  |  |  |
| Canadian Bank of Commerce- <br> United Kingdom. <br> British West Indies. $\qquad$ <br> United States. $\qquad$ | 135 | 135 | Banque Canadienne NationaleFrance. <br> Totals. $\qquad$ |  |  |
|  |  |  |  | 1 | 1 |
|  |  |  |  | 103 | 104 |

## 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. Firstly, there is the Post Office Savings Bank, in which deposits are a direct obligation of the Government of Canada; secondly, there are Provincial Government savings banking institutions in Ontario and in Alberta, where the depositor becomes a direct creditor of the province; and thirdly, there are, in the Province of Quebec, two important savings banks, the Montreal City and District Savings Bank and La Banque d'Économie de Québec, established under federal legislation and reporting monthly to the 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, 1947-52

Note.-Figures for earlier years will be found in the corresponding table of previous Year Books. Totals back to 1867 are given in the 1926 and 1946 editions, at pp . 833-834 and 978 , respectively.

| Item | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | \$ | \$ | $\delta$ | \$ | \$ |
| DepositsTotal... | 35,764,512 | 36,226.060 | 37,741,389 | 38,754,634 | 37,661,921 | 33,031,232 |
| Made during year......... | 13,834,474 | 11.983,690 | 12,843,954 | 12,144,889 | 10,368,266 | 11,011,092 |
| Interest on deposits. | 681,694 | 690,584 | 710,012 | 729,007 | 733,899 | 722,804 |
| Totals, cash and interest.... | 14,516,168 | 12,674,274 | 13,553,966 | 12,873,896 | 11,102,165 | 11,733,896 |
| Withdrawals. | 14,288,809 | 12,212,726 | 12,038,638 | 11,860,651 | 12,194,872 | 11,364,584 |

Provincial Government Savings Banks.-Institutions for the deposit of savings are operated by the Provincial Governments of Ontario and Alberta.

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 and $1_{2}^{\frac{1}{2}}$ p.c. per annum compounded half-yearly is paid on accounts. The deposits are repayable on demand. Total deposits at Mar. 31, 1952, were $\$ 59,404,866$ and the number of depositors at that date was approximately 100,000 . Twenty-two branches are in operation throughout the Province.

Alberta.-In Alberta, the Provincial Treasury receives savings deposits and issues 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.c. 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, 1952, was $\$ 391,780$ made up of $\$ 144,980$ in demand certificates and $\$ 246,800$ in term certificates.

In addition, savings deposits are accepted at 45 Provincial Treasury Branches throughout the Province. The total of these deposits at Mar. 31, 1952, was $\$ 17,699,700$ made up of $\$ 13,030,674$, payable on demand, and bearing interest at $\frac{1}{2}$ of 1 p.c. to $1 \frac{1}{2}$ p.c. and $\$ 4,669,026$ payable one year after deposit and bearing interest at 1 p.c. to 2 p.c.

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, 1952, a paid-up capital and reserve of $\$ 6,000,000$, savings deposits of $\$ 174,788,173$, and total liabilities of $\$ 182,559,880$. Total assets amounted to $\$ 182,728,628$, including over $\$ 150,000,000$ of federal, provincial and municipal securities. La Banque d'Économie de Québec, founded in 1848 (as La Caisse d'Economie 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, 1952, savings deposits of $\$ 25,554,212$ and a paid-up capital and reserve of $\$ 3,000,000$. Liabilities amounted to $\$ 28,781,853$ and total assets to $\$ 29,223,496$.

Table 23 shows the savings deposits in the Montreal City and District Savings Bank and La Banque d'Economie de Québec for the years ended Mar. 31, 1938-52.

## 23.-Deposits in the Montreal City and District Savings Bank and La Banque d'Economie de Québec, Years Ended Mar. 31, 1938-52

Nots.-Figures for the years 1868-1926 appear at pp. 833-834 of the 1926 Year Book; for the years 1927-37 at p. 980 of the 1946 edition.

| Year | Deposits | Year | Deposits | Year | Deposits |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ |  | \$ |  | \$ |
| 1938. | 77,260,433 | 1943.. | 84,023,772 | 1948................ | 170,103,786 |
| 1939. | 81,566,754 | 1944. | 103,276,757 | 1949................ | 184,250,615 |
| 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 |

Credit Unions.*-At the end of 1950 there were 2,965 credit unions chartered in the ten provinces of Canada. Total membership of $1,036,175$ was reported, an increase of 95,748 over 1949. Assets in 1950 amounted to $\$ 311,532,000$ compared with $\$ 282,242,000$ in 1949 . Total savings in share and deposit accounts in 1950 increased over 1949 by $\$ 25,000,000$.

Credit unions exist to provide people with a convenient place to deposit savings and also as a source of short-term credit for "provident and productive purposes" During 1950, Canadian credit unions loaned over $\$ 108,500,000$ to their members.

The credit unions are chartered by provincial legislation and supervision and inspection is done by the provincial department concerned. Each province has a credit union league or federation of credit unions which is responsible for the promotion and protection of the credit union movement. As a result of varying and different policies and agencies, development has differed from province to province; Quebec, where the movement was founded on the North American Continent in 1900, is the leading province in the number of credit unions, membership and total assets and Ontario is second in credit union development.

Over 50 p.c. of the credit unions in Canada are found in rural areas and in rural towns and villages. The exceptions to this rule are in Ontario where the development is mostly in industrial areas among wage-earners in plants, factories and offices and in British Columbia where the development is also more pronounced in the industrial cities and towns.

Central Credit Unions.-In every province there exists one or more central credit unions which take as deposits the surplus funds of individual credit unions and make these funds available to other credit unions in need of funds to meet

[^379]loan demands from their members. In addition, these central credit unions can and do invest some of these funds in bonds of municipalities and other governments or in bonds and debentures of commercial co-operatives.

During 1950 there were 23 such central credit unions. Eleven of these were in Quebec, four in Ontario and one in each of the other provinces. Total assets reported in 1950 amounted to $\$ 34,800,000$, of which $\$ 27,000,000$ was held by the 11 centrals in Quebec.
24.-Growth of Credit Unions in Canada, Certain Years, 1920-50

| Year | Provinces in which Unions Exist | Credit <br> Unions | Members | Assets |
| :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | \$ |
| 1920. | 11 | 113 | 31,752 | 6,306,965 |
| 1925 | 11 | 122 | 33,279 | 8,261,515 |
| 1930. | $2^{2}$ | 179 | 45,767 | 11,178,810 |
| 1935. | $3^{3}$ | 277 | 52.045 | 10, 173,997 |
| 1940. | 9 | 1,167 | 201, 137 | 25,069,685 |
| 1941. | 9 | 1,314 | 238,463 | 31,230,813 |
| 1942. | 9 | 1,486 | 295,984 | 43,971,925 |
| 1943. | 9 | 1,780 | 374,069 | 69,219,654 |
| 1944. | 9 | 2,051 | 478,841 | 92,574,440 |
| 1945. | 9 | 2,219 | 590,794 | 145, 890, 889 |
| 1946. | 9 | 2,422 | 688,739 | 187,507,303 |
| 1947. | 9 | 2,516 | 779,199 | 221,116,168 |
| 1948. | 9 | 2,608 | 850,608 | 253,584,282 |
| 1949. | 10 | 2,819 | 940,427 | 282,242,278 |
| 1950. | 10 | 2,965 | 1,036,175 | 311,532,143 |

${ }^{1}$ Quebec. $\quad{ }^{2}$ Quebec and Ontario. ${ }^{3}$ Quebec, Ontario and Nova Scotia.
25.-Summary Statistics of Credit Unions, by Provinces, 1950

| Province | Credit <br> Unions <br> Chart- <br> ered | Credit <br> Unions <br> Report- <br> ing | Members | Assets | Shares | Deposits | Loans to Members During Year | Total Loans Since Inception |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | No. | No. | \$ | \$ | \$ | \$ | \$ |
| N'f'ld | 82 | 73 | 4,572 | 345,188 | 285,976 | 8,335 | 180,062 | 2,220,085 |
| P.E.I | 55 | 55 | 9,928 | 844,632 | 665,050 | 88,908 | 485, 891 | 3,000.000 |
| N.S. | 221 | 194 | 41,882 | 4,868.967 | 4,268.362 | 76,422 | 3,059,413 | 22,746,930 |
| N.B. | 163 | 162 | 43,141 | 4,875,594 | 4,329,938 | 94,671 | 2,641,878 | 19,589,881 |
| Que.-- ${ }_{\text {Desjardins }}$ | 1,084 | 1,077 | 599.517 | 225,630.874 | 16,044,775 | 195,652,461 | 50,313,959 | 503.382,124 |
| Que. League. | 39 | 1,35 | 11,884 | 2,335,239 | 853,147 | 1,245,773 | 1,948,489 | 4,082,226 |
| Montreal Fed. | 10 | 10 | 18,823 | 10,577,857 | 799,917 | 9,166,551 | 1,719,655 | 18,872,385 |
| Ont. | 491 | 440 | 144,871 | 26,478,071 | 15,997, 103 | 7,820,482 | 22,035,285 | 92,747.209 |
| Man | 149 | 134 | 35,315 | 5.615.371 | 3,154,484 | 2,037,212 | 3,858,896 | 19,675,377 |
| Sask | 245 | 245 | 48,236 | 12.560.727 | 7,986,692 | 2,460,893 | 8,788.257 | 37,287,724 |
| Alta | 203 | 199 | 27,836 | 4,607.245 | 3,829,552 | 309,760 | 3,638,043 | 18,242,013 |
| B.C | 223 | 177 | 50.170 | 12,792,378 | 9,806,730 | 1,943,772 | 9,868,437 | 35,396,612 |
| Totals, 1950... | 2,985 | 2,801 | 1,036,175 | 311,532,143 | 68,021,726 | 220,905,240 | 108,538,265 | 777,242,566 |

## Section 4.-Monetary Reserves

Bank of Canada Reserves.-The composition of Canadian gold reserves held by the Government is presented in the 1936 Year Book, at p. 895, for the years 1905 to 1934. Since March 1935 the gold reserves have been held by the Bank of Canada, by authority of the Exehange Fund Act (c. 60, 1935), effective
in July 1935. The reserves are valued at the current market price of gold and are shown under the item "Reserves" in the "Assets" section of Table 1, p. 1098. As explained in the footnote to that table, under the Exchange Fund Order of Apr. 30, 1940, the gold reserves of the Bank of Canada were transferred to the Exchange Fund Account but the requirement that the Bank should maintain a reserve of gold equal to not less than 25 p.c. of its total note and deposit liabilities in Canada was suspended.

Chartered Bank Cash Reserves.-Until March 1935, legal tender cash reserves in Canada were made up partly of Dominion notes, partly of gold coin and bullion, and subsidiary coin, including these forms of cash held by the banks and as deposits in the Central Gold Reserves. In so far as these reserves were in actual gold or were in Dominion notes backed by gold, they were subject, so long as Canada was on the gold standard, to the expanding or contracting influences of monetary gold imports or exports arising from Canada's balance of international payments.

When the Bank of Canada was established, the chartered banks turned over their reserves of gold in Canada and Dominion notes to the new bank in exchange for deposits with, and notes of, the Bank of Canada and it was provided that, henceforth, the chartered banks were to carry reserves in these forms amounting to at least 5 p.c. of their deposit liabilities in Canada. Since that time, therefore, the gold reserves against currency and bank credit have been in the custody of the central bank, except as affected by the Exchange Fund Order, 1940, as explained under "Bank of Canada" in Section 1, p. 1095.

## 26.-Annual Averages of Cash Reserves of the Chartered Banks, 1942-51

Note.-Figures, to nearest million, supplied by the Bank of Canada. Cash reserves include notes and deposits with the Bank of Canada. Figures for the years 1926-41 are given at p. 960 of the 1946 Year Book.

| Year | Annual <br> Average of Daily Figures | Annual <br> Average of Month-End Figures | Year | Annual Average of Daily Figures | Annual <br> Average of Month-End Figures |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\$$ | \$ |  | \$ | \$ |
| 1942. | 342,000.000 | 340,000,000 | 1947. | 670,000,000 | 665,000,000 |
| 1943. | 423,000.000 | 413,000,000 | 1948. | 711,000,000 | 705.000.000 |
| 1944. | 538,000,000 | 527,000.000 | 1949. | 746,000,000 | 748,000,000 |
| 1945. | 603.000.000 | $593,000.000$ | 1950. | 755.000,000 | 754.000,000 |
| 1946. | 672,000,000 | 673,000,000 | 1951. | 791,000,000 | 783,000,000 |

## Section 5.-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 $\$ 4 \cdot 866$ 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, the dollar in the two countries was equivalent at par, and variation was only between the import and export gold points or under $\$ \mathbf{2}$ 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 Sigtrs ind, 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 $\$ 3 \cdot 18$ 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 $\$ 1 \cdot 10$ and $\$ 1 \cdot 11$ and $\$ 4 \cdot 43$ and $\$ 4 \cdot 47$, 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 $\$ 1 \cdot 10 \frac{1}{2}$ and $\$ 4 \cdot 45$, 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 $\$ 1 \cdot 00$ and $\$ 1 \cdot 00 \frac{1}{2}$ and sterling, $\$ 4 \cdot 02$ and $\$ 4 \cdot 04$. 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 $\$ 1 \cdot 10$ ard $\$ 1 \cdot 10 \frac{1}{2}$ 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.

On Sept. 30, 1950, the Minister of Finance announced that official fixed foreign exchange rates, that 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.

The foregoing review is exclusive of the free market for Canadian dollars in New York which existed until the suspension of fixed rates. The Foreign Exchange Control Board permitted transfers, between non-residents, of Canadian dollars that were not convertible into foreigh exchange at official rates; these consisted of non-resident owned bank balances, augmented by receipts from maturing capital obligations to non-residents in Canadian funds and certain restricted payments
by residents and could be used mainly for travel and capital investment in Canada. The volume of such trading in Canadian funds was very small in relation to turnover in the official market; it was almost entirely outside the orbit of dealings between residents and non-residents and quotations were frequently erratic owing to the narrow market, varying from virtual parity with official rates to as much as 15 p.c. under these. After the designation of official rates of exchange was withdrawn, the so-called unofficial rates for Canadian dollars at New York disappeared.

Changes in Exchange Control Policies and Methods, 1950 and 1951.*On Dee. 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.

This action followed a period in which there had been a progressive relaxation of Canadian exchange restrictions. Travel restrictions were abolished in October 1950 and the last of the import restrictions imposed for exchange reasons were done away with at the beginning of 1951. During 1951, there were a number of relaxations in administrative procedures followed by the Foreign Exchange Control Board and in February the Foreign Exchange Control Regulations were amended to increase from $\$ 50$ to $\$ 100$ the amount of United States currency which a resident of Canada might retain in his possession, and the exemption from permit for the export of currency by resident travellers was changed from $\$ 50$ in United States currency and a total of $\$ 100$ in both United States and Canadian currency to a combined total of $\$ 100$ in either currency. Furthermore, the Regulations were amended to increase from $\$ 50$ to $\$ 100$ the general exemption from completion of a permit form for applications for United States dollars in forms other than currency. At the same time, the authority of banks and other agents to sell United States dollars for benevolent remittances was increased from $\$ 50$ to $\$ 100$ per applicant per month.

Commencing in October 1951, a resident of Canada moving to a United States dollar area country was permitted to transfer up to $\$ 25,000$ at the time of departure and, upon investing any remainder of his cash assets in Canadian securities, was treated immediately as a non-resident for exchange control purposes. Accordingly, thereafter he could obtain the transfer of any Canadian income or was free to export and sell his Canadian securities outside Canada. Previously, the maximum amount, of funds that could be transferred was $\$ 25,000$ a year for three years and only at the end of that period was an emigrant regarded as a non-resident with respect to any balance of his assets in Canada.

After October 1951, favourable consideration was given to applications by Canadian mining and oil interests to obtain United States dollars to make direct investments abroad in mining and oil properties. Until that time such applications ordinarily had not been approved.

[^380]
## 27.-Canada's Holdings of Gold and United States Dollars, as at Dee. 31, 1939-51

(Millions of U.S. Dollars)

| Year | Exchange Fund Account and Bank of Canada |  | Other Government of Canada Accounts | Total ${ }^{\text {l }}$ | Year | Exchange Fund Account and Bank of Canada |  | Other Government of Canada Accounts | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Gold | U.S. Dollars | U.S. Dollars | Gold and U.S. Dollars |  | Gold | U.S. Dollars | U.S. Dollars | Gold and U.S. Dollars |
| $1939{ }^{2}$. | $204 \cdot 9$ | 33.8 | 22.4 | $393 \cdot 1$ | 1945. | 353.9 | $922 \cdot 0$ | $232 \cdot 1$ | 1,508.0 |
| 1939. | $218 \cdot 0$ | 54.8 | $33 \cdot 4$ | $404 \cdot 2$ | 1946. | 536.0 | $686 \cdot 3$ | $22 \cdot 6$ | 1,244.9 |
| 1940... | $136 \cdot 5$ | $172 \cdot 8$ | $20 \cdot 8$ | $332 \cdot 1$ | 1947. | $286 \cdot 6$ | 171.8 | $43 \cdot 3$ | $501 \cdot 7$ |
| 1941... | $135 \cdot 9$ | 28.2 | 23.5 | $187 \cdot 6$ | 1948... | $401 \cdot 3$ | 574.5 | 22.0 | 997.8 |
| 1942.... | $154 \cdot 9$ | $88 \cdot 0$ | $75 \cdot 6$ | $318 \cdot 5$ | 1949. | 486.4 | $594 \cdot 1$ | $36 \cdot 6$ | 1,117-1 ${ }^{8}$ |
| 1943. | $224 \cdot 4$ | $348 \cdot 8$ | 76.4 | $649 \cdot 6$ | 1950. | $580 \cdot 0$ | 1,144-9 | 16.6 | 1,741-5 |
| 1944. | 293.9 | $506 \cdot 2$ | $102 \cdot 1$ | 902 -2 | 1951 | 841.7 | 899.5 | $37 \cdot 4$ | 1,778.6 |

${ }^{1}$ Includes private holdings, exclusive of working balances, of $\$ 132,000,000$ at Sept. $15,1939, \$ 98,000,000$ at Dec. 31, 1939, and $\$ 2,000,000$ at Dec. 31, 1940.
${ }^{2}$ Sept. 15.
${ }^{3}$ 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 United States dollars.

## PART II.-MISCELLANEOUS COMMERCIAL FINANCE <br> Section 1.-Loan and Trust Companies*

The 1934-35 Year Book presents at p. 993 an outline of the development of loan and trust companies in Canada from 1844 to 1913.

The laws relating to loan and trust companies were revised by the Loan and Trust Companies Acts of 1914 (4-5 Geo. V, cc. 40 and 55), with the result that the statistics of provincially 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 1948 to 1951 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 federal 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. In 1920, the Department of Insurance took over from the Department of Finance the administration of the legislation concerning federal loan and trust companies.

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 $\$ 292,095,485$ in 1951. The assets of trust companies (not including estates, trust and agency funds, which cannot be regarded as assets in the same

[^381]sense as company and guaranteed funds) increased from $\$ 154,202,165$ in 1928 to $\$ 454,824,789$ in 1951 . In the former year, the total of estates, trust and agency funds administered amounted to $\$ 1,077,953,643$ and in 1951 to $\$ 3,826,542,326$.

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 loan companies, federal and provincial, may be gauged by the following figures. Total assets of these companies for the years 1950 and 1951 amounted to $\$ 280,237,893$ and $\$ 292,095,485$, respectively, which amounts include mortgage loans of $\$ 169,943,616$ and $\$ 186,508,636$, respectively, with resulting percentages of mortgages to total assets of approximately 60 p.c. and 64 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, 1948-51

| Item | 1948 |  |  | 1949 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Provincial Companies ${ }^{1}$ | Federal Companies | Total | Provincial Companies ${ }^{1}$ | Federal Companies | Total |
| Loan Companies | 8 | 8 | \$ | \$ | \$ | \$ |
| Assets(book values)- | 78,287,490 | 165,261, 293 | 243,548,783 | 80, 207,903 | 179,795, 977 | 260, 003, 880 |
| Liabilities to the public. | 48,775,726 | 130,573,614 | 179,349,340 | 51,546,444 | 144,414,068 | 195,960,512 |
| Capital Stock- |  |  |  |  |  |  |
| Subscribed... | 28,13,319,552 | $56,000,000$ $21,413,900$ | $85,139,345$ $38,733,452$ | 26,138,345 | $56,000,000$ $21,340,200$ | $82.138,345$ 37.841 .061 |
| Paid-up.. | 15,517,508 | 17,980,206 | 33,497, 714 | 14,106,858 | 18,043,255 | 32,150,113 |
| Reserve and contingency funds | 10,377,070 | 15,114,978 | 25,492,048 | 10,172,049 | 16,344,780 | 26,516,839 |
| Other liabilities to shareholders. | 3,617,186 | 1,443,342 | 25, 5,065, | $10,172,019$ $4,382,552$ | $16,314,780$ 993,863 | 5,376,415 |
| Total liabilities to |  |  |  |  |  |  |
| shareholders.. | 29,511,764 | 34,543,526 | 64,055,290 | 28,661,459 | 35,381,908 | 64,043,367 |
| during year | 1,380,885 | 1,685,186 | 3.066.071 | 1.316.827 | 1,704,111 | 3,020,938 |

For footnote, see end of table, p. 1124.
98452-71 $\frac{1}{2}$

## 1.-Operations of Provincial and Federal Loan and Trust Companies, as at Dec. 31, 1948-51-concluded

| Item | 1948 |  |  | 1949 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Provincial Companies ${ }^{1}$ | Federal Companies | Total | Provincial Companies ${ }^{1}$ | Federal Companies | Total |
| Trust CompaniesAssets (book values)- |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Company funds..... | 67,951,786 | 25,788,544 | 93,740,330 | 67,851,784 | 26, 244,737 | 94,096,521 |
| Guaranteed funds... | 190, 958,447 | 81,845,528 | 272, 803,975 | 209,764,168 | 90,111,500 | 299,875,668 |
| Totals, Assets...... | 258,910,233 | 107,634,072 | 366,544,305 | 277,615,952 | 116,356, 237 | 393,972,189 |
| Estates, trust, and agency funds....... | 2,791,584,578 | 580, 860,797 | 3,312, 445,115 | 2,827,988,797 | 560,080,611 | 3, $388,069,408$ |
| Capital Stock- |  |  |  |  |  |  |
| Authorized. | 47,225,000 | $32,250,000$ | $79.475,000$ | 46,825,000 | 35,250,000 | 82,075,000 |
| Subscribed | 25,532,885 | 15,180, 270 | $40,713,155$ | 25, 994, 893 | 15,137,270 | 41,132,163 |
|  | $24,414,635$ | 14,459,414 | 38,874,049 | 25,606,885 | 14,535,022 | 40,141,907 |
| Reserve and contingency funds.. <br> Unappropriated surpluses. <br> Net profits realized during year. | 24,673,056 | 7,994,585 | 32,667,641 | 25,761,163 | 8,483,619 | 34,244,782 |
|  | 5,005,479 | 1,497,401 | 6,502,880 | 5,070,066 | 1,687,405 | 6,757,471 |
|  | 3,088,762 | 896,527 | 3,985,289 | 3,231,508 | 1,172,427 | 4,403,935 |
|  | 1950 |  |  | 1951 |  |  |
|  | Provincial Companies ${ }^{1}$ | Federal Companies | Total | Provincial Companies ${ }^{1}$ | Federal Companies | Total |
|  | \$ | 8 | \$ | \$ | \$ | \$ |
| Loan Companies- |  |  |  |  |  |  |
| Assets (book values)- <br> Liabilities to the | 89,504,876 | 190,733,017 | 280, 237,893 | 88,991,635 | 203,103,850 | 292,095,485 |
|  | 59,893,359 | 152,825,544 | 212,718,903 | 63,699,805 | 165,768,886 | 229,468,691 |
| Capital Stock- | 30,997,745 | 56,000,000 | 86, 997,745 | 23,994,745 | 56,250,000 | 80,244,745 |
| Subscribed | 19,008, 850 | 23, 832,200 | 42,841,050 | 13,816,150 | 21,582,700 | 35, 398,850 |
| Paid-up. | 16,081,176 | 20,606,187 | 36,687,363 | 10,374,952 | 18,419,587 | 28,794,539 |
| Reserve and contingency funds. | 9,541,353 | 15,973,533 | 25,514,886 | 10,494,902 | 17,139,072 | 27,633,974 |
| Other liabilities to sharehoiders. | 3,988,988 | 1,230,914 | 5,219,902 | 4,421,976 | 1,641,154 | 6,063,130 |
| Total liabilities to shareholders. | 29,611,517 | 37,810,634 | 67,422,151 | 25,291,830 | 37,199, 813 | 62,491,643 |
| Net profits realized during year......... | 1,217,149 | 3,638,469 | 4,855,618 | 1,417,456 | 1,664,925 | 3,082,381 |
| Trust Companies- |  |  |  |  |  |  |
| Assets (book values)- |  |  |  |  | 28,446,331 | 102, 845,736 |
| Guaranteed funds... | 247,480,875 | 93,082,706 | 140,563,581 | 258,413,136 | 93,565,917 | 351,979,053 |
| Totals, Assets | 319,814, 291 | 121,071,579 | 440,885,870 | 332, 812,541 | 122,012, 248 | 454, 824, 789 |
| Estates, trust, and agency funds...... | 3,126,058,749 | 494,686,746 | 3,620,695,495 | 3,282,558,57\% | 543.988,754 | 3,826,542,3¢6 |
| Capital Stock- |  |  |  |  |  |  |
| Subscribed | 28,960,910 | 15, 252,370 | 44,213,280 | 28, 877, 360 | 15,473, 600 | 44, 350,960 |
| Paid-up............... Reserve and contingency funds <br> Unappropriated surpluses. <br> Net profits realized during year. | 28,701,960 | 14,739,987 | 43,441,947 | 28,813, 610 | 15, 132, 221 | 43,945, 831 |
|  | 24,664,370 | 9,671,506 | 34,335,876 | 26,061,982 | 8,905,180 | 34,967,162 |
|  | 5,454,086 | 1,691,141 | 7,145,227 | 5,422,648 | 1,508,437 | 6,931,085 |
|  | 3,440,335 | 1,369,090. | 4,809,425 | 3,395, 841 | $-30,458$ | 3,365,383 |

[^382]
## 2.-Assets and Liabilities of Loan Companies, 1946-51

| Item | Chartered by Government of Canada ${ }^{1}$ |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 |
| Assets | \$ | \$ | \$ | \$ | \$ | $\delta$ |
| Real estate ${ }^{2}$. | 5,210,485 | 4,935,971 | 4,943,594 | 5,266,696 | 5, 604,342 | 6,571,189 |
| Loans on real estate. | 73, 238,639 | 79, 292,340 | 93,301,864 | 111,574,957 | 124, 199,351 | 136,720,021 |
| Loans on securities................. | 119,989 | 156,267 | 599,808 | 103,467 | 107,823 | 116,621 |
| Bonds and debentures | 47,282,419 | 47,527,308 | 43,902,301 | 39,797, 131 | 33, 877,064 | 33, 674,081 |
| Stocks. | 11,940,677 | 15,020,787 | 17,159,691 | 17,059,957 | 18,161, 270 | 16,071, 135 |
| Cash. | 6,287,779 | 7,357,359 | 4,613,211 | 4,941,023 | 7,624,167 | 8,508,316 |
| Totals, Assets ${ }^{3}$ | 145,016,997 | 155,117,857 | 165,261,293 | 179,795,977 | 190,733,017 | 203,103,850 |
| Labilities |  |  |  |  |  |  |
| Liabilities to Shareholders- |  |  |  |  |  |  |
| Capital paid up. | 17,584,585 | 17,929,296 | 17,980,206 | 18,043,255 | 20,606,187 | 18,419,587 |
| Reserves. | 12,652,845 | 14,639,710 | 15,114,978 | 16,344,790 | 15, 973,533 | 17, 139,072 |
| Total Liabilities to Shareholders ${ }^{4}$ | 31,411,048 | 33,860,101 | 34,543,526 | 35,381, 908 | 37,810,634 | 37,199,813 |
| Liabilities to the Public- |  |  |  |  |  |  |
| Debentures.. | 58,438,590 | 60,201,118 | 62,008,012 | 69,075,197 | 71,803,927 | 86,603,723 |
| Deposits... | 54, 047, 133 | 59,889,951 | 67,289,900 | 73,919,782 | 79,141,868 | 77,219,272 |
| Total Liabilities to the Publics.. | 113,605,949 | 121,257,756 | 130,573,614 | 144,414,068 | 152,825,545 | 165,768,886 |
| Totals, Llabilities. | 145,016,997 | 155,117,857 | 165,117,140 | 179,795,976 | 190,636,179 | 203,103,850 |


${ }^{1}$ Includes companies chartered by the Government of Nova Scotia, which by arrangement are inspected by the Federal Department of Insurance. real estate. to shareholders.
${ }^{3}$ Includes interest due and accrued and other assets. 5 Includes other liabilities to the public.
companies use and other
Includes other liabilities - Exclusive of Nova Scotia.

## 3.-Assets and Liabilities of Trust Companies, 1946-51



| Assets | Chartered by Provinces |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | § | \$ | \$ | \$ | \$ | \$ |
| Company Funds- |  |  |  |  |  |  |
| Real eatate ${ }^{2,4}$... | 6,339,568 | 5,982,330 | 6,662,66b | 6,959,057 | 5,372,046 | 5,745,326 |
| Loans on real estate ${ }^{4}$ | 9,759,731 | 9,479,724 | 10, 429, 273 | 11,707, 231 | 15,086,011 | 16,045,557 |
| Loans on securities ${ }^{4}$. | 4,765,892 | 3,789, 193 | 5,112,362 | 4,010,537 | 5,677,620 | 8,002,620 |
| Bonds and debentures ${ }^{4}$ | 23,484, 241 | 25,579,928 | 24,601,837 | 25,040,185 | 25,677, 269 | 22,768, 209 |
| Stocks ${ }^{4}$ | 12,259,940 | 11,344,958 | 12,875,927 | 12,725,583 | 13,215,469 | 14,887, 436 |
| Cash. | 4,514,703 | 4,403,126 | 2,888,357 | 3,406,003 | 3,788,458 | $3,198.260$ |
| Totals, Company Funds ${ }^{3}$...... | 64,587,553 | 64,100,014 | 65,639,018 | 68,188,785 | 72,736,140 | 74,399,404 |
| Guaranteed Funds- |  |  |  |  |  |  |
| Loans on securities.. | 7,567, 294 | 6,258,458 | 6,366,905 | 6,660,312 | 9,461,646 | 11,758,999 |
| Bonds and debentures | 103,647,928 | 117, 895, 259 | 128,182, 839 . | 144,713,565 | 166,622,452 | 166,796, 191 |
| Stocks............. | 4,084,365 | 3,598, 140 | 3,483,412 | 3,735,979 | 3,576,030 | 3,324,910 |
| Cash. | 7,696,970 | 7,283,481 | 9,237,682 | 10,142,915 | 13,482,543 | 12,981,945 |
| Totals, Guaranteed Funds ${ }^{3}$. | 158, 506, 553 | 171,354,194 | 190,678, 903 | 213,671,444 | 251,832,240 | 258, 413,136 |
| Labilities |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Reserves.. | 22,399,023 | 24,351,314 | $24,724,995$ | 26,177,783 | 24,664,370 | 26,061,982 |
| Totals, Company Funds ${ }^{5}$...... | 64,454,323 | 64, 103,013 | 65,639, 021 | 68,188,784 | 72,333,416 | 74,399,405 |
| Guaranteed FundsPrincipal | 158,506,553 | 171,354,194 | 190, 678,903 | 213,671,444 | 247, 480, 875 | 258,413,136 |
| Totals, Guaranteed Funds. . . | 158,506,553 | 171,354,194 | 190,678,903 | 213, 671,444 | 247, 480, 875 | 258,413,136 |

[^383]4.-Estates, Trust and Ageney Funds of Trust Companies, Chartered by or Supervised by the Federal Government and by Provincial Governments, as at Dee. 31, 1942-51.

| Year | Federal Companies ${ }^{1}$ | Provincial Companies ${ }^{2}$ | Total | Year | Federal Companies ${ }^{1}$ | Provincial Companies ${ }^{2}$ | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |  | \$ | \$ | \$ |
| 1942. | 290,630,617 | 2,444, 979, 796 | 2,735,610.413 | 1947. | 480,931,822 | 2,735,930,892 | 3,216,862,714 |
| 1943 | 313,457,551 | 2,528,566,545 | 2,842,024,096 | 1948 | 520,860,737 | 2,791,584,378 | 3,312,445,115 |
| 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 |

[^384]
## Section 2.-Licensed Small Loans Companies and Licensed Money-Lenders

Incorporated by the Parliament of Canada, are four companies that make small loans, usually not exceeding $\$ 500$ each, on the promissory notes of the borrowers and secured additionally in most cases by endorsements or chattel mortgages. While these companies, under their original charter powers, were permitted to make loans on the security of real estate, that power was withdrawn by the Small Loans Act, 1939 (3 Geo. VI, c. 23).

Under legislation that came into force on Jan. 1, 1940, small loans companies and money-lenders licensed thereunder, making personal loans of $\$ 500$ or less, are limited to a rate of cost of loan not in excess of 2 p.c. per month on outstanding balances, and unlicensed lenders to a rate of 12 p.c. per annum, including interest and charges of every description.

## 5.-Assets and Liabilities of Small Loans Companies Chartered by the Federal Government, as at Dec. 31, 1945-50

Nore.-Figures for the years 1928-32 will be found at p. 838 of the 1942 Year Book; those for the years 1933-38 at p. 988 of the 1946 edition; and those for 1939-44 at p. 1062 of the 1951 edition.

| Assets and Liabilities | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Assets | $\delta$ | \$ | \% | 8 | 8 | $\delta$ |
| Loans receivable | 13,354,915 | 20,307,530 | 24,425,312 | 36,533,501 | 43,718,071 | 51.864,421 |
| Cash on hand and in banks.. | 734,583 | 377,813 | 1,073,419 | 3,800,365 | 1,821,982 | 1,771,505 |
| Other | 1,911,332 ${ }^{1}$ | 4,232,126 ${ }^{2}$ | 7,144,612 ${ }^{3}$ | 2.331,969 | 3,381,895 | 7,571,915 |
| Totals, Assets | 16,000,830 | 24,917,469 | 32,643,343 | 42,665,835 | 48,921, 948 | 61,207,841 |
| Liabilities to Shareholders |  |  |  |  |  |  |
| General reserve. | 18,000 | 18,000 | 18,000 | 18,000 | 18,000 | 18,000 |
| Reserve for losses | 586,428 | 915,290 | 1,122,974 | 1,318,365 | 1,507,692 | 1,954,883 |
| Capital paid up | 3,965,000 | 4,155,000 | 4,555,000 | 4,565,000 | 4,565,000 | 4,565,000 |
| Other liabilities | 4,083,179 | 4,555,347 r | 4,428,560 | 4,148, 179 | 4,230,110 | 4,410,809 |
| Totals, Liabilities to Shareholders. | 8,652,607 | 9,643,637 r | 10,124,534 | 10,049,544 | 10,320,802 | 10,948,692 |
| Liabilities to the PublicBorrowed money. Other liabilities ${ }^{6}$. | $\begin{array}{r} 7,077,840 \\ 270,383 \end{array}$ | $\begin{array}{r} 15,007,689 \\ 260,629 \end{array}$ | $\begin{array}{r} 22,003,002 \\ 510,292 \end{array}$ | $\begin{array}{r} 31,938,137 \\ 672,639 \end{array}$ | $\begin{array}{r} 37,658,423 \\ 937,207 \end{array}$ | $\begin{array}{r} 49,019,667 \\ 1,233,966 \end{array}$ |
| Totals, Liabilities to the Public. | 7,348,223 | 15,268,318 | 22,513,294 | 32,610,776 | 38,595.630 | 50,253,633 |
| Totals, Liabilities | 16,000,830 | 24,917,469 ${ }^{\text {b }}$ | 32,643,34 | 42,665,835 ${ }^{6}$ | 48,921,948 ${ }^{\circ}$ | 61,207,840 ${ }^{\circ}$ |

[^385]The small loans companies chartered by the Federal Government showed a substantial increase in business for 1950 as compared with the previous year. The number of loans made to the public during the year increased from 434,710 to 521,701 or by 20 p.c. and the amount of such loans rose from $\$ 86,303,395$ to $\$ 105,746,067$. The average loan was approximately $\$ 203$ in 1950 compared with $\$ 199$ in 1949. At the end of 1950 , loans outstanding numbered 339,020 for an amount of $\$ 51,864,421$ or an average of $\$ 153$ per loan.

Licensed Money-Lenders.*-In addition to the above-mentioned small loans companies, 56 licensed money-lenders furnished annual statements of their business showing, for 1950 , total assets of $\$ 27,321,717$ of which balances of small loans amounted to $\$ 6,742,511$, other balances to $\$ 19,091,024$, bonds, debentures and stocks to $\$ 221,718$, real estate to $\$ 67,895$, cash to $\$ 607,019$ and other assets to $\$ 591,550$. Liabilities amounted to $\$ 27,321,718$, of which borrowed money accounted for $\$ 19,007,830$ and paid shares and partnership capital for $\$ 3,570,081$. Loans made during the year numbered 64,971 for an amount of $\$ 13,549,304$, an average of $\$ 209$. At the end of the year there were 46,328 loans outstanding with a total value of $\$ 6,742,511$. Of the loans made, 60 p.c. were between $\$ 100$ and $\$ 300$ and 12 p.c. were between $\$ 400$ and $\$ 500$.

## Section 3.-Sales of Canadian Bonds $\dagger$

Previous editions of the Year Book have traced the sales of Canadian bonds through the periods of two world wars and, in the post-war years, to the conclusion of financing in 1949. In the 1950 edition, at pp. 1088-1094, a detailed account was published of "The Underwriting and Distribution of Investments and their Influence on the Capital Market in Canada". The present edition brings the tables for sales of and applications for Government of Canada bonds, and sales of Canadian bonds, by class of bond and country of sale, to the end of 1951, with particular reference to significant developments on Canadian bond markets in that year.

For 1951, public bond financing totalled $\$ 1,617,768,837$ compared with $\$ 3,153,440,453$ for 1950 . The 1951 aggregate includes sales of Canada Savings Loan Series 6, to Mar. 31, 1952, only. whereas figures for previous issues include totals for the entire savings loans flotations to the closing dates in the subsequent years (see Table 5). When complete figures are available for the Canada Savings Loan of 1951, however, the total aggregate financing in that year will still be much less than the total for 1950.

Not only did a marked decline take place in the dollar totals of bond sales in 1951 but important changes also occurred in the price levels of Canadian Government, municipal and corporation securities. Early in March, Government antiinflationary credit policies led to a sharp decline and, with a lower market price, bond yields began to climb. At the year-end, long-term bonds of the Government of Canada sold at a yield of approximately $3 \cdot 40$ p.c., representing an increase of more than two-fifths of 1 p.c. during the year. In addition, new bond issues of governments and corporations were offering a significantly higher interest return while other classes of bonds experienced changes, ranging as high as 1 p.c. in the case of municipals.

[^386]While the total of Canadian bond sales declined in 1951, the amount sold in the United States continued to increase. Development of the United States market has shown a marked upward trend since 1947 when the Canadian bond market was absorbing virtually all of the new bond financing. For example, the total of Canadian issues sold in the United States was $\$ 88,311,000$ in 1947, $\$ 150,000,000$ in 1948, $\$ 140,000,000$ in 1949, $\$ 172,700,000$ in 1950 and $\$ 384,023,000$ in 1951. Of the 1951 total, $\$ 253,015,000$ was for provincial issues, $\$ 73,508,000$ was for municipals and $\$ 57,500,000$ represented corporation borrowing.

Most of the Government of Canada financing during 1951, as in previous years, was not in the nature of direct offerings to the general public. For this reason, the totals for treasury bills, deposit certificates and other financing for a term of less than one year, have been excluded from the totals of bond sales. One notable exception to this trend in federal financing was Canada Savings Loan Series 6 bonds. In respect to the payroll division of this flotation, it is noteworthy that the number of individual subscriptions was well represented.

In 1951, provincial and guaranteed flotations totalled $\$ 369,532,000$, a decrease of $\$ 4,292,500$ from the $\$ 373,824,500$ total for the previous year. With the exception of the Province of Alberta, all provinces entered the market in 1951, as follows:-

| Month | Province | Amount | Month | Province | Amount |
| :---: | :---: | :---: | :---: | :---: | :---: |
| January | Saskatchewan | \$3,000,000 | September | Ontario | \$ 50,000,000 |
| January. | Saskatchewan | 3,000,000 | September. | New Brunswick | 3,427,000 |
| February | New Brunswick | 13,360,000 | October | Manitoba | 9,600,000 |
| February | . Saskatchewan. | 1,875,000 | October | . Nova Scoti | 15,000,000 |
| March.. | Quebec. | 50,000,000 | October | Manitoba | 7,500,000 |
| May. | Saskatchewan | 4,150,000 | December. | Ontario. | 50,000,000 |
| May. | Ontario. | 50,000,000 | December. | New Brunswick | 10,000,000 |
| June. | New Brunswick | 5,000,000 | December. | . Saskatchewan. | 5,000,000 |
| June. | Manitoba. | 10,400,000 | December. | . Prince Edward Island. | 2,500,000 |
| July. | Nova Scotia. | 7,000,000 |  |  |  |
| August. | British Columbia | 35,000,000 | Totals. |  | \$335,812,000 |

The remainder of the $\$ 369,532,000$ in provincial and guaranteed financing for 1951 was for municipal issues that were provincially guaranteed and for provincial hydro developments. Of the former classification, a total of $\$ 645,000$ was borrowed by five municipalities in Newfoundland during the month of November, all these issues being guaranteed by the Province of Newfoundland. The municipalities concerned were the towns of Fortune $(\$ 115,000)$, Grand Banks $(\$ 200,000)$, Harbour Grace ( $\$ 50,000$ ), and Lewisporte ( $\$ 120,000$ ), and the rural district of Springdale Southbrook ( $\$ 160,000$ ).

An over-all reduction in bond sales in 1951 was caused principally by decreased borrowings by the Government of Canada which had large refunding operations in the previous year. For example, municipal financing totalled $\$ 196,438,916$ for 1951, exclusive of a total of $\$ 37,967,921$ for parochial and miscellaneous purposes (chiefly for schools and hospitals). These totals compared with $\$ 150,369,281$ and $\$ 30,466,369$, respectively, for 1950 . The largest single amount borrowed by any one municipality during 1951 was represented by a flotation of the City of Toronto, through three serial issues in May, totalling $\$ 20,000,000$ and sold in the United States. There were also substantial borrowings in the New York market by other principal Canadian cities, including Ottawa, Hamilton, Edmonton, Quebec and Vancouver.

Corporation financing during 1951 totalled $\$ 451,630,000$, an increase of $\$ 20,449,697$ from the $\$ 431,180,303$ total of 1950 , reflecting the continued high value of new capital investment in plant and equipment which has characterized the Canadian economy in the post-war years. Many of the corporation issues were widely distributed and quickly taken up by investors. One of the most interesting features in the corporation classification of bond sales was an issue of the Trans Mountain Oil Pipe Line which sold $\$ 30,000,000$ in Canada and $\$ 35,000,000$ in the United States. Purpose of the issue was to provide a part of the capital necessary for the construction of an oil pipe line from Alberta to the Pacific Coast.

The largest issue in 1951 of any concern engaged in the transportation industry was the $\$ 30,000,000,3 \frac{1}{2}$ p.c., 15 -year, convertible debentures of the Canadian Pacific Railway. Since the Canadian National Railways made an arrangement to have funds provided by the Government of Canada, it was not, as in previous years, a large borrower in the open market. Equipment trust certificates, however, were sold by the Canadian National Railways and the Superior Rolling Stock Company. These issues totalled $\$ 13,500,000$ and $\$ 1,200,000$, respectively.

The Monetary Times records indicate that 26 provincial and guaranteed issues, 564 municipal issues (including parochial and miscellaneous) and 79 corporation issues were placed during 1951. Thus, the average of provincial and guaranteed issues was $\$ 14,212,769$, the average of municipal issues (including parochial and miscellaneous) was $\$ 415,615$ and the average of corporation issues was $\$ 5,716,836$. The average total of all issues sold, during 1951, was $\$ 6,781,740$ (excluding Government of Canada flotations, since complete figures were not available, at time of writing, for the Sixth Savings Loan).

## 6.-Sales of and Applications for Federal Government Bonds, Feb. 1, 1910, to Nov. 1, 1951

| Type and Date of Loan | $\begin{aligned} & \text { Purchases } \\ & \text { by } \\ & \text { Individuals } \end{aligned}$ | $\begin{gathered} \text { Purchases } \\ \text { by } \\ \text { Corporations } \end{gathered}$ | Total Cash Sales | Applications |
| :---: | :---: | :---: | :---: | :---: |
|  | \$'000 | \$'000 | \$'000 | No. |
| War LoansFeb. 1, 1910 | 132,000 | 68,000 | 200,000 | 178,363 |
| Oct. 1, 1940 | 113,000 | 187,000 | 300,000 | 150,890 |
| Vietory Loans- |  |  |  |  |
| June 15, 1941. | 279,500 | 450,900 |  |  |
| Mar. 1, 1942. | 335.600 | 507,500 | 843,100 | 1,681,267 |
| Nov. 1, 1942 | 374,600 529,500 | 616,800 779,200 | 991,400 $1.308,700$ | $2,032,154$ $2,688,420$ |
| May 1, 1943. | 529,500 599,700 | 779,200 775,300 | $1.308,700$ $1,375,000$ | 2,668,420 |
| Nov. 1, 1943. May 1, 1944. | 599,700 641,500 | 775,300 763,500 | $1,375,000$ $1,405,000$ | 3, $3,077,123$ |
| Nov. 1, 1944 | 766,400 | 751,200 | 1,517,600 | 3,327,315 |
| May 1, 1945. | 836,300 | 732,600 | 1,563,6191 | 3,178,275 |
| Nov. 1, 1945. | 1,221,342 | 801,132 | 2,027,487 ${ }^{1}$ | 2,947,636 |
| Savings Loan-2 |  |  |  |  |
| Nov. 1, 1946. | 535,285,550 | - | 535,285,550 | 1,248,444 |
| Nov. 1, 1947. | 287,733,100 | - | $287,733,100$ | 910,742 |
| Nov. 1, 1948. | 260,491,150 | - | 260,491,150 |  |
| Nov. 1, 1949 | 320,200,000 | - | $320,200,000$ 285000 | $1,015,579$ 963.048 |
| Nov. 1, 1950 | 285,600,000 | 二 | $285,600,000$ $362,200,000$ | 963.048 910,831 |
| Nov. 1, 1951. | 362,200,000 |  |  |  |

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## 7.-Sales of Canadian Bonds, by Class of Bond and Country of Sale, 1942-51

(From the Monetary Times Annual)
Nort.-Figures for the years 1904-25, inclusive, are given in the 1933 Year Book, p. 921, and for 1926-41 in the 1946 edition, pp. 990-991.

| Year | CLASS OF BOND |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Federal ${ }^{1}$ | Provincial | Municipal | Parochial and Miscellaneous | Corporation | Total |
|  | 8 | \$ | 8 | \$ | \$ | 5 |
| 1942. | 2,431, 074,400 | 96,860,000 | 23,563,905 | - | 13,988,350 | 2,565,486,655 |
| 1943. | 3,670,028,200 | 97,632,000 | 14,228,986 | 20, 406, 300 | 53,055,500 | 3,855,350,986 |
| 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 r | 449,347,000 | 134,796, 184 | 23, 853, 200 | 285, 268,000 | 1,683,464,384 r |
| 1950. | 2,167,600,000 | 373, 824,500 | 150,369,281 | 30,466,369 | 431,180.303 | 3,153,440,453 |
| 1951. | 562,200,000 | 369,532,000 | 196,438,916 | 37,967,921 | 451,630,000 | 1,617,768,837 |

DISTRIBUTION OF SALES, BY COUNTRIES

| Year | $\begin{gathered} \text { Sold } \\ \text { in } \\ \text { Canada } \end{gathered}$ | Sold in United States | Sold in United Kingdom | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ |
| 1942. | 2,549,748,655 | 15,738,000 | - | 2,565,486,655 |
| 1943. | 3,729,229,986 | 126,121,000 | - | 3,855,350,986 |
| 1944. | 3,629,004,035 | $55,015,000^{2}$ | - | 3,684,019,035 |
| 1945. | 3,854,957,794 | 80,018,000 | - | 3,934,975,794 |
| 1946. | 1,801,400,829 | 63,652,000 | - | 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 r | 140,000,000 | - | 1,683, 464,384 r |
| 1950. | 2,980,740,453 | 172,700,000 |  | $3,153,440,453$ |
| 1951. | 1,233,745,837 | 384,023,000 | - | 1,617,768,837 |

${ }^{1}$ Not including treasury bills, deposit certificates and other financing for a term of less than one year. ${ }^{2}$ Not including bonds purchased by Canadian dealers and later sold in the United States.

## CHAPTER XXVI.-INSURANCE*

## 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.

Insurance, for the purpose of statistical analysis, is usually classified as fire, life and casualty. Most companies operate under Federal Government (Dominion) registration although some have provincial licences only. Many fraternal orders and societies, too, are engaged in this kind of business. An extended treatment of the salient features of the legislation covering insurance in general and the fields of federal and provincial jurisdiction will be found in the 1941 Year Book at pp. 844-846. In the 1942 Year Book, at pp. 842-846, a Special Article is given on the developments in fire and casualty insurance in Canada between 1931 and 1940, consequent upon the enactment of the three Insurance Acts of 1932, while another article on insurance as it affects the balance of international payments appears at pp. 870-871 of the same edition. The 1947 Year Book, at pp. 1064-1074, includes the Special Article, "Insurance in Canada during the Depression and War Periods".

## Section 1.-Fire Insurance

In Canada, fire insurance began with the establishment of agencies by British fire insurance companies. These were situated usually at the seaports and 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 at pp. 846-847 of the 1941 Year Book.

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The report of the Superintendent of Insurance for the year ended Dec. 31, 1951, shows that, at that date, there were 277 fire insurance companies under Federal registration; of these, 68 were Canadian, 83 were British and 126 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, 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 Canada

Of the total amount of insurance effected 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.

Fire insurance, as shown in Table 1, accounts for approximately 91 p.c. of the insurance in force. In the more detailed analyses of fire insurance given in Table 2, the statistics cover only the operations of companies with Federal Government registration.
1.-Fire Insurance in Canada, 1949-51

| Item |  | Gross Insurance Written | Net in Force at End of Year | $\underset{\substack{\text { Net } \\ \text { Premiums } \\ \text { Written }}}{ }$ | $\begin{gathered} \text { Net } \\ \text { Claims } \\ \text { Incurred } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | \$ | \$ | \$ | \$ |
| Federal Government Registrations. |  | 24,309,905,696 | 25,969,411,755 | 103,915,903 | 46,552,575 |
|  | 1950 | 27,512,042,537 | 28,957,395,702 | 115,648,449 | 58,524,685 |
| Provincial Licensees- <br> (a) Provincial companies within provinces by which they are incorporated $\qquad$ 1949 1950 $1951^{\text {p }}$ |  | 33,314,945,698 | 33,493,682,527 | 134,489, 297 | 52,062,710 |
|  |  |  |  |  |  |
|  |  | $1,480,617,785$ $1,630,890,154$ 1,550 | $2,162,843,725$ $2,278,457,679$ | 8,873,336 $\mathbf{9 , 1 3 4 , 0 9 7}$ | 5,011,556 |
|  |  | (b) Provincial companies within provinces other than those by |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| which they are incorporated.. $\begin{aligned} & 1949 \\ & \\ & 1950\end{aligned}$ |  | 1815,453,686 | $215,207,194$ $240,699,605$ | $1,308,368$ $1,385,458$ | 738,261 844,378 |
|  | 1951 P | 118,607,835 | 161,443,644 | 1944,069 | 472,779 |
| Totals, Provincial Licensees. . | 1949 | 1,661,169,495 | 2,378, 050,919 | 10,181,704 | 5,749,817 |
|  | 1950 | 1, 846, 343, 840 | 2,519,157,284 | 10,519,555 | 6,228,632 |
|  | 1951P | 1,674,471,961 | 2,436, 138,680 | 10,137,388 | 5,435,836 |
| Lloyds, London. |  | 541, 504, 946 | 626, 809,337 | 4,595,309 | 2,499,365 |
|  | 1950 | 649,939,702 | 755, 858,745 | 4,982,644 | 3,545,823 |
|  | 1951p | 831,670,172 | 904,488,934 | 5,939,298 | 2,791,796 |
| Grand Totals. | 1949 | 26,512,580,137 | 28,974,272,011 | 118,692,916 | 54,801,757 |
|  | 1950 | 30,008,326,079 | 32,232,411,731 | 131,150,648 | 68,300,140 |
|  | 1951p | 35,821, 087,831 | 36,834,310,141 | 150,565,983 | 60,290,342 |

## Subsection 2.-Operational Statistics of Registered Fire Insurance Companies

The trend in the average rate payable for fire insurance has been generally downward, although the increases in fire losses in recent years have had the effect of checking that tendency. The increase in value of insurable buildings and their contents tends to increase fire insurance premiums despite the trend of the average rate.

## 2.-Fire Insurance, by Companies Operating under Federal Government Registration, Decennially 1880-1940 and 1941-51

Note.-Figures for the years 1869-99 are given at p. 973 of the 1939 Year Book, and figures for 1901-39 at p. 847 of the 1942 edition.

| Year | Amount in Force at End of Year | Net Premiums Written During Year | Net <br> Claims <br> Incurred During Year | Percentage of Claims to Premiums | Gross A Amount of Risks Taken During Year | Premiums Charged Thereon | Average Cost per $\$ 100$ of Insurance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8 | \$ | \$ | p.c. | 8 | 8 | \$ |
| 1880 | $411,563,27 \mathrm{I}$ | 3,479,577 | 1,666,578 ${ }^{2}$ | 47.90 | 384,051, 861 | 3,958,437 | 1.03 |
| 1890 | 720,679,621 | 5,836,071 ${ }^{\text {² }}$ | 3,266, $567^{2}$ | 55.97 | 620,723,945 | 7,019,319 | $1 \cdot 13$ |
| 1900 | 992,332,360 | 8,331,9481 | 7,774, $293{ }^{2}$ | $93 \cdot 31$ | 803,428,654 | 10,031,735 | $1 \cdot 25$ |
| 1910 | 2,034, 276,740 | 18,725,531 ${ }^{1}$ | 10,292,393 ${ }^{2}$ | $54 \cdot 96$ | 1,817,055,685 | 24,684,296 | $1 \cdot 36$ |
| 1920 | 5,969,872,278 | 50,527,9371 | 21,935,387 ${ }^{2}$ | 43.41 | 6,790,670,610 | 71,143,917 | $1 \cdot 05$ |
| 1930 | 9,672,996,973 | 52,646,520 | 30,427,968 | 57.71 | 10,311,193,608 | 82,700,147 | 0 |
| 1940 | 10,737,568,226 | 41,922,312 | 15,444,927 | 36.84 | 12,072, 174,014 | 72,682,679 | 0.60 |
| 1941 | 11,386, 819, 286 | 49,305, 539 | 17,814,322 | $36 \cdot 13$ | 13,345,610,185 | 85,877,389 | $0 \cdot 64$ |
| 1942 | 12,565, 212, 694 | 47,272,440 | 20,360,534 | $43 \cdot 07$ | 12,759,419,939 | 84,168,663 | 0.66 |
| 1943 | 13.386, 782, 873 | 47,153,094 | 22,181,244 | $47 \cdot 04$ | 12,838,807,204 | 84,047,821 | 0.65 |
| 1944 | 14,174, 130, 630 | 55,027,051 | 28,921,930 | 52.56 | 14,572, 876,024 | 96,065, 279 | $0 \cdot 66$ |
| 194 | 15,054, 848,612 | 58,335,728 | 30,585,357 | $52 \cdot 43$ | 10,096,447, 893 ${ }^{3}$ | 72,872,125 | 0.72 |
| 1946 | 17,376,429, 865 | 68, 825,470 | 35,379,627 | 51.40 | 11,744, 234, 2453 | 82,696,662 | 0.70 |
| 1947 | 19,926, 683, 282 | 86,774,952 | 39,513,014 | $45 \cdot 54$ | 15,452,832,2193 | 106,427,978 | $0 \cdot 69$ |
| 1948 | 23,021,215,478 | 98, 191,514 | 45,143,565 | 45.98 | 16,986, 228,866 ${ }^{3}$ | 119,222,396 | 0.70 |
| 1949 | 25.970,407,358 | 103,809,769 | 46,548,822 | 44.84 | 17,618,541, $153{ }^{3}$ | 129,711,596 | 0.73 |
| 1950 | 28,957,395, 702 | 115,648,449 | 58.524,685 | $50 \cdot 61$ | 19,870, 295,002 | $143,661,997$ | 0.72 0.71 |
| 1951 | 33,493,682,527 | 134,489, 297 | 52,062,710 | 38.71 | 22,908,658,097 | 162,547,759 | 0.71 |

[^389]Premiums Written and Claims Incurred.-The relationship of claims incurred to premiums written is shown in Table $\mathbf{3}$ for Federal Government registered companies, by provinces.
3.-Net Premiums Written and Net Claims Incurred in Canada by Canadian, British and Foreign Companies Operating under Federal Government Registration, by Provinces, 1949-51.
(Registered reinsurance deducted)

| Year and Province | Canadian Companies |  | British Companies |  | Foreign Companies |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Premiums | Claims | Premiums | Claims | Premiums | Claims |
| 1919 | 8 | § | \$ | $\delta$ | \$ | $\delta$ |
| Newfoundland | 123,534 | 21,427 | 938,410 | 211,683 | 353,549 | 57,660 |
| Prince Edward Island | 115,744 | 59,180 | 293,197 | 137, 149 | 142,688 | 44,438 |
| Nova Scotia | 1,170,279 | 404,498 | 2,116,695 | 810,582 | 1,125,597 | 369,578 |
| New Brunswic | 899,093 | 374,729 | 2,103,734 | 824,926 | 1,138,396 | 440,876 |
| Quebec | 7,038.028 | 3,180,102 | 11,663,885 | 5,526,243 | 11,942,343 | 5,139,114 |
| Ontario | 10,279,021 | 4,351,397 | 13,425, 131 | 5,959,262 | 14,734,475 | 6,175,064 |
| Manitoba | 2,251,717 | 1,040,657 | 1,685,388 | 553,690 | 1,706,17c | 541,277 |
| Saskatchewa | 1,894,595 | 621,368 | 1,116, 877 | 565,077 | 1,521,252 | 694,631 |
| Alberta | 2,286,509 | 1,192,860 | 2,437,210 | 1,628,421 | 2,550,595 | 2,002,540 |
| British Columbia. | 2,292,560 | 1,103,994 | 4,583,286 | 2,135,653 | 4,682,330 | 2,324,405 |
| All other Canada ${ }^{1}$ | 191,873 | 15,024 | 504,462 | 131,458 | -399,406 | 108,031 |
| Canada, 1949 | 28,542,953 | 12,365,236 | 40,868,275 | 18,484,144 | 39,497,989 | 17,897,614 |
| 1950 |  |  |  |  |  |  |
| Newfoundland. | 173,102 | 57,569 | 950,742 | 304,796 | 365,634 | 114,538 |
| Prince Edward Island | 129,989 | 39,835 | 303,974 | 126,890 | 144,634 | 48,518 |
| Novs Scotia | 1,280,883 | 635,880 | 2,248,082 | 1,233,216 | 1,219.328 | 693,210 |
| New Brunswi | 875,386 | 498,494 | 2,023,246 | 885,672 | 1,183,989 | 565, 695 |
| Quebec | 8,109,504 | 5,541,051 | 13,433,547 | 8,813,608 | 13,246,467 | 7,812,270 |
| Ontari | 11,297,486 | 5,117, 230 | 15,534,653 | 7,013,929 | 16.546,016 | 6,692,907 |
| Manitobs | 2,406,526 | 1,410,527 | 1,859,416 | 1,235,788 | 1,957.594 | 1,266,048 |
| Saskatchew | 1,955,535 | -638,302 | 1,168,464 | -423,548 | 1,627,082 | 1522,837 |
| Alberta. | $2.364,078$ | 1,208,627 | 2,857,197 | 1,703,268 | 2,839,457 | 1,448,845 |
| British Columbi | 2,568,376 | 1,090,505 | 4,981,352 | 2,280,281 | 5,411,102 | 2,603,497 |
| All other Canad | 74,420 | 26.655 | 231,217 | 73,201 | 60,649 | 9,069 |
| Canada, 1 | 31,235,285 | 16,264,675 | 45,591,890 | 24,094,197 | 44,601,952 | 21,777,434 |
|  |  |  |  |  |  |  |
| Newfoundland. | 185,988 | 80,795 | 960,520 | 348, C40 | 334,902 | 135,734 |
| Prince Edward Island | 141,048 | 71,628 | 343,570 | 233,333 | 186,593 | 93,600 |
| Nova Scotis | 1,434,634 | 419,638 | 2,572,556 | 1,108,057 | 1,496,841 | 376,539 |
| New Brun | 1,053,075 | 361,406 | 2,344.848 | 860,273 | 1,486,941 | 534,338 |
| Quebec | 9,171,860 | 4,164,293 | 14,660,394 | 6,641,356 | 16,177,434 | 5,643,442 |
| Ontari | 13,012,539 | 5,363,391 | 17,478,097 | 7,339,859 | 20,416.779 | 7,658,639 |
| Manitoba | 2,896,603 | 1,027,026 | 2,397,945 | 878,589 | 2,389,456 | 661.856 |
| Saskatchewa | 2,683,576 | 758,001 | 1,418,564 | 402,738 | 1,755,516 | 822,527 |
| Alberta | 2,840,539 | 1,256,671 | 3,337, 828 | 1,608,604 | 3,351,822 | 1,329,560 |
| British Columb | 3,057,452 | 956,002 | 5,625,153 | 1,706,213 | 6,358,719 | 1,487,938 |
| All other Canad | 60.182 | 58,082 | 260,858 | 292,482 | 122,767 | 282,748 |
| Canada, 1951 | 36,537,496 | 14,516,933 | 51,400,333 | 21,419,544 | 54,077,770 | 19,026,921 |

[^390]Classification of Fire Risks.-For some years the Department of Insurance has compiled, from information supplied by the fire insurance companies registered to transact business in Canada, tables of experience as to premiums and claims by 27 classes of risks agreed upon on the basis of net premiums written, less registered or licensed reinsurance. This experience for the years 1940-44 is given at p. 1077 of the 1947 Year Book. The returns from 1945 were received on a 'direct written' basis, excluding all reinsurance ceded or assumed, and the classification was changed and reduced to 21 classes. The 1949-51 experience is given in Table 4.

## 4.-Percentages of Claims Incurred to Premiums Written in Canada, by All Companies Operating under Federal Government Registration, by Classes of Risks, 1949-51

(Excluding all reinsurance ceded or assumed)

| Class of Risk | 1949 | 1950 | 1951p | Class of Risk | 1949 | 1950 | 1951p |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dwellings, ex | p.c. |  | p.c. | Lumber yards, pulpwood and | p.c. | p.c. | p.c. |
| Protected br | 41.54 | 53.10 | 50.08 | standing timbe | 23.55 | 56.09 | 17.73 |
| Protected fra | $32 \cdot 63$ | 47-11 | $35 \cdot 00$ | Wood-working pla | 49.46 | 39.22 | $40 \cdot 41$ |
| Unprotected | $38 \cdot 17$ | 57.86 | 39-47 | Metal-working plants, garages |  |  |  |
| Farm building | 58.83 | $62 \cdot 74$ | 48.26 | and hangars. | 37.90 | 65-48 | $45 \cdot 83$ |
| Churches, public buildings, edu- |  |  |  | Mining risks..... | 57.90 | $110 \cdot 11$ | 52.69 |
| cational and soc stitutions. | 64.92 | 54-47 | 46.00 | Railway and public utility risks Miscellaneous manufacturing | 55-27 | 43.03 | $33 \cdot 10$ |
| Warehouses | 52.97 | 45-50 | $33 \cdot 25$ | risks....... | $66 \cdot 13$ | $67 \cdot 23$ | $48 \cdot 63$ |
| Retail stores, office buildings, banks and hotels. | 49.83 | $52 \cdot 46$ | 52.23 | Miscellaneous non-manufacturing risks. |  |  |  |
| Contents of above item | $49 \cdot 20$ | 51.74 | 49-14 | Sprinklered risks of whatever |  |  |  |
| Foods, food and beverage plants. | $42 \cdot 27$ | 56.88 | 37-28 | nature or occupancy........ | $30 \cdot 16$ | 35-76 | 23.03 |
| Flour and cereal mills, grain elevators. | $35 \cdot 88$ | 38.58 | 28.54 | Use and occupancy and profits, excluding rental insurance... | 64-47 | 74.58 | 32.57 |
| Oil risks of all kinds | 105.97 | $40 \cdot 59$ | 34-27 |  |  |  |  |
| Saw and shingle mills | 56.78 | $40 \cdot 75$ | -54-06 | Averages. | 45.03 | $51 \cdot 54$ | 40.24 |

## Subsection 3.-Finances of Fire Insurance Companies

Tables 5 to 7 show the assets, liabilities, income and expenditure of registered companies transacting fire insurance in Canada from 1947-51. 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. 1157, 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, 1947-51

| Assets | 1947 | 1948 | 1949 | 1950 | 1951p |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Canadian Companies (In All Countries) | \$ | \$ | \$ | \$ | \$ |
| Real estate. | 2,142,439 | 1,883,576 | 2,010,983 | 2,890,580 | 4,984,936 |
| Loans on real estate | 2,742,931 | 3,791,417 | 4,342,868 | 4,503,686 | $4,638,405$ $157,469,969$ |
| Bonds, debentures and stocks | 108,937,001 | 119,677,619 | 134,327,602 | 146,468,315 | 157,469,969 |
| Agents' balances and premiums outstanding. $\qquad$ | 10,803,637 | 12.376,656 | 13,406,599 | 15, 864, 962 | 18,090,391 |
| Cash..................................... | 16,296,234 | 16,263,610 | 17,118,676 | 17,768,620 | 20,297,453 |
| Interest and rents | 741,898 $5.489,658$ | 820,922 $6,238,104$ | 924,946 $7,728,925$ | $1,011,235$ $9,985,911$ | $1,166,124$ $9,577,554$ |
| Other assets. |  |  |  |  |  |
| Totals, Canadian Companies | 147,153,798 | 161,051,904 | 179,860,599 | 198,493,309 | 216,244,832 |
| British Companies <br> (In Canada) |  |  |  |  |  |
|  | 940,296 | 805,431 | 856,789 | 961,944 | 1,181,210 |
| Loans on real estate. | 29,750 | 31,826 | 85,699 | 164, 226 | 104, 302,606 |
| Bonds, debentures and stoc | 60,908,309 | 73,417,851 | 87,688,448 | 97,514,151 | 104,082,479 |
| Agents' balances and premiums outstanding. | 7,915,624 | 9,626,437 | 10,776,448 | 12,954,003 | 14,205,697 |
|  | 10,884,344 | 13,130,958 | 12,513,078 | 13,221,377 | 15,713,706 |
| Interest and rents | 223,552 | 259, 163 | 347,294 2,234250 | 392,966 $2,372,038$ | $\begin{array}{r} 455.242 \\ 2,274,929 \end{array}$ |
| Other assets in Canada | 2,016,777 | 2,358,793 | 2,234,250 | 2,372,038 |  |
| Totals, British Companies.......... | 82,918,652 | 99,630,459 | 114,502,006 | 127,580,705 | 138,215,869 |

# 5.-Assets of Canadian, British and Foreign Companies Transaeting Fire Insurance, or Fire and Casualty Insurance under Federal Government Registration, 1947-51 <br> -concluded 

| Assets | 1947 | 1948 | 1949 | 1950 | 1951p |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ |  | \$ | \$ |
| Foreign Companies <br> (In Canada) |  |  |  |  |  |
| Real estate. | -7 750 | - | - | - | - |
| Loans on real estate...... | 7,750 |  |  | $78,612,365$ | 2,500 |
| Bonds, debentures and stocks............ | 60,138,599 | 64,043,174 | 71,122,550 | 78,612,365 | 97,174,209 |
| Agents' balances and premiums outstanding. | 6,475,163 | 7,153,174 | 7,513,224 | 8,825,587 | 10,797, 279 |
| Cash......... | 17,435,233 | 17,957,749 | 19,102,039 | 19,236,339 | 20,148,111 |
| Interest and rents | 336,804 | 372,922 | 415, 671 | 454,347 | 614,699 |
| Other assets in Canada | 1,224.567 | 803,510 | 854,642 | 1.036,804 | 912,190 |
| Totals, Foreign Countries. | 85,618,116 | 90,330,529 | 99,008,126 | 108,165,442 | 129,648,988 |

6.-Liabilities of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Federal Government Registration, 1947-51.

| Liabilities | 1947 | 1948 | 1949 | 1950 | 1951p |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | 8 | \$ |
| Canadlan Companies (In All Countries) |  |  |  |  |  |
| Reserves for unsettled claims | 18,651,082 | 21,190,575 | 24,392,136 | 28,705,334 | 33,437,225 |
| Reserves of unearned premiums | 36,393,343 | 42,256,644 | 48,652.678 | 54,957,195 | 61,167,831 |
| Sundry items................ | 20,491,145 | 22,623,329 | 26,801,982 | 30,700,595 | 34,811,376 |
| Totals, Canadian Companies | 75,535,570 | 86,070,548 | 99,846,796 | 114,363,124 | 129,416,432 |
| Excess of assets over liabilities | 71,618,228 | 74.981,356 | 80,013,803 | 84, 130, 185 | 86, 808,400 |
| Capital stock paid up. | 18,900,240 | 19,975,290 | 20,334,030 | 20,972,569 | 21,720,941 |
| British Companles (In Canada) |  |  |  |  |  |
| Reserves for unsettled claims. | 12,157,329 | 14,837,703 | 16,366, 220 | 21,082,932 | 24,128,470 |
| Reserves of unearned premiums | 34,282,841 | 41,347,782 | 46,019,748 | 51,689,258 | 58,522,686 |
| Sundry items................ | 3,640,009 | 3,906,719 | 5,107,582 | 6,084,969 | 6,993,449 |
| Totals, British Companies | 50,080,179 | 60,092,204 | 67,493,550 | 78,857,159 | 89,644,605 |
| Excess of assets over liabilities. | 32,838,473 | 39,538, 255 | 47,008,456 | 48,723,546 | 48,571,264 |
| Foreign Companies <br> (In Canada) |  |  |  |  |  |
| Reserves for unsettled claims. | 7.336,841 | 7,512,738 |  | 12,433,787 | 16,596,664 |
| Reserves of unearned premiums | 32,571,249 | 37,523,198 | 39, 884,410 | 46, 992,438 | 52,646,334 |
| Sundry items... | 3,944,926 | 4,208,733 | 4,511,813 | 4,857,331 | 10,625,234 |
| Totals, Forelgn Companies | 43,853,016 | 49,244,669 | 52,513,699 | 64,283,556 | 79,868,232 |
| Excess of assets over liabilities, excluding capital. | 41,765,100 | 41, 085, 860 | 46,494,427 | 43,881,886 | 49,780,756 |

## 7.-Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Federal Government Registration, 1947-51.

| Income and Expenditure | 1947 | 1948 | 1949 | 1950 | 1951p |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | 8 | \$ | \$ | 8 |
| INCOME |  |  |  |  |  |
| Canadian Companies (In All Countries) |  |  |  |  |  |
| Net premiums written, fire and other insurance. | 64,540,012 | 74,535,604 | 85,967,103 | 94,957,384 | 108, 123, 353 |
| Interest, dividends and rents earned...... | 3,739,661 | 4,001,600 | 4,519,974 | 5,064,567 | 5,565,004 |
| Sundry items............................ | 78,056 |  | 33,971 | 137,975 | 69,074 |
| Totals, Canadian Companies | 68,357,729 | 78,581,309 | 90,521,048 | 100,159,926 | 113,757,431 |
| British Companies <br> (In Canada) |  |  |  |  |  |
| Net premiums written | 56,037,195 | 67,350,314 | 75,168,266 | 84,262.573 | 95,578,088 |
| Interest, dividends and rents earned | 897, 526 | 998,392 | 1,152,406 | 1,402,786 | 1,588,046 |
| Sundry items.. | 2,205 | 578 | 609 | 484 | 1,080 |
| Totals, British Companies | 56,936,926 | 68,349,284 | 76,321,281 | 85,665,843 | 97,167,214 |
| Foreign Companies <br> (In Canada) |  |  |  |  |  |
| Net premiums written | 52,068,110 | 54,116,615 | 55,433,534 | 65, 299,390 | 88,814,362 |
| Interest, dividends and rents earned | 1,551,139 | 1,651,818 | 1,733,103 | 1,897, 135 | 2,387, 144 |
| Sundry items.................. | 12,320 | 2,051 | -12,727 | 15,541 | 2,909 |
| Totals, Foreign Companies | 53,631,569 | 55,770,484 | 57,153,910 | 67,212,066 | 91,204,415 |
| EXPENDITURE |  |  |  |  |  |
| Canadian Companies (In All Countries) |  |  |  |  |  |
| Incurred for claims (fire) | 10,608,241 | 13, 068,129 | 12,981,810 | 15, 862,354 | 15,234,667 |
| General expenses (fire) | 10,987, 221 | 12,174, 865 | 13, 105, 812 | 14,324,556 | 15,858,958 |
| Incurred for claims (easualty) | 19, 118,640 | 22,181,197 | 26,516,804 | 30,978,046 | 39,033,406 |
| General expenses (casualty)............ | 15,591,761 | 17,858,019 | 19,489,615 | 21,840,069 | $25,670,189$ 2, |
| Dividends or bonuses to shareholders... | $1,509,757$ $1,687,932$ | $1,532,948$ $1,903,907$ | $1,875,511$ $2,206,998$ | $1,994,347$ $2,402,244$ | $2,163,563$ $2,746,286$ |
| Premium taxes and fees. | $1,687,932$ 785,938 | $1,903,907$ $1,014,953$ | $2,206,998$ $1,621,510$ | $2,402,244$ $1,573,799$ | $2,746,286$ $2,676,664$ |
| Excess profits tax | 51,779 | 1,687 | -19,612 | 1,064 |  |
| Provincial corporation income tax...... | 46, 868 | 59,488 | 87,374 | 90,506 | 155,588 |
| Dividends to policyholders............. | 125,924 | 199, 191 | 411,938 | 238,828 | 337,463 |
| British and foreign taxes. | 443,171 | 243,007 | 512,165 | 480,858 | 429,641 |
| Totals, Canadian Companies........ | 61,057,232 | 70,237,391 | 78,789,925 | 89,786,671 | 104,306,425 |
| Excess of income over expenditure....... | 7,300,497 | 8,343,918 | 11,731,123 | 10,373,255 | 9,451,006 |
| British Companies (In Canada) |  |  |  |  |  |
| Incurred for claims (fire) | 14,135,948 | 16,926,631 | 18,484,144 | 24,094,197 | 21,419,544 |
| General expenses (fire)... | 13,196,440 | 15,631,756 | 16,867,513 | 18,796, 326 | 21,321,205 |
| Incurred for claims (casualty) | 11,938. 185 | 14,929,786 | 16,071,566 | 19.016, 349 | 24,492,276 |
| General expenses (casualty) | 9,884, 254 | 11,308,613 | 12,874,637 | 14,634,521 | 16,678,918 |
| Premium taxes and fees. | $1,551,083$ 175 | $1,722,769$ 129,250 | $1,981,533$ 342,216 | $2,165,783$ 270,200 | 2,723,492 |
| Income tax <br> Excess profits tax | 175.255 7,599 | 129,250 $-32,943$ |  | -787 | - |
| Provincial corporation income tax........ | 5,846 | 24,458 | 12,555 | 8,569 | 23,314 |
| Totals, British Companies. | 50,894,610 | 60,640,320 | 66,634,179 | 78,985,158 | 87,115,943 |
| Excess of income over expenditure....... | 6,042,316 | 7,708.964 | 9,687,102 | 6,680,685 | 10,051,271 |

For footnotes, see end of table, p. 1139.

## 7.-Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Federal Government Registration, 1947-51-concluded.

| Income and Expenditure | 1947 | 1948 | 1949 | 1950 | $1951{ }^{\text {p }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | $\delta$ | \$ | \$ | \$ |
| EXPENDITURE-concluded |  |  |  |  |  |
| Foreign Companies (In Canada) |  |  |  |  |  |
| Incurred for claims (fire). | 17,785,084 | 18,112,084 | 17,897,614 | 21,777,434 | 19,026,921 |
| General expenses (fire). | 13,257,313 | 13,740,335 | 13,899,819 | 16,120,209 | 18,772,232 |
| Incurred for claims (casualty)........... | 8,758,502 | 6,901,612 | 6,653,022 | 9,498,697 | 19,215,059 |
| General expenses (casualty)............. | 5,432,855 | 5,244,734 | 5,731,607 | 7,048,391 | 11,457,739 |
| Premium taxes and fees. | 1,398,691 | 1,437,018 | 1,418,647 | 1,708,675 | 2,225,155 |
| Income tax............................... | 470,044 | 563,500 | 797,193 | 444,131 | 1,238,506 |
| Excess profits tax.................... | 178,596 | -1,873 | 395 | - | - |
| Provincial corporation income tax....... | 55,914 | 45,541 | 50,471 | 41,079 | 41,054 |
| Dividends or savings credited to subscribers. | 2,347,838 | 3,821,021 | 3,527,772 | 3,435,151 | 5,269,798 |
| Totals, Foreign Companies.......... | 49,684,4772 | 49,863,973 | 49,976,540 | 60,073,767 | 77,246,464 |
| Excess of income over expenditure........ | 3,947,092 | 5,906,511 | 7,177,370 | 7,138,299 | 13,957,951 |

${ }^{1}$ Includes $\$ 100,000$ preference stock redeemed.
$\mathbf{2} \mathbf{\$ 3 6 0}$ penalty recovered.

## 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, 1940-51

Nore.-Figures for 1926-39 are given at p. 1078 of the 1947 Year Book. Earlier figures from 1898 may be obtained from the Department of Insurance.

| Year | Fires Reported | Property Loss | $\begin{gathered} \text { Loss } \\ \text { per } \\ \text { Capita } \end{gathered}$ | $\begin{array}{\|c} \text { Deaths } \\ \text { by } \\ \text { Fire } \end{array}$ | Year | Fires Reported | Property Loss ${ }^{1}$ |  | $\begin{gathered} \text { Deaths } \\ \text { by } \\ \text { Fire } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | 8 | No. |  | No. | \$ | \$ | No. |
| 1940. | 46,629 | 22,735,264 | 2.01 | 243 | 1946. | 55,400 | 49,413,363 | 4.01 | 408 |
| 1941 | 48,609 | 28,042,907 | 2.46 | 323 | 1947. | 52,931 | 57,050,461 | $4 \cdot 53$ | 390 |
| 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 ${ }^{1}$ | $2 \cdot 67$ | 319 | 1949. | 54,500 | 65,159,044 | $4 \cdot 94$ | 542 |
| 1944. | 50,719 | 40,562,4781 | $3 \cdot 39$ | 307 | 1950. | 59,710 | 81,525,298 | $5 \cdot 88$ | 441 |
| 1945. | 52,173 | 41,903,020 | 3.46 | 391 | 19512 | 60,317 | 76,919,357 | $5 \cdot 49$ | 486 |

[^391]
## 9.-Fire Losses, by Provinces, 1947-51

| Province or Territory | 1947 | 1948 | 1949 | 1950 | 1951 |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | § | § |
| Newfoundland. | ... | ... | ... | $660,100^{1}$ | ... |
| Prince Edward Island. | 441,672 | 301,275 | 588,017 | 422,534 | 725,893 |
| Nova Scotia. | 3,390,062 | 2,716,983 | 2,441,016 | 3,149,464 | 4,547,955 |
| New Brunswick. | 2,301,141 | 2,819,962 | 2,850,007 | 3,016,191 | 2,865,881 |
| Quebec. | 17,434,820 | 25,000,745 | 20,490,505 | 22,962,910 | 25,933,975 |
| Ontario. | 18,974, 719 | 20,557,149 | 20,237,896 | 22,619,343 | 23,241,177 |
| Manitoba. | 2,359,511 | 2,693,868 | 2,243,589 | 3,636,631 | 2,377,092 |
| Saskatchewan | 1,480,584 | 2,105,561 | 2,997,610 | 2,640,021 | 2,776,614 |
| Alberta. | 2,131,089 | 3,634,160 | 5,299,584 | 5,242,553 | 4,661,963 |
| British Columbia. | 8,359,901 | 7,147,720 | 7,556,229 | 7,052,706 | 8,604,426 |
| Yukon and N.W.T | 176,962 | 167,050 | 454,591 | 122,845 | 1,184,381 |
| Canada ${ }^{2}$. | 57,050,461 | 67,144,473 | 65,159,044 | 81,525,298 | 76,919,3573 |

${ }^{1}$ Available for the first time in 1950. ${ }^{2}$ See footnote to Table 8, p. 1139. ${ }^{3}$ Newfoundland excluded.

The property losses for 1951 by provinces given in Table 9 are the total fire losses insured and uninsured. The percentages of the provincial total uninsured were as follows: Prince Edward Island, 35; Nova Scotia, 61; New Brunswick, 32; Quebec, 20; Ontario, 22; Manitoba, 17; Saskatchewan, 16; Alberta, 7; British Columbia, 40; and the Yukon and Northwest Territories, 16. Uninsured losses formed 25 p.e. of total losses for Canada.

## 10.-Fire Losses, by Type of Property, 1949-51

| Type of Property | 1949 |  | 1950 |  | $1951{ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fires Reported | $\begin{aligned} & \text { Property } \\ & \text { Loss } \end{aligned}$ | Fires Reported | $\begin{aligned} & \text { Property } \\ & \text { Loss } \end{aligned}$ | Fires Reported | Property Loss |
| Residential....................... | No. | \$ | No. | \% | No. | \$ |
|  | 39,350 | 13,139,962 | 44,619 | 20,282,028 | 44,673 | 19,892, 811 |
| Mercantile <br> Farm | 6,209 | 19,161,019 | 5,737 | 21,586,449 | 6,217 | 18,907,864 |
|  | 1,588 | 12,409,077 | 3,718 | 5,996,978 | 3,563 | 5,571,199 |
| Manufacturing <br> [nstitutional and assembly. | 3,582 | 5,836,360 | 1,794 | 18,442,577 | 2,818 | 16,538,095 |
|  | 1,164 | 5,555,410 | 924 | 7,217,956 | 819 | 5,934,185 |
| Miscellaneous <br> Totals | 2,607 | 9,057,216 | 2,918 | 7,999,310 | 3,227 | 10,075,203 |
|  | 54,500 | 65,159,044 | 59,710 | 81,525,298 | 60,317 | 76,919,357 |

[^392]
## 11.-Value of Property Loss, by Reported Cause of Fire, 1949-51

| Reported Cause | 1949 |  | 1950 |  | $1951{ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fires Reported | Property Loss | Fires Reported | Property Loss | Fires Reported | Property Loss |
|  | No. | \$ | No. | \$ | No. | \$ |
| Smokers' carelessness | 17,904 | 3,528,545 | 19,319 | 5,408,953 | 21,192 | 3,515,329 |
| Stoves, furnaces, boilers and smoke pipes. | 5,573 | 4,640,026 | 7,326 | 5,232,863 | 6,652 | 5,135,132 |
| Electrical wiring and appliances.. | 4,918 | 6,723,339 | 5,609 | 17,246,407 | 5,513 | 8,284,017 |
| Matches........................ | 2,653 | 738,442 | 2,636 | 732,611 | 2,532 | 711,121 |
| Defective and overheated chimneys and flues. | 2,503 | 1,902,927 | 3,115 | 2,813,984 | 2,573 | 2,409,573 |
| Hot ashes, cosls and open fires | 2,307 | 1,243, 670 | 2,042 | 1,124,495 | 2,118 | 1,347, 192 |
| Petroleum and its products.. | 1,760 | 2,069,838 | 2,070 | 2,744,417 | 2,124 | 2,548,450 |
| Lights, other than electric. | 1,253 | 854,213 | 1,323 | 1,002,796 | 1,329 | 2,459,274 |
| Lightning. | 1,104 | 875,466 | 1,426 | 707,087 | 1,344 | 1,116,786 |
| Sparks on roofs | 990 | 515,244 | 888 | 2,337,868 | 725 | 423,653 |
| Exposure fires | 656 | 1,569,320 | 651 | 1,115,374 | 587 | 2,084,081 |
| Spontaneous ignition. | 426 | 1,698,367 | 362 | 2,533,890 | 386 | 1,594,857 |
| Incendiarism. | 246 | 1,058,404 | 296 | 753,713 | 250 | 1,372,244 |
| Miscellaneous known causes (explosions, fireworks, friction, hot grease or metal, steam and hot water pipes, etc.) | 4,864 | 4,910,102 | 5,197 | 3,116,588 | 5,481 | 6,493,696 |
| Unknown.. | 7,343 | 32,831, 140 | 7,450 | 34,654, 247 | 7,511 | 37,423,952 |
| Totals | 54,500 | 65,159,044 | 59,710 | 81,525,298 | 60,317 | 76,919,357 |

${ }^{1}$ Newfoundland excluded.

## Section 2.-Life Insurance

Life insurance in force in Canada, in companies registered by the Federal Government, was over $\$ 17,235,000,000$ at the end of 1951 , an increase of about $\$ 1490,000,000$ 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 at Beginning of Year | Gain in Force for the Year | Percentage Gain |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ |  |
| 1930. | 6,157,000,000 | 335,000,000 | $5 \cdot 4$ |
| 1935. | $6,221.000,000$ | 38,000,000 | $0 \cdot 6$ |
| 1939. | $6,630,000,000$ | $146,000,000$ | $2 \cdot 2$ |
| 1940. | 6,776,000,000 | 199,000,000 | $2 \cdot 9$ |
| 1941. | 6,975,000,000 | 374,000,000 | $5 \cdot 4$ |
| 1942. | 7,349,000,000 | 527,000,000 | $7 \cdot 2$ |
| 1943. | 7,876,000,0001 | 658,000,000 | $8 \cdot 4$ |
| 1944. | $8,534,000,000$ | $605,000,000$ | $7 \cdot 1$ |
| 1945. | 9,139,000,000 | 612,000,000 | 6.7 |
| 1946. | 9,751,000,000 | 1,061,000,000 | 10.9 |
| 1947. | 10,812,000,000 | 1,088,000,000 | $10 \cdot 1$ |
| 1948. | 11,900,000,000 | 1,205,000,000 | $10 \cdot 1$ |
| 1949. | 13, 105,000,000 | 1,303,000,000 | $9 \cdot 9$ |
| 1950... | 14,409,000,000 | 1,337,000,000 | $9 \cdot 3$ |
| 1951 D.... | 15,746,000,000 | 1,490,000,000 | 9.5 |

${ }^{1}$ Excludes $\$ 44,000,000$ adjustment arising out of method of reporting juvenile insurance.

## 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. Statistics of these provincially licensed companies have been collected by the Department of Insurance, since 1915. Table 12 summarizes the volume of business transacted 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, 1951p

Norg.-Figures for the years 1949 and 1950 may be obtained from the Department of Insurance, Ottawa.

| Business Transacted by- | 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 |
| Federal Government Registrations- |  |  |  |  |
| Life companies | 1,990,735,545 | 17,235, 376,811 | 394,012, 85 | $\begin{array}{r} 128,490,359 \\ 3 \end{array}$ |
| Fraternal soc |  | 289,434, | 5,447,976 |  |
| tions | 2,030,392,944 | 17,524,811,453 | 399,460,828 | 132,379,320 |
| Provincial Registrations- <br> Provincial companies within province by which they are Incorporated- |  |  |  |  |
| Life companies........................... | 97,044,515 | 440, 164,724 | 10,572,727 | 2,902,810 |
| Fraternal societies. | 17,925,729 | 148,227,395 | 3,443,192 | 2,164,978 |
| Provincial companies in provinces other than those by which they are Incor-porated- |  |  |  |  |
| Life companies. | $10,656,008$ $8,142,289$ | $51,185,105$ $69,156,349$ | $\begin{aligned} & 1,251,728 \\ & 1,538,855 \end{aligned}$ | $\begin{array}{r} 476,793 \\ 1,182,660 \end{array}$ |
| tals, Provincial Registrations | 133,768,541 | 708,733,573 | 16,806,502 | 6,727,241 |
| Grand Total | 2,164,161,485 | 18,233,545, 026 | 416,267,330 | 139,106,561 |
| Canadian Life Companies Federal | 1,379,210,389 | 11,807,786,335 | 263,011,355 | 83,621,959 |
| Provinci | 107, 700, 523 | 491,349,829 | 11,824,455 | 3,379,603 |
| Canadian Fraternals- |  |  |  |  |
| Federal | 26,781,072 |  | $\begin{aligned} & 2,224,595 \\ & 4,982,047 \end{aligned}$ | $3,347,638$ |
| British life | 65,773,248 | 391,382,883 | 9,205,784 | 2,784,449 |
| Foreign life | 545,751,908 | 5,036, 207,593 | 121,795,713 | 42,083,951 |
| Foreign fraternals. | 12,876,327 | 128,050,046 | 3,223,381 | 1.527.242 |

## Subsection 2.-Operational Statistics of Registered Life Insurance Companies

The net life insurance in force, in all companies with Federal registration, was only $\$ 35,680,082$ in 1869 while in 1951 it was $\$ 17,235,376,811$.* The amount per capita of the estimated population of Canada has more than doubled since 1940evidence of the general recognition of the value of life insurance for the adequate protection of dependants against misfortune. Notable also is the fact that in this field British companies, the leaders in 1869, have fallen far behind Canadian and foreign companies.

## 13.-Life Insurance in Force and Effected in Canada by Companies operating under Federal Government Registration (Fraternal Insurance Excluded), ${ }^{1889-1951}$

Nore.-Figures for the years 1869-99 are given at p. 958 of the 1938 Year Book, and for the years 1901-39 at p. 855 of the 1942 edition.

| Year | Net Amount in Force |  |  |  | Insurance in Force per Capita of Estimated Population ${ }^{2}$ | Net Amount of New Insurance Effected during Year |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Canadian Companies | British Companies | Foreign Companies | Total |  |  |
|  | \$ | \$ | \$ | 8 | 8 | $\delta$ |
| 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 | $81 \cdot 32$ | 67,729,115 |
| 1910. | 565, 667,110 | 47,816,775 | 242,629,174 | 856,113,059 | $122 \cdot 51$ | 150,785,305 |
| 1920. | 1,664,348,605 | 76,883,090 | 915,793,798 | 2,657, С25,493 | $310 \cdot 55$ | 630,110,900 |
| 1930. | 4,319,370, 209 | 117,410,860 | 2,055,502,125 | 6,492,283,194 | 636.00 | 884,749,748 |
| 1940. | 4,609,213,977 | 145,603,299 | 2,220,505,184 | 6,975,322,460 | 612.89 | 590, 205,536 |
| 1941. | 4,835,925,659 | 145,597,309 | 2,367,027,774 | 7,348,550,742 | $638 \cdot 62$ | 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 | 765.07 | 900,561,491 |
| 1945 | 6,440,615,383 | 183,779,511 | 3,126,645,941 | 9,751,040,835 | 807.74 | 1,002,576,955 |
| 1946 | 7,201,285,815 | 205, 626, 216 | 3,405,480,833 | 10,812,392,864 | $879 \cdot 63$ | 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, 232,801 | 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 P | 11,807,786, 335 | 391,382,883 | 5,036, 207,593 | 17,235, 376,811 | 1,230.31 | 1,990,735,545 |

[^393]${ }^{2}$ Based on estimates of population given

Life insurance business was transacted in Canada, during 1951, by 58 active companies with Federal registration, including 31 Canadian, 5 British and 22 foreign companies; one of these foreign companies was registered for the acceptance of reinsurance only. In addition to these active companies, there were 7 British and 3 foreign companies writing little or no new insurance, their business being confined largely to the policies already on their books, and one foreign company which was registered in 1951 but which, during that year, wrote no business in Canada.

The operations analysed in the tables of this Subsection, with the exception of Table 17, cover only those companies with Federal registration and are exclusive of fraternal organizations and provincial licensees. However, as indicated in Table 12, these companies' operations cover over 94 p.c. of the life insurance in force in Canada.

[^394]
## 14.-Life Insurance in Canada by Companies operating under Federal Government Registration, 1949-51

| Year and Nationality of Company | Policies Effected |  | Policies in Force |  | Net <br> Premium <br> Income | $\begin{aligned} & \text { Net } \\ & \text { Claims } \\ & \text { Paid 1 } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | Net Amount | No. | Net Amount |  |  |
| 1919 |  | \$ |  | \$ | $\delta$ | 8 |
| Canadian. | 326,550 | 1,147, 420,932 | 3,843,342 | 9,808,084,850 | 232,323,351 | 76,201,335 |
| British | 11,497 | 49,185,340 | 151,980 | 306,032,801 | 7,608,594 | 2,556,398 |
| Foreign | 351,484 | 439,750,340 | 4,872,323 | 4,294,644,199 | 109,881,062 | 39,175,621 |
| Totals, 1949 | 689,531 | 1,63s,356,612 | 8,867,645 | 14,408,761,850 | 349,813,007 | 112,933,354 |
| Canadian |  |  |  |  |  |  |
| British | 11,465 | 1,244,614,536 | 3,957,232 | 10,756.249,942 | 246,457,270 | 79,523,634 |
| Foreign | -16,465 | 501,631,294 | 154,486 $4,899,259$ | 4, $\begin{array}{r}342,878,707,595 \\ \hline\end{array}$ | 8,587,454 | $2,607,533$ $40,163,833$ |
| Totals, 193 | 694,276 | 1,798, 664,211 | 9,010,977 | 15,745,836,067 | 370,091,234 | 122,295,000 |
| Canadian. | 330,645 | 1,379, 210,389 | 4,081,192 | 11,807,786,325 |  |  |
| British | 13,339 | 1, 65,773,248 | 4, 159,107 | 1, 391,382,883 | $9, .205,784$ | 2,784,449 |
| Foreign | 368,400 | 545,751,908 | 4,932,225 | 5,036,207,593 | 121,795,713 | 42,083,951 |
| Totals, 1951 | 712,384 | 1,990,735,545 | 9,172,524 | 17,235,376,811 | 394,012,852 | 128,400,359 |

${ }^{1}$ Death claims, matured endowments, disability claims and guaranteed dividends.

## 15.-Progress of Life Insurance in Canada Transacted under Federal Government Registration, 1949-51

| Item | 1949 | 1950 | $1951{ }^{1}$ |
| :---: | :---: | :---: | :---: |
| Canadian Companies- |  |  |  |
| Policies effected............................. No. | 326,550 | 318,908 | 330,645 |
| Policies in force at end of each ye | 3,843,342 | 3,957, 232 | 4,081.192 |
| Policies become claims | 34,837 | 35,917 | 35,593 |
| Net amounts of policies e | 1,147,420,932 | 1,244,614,536 | 1,379,210,389 |
| Net amounts of policies in force. . . . . . . . . . . . . § | $9,808,084,850$ | 10,756,249,942 | 11,807,786.335 |
| Net amounts of policies become claims.......... \$ | 74,877,917 | 79,337, 149 | 82,327,660 |
| Net amounts of premiums.................. ... \$ | 232,323,351 | 246,457,270 | 263,011,355 |
|  | 76,201,335 | 79,523,634 | 83,621,959 |
| Net outstanding claims.................... ... \& | 17,493,377 | 19,578,986 | 20,640,370 |
| British Companies - |  |  |  |
| Policies effected............................ No. | 11,497 | 11,465 | 13,339 |
| Policies in force at end of each year............. | 151,980 | 154,486 | 159,107 |
| Policies become claims. | 2,346 | 2,131 | 2,178 |
| Net amounts of policies effected | 49, 185,340 | 52,618,381 | 65,773,248 |
| Net amounts of policies in for | 306,032,801 | $342,878,530$ | 391, 3814.883 |
| Net amounts of policies becom | 2,839,972 | 2,712,482 | ${ }_{9}^{2,614,524}$ |
| Net amounts of premiums..................... \$ | 7,608,594 | 8,587,454 | $9,205,784$ $2,784,449$ |
|  | $2,556,398$ $1,077,676$ | $2,607,533$ $1,220,211$ | $2,784,449$ 895,807 |
| Foreign Companies- |  |  |  |
| Policies effected.......................... No. | 351,484 | 363,903 | 368,400 |
| Policies in force at end of each year............ "1 | 4,872,323 | 4,899,259 | 4,932,225 |
| Policies become claims.. | 77,361 | 74,662 | 77,492 |
| Net amounts of policies effected | 439,750,340 | 501,631, 294 | 545,751,908 |
| Net amounts of policies in force............... $\$$ | 4, 294, 644,199 | 4,646,707,595 | 5,036, 207,593 |
| Net amounts of policies becom | 37,497,682 | 38,455,730 | 39,473,379 |
| Net amounts of premiums..................... . \% | 109,881,062 | 115,046,510 | 121,795, 713 |
|  | 39,175,621 | 40, 163,833 | 42,083,951 |
| Net outstanding claims........................ \$ | 4,726,990 | 5,086,638 | 5,049,870 |
| All Companies- |  |  |  |
| Policies effected... ....................... .. No. | 689,531 |  |  |
| Policies in force at end of each year | 8,867,645 | $9,010,977$ 112,710 | $9,172,524$ 115,263 |
| Policies become claims............ ..... .. | 114,544 $1,636,356,612$ |  | 1,990,735,545 |
| Net amounts of policies effected............. Net amounts of policies in force............. | r $1,636,356,612$ | 15,745, 836,067 | 17, $235,376,811$ |
| Net amounts of policies become claims......... \$ | 115, 215,571 | 120,505,361 | 124,415,563 |
| Net amounts of premiums...................... $\%$ | 349, 813,007 | 370, 091, 234 | $394,012,852$ $128,490,359$ |
| Net claims paid ${ }^{1}$............................ ${ }^{\text {d }}$ | 117,933,354 | $122,295,000$ $25,88,835$ | $128,586,047$ |

[^395]16.-Ordinary, Industrial and Group Life Insurance Policies in Force and Effected in Canada by Companies operating under Federal Government Registration, 1951p.

Nore.-Figures for the years 1949 and 1950 may be obtained from the Department of Insurance, Ottawa.

| Type of Policy and Nationality of Company | New Policies Effected |  |  | Policies in Force |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No | Net <br> Amount | Average <br> Amount of a Policy | No. | Net Amount | Average <br> Amount of a Policy |
|  |  | \$ | \$ |  | 5 | \$ |
| Ordinary Policies |  |  |  |  |  |  |
| Canadian. | 270, 728 | 1,108,408,269 | 4,094 | 3,412,975 | 9,296,089.614 | 2.724 |
| British. | 13,327 | 61,145,548 | 4,588 | 106.784 | 370,752,146 | 3,472 |
| Foreign | 143,756 | 369,222,142 | 2,568 | 1,633,168 | 2,896, 208,927 | 1,773 |
| Totals, Ordinary Policies. | 427,811 | 1,538, 775,959 | 3,597 | 5,152,927 | 12,563,050,687 | 2,438 |
| Industrial Policies |  |  |  |  |  |  |
| Canadian. | 59,044 | 64,398,807 | 1,091 | 661,993 | 519,333, 249 | 784 |
| British... |  | - |  | 52,278 | 7,970,121 | 152 |
| Foreign. | 223,880 | 99,097,925 | 443 | 3,295,223 | 1,054, 680, 146 | 320 |
| Totals, Industrial Policies... | 282,924 | 163,496,732 | 578 | 4,009,494 | 1,581,983,516 | 395 |
| Group Policies |  |  |  |  |  |  |
| Canadian........................ | 873 | 206, 403, 313 | 236,430 | 6,224 | 1,992,363,472 | 320,110 |
| British. | 12 | 4,627,700 | 385,642 | 45 | 12,660,616 | 281,347 |
| Foreign. | 764 | 77,431,841 | 101,351 | 3,834 | 1,085,318,520 | 283,077 |
| Totals, Group Policies | 1,649 | 288,462,854 | 174,932 | 10,103 | 3,090,342,608 | 305,884 |

17.-Insurance Death Rates in Canada, 1949 and 1950


## Subsection 3.-Finances of Life Insurance Companies

The financial statistics of Tables 18, 19 and 20 cover only life insurance companies with Federal registration and do not include fraternal organizations and provincial licensees. In the case of British and of foreign companies, the figures apply to their assets, liabilities and operations in Canada only but, in the case of Canadian companies, assets and liabilities, income and expenditure, arise, in part, from business abroad.

## 18.-Assets of Canadian Life Companies with Federal Government Registration and Assets in Canada of British and Foreign Life Companies, 1949-51

| Assets | 1949 | 1950 | 1951p |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
| Canadian Companies ${ }^{1}$ |  |  |  |
| Real estate. | 43,127,757 | 56,408,675 | 78,887,302 |
| Real estate held under agreements of sale | 7,559,078 | 6, 274,589 | 6,657,216 |
| Loans on real estate.. | 689, 604, 251 | 836,405, 087 | 995,049,083 |
| Loans on collaterals | 2,178,157 | 1,775,374 | 1,187,430 |
| Policy loans. | 192,101,920 | 207,711,778 | 231,364,171 |
| Bonds, debentures and stocks | 3,239,256,242 | 3,332,584,885 | 3,376,097,065 |
| Interest and rent due and accrued | 35,743,384 | 37,691, 873 | $68,727,248$ |
| Cash. | 46,495, 022 | 48,079,664 | 41,173,153 |
| Outstanding and deferred premiums | 72,819,352 | 79,729,948 | 84,836,661 |
| Other assets. | 4,801,930 | 5,001,754 | 4,678,983 |
| Totals, Canadian Companies ${ }^{2}$ | 4,333,687,093 | 4,611,663,627 | 4,888,658,312 |
| British Companies |  |  |  |
| Real estate | 2,155, 194 | 2,153,923 | 2,364,590 |
| Real estate held under agreements of sale. | 7,511,296 |  |  |
| Loans on real estate. | 7,511,296 | $9,303,763$ | ${ }_{3} 14,757,889$ |
| Policy loans. | 2,497,849 | 2,787,525 | 3,194,625 |
| Bonds, debentures and stocks | 111, 207,824 | 126,335, 850 | 131,083,089 |
| Interest and rent due and accrued | 463,534 | 535,412 | 587,291 |
| Cash. | 3,572,888 | 2,758, 207 | 1,868,508 |
| Outstanding and deferred premiums | 767,660 91,379 | 852,205 2,094 | 1,110,502 |
| Other assets. | 91,379 |  |  |
| Totals, British Companies | 128,275,619 | 144,636,650 | 155,002,189 |
| Foreign Companies |  |  |  |
| Real estate............................... | $1,532,585$ | $1,535,256$ | $\underset{3}{1,430,226}$ |
| Real estate held under agreements of sale <br> Loans on real estate. | 7,366,214 | 36,581,219 | 92,858,052 |
| Loans on collaterals. |  |  |  |
| Policy loans. | $43,307,583$ $843,008,406$ | $45,117,221$ $853,640,862$ | -49,058,653 |
| Bonds, debentures and stocks | $843,008,406$ $8,656,123$ | $853,640,862$ $9,383,943$ | 821, 1091,721 |
| Interest and rent due and accrued | 8, $23,656,123$ | 24,516,991 | 20,128,533 |
| Cash.......................... |  | 18,161,137 | 19,912,041 |
| Outstanding and deferred premiums Other assets........................ | $22,568$ | 18, 57,594 | 63.141 |
| Totals, Foreign Companies | 943,736,882 | 988,994,223 | 1,015,388,754 |

${ }^{1}$ 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, Vol. II. $\quad 2$ Book values, any excess of book over market values being covered by a reserve in the liabilities. $\quad{ }^{3}$ None reported.
19.-Liabilities of Canadian Life Companies with Federal Government Registration and Liabilities in Canada of British and Foreign Life Companies, 1949-51

| Liabilities | 1949 | 1950 | 1951p |
| :---: | :---: | :---: | :---: |
|  | 8 | \$ | \$ |
| Canadian Companies |  |  |  |
| Outstanding claims | 35,666,890 | 37,308, 632 | $39,069,436$ 3 |
| Reserve under contracts in force | $3,447,049,338$ $649,093,009$ | $3,665,143,408$ $690,127,168$ | 3,712,846,797 |
| Totals, Canadian Companies ${ }^{1} \ldots \ldots . \ldots \ldots . .$. |  |  |  |
|  | 4,131,809,237 | 4,392,579,208 | 4,654,685,455 |
| Surpluses of assets excluding capital Capital stock paid up. |  | 219,084,419 | 233,972,857 |
|  | $\begin{array}{r} 212,697,825 \end{array}$ | 12,697,825 | 13,519,730 |

[^396]19.-Liabilities of Canadian Life Companies with Federal Government Registration and Liabilities in Canada of British and Foreign Life Companies, 1949-51-concluded

| Liabilities | 1949 | 1950 | 1951p |
| :---: | :---: | :---: | :---: |
| British Companies |  |  |  |
| Outstanding claims........... | 1,077,676 | 1,200,212 | \% $\begin{array}{r}895,807 \\ \hline 127 \\ \hline 90 \\ \hline 18\end{array}$ |
| Reserve under contracts in force Sundry liabilities............. | $96,493,256$ $1,971,147$ | $112,023,922$ $1,832,980$ | $127,790,418$ $1,853,836$ |
| Totals, British Companies. | 99,542,079 | 115,077,114 | 130,540,061 |
| Surpluses of assets in Canada | 28,733,540 | 29,559,536 | 24,462,128 |
| Foreign Companies |  |  |  |
| Outstanding claims........... | $4,726,989$ $776,491,918$ | 5,086, 637 $819,972,190$ | $5,049,872$ $859,853,287$ |
| Sundry liabilities.. | 56,576,017 | 59,014,494 | 61,218,598 |
| Totals, Foreign Companies . | 837,794,921 | 884,073,321 | 926,121,757 |
| Surpluses of assets in Canada. | 105,941,958 | 104,920,902 | 89, 266,997 |

20.-Cash Income and Expenditure of Canadian Life Companies, with Federal Government Registration and Cash Income and Expenditure in Canada of British and Foreign Life Companies, 1949-51.

| Principal Items | 1949 | 1950 | 1951p |
| :---: | :---: | :---: | :---: |
| INCOME <br> Canadian Companies |  |  |  |
|  |  |  |  |
| Net premium income. | 412,371, 671 | 424,489,515 | 450,740,241 |
| Consideration for annuities | 69,597,745 | 74,401,273 | 102,419,444 |
| Interest. dividends and rent | 149,916,703 | 161,338,430 | 173,403,628 |
| Sundry items. | 108,123,946 | 120,531,220 | 112,889,071 |
| Totals, Canadian Companies | 740,010,065 | 780,760,438 | 839,452,384 |
| British Companies |  |  |  |
| Net premium income. | 7,608,594 | 8,587,454 | 9,205.784 |
| Consideration for annuities | 11,591,157 | 11,941, 195 | 12,786,710 |
| Interest, dividends and rent | 3,360,763 | 4,063,962 | 4,800,862 |
| Sundry items. | 422,371 | 530,266 | 482,712 |
| Totals, British Companies | 22,982,885 | 25,122,877 | 27,276,068 |
| Forelgn Companies |  |  |  |
| Net premium income. | 109,881,063 | 115,046,510 | 121,795,713 |
| Consideration for annuitie | 5,551,290 | 6,794,354 | 6,594,265 |
| Interest, dividends and ren | 28,011,947 | 29,398,785 | 33,114,222 |
| Sundry items.. | 8,526,233 | 8,620,732 | 8,175,427 |
| Totals, Forelgn Companies. | 151,970,533 | 159,860,381 | 169,679,627 |
| EXPENDITURE |  |  |  |
| Canadian Companies |  |  |  |
| Payments to policyholders. | 278,244,472 | 294, 268,703 | 309,638,047 |
| General expenses....... | 116, 235, 696 | 123,748,044 | 152,533,174 |
| Dividends to shareholder | 1,859,428 | 1,866,309 | 3,098,473 |
| Other disbursements. | 64,179,266 | 68,646,466 | 84,520,352 |
| Totals, Canadian Companies. | 460,518,862 | 488,529,522 | 549,790,046 |
| Excess of income over expenditure. | 279,491,203 | 292,230,916 | 289,662.338 |

20.- Cash Income and Expenditure of Canadian Life Companies with Federal Government Registration and Cash Income and Expenditure in Canada of British and Foreign Life Companies, 1949-51-concluded.


## 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 Table 21, at p. 1149, 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, while 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, 31 transacted business in Canada during 1951; two of the societies do not grant life insurance benefits.

## 21.-Life Insurance in Canada of Fraternal Benefit Societies reporting to the Department of Insurance of the Federal Government, 1949-51



[^397]
## 21.-Life Insurance in Canada of Fraternal Benefit Societies reporting to the Department of Insurance of the Federal Government, 1949-51-concluded

| Item | 1949 | 1950 | 1951p |
| :---: | :---: | :---: | :---: |
|  | No. | No. | No. |
| FOREIGN SOCIETIES |  |  |  |
| Net certificates effected...... | 11,127 | 9,971 | 9.394 |
| Net certificates become claims | 1,330 | 1,295 | 1,361 |
|  | 8 | \$ | \$ |
| Net premium income. <br> Net amounts of certificates effected. . | $3,084,947$ $14,354,990$ | $3,135,678$ $13,398,587$ | $3,223,381$ $12,876,327$ |
| Net amounts in force............... | 123,739,629 | 124,513,850 | 128,050,046 |
| Net amounts of certificates become claims | 1,399,351 | 1,355,999 | 1,497,335 |
| Net benefits paid........ | 2,029,534 | 2,064,888 | 2,078,815 |
| Net outstanding claims. | 247,861 | 242,387 | 307,599 |
| Gross Amounts Terminated by- |  |  |  |
| Death. | 1,191,681 | 1,181,687 | 1,272,246 |
| Surrender, expiry, lapse, etc. | 10,027,374 | 10, 203, 369 | 9,844,852 |
| Totals, Terminated. | 11,219, 055 | 11,385,056 | 11,117,098 |
| Assets |  |  |  |
| Real estate. | ${ }^{5}$ | - | - |
| Loans on real estate | 257,159 | 247,030 | 244,676 |
| Policy loans. | 1,528,911 | 1,575,917 | 1,712,467 |
| Bonds, debentures and stocks | 24,655, 250 | 26,289,555 | 27,676,155 |
| Cash. | 1,352,571 | 1,499,276 | 1,251,102 |
| Interest and rent due and accrued | 214,512 | 227.381 | 250,017 |
| Dues from members. | 212,483 | 211,948 | 216,730 |
| Other assets. | 13,428 | 13,723 | 16,273 |
| Totals, Assets | 28,234,314 | 30,064,830 | 31,367,420 |
| Liabilities |  |  |  |
| Outstanding claims.......... |  |  |  |
| Reserve under contracts in force Other liabilities. | $\begin{array}{r} 23,390,446 \\ 1,920,502 \end{array}$ | $\begin{array}{r} 24,772,047 \\ 1,711,138 \end{array}$ | $\begin{array}{r} 26,533,529 \\ 1,923,144 \end{array}$ |
| Totals, Liabilities. | 25,732,984 | 26,865,136 | 28,905,732 |
| Income |  |  |  |
| Premiums (for benefits). | 4,099,558 | 4,178,069 | 4,336,333 |
| Fees and dues (for expenses) | 1,094,387 | 1,113,572 | 1,147,875 |
| Interest and rents. | 765,409 378,122 | 862,298 415,851 | 959,809 422,484 |
| Totals, Income. | 6,337,476 | 6,569,790 | 6,866,501 |
| Expenditure |  |  |  |
| Paid to members. | 2,713,094 | $2,725,812$ 728,694 | $2,748,373$ 703,484 |
| General expenses.. | 720,303 260,981 | 728,694 310,095 | 7030,484 330,767 |
| Totals, Expenditure | 3,694,378 | 3,764,601 | 3,782,624 |
| Excess of income over expenditure. | 2,643,098 | 2,805,189 | 3,083,877 |

## 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, 1950, 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. More than 65 p.c. of all such business in force was written in United States currency and over 20 p.c. in sterling. From another standpoint, over 29 p.c. was written in currency of British countries outside Canada, and over 70 p.c. in currencies of foreign countries.

Canadian life companies, operating under Federal Government registration, had at Dec. 31, 1950, in countries outside Canada, life insurance in force amounting to $\$ 5,159,986,460$. As shown in Table 22, insurance in force in currencies other than Canadian amounted to $\$ 5,099,952,335$. 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 British and foreign investments of Canadian life insurance companies as at Dec. 31, 1950, amounted to $\$ 1674,502,865$. Since the business in force in Canada of these companies at Dec. 31, 1950, amounted to $\$ 10,756,249,942$, the total business on their books, Canadian and non-Canadian, amounted to $\$ 15,916,236,402$. Thus, over 32 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 Companies, 1950.

Nore.-Figures for the year 1949 may be obtained from the Department of Insurance, Ottawa.

| Company | Insurance Effected |  |  | Insurance in Force |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | British Currencies | Foreign Currencies | Total | British Currencies | Foreign Currencies | Total |
|  | \$ | \$ | 8 | \% | $\delta$ | \$ |
| Nationale. . . | - |  |  | - | 3,983,860 | 3,983,860 |
| Canada......... | 15,496,344 | 25,788,673 | 41,285,017 | 134, 827, 120 | 276,007,426 | $410,834,546$ |
| Commercial.... |  |  |  |  | 35,000 | 35,000 |
| Confederation... | 22,652,774 | 30,364,433 | 53,017,207 | 161,404,867 | 178,889, 176 | 340, 294, 043 |
| Crown. | 11,003,772 | 40,953,275 | 51,957,047 | 59,469,582 | 211,044,956 | 145,371 $270,514,538$ |
| Dominion | -976,986 | 15,689,028 | 16,666,014 | 9,190,900 | 67,439,970 | 76,630,870 |
| Dom. of Canada General | 486, | - | 486,074 | 3,165,682 | 8.933 | 3,174,615 |
| T. Eaton. |  |  |  | 12,500 | 4,821 | 17,321 |
| Equitable. | - | - | - |  | 191,360 | 191,360 |
| Great-West | 10.083 513 | 80,113,363 | 80, 113,363 | 434,993 | 436,788,346 | 437,223, 339 |
| Imperial. | 10, 083,513 | 6,616,137 | 17,599,650 | 45, 102,035 | 39,756,844 | 84,858,879 |
| London... |  | 807,156 | 807,156 |  | 5,848,464 | 5,848,464 |
| Manufacturers | 38,308,780 | 59,690,530 | 97,999,310 | 223,343,538 | 384, 461,619 | 607,805,157 |
| Maritime.. | 184,358 | - | 184,358 | 2,060,802 | 21,614 | 2,082,416 |
| Monarch. |  | - | - | 282,315 | 206,652 421,743 | 206,652 704,058 |
| Mutual. | 22,190 | 1,391,036 | 1,413,226 | 1,069,571 | 15,289,738 | 16,359,309 |
| National. . . . . . | 849,326 | 363,616 | 1,212,942 | 6,086.063 | 1,701,552 | 7,787,615 |
| North American | 997,929 | 8,965,165 | 9,963,094 | 6,303,134 | 45,997,216 | 52,300,350 |
| Northern.. | - | 1,860,230 | 1,860,230 | 48,850 | 14,621,136 | 14,669,986 |
| Sauvegarde.... | 97,422,36 | 176, $\overline{513}, 079$ | 273, $\overline{935}, 440$ | 842, $\overline{327}, 026$ | 1,921, 888,624 | 2,764, $\begin{array}{r}515,600 \\ \hline\end{array}$ |
| Western |  | 176,513,079 | 273,935,440 | 842,327,026 | $1,921,888,694$ 63,936 | $2,764,215,650$ 63,936 |
| Totals. | 199,384,407 | 449,115,721 | 648,500,128 | 1,495,159,056 | 3,604,793,279 | 5,099,952,335 |

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 Companies, 1950-concluded.

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, 1950.

Note.-Figures for the year 1949 may be obtained from the Department of Insurance, Ottawa.

| Curreney | Insurance Effected | Insurance in Force | Liabilities |
| :---: | :---: | :---: | :---: |
|  | \$ | 8 | \$ |
| British Currency-Pounds- |  |  |  |
| Pounds- | 132,829,149 | 1,029,183,518 | 432,946,650 |
| Australia | - | , 31,368 | 22,186 |
| British West Indies and Bermuda | 6,342,489 | 45,002,303 | 10,541,972 |
| South Africa...................... | 21,734,424 | 166, 595,964 | 43,244,466 |
| Southern Rhodesia. | 1,672,595 | 4,309,113 | 761,198 |
| Dollars- |  |  |  |
| British Honduras.......... | 49,386 | 731,182 | 216,744 |
| British West Indies and Bermuda ${ }^{1}$ | 10,285,997 | 67,397,067 | 20,560,313 |
| Hong Kong ...................... . . . ........ | $1,243,100$ $4,622,052$ | $9,625,018$ $18,125,254$ | $2,251,352$ $3,737,290$ |
| Straits or Malayan................... ........ .. | 4,622,052 | 18,125,254 | 3,737,290 |
|  |  |  |  |
| Ceylon............................. . . . . . . . . . . . | 4.525.217 | $27,117,533$ $118,596,076$ | $7,314,729$ $52,400,779$ |
| India.... | 13,717,680 | $118,596,076$ $2,948,135$ | $52,409,788$ $1,794,868$ |
| Pakistan. | - | 2,948,135 | 1,794,868 |
| Shillings- | 2,362,318 | 5,496,525 | 492,593 |
| Totals, British Currency | 199,384,407 | 1,495,159,056 | 576,285,140 |

${ }^{1}$ Includes British Guiana which Crown Life and North American Life Insurance Companies did not separate from British West Indies.
23.-LIfe Insurance Effected and in Force and Llabilities of Canadian Companies (excluding Fraternal Societies) operating under Federal Government Registration, in Currencies other than Canadian, 1950-concluded.

| Currency | Insurance Effected | Insurance in Force | Liabilities |
| :---: | :---: | :---: | :---: |
| Forelign Currency- | s | 8 | 5 |
| Bahts (Siam)..... |  | 262,616 | 171,034 |
| Bolivares (Venezuela) | 9;942,111 | 32,022,166 | 2,252,174 |
| Cordobas (Nicaragu). |  | 18,340 | 13,833 |
| Dollars (United States of America) | 392,037,212 | 3,354,447, 846 | 1,086,517.430 |
| Francs (Franee) | - | - 25,299 | 1,080, 23.203 |
| Franes (Switzerland) |  | 7.280 | 15,369 |
| Guilders (Indonesia). | 3,172,408 | 7,586.850 | 3,915,490 |
| Guilders (Netherlands Antil | 1,110,773 | 11,020,083 | ${ }^{2}, 480.845$ |
| Pesos (Argentina) | 1,653,952 | 16,575.188 | 5,036.968 |
| Pesos (Chile). |  | 242,954 | 166.056 |
| Pesos (Colombia). | 3.963.975 | 11,987,647 | 1,494,163 |
| Peeos (Cuba)... | 16,663,245 | 54,674,532 | 6,554.979 |
| Pesos (Dominican Republic) |  | 7.000 | 6,272 |
| Pesos (Mexico). | 3,319.636 | 23,262.824 | 4,125,660 |
| Pesos (Philippines) | 11,032.584 | 48, 113.843 | 7,146,012 |
| Pounds (Egypt). | 3,176,420 | 34,798,781 | 9,169.623 |
| Pounds (Israel). | 3,043,405 | 7,698,037 | 1,028,675 |
| Quetzales (Guatemala) |  |  | 14.125 |
| Rupeea (Burma). | - | 1,647.057 | ,326.002 |
| Soles (Peru). | - | 308.343 | 195.756 |
| Yen (Japan). |  | 86,593 | 83,590 |
| Miscellaneous |  | - | 1,590 |
| Totals, Foreign Currency | 449,115,721 | 3,604,793,279 | 1,131,738,852 |
| Grand Totals. | 648,500,128 | 5,099,952,335 | 1,708,023,992 |

## 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. 1142, 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, 1951p

Norz.-Figures for business in Canada will be found in Table 12, p. 1142. Figures for the years 1949 and 1950 may be obtained from the Department of Insurance, Ottawa.


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## 25.-Total Registered Life Insurance Business in Canada and of Canadian Organizations Abroad, 1951 ${ }^{\text {p }}$

Nore.-Figures for the years 1949 and 1950 may be obtained from the Department of Insurance, Ottawa.

| 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 | 8 | \$ | \$ |
| Canadian Life Companies- Federal |  |  |  |  |
| Federal.......................................... | $2,061,493,344$ $107,700,523$ | $17,336,728,401$ $491,349,829$ | $450,740,239$ $11,824,455$ | $\begin{array}{r} 163,586,571 \\ 3,379,603 \end{array}$ |
| Canadian Fraternal Societies- |  |  |  |  |
| Federal... | 46,775,968 | 275, 233,757 | 3,521,286 | 4,496.882 |
| Provincial. | 26,068,018 | 217,383,744 | 4,982,047 | 3,347,638 |
| British life companies. | 65,773,248 | 391,382,883 | 9,205,784 | 2,784,449 |
| Foreign life companies | 545,751,908 | 5,036,207,593 | 121,795,713 | 42,083,951 |
| Foreign fraternal societies. | 12,876,327 | 128,050,046 | 3,223,381 | 1,527,242 |
| Grand Totals. | 2,866,439,336 | 23,876,336,253 | 605,292,905 | 221,206,336 |

## Section 3.-Casualty Insurance

The growth of casualty insurance business has been steady since 1875. The report of the Superintendent of Insurance for the calendar year 1880 shows that the number of companies licensed for the transaction of accident, guarantee, plate glass and steam-boiler insurance-the only four classes of casualty insurance then transacted-was 5, 3, 1 and 1, respectively. The report for the year 1951 shows that casualty insurance in Canada now includes various forms of accident and 25 other classes of insurance transacted by companies with Federal Government registration. In 1880, 10 companies transacted casualty insurance but, in 1951, such insurance was issued by 292 companies, of which 70 were Canadian, 78 British and 144 foreign; of these, 206 companies also transacted fire insurance. In addition, 19 fraternal orders or societies carried on accident and sickness insurance as well as life insurance business and 3 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 in the cases of fire and life insurance, the bulk of the business (about 90 p.c. in this case) is transacted by companies with Federal Government registration.

Since, 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. 1157, gives similar 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 1951, there were 17 Canadian, 6 British and 63 foreign companies whose operations were limited to the same field.

During the war years, automobile insurance showed a favourable experience with a loss ratio of around 45 p.c. This ratio was slightly lower than for the prewar years, the result of lessened traffic, but since the end of hostilities the experience tends to be less favourable and in 1951 stood at about 62 p.c.

Hail insurance in 1950 showed a loss ratio of 20 p.c. and in 1951 this had increased to 41 p.c.

Marine insurance showed a very large increase in Canada during the war years and substantial profits resulted. The results for the years 1941 to 1951, inclusive, were as follows:-

|  | Year | Premiums | Claims <br> Incarred | 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 P |  | 8,906,665 | 4,673,897 | 1,722,949 |

This class of insurance will, no doubt, continue to figure more largely in the business of companies in post-war years than it did before 1939.

## 26.-Casualty Insurance in Canada, by Companies operating under Federal Government Registration, 1951 ${ }^{\text {D }}$

Note.-Figures for the years 1949 and 1950 may be obtained from the Department of Insurance, Ottawa.

| Class of Business | Number of Companies |  |  | Years <br> Transacted | Aggregate Experience During Period Transacted |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Cana- } \\ & \text { dian } \end{aligned}$ | British | Foreign |  | Premiums Written | Claims Incurred |
|  |  |  |  | No. | \$ | § |
| Accident | . | . | . | 50 | 92,299,497 | 43,476,664 |
| Accident- |  |  |  |  |  |  |
|  | 41 | 42 | 32 | 27 | 104,469,724 | 40,426, 158 |
| (b) Public Lisbility ('Other' until 1941) ........ | 45 | 44 | 34 | 27 | 84,751,166 | 31, 148, 164 |
| (c) Employers' liability (Exployers' Liability and Workmen's Compensation until 1941!. | 39 | 41 | 28 | 27 | 53,562,941 | 28,572,286 |
| Combined accident and sickness | 18 | 11 | 27 | 38 | 255, 239,970 | 165,325, 192 |
| Aircraft (Aviation until 1941) | 4 | 8 | 19 | 24 | 8,419,931 | 5, 074,651 |
| Automobile. | 47 | 62 | 84 | 42 | 787,902,195 | 420,317,349 |
| Boiler- <br> (a) Boiler (Steam Boiler until 1941). | 9 | 6 | 6 | 75 | 25,493,617 | 2,638,737 |
| (b) Machinery (Electrical Machinery until 1941). | 3 | 6 | 6 | 30 | 9,956,512 | 2,595,820 |
| Credit. | - | - | 2 | 32 | 7,994.711 | 2,099,452 |
| Crop..... | $\overline{17}$ | 3 | $\square$ | 1 | 12,268 | 40,091 |
| Earthquak | 17 | 23 | 34 | 27 | 372,311 | 15,229 |
| Explosion. | $\square$ | 11 | $\square$ | 9 | 1,195,107 | 12,189 |
| Explosion (Riot and C.C. until 1941 | 14 | 11 | 25 | 19 | 1,882,791 | 35,686 |
| Failing aircraft | $\overline{-}$ | - | 1 | 20 | 22,047 | 8,550 |
| Forgery. | 20 | 3 | 9 | 33 | 1,562,718 | 340,314 |
|  | - | - | - | 18 | 315,992 | 99,688 |
| Guarantee (not separated into Fidelity and Surety prior to 1921). | $\overline{42}$ | $\overline{27}$ | $\stackrel{\square}{1}$ | 47 | 13,452,616 | 3,811,867 |
| Fidelity (since 1921) | 42 | 27 | 26 | 30 | 38,728,038 | 10,615,275 |
| Surety (since 1921) | 38 | 25 | 19 | 29 | 30,781,924 | 4,370,290 |
| Hail................. | 5 | 3 | 24 | 42 | 107,593,642 | 64,871,096 |
| Impact by vehicles.. | - | 5 | 1 | 3 | , 761 |  |
| Inland transportation | 34 | 54 | 58 | 55 | 45, 103,411 | 16,952,828 |
| Live stock... | 1 | 1 | 2 | 44 | 2,762,538 | 1,700,965 |
| Personal propert | 40 | 59 | 63 | 22 | 102,969,865 | 56,427, 235 |
| Plate glass. | 41 | 41 | 27 | 77 | 26,319,354 | 11,950,953 |
| Real property (Property prior to 1941) | 13 | 22 | 23 | 15 | 4,380,991 | 1,334,279 |
| Sickness. | 30 | 24 | 12 | 56 | 94,846,931 | 53,163,778 |
| Sprinkler leakage | - |  | $\frac{1}{10}$ | 14 | 844,301 | 427,673 |
| Sprinkler leakage ${ }^{1}$ | 8 |  | 16 | 28 | 380,806 | 110,653 |
| Theft (Burglary prior to 1941) | 45 | 38 | 34 | 59 | 51,453,576 | 18,978,150 |
| Title (1907-1916) | - | - | - | 10 | 11,252 | - |
| Water damage. | - | - | 1 | 3 | 33,006 | 16,740 |
| Weather....................... | 21 | $\cdots$ | 3 | 37 | 772,237 | 459,508 |
| Windstorm (Tornado prior to 1941) | 21 | 17 | 35 | 44 | 6,016,032 | 3,536,427 |
| Totals | ... | ... | ... | ... | 1,961,904,779 | 990,953,937 |

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## 27．－Casualty Insurance Premiums and Claims In Canada，by Class of Business，1951 ${ }^{\text {D }}$

Note．－Less all reinsurance for Canadian companies and registered or licensed reinsurance only for British and foreign companies．Figures for the years 1949 and 1950 may be obtained from the Department of Insurance，Ottawa．

| Class of Business | Federal Registered Companies | Provincial Licensees |  |  | Lloyds | Grand <br> Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Within Provinces by which they are In－ corporated | $\left\|\begin{array}{c} \text { In Provinces } \\ \text { other than } \\ \text { those by } \\ \text { which In- } \\ \text { corporated } \end{array}\right\|$ | $\underset{\substack{\text { Total } \\ \text { Provincial } \\ \text { Licensees }}}{\text { a }}$ |  |  |
|  | NET PREMIUMS WRITTEN |  |  |  |  |  |
| Accident－ | \＄ | ${ }^{8}$ | 8 | \＄ | \＄ | \＄ |
| Personal．．．．．．．．．．．．．．．．．． | 7，117，931 | 417，485 | － | 417，485 | 562.554 | 8，097，970 |
| Public liability．．．．．．．．．． | 10，171，520 | 202，466 | － | 202，466 | 631，441 | 11，005，427 |
| Employers＇liability．．．．．． | 2，924，799 | 82，672 | － | 82，672 | 239，580 | 3，247，051 |
| Accident and sickness com bined | 48，755，318 | 100，327 | － | 100，327 | 41，020 | 48，896，665 |
| Aircraft． | 1，078，359 |  | － |  | 427，344 | 1，505，703 |
| Automobile． | 105，284，462 | 3，886，140 | 312 | 3，886，452 | 7，049．873 | 116，220，787 |
| Boiler－（b）Boiler | 2，064，541 | 7，568 | － | 7，568 | 382，387 | 2，464，496 |
| （a）Machinery ．．．．．． | 1，396，670 | 19，992 | － | 19，992 | 72，716 | 1，489，378 |
| Credit．．．．．．．．．．．．．．．．．．．．．．． | 473，327 |  | － |  |  | 473，327 |
| Earthquake | 33，290 | － | － | － | 29，985 | 63，275 |
| Explosion． | 14，375 | － |  | － | 124，911 | 139，286 |
| Falling aircraft | 273 | － | － | － |  | 273 |
| Forgery．．．．．．．．．．．．．．．．．． | 71，306 | － | － | － | 4.500 | 75，806 |
| Guarantee fidelity．．．．．．．．．． | 1，991，991 | 73，324 | － | 73，324 | 517， 223 | 2，509，214 |
| Guarantee surety ．．．．．．．．．．． | 2，881， 639 | 73，324 | 51.545 | 73，324 | 8，309 | 2，963，272 |
| Hail．． | 4，012，309 | 1，509，277 | 51，545 | 1，560，822 | 21，348 | 5，594，479 |
| Impact by vehicles．．．．．．．．． | － 717 |  |  |  |  | 5，134．717 |
| Inland transportation．．．．．．． | 4，134，320 | 16，845 | 3，304 | 20，149 | 979，719 | 5，134．188 |
| Live stock． | 65，373 |  | － |  | 135，895 | 201， 268 |
| Personal property | 16，093，271 | 981 | － | 981 | 186， 181 | 16，280，433 |
| Plate glass．．． | 1，774，901 | 72，667 | － | 72，667 | 411 | 1，847，979 |
| Real property | 469，148 |  | － |  | 119.134 | 588， 282 |
| Sickness． | 7，450，526 | 917，669 | － | 917．669 | 29，950 | 8，398，145 |
| Sprinkler leakage | 11，155 | － 64 | － |  | 1，170 | 12，325 |
| Theft． | 3，780，832 | 64，246 | － | 64，246 | 87.033 | 3，932．111 |
| Water damag | 15，884 |  | － |  |  | 15.884 |
| Weather． | 21，413 | 271，245 | － | 271，245 | 785 | 293.443 |
| Windstorm | 295，616 | 87，278 | $\sim$ | 87，278 | 553 | 383，447 |
| Totals． | 222，385，266 | 7，730，182 | 55，161 | 7，785，343 | 11，664，022 | 241，834，631 |
|  | NET CLAIMS INCURRED |  |  |  |  |  |
| Accident－ | \＄ | \＄ | \＄ | 8 | \＄ | \＄ |
| Personal． | 2，659，575 | 136，813 | － | 136，813 | 136，674 | 2，943，062 |
| Public liability | 5，333，506 | 96，395 | － | 96，395 | 237，115 | 5，667，016 |
| Employers＇liability | 1，052，840 | 1，414 | － | 1，414 | 75，846 | 1，130，100 |
| Accident and sickness com－ bined | 35，722，814 | 54，957 | － | 54，957 | 9，996 | 35，787，767 |
| Aircraft．．．．．．．．．．．．．．．．．．．．．． | 1，137，106 |  | － |  | 313，513 | 1，450，619 |
| Automobile．．．．．．．．．．．．．．．． | 65，259，831 | 2，152，129 | 3 | 2，152，132 | 4，175，942 | 71，587．905 |
| Boiler－（a）Boiler．．．．．．．．．． | 168，052 | 15，926 | － | 15，926 | 176，846 | 360．824 |
| （b）Machinery．．．．．． | 341，175 | 47，384 | 二 | 47，384 | 41，550 | 430， 109 |
| Credit．．．．．．．．．．．．．．．．．．．．．．． | 36，986 | － | － | － | － | 36.986 135 |
| Earthquake．．．．．．．．．．．．．．．．． | 135 | － | 二 | － |  | 2．498 |
| Explosion．．．．．．．．．．．．．．．．．．． | 850 | － | － | － |  | 12，421 |
| Forgery．． | 2，804 | － | － | － | 388，030 | 784，859 |
| Guarantee fidelity..........$~$ Guarantee surety ．．．．．．．．． |  | 6，715 | － | 6，715 | 388,030 $-2,135$ | 170，758 |
| Guarantee surety ．．．．．．．．．．．．． | 172,893 $1,662,545$ | 479，937 | 10，979 | 490，916 | 11，433 | 2，164，894 |
| Inland transportation | 1，670，331 | 3，170 | 1，028 | 4，198 | 730，610 | 2，405，139 |
| Live stock．．．．．．．．．．．． | 19，733 | － | － |  | 85，594 | 105，327 |
| Personal property．．．．．．．．．．． | 8，751，043 | 231 | － | 231 | 29，779 | 8，781，053 |
| Plate glass．．．．．．．．．．．．．．．．．． | 668,196 | 33，726 | － | 33，726 | 557 | 702,479 |
| Real property | 146，815 |  | － |  | ${ }^{6} 606$ | 147,421 $3.964,889$ |
| Sickness．．．．．．．．．．．．．．．．．．．．． | 3，144，704 | 798，930 | － | 798，930 | 21，255 | $3,964,889$ -571 |
| Sprinkler leakage | ${ }^{-382781}$ |  | 二 |  |  | 1，363，840 |
| Theft．．．．．． | 1，382，781 | 25，048 | － | 25，048 |  | 11，974 |
| Water damage．．．．．．．．．．． | 11,974 4.365 |  |  |  |  | 57，524 |
|  | 1.9365 62.600 | 52,297 13,304 | － | 52,297 13,304 | 802 203 | 76，107 |
| Totals | 129，813，197 | 3，918，376 | 12，010 | 3，930，386 | 6，401，552 | 140，145，135 |

28.-Assets and Liabilities, Income and Expenditure of Canadian, British and
Foreign Casualty Insurance Companies, 1950 and 1951

Note.-Figures for the year 1949 may be obtained from the Department of Insurance, Ottawa.

| Companies | Assets | Liabilities | Excess of Assets Over Liabilities | Income | $\underset{\text { ture }}{\text { Expendi- }}$ | Excess of Income Over Expenditure |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ | \$ | 8 | 8 |
| Canadian (in all countries).. | 21,488,405 | 12,627,025 ${ }^{1}$ | 8,861,380 | 17,728.584 | 15,351,600 | 2,376,984 |
| British (in Canada)........ | 1,957,830 | , 752,251 | 1,205,579 | 1,042.040 | 724,980 | 317,060 |
| Foreign (in Canada). | 66,171,937 | 41,465,917 | 24,706,020 | 62,376,494 | 51,133,935 | 11,242,559 |
| Totals. | 89,618,172 | 54,845,193 | 34,772,979 | 81,147,118 | 67,210,515 | 13,936,603 |
| Canadian (in all countries).. | 23,987,126 | 14,923,332 ${ }^{1}$ | 9,063,794 | 25, 157, 863 | 23,351,507 | 1.806,356 |
| British (in Canada)......... | 1,565,319 | 14,702,920 | -862,399 | -670, 159 | 23,625.500 | 1.84 .659 |
| Foreign (in Canada) | 64,174,151 | 42,923,860 | 21,250,291 | 64,534,995 | 58,586,596 | 5.948.399 |
| Totals. | 89,726,596 | 58,550,112 | 31,176,484 | 90,363,017 | 82,563,603 | 7,799,414 |

${ }^{1}$ Excludes capital stock.

## 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. This Section deals briefly with the principal schemes now in effect.

Only those schemes dealing with the types of insurance covered in the previous Sections of this Chapter, viz., fire, life and casualty, are dealt with here. Information on unemployment insurance, health insurance, export credits insurance, etc., will be found in the Chapters on Labour, Health and Welfare, Foreign Trade, etc.

Veterans Insurance.*-The Veterans Insurance Act ( $7 \mathrm{Geo} . \mathrm{VI}$, c. 49 ), 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 of veterans or widowers who did not have Veterans Insurance.

Eligibility arising out of Service 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; persons who were awarded pensions under the Pension Act as a result of Service in the Special Force.
(d) Widows of persons who were on Service in a Theatre of Operations and who died during Special Force Service.

## Applications must be approved by:

Dec. 31, 1954 or 10 years after discharge, whichever is later.

Dec. 31, 1954.

3 years after discharge.

Dec. 31, 1954.

[^400]The amount of insurance may be any multiple of $\$ 500$ 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 be 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.
29.-Summary Statistics of Veterans Insurance, Years Ended Mar. 31, 1948-52

| Year Ended Mar. 31- | Insurance Issued During Year |  | Insurance in Force at End of Year |  | Death Claims Approved During Year |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No. | \$ | No. | \$ | No. | \$ |
| 1948. | 8,825 | 24,599,000 | 18,433 | 52,594,612 | 38 | 100,500 |
| 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 | 400,5c0 |
| 1952. | 2,302 | 8,322,500 | 26,985 | 79,115,734 | 158 | 346,500 |

Provincial Insurance Schemes.-The Province of Saskatchewan conducts fire, fidelity and surety insurance but not life insurance. This is effected under the terms of the Saskatchewan Government Insurance Act, 1944.

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 Provincial 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. Information regarding the operations of these Companies may be obtained from:-
(a) The Superintendent of Insurance, Insurance Branch,
Department of the Provincial Secretary for Saskatchewan, Regina, Saskatchewan.
(b) The Superintendent of Insurance, Department of the Provincial Secretary for Alberta, Edmonton, Alberta.

## CHAPTER XXVII.-DEFENCE OF GANADA

## 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.

## 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 Services are commanded by their respective Chiefs of Staff and the Defence Research Board by its Chairman. A Chairman of the Chiefs of Staff Committee, appointed in 1951, is responsible for the co-ordination of the training and operation of the Canadian 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.

To achieve a common approach to problems, a number of committees within the Department meet at regular intervals to consider and advise on joint issues:-
(1) Defence Council--Composed of the Minister of National Defence (Chairman), the Parliamentary Assistants to the Minister, the Deputy Minister, the three Chiefs of Staff and the Chairman of the Defence Research Board, the purpose of the Defence Council is to advise the Minister on administrative matters.
(2) Chiefs of Staff Committee.-This Committee is composed of the Chairman of Chiefs of Staff, the three Chiefs of Staff of the Services, and the Chairman of the Defence Research Board; its meetings are attended also by the Deputy Minister, the Secretary to the Cabinet and the Under Secretary

[^401]of State for External Affairs, and its purpose is to maintain a continuous review of all operational problems. A number of sub-committees consider various aspects of operational 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 (Personnel and Administration), Assistant Deputy Minister (Finance), and a representative of the Chairman of the Defence Research Board, the purpose of this Committee is to examine personnel problems of the three Services with the general aim of achieving uniform personnel policies. Various aspects of personnel problems are considered by subcommittees which report to the parent committee.
(4) Principal Supply Officers Committee.-This Committee is composed of the Chief of Naval Technical Services, the Quartermaster General, the Air Member for Technical Services, Assistant Deputy Minister (Requirements) and a representative of the Chairman of the Defence Research Board and its purpose is to consider all logistical problems. Various aspects of logistical problems are considered by sub-committees which report to the parent committee.
(5) Defence Supply Panels.-Twelve panels, composed of a representative from each of the Services, 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 national defence by the Department of Defence Production.

Liaison Abroad.-The Chairman of Chiefs of Staff, the Canadian Military Representative in the North Atlantic Treaty Organization, is responsible for coordinating all military NATO matters and acts as military adviser to Canadian NATO delegations. For purposes of liaison and the furtherance of international co-operation on defence, Canada also maintains: (1) Canadian Joint Staff (Washington) representing the three Services; (2) Canadian Joint Staff (London) representing the three Services; and (3) 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, composed of representatives from both countries.

Total Strength and Rates of Pay and Allowances.-The strengths of the active forces of the three Services have been increased to keep pace with defence objectives and commitments. At May 31, 1952, the total active force strength was 97,834 composed of: navy, 13,927 ; army, 49,983 ; and air force, 33,924 . The strength of the reserve elements of the three Services was 57,452.

The entire pay structure for comparable ranks in the different Services is on a uniform basis. Monthly rates of pay and allowances are given in the following table.

## 1.-Monthly Rates of Pay and Allowances for Members of the Active Forces, as at Dec. 1, 1951

| $\begin{gathered} \text { Royal } \\ \text { Canadian } \\ \text { Navy } \\ \hline \end{gathered}$ | The Canadian Army | Royal Canadian Air Force | $\begin{aligned} & \text { Basic } \\ & \text { Pay } \end{aligned}$ | Subsistence Allowance | Total | $\begin{aligned} & \text { Marriage } \\ & \text { Allow- } \\ & \text { ance } \end{aligned}$ | Separated Family <br> Allowance (with children) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 5 | \$ | \$ | \$ | $\delta$ |
| Ordinary Seaman (on entry). | Private (on entry). | Aircraftman 2nd Class. | 87 | 61 | 148 | 30 | 61 |
| Ordinary Seaman (trained). | Private (trained). | Aircraftman 1st Class. | 91 | 61 | 152 | 30 | 61 |
| Able Seaman. | Private. | Leading Aircraftman. | 98 | 61 | 159 | 30 | 61 |
| Leading Seaman. | Corporal. | Corporal. | 112 | 61. | 173 | 30 | 61 |
| Petty Officer 2nd Class. | Sergeant. | Sergeant. | 129 | 72 | 201 | 30 | 72 |
| Petty Officer 1st Class. | Staff Sergeant. | Flight Sergeant. | 150 | 81 | 231 | 30 | 81 |
| Chief Petty Officer 2nd Class. | Warrant Officer 2nd Class. | Warrant Officer 2nd Class. | 174 | 81 | 255 | 30 | 81 |
| Chief Petty Officer 1st Class. | Warrant Officer 1st Class. | Warrant Officer 1st Class. | 193 | 92 | 285 | 30 | 92 |
| Midshipman. | - | - | 102 | 61 | 163 | 40 | 61 |
| Acting SubLieutenant. | Second Lieutenant. | Pilot Officer. | 170 | 65 | 235 | 40 | 65 |
| Sub-Lieutenant. | Lieutenant. | Flying Officer. | 210 | 89 | 299 | 40 | 89 |
| Lieutenant. | Captain. | Flight Lieutenant. | 255 | 94 | 349 | 40 | 94 |
| LieutenantCommander. | Major. | Squadron Leader. | 335 | 113 | 448 | 40 | 113 |
| Commander. | LieutenantColonel. | Wing Commander. | 395 | 126 | 521 | 40 | 126 |
| Captain. | Colonel. | Group Captain. | 555 | 139 | 694 | 40 | 139 |
| Commodore. | Brigadier. | Air Commodore | 737 | 153 | 890 | 40 | 153 |
| Rear-Admiral. | Major-General. | Air Vice-Marshal. | 881 | 165 | 1.046 | 40 | 165 |

## Subsection 1.-The Royal Canadian Navy

Organization.-Naval Headquarters at Ottawa conducts the planning and policy for administration and training of the active and reserve forces of the Royal Canadian Navy. Subject to this authority the flag officers on each coast exercise control in their respective Commands. Ships of the Royal Canadian Navy are based at the Atlantic and Pacific stations. Subsidiary units are the 21 Naval Divisions in cities across the country which serve as shore training establishments for the naval reserve.

Twenty-three major war vessels were in commission at the end of March 1952. The largest of these was a light fleet aircraft carrier of 18,000 tons. Others were two six-inch gun cruisers, five large tribal-class destroyers, three light destroyers, four frigates, four Algerine minesweepers and a newly constructed trawler-type gate vessel. In addition, 54 major war vessels were in reserve, including two escort maintenance vessels, 16 frigates and 18 Bangor minesweepers.

During 1951-52, for the first time during peace, women were enlisted in the R.C.N. Of these, 369 were enrolled in the R.C.N. (R), of whom 107 were employed in communication tasks on continuous naval duty.

During this period, considerable progress was made by the NATO navies in moulding the organization for the defence of the North Atlantic Ocean under a Supreme Allied Naval Commander; Canadian naval officers, appointed to his staff, work side by side with naval officers of other NATO countries.

Operations at Sea, 1951-52.-Three Canadian destroyers were in continuous service in Korean waters, during this period, thus involving a total of five destroyers to meet the requirements of rotation.

After flying training in the Halifax area in May and June 1951, the carrier Magnificent and the tribal-class destroyer Micmac departed from Halifax in August for a training cruise in the Mediterranean. Exercises were carried out with units of the British Mediterranean Fleet based at Malta and later, with units of the British and French fleets, off the south of France. On return to Halifax in October, Magnificent ferried 40 of the R.C.A.F. F-86 aircraft from Norfolk, Va., U.S.A., to Glasgow, Scotland.

The frigates La Hulloise and Swansea and the destroyer Crescent on the East Coast, and the destroyer Crusader with the frigates Beacon Hill and Antigonish on the West Eoast took part between May and September 1951 in a series of cruises for training the University Naval Training Division cadets. Visits to the United Kingdom, Pearl Harbour and west coast United States ports were made in the course of these cruises.

In October 1951, Their Royal Highnesses Princess Elizabeth and the Duke of Edinburgh embarked in Crusader for passage from Vancouver to Victoria. Subsequently, Their Royal Highnesses were conveyed from Nanaimo to Vancouver. Later in the month, the cruiser Ontario, escorted by Micmac, conveyed the Royal Party from Charlottetown to Sydney and thence to St. John's, N'f'ld. The two ships escorted S.S. Empress of Scotland, in which Their Royal Highnesses were homeward-bound, from Conception Bay to eastward of Newfoundland before returning to their home ports.

After an informal visit to Washington, D.C., in December 1951, Swansea proceeded on a training cruise to Nassau, Bermuda, and New London, U.S.A. Swansea was the first R.C.N. ship to visit Washington, D.C.

In January 1952, Beacon Hill and Antigonish sailed from Esquimalt, B.C., for a training cruise to South America, returning to Esquimalt in February.

During the year, the Algerine-class minesweepers Wallaceburg and Portage carried out extensive anti-submarine exercises with H.M. submarines Thule and Alcide and with the United States Navy at New London, Conn., and Norfolk, Va.

The cruiser Quebec was recommissioned at Esquimalt, B.C., in January 1952 and after an extensive refit she sailed from Esquimalt in March for Halifax, N.S., where she is employed principally as a training cruiser for new entries.

Training Ashore.-Two major shore establishments, Stadacona at Halifax and Naden at Esquimalt, are maintained by the Royal Canadian Navy to serve as drafting depots, training schools and centres, and to provide the accommodation facilities required by the fleets based on both coasts. In each of these establishments are schools and training centres which afford instruction for both officers
and men, R.C.N. and R.C.N. (R), in communications, gunnery, torpedo, antisubmarine, navigation direction, electrics and electronics, marine engineering, seamanship, naval ordnance, supply and secretariat duties, diving, damage control and fire-fighting.

A third major shore establishment is the R.C.N. Air Station Shearwater, at Dartmouth, N.S., which provides storage, shore accommodation and training facilities for naval aviation.
H.M.C.S. Cornwallis at Cornwallis, N.S., is devoted exclusively to training and its organization and program are geared accordingly. The course for new entries extends over 19 weeks. During this period a new entry receives basic instruction in naval subjects, studies mathematics and English, and participates in an extensive program of physical training, sports and recreation.

In February 1952, the first draft of French-speaking recruits arrived at the Basic Training School, H.M.C.S. Montcalm, at Quebec, Que., for initial training prior to commencing courses in H.M.C.S. Cornwallis. All regular-force recruits whose mother tongue is French will undergo preliminary training at this school in professional naval subjects including seamanship, boatwork, organization, parade training, supply duties, torpedo anti-submarine engineering, communications and naval history. Instruction is given at first in French and in English, with emphasis on the use of English naval terminology. The program is designed to enable new entries from the Basic Training School to join up with classes in H.M.C.S. Cornwallis at an appropriate stage in their training.

Officers of the Royal Canadian Navy come from four main sources: (1) Canadian Services colleges; (2) the universities; (3) commissioning from the ranks of the active force; and (4) short-service appointments.

Ship Construction, Refit and Modernization.-During 1951-52, one arctic patrol vessel, one anti-submarine escort vessel, three minesweepers and three gate vessels were launched as part of an extensive R.C.N. program of new construction. Work is well under way on other destroyer escorts and minesweepers. In addition, the destroyer Algonquin is being converted for duty as a destroyer escort and the tribal-class destroyers Iroquois and Haida completed trials following rearmament and modernization. Work is progressing on other miscellaneous and harbour craft. Provision was made for the acquisition of certain frigates and Bangor class minesweepers held in strategic reserve for refitting and modernization. After completion, most of these ships will be maintained in reserve at Sydney, N.S., where the base is being reopened for this project. The system of preservation adopted by the U.S. Navy (dynamic dehumidification) will be used.

Royal Canadian Navy (Reserve).-Naval Reserve Divisions are established in the following centres:

| Halifax, N.S., H.M.C.S. Scotian | London, Ont., H.M.C.S. Prevost |
| :--- | :--- |
| Charlottetown, P.E.I., H.M.C.S. | Port Arthur, Ont., H.M.C.S. Griffin |
| Queen Charlotte. | Winnipeg, Man., H.M.C.S. Chippawa |
| Saint John, N.B., H.M.C.S. Brunswicker | Regina, Sask., H.M.C.S. Queen |
| Quebec, Que., H.M.C.S. Montcalm | Saskatoon, Sask., H.M.C.S. Unicorn |
| Montreal, Que., H.M.C.S. Donnacona | Calgary, Alta., H.M.C.S. Tecumseh |
| Ottawa, Ont., H.M.C.S. Carleton | Edmonton, Alta., H.M.C.S. Nonsuch |
| Toronto, Ont., H.M.C.S. York | Vancouver, B.C., H.M.C.S. Discovery |
| Kingston, Ont., H.M.C.S. Cataraqui | Victoria, B.C., H.M.C.S. Malahat |
| Hamilton, Ont., H.M.C.S. Star | Prince Rupert, B.C., H.M.C.S. Chatham |
| Windsor, Ont., H.M.C.S. Hunter | St. John's, N'''ld., H.M.C.S. Cabot |

Each division, commanded by an R.C.N. (R) officer, is responsible for specialized training in one of the various phases of naval activity-gunnery, harbour defence, aviation, communications, etc.-and Royal Canadian Navy officers and men act as instructors.

During 1951, six Fairmile motor-launches were operated by the divisions on the Great Lakes. The coastal divisions operated one motor-launch, one Algerine minesweeper, one Bangor minesweeper and two $105-\mathrm{ft}$. wooden minesweepers. These vessels were used extensively in the training of R.C.N. (R) officers and men.

Apart from annual training, officers and men of the R.C.N. (R) may perform voluntary service and special naval duty as required by Naval Headquarters. In the latter case they take the place of Permanent Force officers and men where vacancies exist in complement.

University Naval Training Divisions.-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). Twenty-six U.N.T. Divisions drawing on the students of 41 universities and colleges have been established for this purpose. The total complement of cadets in 1951-52 was 1,278, the number of applicants considerably exceeding the existing vacancies in complement in nearly every instance. During 1951-52 the period of training was reduced by one year to permit cadets at the end of their third completed year to be given the rank of acting sub-lieutenant R.C.N. (R). Under the altered system, 39 U.N.T.D. officers entered the Royal Canadian Navy and 209 obtained commissions in the R.C.N. (Reserve). Assistance to university students who are accepted for the R.C.N. in their final year was continued.

Training is taken at naval divisions and at universities during the academic year. Summer vacation training is taken both in the schools at the coasts and in H.M.C. ships.

The Royal Canadian Sea Cadets.-The Royal Canadian Sea Cadets consists of 82 authorized corps sponsored by the Navy League of Canada and trained and supervised by the Royal Canadian Navy. Enrolment in 1951-52 was approximately 5,900 cadets between the ages of 14 and 18 years. Sea cadets are a valuable source of recruiting for the R.C.N. and the R.C.N. (R). In 1951, approximately 25 p.c. of those eligible to enlist in the forces joined the R.C.N. and 15 p.c. joined the R.C.N. (R).

## 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 active 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.

The five Commands contain seven areas located as follows:-

| Commands | Headquarters | Areas and Headquarters |
| :---: | :---: | :---: |
| Western Command........ | Edmonton, Alta.... | (i) British Columbia Area, Vancouver, B.C. |
| Prairie Command........ | Winnipeg, Man...... | (ii) Saskatchewan Area, Regina, Sask. |
| Central Command........ | Oakville, Ont. | (iii) Western Ontario Area, London, Ont. <br> (iv) Eastern Ontario Area, Kingston, Ont. |
| Quebec Command........ | Montreal, Que...... | (v) Eastern Quebec Area, Quebec, Que. |
| Eastern Command........ | Halifax, N.S....... | (vi) New Brunswick Area, Fredericton, N.B. |
|  |  | (vii) Newfoundland Area, St. John's, N'f'ld. |

The components of the Canadian Army are the active force, the reserve force, the supplementary reserve, the Canadian Officers' Training Corps (C.O.T.C.), the cadet services and the reserve militia. Additional to but not an integral part of the Canadian Army are the Services Colleges (see pp. 1172-1174), officially authorized cadet corps, rifle associations and clubs.

Operations, 1951-52.-The Princess Patricia Regiment, part of the 25th Army Brigade Group in service with the United Nations in Korea, shared in the United Nations advance into North Korea in April 1951 and played a major role in stemming the communist counter-offensive. In July, the 25th Canadian Infantry Brigade Group was incorporated into the First (Commonwealth) Division United Nations Forces, along with troops of the United Kingdom, Australia, New Zealand and India. Canadian units contributing to the administration and maintenance of the Division included sections for the Divisional headquarters, the Commonwealth hospital, the Divisional ordnance organization and line-of-communication and base troops. The Brigade saw continuous service from September 1951 to January 1952 before withdrawing for refitting and training.

To fulfil obligations assumed under the North Atlantic Treaty, a new formation, known as the 27th Canadian Infantry Brigade Group, was recruited through the agency of Reserve Force units. Fifteen companies were formed into three battalions of the Active Force-the 1st Canadian Rifle Battalion, 1st Canadian Highland Battalion and 1st Canadian Infantry Battalion, while the other companies were variously located at training camps. Supporting services were also raised and armoured support was provided by the Royal Canadian Dragoons. During the first month of recruiting, 146 officers and 6,525 other ranks were enrolled.

The Brigade's main party sailed from Quebec on Nov. 5, 1951, followed by smaller sections throughout November and December. The main party arrived at Rotterdam, The Netherlands, on Nov. 21. The Brigade, as of August 1952, was located near Hanover, Germany, under command of Brigadier Walsh, C.B.E., D.S.O., C.D.

The Army component of the Mobile Striking Force contains the portion of the Canadian Army active force that has been given the task, in conjunction with the R.C.A.F. component, of dealing with surprise enemy airborne assaults on Canada
in the event of war. This force is composed of three infantry battalions with their supporting arms and services. Parachute, northern operational and Arctic training is conducted each year. It is intended that, ultimately, all operational troops of the Mobile Striking Force will be parachute-trained and will be capable of living and fighting under severe climatic conditions. During the winter of 1951-52, battalions of the Mobile Striking Force were rotated with battle-experienced units from Korea. A proportion of parachute-trained personnel from each battalion has been retained in Canada until personnel returning from Korea have completed their parachute training.

Training.-Actual training of active and reserve force personnel is under the General Officers Commanding the five Commands as directed by the appropriate branch of Army Headquarters.

The military training policy for the year 1951-52 was, firstly, to improve the standard of individual and collective training, instructional ability and general efficiency of both active and reserve units; secondly, to bring active force units to the highest standard of operational training; and thirdly, to allow limited collective training in reserve force units where standard of individual training was sufficiently advanced. A further training commitment developed when it was decided to recruit a brigade for service in Europe.

The corps training of officers and men and the basic training of 21,279 recruits was carried out both within units and at various corps schools. In addition, approximately 9,225 personnel attended other courses at schools of instruction.

Basic and advanced training for recruits, as well as refresher courses for all ranks, is conducted in Army Corps Schools organized on a permanent peacetime basis and located as follows:-

Royal Canadian Armoured Corps School, Camp Borden, Ont.
Royal Canadian School of Artillery, Camp Shilo, Man.
Royal Canadian School of Artillery (Anti-Aircraft), Picton, Ont.
Royal Canadian School of Artillery (Coast and Anti-Aircraft), Esquimalt, B.C.
Royal Canadian School of Military Engineering, Chilliwack, B.C.
Royal Canadian School of Signals, Barriefield, Ont.
Royal Canadian School of Infantry, Camp Borden, Ont.
Royal Canadian Army Service Corps School, Camp Borden, Ont.
Royal Canadian Army Medical Corps School, Camp Borden, Ont.
Royal Canadian Army Dental Corps School, Ottawa, Ont.
Royal Canadian Ordnance Corps School, Montreal, Que.
Royal Canadian Electrical and Mechanical Engineers Schools, Barriefield, Ont.
Canadian Provost Corps School, Camp Borden, Ont.
Equipment.-For industrial and strategic reasons, the Canadian Army is adopting, with some exceptions, American-type armament and vehicles. As far as possible these new equipments will be produced in Canada. The importance of standardization has been increased by the adoption of North American equipment and an important contribution to standardization has been the influencing by Canada of selected developments in other countries. Interest has been displayed by the United States and the United Kingdom in such Canadian products as light-weight wireless sets, flame and anti-tank weapons and northland vehicles.

The Reserve Force.-The Reserve Force provides the basis for the organization of a field force in the event of emergency. It is employed on a part-time basis and is subject to annual military training.

Training in 1951-52 was devoted to improving individual skill in handling weapons, fieldcraft, technical ability and physical fitness as well as improving the qualities of leadership, professional ability and instructional techniques of officers and N.C.O's. Where the standard of individual training was sufficiently high, collective training of units and sub-units was carried out at the discretion of officers commanding the Commands.

A training period of 45 days at local headquarters was authorized for all ranks of the Reserve Force with an additional 15 days training at annual camps for 16,000 all ranks. During the year ended Mar. 31, 1952, a total of 3,687 officers and 9,103 other ranks attended summer and winter camps.

The Canadian Officers' Training Corps.-The Canadian Officers' Training Corps comprises in its membership the reserve force command contingents and the university contingents.

Command contingents provide the means whereby potential reserve force officers who are unable to attend the Canadian Services Colleges or to join a university contingent of the Canadian Officers' Training Corps can qualify for a commission in the Reserve Force. Candidates are enrolled as officer cadets and may choose methods of training varying from a complete 26 -week course at a corps school to a three-year course consisting of training at local headquarters and at summer camps. Approximately 1,661 officer candidates were enrolled in this training as at Mar. 31, 1952.

In 1951, 1,920 officer cadets (students at universities or service colleges) reported for summer training. Of these 1,824 passed their courses; 400 qualified as lieutenants and 416 as second-lieutenants in the Reserve Force. Approximately 100 officer cadets were commissioned in the Active Force during the period under review.

The Cadet Services of Canada.-The Royal Canadian Army Cadets are formed into 500 cadet corps with an enrolment of 55,000 . This organization affords youths of 14 to 18 years of age an opportunity to learn of the Canadian Army and, by following the three-year program, to receive fundamental training as soldiers and junior leaders. The training program was revised in 1951. Summer camp training consists of seven-week courses conducted at Aldershot, N.S., Valcartier, Que., Ipperwash, Ont., Dundurn, Sask., and Vernon, B.C. These courses teach such military trades as driver mechanics, radio-telephone operators, medical assistants and basic-training instructors. The National Cadet Camp at Banff National Park, Alta., is conducted in August as an award for outstanding proficiency in cadet work for 150 carefully selected master and first-class 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 R.C.A.F. is divided into three categories; personnel, logistics, and plans and operations. This functional division is reflected in the Air Force Headquarters organization.

During the year ended Mar. 31, 1952, reorganization of the R.C.A.F. was completed on a functional basis. The Air Defence Group at St. Hubert was raised to Command status and 12 Group Vancouver, was renamed 12 Air Defence Group
and placed under control of Air Defence Command. North West Air Command was replaced by Tactical Air Group, with headquarters at Edmonton. No. 14 Training Group, with headquarters at Winnipeg, was formed and placed under the control of Training Command Headquarters, Trenton, Ont. Air Transport Command headquarters was moved from Rockcliffe, Ont., to Lachine, Que.

Higher formations of the R.C.A.F. with their headquarters are as follows:-

| Formation | Headquarters |
| :---: | :---: |
| Air Materiel Command. | Ottawa and Rockcliffe, Ont. |
| Air Defence Command. | St. Hubert, Que. |
| Air Transport Command | Lachine, Que. |
| Training Command. | Trenton, Ont. |
| Maritime Group. | Halifax, N.S. |
| Tactical Air Group. | Edmonton, Alta. |
| 12 Air Defence Group. | Vancouver, B.C. |
| 14 Training Group. | Winnipeg, Man. |

At Air Force Headquarters, the planning staff and the operational and training staffs were amalgamated into one division, under the Vice Chief of the Air Staff.

The expansion of the Air Defence and NATO Forces continued and Air Transport Command commitments increased because of a requirement for additional flights to support forces overseas. The contribution to the Korean airlift was maintained. A transport operational training unit was formed at Lachine, Que., to undertake training for transport crews.

Operations, 1951-52.-Air Defence.-During the year 1951-52, Air Defence Group became Air Defence Command and continued to expand in facilities, aircraft and personnel. Three additional regular fighter squadrons were formed and equipped with F-86E (Sabre) aircraft: No. 439 at Uplands, Ont., No. 413 at Bagotville, Que., and No. 430 at North Bay, Ont. Regular squadrons using Mustang and Vampire aircraft were re-equipped with the F-86E. No. 421 Squadron which proceeded to the United Kingdom in January 1951 returned to Canada in December 1952 and re-formed at St. Hubert. Nos. 410 and 441 Fighter Squadrons were transferred from St. Hubert to R.C.A.F. Station, North Luffenham, England, to become the first two squadrons of No. 1 R.C.A.F. Fighter Wing Overseas.

Maritime.-There was a gradual build-up of facilities, equipment and personnel with the Maritime Group during the year. The newly formed No. 404 (Maritime Reconnaissance) Squadron and No. 405 (Maritime Reconnaissance) Squadron sent crews to the United Kingdom for advanced training in anti-submarine warfare at the Joint Anti-Submarine School. The joint R.C.N.-R.C.A.F. Maritime Warfare School at Halifax and No. 2 (Maritime) Operational Training Unit at Greenwood, N.S., continued their respective training programs throughout the year.

Air Transport.-The squadrons of Air Transport Command continued to provide logistical support, when required, for units of the defence forces and provided similar services for other government departments when no commercial air facilities were available. Two squadrons were employed in Canada solely on air-transport work. A third transport squadron, No. 426, continued transport operations on the transpacific airlift from bases at Tacoma, U.S.A., and Dorval, Que. By Mar. 31, 1952, the squadron had completed over 350 flights across the Pacific to Tokyo and return, carrying more than $4,000,000 \mathrm{lb}$. of freight and mail and over 8,500 passengers. The squadron has flown almost $4,000,000$ miles on the Korean airlift.

Other.-Air photography and survey work continued the large mapping operation that has been undertaken. Station photographic sections were established at newly opened units to provide service for the maintenance of air cameras and for the processing of films used in air-to-air and air-to-ground aircrew training exercises.

The Operational Research Section continued studies of a number of problems such as the relationship of ground environment to fighter characteristics.

Twenty R.C.A.F. forecast offices provide meteorological services in conjunction with the Department of Transport.

Training.-Aircrew training courses were organized for potential aircrew of the R.C.A.F. regular, reserve university and Canadian Services Colleges flight cadets and the R.C.N., and for cadets from countries in the North Atlantic Treaty Organization. During the fiscal year 1951-52, 916 personnel were trained as aircrew.

Facilities for pilots were increased by the formation of flying training schools at Claresholm and Calgary, Alta., in addition to those at Centralia, Ont., and Gimli, Man., and by the advanced flying schools opened at Saskatoon, Sask., and MacDonald, Man. At Calgary, a pilot refresher training school was set up for veteran pilots who have re-enlisted. Navigation training facilities were increased by the formation of an air navigation school at Winnipeg, Man., and the opening of a central navigation school at Summerside, P.E.I. The Air Radio Officers' School was established at the R.C.A.F. Station, Clinton, Ont., to carry out basic training for potential radio officers in the R.C.A.F.

Formal trade courses for newly commissioned non-flying list officers were conducted at R.C.A.F. schools in aeronautical engineering, armament, supply and telecommunications. Courses were provided to qualify officers in flying control.
R.C.A.F. trade specifications have been revised to an approved tri-service standard on the basis of job analysis data previously obtained. The majority of R.C.A.F. trades have been converted to the new trades structure as represented by these specifications, and approximately 85 p.c. of personnel reclassified and coded accordingly. Trade training has been changed, as required, in accordance with the new trade specifications. During the fiscal year 1951-52, 5,365 groundcrew were given basic training and 785 were given other courses. To accommodate expanding training loads, relocation and re-opening of several training schools was effected. Primary training of officers on guided missiles continued at Clinton, Ont., and advanced training is being undertaken in the United States by selected officers. Guided-missile training in the armament trade of the R.C.A.F. is being investigated for early commencement.

Equipment.-Planes needed for the increased training program, for transport and for operational duties are being obtained by reconditioning, and by procurement of aircraft manufactured in or outside Canada. More than 300 aircraft were reconditioned during the fiscal year 1951-52. The CF-100, the Sabre F-86E and the Harvard trainer were manufactured in Canada. Substantial orders for various aircraft were placed in the United States and the United Kingdom.

The development program on the Rolls Royce Avon-powered CF-100 was intensified during the year. The first Orenda-powered CF-100 was delivered by A. V. Roe Canada Limited, to the R.C.A.F. in November 1951, and all subsequent aircraft will be delivered with Orenda engines installed.

Production of the F-86E at Canadair Limited is proceeding on schedule. The prototype Orenda-powered F-86E made its initial flight in the summer of 1952. Canadair is engineering the design changes required to enable the T33-A aircraft to take the Rolls Royce Nene engine and will produce this aircraft in quantity for training purposes.

The Orenda turbo-jet engine, designed and produced by A. V. Roe Canada Limited, completed over 9,000 hours of running on the test bed and over 300 hours in the Lancaster, the F-86E and the CF-100. The most important achievement during the year was the successful completion of the 150 -hour type test with a production engine.
R.C.A.F. Reserve.-In accordance with the new Queen's Regulations (Air), the sub-components of the R.C.A.F. reserves were redesignated as follows: (1) the auxiliary; (2) the primary reserve; and (3) the supplementary reserve.

During the fiscal year 1951-52, the control of auxiliary units in Ontario was transferred from Training Command to Air Defence Command. This was effected because the majority of the units involved were of an Air Defence nature, i.e., squadrons and aircraft control and warning units. At the same time, Training Command was made responsible for the activities of all reserve university squadrons.

Reserve training activities were considerably expanded and summer aircrew training continued for flight cadets of the Canadian Services Colleges and selected university students. The basic training syllabi were condensed to enable the student to reach "wings" standard at the end of his second summer of training and thus to gain practical experience in his third summer through employment in his aircrew trade; altogether, 1,088 flight cadets received flying training during 1951-52.

Formal summer training and on-the-job training continued for selected university students in non-flying list categories. This included basic officer and executive training for all first-year Air Force cadets at Royal Military College, Kingston, Ont., followed by formal training for cadets in certain technical trades. The number of reserve personnel who received either ground or other training was 9,250.

Training of grounderew personnel of the auxiliary units received added emphasis. New trade specifications were prepared for the majority of reserve trades and training programs were revised to ensure that tradesmen would be capable of doing the work required of them in the operation of auxiliary units. Experience gained in the operation of a technical training unit established at Vancouver in October 1950 resulted in the formation of additional units at Montreal, Hamilton, Toronto, Winnipeg and Edmonton. The purpose of these technical training units is to train personnel of the auxiliary formations in the locality to Group 1 tradesmen standards and to assist in trade advancement training programs.

Reserve University Squadrons.-In the summer of 1951, 783 flight cadets were undergoing training under the University Reserve Training Plan, 84 as aircrew trainees and 699 as non-flying list. On Mar. 31, 1952, a total of 995 were training under this Plan.

Royal Canadian Air Cadets.-Closely associated with the R.C.A.F. are the Royal Canadian Air Cadets, whose establishment was raised during 1950 from 15,000 to 22,500 . More than 223 air cadets squadrons are located across Canada
with an enrolment of more than 17,000 cadets, administered by the Air Cadet League of Canada, a voluntary civil organization. The value of cadet training continues to be confirmed by the number of Air Cadets enlisting in the R.C.A.F. regular and reserve forces. During 1951-52, 694 ex -Air Cadets joined the R.C.A.F. regular squadrons and 193 signed on with the reserve.

## Subsection 4.-The Defence Research Board

The National Defence Act was amended on Apr. 1, 1947, to provide for the establishment of a Defence Research Board. The Board consists of six ex officio and six appointed members serving under a full-time chairman. The ex officio members are the Chairman of the Board, the Chiefs of Staff of the three Armed Services, the President of the National Research Council and the Deputy Minister of National Defence. The remaining six members, appointed by the Governor General in Council, are members with scientific and technical qualifications and are drawn from the universities and industry. The organization consists of a headquarters staff, advisory committees and field research stations.

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.

The Defence Research Board is an essential part of the defence of Canada and, as such, 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. This task is the main function of the Headquarters Staff and its work is strengthened by the expert counsel of comprehensive advisory committees.

It is the policy of the Board to select and concentrate its efforts upon those problems that are of particular importance to Canada or for which Canada has unique resources or facilities. Existing research facilities (for instance, 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 that 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.

An important and logical field of specialization for Canada is Arctic research. This interest in Arctic problems is reflected in nearly all the Board's activities. An outstanding example is a program of ionospheric research carried on jointly with the Department of Transport. The north magnetic pole is located on the northern edge of Canada's mainland and the auroral belt, in which ionospheric disturbances make radio communication difficult, is centred around the north magnetic pole and, therefore, extends well down into the inhabited areas of Canada. This means that Canada has unique radio communications problems that are not duplicated elsewhere in the world, except in northern Siberia, and which are of vital importance not only to defence but to civil aviation and communications. It is, therefore, appropriate that Canada should put special effort into this field of research
and that the research should be supported by civil and military parts of the Government. The Board's Radio Physics Laboratory has designed and supplied the special equipment and has trained the operators for a chain of Department of Transport ionospheric observatories which are scattered across the auroral belt. The results of the observations from these stations are analysed at the Radio Physics Laboratory and are used not only to issue current forecasts of the most effective radio transmission frequencies but also in more fundamental research to improve communications in the north. The results are passed to the Central Radio Propagation Laboratory at Washington, U.S.A., where they are used in the compilation of world-wide frequency prediction tables. The whole program is an example of logical specialization and of effective interdepartmental and international co-operation.

New laboratory buildings will be utilized shortly at the Naval Research Establishment at Halifax, N.S.; the Canadian Armament Research and Development Establishment near Ottawa and the Defence Research Kingston Laboratory at Kingston, Ont. Construction has started on new laboratories in Ontario for the Defence Research Medical Laboratory at Toronto and the Defence Research Chemical Laboratories near Ottawa.

Pursuing its established policy, the Defence Scientific Service continues to make available to the scientific community at large those results of its work that have other than a 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

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 to provide a joint educational and training program that would produce officers for the three Armed Services of Canada.

The course at the colleges is of four years' duration, the first two years of which may be taken at either Royal Roads or the Royal Military College. The third and fourth years are taken at the Royal Military College only. Cadets who complete the first two years at Royal Roads proceed to the Royal Military College for the last two years of the general or engineering courses. Fees for the first year total $\$ 580$; each succeeding year costs $\$ 330$.

Graduates are qualified without further academic training for entrance to any of the three Services, active or reserve, as acting sub-lieutenant in the Navy, lieutenant in the Army or flying officer in the Air Force. Technical course graduates may be sent by the Services for further training to degree standard at specified universities.

A candidate for admission to the colleges must be a British subject between 16 and 21 years of age, have junior matriculation as the minimum education and be physically fit. Qualifying examinations in English or French are required,
followed by a personal interview with the regional board. The final selection of cadets competing in open competitions or on provincial quotas is made by a board appointed by the Minister of National Defence.

Fifteen scholarships of $\$ 500$ each are made available each year by the Federal Government on a purely academic basis according to the following provincial quotas: Atlantic Provinces, three; Quebec, four; Ontario, four; Manitoba, one; Saskatchewan, one; Alberta and the Northwest Territories, one; British Columbia and Yukon Territory, one. Up to 15 cadetships, five to each Service, with a value of $\$ 580$ each, are provided by the Federal Government to sons of ex-Service and Service personnel. In addition, the following associations award annual scholarships: the Navy League of Canada, the Canadian Infantry Association, the Naval Officers' Association of British Columbia, the Air Cadet League of Canada, the R.C.A.F. Benevolent Fund, the Imperial Order of the Daughters of the Empire, the Ontario Canteen Fund and the Royal Canadian Artillery Memorial Fund. Bursaries are awarded by the Leonard Foundation, the R.C.A. Officers' Regimental Fund Committee and Dominion-Provincial Student Aid.

At Mar. 31, 1952, the Royal Military College had 90 cadets in first year, 68 in second, 118 in third and 72 in fourth. Royal Roads had 78 cadets in first and 68 in second year.

Advanced Training Colleges.-The Canadian Army and the Royal Canadian Air Force operate the undermentioned staff colleges for giving Staff and Command training while the National Defence College provides facilities for advanced study of defence problems.

The National Defence College, Kingston, Ont., is a senior Canadian defence college with a primary objective of co-ordinating defence measures with external and economic policies. First opened on Jan. 5, 1948, senior officers and civil servants from the Armed Forces and government departments attend; also a few representatives from industry are invited to participate in the course of about eleven months' duration.

The curriculum is based on a series of problems dealing with the political, economic and military aspects of Canadian defence. An extensive lecture course is provided, with lecturers chosen from leaders in various fields in Canada, the United States and the United Kingdom. In addition, educational tours and visits to parts of Canada, the United States, Europe and the Middle East are made to give students a more vital knowledge of conditions and influences in their own and other countries.

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 covers a period of ten months. A joint instructional staff includes faculty members from the three Services, the United States and the British armies. The student body comprises members from the three Services and from five different nations. Aside from purely military subjects, the curriculum provides for intensive study of current world affairs and lectures by prominent guest speakers in this field. Graduates are qualified for Grade II Staff appointments or commands in the Service.

The Royal Canadian Air Force Staff College, Toronto, Ont., is a permanent air force staff college, the training program of which is 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 Air Force, the United States Air Force, as well as the Royal Canadian 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; and the industrial potential of the country. 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, university and industrial life.

## PART II.-DEFENGE PRODUCTION*

Department of Defence Production.-The expansion of the military effort since the United Nations took action in Korea has called for the production of large quantities of weapons and equipment and for a considerable amount of construction. The Department of Defence Production was set up on Apr. 1, 1951, to handle defence procurement, previously carried out by the Minister of Trade and Commerce acting through the Canadian Commercial Corporation. This new Department also undertook responsibility for the control and allocation of essential materials and for the development of Canada's strategic resources.

The Department has three main Branches, two of which are concerned with procurement. (1) The Production Branch deals with commodities the production of which requires special facilities. Such items include aircraft, ships, electronic equipment and military vehicles. (2) The General Purchasing Branch procures commodities either of standard commercial types or of specifications not greatly different from commercial ones, for instance, clothing, food, fuels and barrack stores. (3) The Materials Branch is concerned with ensuring that essential materials are available for direct defence purposes and for the development of strategic resources. This involves the administration of certain controls over the use of essential materials produced in Canada, the arrangement of administrative procedures for the import of materials under restrictions in their country of origin and a general responsibility for matters related to the development of strategic resources.

Defence Orders Placed.-Table 1 shows defence orders, excluding those for stockpiling, by programs, from Apr. 1, 1949, to Mar. 31, 1952. The increase since the outbreak of hostilities in Korea during the summer of 1950 is apparent. Orders placed in the year ended Mar. 31, 1951, were over three times as great as those of the previous year, and orders in 1951-52 were almost eight times the pre-Korean level. The peak period for orders was from July to September 1951.

The aircraft program is the largest and, although the balance of the programs will alter as time goes on, it is likely to remain the largest item because of the importance of airpower to Canada.

[^402]1.-Canadian Government Defence Orders, by Programs, Years Ended Mar. 31, 1950-52

Note.-Figures exclude stockpiling but include capital assistance.

| Program | 1949-50 | 1950-51 | 1951-52 | 1951-52, by Quarters |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Apr.June | July-Sept. | Oct.-Dec. | Jan.-Mar. |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | '000 |
| Aircraft. | 88,517 | 302,358 | 486,201 | 92.529 | 187,061 | 67,393 | 139,218 |
| Shipbuilding................ |  | 79,171 | 125, 885 | 66,462 | 32,256 | 5,454 | 21,813 |
| Tanks, automotive.......... | 12,384 | 27, 137 | 61,597 | 19.599 | 19,015 | 9,932 | 13,051 |
| Weapons.................... | 672 | 9,061 | 147, 337 | ${ }^{11,673}$ | 42,089 | 58,989 | 34,586 |
| Ammunition and explosives... | 2,413 | 11,755 | 129,530 | 10,457 | 38,109 | 63,795 | 17,169 |
| tions equipment. | 16,779 | 87,098 | 80,754 | 20,386 | 8,463 | 2,147 | 49,758 |
| Fuels and lubricant | ${ }^{26,073}$ | 20,128 | 34,186 | 12,430 | 5,923 | 1,585 | 14,248 |
| Clothing and equipage | 16,711 | 33,332 | 171,439 | 15,831 | 52,563 | 46,392 | 56,653 |
| ment. | 13,179 | 22,906 | 29,748 | 3,177 | 18,898 | 4,581 | 3,092 |
| Construction. | 28,672 | 67,645 | 184,488 | 45,782 | 55,419 | 41,666 | 41,621 |
| Miscellaneous programs | 33,326 | 51,355 | 106,807 | 16,329 | 27,427 | 31,246 | 31,805 |
| Components for aircraft ${ }^{2}$ |  | 38,135 | 206,684 | 101,590 | 96,090 | 9,004 |  |
| Armament and other equipment for two infantry divi sions ${ }^{2}$ | - | 14,684 | 68,358 | 35,649 | - | 32,709 |  |
| Domestic district office orders............... | , | 4 | 68,294 | 14,783 | 20,287 | 16,789 | 16,435 |
| Totals. | 242,914 | 764,765 | 1,901,408 | 466,677 | 603,600 | 391,682 | 439,449 |

${ }^{1}$ Food and other subsistence; protective and lifesaving equipment; medical and dental equipment and supplies; photographic equipment and supplies; laboratory, scientific and other instruments; conveying, elevating and material handling equipment; construction, mining and excavating equipment; production equipment; administrative equipment and miscellaneous. ${ }^{2}$ Equipment, including engines and electronic devices, purchased from the United States Government for incorporation in Canadian-built aircraft. ${ }^{3}$ Purchased in the United States to replace United Kingdom-type weapons and equipment sent to Europe under Mutual Aid.

Table 2 shows defence procurement orders according to the countries in which they were placed. Large government orders were placed in the United States, as the expanded defence program got under way, being especially large during the first two quarters of the fiscal year 1951-52. In the second half of that year, orders to the United States declined rapidly. The proportion of orders placed in the United States rose with the expansion of the defence effort and then tapered off during the fiscal year 1951-52 from over a third in the first quarter to less than a twenty-fifth in the last.

Following a decision to standardize on United States rather than British types of army weapons, plants had to be tooled up to meet new specifications and, while this was being done, heavy initial orders were placed in the United States for equipment of types to be produced later in Canada. The decision to produce, in Canada, existing types of United States aircraft also meant placing heavy orders in that country for components, particularly engines and electronic equipment.

When Canadian production is in full swing, some items such as tanks may still be imported, since Canada's requirements are not large enough to justify laying down a plant for every kind of equipment. The general policy regarding defence production in Canada and the United States is based on the "Statement of Principles for Economic Co-operation", signed by the Canadian and United States Governments on Oct. 1, 1950. This indicates, among other things, that "our two Governments shall co-operate in all respects practicable and to the extent of their respective executive powers, to the end that the economic efforts of the two countries be coordinated for the common defence and that the production and resources of both countries be used for the best combined results"

In accordance with this principle, Canada will continue to import a number of items from the United States, but the situation is not one-sided. The United States Government is buying certain aircraft from Canadian firms that are thereby able to operate with the benefits of large-scale production. The planes concerned are the F-86E jet fighter, the Harvard trainer, the Beaver, and the T36-A trainer transport. Guns, too, are being produced in Canada for the United States, both the 3 -inch 50 -calibre naval gun and the 120 mm . gun. The United States Government has placed orders in Canada for explosives, for 90 mm . shell cases, and for certain types of small arms ammunition as well as for mobile radar equipment.

## 2.-Distribution of Canadian Government Defence Orders, by Countries in which Placed, Years Ended Mar. 31, 1950-52

Nots.-This table includes orders for end items, and capital assistance contracts placed with prime defence contractors.

| Country | 1949-50 | 1950-51 | 1951-52 | 1951-52, by Quarters |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Apr.-June \|July-Sept.|Oct.- Dec.| Jan.-Mar. |  |  |  |
|  | Values |  |  |  |  |  |  |
|  | \$'000 | \$'000 | \$'000 | \$'000 | \$'000 | \$ 000 | \$'000 |
| Canada.. | 222,423 | 657.449 | 1,446,386 | 287,024 | 435,701 | 308.579 | 415,082 |
| United States. | 15,229 | 99,090 | 415,780 | 177,671 | 163,423 | 58,773 | 15,913 |
| United Kingdom. | 5,205 | 8,143 | 39,228 | 1,977 | 4,476 | 24,327 | 8,448 |
| Other countries. | 57 | 83 | 14 | 5 | - | 3 | 6 |
| Totals.......... | 242,914 | 764,765 | 1,901,408 | 466,677 | 603,600 | 391,682 | 439,449 |
|  | Percentages |  |  |  |  |  |  |
|  | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. | p.c. |
| Canada. | 91.5 | 86.0 | 76.0 | $61 \cdot 5$ | 72-2 | 78.8 | 94.5 |
| United States. | $6 \cdot 3$ | 12.9 | 21.9 | $38 \cdot 1$ | $27 \cdot 1$ | 15.0 | $3 \cdot 6$ |
| United Kingdom ${ }^{1}$. | $2 \cdot 2$ | $1 \cdot 1$ | $2 \cdot 1$ | 0.4 | 0.7 | 6.2 | 1.9 |
| Totals | $100 \cdot 0$ | $100 \cdot 0$ | $100 \cdot 0$ | 100.0 | $100 \cdot 0$ | $100 \cdot 0$ | 100.0 |

${ }^{1}$ Includes orders to other countries, that were never over one-fortieth of one percent of total orders.
Production Programs, 1951-52.-A new stage in the development of the Canadian aircraft industry was reached in the autumn of 1951 with the delivery to the Royal Canadian Air Force of the first pre-production model of the CF-100 all-weather jet fighter. This is the first all-Canadian jet aircraft for both the airframe and the Orenda engines which power it are produced in Canada. Arrangements for full-scale production are under way and deliveries, under the main production contract, will begin in 1952. The F-86E Sabre, of United States design, is also under production. A number of the aircraft are going to the United Kingdom and to the United States.

The Harvard primary trainer aircraft, also of United States design, began to come off the Canadian production line during the autumn of 1951. Engines were at first imported from the United States but will be produced in a new plant near

Montreal which will also supply spare engines for the large number of Harvards now flying in many parts of the world. The Beaver aircraft is being manufactured to meet large United States orders as well as domestic civilian requirements. This is a Canadian-designed plane for general-purpose use in rugged territory. Full-scale production began during 1952 of the T33-A Shooting Star jet trainer. A number of these were received from the United States during 1951 to meet immediate needs. Preparations are being made also for the production of the T36-A trainer transport.

The Orenda engine, entirely of Canadian design, was the first jet engine to be built in Canada. The Rolls Royce Nene engine, which will power the T33-A, will eventually be assembled in Canada.

A number of aircraft stored since World War II were reconditioned and equipped to serve new purposes. Some bombers were converted for use by the Maritime squadrons of the R.C.A.F. and other aircraft were converted for training purposes.

New plants have been set up to manufacture engines and other components. One plant is designed for the manufacture of fuel systems for Orenda engines, and others for the production of magnesium castings and of compressor and turbine blades for jet engines. In the instrument field, a plant is being built to meet Canada's requirements of artificial horizons, now being obtained from the United Kingdom. Arrangements have been made with a Swedish firm to set up a subsidiary plant in this country for the production of engine and instrument bearings. Two United States firms are also establishing plants in Canada for the manufacture of aircraft instruments.

Electronic devices are very important in defence, their main uses being in the field of communication by radio, in the interception of aircraft and ships by radar, in fire control and in the exploding of missiles near their target. Many of Canada's requirements are at present being met from the United States but the Canadian electronics industry is switching from civil to military production. Several plants have been established to produce items new to Canada's economy, including subminiature tubes and components, and crystals.

A large quantity of radar and communications equipment for the northern screen of the air defence of this continent is being produced in Canada, together with a large number of anti-aircraft radars and other types of radar for use by the Armed Services. One type of early-warning radar used by anti-aircraft artillery, the No. 4 Mk. VI, will be used extensively in Western Europe as well as in the air defence of Canada. Orders have also been received from the United States for this equipment. Proximity fuses are being produced in Canada for the first time.

A new type of pack radio for use by the infantry was developed in Canada during 1951. It has a range of one mile and is believed to be the best of its type in existence. This equipment will be used extensively by the Canadian Army and by other North Atlantic Treaty countries.

Canadian shipyards are working on orders for 14 escort vessels, 14 minesweepers, 5 gate vessels and an ice breaker, as well as a number of harbour craft. In addition to the new ships, a "Mothball Fleet" of 21 minesweepers and frigates is being converted and refitted. The escort vessels, designed in Canada, except for the propulsion machinery, are the most modern of their kind, equipped with all the latest devices and weapons; the first was launched in November 1951. The minesweepers are being built of aluminum, with the hulls sheathed in wood to reduce their magnetism and the shipyards have developed techniques of handling aluminum
for this purpose. Three of the minesweepers were launched during the fiscal year 1951-52 and the ice breaker, a patrol vessel for northern waters, was launched in December 1951.

The construction of these vessels calls for work elsewhere than in the ship-yards-the manufacture of boilers, turbines, auxiliary engines, deck gear and other components. Most of the contracts for such items have been let in Canada.

Under the weapons program, the major production activity has been in connection with 3 -inch 50 -calibre naval guns and mountings. Arrangements have also been made for producing the 155 mm . and 105 mm . howitzer and carriage, the 155 mm . gun, and the 105 mm . recoilless rifle. Other equipment includes the 60 mm . and 81 mm . mortars and the $3 \cdot 5$-inch rocket launcher. Contracts placed for small arms were limited, partly because of the failure to obtain agreement on the standardization of small arms and weapons. Orders were placed for 0.50 -inch Browning machine guns for the R.C.A.F. Appreciable quantities of anti-aircraft guns, medium field guns, small arms and instrument stores, held in storage by the Department of National Defence, have been overhauled, modified and reconditioned during 1951-52.

Ammunition requirements altered with the change-over to United States types of equipment. In Canada, it was decided to produce ammunition for the 90 mm ., the 105 mm . and the 155 mm . artillery equipments for the Army. Naval requirements to be met from domestic sources include 3 -inch 50 -calibre and 40 mm . Bofors rounds, depth charges and other types of anti-submarine projectiles. The Air Force requirements include rockets and small arms ammunition. Explosives for the ammunition are being produced in two plants, one of which manufactures picrite and the other a number of explosives including RDX/TNT and rifle powder. Phosphorus and hexachlorethane are also being made in Canada to government specifications, the latter mainly for export to the United States.

Automobile manufacturers are producing $\frac{1}{4}$-ton, $\frac{3}{3}$-ton and $2 \frac{1}{2}$-ton military trucks to joint Canadian-United States specifications. Because of the large capacity of these plants, the output of trucks can be expanded quickly to meet any foreseeable demands from the Armed Services. Other types of military vehicles are being produced in smaller quantities and a number of civilian types of vehicles have been purchased for military use. It has been decided not to establish tank-manufacturing facilities in Canada; Centurion tanks are being purchased from the United Kingdom.

The construction program has involved heavy outlays for barracks and other types of accommodation, buildings for the radar screen, air-strips and other works. These were made necessary by the long-term problems of defence and by increases in the size of the Forces. Orders were placed, during the fiscal year 1951-52, for the construction of 3,400 prefabricated buildings, including 650 Arctic-type huts.

The textile industries have received heavy orders for clothing and for other requirements such as, blankets, mattresses and canvas beds. Most of the clothing and accoutrements not made from broad woven fabrics were ordered in the first half of the fiscal year, but garments such as uniforms and greatcoats made of broad woven fabrics could not be ordered so soon. The cloth was ordered first and, as it became available, contracts were let, mainly during the second half of the fiscal
year, to the cut, make and trim trades largely to meet possible mobilization requirements. As mobilization stores build up, orders are placed at a lower rate. Footwear of both leather and rubber, and other leather goods such as gloves and belts, were ordered for current use and for mobilization stores.

Other requirements of the Armed Forces have also been met, including food, fuel and lubricants, chemicals, medical supplies, photographic stores, laboratory scientific and other instruments, barrack-room stores, furniture and furnishings, and office equipment.

In some cases, defence production has involved the setting up of facilities which will have small residual talue after the emergency is over. Under these circumstances, contractors cannot be expected to make capital outlays that may not be fully charged against contracts before the defence work stops. Thus, the Government has authority to provide the contractor with capital assistance in the form either of machinery and equipment or of new buildings or extensions. Everything so provided remains the property of the Crown; buildings are constructed on land owned by the Crown. Some Crown-owned machine tools used during World War II have been rehabilitated and issued to contractors in connection with the present defence drive.

Controls and Priorities.-In the initial stages of the increased defence production it was necessary to direct the use of certain essential materials produced in Canada and elsewhere. The Defence Production Act, Sect. 30, provides that "The Governor in Council may, from time to time, designate as an essential material any material or substance, the control of the supply and use of which is in his opinion essential to ensure the availability of adequate defence supplies or for the construction or operation of defence projects". Orders in Council have designated as essential a number of chemicals and chemical compounds, wood-pulp and newsprint, certain forms of non-ferrous metals and non-metallic minerals, and certain forms of iron and steel.* After a material has been declared essential, the Minister of Defence Production may regulate its production, supply, distribution and use. In the case of non-ferrous metals, control is by an order approval system whereby purchase orders placed by manufacturers are screened in the Department of Defence Production. An order approval system was established for primary and wrought aluminum, primary copper and certain copper products, primary nickel and certain nickel products, cadmium, lead and zinc. Sulphur is controlled under a similar system.* The order approval system for cadmium, lead and zinc was cancelled in May 1952.

In the case of steel, supplies were diverted as necessary to defence and defencesupporting purposes by the direction of individual requirements at the mill, warehousing or fabricating levels. In addition, the use of structural steel for a wide variety of less essential purposes such as, places of amusement, liquor stores, hotels, banks and service establishments was placed on a permit basis in February 1951. A Ministerial Order of January 1952 prevented the accumulation of excessive inventories of steel and ensured that steel would be used for the purpose for which it was acquired.

In addition to the above controls on specific materials, the Minister of Defence Production has general powers for establishing a priority system for any type of essential supplies, under Order in Council P.C. 2399 of May 16, 1951. It has not

[^403]been necessary to exercise these powers formally to any great degree, and priorities in Canada have been largely dealt with by informal consultation between the Government and representatives of industry.

Since Canadian firms are dependent on the United States for a considerable proportion of their requirements of materials and semi-finished and finished goods, the system of controls in that country has an important effect in Canada. Under the United States Controlled Materials Plan, which governs steel, copper and aluminum, quarterly estimates of Canada's future requirements are made by the Department of Defence Production and are considered in Washington, D.C., along with claims from all segments of the United States economy. An allocation is then made to Canada and distribution to Canadian industry is carried out through the Department. With respect to the general United States Priorities System covering machinery, components and items other than steel, copper and aluminum, the Department screens applications from Canadian firms and assists them in obtaining their approved requirements on a basis generally comparable to that accorded to United States concerns.

When United States procurement agencies or firms have defence requirements in Canada, the Canadian contractor makes application for priority treatment on behalf of the United States customer. By agreement, the Department gives such United States orders treatment comparable to that given to orders for the Canadian defence program.

Strategic Resources.-The industrial effort involved in the defence program is making heavy demands on raw materials which Canada produces, not only for its own defence effort, but also for that of friendly countries. In the case of nickel, in fact, Canada produces about four-fifths of the world supply. Table 3 gives statistics for the leading strategic minerals. The high proportion of output exported is apparent.

## 3.-Canadian Production, Exports and Imports of Principal Non-Ferrous Metals, 1951

(Thousands of short tons)

| Metal | Domestic Production | Exports to- |  |  | Imports | Domestic Supply |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | United States | United Kingdom | Elsewhere |  |  |
| Aluminum, primary | 445 | 105 | 191 | 58 | - | 91 |
| Copper, refined.... | 246 | 29 | 52 | 21 | 2 | 146 |
| Lead, refined ${ }^{1}$. | 162 | 60 | 35 | 11 | 1 | ${ }_{6}^{57} 6$ |
| Nickel, refined. | 79 | ${ }_{84}^{70 \cdot 6}$ | $5^{1 \cdot 6}$ | ${ }_{7} 0$ | - | $74{ }^{6 \cdot 6}$ |
| Zinc, refined...... | 220 | 84 | 55 | 7 | - |  |

[^404]Canadian output of strategic materials, on the whole, increased rapidly in 1951, thus strengthening the base of the defence effort. Table 4 compares the output of a number of strategic commodities in 1951 with that of the previous year. Of special interest are the increases in petroleum and natural gas owing to the development of the western oil fields.

## 4.-Production of Selected Strategic Commoditles, 1950 and 1951

| Material | Unit | Actual Output |  | P.C. <br> Increase or Decrease 1950-51 |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 1950 | 1951 |  |
| Iron ore. | '000 short tons | 3,617 | 4,736 | 30.9 |
| Pig iron. | " | 2,317 | 2,553 | $10 \cdot 2$ |
| Steel ingots. | " | 3,300 | 3,446 | $4 \cdot 4$ |
| Petroleum, crude. | '0c0 bbl. per day | 80 | 132 | $65 \cdot 0$ |
| Natural gas.. | '000 M cu. ft. | 67,822 | 78,485 | 15.7 |
| Aluminum, primary. | '000 short tons | 395 | 445 | 12.7 |
| Copper, all forms.. | " | 262 | 270 | 3-1 |
| Lead, all forms ${ }^{1}$.. | " | 170 | 160 | -5.9 |
| Nickel, all forms.. | " | 123 | 138 | 12.2 |
| Zinc, all forms. . | " | 311 | 334 | $7 \cdot 4$ |
| Ilmenite... | " | 100 | 397 | 297.0 |
| Magnesium....... | " | 1.8 | $3 \cdot 5$ | 94.4 |
| Cobalt, mine production.. | short tons | 313 | 435 | 39.0 |
| Tungsten, W. content. | " | 1 | 14 | - |
| Wood-pulp........... | '000 short tons | 8,473 | 8,989 | 6.1 |

${ }^{1}$ From domestic sources, excluding lead smelted from imported ore.
Capital expenditure has been made on a large and increasing scale in order to expand Canada's strategic potential. Table 5 gives investments for 1950 and 1951 and intentions for 1952. For primary iron and steel, investment in 1952 is expected to be about seven times as great as it was in 1950, and for iron-ore mining about four times as great. Investment in the chemical products industry will probably be nearly four times as great in 1952 as in 1950, and in the non-ferrous metals industries over twice as great. The increases in investment in the fields of hydroelectric power and of petroleum and natural gas, though proportionately less, are important in dollar terms because of the heavy investment in those industries. Altogether, about 4 p.c. of the gross national product for 1952 will be devoted to investment in the industries mentioned.

## 5.-Investment in Development, New Buildings and Machinery in Selected Industries, 1950-52 ${ }^{1}$

(Millions of dollars)

| Industry | 1950 | 1951 D | $\begin{gathered} 1952 \\ \text { (Intentions) } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| Non-ferrous metal smelting, refining and processing (including aluminum) | 22.4 | $39 \cdot 0$ |  |
| Iron-ore mining........................................... | $5 \cdot 7$ | $15 \cdot 5$ | ${ }_{23} \cdot 1$ |
| Primary iron and steel . ....... | 14.6 | $56 \cdot 1$ | 103.2 |
| Petroleum and Natural GasExploration and development | 64.4 | $85 \cdot 8$ | 92.9 |
| Transmission and refining. | $78 \cdot 6$ | 44.0 | $85 \cdot 6$ |
| Chemical products.......... | 26.3 | 53.2 | 99.7 |
| Hydro-electric power | $340 \cdot 3$ | 451.1 | $471 \cdot 9$ |
| Totals. | $552 \cdot 3$ | $744 \cdot 7$ | 927-7 |

[^405]
## PART III.-CIVIL DEFENCE*

The accelerating threat of aggression that began shortly after the completion of demobilization following World War II and made necessary the reorganization of military strength, 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 a member. 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. The country is divided into a number of target areas, around each of which is a mutual aid area for immediate support. The territory outside these areas is organized on a mobile support and reception area basis. 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 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 attack-warning system has been established in all target areas and 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.

The Federal Civil Defence Technical Training School has been operating continuously since January 1951, conducting staff courses for organizers, instructors courses (general and rescue), welfare courses and radiological monitoring courses while courses on damage control and tactical operations are being added. In addition, the Federal Government has sponsored a number of specialist courses for medical personnel. During the autumn of 1951, a special medical team traversed Canada conducting training for nurses in Atomic Biological and Chemical warfare. Also, an agreement is in effect with the St. John Ambulance Association to undertake a large-scale program of first-aid training of civil defence workers for which the Federal Government pays a per capita grant.

Federal assistance to the provinces by way of meeting the costs of administration and purchasing operational requirements consists of a grant amounting to eight cents per capita (based on 1951 Census figures) plus an additional six cents

[^406]per capita in the main target areas. These federal grants must be equalled by provincial contributions. Also, the Federal Government has offered to bear a portion of the cost of standardizing fire-hose couplings. By mid-1952, Ontario and Alberta had accepted the offer and were proceeding with a standardization program. Large quantities of training equipment have been provided by the Federal Government to the provinces in order to foster their training programs. Draft agreements have also been circulated to all provinces whereby the Federal Government will share, with the provinces on an equal basis, in paying workmen's compensation, where necessary, to a civil defence worker.

During the year ended Mar. 31, 1952, 14 civil defence manuals were published by the Federal Government to assist in organizing, training and general education, in addition to which 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.

Civil defence organization at local level consists of the following services: police, fire, health, ambulance, welfare, rescue, engineer, public utilities, communication, transportation and information. Many of the main centres of population have made considerable advances in organization and training. An estimated 50,000 civil defence workers were reported on strength as at Mar. 31, 1952.

During 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 event of attack. A number of working groups have been 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. In this regard also, close liaison has been kept with the United Kingdom and other NATO countries.

## CHAPTER XXVIII.-OFFICIAL SOURCES OF STATISTICAL AND OTHER INFORMATION

## CONSPECTUS

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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 decennial and quinquennial censuses are planned and statistical information of all kinds-federal and prov-incial-is centralized. In regard to information that is not mainly statistical, the individual Departments concerned with the particular subject should be contacted as indicated in the Directory at pp. 1190-1211. 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. The Departments of Agriculture, Resources and Development 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, and several other Departments 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 with the purpose of presenting to the reader a directory of all sources of information, federal and provincial, and thereby directing the reader to the proper channels from which he can draw material relating to any particular subject.

[^407]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 (11-12 Geo. VI, c. 45).

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 the subscriber to receive as issued a copy of each Report, including the daily News Bulletin. Statistical information not of general interest is published as Reference Papers or Memoranda and additional subscription rates of $\$ 5$ and $\$ 15$ respectively, are charged for all issues of these two categories. A discount of 25 p.c. is allowed on the excess over $\$ 5$ of single purchases totalling between $\$ 5$ and $\$ 20$ : on single purchases of between $\$ 20$ and $\$ 50$ the discount is 50 p.c. of the excess over $\$ 20$.

A complete list of Bureau 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 responsibilties also include the co-ordination of the Government's activities in the field of cultural relations.

Information Branch, Department of Trade and Commerce.-Information, pertaining specifically to trade, is obtainable from this Branch, which maintains close liaison with all other Branches and Divisions of the Department and with a number of Crown companies. It is responsible for the production of Foreign Trade and Commerce Extérieur, the weekly publications of the Foreign Trade Service, and for the preparation of brochures, some of which are required for distribution at trade fairs in other countries;"information is also made available to Canadian Trade Commissioners fordistribution within their respective territories. The Branch is closely identified with the Canadian International Trade Fair, although promotional literature is distributed directly from the headquarters of that organization at Toronto, Ont.

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), Industrial 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, women's activities, etc. Listeners have a very wide range of radio fare, since the CBC not only produces its own programs in the various production centres across Canada, 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 behalf of the Federal Government, programs are broadcast in fifteen languages: English, French, Czech, German, Dutch, Norwegian, Danish, Swedish, Finnish, Italian, Russian, Portuguese, Spanish, Slovak and Ukrainian. The CBC International 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. Since the CBC shortwave transmitters at Sackville, N.B., have the strongest signal reaching Europe from this side of the Atlantic, the transmitters are made available to United Nations radio, for regular transmissions, free of charge.

The National Film Board.-The National Film Board is dedicated to the visual interpretation of Canada in motion pictures, film-strips and stills, both for Canadians and for the better understanding of Canada abroad. (For detaifs of subjects, see pp. 348-350.) Since its establishment in 1939, the Board has produced some 2,700 films in English, French and foreign-language versions and more than 500 film-strips. It has built up a library of some 100,000 still pictures, adding about 7,000 prints annually. As a service to Government Departments and other official bodies, the Board maintains a film preview library of approximately 3,900 NFB and other prints, and 520 film-strips. The Board also acts as official photographer for the Government, recording and preserving occasions of historic interest, such as Royal Journey, the Board's first full-length colour feature, which was distributed to theatres the world over.

The Board's activities are carried on by four branches-Production, Technical Operations, Distribution and Administration-their titles indicating the nature of their operations. Current production rate is about 200 film projects annually and approximately the same number of film-strips,_ including language versions.

Maintenance of high technical quality of films is assisted by operations and research of the Technical Operations Branch, responsible recently for developing a dual sound track which permits two language versions on one film.

In Canada, non-theatrical 16 mm . and 35 mm . theatrical prints are distributed, the former through regional offices in each province to interested groups, including about 7,900 voluntary film-using organizations, while the latter are placed in theatres through commercial distributors on a contract basis.

Distribution of non-theatrical films is assisted by 330 film libraries and 340 film councils. Provincial educational and other agencies promote the use and distribution of films for educational and informational purposes. This work is organized, stimulated and correlated by the Board through a staff of 62 field men whose combined efforts brought NFB films to an audience of over $11,000,000$ persons in 149,922 screenings in 1952. The Distribution Branch services posts of the Departments of External Affairs and Trade and Commerce in 45 countries in addition to NFB offices at London, New York and Chicago.

Newsreel and television distributions are growing rapidly, the latter currently comprising about 2,500 bookings annually. The Board works in co-operation with the Canadian Government Travel Bureau, distributing films through 66 outlets in the United States.

## 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-ordinating 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 crop yields are cases in point; in forestry, questions of forest research, forest fire protection and reforestation offer good examples. Where inquiries are directed to federal sources, they should, as a general rule, be sent to the individual departments listed in the Directory for information not of a statistical nature; in the case of statistical information inquiries should be addressed to the Dominion Bureau of Statistics, Ottawa.
'Bearing these points in mind, the reader will be able to apply the information given in the Directory to best advantage.

The Queen's Printer and Controller of Stationery, Ottawa, charged, under the Public Printing and Stationery Act, with responsibility for the sale and free distribution of government publications, issues a Monthly Catalogue of all Federal Government publications, regular selected titles, bulletins and library check lists. The Monthly Catalogue, including the price list, is consolidated annually, classified on a departmental basis adequately indexed and cross-referenced, and is obtainable on application at $\$ 3.00$ a year. The Supervisor of Government Publications, Ottawa, also publishes subject catalogues and special bulletins advertising new government publications. The titles of some publications produced for free distribution only, and obtainable from the issuing federal departments, are listed in the Monthly Catalogue published by the Queen's Printer. Lists of publications are often available, too, from the individual 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 Ottawa, Ont.

# DIRECTORY OF SOURCES OF OFFICIAL. INFORMATION 

## Sources for Federal Data

Dept. of Trade and Commerce Information Branch
Dominion Bureau of Statistics
Dept. of Mines and Technical Surveys
Dept. of Resources and Development Editorial and Information Division
Dept. of External Affairs Information Division (general requests originating in all countries outside Canada)
Dept. of Citizenship and Immigration Canadian Citizenship Branch
Dept. of Fisheries, Information and Educational Services
National Film Board (films, filmstrips, photographs on all subjects)
Dept. of Transport
Information Bureau

Subject


Dept. of Agriculture
Information Service
Experimental Farms Service (stations and farms throughout Canada)
Dept. of Resources and Development (Yukon and Northwest Territories)

Dept. of Citizenship and Immigration Indian Affairs Branch
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 Statistics

## AGRICULTURE GENERAL AND FARMING

National Film Board (films, filmstrips and photographs)
Dept. of Mines and Technical Surveys Editorial and Information Division Geological Survey of Canada Branch
Surveys and Mapping Branch Geographical Branch
Dept. of Resources and Development Editorial and Information Division Northern Administration Division
Dept. of Citizenship and Immigration Editorial and Information Division Indian Affairs Branch


## 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 Reconstruction or Dept. of Provincial Secretary-Treasurer; Que., Bureau of Statistics; Ont., Bureau of Statistics and Research or Dept. of Travel and Publicity; Man., Dept. of Industry and Commerce, Travel and Publicity Bureau and Dept. of Provincial Secretary: Sask., Bureau of Publications; 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 Research Branch
Dept. of Trade and Commerce Bureau of Statistics
Ont.:-Dept. of Agriculture, Statistics and Publication Branch
Man.:-Dept. of Agriculture and Immigration, Publications Branch and Extension Service
Alta. :-Dept. of Agriculture
Dept. of Industries and Labour
Provincial Bureau of Statistics
B.C.:-Dept. of Trade and Industry

Bureau of Economics and Statistics
Dominion Bureau of Statistics (summaries of provincial data)

Dept. of Mines and Technical Sur-
Dominion Astrophysical Observatory, Victoria, B.C.
Dominion Observatory, Ottawa, Ont.

Atomic Energy Control Board (policy, regulations)
Atomic Energy of Canada Limited (research studies, sale of radioisotopes)
Eldorado Mining and Refining. 1944. Limited
National Film Board (films)

## ASTRONOMY

## Sources for Federal Data

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 Relations (Air Force)
Dept. of National Health and Welfare Civil Aviation Medicine Division
National Film Board (films and photographs)
National Research Council
Division of Mechanical Engineering (aeronautical research)
Dominion Bureau of Statistics

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
Post Office Department, Savings Branch
Dominion Bureau of Statistics (for summary statistics)

Dept. of National Health and Welfare Blindness Control Division Old Age Assistance Division
\{Subject



Ont.:-Dept. of Lands and Forests, Air Service
Man.:-Manitoba Government Air Services
Sask.:-Saskatchewan Government
Airways

N'f'ld.:-Dept. of Finance
Supreme Court, Registry of Deeds
P.E.I.:-Dept. of Provincial Secretary
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.:-Registrar of Securities
Alta.:-Government of Alberta Treasury Branches
B.C.:-Dept. of Finance. Inspector
of Trust Companies
Sources for Provincial Data

Sources same as for "Old Age Assistance" excepting:
P.E.I.:-Director of Blind Persons' Allowances
B.C.:-Blind Persons Allowance
B.C.:-Blind Persons Allowance
Board

Dept. of Public Works
Chief Architect's Branch
Dept. of Resources and Development Engineering and Water Resources Branch
Central Mortgage and Housing Corporation
National Research Council. Division of Building Research (materials of construction, building codes. soil and snow mechanics)
Dept. of National Health and Welfare Hospital Design Division
Dominion Bureau of Statistics


BLINDNESS ALLOWANCES

## BANKING <br> Trust and Loan <br> Companies




## BUILDING CONSTRUCTION

P.E.I.:-Dept. of Industry and Natural Resources
Ont.:-Dept. of Labour. Factory Inspection Branch
Dept. of Planning and Development
Community Planning Branch
Man.:-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 | Sources for Provincial Data |
| :---: | :---: | :---: |
| $\left.\begin{array}{l}\text { Department of Transport } \\ \text { Canal Services } \\ \text { Dominion Bureau of Statistics }\end{array}\right\}$ | CANALS |  |
| $\left.\begin{array}{c}\text { Dept. of Citizenship and Immigration } \\ \text { Canadian Citizenship Registration } \\ \text { Branch } \\ \begin{array}{c}\text { Canadian Citizenship Branch } \\ \text { National Film Board } \\ \text { strips, photographs) }\end{array} \\ \text { (films, film- }\end{array}\right\} \quad$CITIZENSHIP <br> See also <br> "Population" |  |  |
|  | CIVIL AVIATION See "Aviation" |  |
| Dept. of National Health and Welfare Civil Defence Division | CIVIL DEFENCE | $\left\{\begin{array}{l}\text { N'f'ld.:-Dept. of Attorney General } \\ \text { N.S.:-Chairman, Civil Detence, } \\ \text { Province House Civil Defence } \\ \text { Ont.:-Chairman, Comittee } \\ \text { Man.:-Dept. of Attorney-General } \\ \text { Sask.:-Director of Civil Defence. } \\ \text { Dept. of Social Welfare and } \\ \text { Rehabilitation } \\ \text { Alta.:-Co-ordinator of Civil De- } \\ \text { tence. Dept. of Municipal Affairs } \\ \text { B.C.:-Dept. of Provincial Secretary }\end{array}\right.$ |

$\left.\begin{array}{l}\text { Dept. of Transport } \\ \text { Meteorological Division, Toronto }\end{array}\right\}$ CLIMATE $\left\{\begin{array}{l}\text { Que.:-Dept. of Lands and Forests } \\ \text { Meteorological Bureau } \\ \text { Dept. of Trade and Commerce } \\ \text { Bureau of Statistics } \\ \text { B.C.:-Dept. of Agriculture }\end{array}\right.$

| Dept. of Mines and Technical Surveys <br> Geological Suryey, Mines Branch <br> National Film Board (films, filmstrips, photographs) <br> Dominion Coal Board <br> Dominion Bureau of Statistics |
| :---: |
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Dept. of Resources and Development 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
Dept. of Mines and Technical Surveys
Dominion Bureau of Statistics

N.S., Que., Ont.:-Depts. of Mines N.B.:-Dept. of Lands and Mines Man.:-Dept. of Mines and Natural Resources, Mines Branch Sask.:-Dept. of Natural Resources Alta.:-Dept. of Mines and Minerals B.C.:-Dept. of Lands and Forests Dept. of Mines

N'f'ld.:-Dept. of Economic Development
P.E.I.:-Tourist and Information Bureau
Que.:-Public Service Board
Transportation Board
Ont.:-Municipal Board and Bureau of Statistics and Research
Man.:-Manitoba Telephone System Sask.:-Dept. of Telephones Alta.:-Dept. of Railways and Telephones
B.C.:-Dept. of Railways
R.C.M.P. Provincial Headquarters

Sources for Federal Data
Subject

## Sources for Provincial Data

P.E.I.:-Dept. of Industry and Natural Resources
N.S., Que., Sask.:-Depts. of Municipal Affairs
Ont.:-Dept. of Planning and Development, Community Planning Branch
Man.:-Depts. of Municipal Commissioner and Mines and Natural Resources, Surveys Branch
Alta.:-Dept. of Public Works, Town Planning Board
B.C.:-Dept. of Trade and Industry, Regional Development Division
Dept. of Municipal Affairs Regional Planning Division

N'f'ld:-Dept. of Mines and Resources
P.E.I.:-Dept. of Industry and Natural Resources
N.S., Alta., B.C.:-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

All Provinces except B.C.:-Depts ot Attorney General
B.C.:-Provincial Secretary

Dept. of Secretary of State
Privy Council
Public Archives
Dominion Bureau of Statistics

Dominion Bureau of Statistics

Dept. of Defence Production

## CONSUMER <br> PRICE INDEX <br> See also <br> "Cost of Living"

## CONTROLS AND PRIORITIES

[^408]Bank of Canada
Dept. of Finance
Royal Canadian Mint
Dominion Bureau ot Statistics

## CURRENCY

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CUSTOMS AND
    EXCISE
See "Taxation"
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Sources for Federal Data

Dept. of Agriculture
Animal Husbandry Division
Dairy Products Division
Bacteriology and Dairy Research Division
National Film Board (films, photographs in co-operation with the Dept. of Agriculture)
Dominion Bureau of Statistics

Subject

## DAIRYING

DEATHS
See "Vital Statistics"

## Sources for Provincial Data

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 for 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. Dairy Commission

Dept. of National Defence
Director of Public Relations
Directorates of Naval Information
Public Relations (Army) Public Relations (R.C.A.F.) Public Relations (Defence Research Board)
Dept. of Defence Production
Canadian Commercial Corporation
Detence Construction (1951) Limited
Canadian Arsenals Limited
Dept. of National Health and Welfare
Civil Defence Co-ordinator

Dept. of Defence Production
Bank of Canada
Dept. of Trade and Commerce
Economics Division
Dept. of Labour
Economics and Research Branch
Legislation Branch
Dept. of Mines and Technical Sur-
veys
Dept. of Resources and Development
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 Eco-
nomics
Dep. of Fisheries
Market and Economic Services
Central Mortgage and Housing
Corporation
Dept. of Defence Production
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. Bureau of Industrial Development
Executive Council. Economic Advisor
Sask.:-Economic Advisory and Planning Board
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

Canadian Broadcasting Corporation (school broadcasts)
Dept. of Resources and Development
Northern Administration and Lands Branch (N.W.T.)
Dept. of Mines and Technical Surveys.
Dept. of National Health and Welfare
Dept. of Citizenship and Immigration Canadian Citizenship Branch
Indian Affairs Branch
Dept. of Veterans Affairs (veterans only)
Dept. of Labour
Canadian Vocational Training Branch
Dept. of Fisheries
Information and Educational Services
National Gallery of Canada
Dominion Bureau of Statistics

Subject

## Sources for Provincial Data

## EDUCATION

For 'Informational Films' See
"Motion Pictures"

All Provinces:-Depts. of Education (technical, visual, audio and all other phases of education)
Additional:-Que.:-Dept. of Trade and Commerce, Bureau of Statistics

Dept. of Resources and Development Engineering and Water Resources Branch
Northwest Territories Power Commission
National Film Board (films, filmstrips and photographs)
Dominion Bureau of Statistics (central electric stations)
$\left.\begin{array}{l}\text { Dept. of Labour } \\ \text { National Employment Service } \\ \text { Economics and Research Branch } \\ \text { Civil Service Commission (oppor- } \\ \text { tunities for, and conditions of } \\ \text { employment in the Federal Civil } \\ \text { Service) } \\ \text { Dominion Bureau of Statistics }\end{array}\right\}$
Dept. of Trade and Commerce Canadian Government Exhibition Commission
Dept. of Agriculture
Information Service
National Film Board (films, photographs)
National Gallery of Canada
Dept. of Resources and Development Canadian Government Travel Bureau (sportsmen's shows)

Dept. of Mines and Technical Surveys Explosives Division

Dept. of External Affairs Information Division
Press Office

## EMPLOYMENT

## EXHIBITIONS

## ELECTRIC POWER

N'f'ld.:-Dept. of Economic Development
P.E.I.:-Public Utility Commission
N.B.:-New Brunswick Electric Power Commission
N.S., Sask., Alta., B.C.:-Power Commissions
Que.:-Hydro-Electric Commission
Dept. of Hydraulic Resources
Ont.:-The Hydro-Electric Power Commission of Ontalio
Man.:-Dept. of Mines and Natural Resources, Hydro Electric Board Dept. ot Public Utilities
Additional:-B.C.:-Dept. of Lands and Forests

All Provinces:-Depts. of Agriculture (farm labour)
N'f'ld., N.S., Man.:-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
N.B.:-Dept. of Agriculture

Que.:-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 Eccnomic Affairs
B.C.:-Depts. of Agriculture, Trade and Industry

## EXPLOSIVES

B.C.:-Dept. of Mines

Dept. of National Health and Welfare
Family Allowances Division

## FAMILY ALLOWANCES

Sources for Federal Data
$\left.\begin{array}{l}\text { Dept. of Agriculture } \\ \text { Field Husbandry Division } \\ \text { Forage Crops Division } \\ \text { Economic Fibre Division } \\ \text { Plant Products Division (films and } \\ \begin{array}{l}\text { National Film Board (films } \\ \text { photographs) } \\ \text { Dominion Bureau of Statistics }\end{array} \\ \end{array}\right\}$

Dept. of Finance
Bank of Canada
Dominion Bureau of Statistics

Subject

## FIELD CROPS

## Sources for Provincial Data

N'f'ld.:-Dept. of Mines and Resources
P.E.I., N.S., N.B.:-Depts. of Agriculture
Que.:-Dept. of Agriculture
Dept. of Trade and Commerce Bureau of Statistics
Ont.:-Dept. of Agriculture, Crops. Seeds and Weeds Branch
Man.:-Dept. of Agriculture and Immigration
Sask., Alta., B.C.:-Depts. of Agriculture. Field Crop Branches

N'f'ld., B.C.:-Depts. of Finance P.E.I.:-Provincial Treasurer
N.S.:-Dept. of Provincial Treasurer
N.B.:-Dept. of Provincial SecretaryTreasurer
Que.:-Dept. of Finance
Dept. of Trade and Commerce Bureau of Statistics
Ont.:-Provincial Treasurer's Dept.
Man., Sask., Alta.:-Provincial T'reasury Depts.
 graphs, in relation to government prevention and conservation programs)

Dept. of Fisheries
Information and Educational Services.
Fisheries Research Board of Canada
National Film Board (films, photographs)
Dominion Bureau of Statistics

All Provinces:-Provincial Fire Marshals (for urban and rural fire losses)
N'f'ld.:-Dept. of Mines and Resources
N.S., Alta., B.C.:-Depts. of Lands and Forests
N.B.:-Dept. of Lands and Mines

Que.:-Dept. ot Lands and Forests
Forest Protection Service: Dept. of Public Works, Fire Commissioner
Ont.:-Dept. of Lands and Forests. Forest Protection Division
Man.:-Dept. of Mines and Natural Resources: Dept. of Labour, The Fire Commissioner
Sask.:-Dept. of Natural Resources

N'f'ld.:-Dept. of Fisheries and Co-operatives
P.E.I.:-Dept. of Industry and Natural Resources
N.S.:-Dept. of Trade and Industry Fisheries Division
N.B.:-Dept. of Industry and Development. Fisheries Brarch
Que.:-Dept. of Game and Fisheries Dept. of Trade and Commerce, Bureau of Statistics
Ont.:-Dept. of Lands and Forests Fish and Wildlife Division
Man.:-Dept. of Mines and Natural Resources,
Game and Fisheries Branch
Sask.:-Dept. of Natural Resources. Fisheries Branch
Alta.:-Dept. of Lands and Forests. Fish and Game Branch
B.C.:-Dept. of Fisheries

Provincial Game Commission

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FOODAND DRUGS
    See "Standards"
    and "Nutrition"
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## Sources for Federal Data

Bank of Canada


Sources for Provincial Data

N'f'Id.:-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


## FUR FARMING

See also
"Trapping"
Dept. ot Agriculture
Marketing Service (fur grading)
Experimental Farms Service (ranch fur production)
National Film Board (photographs)
Dominion Bureau of Statistics (general fur products statistics)

Dept. of Mines and Technical Surveys
Geographical Branch
Canadian Board on Geographical Names
Public Archives
Dept. of Agriculture Field Husbandry Division (soil surveys)

Dept. of Mines and Technical Surveys Geological Survey

Dept. of Secretary of State (FederalProvincial channel of communication)
Chief Electoral Office (Electoral Act and Voters Lists)
Clerk of the Privy Council (appointments. orders in council. statutory orders and regulations)
Dept. of Citizenship and Immigration Canadian Citizenship Branch
Dept. of Resources and Development (for Yukon and N.W T.)

GEOLOGY

## GEOGRAPHY

## GOVERNMENT

For 'Senate of Canada', 'House of

Commons' and 'Library of
Parliament' See
"Parliament"

N'f'Id.:-Dept. of Mines and Resources
P.E.I., N.B., Alta., B.C.:-Depts. of Agriculture
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

N'f'Id.:-Dept. of Mines and Resources
Man.:-Dept. of Mines and Natural Resources
Alta.:-Geographic Board
B.C.:-Dept. of Lands and Forests

N'f'ld.:-Dept. of Mines and Resources
N.S., B.C.:-Depts. of Mines
N.S., B.C.:-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 Natural Resources
Alta.:-Dept. of Mines and Minerals

N'f'ld.:-Dept. of Provincial Affairs P.E.I.: N.S., Ont., Man., Sask., Alta., B.C.:-Depts. of Provincial'Secretary
N.B.:-Dept. of Provincial Secretary-

Treasurer
Que.:-Office of Provincial Secretary

## Sources for Federal Data

Subject

## HEALTH

For 'Health of Veterans' See "Veterans Affairs"

## Sources for Provincial Data

N'f'ld., Que., Ont.:-Depts. of Health
P.E.I.:-Dept. of Health and Welfare
N.S., Sask., Alta.:-Depts. of Public Health
N.B.:-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


Dept. of Citizenship and Immigration
Canadian Citizenship Branch
Dominion Bureau of Statistics

Dept. of Agriculture
Marketing Service. Fruit and Vegetable Division
Experimental Farms Service, Horticulture Division
Dominion Bureau of Statistics

## HORTICULTURE

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.t-Provincial Library and Archives
Sask.:-Archives Board
Alta.:-Archives, Provincial Library
B.C.:-Dept. of Education

Provincial Archivist
N'f'ld.:-Dept. of Mines and Resources
P.E.I.:-Dept. of Agriculture
N.S., N.B., Sask., Alta., B.C.:Depts. of Agriculture. Horticultural Branches
Que.:-Dept. of Agriculture, Fruit Branch
Ont.:-Dept. of Agriculture. Agriculture and Horticulture Branches
Man.:-Dept. of Agriculture and Immigration

| Dept. of Citizenship and Immigration Immigration Branch District Superintendents of Immigration, Halifax, Montreal. Tor- onto, Winnipeg and |  |
| :---: | :---: |
| Dept. of Labour <br> Special Services Branch <br> Dept. of National Health and | IMMIGRATION |

Welfare
Quarantine, Immigration Medical and Sick Mariners Division
National Film Board (films, photographs)
Dominion Bureau of Statiotics
P.E.I.:-Dept. of Industry and Natural Resources
Ont.:-Dept. of Planning and Development
Bureau of Statistics and Research Man:-Dept. of Agriculture and Immigration
Sask:-Dept. of Social Welfare and Rehabilitation
Alta.:-Dept. of Economic Affairs
B.C.:-Dept. of Trade and Induatry

Subject
Sources for Provincial Data

## INCOME TAX

See "Taxation"


National Gallery of Canada

Dept. of Insurance (Dominion, British and foreign companies. Federal Civil Service insurance)
Dept. of Labour
Annuitics Branch
Dept. of Veterans Affairs
Veterans Insurance Branch
Dept. of Trade and Commerce
Export Credits Insurance Corporation
Dominion Bureau of Statistics (summary statistics of all types of insurance)

Dept. of Mines and Technical Surveys
Dept. of Defence Production
National Film Board (films and photographs)
Dominion Bureau of Statistics

Dept. of Justice
Dominion Bureau of Statistics

Dept. of Labour
Information and Publicity Branch Annuities Branch
Legislation Branch
Unemployment Insurance Commission
Economics and Research Branch Canada Labour Relations Board
Canadian Vocational Training Branch
Industrial Relations Branch (conciliation of labour disputes, fair wages. etc.)
International Labour Organization Branch
National Employment Service
National Advisory Council on Manpower
National Advisory Committee on the Rehabilitation of Disabled Persons
Dept. of Secretary of State (registration of trade unions)
National Film Board (films, photographs)
Dominion Bureau of Statistics

INSURANCE, LIFE, FIRE, ETC.
For 'Unemployment Insurance'
See "Labour"

N'f'ld.:-(for Provincial Companies) Dept. of Finance
P.E.I., N.S., N.B., Man., Sask., Alta., B.C. (for Provincial Companies) :- Superintendents of Insurance
Que. (for Provincial Companies):Provincial Treasury Dept., Insurance Branch
Ont. (for Provincial Companies):Dept. of Insurance

N'f'ld.:-Dept. of Mines and Resources
N.S.:-Dept. of Mines

Research Foundation
Ont.:-Dept. of Planning and Development. Trade and Industry Branch
Bureau of Statistics and Research
Man.:-Dept. of Industry and Commerce
B.C.:-Dept. of Mines

All Provinces:-Depts. of Attorney General

N'f'Id., N.S., N.B., Que., Ont., Man., Sask., B.C.:-Depts. of Labour
Alta.:-Dept. of Industries and Labour
Additional:-Que., Ont., Alta., B.C.:-Provincial Bureaus of Statistics

Sources for Federal Data
Dept. of Resources and Development
Northern Administration and
Lands Branch (Yukon and
N. W. T.)
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 carries out.
on behalf of Attorneys General
and under contract, enforcement
of the Criminal Code and Prov-
incial Statutes in all provinces
except Quebec and Ontario; is
the only law enforcement body
in the Yukon and Northwest
Teritories and assists in the
welfare of Eskimos and Indians
in these territories. The Minister
in control of the Force is the
Minister of Justice.)

Clerk of the Senate of Carada
Clerk of the House of Commons
Dept. of Resources and Development (tor Yukon and Northwest Territories)

Dept. of Resources and Development Northern Administration and Lands Branch
(Yukon and Northwest Territories)
Dept. of Secretary of State (administration of Canada Temperance Act)
Dominion Bureau of Statistics (statistical report covering Canada)
Dept. of Agriculture
Live Stock and Live-stock Products 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
Agricultural Commodities Branch
National Film Board (films, photographs, in relation to Dept. of Agriculture)
Dominion Bureau of Statistics

Dept. of Resources and Development Forestry Branch
National Film Board (films, filmstrips. photographs, in relation to departmental conservation and development programs)
Dominion Bureau of Statistics

Subject


## LEGISLATION

For Statutory Orders and Regulations See "Government"

## LIQUOR

## CONTROL

## LIVE STOCK

## LUMBERING

## Sources for Provincial Data

N'f'ld.:-Dept. of Mines and Resources
P.E.I.:-Commissioner of Public Lands
N.S.:-Dept. of Agriculture, Land Settlement Board
N.B.:-Dept. of Lands and Mines

Que.:-Dept. of Lands and Forests Dept. of Colonization
Ont., Alta., B.C.:-Depts. of Lands and Forests
Man.:-Dept. of Mines and Natural Resources, Lands Branch
Sask.:-Dept. of Agriculture

All Provinces:-Depts. of the Attorney General

All Provinces except Man. and B.C.:-Depts. of Attorney General
Man.:-Legislative Counsel
B.C.:-Dept. of Provincial Secretary

N'f'ld.:-Dept. of Finance
P.E.I.:-Temperance Commission
N.S., Que., Sask.:-Liquor Com-
N.B., Ont, Alta., B.C.:-Liquor Control' Boards
Man.:-Liquor Control Commission

N'f'ld.:-Dept. of Mines and Resources
P.E.I., N.B., Ont., Sask., Alta., B.C.:-Depts. of Agriculture Live-stock Branches
N.S., Que.:-Depts. of Agriculture Animal Husbandry Branches
Man.:-Dept. of Agriculture and Immigration, Live Stock Branch
Additional:-Que., Alta., B.C.:Provincial Bureaus of Statistics

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 Resources, Forestry Branch
Sask.:-Dept. of Natural Resources B.C.:-Dept of Lands and Forests Dept. of Trade and Industry

Bureau of Economics and Statistics

Subject
Sources for Provincial Data
P.E.I.:-Dept. of Industry and Natural Resources
N.S. Industry B.C.-Dept. of Trade and Industry
N.B.:-Dept. of Industry and Development
Que.:-Dept. of Trade and Commerce
Ont.:-Dept. of Planning and Development, Trade and Industry Branch
Man.:-Dept. of Industry and Commerce
Bureau of Industrial Development
Sask.:-Economic Advisory and Planning Board
Alta.:-Dept. of Economic Affairs
Additional:-Que., Ont., Alta., B.C.:-Bureaus of Statistics

## MAPS AND CHARTS



Dept. of Mines and Technical Surveys Mapping Branch (geological. topographical and general maps; hydrographic and 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 Services (fisheries maps)
Dept of Transport (meteorological maps)
Dominion Bureau of Statistics (economic and census maps)

## Sources for Federal Data

Dept. of Mines and Technical
Dept. of Resources and Development (for Yukon and Northwest Territories)
Dept. of Defence Production
Dominion Bureau of Statistics (for production data)

National Film Board
(Produces documentary films, newsreels and short subjects for theatrical, non-theatrical and television distribution: film-strips and photographs for informational, educational and archioes purposes and other visual materials deooted 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 art films.)

Dominion Bureau of Statistics
Public Finance and Transportation Division

National Gallery of Canada
Public Archives (and Military Museum)
Dept. of Resources and Development National Parks Branch
Na tional Museum of Canada
Historic Parks Museums

Dominion Bureau of Statistics

Dept. of Citizenship and Immigration Canadian Citizenship Registration Branch
Dominion Bureau of Statistics
Public Finance and Transporta-
tion Division

Subject

## MINING AND MINERALS

MOTION
PICTURES

## MUSEUMS

## MUNICIPAL AFFAIRS

## NATIONAL INCOME

## Sources for Provincial Data

N'f'ld.:-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 Natural Resources Alta.:-Dept. of Mines and Minerals
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.:-Saskatchewan Film Board Alta.:-Dept. of Economic Affairs, Photographic Branch
B.C.:-Dept. of Trade and Industry Photographic Branch
All provinces have Motion Picture Censorship Boards for censoring films prior to public exhibition. 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.:-Dept. of Municipal Commissioner

Not including provincial universities in Sask., Alta. and B.C.
N'f'Id.:-Dept. of Provincial Affairs
N.S.:-Nova Scotia Museum of Fine Arts, Public Archives of Nova Scotia, Provincial Museum of Nova Scotia. Halifax
N.B.:-New Brunswick Museum, Saint John
Que.:-The Archives. Musée de la Province de Québec, Quebec; Commercial and Industrial Museum of Montreal
Ont.:-Royal Ontario Museum (including. Archaeology. Geology. Mineralogy. Paleontology and Zoology): Ontario Archives, Toronto
Man.:-Manitoba Museum, Winnipeg
Sask.:-Provincial Museum of Na tural History. Regina
B.C.:-Provincial Museum or Natural History and Anthropology. Provincial Archives (including
Helmcken House). Victoria

## Sources for Federal Data

Subject
Sources for Provincial Data
Dept. of Public Works (construction
and operation of graving docks).
Chief Engineer's Branch (for
Marine works construction)
Dept. of Transport
Marine and Canal Services (aids
to marine navigation)
Telecommunication Division (radio
aids to navigation)
Canadian Maritime Commission
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

## NAVIGATION

| Dept. of National Health and |
| :--- |
| $\left.\begin{array}{l}\text { Welfare } \\ \begin{array}{l}\text { Nutrition Division } \\ \text { Dept. of Agriculture } \\ \text { Fisheries }\end{array}\end{array}\right)$ NUTRITION |

N'f'Id., 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

## OCCUPATIONAL INFORMATION

See "Employment"

Dept. of Resources and Development
(for Yukon and Northwest Territories)
Dept. of Mines and Technical Surveys
Geological Survey, Mines Branch
Dept. of Defence Production
National Film Board (films, filmstrips, photographs)
Dominion Bureau of Statistics
Dept. of National Health and Welfare
Old Age Assistance Division
Dept. of Resources and Development
Northern Administration and Lands Branch (tor N.W.T.)

Dept. of National Health and Welfare
Old Age Security Division


OLD AGE ASSISTANCE

N'f'Id.:-Dept. of Mines and Resources
N.S., Ont.:-Depts. of Mines
N.B.:-Dept. of Lands and Mines

Man.:-Dept. of Mines and Natural Resources. Mines Branch
Sask.:-Dept. of Natural Resources
Alta.:-Dept. of Mines and Minerals
B.C.:-Dept. of Lands and Forests

N'f'ld., N.S., B.C.:-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 Allowance Commission
Man.:-The Old Age Assistance and Blind Persons' Allowance Board Sask.:-Social Welfare Board
Alta.:-Old Age Pension Board

OLD AGE
SECURITY

## PENSIONS


N.S., Ont., Alta., B.C.:-Depts. of Lands and Forests
N.B.:-Dept. of Lands and Mines

Que.:-Dept. of Game and Fisheries Man.:-Dept. of Mines and Natural

Resources, Forestry Branch
Sask.:-Dept. of Natural Resources

Sources for Federal Data

Senate of Canada
House of Commons
Library of Parliament

Dept. of Secretary of State

Subject


PATENTS, COPYRIGHTS AND TRADE MARKS

Sources for Provincial Data
N'f'ld.:-Dept. of Provincial Affairs P.E.I., N.B., Man., Sask., Alta., B.C.:-Legislative Assemblies
N.S., Ont.:-Houses of Assembly Que.:-Legislative Council Legislative Assembly

## PHILATELY

Post Office Department
Philatelic Division of the Financial Branch

Dept. of Mines and Technical Surveys
The National Air Photographic Library
National Film Board
(Maintains an extensive library of
photographs covering all branches of
production and national effort.)
Public Archives (prints. paintings, photographs, etc., relating to the history of Canada)

Dept. of National Health and Welfare
Physical Fitness Division
National Council on Physical Fitness
Dept. of Resources and Development
National Parks Branch
Canadian Government Travel Bureau
Education Branch (for N.W.T.)
National Film Board (films, filmstrips, photographs, in connection with the Dept. of National Health and Welfare)
Dept. of Citizenship and Immigration Indian Affairs Branch (for Indians)

Dominion Bureau of Statistics (for all census nopulation statistics;
Dept. of Resources and Development 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)

Post Office Department
Administration Branch (general postal information, postage rates, both domestic and foreign, etc.)
Communications Branch (air, land and railway mail services)
Financial Branch (information regarding money orders, savings bank, philatelic services, etc.)
Operations Branch (information regarding postal service to the public and hours of service)

## PHOTOGRAPHIC MATERIAL

## PHYSICAL FIINESS AND RECREATION

 See also "Health"
## POPULATION

## POST OFFICE

P.E.I., N.S., N.B., Ont., Sask., Alta., B.C.:-Depts. of Education
Man.:-Dept. of Health and Public Welfare

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
Alta.:-Dept. of Industries and Labour, Provincial Statistician
B.C.:-Dept. of Health and Welfare Vital Statistics
Dept. of Trade and Industry Bureau of Economics and Statistics

## Sources for Federal Data

Subject


Division (for
National Film Board (films and poultry diseases) photographs)
Dominion Bureau of Statistics

| Dept. of Agriculture <br> Poultry Division, Experimental Farms Service (for general information) |
| :---: |
| Live Stock and Live-stock Prod. ucts 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) <br> Dominion Bureau of Statistics |


| POWER |
| :---: |
| See |
| "Electric Power" |

Dept. of Agriculture (prices of farm
Marketing Service (prent products)
Dept. of Fisheries
Fisheries Prices Support Board
Dominion Bureau of Statistics

Dominion Bureau of Statistics


## PUBLIC HEALTH

See "Health"

## PUBLIC UTILITIES

See also "Electric Power"

Dept. of Labour
Industrial Relations Branch (fair wages)
Bept. of Public Works
Dept. of Transport
Marine, Canal and Air Services
Dept. of Transport
Telecommunications Division (all matters affecting licences and facilities)
Canadian Broadcasting Corporation (national broadcasting in Canada, regulations for control of programs, international service and television)
National Research Council
Division of Radio and Electrical Engineering (radio science and its application to industry)
Dominion Bureau ot Statistics (national radio)

PUBLIC WELFARE
See "Welfare"



RAILWAYS
"Transportation"

## Sources for Provincial Data

N'f'ld.:-Dept. of Mines and Resources
P.E.I., N.S.:-Depts. of Agriculture
N.B., Sask., Alta., B.C.:-Depts.
of Agriculture. Poultry Branches
Que.:-Dept. of Agriculture
Poultry Division
Ont.:-Ontario Agricultural College (Guelph), Poultry Division
Man.:-Dept. of Agriculture and Immigration

N'f'ld., P.E.I.:-Public Utilities Boards
N.S.:-Board of Commissioners of Public Utilities
N.B., B.C.:-Public Utilities Commissions
Que.:-Public Service Board
Ont.:-Ontario Municipal Board Man.:-Dept. of Public Utilities Sask.:-Office of Chief Industrial Executive
Alta.:--Board of Public Utilities
Commissioners Natural Gas Utilities Board

N'f'ld., P.E.I., N.B., Que., Ont., Man., Sask., Alta., B.C.:Depts. of Public Works
N.S.:-Dept. of Highways and Public Works


Sources for Federal Data
Subject
Sources for Provincial Data

| SOCIAL |
| :---: |
| SECURITY |
| See |
| "Family |
| Allowances"" |
| "Blindness, |
| Allowances" |
| "Old Agee, |
| Assistance" |
| "Old Age |
| "Pensions" |
| "Wormen's |
| Compensation" |
| "Labour" |
| "Unemploymen", |
| "Veterans Affairs" |
| "Economic and |
| Social Research" |

## SOCIAL WELFARE See "Welfare"

| SPORTS |
| :---: |
| See |
| "Physicial Fitness" |
| and "Tourist Trade" |

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 steamship inspection)
National Research Council (fundamental physical standards. Canadian Government Specification Board)
Dept. of Fisheries
Inspection and Consumer Services (standards of fish products)

## ) <br> )



STANDARDS


SUCCESSION
DUTIES
See "Taxation"

Sources for Federal Data
Dept. of National Revenue
Taxation Division
Customs and Excise Division

Dept. of Mines and Technical Surveys Surveys and Mapping Branch

Dept. of Resources and Development National Parks Branch
Canadian Government Travel Bureau
Dept. of Trade and Commerce
Canadian Government Exhibition Commission (displays)
National Film Board (films and photographs)
Dominion Bureau of Statistics

Dept. of Trade and Commerce
Trade Commissioner Service
Commodities Branch (for exports, imports. transportation, etc.)
Agriculture and Fisheries Branch
Economics Division
Industrial Development Division
Information Branch
International Trade Relations Branch
Canadian Government Exhibition Commission
Export. Credits Insurance Corporation
Standards Branch (weights and measures)
International Economic and Technical Co-operation Division (Colombo Plan)
Dept. of Resources and Development Canadian Government Travel Bureau
Dept. of Secretary of State (for Companies Act and incorporation of companies and of boards of trade)
National Film Board (films, filmstrips, photographs, for exhibition publicity purposes)
Dominion Bureau of Statistice

Subject

## TAXATION



## TOPOGRAPHY

## TOURIST TRADE

## TRADE

## Sources for Provincial Data

N'f'ld.. Que.:-Depts. of Finance
P.E.I.:-Provincial Treasurer
N.S.:-Dept. of Provincial Secretary
N.B.:-Dept. of Provincial SecretaryTreasurer
Ont.:-Provincial Treasurer's Dept.
Man., Sask., Alta.:-Provincial Treasury Dopts.
B.C.:-Dept. of Finance, Surveyor of Taxes
Additional:-Alta.:-Provincial Secretary

N'f'ld.:-Dept. of Mines and Resources
N.S.:-Dept. of Mines. Nova Scotia Research Foundation
N.B.:-Dept. of Lands and Mines

Ont.:-Dept. of Lands and Forests, Surveys Branch
Man.:-Dept. of Mines and Natural Resources
Alta., B.C.:-Depts. of Lands and
N'f'ld.:-Dept. of Economic Development
P.E.I.:-Tourist and Information Branch
N.S.:-Dept. 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, Bureau of Travel and Publicity
Sask.:-Bureau of Publications, Tourist 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 Planning and Development. Trade and Industry Branch
Man.:-Dept. of Industry and Commerce. Bureau of Iadustrial Development
Sask.:-Dept. of Co-operatives and Co-operative Development Trade Services Division
Alta.:-Dept. of Industries and Labour

## Sources for Federal Data

Dept. of Resources and Development National Parks Branch (for highways in National Parks)
Engineering and Water Resources Branch Trans-Canada Highway Division Engineering and Architectural Division
Board of Transport Commissioners (regulations re construction and operation of railways; rates of railways. express companies and certain inland water carriers; issuing of licences to certain inland water carriers; regulations re construction of oil and gas pipe lines)
Bureau of Transportation Economics
Air Transport Board (regulation of commercial air services)
Dept. of Transport (railways, civil aviation, marine services, steamship inspection, canals, etc.)
Canadian Maritime Commission National Harbours Board
Trans-Canada Air Lines
Dept. of National Health and Welfare
Civil Aviation Medicine Division
National Film Board (films, filmstrips and photographs)
Dominion Bureau of Statistics (statistics of transportation, including highways, motor-vehicles)

Dept. of Resources and Development
Northern Administration and Lands Branch (Yukon and Northwest Territories)
National Parks Branch
Dept. of Citizenship and Immigration Indian Affairs Branch
National Film Board (films and photographs)
Dominion Bureau of Statistics (for general trapping statistics)

Dept. of Veterans Affairs (general information, rehabilitation, veterans ${ }^{\prime}$ welfare, treatment, land settlement, gratuities, re-establishment credit. 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 and photographs)
Dept. of Citizenship and Immigration Indian Affairs Branch (for Indian veterans)

## TRAPPING

See also
"Fur Farming"

## TRUST AND LOAN COMPANIES See "Banking"



Subjeet<br>\section*{TRANSPORTA. TION}

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

Highway Branch
Que.:-Dept. of Roads, Transportation Board
Ont.:-Dept. of Highways, Ontario Northland Transportation Commission
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. Dept. of Highways, Highway Traffic Board
B.C.:-Dept. of Railways

Public Utility Commission Dept. of Public Works

N'f'ld.:-Dept. of Mines and Re sources
P.E.I.:-Dept. of Agriculture
N.S., Ont., Alta.:-Depts. of Lands and Forests
N.B.:-Dept. of Lands and Mines

Que.:-Dept. of Game and Fisheries
Man.:-Dept. of Mines and Natural Resources, Game and Fisheries Branch
Sask.:-Dept. of Natural Resources
B.C.:-Attorney - General's Dept.

Provincial Game Commission

N'f'ld.:-Dept. of Labour
Ont.:-Dept. of Public Welfare
Bureau of Statistics and Research
P.E.1.:-Provincial Secretary
N.S.:-Dept. of Public Welfare
N.B.:-Dept. of Health and Social Services
Que.:-Dept. of Social Welfare and

## VETERANS AFFAIRS

Youth
Ont.:-Dept. of Public Welfare. Soldiers Aid Commission
Sask. $\boldsymbol{z}$-Dept. of Social Welfare and Rehabilitation abilitation Division
Alta.:-Veterans Welfare Advisory Commission
B.C.:-Dept. of Provincial Secretary

## Sources for Federal Data

Dominion Bureau of Statistics
Dept. of Resources and Development Northern Administration and Lands Branch (for Yukon and Northwest Territories)
Public Archives (early census records)

Dept. of Labour
Industrial Relations Branch (fair wages)
Economics and Research Branch Legislation Branch
Dominion Bureau of Statistics

## VITAL STATISTICS

## Sources for Provincial Data

N'f'ld., B.C.:-Depts. of Health
P.E.I.:-Registrar of Births, Deaths and Marriages
N.S., Sask; 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

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
Alta.:-Dept. of Agriculture
B.C.:-Dept. of Lands and Forests

Dept. of Transport
Meteorological Division, Toronto

WATER RESOURCES
Enci Resources and Development Branch
Dept. of Fisheries (where fishery resources are affected)

## WEATHER

Dept. of National Health and Welfare
Welfare Branch, Research Division Dept. of Labour

Unemployment Insurance Commission
Annuities Branch
National Advisory Committee on the Rehabilitation of Disabled Persons
Dept. of Resources and Development Northern Administration and Lands Branch (for Eskimos)
Dept. of Citizenship and Immigration Indian Affairs Branch (for Indians)
National Film Board (films and photographs)

Dept. of Resources and Development
National Parks Branch Canadian Wildlife Service National Museum of Canada
National Film Board (films, photographs)


For 'Welfare of
Veterans' See
"Veterans Affairs"

N'f'ld., N.S., Ont., Alta.:-Depts. of Public Welfare
P.E.I., B.C.:-Depts. of Health and Welfare
N.B.:-Dept. of Health and Social Services
Que.:-Dept. of Social Welfare and Youth
Man.:-Dept. of Health and Public Welfare
Sask.:-Dept. of Social Welfare and Rehabilitation
Yukon:-Yukon Territorial Council, Dawson
N.W.T.:-Northwest Territories Council. Ottawa, Ont.

N'f'ld.:-Dept. of Mines and Resources
N.B.:-Northeastern Wildlife Service. Fredericton
Dept. of Lands and Mines
Ont., Alta.:-Depts. of Lands and Forests
B.C.:-Dept. of Education

P Provincial Workmen's Compensation Boards at:
N'f'ld.:-St. John's
P.E.I.:-Charlottetown
N.S.:-Halifax: N.B.:-Saint John

Ont.:-Toronto: Man.:-Winnipeg
Sask.:-Regina; Alta.:-Edmonton
B.C.:-Vancouver

Que.:-Workmen's Compensation

## WORKMEN'S

 COMPENSATIONDept. of Labour
Government Employees' Compensation Branch
Merchant Seamen Compensation Board

## PART II.-SPECIAL MATERIAL PUBLISHED IN FORMER EDITIONS OF THE CANADA YEAR BOOK

As it is not possible to include in any single edition of the Year Book all articles and descriptive text of previous editions, 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 1952-53 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.

| Article |  |  |
| :---: | :---: | :---: | :---: |


| Article | Contributor | Volume | Page |
| :---: | :---: | :---: | :---: |
| Banking and Finance- |  |  |  |
| Life Insurance-A Historical Sketch. | A. D. Watson. | 1925 | 860-864 |
| Banking Legislation | - | 1931 | 891-896 |
| The Bank of Canada and its Relation to the Financial System. |  |  |  |
| Historical Sketch of Currency and Banking | E. | 1938 | 900-906 |
| The Royal Canadian Mint. . . . . . . . . . . | H. E. Ewart. | 1940 | 888-892 |
| The Wartime Functions of a Central Bank. | - | 1941 | 802-804 |
|  | - | 1942 | 803-806 |
| Wartime Control under the Foreign Exchange Control Board. | R. H. Tarr. | $\left\{\begin{array}{l}1941 \\ 1942\end{array}\right.$ | $\begin{aligned} & 833-835 \\ & 830-833 \end{aligned}$ |
| *The Underwriting and Distribution of | R. H. Takr. | \{ 1942 | $830-833$ |
| Investments; their Influence on the Capital Market (10 cts.). | Investment Dealers Association of Canada. | 1950 | 1088-1095 |
|  |  |  |  |
| Early Naturalization Procedure and Events Leading up to the Canadian Citizenship Act. |  |  |  |
| Act. | - | 1951 | 153-155 |
| Climate and Meteorology- |  |  |  |
| The Meteorological Service of Canada. | Sir Frederick Stupart, F.R.S.C. | 1922-23 | 43-48 |
| Factors which Control Canadian Weather. | Sir Frederick Stupart, F.R.S.C. | 1925 | 36-40 |
| Temperature and Precipitation in Northern Canada. | A. J. Connor, M.A. | 1930 | 41-56 |
| Droughts in Western Canada............ | A. J. Connor, M.A. | 1933 | 47-59 |
| *Meteorology Related to the Science of Aviation (10 cts.) | J. Patterson, O.B.E., LL.D. | 1943-44 | 24-29 |
| The Climate of Canada (textual article). | A. J. Connor, M.A. | 1948-49 | 41-62 |
| The Climate of Canada (tabular material). | A. J. Connor, M.A. | 1950 | 33-70 |
| Constitution and Government- |  |  |  |
| Provincial and Local Government inMaritime Provinces. <br> Thomas Flint, M.A. |  |  |  |
|  | Thomas Flint, M.A., LL.B., D.C.L. | 1922-23 | 102-105 |
|  | C. J. Magnan. | 1915 | 8-10 |
| Quebec. | G. E. Marquis. | 1922-23 | 105-107 |
| Ontario. | S. A. Cudmore, B.A. (Tor.), M.A. (Oxon.), F.S.S., F.R. Econ. Soc. | 1922-23 | 107-109 |
| Prairie Provinces | Rev. E. H. Oliver, Ph.D., F.R.S.C. | 1922-23 |  |
| British Columbia | S. D. Scotr. | 1915 | 10-113 |
| British Columbia | John Hosie. | 1922-23 | 113-115 |
|  | N. A. Rorertson. | 1931 | 115-122 |
| The Government of Canada's Arctic Territory. | R. A. Girson. | 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 | 34-40 |
| The British North America Act, 1867. Canada's Present Status in the British Commonwealth of Nations |  | 1942 | 40-59 |
|  | W. P. J. O'Meara, K.C., |  |  |
| Canada's Growth in External Status...... | F B.A. | 1943-44 | 41-47 |
|  | F. H. Soward. | 1945 | 74-79 |
| bilitation of the Occupied Territories ( 10 cts .). | - | 1945 | 79-85 |


| Article | Contributor | Volume | Page |
| :---: | :---: | :---: | :---: |
| Constitution and Government-concluded |  |  |  |
| *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 1950 | $93-133$ $134-139$ |
| Federal-Provincial Relations............ | - | 1951 | 102-105 |
| The Terms of Union of Newfoundland with Canada, 1949 | - | 1951 | 56-57 |
| Construction- |  |  |  |
| The Effects of Government Wartime Expenditures on the Construction Industry. | H. Carl Goldenberg. | 1941 | 366-368 |
| Crime and Delinquency- |  |  |  |
| A Historical Sketch of Criminal Law and Procedure. | R. E. Watts. | 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. Robbins, Ph.D. | 1941 | 876-883 |
| Canada and UNESCO | J. E. Robbins, Ph.D. | 1947 | 313-315 |
| Royal Commission on National Development in the Arts, Letters and Sciences. | - | 1951 | 315-316 |
| Fauna and Flora- |  |  |  |
| Faunas of Canada | P. A. Taverner. P . Anderson, Ph.D. | $1922-23$ 1937 | 29-52 |
| Faunas of Canada Flora of Canada. | John Adams, M.A. (Cantab.) | 1938 | 29-58 |
| The Canadian Government's Reindeer Experiment. | - | 1943-44 | 17-23 |
| *Migratory Bird Protection in Canada ( 10 cts .). | - | 1951 | 38-43 |
| Fisheries- <br> The Fish Canning and Curing Industry. | D. B. Finn, Ph.D. | 1941 | 225-226 |
| The Fish Canning and Curing Industry ... The Effects of the War on Canadian | D. B. Finn, Ph.D. |  |  |
| Fisheries <br> *The Fisheries of Canada ( 10 cts.) | D. B. Finn, Ph.D. | $1943-44$ 1951 | $\begin{gathered} 277-279 \\ 472-479 \end{gathered}$ |
| Forestry- |  |  |  |
| A Sketch of the Canadian Lumber Trade. | A. R. M. Lower, M.A. | 1925 | 318-323 |
| Physiography, Geology and Climate as Affecting the Forests. | - | 1934-35 | 311-313 |
| The War and the Demand for Forest Products. | - | 1942 | 249-252 |
| The Influence of the War on the Pulp and |  | 1943-44 | 264-265 |
| Paper Industry ...................... |  | 1945 | 266-268 |
| *Noxious Forest Insects and Their Control ( 10 cts .) | J. J. de Gryse. | $\begin{aligned} & 1947 \\ & 1951 \end{aligned}$ | $\begin{aligned} & 389-400 \\ & 425-437 \end{aligned}$ |
| Fur Trade- | W. M. Rttchie. | 1942 | 254-259 |
| Fur Farming................ | W. M. Ritchie. |  |  |
| tion to Fur Production and the Rehabili- | D. J. Allan. | 1943-44 | 267-269 |



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| Mining- |  |  |  |
| Mining-A Historical Sketch. | George Hanson, Ph.D. | 19391942 | $309-310$$3-14$ |
| Geology and Economic Minerals....... |  |  |  |
| Government Control of Non-Ferrous 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 |  |
| The Iron-Ore Resources of the QuebecLabrador Region. |  | 1946 | 337-347 |
|  | W. M. Goodwin. | 1950 | 505-512 |
| Titanium-The Basis of a New Industry in Quebec.... | W. M. Goodwin. | 1950 | 512-513 |
| National Defence- |  |  |  |
| The Royal Canadian Naval College | - | 1946 | 1081-1082 |
| The Royal Military College........ |  | 1946 | 1087-1088 |
| The British Commonwealth Air Training |  |  |  |
| Plan-A Summary of the R.C.A.F.'s Major Role in the War of $1939-45 \ldots . .$. | - | 1946 | 1090-1099 |
| Natural Resources- | A. R. M. Lower, M.A. |  |  |
| A Sketch of the Canadian Lumber Trade. Fur Trade-A Historical Sketch. |  | 1925 | 318-323 |
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| Mining-A Historical Sketch............. |  | 1939 | 309-310 |
| The Water-Power Resources of Canada and their Utilization. | J. T. Johnston. | 1940 | 353-364 |
|  | George Hanson, Ph.D. | 1942 | 3-14 |
| The Development of Marshlands in Rela1.ion to Fur Production and the Rehabilitation of Fur-Bearers. | D. J. Allan. | 1943-44 | 267-269 |
| Northwest Territories- | R. A. Gibson. |  |  |
| The Canadian Government's Reindeer |  | 1943-44 | 17-23 |
| Physiography- |  |  |  |
| Physical Geography of the Canadian Eastern Arctic. |  | 1945 | 12-19 |
| The Relation of Hydrography to Navigation and the War Record of the Hydrographic and Map Service. | R. A. Gibson. |  |  |
|  | F. G. Smith. | 1946 | 14-18 |
| *Physical Geography of the Canadian Western Arctic ( 10 cts.) | R. A. Gibson. | 1948-49 | 9-18 |
| Population- | R. J. C. Stead. |  |  |
| Immigration Policy |  | 1931 | 189-192 |
| Colonization Activities |  | 1936 | 201-202 |
| Occupational Trends in Canada, 1891-1931. | A. H. Leneveg, M.A. | 1939 | 774-778 |
| 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 Ir.dians of Canada................. | - | 1951 | 1125-1132 |
| Power Resources-*The Water-Powerand Their Utilization ((10 cts.) | J. T. Johnston. |  |  |
|  |  | 1940 | 353-364 |
| *Conversion Program to 60-cycle Power in Southern Ontario ( 10 cts.) |  | 1951 | 540-548 |



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| 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. Wilson. | 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 |
| United Nations- |  |  |  |
| Canada and the United Nations. | C. S. A. Rircie. | 1948-49 | 122-125 |
| Canada and the United Nations. | - | 1950 | 134-139 |

## PART III.-REGISTER OF OFFICIAL APPOINTMENTS*

The following list of official appointments continues that published in the 1951 Year Book, pp. 1181-1186, until Sept. 30, 1952.

Governor General's Staff.-1951. June 7, Hon. John Robert Cartwright, Puisne Judge of the Supreme Court of Canada: to be Deputy of His Excellency the Governor General. 1952. Feb. 28, Joseph François Delaute: to be Deputy of His Excellency the Governor General. Superintendent Cyril Nordheimer Kenny-Kirk, of the Royal Canadian Mounted Police, Ottawa, Ont.: to be Honorary Aide-de-Camp to His Excellency the Governor General, effective Feb. 28, 1952. Mar. 6, The following persons to be Deputies of His Excellency the Governor General: Rt. Hon. Thibaudeau Rinfret, LL.D., Hon. Patrick Kerwin, Hon. Robert Taschereau, LL.D., Hon. Ivan Cleveland Rand, Hon. Roy Lindsay Kellock, Hon. James Wilfred Estey. Mar. 31, Joseph François Delaute, Assistant Secretary to the Governor General: to be Secretary to the Governor General (Administrative) effective Apr. 1, vice Maj.-Gen. H. F. G. Letson, resigned.

Lieutenant-Governors.-1952. July 31, Alistair Fraser: to be LieutenantGovernor of the Province of Nova Scotia, effective Oct. 1, 1952.

Deputy Ministers.-1951. Mar. 22, Maxwell Weir Mackenzie: to be Deputy Minister of Defence Production, effective Apr. 1, 1951. W. F. Bull: to be Deputy Minister of Trade and Commerce, effective Apr. 1, 1951. Mitchell W. Sharp: to be Associate Deputy Minister of Trade and Commerce, effective Apr. 1, 1951. July 24, Charles Gavsie, C.B.E., K.C.: to be Deputy Minister of National Revenue for Taxation, effective Aug. 1, 1951. 1952. Mar. 18, Leolyn Dana Wilgress: to be Under-Secretary of State for External Affairs, effective June 1, 1952. Mar. 21, Reginald McLaren Brophy: to be Deputy Minister of Defence Production, effective May 1, 1952, vice Maxwell Weir Mackenzie, resigned.

Clerk of the Queen's Privy Council for Canada and Secretary to the Cabinet.-1952. Mar. 18, John Whitney Pickersgill, effective June 1, 1952.

Royal Canadian Mounted Police Force.-1951. May 8, Leonard Hanson Nicholson, M.B.E.: to be Commissioner, effective May 1, 1951.

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## Judicial Appointments

Higher Courts.-1951. Apr. 19, Antonio Garneau, K.C.: to be a Puisne Judge of the Superior Court for the District of Montreal, in the Province of Quebec. Charles Edouard Ferland, K.C.: to be a Puisne Judge of the Superior Court for the District of Montreal, in the Province of Quebec. July 24, Hon. Mr. Justice James D. Hyndman, formerly a Justice of Appeal of the Court of Appeal for Alberta: to be a Deputy Judge of the Exchequer Court of Canada, for a term of four months commencing Sept. 1, 1951. Hon. Mr. Justice Sidney A. Smith, formerly a Justice of Appeal of the Court of Appeal for British Columbia: to be a Deputy Judge of the Exchequer Court of Canada, for a term of four months commencing Sept. 1, 1951. July 31, Ralph Maybank, K.C.: to be Judge of the Court of King's Bench for Manitoba. Aug. 15, Louis-Philippe Cliche, K.C.: to be a Puisne Judge of the Superior Court for the Districts of St. Francis and Bedford, in the Province of Quebec. Paul Ste. Marie, K.C.: to be a Puisne Judge of the Superior Court for the District of Hull, Labelle and Pontiac, in the Province of Quebec. Sept. 5, Wilfred Judson, K.C.: to be a Judge of the Supreme Court of Ontario and a Member of the High Court of Justice for Ontario and ex officio a Member of the Court of Appeal for Ontario. J. L. McLennan, K.C.: to be a Judge of the Supreme Court of Ontario and a Member of the High Court of Justice for Ontario and ex officio a Member of the Court of Appeal for Ontario. Oct. 13, John Doherty Kearney, M.C., K.C.: to be a Puisne Judge of the Exchequer Court of Canada, effective Nov. 1, 1951. Dec. 28, Guillaume St. Pierre, K.C.: to be especially appointed a Deputy Judge of the Exchequer Court of Canada. 1952. Feb. 13, Hon. G. Edouard Rinfret, Q.C.: to be a Puisne Judge of the Court of Queen's Bench in and for the Province of Quebec. Mar. 4, James M. Cairns, Q.C.: 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. Clovis T. Richard, Q.C.: to be a Judge of the Queen's Bench Division of the Supreme Court of New Brunswick. Mar. 31, Harry Dell Anger, Q.C.: to be a Judge of the Supreme Court of Ontario and a Member of the High Court of Justice for Ontario and ex officio a Member of the Court of Appeal for Ontario. Apr. 8, Joseph Alfred Dion, Q.C.: to be a Puisne Judge of the Superior Court of the Province of Quebec for the District of Quebec. S. Freedman, Q.C.: to be a Judge of the Court of Queen's Bench for Manitoba. Apr. 25, Hon. Mr. Justice James D. Hyndman, formerly a Justice of the Court of Appeal of Alberta: to be especially appointed a Deputy Judge of the Exchequer Court of Canada, from May 15 to June 30, 1952. June 27, Hon. Colin Campbell McLaurin, a Judge of the Trial Division of the Supreme Court of Alberta: to be Chief Justice of the Trial Division of the Supreme Court of Alberta and ex officio a Judge of the Appellate Division of the said Court. Ernest B. Wilson, Q.C.: 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.

County and District Courts.-1951. Mar. 8, Farquhar J. MacRae, K.C.: to be Judge of the County Court for the County of Ontario in the Province of Ontario, and also a Local Judge of the High Court of Justice for Ontario. June 11, John S. Latchford: to be a Junior Judge of the County Court for the County of Wentworth, in the Province of Ontario, and also a Local Judge of the High Court of Justice for Ontario. July 31, His Hon. Joseph Henry McFadden, a Judge of the District Court of the Judicial District of Arcola, in the Province of Saskatchewan: to be a Judge of the District Court of the Judicial District of Melville, in the said Province. John Ross MacDonald, K.C.: to be Judge of the District Court of the Judicial District of Arcola, in the Province of Saskatchewan. Dec. 28, Frederick K. Grimmett: to be a

Judge of the County Court of New Westminster in British Columbia, also a Local Judge of the Supreme Court of British Columbia during his tenure of office as a Judge of the said County Court. 1952. Feb. 12, Laurence Hudson Phinney, Stipendiary Magistrate at Yellowknife, N.W.T.: to act as Juvenile Court Judge for Fort Liard and within a radius of thirty miles therefrom. Feb. 26, Hon. Esten Kenneth Williams, Chief Justice of Her Majesty's Court of Queen's Bench for Manitoba: to be District Judge in Admiralty of the Exchequer Court in and for the Manitoba Admiralty District. Mar. 4, Nelles V. Buchanan, Q.C.: to be a Judge of the District Court of the District of Northern Alberta, also a Local Judge of the Supreme Court of Alberta. May 30, John de Navarre Kennedy, Q.C.: to be Judge of the County Court for the County of Peterborough in the Province of Ontario, also a Local Judge of the High Court of Justice for Ontario.

Divorce Courts.-1951. June 11, Hon. William Arthur Ives Anglin, a Judge of the King's Bench Division of the Supreme Court of New Brunswick: to be a Judge of the Court of Divorce and Matrimonial Causes of the Province of New Brunswick.

## Government Appointments to Miscellaneous Boards, Commissions, etc.

Board of Examiners.-1951. May 10, Joseph Edwin Lilly, Dominion Topographical Surveyor of the Geodetic Survey Division of the Surveys and Mapping Branch: to be a Member vice J. L. Rannie, resigned.

Board of Transport Commissioners for Canada.-1951. Oct. 13, Hon. John Doherty Kearney, a Puisne Judge of the Exchequer Court of Canada: to be a Member and Chief Commissioner of the Board of Transport Commissioners for Canada and also to continue to be and exercise the jurisdiction of a Judge of the Exchequer Court of Canada, vice Hon. Maynard B. Archibald, resigned, effective Nov. 1, 1951.

Board of Trustees of the National Gallery of Canada.-1952. Apr. 22, The following persons to be Members: Mrs. H. A. Dyde, Edmonton, Alta.; Charles Perey Fell, Toronto, Ont.; Dr. W. T. Ross Flemington, Sackville, N.B.; Cleveland Morgan, Montreal, Que.; Jean Raymond, Westmount, Que.

Canadian Broadcasting Corporation.-1952. Apr. 22, Roy J. Fry: to be a Governor for a period of three years, effective Apr. 1, 1952.

Canadian Commercial Corporation.-1951. Apr. 18, The following Officers of the Department of Defence Production to be President and Directors, effective Apr. 12, 1951: President, William Davidson Low, Co-ordinator of Purchasing; Directors, Thomas Norbert Beaupré, Special Assistant to the Deputy Minister, Crawford Gordon, Jr., Co-ordinator of Production, Harold Gustave Hesler, Financial Adviser, Gordon Ward Hunter, Executive Assistant to the Deputy Minister, Cyril Robert Snell, Deputy Co-ordinator of Purchasing. Nov. 20, Reginald McLaren Brophy: to be a Director, vice Crawford Gordon, Jr., resigned. 1952. May 23, George Milligan Grant, Director, Electronics Division, Department of Defence Production: to be a Director, vice Reginald McLaren Brophy, resigned.

Canadian Farm Loan Board.-1951. Nov. 20, William Clifford Clark, Deputy Minister of Finance: to be a Member for a period of five years, effective Dec. 3, 1951.

Canadian Overseas Telecommunication Corporation.-1951. July 31, Douglas Forrest Bowie: to be a Director and President and General Manager, vice D. L. Howard, deceased.

Canadian Pension Commission.-1950. Dec. 28, Norman Loris Pickersgill, V.R.D., and John Murray Forman, D.F.C., to continue as ad hoc Members for a further period of one year from Feb. 1, 1951. 1951. Apr. 18, William Howard August, Departmental Solicitor in the Legal Division of the Department of Veterans Affairs, Winnipeg, Man.: to be an ad hoc Member for a period of one year from May 1, 1951. June 7, Jean-Paul Laplante, B.A., M.D., C.M., Medical Superintendent, Department of Veterans Affairs Hospital, Ste. Anne de Bellevue, Que.: to be a Member for a period of seven years, effective June 1, 1951. July 11, William Eddison Dexter: to be a Member for a period of three months effective June 11, 1951. Dec. 28, Norman Loris Pickersgill, V.R.D.: to be again an ad hoc Member for a further period of one year, effective Feb. 1, 1952. John Murray Forman, D.F.C.: to be again an ad hoc Member for a further period of one year, effective Feb. 1, 1952.1952. Mar. 25, William Howard August: to be a Member for a period of ten years from May 1, 1952.

Central Mortgage and Housing Corporation.-1951. Apr. 4, J. J. Perrault: to continue as a Director until Apr. 1, 1954. J. Y. McCarter: to be a Director until Apr. 1, 1954. Oct. 5, The following members of the Public Service of Canada to be Directors, effective June 20, 1951: Maj.-Gen. Hugh A. Young, Deputy Minister of Resources and Development, K. W. Taylor, Assistant Deputy Minister of Finance, and J. E. Coyne, Deputy Governor of the Bank of Canada. 1952. June 11, W. J. Waines: to be a Director, from the date hereof for a term expiring Mar. 31, 1955.

Criminal Code Revision Commission.-1951. May 10, Hon. Mr. Justice Fernand Choquette, His Hon. Judge Robert Forsyth, Harry J. Wilson, K.C., Deputy Attorney General of Alberta, and A. A. Moffat, K.C., former Deputy Attorney General of Manitoba, together with Hon. Chief Justice W. M. Martin of Saskatchewan, who shall be Chairman: to be Commissioners to complete the revision of the Criminal Code. June 26, Joseph Sedgwick, K.C.: to be a Member.

Defence Research Board.-1951. Apr. 6, Dr. Andrew Robertson Gordon and Dr. Merritt Shrum: to be Members, effective for a period of three years from Apr. 1, 1951, vice Dr. Paul Edouard Gagnon and Dr. Otto Maass.

Dominion Coal Board.-1952. Jan. 29, Daniel Owen Hartigan, President and General Manager of the Indian Cove Coal Company Limited, Sydney, N.S.: to be a Member, effective Jan. 25, 1952.

Dominion Council of Health.-1951. Oct. 25, Miss N. D. Fidler, R.N., Director of the Metropolitan School of Nursing, Windsor, Ont.: to be a Member for a period of three years, effective June 1, 1951.

Federal District Commission.-1951. Aug. 15, Duncan Kenneth MacTavish, K.C., a Member of the Federal District Commission: to be Chairman. Nov. 26, The following persons to be Members: Mrs. Cecile Fontaine, M.B.E., Col. J. D. Fraser, Lawrence Freiman, Eric Cook, K.C.

Historic Sites and Monuments Board of Canada.-1951. May 3, Campbell Innes, M.A., Vice-President and Curator, North West Mounted Police Memorial and Indian Museum of Western Canada, Battleford, Sask.: to be a Member, vice J. A. Gregory, resigned.

Honorary Advisory Council for Scientific and Industrial Research.-1952. Feb. 12, Dr. C. J. Mackenzie, President of the National Research Council: to be a Member, effective Apr. 1, 1952.

Income Tax Appeal Board.-1951. Apr. 3, Fabio Monet, K.C., a Member: to be Chairman and to hold office as such until Dec. 31, 1958, effective Apr. 1, 1951. Reginald Sydney Walter Fordham, K.C.: to be a Member for a period of ten years, effective Apr. 1, 1951.

International Pacific Salmon Fisheries Commission.-1952. June 30, H. R. MacMillan: to be a Member, vice Olof Hanson, deceased, for a period of two years, effective June 30, 1952.

Maritime Marshland Rehabilitation Act.-1952. Mar. 4, D. C. Milligan: to be the Representative of the Province of Nova Scotia on the Advisory Committee established under the Maritime Marshland Rehabilitation Act, vice Angus Banting, resigned.

National Battlefields Commission.-1951. Sept. 5, Lt.-Col. Raymond Garneau, E.D.: to be a Member, vice Dr. André Simard, deceased.

National Film Board.-1952. July 31, Leolyn Dana Wilgress, Under-Secretary of State for External Affairs, Ottawa: to be a Member for the remainder of the threeyear term of A. D. P. Heeney, which commenced Oct. 14, 1950.

National Gallery of Canada.-1952. Mar. 11, Harry S. Southam, a Member of the Board of Trustees: to be Chairman of the said Board of Trustees. July 15, John Alexander MacAulay, Q.C.: to be a Member.

National Harbours Board.-1952. May 20, Maurice Georges Archer, Consulting Engineer, Quebec, Que.: to be a Member and Vice-Chairman for a term of 10 years, effective July 1, 1952.

National Research Council.-1951. May 24, Albert Bertrand, B.A., M.D., Chief of the Bacteriology Laboratory, Notre Dame Hospital, Montreal, and Professor of Bacteriology, Faculty of Medicine, University of Montreal, Montreal, Que.; DeGaspe Beaubien, C.B.E., D.Sc., Consulting Engineer, Montreal, Que.; A. N. Campbell, M.Sc., Ph.D., D.Se., Professor of Chemistry, University of Manitoba, Winnipeg, Man.; Gordon G. Cushing, Secretary-Treasurer, Trades and Labour Congress of Canada, Ottawa, Ont.; Cyrias Ouellet, D.Sc., Professor of Chemistry, Laval University, Quebec, Que.: to be Members for a period of three years expiring Mar. 31, 1954. June 21, George Edouard Hall, M.S.A., M.D., Ph.D., F.R.S.C., President and Vice-Chancellor of the University of Western Ontario, Hamilton, Ont.: to be a Member for a term of three years expiring Mar. 31, 1954. 1952. Feb. 12, Dr. E. W. R. Steacie, O.B.E., F.R.S.C., F.R.S., Vice-President: to be President, effective Apr. 1, 1952.

North Fraser Harbour Commissioners.-1952. June 11, The following persons to be Commissioners: Samuel Norman Noble, J. Arthur Lindsay, J. Stewart Alsbury.

Northwest T'erritories Council.-1951. May 16, Leonard Hanson Nicholson, M.B.E., Commissioner of the Royal Canadian Mounted Police: to be a Member, vice Col. Stuart Taylor Wood, resigned. June 26, Louis De La Chesnaye Audette, Commissioner, Canadian Maritime Commission; Frank John Graham Cunningham, Administrative Officer, Department of Resources and Development; Harold Brandon Godwin, Air Commodore, Department of National Defence; Donald Morrison

MacKay, O.B.E., Director of Indian Affairs, Department of Citizenship and Immigration; Leonard Hanson Nicholson, Commissioner of the Royal Canadian Mounted Police: to be Members and the said Frank John Graham Cunningham to be Deputy Commissioner of the Territories. Dec. 28, Air Commodore William Isaac Clements: to be a Member, vice Air Commodore Harold Brandon Godwin, resigned.

Northwest Territories Power Commission.-1952. May 9, Hugh Andrew Young, C.B., C.B.E., D.S.O., Deputy Minister of Resources and Development: to be a Member, effective May 12, 1952, vice J. M. Wardle, resigned. May 23, Norman Marr: to be a Member.

Organization for European Economic Co-operation.-1952. Apr. 25, Arnold Danford Patrick Heeney: to be Representative of Canada to the Organization for European Economic Co-operation, Paris, France.

Unemployment Insurance Advisory Committee.-1952. Feb. 29, J. G. McLean: to be a Member for the balance of the term of A. J. Kelly, resigned, ending June 18, 1952.

War Veteran's Allowance Board.-1951. Mar. 21, Maj.-Gen. E. L. M. Burns, Deputy Minister of Veterans Affairs: to be an additional Member. G. L. Lalonde, Assistant Deputy Minister, Department of Veterans Affairs: to be the alternate for Maj.-Gen. Burns as such additional Member. Apr. 26, Thomas Duncan Anderson, General Secretary of the Canadian Legion of the British Empire Service League: to be an additional Member, vice J. C. G. Herwig, deceased.

Yukon.-1951. June 21, Andrew Harold Gibson, Commissioner of Yukon Territory: to be Registrar of the Yukon Land Registration District, effective June 1, 1951. Frank Gramani Smith, Departmental Solicitor, Department of Resources and Development: to be Deputy Registrar of the Yukon Land Registration District, effective June 1, 1951, vice Miss Rhoda R. MacDonald, resigned. Oct. 3, Frederick Fraser: to be Commissioner of Yukon Territory, vice Andrew Harold Gibson, effective Oct. 15, 1951.

Miscellaneous.-1951. July 31, Rt. Hon. James Lorimer Ilsley, P.C., K.C.: to be a Commissioner to investigate and report upon War Claims of Canadians in respect of death, personal injury, maltreatment and loss of or damage to property arising out of World War II. Aug. 24, Dr. T. H. Hogg, Toronto, Ont., G. A. Gaherty, Calgary, Alta., and Dr. John A. Widtsoe, Salt Lake City, Utah, U.S.A.: to be Commissioners to inquire into the feasibility of proposed South Saskatchewan River Project. Nov. 12, Kenneth J. Christie, Chief Mining Inspector of the Northwest Territories: to be a Commissioner under Part I of the Inquiries Act, to inquire into and report upon the facts concerning the staking of certain areas of property of the Crown in the Northwest Territories and Yukon Territory. 1952. Jan. 29, Hugh F. Gibson: to be a Commissioner to investigate charges of political partisanship against Robert S. Wise, Postmaster at Cloyne, Ont. June 3, John Whitney Pickersgill, Clerk of the Queen's Privy Council for Canada and Secretary to the Cabinet: to be a Commissioner, per dedimus potestatem, to tender and administer the Oath of Allegiance and the Oath of Office, and such other Oaths as may from time to time be prescribed by law.

## PART IV.-FEDERAL LEGISLATION, 1951 AND 1952

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 Fourth Session of the Twenty-first Parliament, Jan. 30, 1951, to Oct. 9, 1951 

| Subject, Chapter and Date of Assent | Synopsis |
| :---: | :---: |
| 15 George VI. |  |
| $\begin{aligned} & \text { Agricuiture- } \\ & 3 \text { Mar. } 21 \end{aligned}$ | An Act to Amend the Canadian Wheat Board Act, 1985. This amendment redefines the "pool period" and adds a proviso regarding the adjustment of accounts on the transfer of wheat from one pool period to another. |
| 6 Mar. 21 | An Act to A mend the Farm Improvement Loans Act, 1944, revises Sects. 4 and 5 of the Act relating to the limitations of amounts of liability to banks in respect of improvement loans. |
| 39 June 30 | The Canada Dairy Products Act establishes national standards for dairy products and regulates interprovincial and international trade in dairy products. |
| 58 June 30 | An Act to Amend the Prairie Farm Rehabilitation Act. By this amendment, no project may be undertaken involving an expenditure of over $\$ 10,000$ in a year without the consent of the Governor in Council. Other revisions are concerned with the appointments of certain employees and superannuation. |
| $\begin{aligned} & \text { Citizenship- May } \\ & 31 \end{aligned}$ | An Act to Amend the Canadian Citizenship Act. Revisions are made in the regulations governing loss of Canadian citizenship. |
| 29 June 20 | The Indian Act. This Act constitutes a complete revision of the legislation under which Indian affairs are administered. Previous legislation (R.S.C. 1927, c. 98,) with the exception of that portion now cited as the Indian (Soldier Settlement) Act, is repealed. |
| Constitution and Government- |  |
| 21 May 31 | An Act to Amend the Northwest Territories Act. By this amendment the Council of the Northwest Territories shall consist of eight members, three of whom will be elected to represent electoral districts and five appointed, replacing the former six-member appointed Council. Regulations concerning election of memberseligibility, qualifications, tenure of office, etc.-are designated. |
| 23 May 31 | An Act to Amend the Yukon Act. The Council of Yukon Territory is increased from three elective members to five elective members. The amendment also concerns permission for the manufacture or importation of intoxicants. |
| 48 June 30 | An Act to Amend the Dominion Elections Act, 1998. Revisions in the mode of voting are made by this amendment and the provisions of the Act made effective in the conduct of elections of members to the Council of the Northwest Territories. |
| $\begin{aligned} & \text { Construction- } \\ & 24 \text { June } 20 \end{aligned}$ | An Act to Amend the Central Mortgage and Housing Corporation Act, 1945. This amendment places the administration of the Corporation with the Minister of Resources and Development and revises the composition of the Board of Directors and the Executive Committee. |
| 32 June 20 | An Act to A mend the National Housing Act, 1944. This amendment gives the Governor in Council authority to prescribe interest rates on loans. |
| Defence Production4 Mar. 21 | The Defence Production Act authorizes the establishment of the Department of Defence Production and defines the duties, powers and functions of the Minister of the Department of Defence Production. |

# Legislation of the Fourth Session of the Twenty-first Parliament, Jan. 30, 1951, to Oct. 9, 1951-continued 



# Legislation of the Fourth Session of the Twenty-first Parliament, Jan. 30, 1951, to Oct. 9, 1951-continued 

| Subject, Chapter and Date of Assent | Synopsis |
| :---: | :---: |
| Justice-concl. $30 \text { June } 20$ | An Act to Amend the Juvenile Delinquents Act, 1929, alters the definition of "child" in the Act. |
| 34 June 20 | An Act to Amend the Prisons and Reformatories Act. Legislation concerning certified institutions in the Province of Alberta is added as Part X to the Act. |
| 47 June 30 | An Act to Amend the Criminal Code. Revisions concern mainly the assisting of deserters or absentees from the Canadian Forces or the R.C.M.P., firearms, offences of a seditious nature, driving while ability to drive is impaired, public stores, mails, etc. |
| 52 June 30 | An Act to A mend the Judges Act, 1946, revises salaries of the judges of the Exchequer Court of Canada and of the judges of the provincial courts. It also makes amendments re annuities to judges and widows of judges. |
| 61 June 30 | An Act to Amend the Supreme Court Act permits a judge of the Supreme Court to allow an appeal in forma pauperis though the time prescribed for serving notice has expired. |
| ${ }_{16}^{\text {Labour- }} \text { May } 31$ | An Act to Amend the Government Employees Compensation Act, 1947, places the administration of the Act with the Minister of Labour and makes minor revisions re general administration expenses and the payment of compensation for accidents occurring in the Yukon and Northwest Territories. |
| Mines and Technical Surveys49 June 30 | An Act to Amend the Emergency Gold Mining Assistance Act concerns the calculation of assistance to be paid in respect of gold produced and sold in 1950 and application of the Act in the year 1951. |
| National Welfare- <br> 38 June 30 | The Bland Persons Act. This legislation provides for financial aid to the provinces toward the provision of allowances, not exceeding $\$ 40$ a month, to blind persons aged 21 years or over, subject to a residence qualification of at least 10 years. This Act continues, on a somewhat more generous basis, the cash assistance previously paid under the Old Age Pension Act (R.S.C. 1927, c. 156) repealed. |
| 55 June 30 | The Old Age Assistance Act provides for financial aid to the provinces toward the provision of assistance, not exceeding $\$ 40$ a month, to persons aged 65 to 69 , subject to a residence qualification of at least 20 years. The Federal Government's contribution per recipient cannot exceed 50 p.c. of $\$ 40$ or of the assistance paid, whichever is less. Amount of assistance, income allowable and other conditions of eligibility are fixed by the province. |
| 56 June 30 | An Act to Amend the Pensions Act and change the Title thereof. A number of amendments relating to the payment of pensions are made together with revisions concerning salaries and tenure of office of commissioners. |
| 62 June 30 | The Veterans Benefit Act, 1951, authorizes the extension of veterans legislation, as set out in the Schedule to the Act, to all persons enrolled or serving in the special force subsequent to July 5, 1950. The Act comes into force on the expiration of Sect. 7 of the Canadian Forces Act 1950 and expires on the last day of the first session of Parliament in 1952. |
| Publle Works- <br> 18 May 31 | The Kingsmere Park Act provides for the administration by the Federal District Commission of Kingsmere Park and the management and control of buildings therein by the Minister of Public Works, in accordance with the desires and purposes expressed in the Will of the Rt. Hon. W. L. Mackenzie King. |
| 19 May 31 | The Laurier House Act places the administration of Laurier House with the Public Archivist and its maintenance with the Department of Public Works and the Federal District Commission. A Mackenzie King Trust Account is to be credited with the sum of $\$ 225,000$, bequeathed by the Rt. Hon. W L. Mackenzie King for the care of the property. |
| $\begin{aligned} & \text { Trade and } \\ & \text { Commerce- } \\ & 13 \text { May } \end{aligned}$ | An Act to Amend the Canadian Commercial Corporation Act transiers the administration of the Act to the Minister of Defence Production and raakes several minor amendments $r e$ finances of the Corporation, constitution of a quorum and application of the Civil Service Superannuation Act to employees. |

# Legislation of the Fourth Session of the Twenty-first Parliament, Jan. 30, 1951, to Oct. 9, 1951-continued 



## Eesources and Development- <br> 37 June 30

53 June 30

60 June 30

The Alberta Natural Resources Transfer (Amendment) Act, 1951, confirms an Agreement between the Government of Canada and the Government of Alberta to change the provisions of the Alberta Natural Resources Agreement with respect to the investment of money obtained from the sale of school lands.

The Manitoba Natural Resources Transfer (Amendment) Act, 1951, confirms an Agreement between the Government of Canada and the Government of Manitobs to change the provisions of the Manitoba Natural Resources Agreement with respect to the investment of money obtained from the sale of school lands.

The Saskatchewan Natural Resources Transfer (Amendment) Act, 1951, confirms an Agreement between the Government of Canada and the Government of Saskatchewan to change the provisions of the Saskatchewan Natural Resources Agreement with respect to the investment of money obtained from the sale of school lands.

# Legislation of the Fourth Session of the Twenty-first Parliament, Jan. 30, 1951, to Oct. 9, 1951-concluded 



## Legislation of the Fifth Session of the Twenty-first Parliament, Oct. 10, 1951, to Dec. 29, 1951

| Subject, Chapter and Date of Assent | Synopsis |
| :---: | :---: |
| 15-16 George VI. |  |
| $\underset{1}{\text { Agriculture- }} 21$ | The Agricultural Products Board Act authorizes the establishment of a Board to buy, sell, export and import agricultural products when directed by the Governor in Council. |
| 31 Dec. 21 | An Act to Amend the Prairie Farm Assistance Act, 1939, adds certain lands in Alberta and British Columbia to the list of exceptions in connection with the "no award" proviso. |
| Constitution and Government- |  |
| 3 Dec. 21 | An Act to Amend the Dominion Elections Act, 1938, and to change its title to the Canada Elections Act. In addition to changing the title, numerous changes are made in many Sections of the Act. |
| 10 Dec. 21 | An Act to A mend the Civil Service Act. This amendment concerns the tenure of office of Civil Service Commissioners and the regulations for the fixing of their salaries. |
| 23 Dec. 21 | An Act to Amend an Act respecting the Revised Statutes of Canada. Under the provisions of this amendment the Statute Revision Commission shall prepare a supplement to the Revised Statutes showing the general public statutes passed after the completion of the consolidation but before the coming into force of the printed Rolls thereof. |

# Legislation of the Fifth Session of the Twenty-first Parliament, Oct. 10, 1951, to Dec. 29, 1951-continued 

Subject,
Chapter and
Date of Assent

Synopsis
Constitution and
Government-
concluded
32 Dec. 21
Construction- out the obligations, duties and rights of Canada thereunder.

The Privileges and Immunities (North Atlantic Treaty Organization) Act approves and confirms the Agreement on the status of the North Atlantic Treaty Organization, National Representatives and International Staff, as set out in the Schedule, and gives to the Governor in Council the power to make necessary orders for carrying

The International Rapids Power Development Act approves the Agreement, dated Dec. 3, 1951, between the Government of Canada and the Province of Ontario respecting construction of works for the generation of electric power in the international rapids section of the St. Lawrence River.

An Act to Amend the Bills of Exchange Act makes provision for Saturday being a nonworking day in the computation of time in all matters relating to the presentation and payment of bills, notes or cheques.

An Act to Amend the Canada-United States of America Tax Convention Act, 1943, and the Canada-United States of America Tax Convention Act, 1944. This amendmert adds a Protocol to the Schedule to the Act.

The Financial Administration Act consolidates and revises the legislation respectirg the financial administration of the Government of Canada, the audit of the publie accounts and the financial control of Crown Companies. Previous enactments covering these matters are repealed.

The Prairie Grain Producers' Interim Financing Act, 1951, grants short-term credit to grain producers in the Prairie Provinces to meet temporary financial difficultic due to inability to complete harvesting operations or to make delivery of grain.

The United Kingdom Financial Agreement Act, 1951, approves the Financial Agreement. set out in the Schedule to the Act, between Canada and the United Kingdon., signed June 29, 1951.

An Act to Amend the Exchequer Court Act. The maximum salary of the Registris of the Exchequer Court is increased from $\$ 6,500$ to $\$ 7,500$ per annum.
An Act to Amend the Julges Act, 1946, makes provision for the payment of salaric: to 15 judges and junior judges, in place of 14, of the British Columbia County Court.
An Act to Amend the Supreme Court Act raises the maximum annual salary to be pai. 1 the Registrar of the Supreme Court from $\$ 8,000$ to $\$ 8,500$.

The Canadian Forces Act, 1951. This Act amends twenty-five Acts of Parliament in their application to the Canadian Forces, mainly with respect to definitions used therein.

The Visiting Forces (North Atlantic Treaty) Act. The Act implements the Agreement between the parties to the North Atlantic Treaty regarding the status of their Forces while visiting Canada and covers disciplinary jurisdiction, claims for personal injuries and property damage, security and taxation.

The Old Age Security Act. Under this Act, commencing January 1952, a universal pension of $\$ 40$ a month is payable by the Federal Government to all persons 70 years of age or over, subject only to a residence. qualification of 20 years. The Old Age Pensions Act (R.S.C. 1927, c. 156) is repealed.

An Act to Amend the Pension Act. New Schedules covering scale of pensions for disabilities and scale of pensions for deaths are provided by this amendment.

An Act to Amend the Canadian Broadcasting Act, 1988. The number of Governors of the Corporation is increased to eleven and their tenure of office revised; the limit of expenditure, without the approval of the Governor in Council, is increased; grants from the Consolidated Revenue Fund amounting to $\$ 4,750,000$ for the year ended Apr. 1, 1951, and $\$ 6,250,000$ for each of the four following years are authorized.

# Legislation of the Fifth Session of the Twenty-first Parliament, Oct. 10, 1951, to Dec. 29, 1951-concluded 

| Subject, |
| :---: | :---: | :---: | :---: |
| Chapter and |
| Date of Assent |\(\left|\begin{array}{l}Transportation <br>

and Communi- <br>
cations-concl. <br>

8 Dec. 21\end{array}\right|\)| An Act to A mend the Canadian National-Canadian Pacific Act, 1983, sets down specific |
| :--- |
| items to be given in the annual report of the Board of Directors submitted to |
| Parliament. |

# Legislation of the Sixth Session of the Twenty-first Parliament, Feb. 28, 1952, to Nov. 20, 1952 



# Legislation of the Sixth Session of the Twenty-first Parliament, Feb. 28, 1952, to Nov. 20, 1952-continued 

| subject, Chapter and Date of Assent | Synopsis |
| :---: | :---: |
| Finance--concl. 24 June 18 | An Act to Amend the Dominion Succession Duty Act makes a number of changes to correct inaccuracies and anomalies that have shown up as a result of the experience of recent years. |
| 26 June 18 | An Act to Amend the Excise Act, 1994. The amendments include changes in the definitions of spirits and tobacco and are concerned mainly with penalties under the Act. |
| 27 June 18 | An Act to Amend the Excise Act. This Act implements excise and sales tax changes contained in the Budget. |
| 29 June 18 | An Act to Amend the Income Tax Act implements the Budget proposals regarding changes in the income tax. |
| 30 June 18. | An Act to Amend the Industrial Development Bank Act gives authority to the Bank financially to assist commercial air services operating in Canada in the same manner as other industrial enterprises, and increases from $\$ 25,000,000$ to $\$ 50,000,000$ the limitation of aggregate financial assistance that can be extended to borrowers in individual amounts exceeding $\$ 200,000$. |
| 32 June 18 | An Act to Amend the Tariff Board Act provides for salary increases for members of the Board. |
| 40 July 4 | The Currency, Mint and Exchange Fund Act. This Act brings up to date the provisions of the previous Currency Act as well as the legislative provisions relating to the Royal Canadian Mint. The Foreign Exchange Control Act is repealed and in its stead the general provisions of the Exchange Fund Act 1935 are brought back into force. |
| 49 July 4 | The Tax Rental Agreements Act, 1958 authorizes the Federal Government to enter into taxation agreements with the provinces for the five-year period ending Mar. 31, 1957. Under the agreements, the provinces give the Federal Government almost exclusive use of the personal income, corporation and inheritance tax fields. In return the provinces receive payments based on population and value of gross national production. |
| 55 July 4 | The Appropriation Act, No. 4, 195\%, grants certain sums of money to be paid out of the Consolidated Revenue Fund for defraying stated expenses of the public service for 1952-53. |
| ${ }_{42}^{\text {Immigration- }}$ July 4 | The Immigration Act revises completely the legislation regarding the entry of immigrants into Canada. Previous legislation is repealed. |
| ${ }_{11}^{\text {Justice- May }} 29$ | An Act to Amend the Prisons and Reformatories Act provides for the issuing of licences of leave to women and girls confined to the Interprovincial Home for Young Women at Coverdale, N.B., in cases where good conduct has been demonstrated. |
| 12 May 29 | An Act to Amend the Supreme Court Act advances the date of opening of the first session of the Supreme Court in each year. |
| 22 June 18 | An Act to Amend the Criminal Code (Race Meetings) changes from a graduated scale to a fixed scale the percentages that may be retained by racing associations from the money wagered on each race. |
| 39 July 4 | An Act to Amend the Combines Investigation Act and the Criminal Code. In cases where corporations are found guilty of an offence under Sect. 498 or 498 A of the Criminal Code or of an offence under Sect. 32 of the Combines Investigation Act, provision is made for the imposition of a penalty not only on the Corporation but also on any officer or director who acquiesces or assents in the offence. |
| ${ }_{51}^{\text {Labour- July }} 4$ | An Act to Amend the Unemployment Insurance Act, 1940, among other amendments, raises unemployment insurance benefits without increasing contributions and reduces the waiting period by three days. |
| $\begin{aligned} & \text { Mines and } \\ & \text { Resources- } \\ & 25 \text { June } \end{aligned}$ | An Act to Amend the Emergency Gold Mining Assistance Act extends the provisions of the Act to the years 1952 and 1953. |
| 41 July 4 | An Act to Amend the Eastern Rocky Mountain Forest Conservation Act. This amendment extends for one year to Apr. 1, 1955. the capital expenditure period under the Act and increases the yearly allotment from $\$ 300,000$ to $\$ 450,000$. The Government of Alberta agrees to assume full maintenance costs but the capital expenditure remains the responsibility of the Government of Canada. |

# Legislation of the Sixth Session of the Twenty-first Parliament, Feb. 28, 1952, to Nov. 20, 1952-continued 

| Subject. <br> Chapter and Date of Assent |  |  | Synopsis |
| :---: | :---: | :---: | :---: |
| $\begin{array}{lll}\text { Defence }^{\text {National }} \\ 6 & & \\ \text { May } & 29\end{array}$ |  |  |  |
|  |  |  | The Canadian Forces Act, 1958. Amendments under this Act to the National Defence Act, the Civil Service Superannuation Act, the Defence Services Pension Act and the Senate and House of Commons Act are largely technical in nature. |
| 33 | July | 4 | An Act to Amend the Army Benevolent Fund Act, 1947, increases the rate of interest to be credited to the Fund from $2 \frac{1}{2}$ p.c. to $3 \frac{1}{2}$ p.c. per annum |
| 38 | July | 4 | An Act to Amend the Civilian War Pensions and Allowances Act amends Schedules I and II of the Act to provide increases comparable to those made in the basic scale of pensions under the Pension Act. |
| 47 | July | 4 | An Act to Amend the Pension Act adjusts the allowance for excessive wear and tear of a pensioner's clothing on account of amputation or use of appliances and makes more adequate provision for dependants of a deceased member of the forces. |
| 52 | July | 4 | An Act to Amend the Veterans Benefit Act, 1951, extends until the last day of the first session of Parliament, 1953, the date of expiration of the Act. |
| 53 | July | 4 | An Act to Amend the Veterans Insurance Act permits the payment to an estate of the face value of the insurance policy in cases where the proceeds of the policy pass to the estate of the insured. |
| 54 | July | 4 | The War Veterans Allowance Act, 1952, revises completely the legislation contained in the War Veterans' Allowance Act, 1946, and includes certain new provisions for increased allowance, for raising the amount of permissible income and for assisting employable veterans. |
| Trade and Commerce7 May 29 |  |  |  |
|  |  |  | An Act to Amend the Export and Import Permits Act increases from $\$ 500$ to $\$ 5,000$ the maximum penalty for infractions of the Act and extends from six to twelve months the time allowed for the launching of prosecutions. |
| 21 | June | 18 | An Act to Amend the Cold Storage Act gives authority to increase from 30 p.c. to $33 \frac{1}{\frac{1}{3}}$ p.e. the subsidy on warehouse projects approved by government engineers and authorizes the payment of the subsidies as soon as the buildings are completed and approved. |
| Transportation and Communi-cations- |  |  |  |
|  | May | 29 | An Act respecting the Appointment of Auditors for National Railways appoints independent auditors for 1952 to make a continuous audit of the national railway accounts. |
|  | May | 29 | An Act respecting the New Westminster Harbour Commissioners extends the boundariee of the harbour eastward from the Fraser River to Kanaka Creek and northeastward in the Pitt River as far as Pitt Lake. |
| 14 | June | 18 | An Act to Amend the Aeronautics Act provides for the zoning of airports. |
|  | June | 18 | An Act respecting the construction of a line of railway by Canadian National Railway Company from Terrace to Kitimat, in the Province of British Columbia gives the authority for the construction of such railway and its financing. |
|  | June | 18 | The Government Property Traffic Act authorizes the Governor in Council to make regulations for the control of traffic on any land belonging to or occupied by Her Majesty in the right of Canada. |
| 34. | July | 4 | The Belleville Harbour Commessioners Act authorizes the establishment of a Corporation consisting of the Mayor of Belleville and two commissioners appointed by the Governor in Council, which, under the provision of the Act, shall have jurisdiction within the limits of the harbour. |
| 36 | July | 4 | The Canadian National Railways Capital Remision Act, 1852, revises the capital structure. of the Canadian National Railway Company and provides for certain other financial matters including the reduction of indebtedness. |
| 37 | July | 4 | The Canadian National Railways Financıng and Guarantee Act, 1952, authorizes the provision of moneys to meet certain capital expenditures during 1952 and authorizes the guarantee of certain securities to be issued by the Company. |

# Legislation of the Sixth Session of the Twenty-first Parliament, Feb. 28, 1952, to Nov. 20, 1952 -concluded 

| Subject, Chapter and Date of Assent | Synopsis |
| :---: | :---: |
| Transportation and Communi-cations-concl. 43 July 4 |  |
|  | An Act to Amend the International Boundary Waters Treaty Act increases the salaries of the Canadian members of the International Joint Commission, brings the employees under the Civil Service Superannuation Act and provides that all expenses be paid out of moneys appropriated by Parliament. |
| Miscellaneous- |  |
| 13 May 29 | An Act to Amend the Victoria Day Act provides that the Victoria Day holiday shall be on the first Monday immediately preceding May 25 each year. |
| 31 June 18 | The National Library Act provides for the establishment of a National Library and for the appointment and remuneration of a National Librarian and an Assistant National Librarian. |
| 44 July 4 | The Marine and Aviation War Risks Act authorizes the Minister of Finance to enter into agreements, for insurance and reinsurance against certain risks of loss or damage in connection with ships, aircraft and cargo arising out of war risks. |
| 50 July 4 | The Treaty of Peace (Japan) Act 1952 provides for carrying into effect the Treaty of Peace between Japan and Canada. |

## PART V.-CANADIAN CHRONOLOGY, 1867-1952

Events in the General Chronology from 1497 to 1866 are given in the 1951 Year Book, pp. 46-49. References regarding federal or provincial elections or changes in legislatures or ministries are not included in the following chronology since such information is given in Chapter II on Constitution and Government.
1867. Mar. 29, Royal Assent given to the British North America Act. July 1, The Act came into force; Union of the Province of Canada, Nova Scotia and New Brunswick as the Dominion of Canada; Upper and Lower Canada made separate provinces named Ontario and Quebec; Viscount Monck, first Governor General; Sir John A. Macdonald, Prime Minister. Nov. 6, Meeting of the first Dominion Parliament.
1868. July 31, The Rupert's Land Act authorizing the acquisition by Canada of the Northwest Territories.
1869. First negotiations for union of Newfoundland with Canada end in failure. June 22, Act providing for the government of the Northwest Territories. Nov. 19, Deed of surrender to the Crown of the Hudson's Bay Company's territorial rights in the Northwest. Outbreak of the Red River Rebellion under Riel.
1870. May 12, Act to establish the Province of Manitoba. July 15, Northwest Territories transferred to Canada and Manitoba admitted into Confederation. Aug. 24, End of Red Riyer Rebellion.
1871. Apr. 2, First Dominion Census: population 3,689,257. Apr. 14, Act establishing uniform currency in Canada. May 8, Treaty of Washington signed. July 20, British Columbia entered Confederation. The Canadian Government undertook to begin construction of a transcontinental railway within two years and to complete it within ten years.
1872. June 14, Canadian Pacific Railway general charter passed by the Canadian Parliament authorizing construction of a transcontinental line by a private company.
1873. May 23, Act establishing the North West Mounted Police (R.C.M.P.). July 1, Prince Edward Island entered Confederation.
1874. May 26, The Dominion Elections Act. Population of Newfoundland and Labrador, 161,374.
1875. Apr. 8, The Northwest Territories Act establishing a Lieutenant-Governor and a Northwest Territories Council. AprilMay, Work on the Canadian Pacific Railway as a Government line begun at Fort William.
1876. June 1, Opening of the Royal Military College, Kingston. June 5, First sitting of the Supreme Court of Canada. July 3, Opening of the Intercolonial Railway from Quebec to Halifax.
1877. October, First wheat exported from Manitoba to the United Kingdom.
1878. July 1, Canada joined the International Postal Union.
1879. May 15, Adoption of a , protective tariff ("The National Policy").
1880. May 6, First meeting and exhibition of the Royal Canadian Academy of Arts. May 11, Sir A. T. Galt appointed first Canadian High Commissioner at London. Sept. 1, All British possessions in North America and adjacent islands (except Newfoundland and its dependencies)
annexed to Canada by Imperial Order in Council of July 31. Oct. 21, Signing of contract with the present Cansdian Pacific Railway Company for the oompletion of the Canadian Pacific Railway.
1881. Apr. 4, Second Dominion Census: population 4,324,810. May 2, First sod turned for Canadian Pacific Railway as a company line.
1882. May 8, Provisional District of Assiniboia, Saskatchewan, Athabaska and Alberta formed. May 25, First meeting of the Royal Society of Cansda. Aug. 23, Regina established as seat of government of the Northwest Territories.
1854. Aug. 11, Settlement of the boundary of Ontario and Manitoba.
1885. Mar. 26 - May 16, Riel's second rebellion in the Northwest. Apr. 24, Engagement at Fish Creek. May 2, Engagement at Cut Knife. May 12, Taking of Batoche. May 16, Surrender of Riel. July 20, The Electoral Franchise Act. Nov. 7, Last spike of Canadian Pacific Railway main line driven at Craigellachie, B.C. Nov. 16, Execution of Riel.
1856. June 13, Vancouver destroyed by fire. June 28, First through train of the Canadian Pacific Railway left Montreal for Port Moody. July 31, Census of Manitoba: population 108,640 .
1887. Interprovincial Conference at Quebec. Apr. 4, First Colonial Conference at London. Apr. 16, Welland Canal opened for navigation.
1890. Mar. 31, The Manitoba School Act abolishing separate schools.
1891. Apr. 5, Third Dominion Census: population 4,833,239. June 6, Death of Sir John A. Macdonald.
1892. Feb. 29, Washington Treaty, providing for arbitration of the Bering Sea Seal Fisheries question. July 22, Boundary Convention between Canada and United States. Fire destroyed the greater part of St. John's. Newfoundland; $\$ 20,000,000$ damage.
1894. June 28, Second Colonial Conference at Ottawa.
1895. Sept. 10, Opening of new Sault Ste. Marie Canal. Second confederation talks of Canada and Newfoundland fail.
1896. August, Gold discovered in the Klondyke. Railroad completed across Newfoundland from St. John's to Port aux Basques.
1897. June 22, Diamond Jubilee of Queen Victoria. July, Third Colonial Conference at London. Dec. 17, Award of Bering Sea Arbitration Court.
1898. June 13, The Yukon District established as a separate Territory. Aug. 1, British Preferential Tariff came into force. Aug. 23, Meeting at Quebec of the Joint High Commission between Canada and the United States. Dec. 25 , Imperial penny (2-cent) postage introduced.
1809. Oct. 11, Outbreak of the South African War. Oct. 29, First Canadian Contingent left Quebec for South Africa.
1900. Feb. 27, Battle of Paardeberg. Apr. 26, Great fire at Ottawa and Hull.
1901. Jan. 22, Death of Queen Victoria and accession of King Edward VII. Apr. 1, Fourth Dominion Census: population $5,371,315$. Sept. 16-Oct. 21, Visit to Canada of the Duke and Duchess of Cornwall and York. Dec. 12, First transatlantic wireless signal received by Marconi at St. John's, Newfoundland. Population of Newfoundland and Labrador, 220,984 .
1902. May 31, Peace signed at Vereeniging ending the South African War. June 30, Fourth Colonial Conference at London.

December, First message sent by wireless from Canada to the United Kingdom via Cape Breton, N.S.
1903. Jan. 24, Signing of the Alaskan Boundary Convention. Oct. 20, Award of the Alaskan Boundary Commission.
1904. Feb. 1, Dominion Railway Commission established. Apr. 19, Great fire at Toronto. Oct. 8, Incorporation of Edmonton. An Anglo - French Convention settled the question of shore rights for French fishermen. France surrendered these rights in return for cash indemnities and territorial concessions in Africa.
1905. Sept. 1, Creation of the Provinces of Alberta and Saskatchewan.
1906. Roald Amundsen, in the schooner Gjoa, arrived at Nome, Alaska, the first completed traverse of the North - West Passagè. June 24, First separate census of the three Prairie Provinces: population 808,646. Oct. 8, Interprovincial Conference at Ottawa.
1907. Apr. 15-May 14, Fifth Colonial Conference at London. Oct. 17, Transatlantic wireless open for public service. Dec. 6, First recorded passenger flight in Canada of a heavier - than - air machine (Dr. Graham Bell's tetrahedral kite, Cygnet).
1908. Jan. 2, Establishment at Ottawa of a branch of the Royal Mint. July 20-31, Quebec tercentenary celebrations. Visit of George, Prince of Wales, to Quebec.
1909. Jan. 11, Signing of International Boundary Waters Convention between Canada and United States. Feb. 23, First flight in British Empire of a heavier - than - air machine under its own power, piloted by a British subject (McCurdy's Silver Dart at Braddock's Bay, N.S.).
1910. May 6, Death of King Edward VII. Accession of King George V. Sept. 7, North Atlantic Coast Fisheries Arbitration Award of The Hague Tribunal defining United States fishing rights. Trade agreements made with Germany, Belgium, Holland and Italy. Oct. 11, Inauguration at Berlin (now Kitchener) of Ontario Hydro-Electric Power Commission's transmission system.
1911. May 23 - June 20, Imperial Conference at London. June 1, Fifth Dominion Census: population $7,206,643$. Population of Newfoundland and Labrador 242,619.
1912. Mar. 29 - Apr. 9, First Canada-West Indies Trade Conference 'held at Ottawa. Appointment of Dominions Royal Commission. May 15, Boundaries Extension Act settling boundaries of Quebec, Ontario and Manitoba.
1914. Aug. 4, War with Germany; Aug. 12, with Austria - Hungary; Nov. 5, with Turkey. Aug. 18-22, Special war session of Canadian Parliament. Oct. 16, First Canadian Contingent of over 33,000 troops landed at Plymouth, England.
1915. February, First Canadian Contingent landed in France and proceeded to Flanders.
1916. Jan. 12, Number of Canadian troops increased to 500,000 . Feb. 3, Destruction by fire of the Houses of Parliament at Ottawa. June 1, Census of Prairie Provinces: population $1,698,137$. Sept. 1 , Corner-etone of new Houses of Parliament laid by Duke of Connaught.
1917. Feb. 12-May 15, Imperial Conference. Mar. 20-May 2, Meetings at London of Imperial War Cabinet. Mar. 21-Apr. 27, Imperial War Conference. Sept. 20, Parliamentary franchise in Federal elections extended to women. Dec. 6, Serious explosion at Halifax, N.S.
1918. June-July, Imperial War Conference held at London. Sept. 30, Bulgaria surrendered and signed armistice. Oct. 31, Turkey surrendered and signed armistice. Nov. 4, Austria - Hungary surrendered and signed armistice. Nov. 11, Capture of Mons. Germany surrendered. Armistice signed.
1919. Feb. 17, Death of Sir Wilfrid Laurier. June 28, Signing at Versailles of Peace Treaty and Protocol. Aug. 22, Formal opening of Quebec Bridge by Edward, Prince of Wales. Sept. 1, The Prince of Wales laid foundation stone of Peace Tower, Parliament Buildings, Ottawa. Dec. 20 , Organization of Canadian National Railways.
1920. Jan. 10, Ratification of the Treaty of Versailles. May 31 - June 18, Trade Conference at Ottawa between Canadian and West Indian Governments. July 16, Ratification of the Treaty of St. Germain-en-Laye. Aug. 9, Ratification of the Treaty of Neuilly-sur-Seine. Nov. 15, First meeting of League of Nations Assembly began at Geneva, Switzerland
1921. May 10. Preferential tariff arrangement with British West Indies became effective. June 1, Sixth Dominion Census: population 8,787,949. June 20-Aug. 5, Imperial Conference. Nov. 11, Opening of Conference on Limitation of Armament at Washington. Population of Newfoundland and Labrador, 263,033.
1922. Feb. 1, Arms Conference at Washington approved five - power treaty limiting capital ships and disapproving unrestricted submarine warfare and use of poison gas. Apr. 10, General Economic Conference at Genoa, Italy. July 13, Conference between Canada and the United States re perpetuating the RushBagot Treaty regarding armament on the Great Lakes. Aug. 7, Allied Conference on war debts and reparations opened at London. Dec. 9, Reparations Conference opened at London.
1923. Oct. 1, Imperial Conference and Economic Conference at London. Newfoundland railway and subsidiaries taken over by the Government of Newfoundland.
1926. June 1, Census of Prairie Provinces: population 2,067,393. Oct. 19-Nov. 23, Imperial Conference at London. Nov. 26. Hon. C. Vincent Massey appointed first Envoy Extraordinary and Minister Plenipotentiary to the United States.
1927. Mar. 1, Labrador Boundary Award by the Privy Council. June 1, Hon. Wm. Phillips, first U.S. Minister to Canada, reached Ottawa. July 1-3, Diamond Jubilee of Confederation celebrated throughout Canada. Oct. 4, First air-mail service in Canada. November, DominionProvincial Conference at Ottawa.
1928. Apr. 25. Sir Wm. H. Clark appointed first British High Commissioner to Canada. May 31, Legislative Council of Nova Scotia ceased to exist, leaving. Quebec the only province with a bicameral legislature.
1929. Dec. 14, Transfer of natural resources by Federal Government to Manitoba and Alberta.
1930. Feb. 20, Transfer of natural resources to British Columbia. Mar. 20, Transfer of natural resources to Saskatchewan. Oct. 1, Imperial Conference at London.
1931. June 1, Seventh Dominion Census: population $10,376,786$. Dec. 12, Statute of Westminster became effective, establishing complete legislative equality of the Parliament of Canada with that of the United Kingdom and exempting

Canada and the Provinces from the operation of the Colonial Laws Validity Act and the Merchant Shipping Act.
1932. July 21 - Aug. 20, Imperial Economic Conference at Ottawa. Aug. 6, Official opening of the Welland Ship Canal.
1933. Jan. 17-19, Dominion-Provincial Conference. Newfoundland in financial straits owing to the depression; British Government asked to appoint a Royal Commission to investigate and make recommendations.
1934. Jan. 30, Newfoundland constitution suspended; a Commission of Government took office Feb. 16. August, Celebration at Gaspe of the 400th anniversary of the first landing of Jacques Cartier.
1935. Mar. 11, Bank of Canada commenced business. Dec. 9, Dominion - Provincial Conference at Ottawa; Naval Limitation Conference at London.
1936. Jan. 20, Death of King George V. Accession of King Edward VIII. June 1, Census of Prairie Provinces: population 2,415,545. July 26. Unveiling of Vimy Memorial in France by King Edward VIII. Dec. 11, Abdication of King Edward VIII and accession of King George VI.
1937. May 12, Coronation of King George VI. July 8, Imperial Airways flying boat Caledonia arrived at Montreal from Southampton, inaugurating the experimental phase of the Transatlantic Airways.
1938. Mar. 4, Unanimous judgments of the Supreme Court of Canada in favour of the Federal Government on the Alberta constitutional references. (See 1941 Year Book, p. 19, for further references to this subject.) Oct. 1, Occupation of Sudeten areas of Czechoslovakia by Germany. Nov. 17, Trade Agreement between Canada and United States signed at Washington.
1039. Mar. 14, Invasion of Czechoslovakia by Germany. May 17 - June 15, Visit of Their Majesties King George VI and Queen Elizabeth to Canada and the United States. Aug. 24, German-Soviet Russia mutual non-aggression treaty signed. Sept. 1, Poland invaded by Germany. Sept. 3, War with Germany declared by the United Kingdom and France. Sept. 10, Canada declared war upon Germany. Dec. 17, Canadian troops landed in United Kingdom. British Commonwealth Air Training Plan Agreement signed at Ottawa by United Kingdom, Canada, Australia and New Zea-
1940. Jan. 1, First municipal government in the Northwest Territories inaugurated at Yellowknife. Apr. 9, Germany invaded Denmark and Norway. Apr. 25, Quebec women granted franchise in provincial elections and enabled to qualify as candidates for the Legislature. June 22 , Armistice signed between France and Germany. Aug. 17-18, Conference on defences of the northern half of the Western Hemisphere held at Ogdensburg, N.Y.; Permanent Joint Board on Defence created.
1941. Canada and the United States acquired bases in Newfoundland by 99 -year lease. Jan. 14-15, Dominion-Provincial Conference, called to consider findings of Royal Commission on Dominion-Provincial Relations, terminated without agreement. June 11, Eighth Dominion Census: population. 11,506,655. June 22, Germany attacked Russia. July 13, Canada approved Anglo-Soviet treaty. Dec. 7, Japanese attack on Pearl Harbour.

Canada deolared state of war with Roumania, Hungary, Finland and Japan. Dec. 8, Britain and United States declared war on Japan. Dec. 11, Germsny, Italy and United States formally declared war.
1942. Jan. 2, Signing at Washington of joint declaration by 26 nations (including Canada), binding each to employ its full resources against the Axis Powers. July 3, Formation of Canada - United States joint naval, military and air staff at Washington. Aug. 19, Raid on Dieppe by Canadian troops supported by British, United States and Fighting French troops; Canadian casualties 3,350 out of 5,000 engaged. Nov. 9. Canada broke off relations with Vichy, France.
1943. Jan. 14-24, Prime Minister Churchill and President Roosevelt met at Casablanca to draft United Nations' war plans. Msy 12, Fighting ended in North Africa. July 10, British, Canadian and United States forces invaded Sicily. Aug. 10-24, Anglo-American War Conference held at Quebec city. Aug. 15, Canada and United States troops occupied Kiska Island in the Aleutians. Aug. 25, President Roosevelt visited Ottawa, the first official visit by a United States President to Canada's capital. Sept. 8, Unconditional surrender of Italy. Nov. 9, Canads signed UNRRA Agreement. Dec. 24, Gen. Dwight D. Eisenhower named Commander-in-Chief of Allied Forces for invasion of Europe.
1944. Mar. 20, Lt.-Gen. H. D. G. Crerar appointed to command the First Canadian Army. May 1-16, Conference of British Commonwealth countries at London, England. June 6, Allied invasion of Weatern Europe commenced. July 1-22, United Nations monetary and financial conference of 44 nations held at Bretton Woods, N.H., U.S.A. July 23, The 1st Canadian Army commenced operations in Normandy as a separate army. Sept. 11-16, Second Quebec Conference attended by Prime Minister Churchill and President Roosevelt. Sept. 16, Siegfried Line broken by Allied troops. The Government of Canada recognized the Provisional Government of the French Republic. Nov. 1-Dec. 7, International Civil Aviation Conference of 54 nations, including Canada, held at Chicago, U.S.A.
1945. Apr. 25-June 26, United Nations World Security Conference met at San Francisco to prepare a charter for a general international organization. May 2, The war in Italy and part of Austria ended. May 7, Unconditional surrender of the German Armed Forces. June 6, Establishment of Provisional International Civil Aviation Organization (P.I.C.A.O.) by 26 nations, including Canada. July 4, Canadian military troops entered Berlin as part of the British garrison force. July 26, The Potsdam Declaration issued by the Allied Powers. Aug. 6, First atomic bomb dropped at Hiroshima, Japan. Aug. 6-10, DominionProvincial Conference at Ottawa. Aug. 8, U.S.S.R. declared war against Japan. Aug. 9, Second atomic bomb dropped on the naval base of Nagasaki, Japan. Sept. 1, Japanese officials signed the terms of unconditional surrender. Oct. 16-Nov. 1, United Nations Food and Agriculture Organization Conference of 29 countries, including Canads, held at Quebec city. Dec. 17-28, U.K., U.S., and U.S.S.R. announced agreements on the

United Nations control of atomic power. Population of Newfoundland including Labrador, 321,819.
1946. Jan. 10-Feb. 15, First General Assembly of the United Nations held at London, England. Jan. 24, Establishment of Atomic Energy Commission upon which Canada is represented. Feb. 6, Judge John E. Read of Canada elected a Judge of the International Court of Justice for a 3-year term. Apr. 29, The Dominion-Provincial Conference (adjourned Aug. 10, 1945) resumed its sittings, and adjourned without an agreement. June 1, Census of Prairie Provinces: population 2,362,941. June 9, The Rt. Hon. W. L. Mackenzie King established record for length of service as Prime Minister of Canada. June 21, A National Convention elected in the Island of Newfoundland to consider the economic situation and future form of government. June - Sept., The National Convention delegation at Ottawa discuss the basis for federal Union of Newfoundland with Canada. July 29 - Oct. 15, Peace Conference at Luxembourg Palace, Paris, France, to study texts of treaty agreements drafted by Allied Foreign Ministers Council.
1947. Jan. 14, Canada elected to Economic and Social Council of United Nations. June, A delegation from the National Convention went to Ottawa to discuss union between Newfoundland and Canada. June 10-12, President Truman visited Ottawa. July 31, Canada represented at Imperial Privy Council meeting at London. England, for approval of marriage of Princess Elizabeth to Lieutenant Philip Mountbatten. Sept. 30, Canada elected to United Nations Security Council for two-year term. Nov. 20. Marriage of H.R.H. the Princess Elizabeth, Duchess of Edinburgh, and H.R.H. Prince Philip, Duke of Edinburgh at Westminster Abbey.
1948. Jan. 8, Gen. A. G. L. McNaughton appointed permanent delegate of Canada to the United Nations and Representative of Canada on the Security Council. The Rt. Hon. W. L. Mackenzie King established length-of-service record for any Prime Minister of The Commonwealth. July 22, Referendum in Newfoundland favoured confederation. Oct. 6-27, Representatives of Canada and Newfoundland met at Ottawa to discuss final arrangements for Newfoundland's entry into Confederation. Oct. 22, Judge John F. Read re-elected to International Court of Justice for a 9 -year term. Nov. 14, A son (Prince Charles Philip Arthur George) born to Princess Elizabeth and Prince Philip. Nov. 15, Governor General Viscount Alexander accepted the resignation of retiring Prime Minister The Rt. Hon. W. L. Mackenzie King. The Rt. Hon. L. S. St. Laurent became Prime Minister of Canada. Dec. 11, Agreement signed under which Newfoundland was to enter Confederation.
1949. Mar. 23, Royal Assent given to the North America Bill passed by the British Parliament for the union of Canada and Newfoundland. Mar. 31, Newfoundland became the tenth Province of Canada. Apr. 4, Canada signed the North Atlantic Treaty at Washington, D.C. Apr. 18, Ireland (Eire) became the Republic of Ireland. Apr. 28, India became a sovereign independent republic within
the Commonwealth. May 17, Canadian Government granted full recognition to Israel. May 27, First general election in Newfoundland as a Province of Canada. July 13, Opening of first Provincial Legislature of Newfoundland at St. John's. Aug. 24, Formal proclamation of North Atlantic Pact at Washington, D.C. Dec. 10, An amendment to the Supreme Court Act received Royal Assent, giving final authority in judicial matters to the Supreme Court of Canada. Dec. 12, Mrs. Nancy Hodges named Speaker of the British Columbia Legislature, the first woman to hold the office of Speaker in a Commonwealth legislature. Dec. 16. British North America Act amended by vesting in the Parliament of Canada the power to make amendments to the Constitution of Canada in federal matters.
1950. Jan. 9-14, Canada represented at Commonwealth Conference on Foreign Affairs at Colombo, Ceylon. Jan. 10-12, Federal - Provincial Conference held at Ottawa; Premiers of the ten provinces met with Prime Minister St. Laurent to discuss the question of constitutional amendments. Mar. 27, Formal agreement signed transferring to Ontario the Canadian water rights in the Niagara River. Apr. 1-3, Defence Ministers of 12 Atlantic Treaty powers at The Hague, The Netherlands, approved a collective plan of self-defence against aggression. AprilMay, Red River flood. May 1, Construction started on interprovincial oil pipe line from the Edmonton district to the head of Lake Superior. May 6, Disastrous fire at Rimouski, Que. May 9, Fire destroyed one-third of the village of Cabano, Que. May 29, The R.C.M.P. Supply Ship St. Roch, the first vessel to circumnavigate the Continent of North America, reached Halifax, N.S., through the Panama Canal to complete the voyage. June 25, Invasion of the Republic of Korea by North Korean forces. June 28, The United Nations Security Council issued a call to all 59 member nations for help to end the Korean conflict. July 6, United Nations Security Council set up a United Nations command. July 8, Gen. Douglas MacArthur appointed as Supreme Commander of the United Nations Security Council Forces. July 12, Three Canadian destroyers, H.M.C.S. Cayuga, Athabaskan and Sioux, arrived at Pearl Harbour with orders to proceed to Korea under operational command of Gen. MacArthur. July 19, A non-combatant R.C.A.F. transport squadron ordered to join the United States air-lift in Korea. Navy, Army and Air Force regular strength ordered brought up to operational strength. July 22, The Rt. Hon. William Lyon Mackenzie King died at Kingsmere, Que., at the age of 75 years. Aug. 1, R.C.M.P. took over policing of Newfoundland. Aug. 7, Decision announced to create a special Canadian armed force for the United Nations. Aug. 8, Agreement reached re emergency industrial mobilization at meeting of Joint United States - Canada Industrial Mobilization Planning Committee at Ottawa. Aug. 9, Brig. J. M. Rockingham, C.B.E.. D.S.O., of Victoria, B.C., to head Canada's United Nations brigade. Aug. 10, Fifty-year treaty between Canada and the United States re increase in power output of Niagara River put into effect by Niagara Power Pact
signed by United States Senate. Aug. 15, A daughter (Princess Anne Elizabeth Alice Louise) born to Princess Elizabeth and Prince Philip. R.C.M.P. took over policing of British Columbia. Air Service Pact signed by Canada and New Zealand, providing for direct carriage of traffic between the two countries. Aug. 22-30, First country-wide railway strike in Canada. Sept. 25-28, The Constitutional Conference of Federal and Frovincial Governments continued its meetings at Quebec city for the purpose of devising a method of amending the Canadian Constitution. Sept. 30, Government decision to free the exchange rate of the Canadian dollar announced. Oct. 10, Canada-United States power treaty re hydro developments at Niagara Falls ratified after approval by the Canadian Parliament (June 19, 1950) and United States Senate (Aug. 9, 1950). Oct. 26, Canada and United States signed an agreement setting out six economic principles for joint defence production. Oct. 28, Term of Governor General, Field Marshal Viscount Alexander, extended one year. Oct. 31, Completion of 1,100 -mile oil pipe line connecting Edmonton with Great Lakes. Nov. 1, Restrictions placed on consumer credit. Nov. 28, "Colombo Plan" to raise the living standards of Asiatic peoples and for development of south and southeast Asia during next six years announced; Canada one of the seven participating countries. Dec. 4-7, Federal - Provincial Conference met at Ottawa to discuss general questions of common concern to the Federal and Provincial Governments. Dec. 18, The 2nd Battalion of the Princess Patricia's Canadian Light Infantry, landed at Pusan, the first Canadian troops other than advance personnel to arrive in Korea. Dec. 18-19, Joint meetings of the North Atlantic Treaty Defence Committee and Council held at Brussels, Belgium.
1951. Jan. 4-12, Prime Ministers and Leaders of the Commonwealth countries met at London to discuss the defence policy of the Commonwealth. Canada was represented by Prime Minister The Rt. Hon. L. S. St. Laurent. Jan. 13, The first group of Royal Air Force aircrew trainees arrived by air at Dorval, Que. Jan. 22, The destroyer H.M.C.S. Huron placed under United Nations command. Jan. 30-31, The Rt. Hon. S. G. Holland, Prime Minister of New Zealand, visited Ottawa. Feb. 2-3, René Pleven, Premier of France, paid an official courtesy visit to Ottawa Feb. 5, A three - year $\$ 5,000,000,000$ defence program for the Armed Forces and the establishment of a National Advisory Council on manpower announced. Feb. 19, Canadian Government contribution of $\$ 25,000,000$ approved for the first year of the six-year Colombo Plan. Feb. 20, Second Battalion of the Princess Patricia's Canadian Light Infantry in front-line action in Korea. Feb. 21, The Council for Technical Cooperation of the British Commonwealth countries advanced program for the exchange of technical experts and training under Colombo Plan. Feb. 27, Canada posted Army officer with Supreme Allied Commander's staff, the first step in providing Canadian ground troops for Europe. Mar. 2, Federal Government announced $\$ 65,000,000$ payment to western farmers on United Kingdom
wheat agreement of 1946-50. Mar. 2, First Canadian casualty list from Korea -six dead. Mar. 9, Federal Parliament approved incorporation of Trans-Canada Pipe Line to build 3,100 -mile natural gas pipe line from Alberta to Montreal. Mar. 15, Report of the Royal Commission on Transportation tabled in the House of Commons. Mar. 20, Field Marshal Viscount Montgomery named Deputy Commander of Atlantic Treaty Army. Mar. 27, Agreement ratified between Canada and the United States providing for co-ordinated civil defence planning and action along the border between the two countries. Apr. 1 , Department of Defence Production established with the Rt. Hon. C. D. Howe as Minister. Apr. 2, Gen. Eisenhower took command of NATO forces in Europe. Apr. 5-8, Vincent Auriol, President of France, visited Canada and addressed the Senate and the House of Commons at Ottawa. Apr. 11, Lt.-Gen. Matthew B. Ridgway given Supreme Command of United Nations Forces in Korea, vice, Gen. Douglas MacArthur. Apr. 24, First shipment of oil from Alberta by pipe line and freighter flowed into storage tanks at Sarnia. May 1, Minister of National Defence announced that the 25th Canadian Infantry Brigade Group would join other Commonwealth forces in Korea as "The First (Commonwealth) Division, United Nations Forces". May 4, Minister of National Defence announced formation of 27th Canadian Infantry Brigade Group to serve in Europe with the NATO defence forces. Vanguard of 25th Canadian Infantry Brigade landed at Pusan, Korea. May 8, Trade agreements between Canada and 16 countries resulting from the Torquay meeting of the parties to the General Agreement on Tariffs and Trade in 1950-51, signed at U.N. headquarters. June 1, Report of the Royal Commission on National Development in the Arts, Letters and Sciences tabled in the House of Commons. Ninth decennial census of Canada taken. June 15, An amendment to the Northwest Territories Act provides for a partially elective council. July 10, Canads formally ended state of war with Germany by Royal Proclamation. Sept. 8, Japanese Peace Treaty signed by 48 nations at San Francisco: Hon. L. B. Pearson, Minister of External Affairs, signed for Cansda. Sept. 10 , Canada and Pakistan signed a technical assistance pact; Canads will provide technical and equipment aid amounting to $\$ 10,000,000$ in the first year of Pakistan's six-year development plan. Sept. 15-20, Meeting of the Council of NATO held at Ottawa. Sept. 17, First election held in the Northwest Territories. Sept. 23, His Majesty King George VI underwent operation for lung resection. Sept. 26, David M. Johnson appointed Canada's permanent representative to United Nations vice Gen. A. G. L. McNaughton. Sept. 28, International Monetary Fund lifted restrictions on the selling of gold. Oct. 8Nov. 12, Her Royal Highness the Princess Elizabeth and His Royal Highness the Duke of Edinburgh toured Canada. Oct. 18, Minister of National Defence announced Canadian Army and Air Force to maintain 12,000 officers and men on active service in Europe as part of Canada's undertaking under NATO. Oct. 26, Field Marshal Viscount

Alexander's term of office as Governor General of Canada extended. Nov. 15, First units of 27th Canadian Brigade arrived at Hanover, Germany. Dec. 3 , Agreement between Government of Canada and Government of Ontario signed re St. Lawrence power development; approved by Federal Parliament Dec. 8. Dec. 10, First session of the partially elected Council of the Northwest Territories opened at Yellowknife, N.W.T.; previous sessions of appointed Council held at Ottawa. Dec. 12, St. Lawrence Seaway Authority established by Act of Parliament and empowered to construct and maintain the seaway either as an all-Canadian undertaking or jointly with the United States. Dec. 14, Federal Government abolished all foreign exchange control regulations. Dec. 24, Libya became a new and independent kingdom by formal proclamation.
1952. Jan. 1, Old Age Security Act 1951, under which a universal pension is paid to persons aged 70 or over, became operative; also the Old Age Assistance Act 1951, providing pensions to needy persons aged 65 to 69 . Jan. 11-15, The Rt. Hon. Winston S. Churchill, Prime Minister of the United Kingdom, visited Ottawa. Jan. 28, Viscount Alexander's appointment as Governor General of Canada terminated. Feb. 6, His Majesty King George VI died; Her Majesty Queen Elizabeth II proclaimed Sovereign Ruler-Canada issued proclamation. Feb. 20-25, Ninth session of NATO Council, held at Lisbon, fixed 50 combat-ready divisions and 4,000 aircraft as two-year goal. Feb. 21, Treaty signed by Canada and the United States providing for greater safety and convenience for shipping on the Great Lakes by the use of radio. Feb. 28, The Rt. Hon. Charles Vincent Massey sworn in as Governor General of Canada, first native-born Canadian to hold that post. Apr. 21-28, Queen Juliana of The Netherlands visited Ottawa and vicinity. Apr. 28, Gen. Matthew Ridgway appointed Supreme Allied Commander in Europe. Gen. Mark W. Clark appointed United Nations Commander in Korea and Commander-in-Chief of the United States Armed Forces in the Far East. Treaty of Peace concluded at San Francisco between the Allied Powers and Japan (Sept. 8, 1951) came into force with respect to Canada. Full diplomatic relations resumed between Canada and Japan. May 5, All consumer credit restrictions suspended. June 22-26, Prime Minister of Australia, Rt. Hon. Robert Menzies, visited Ottawa. June 30, Application submitted by the Canadian Government to the International Joint Commission for an order approving the construction of works for the development of power in the international rapids section of the St. Lawrence River. July 12, Governments of Canada and Ceylon agreed to a program of economic aid to be supplied by Canada under the Colombo Plan. July 23-Aug. 9, International Red Cross Conference held at Toronto. Aug. 4, Fire in Parliamentary Library. Aug. 11-Sept. 13, Sixth British Commonwealth Forestry Conference held at Ottawa. Sept. 6, Canada's first television station officially opened at Montreal. Sept. 9-13, Biennial Conference of Commonwealth Parliamentary Association met at Ottawa. Sept. 8, Television station at Toronto officially
opened. Sept. 16, Second Session of the Statistical Division of ICAO (International Civil Aviation Organization) held at Montreal with G. A. Scott of the Transport Commission as head of the Canadian delegation. Sept. 29-Oct. 11, Second Session of the Committee on Improvement of National Statistics of the Inter-American Statistical Institute held at Ottawa; Herbert Marshall, Dominion Statistician, represented Canada. Oct. 14, Seventh Session of the United Nations General Assembly opened in New York; Hon. L. B. Pearson, Secretary of State for External Affairs, elected President. Oct. 23, Canada's new consumer price index, constructed to replace the cost of living index, was released. Oct. 29, International Joint Commission approves joint CanadaUnited States application for permission to develop St. Lawrence River power. Oct. 30, The 3rd Battalion of the Princess Patricia's Canadian Light Infantry arrived in Korea to replace the 1st Battalion. Nov. 4, Government of Canada advised the United States that it will commence construction of
the St. Lawrence seaway project. Nov. 21, Governor General Vincent Massey opened the Seventh Session of the 21st Parliament. Nov. 24, The first troops to return to Canada after serving one year with the 27 th Infantry Brigade in Germany arrived at Quebec aboard the Greek Lines passenger ship Neptunia. Nov. 27-Dec. 11, British Commonwealth Conference of Prime Ministers and their deputies met at London; Rt. Hon. L. S. St. Laurent represented Canada. Dec. 1-3, Dominion-Provincial Agricultural Conference held in Ottawa. Dec. 15-18, Council of Ministers of the North Atlantic Treaty Organization (NATO) held a Conference at Paris; Hon. Brooke Claxton, Minister of National Defence, was Canada's delegate. Dec. 15, George S. Currie Report on Investigation of the Army Works Services tabled in the House of Commons. Dec. 16, Admiral Earl Mountbatten appointed NATO Commander-in-Chief in the Mediterranean. Dec. 22, Prime Minister St. Laurent announced an Act providing for the construction of a National Library.

## APPENDIX I

## Redistribution of the Federal Parliamentary Constituencies, 1952

Results of the Census of 1951 necessitated a readjustment in the representation of the House of Commons pursuant to the provisions of the British North America Acts, 1867 to 1951 and a Bill (No. 8) was introduced by the Prime Minister on Mar. 10, 1952, entitled: "The Representation Act, 1952". This Bill was withdrawn on June 25, 1952.

Between these two dates the Committee on Redistribution recommended to the House the presentation of two Bills: (1) a Bill to amend the British North America Act to provide for new rules with regard to redistribution; and (2), a new Representation Bill which would be in accordance with those rules.

The British North America Act, 1952 (Bill 331) was introduced in the House on June 10, 1952, and received Royal assent on June 18, 1952. The Minister of Citizenship and Immigration, the Hon. Walter E. Harris, stated on its second reading: "The opportunity to amend the B.N.A. Act and our constitution by an act of this Parliament arose in 1949 by the passing of an address requesting the insertion in the B.N.A. Act of a clause which would permit the amendment of the constitution by an act of this Parliament".

The new Act (I Eliz. II, c. 15) repeals Sect. 51 of the British North America Act and substitutes therefor as follows:-
"Section 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:

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.
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 sisty-one shall by 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."

On June 27, 1952, the Hon. Walter E. Harris introduced Bill 393, an Act to readjust the Representation in the House of Commons. Royal assent was given on July 4 to the Representation Act, 1952 (I Eliz. II., c. 48). As a result of this legislation the total membership of the House of Commons was increased to 265 members, to be effective at the following General Election. The representation of the various provinces will be, according to Sect. 2 of the Act as follows:-

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

## APPENDIX II

## Provincial Governments

## 1.-Members of the Twenty-Second Ministry of New Brunswick, as at Dec. 1, 1952

(Party standing at latest General Election, Sept. 22, 1952: 36 Conservatives, 16 Liberals.)

| Office | Name |
| :---: | :---: |
| Premier and Minister of Public Works. | Hon. Hugh John Flemming |
| Attorney General. | Hon. Whliam J. West |
| Provincial Secretary-Treasurer | Hon. D. D. Patterson |
| Minister of Agriculture. | Hon. C. B. Sherwood |
| Minister of Health and Social Services. | Hon. J. F. McInerney |
| Minister of Lands and Mines. | Hon. N. B. Buchanan |
| Minister of Education and Municipal Affairs................... | Hon. Claude D. Taylor |
| Minister of Labour. | Hon. Arthur E. Skaling |
| Minister of Industry and Development..................... | Hon. J. Roger Piceette |
| Minister without Portfolio and President of the Executive Council. | Hon. T. Babbitt Parlee |
| Minister without Portfolio and Chairman of the New Brunswick Electric Power Commission. | Hon. Edgar Fournier |

## 2.-Members of the Quebec Twentieth Ministry as at Dec. 1, 1952

(Party standing at latest General Election, July 16, 1952: 66 Union Nationale, 23 Liberals and 1 Independent.)

| Office | Name |
| :---: | :---: |
| Premier and President of the Executive Council. . | Hon. Maurice L. Duplessis |
| Minister of Finance. | Hon. Onégime Gagnon |
| Minister of Lands and Forests and of Hydraulic Resources. | Hon. John S. Bourque |
| Minister of Health. | Hon. J. H. Albiny Paquette |
| Minister of Municipal Affairs. | Hon. Bona Dussault |
| Minister of Colonization.... | Hon. J. D. Bégrn |
| Minister without Portfolio. | Hon. Antonio Elie |
| Minister of Agriculture. | Hon. Laurent Barré |
| Minister of Roads. | Hon. Antonio Talbot |
| Minister of Labour. | Hon. Antonio Barrette |
| Minister of Game and Fisheries. | Hon. Camile Pouliot |
| Minister of Public Works.. | Hon. Roméo Lorrain |
| Minister of Social Welfare and of Youth. | Hon. Jean-Paul Sauvé |
| Minister of Trade and Commerce. | Hon. Paul Beaulieu |
| Provincial Secretary. | Hon. Omer Côté |
| Minister of Mines. | Hon. C. Daniel French |
| Solicitor General. | Hon. Antoine Rivard |
| Minister without Portfolio. | Hon. Tancrède Labbé |
| Minister without Portfolio. | Hon. Arthur Leclerc |
| Minister without Portfolio.. | Hon. Jacques Miquelon |
| Minister without Portfolio. | Hon. Whfred Labbé |

## 3.--Members of the Eighth Ministry of Saskatchewan, as at Dec. 1, 1952

(Party standing at latest General Election, June 11, 1952: $\ddagger 2$ Co-operative Commonwealth Federation, 11 Liberals.)

| Office | Name |
| :---: | :---: |
| Premier, President of the Council and Minister of Co-operation and Co-operative Development. | Hon. Thomas C. Dovglas |
| Provincial Treasurer and Minister in Charge of Bureau of Publications, Queen's Printer's Office, Saskatchewan Government Purchasing Agency, Liquor Board and Saskatchewan Government Insurance Office.. | Hon. C. M. Fines |
| Attorney General and Minister in Charge of Local Government Board, Provincial Mediation Board and Administrator of Estates of the Mentally Incompetent's Office.... | Hon. J. W. Corman |
| Minister of Natural Resources. | Hon. J, H. Brockelbank |
| Minister of Highways and Transportation.. | Hon. J. T. Dovglas |
| Minister of Education. | Hon. W. S. Lloyd |
| Minister of Social Welfare and Rehabilitation. | Hon. J. H. Sturdy |
| Minister of Municipal Affairs. | Hon. L. F. McIntosh |
| Provincial Secretary, Minister of Labour and Minister in Charge of Workmen's Compensation Board, Minimum Wage Board and Labour Relations Board................... | Hon. C. C. Whlings |
| Minister of Agriculture | Hon. I. C. Nollet |
| Minister of Public Works and Telephones and Minister in Charge of the Power Commission. | Hon. J. A. Darling |
| Minister of Public Health and Minister in Charge of the Health Services Planning Commission. | Hon. T. J. Bentley |

## 4.--Members of the Eighth Ministry of Alberta, as at Dec. 1, 1952

(Party standing at latest General Election, Aug. 5, 1952: 52 Social Credit, 4 Liberal, 2 Co-operative Commonwealth Federation, 2 Progressive Conservatives, 1 Independent Social Credit.)

| Office | Name |
| :---: | :---: |
| Premier, Provincial Treasurer and Minister of Mines and Minerals. | Hon. E. C. Manning |
| Minister of Health and Public Welfare | Hon. W. W. Cross |
| Attorney General. | Hon. Lecien Maynard |
| Minister of Economic Affairs and Minister of Public Works.... | Hon. А. Ј. Ноoke |
| Minister of Municipal Affairs and Provincial Secretary........ | Hon. C. E. Gerhart |
| Minister of Lands and Forests.............................. | Hon. Ivan Casey |
| Minister of Industries and Labour | Hon. J. L. Robinson |
| Minister of Agriculture. | Hon. D. A. Ure |
| Minister of Railways and Telephones and Minister of Highways | Hon. G. E. Taylor |
| Minister of Education. | Hon. A. C. Aalborg |

## 5.-Members of the Twenty-Fifth Ministry of British Columbia as at Dec. 1, 1952

(Party standing at latest General Election, June 12, 1952: 19 Social Credit, 18 Co-operative Commonwealth Federation, 6 Liberal, 4 Progressive Conservative, 1 Labour.)

| Office | Name |
| :---: | :---: |
| Premier and President of the Council. | Hon. William Andrew Cecil Bennett |
| Provincial Secretary and Minister of Municipal Affairs. | Hon. Wesley Drewett Black |
| Attorney General. | Hon. Robert Whliam Bonner |
| Minister of Lands and Forests and Minister of Mines. | Hon. Robert Edward Sommers |
| Minister of Finance. | Hon. Einar Maynard Gunderson |
| Minister of Agriculture. | Hon. Whllam Kenneth Kiernan |
| Minister of Public Works. | Hon. Philip Arthur Gaglardi |
| Minister of Railways, Minister of Trade and Industry and Minister of Fisheries. | Hon. William Ralph Talbot Chetwynd |
| Minister of Labour | Hon. Lyle Wicks |
| Minister of Education. | Hon. Thly J. Rolston |
| Minister of Health and Welfare | Hon. Eric Charles Fitzgerald Martin |

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[^0]:    * Prepared by the Director of the Economic Division, Department of Trade and Commerce, Ottawa.

[^1]:    ${ }^{1}$ These are intercensal estimates adjusted after the 1951 Census. ${ }^{2}$ Exclusive of the Territories.
    ${ }^{3}$ Exclusive of Newfoundland. 6 Year ended Mar. 31 . ${ }^{6}$ By place of occurrence prior to 1041; by place of rethenee 1041-50. ©For reporting hospitals only; private and federal hospitals excluded. 7 Figares

[^2]:    ${ }^{1}$ All types of educational institutions. changes in classification, (see D.B.S. Survey of Production, 1958-1950). ${ }^{5}$ Exclusive of Newfoundland. ${ }^{6}$ Figures for the decennial census years 1871-1 Exclusive of the Territories. years; those for 1871 are for the four original provinces only. ${ }^{7}$ Cwt. ${ }_{-1}{ }_{8}$ Includes other field crops e.g., rye and flaxseed, not included above.
    ${ }^{9}$ On farms only.
    ${ }^{10}$ Figures for the decennial census years

[^3]:    1831-1921 are for the next 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 . ${ }^{11}$ Data shown for 1949-51 represent cheddar and other cheese made from whole milk; prior to 1942 the figures included other cheese for Quebec only. ${ }^{2}$ Fiscal years prior to 1931 .

[^4]:    ${ }^{1} 1876 . \quad 21875 . \quad{ }^{3}$ Duplication eliminated. $\quad{ }^{4}$ Fiscal years. ${ }^{6}$ Fiscal year prior to 1941. ${ }^{6}$ In foreign service, which includes sea-going and inland international after $1936 .{ }_{8}{ }^{7}$ Prior to 1941, Temiskaming and Northern Ontario Railway Commission excluded. ${ }^{8}$ As at June 30.

[^5]:    ${ }^{9}$ Excludes rural lines in Saskatchewan.
    ${ }^{11}$ Estimated on intercensal survey.

[^6]:    ${ }^{1}$ Census figures for calendar years 1930 and 1940, respectively.
    ${ }^{2}$ Includes Newfoundland.
    ${ }^{3}$ Fiscal years prior to 1921 . Copper, fine, contained in ore, matte, regulus, etc.

[^7]:    ${ }^{1}$ Active assets only. $\quad{ }^{2}$ Fiscal year ended nearest Dec. 31 of the year stated. ${ }^{3}$ Not comparable with later years. As at June 30 from 1871 to 1901. Monthly averages from 1911 to 1951.
    ${ }^{5}$ Includes

[^8]:    * Revised by the Geographical Branch, Department of Mines and Technical Surveys, Ottawa.
    $\dagger$ Taken from the United Nations Statistical Year Book, 1949-50.

[^9]:    ${ }^{1}$ Total includes 463 sq. miles in U.S.A.

[^10]:    ${ }^{1}$ Areas are approximate and are exclusive of those portions of the basins of all rivers that lie in United States territory.

[^11]:    ${ }^{2}$ This peak is on the interprovincial boundary between Alberta and British Columbia. $\quad{ }^{2}$ This peak is on the interprovincial boundary between British Columbia and Alaska. ${ }^{3}$ All the listed peaks

[^12]:    
    

[^13]:    ${ }^{1}$ Excludes the coast of Labrador.
    ${ }^{2}$ Does not add to total for Canada due to fractions of sq. miles. ${ }^{3}$ Includes the Gatineau Park ( 50 sq. miles) and the Quebec Battlefields Park ( 0.36 sq . miles) which are under federal jurisdiction but which are not technically National Parks. ${ }^{4}$ Less than 1 sq. mile. 5 Includes 952,849 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. cludes Wood Buffalo Park ( 13,675 sq. miles) which, although reserved by the Federal Government, is not administered as a National Park. ${ }_{7}$ That portion of Wood Buffalo Park in N.W.T. ${ }^{\text {E }}$ Includes 1,392 sq. miles of unsurveyed lands-Provincial Park areas.

[^14]:    ${ }^{1}$ Not including area of Gatineau Park, 50 sq. miles in extent (see p. 33). Lac La Ronge unsurveyed lands, 1,392 sq. miles in extent.

[^15]:    ${ }^{1}$ Excludes 16 small parks which are mainly of local interest (see pp. 26-27 of the 1950 Year Book)

[^16]:    ${ }^{1}$ Excludes 31 parks which are mainly of local interest (see pp. 27-30 of the 1950 Year Book).

[^17]:    * Revised by the Federal District Commission, Ottawa.
    $\dagger$ See p. 83 for history, organization and activities of the Commission.

[^18]:    * Revised by the Canadian Wildlife Service, Department of Resources and Development.

[^19]:    * Prepared under the direction of Major-General R. A. Young, Deputy Minister, Department of Resources and Development, by Victor E. F. Solman, Ph.D., Chief Biologist, Canadian Wildlife Service.

[^20]:    * Extracts from the Angler's Guides for the Mountain, Prairie, and Eastern National Parks.

[^21]:    * See the collection of constitutional documents entitled British North America Act and Amendments, 1867-1948 (King's Printer, 1948, Ottawa) for some of these laws. A recent and important addition is 13 Geo. VI, c. 37, which gives the Supreme Court of Canada the exclusive ultimate appellate civil and criminal jurisdiction in Canada and abolishes appeals to the Privy Council in London, England.
    $\dagger$ See the collection of cases before the Juridical Committee of the Privy Council in three volumes: Cameron, The Canadian Constitution (Butterworth, 1915, Winnipeg); Cameron, The Canadian Constitution, Vol. II (Carswell, 1930, Toronto); and Plaxton, Canadian Constitutional Decisions (King's Printer, 1939,
    Ottawa).
    $\ddagger$ See pamphlet entitled Letters Patent constituting the Office of Governor General in Canada, effective October 1, 1947, with Appendices (King's Printer, 1947, Ottawa).

[^22]:    *For the power of the Federal Parliament to amend the constitution of Canada, see 'The British North America (No. 2) Act, 1949', printed in VoI. II of the Statutes of Canada for 1949.

[^23]:    * Brought up to Mar. 31. 1952; Federal Government appointments made between that date and the closing off of the volume for press appear in the Annual Register at the end of this publication.

[^24]:    ${ }^{1}$ As in the case of Privy Councillors of the United Kingdom, 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.

[^25]:    ${ }^{1}$ Successful candidate. ${ }^{2}$ Population figures based on the 1945 Census of Newfoundland
    ${ }^{2}$ Each elector could vote for two candidates. $\quad$ Died Sept. 30, 1950, see Table 10 for byelection.

[^26]:    ${ }^{1}$ Successful candidate. $\quad{ }^{2}$ Election declared void Feb. 23, 1950, see Table 10 for by-election. p. 59. ${ }^{3}$ Each elector could vote for two candidates. ${ }^{4}$ Appointed to the Senate, May 2, 1950, see Table 10 for by-election. ${ }^{5}$ Resigned Mar. 5 , 1952. appointed Judge to the Supreme Court of ${ }_{7}$ New Brunswick. Seat vacant at Mar. 31, $1952 . \quad{ }^{6}$ Died Aug. 29, 1949, see Table 10 for by-election. ${ }^{7}$ Died Jan. 3, 1952. Seat vacant at Mar. 31, $1952 .{ }^{8}$ Died Jan. 27, 1952. Seat vacant at Mar. 31, 1952. 9 Appointed Clerk of the House of Commons Aug. 16, 1949, see Table 10 for by-election. ${ }^{10}$ Resigned June 23, 1950, to become Leader of the Quebec Provincial Liberal Party, see Table 10 for by-election. ${ }^{11}$ Appointed to Superior Court at Quebec, Aug. 24, 1949, see Table 10 for by-election.

[^27]:    ${ }^{1}$ Successful candidate.
    ${ }^{2}$ Died July 25, 1950, see Table 10 for by-election.
    ${ }^{3}$ Died Mar. 15 ,
    1950, see Table 10 for byelection. Appointed to Superior Court at Montreal, Aug. 24, 1949, see Table 10 for by election. SAppointed to Court of King's Bench at Montreal, Aug. 24, 1919, see Table 10 for by-election. ${ }^{6}$ Appointed to Superior Court at Montreal, Aug. 24, 1949, see Table 10 for by-election. ${ }^{2}$ Resigned, appointed Puisne Judge of the Court of Queen's Bench at Quebec, Feb. 13, 1952. Seat vacant at Mar. 31, $1952 . \quad{ }^{8}$ Resigned Aug. 23, 1950, appointed Lieutenant-Governor of Quebec, see Table 10 for by-election.

[^28]:    ${ }^{1}$ Successful candidate.
    ${ }^{2}$ Appointed to the Supreme Court of Ontario, Jan. 18, 1950, see Table 10 for by-election. ${ }^{3}$ Resigned Oct. 9, 1951, to become Leader of the Ontario Provincial Liberal Party. Seat vacant at Mar. 31, 1952.

[^29]:    ${ }^{1}$ Successful candidate.
    Seat vacant at Mar. 31, 1952.
    ${ }^{2}$ Resigned Jan. 24, 1952. Appointed Lieutenant-Governor of Ontario. ${ }^{4}{ }^{3}$ Died Mar. 19, 1951, see Table 10 for by-election. Aug. 1, 1950, see Table 10 for by-election. ${ }^{2}$ Died' Feb. 6, 1950, see Table 10 for by-election.
    ${ }^{6}$ Died Aug. 21, 1949, see Table 10 for by-election.
    ${ }^{7}$ Died Nov. 24, 1950, see Table 10 for by-election.
    ${ }^{3}$ Resigned Apr. 30, 1951, see Table 10 for by-election.

[^30]:    ${ }^{1}$ Each voter in the double-member constituency of Queens County, P.E.I., had two votes; in 1949, 25,505 voters on the list cast 41.627 votes
    ${ }^{2}$ Each voter in the double-member constituency of Halifax, N.S., had two votes; in 1949, 90,803 voters on the list cast 114, 201 votes.
    ${ }^{3}$ Yukon-Mackenzie River Constituency includes part of Northwest Territories.

[^31]:    ${ }^{1}$ 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 $112,000 \mathrm{sq}$. miles of territory (formerly considered as part of Quebec) was assigned to Newfoundland.
    ${ }^{2}$ Extended by the Extension 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, Athabaska, 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.
    ${ }^{6}$ Established as a provisional District in the Northwest Territories in 1895 and proclaimed the Yukon Judicial District on Aug. 16, 1897; was separated from the Northwest Territories and constituted the Yukon Territory in June 1898.

    - Rupert's Land, acquired under the Rupert's Land Acts 1867-68, and the undefined Northwestern Territory were transferred by the Imperial Government to be admitted into union with Canada as the North West Territories by Order in Council June 23, 1870 (effective July 15, 1870). The Northwest Territories were defined by the Northwest Territories Amendment Act, 1905, as that part of Rupert's Land and Northwestern Territory except such portions thereof as form Manitoba, Saskatchewan, Alberta, the District of Keewatin and Yukon Territory. In 1912, part of Rupert's Land (the District of Ungava) was annexed to Quebec and the remainder, south and west of James and Hudson Bays as far north as the 60th parallel, to Ontario and Manitoba.
    ${ }^{7}$ Established as provincial Districts in 1895.
    ${ }^{8}$ The District of Keewatin, created in 1876, was withdrawn from the Government of the Northwest Territories until July 24, 1905, when it was enlarged by those portions of the Districts of Saskatchewan and Athabaska not included in the Province of Saskatchewan and placed under the jurisdiction of the reorganized Northwest Territories.

[^32]:    *A 1951 amendment to the Yukon-Act ( 15 Geo. VI c. 23) proclaimed in August 1952, provides for five elective members on the Council.

[^33]:    * Prepared in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

[^34]:    - Municipalities are summarized by type of organization on p. 80.

[^35]:    * Commissions constituted under Part I of the Federal Inquiries Act.

[^36]:    * Compiled from information supplied by the respective Departments. See Chap. XXVII,'Part IV, for current legislation.

[^37]:    1 The Minister of the Department of Resources and Development administers the National Film Act, 1950, c. 44, but the Board is not a unit of that Department.
    ${ }_{2}$ Not included in Revised Statutes of 1927 .

[^38]:    ${ }^{1}$ Administered by the Minister of Resources and Development through the Central Mortgage and Housing Corporation. ${ }_{2}$ The Secretary of State administers the Civil Service Commission Act, R.S.C. 1927, c. 22, with amendments, but the Commission is not a unit of that Department.

[^39]:    ${ }^{1}$ The Canadian Broadcasting Act, 1936, c. 24, as amended, is administered by the Minister of Transport but the CBC is not a unit of that Department. ${ }^{2}$ The Pension Act and the Civilian War Pensions and Act by the War Veterans' Allowance Board.

[^40]:    *Text revised by M. M. Maclean, Secretary of the Civil Service Commission of Canada, and statistics prepared in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

[^41]:    ${ }^{1}$ Includes living allowances. $\quad{ }^{2}$ Salaries of aides-de-camp are included but not their number.
    ${ }^{2}$ No salaries reported due to adjustments for year. $\quad{ }^{2}$ Does not add due to adjustments of $\$ 2,158$.

[^42]:    ${ }^{1}$ Statistics do not include the numbers of revenue postmasters earning less than $\$ 3,000$. It should also be noted that Post Office expenditures are balanced by receipts from the public. ${ }^{2}$ Total only for 1950 as branches are not comparable with 1951 . ${ }^{8}$ Salaries for this office are paid out of their administration funds and not out of parliamentary funds.

[^43]:    * Prepared in the Department of External Affairs by F. H. Soward.

[^44]:    * It should be noted that Sir Robert and his Canadian colleagues were also members of the British Empire delegation, thus giving Canada double representation at the Conference. It was largely through that delegation that Canada's influence was exercised at Paris.

[^45]:    ${ }^{1}$ Revised as at July 31, 1952.
    ${ }^{2}$ For High Commissioners and Chargé d'Affaires ad interim, this date is the date of assumption of duties.

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[^46]:    - Prepared with the co-operation of the Department of External Affairs, Ottawa.

[^47]:    - Article 1 further makes clear that the Treaty does not conflict with the United Nations Charter but rather supplements it.

[^48]:    *Obtainable from the Queen's Printer, Ottawa.

[^49]:    * This Chapter has been revised in the Census (Demography) Division, Dominion Bureau of Statistics.

[^50]:    ${ }^{1}$ Based on estimates. $\quad{ }^{2}$ Calculated on the basis of $2,003,319 \mathrm{sq}$. miles which excludes the land area of Newfoundland. $\quad{ }^{2}$ Includes Newfoundland. ${ }^{4}$ Total includes 485 members of the Royal Canadian Navy recorded separately in 1921 . $\quad$ Calculated on the basis of $3,462,103$ sq. miles which excludes the land area of Newfoundland.

[^51]:    ${ }^{1}$ Newfoundland not included.

[^52]:    ${ }^{1}$ Census taken by the Newfoundland Government in 1945; 1941 figures not available.

[^53]:    ${ }^{1}$ Includes 485 members of the Royal Canadian Navy who were recorded separately in 1921. ${ }^{2}$ Total does not include Newfoundland. ${ }^{2}$ Figures for N

[^54]:    ${ }^{1}$ Exclusive of the Yukon and Northwest Territories. subject to adjustment as later data are made available.

[^55]:    ${ }^{1}$ Includes Republic of Ireland in 1931 and 1911. cludes Denmark, Iceland, Norway and Sweden.
    ${ }^{2}$ Includes Lithuania and Ukraine. ${ }^{\mathbf{3}}$ In-
    ${ }^{4}$ Includes Austria, Czechoslovakia, Hungary, Yugoslavia, Poland and Roumania. "Includes "birthplace not stated".

[^56]:    * Prepared under the direction of Laval Fortier, Deputy Minister, Department of Citizenship and Immigration. This material brings up to date the more detailed review given in the 1951 Year Book, pp. 1125-1133.

[^57]:    ${ }^{1}$ Includes areas under water and waste land.

[^58]:    ${ }^{1}$ Civilian population only. $\quad{ }^{2}$ Excludes Fezzan which is under French military occupation. ${ }^{3}$ Includes the Princely States of Hyderabad and Kashmir-Jammu. 4 Includes Christmas Island and Cocos-Keeling Islands. 8 Excluding full-blooded aborigines, estimated at 47,000 in 1944. - Including Phoenix Island group.
    ${ }^{7}$ Estimated population 130 in 1950.

[^59]:    ${ }^{*}$ Revised in the Immigration Branch under the direction of Laval Fortier, Deputy Minister, Department of Citizenship and Immigration.

[^60]:    ${ }^{1}$ Figures do not include U.S.A. citizens who have entered Canada on permits and have applied for permission to remain in the country. Total U.S.A. immigrants arriving in Canada given in Table 2, p. 166, include this class.

    ## ${ }^{2}$ Estimated.

    ${ }^{3}$ Including Newfoundland.

[^61]:    * Prepared in the Canadian Citizenship Branch under the direction of Laval Fortier, Deputy Minister, Department of Citizenship and Immigration.

[^62]:    * Persons in the above category were automatically restored to British nationality by the British Nationality Act. 1948.
    $\dagger$ The forergn countries, under the laws of which a woman does not acquire the citizenship of such countries on marriage, are: Argentina, Brazil, Chile, Colombia, Ecuador, Guatemala, Morocco, Palestine, Panama, Paraguay and Uruguay.

[^63]:    *Revised in the Vital Statistics Section, Health and Welfare Division, Dominion Bureau of Statistics.

[^64]:    ${ }^{1}$ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

[^65]:    ${ }^{1}$ Under one year of age. ${ }^{2}$ Figures for Newfoundland are not included in this total except for the years 1949 and 1950.

[^66]:    ${ }^{1}$ As at the 1941 Census. of the period.
    ${ }^{2} 1945$ Census of Newfoundland.
    ${ }^{2}$ Not available for one year

[^67]:    ${ }^{1}$ These figures or percentages are of the children whose fathers and mothers were born in the same country. The difference between this figure and the total number of births represents the number of children whose parents were born in different countries.

[^68]:    ${ }^{1}$ 1949. ${ }^{2}$ Excluding infants born alive who died before registration of birth. ${ }^{3}$ Registra-
    tion area only.

[^69]:    ${ }^{1}$ Exclusive of theTerritories.

[^70]:    ${ }^{1}$ Figures for Newfoundland are not included in these totals except for the years 1949 and 1950.

[^71]:    ${ }^{1}$ Exclusive of the Territories．

[^72]:    ${ }^{1}$ Exclusive of the Territories.

[^73]:    ${ }^{1}$ Exclusive of Newfoundland.

[^74]:    ${ }^{1}$ Exclusive of the Territories.
    ${ }^{2}$ By a new rule adopted in August 1948, a Decree Nisi became absolute at the end of three months. As a result, a number of divorces did not become effective until the following year.

[^75]:    ${ }^{1}$ Not reportable in New Brunswick. ${ }^{2}$ Including 1 case where type was not stated. ${ }^{\mathbf{3}}$ Reporting not compulsory in New Brunswick and Manitoba.

    4 Including 35 cases where type was not ${ }^{5}$ Type not segregated.

[^76]:    * Contributed by Dr. G. F. Davidson, Deputy Minister of Welfare, Department of National Health and Welfare.

[^77]:    *The Department of National Health and Welfare Act (8 Geo. VI, c. 22, Sect. 5) states, in part: "The duties, powers and functions of the Minister shall extend to and include all matters relating to the promotion or preservation of the health, social security and social welfare of the people of Canads over which the Parliament of Canada has jurisdiction".

[^78]:    - Sections 1 and 2 of this Part were prepared by the Research Division, Department of National Health and Wellare, Ottawa.

[^79]:    * Except where otherwise indicated, this Section has been revised in the Institutions Section of the Health and Welfare Division, Dominion Bureau of Statistics.

[^80]:    ${ }^{1}$ Excluding incurable (chronic diseases), mental and tuberculosis institutions. $\quad{ }^{2}$ Excluding units in general hospitals. ${ }^{3}$ Three units of Provincial Infirmary. ${ }^{4}$ Includes three private institu-tions-one in Ontario, one in Quebec and one in British Columbia (not otherwise listed in this table). ${ }^{6}$ Excluding tuberculosis units.

[^81]:    ${ }^{1}$ Excluding units in general hospitals.
    one in Quebee and one in British Columbia
    ${ }^{3}$ One hospital in each of the Provinces of Ontario, Manitoba and Saskatchewan did not report.

[^82]:    ${ }^{1}$ Includes beds, cribs and bassinets. and incurable units.
    ${ }^{2}$ Includes newborn.
    ${ }^{3}$ Exclusive of tuberculosis

[^83]:    ${ }^{1}$ Includes newborn. $\quad 2$ Includes probationers.

[^84]:    ${ }^{1}$ Perquisites, out-patient expenditures and non-operating expenditures deducted. ${ }^{2}$ Includes all

[^85]:    * Revised in the Department of Veterans Affairs, Ottawa.

[^86]:    ${ }^{1}$ Exclusive of newborn．
    ${ }^{2}$ Exclusive of bassinets．
    ${ }^{8}$ In addition to staff of Hotel Dieu Hospital．Exclusive of one hospital in Ontario，one in Manitoba and one in Saskatchewan which did not report． ${ }^{5}$ Tubercular patients only．

[^87]:    * Except as otherwise indicated, this Part was prepared in the Research Division, Department of National Health and Weliare, Ottawa.

[^88]:    * Prepared in the Indian Affairs Branch, Department of Citizenship and Immigration, Ottawa.

[^89]:    *Prepared in the Northern Administration and Lands Branch, Department of Resources and Development, Ottawa.

[^90]:    - Revised in the Government Annuities Branch, Department of Labour, Ottawa.

[^91]:    Population of June 1951.
    ${ }^{2}$ In January, February and March 1952 there were no assistance payments in the Northwest Territories.

[^92]:    ${ }^{1}$ For the month of March of the fiscal year indicated.
    ${ }^{2}$ Based on population estimate for preceding year. ${ }^{3}$ Nine months ended Dec. 31; the figures are based on the number of pensioners in December, the average pension in December, and the population estimate for June 1950.

[^93]:    ${ }^{1}$ Population as at June 1, $1951 . \quad{ }^{2}$ Pensions granted under the Old Age Pensions Act and continued under authority of Sect. 13 (2) of the Blind Persons Act.

[^94]:    ${ }^{1}$ For the month of March of the fiscal year indicated.
    ${ }^{2}$ Based on population estimate for preceding June
    ${ }^{2}$ Nine months ended Dec. 31; the figures refer to the average pension in December, the number of pensioners in December, the population estimate for June 1950 and the federal contribution during the nine months ended Dec. 31, 1951.
    'A monthly pension of $\$ 40$ was paid to the one blind pensioner in the Northwest Territories.

[^95]:    ${ }^{1}$ No agreement. $\quad{ }^{2}$ At time of printing (July 1952), renewal was in process.

[^96]:    - Contributed by the various Branches of the Department of Veterans Affairs through G. G. Yates, Chief of Information.

[^97]:    * Except as otherwise credited, this Chapter has been revised in the Judicial Section, Health and Welfare Division, Dominion Bureau of Statistics.
    $\dagger$ Revised by F. P. Varcoe, Deputy Minister, Department of Justice, Ottawa.

[^98]:    ${ }^{1}$ Estimates of population 16 years of age or over are not available for the Yukon and Northwest Territories.

[^99]:    ${ }^{1}$ Offences against females include: abortion, assault against females or wife, indecent assault, carnal knowledge, incest, procuration, rape, attempted rape and seduction.

    Table 3 shows that, in 1950, $64 \cdot 1$ p.c. of the persons convicted of indictable offences had not gone beyond elementary school grades in education, $40 \cdot 6$ p.c. were 24 years of age or younger, $11 \cdot 8$ p.c. were 45 years of age or over, and $75 \cdot 7$ p.c. lived in urban centres. Of these offenders, 93.8 p.c. were males; 88.9 p.c. were born in Canada; $55 \cdot 5$ p.c. were unmarried; 26.0 p.c. were recorded as labourers; and $7 \cdot 1$ p.c. had no employment.

[^100]:    ${ }^{1}$ Includes dismissals, disagreement of jury, stay of proceeding, no bill and detained because of insanity.

[^101]:    ${ }^{1}$ Offences against females include: abortion, assault against females, assault against wife, indecent as-

[^102]:    "The number of cases dealt with in a more or less formal manner has again shown a decrease. The probable reasons are as follows:
    (a) Commitments to the care and custody of the Director of Child Welfare of children from homes in which they could not receive even the semblance of proper guidance and their removal by him have prevented other children in the neighbourhood from being led along a course of behaviour unacceptable to society;
    (b) more guidance has been given by the Juvenile Court to children and their guardians as soon as its attention is focused on their behaviour in one way or another;
    (c) the Probation Officers of the Court have followed up and given friendly advice when the need was made apparent to them;
    (d) the efforts of the Domestic Workers of the Division of Child Welfare over recent years are beginning to show effects . . . . During the year the Worker dealt with the cases of 17 girls, achieving considerable success without actual court action.
    (e) the growth of improved community services, such as clubs, camps, brigades, etc.

[^103]:    "Probation continued to be the most common disposition of the court and in many cases where complaints were dismissed or disposed of by suspended sentence the court recommended that a friendly interest be shown in the child's activities for a certain period.
    " . About 74 p.c. of juveniles appearing in court were from one to six grades below the normal [school] grade for their respective ages."

[^104]:    *Revised by Commissioner L. H. Nicholson, M.B.E., of the Royal Canadian Mounted Police.

[^105]:    * Revised by Geo. A. Shea, O.B.E., Secretary-Treasurer, Chief Constables' Association of Canada.

[^106]:    ${ }^{1} 1945$ population.

[^107]:    ${ }^{*}$ Revised by the Commissioner of Penitentiaries, Department of Justice; Ottawa.
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[^108]:    ${ }^{1}$ Includes Newfoundland.

[^109]:    * Except where otherwise indicated, this Part has been prepared in the Education Division, Dominion Bureau of Statistics.

[^110]:    ${ }^{1}$ Estimated. $\quad{ }^{2}$ 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.
    teachers only; those for secondary teachers are included in university enrolment.

[^111]:    - Day and technical schools only.

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[^112]:    ${ }^{1}$ Including 407 Grade XI students and 72 Grade XII students enrolled in Prince of Wales College.

[^113]:    *More detail is given in D.B.S. report Teachers' Salaries and Qualifications in Nine Provinces, 1950.

[^114]:    ${ }^{1}$ Net figures, after deduction of sinking funds, except for British Columbia 1939, for which the gross figure is given. $\quad{ }^{2}$ Estimated. ${ }^{3}$ Includes contributions to teachers' salaries and, in New Brunswick, grants made to schools by the Vocational Education Board. ${ }^{4}$ Latest available figures. ${ }^{6}$ Includes amounts raised by counties and the township grants on salaries of rural public school teachers. ${ }^{6}$ In addition, there are local boards within larger units. amalgamated into larger administrative units.

[^115]:    ${ }^{1}$ Exclusive of Quebec. ${ }^{2}$ Exclusive of Newfoundland.

[^116]:    * Prepared in the Indian Affairs Branch, Department of Citizenship and Immigration, Ottawa.

[^117]:    ${ }^{1}$ Includes Bachelors of Letters and of Social Science. $\quad{ }^{2}$ Includes Bachelors of Accountancy and Secretarial Science. ${ }^{3}$ Includes diplomas in Architecture from the Schools of Fine Arts of Montreal and Quebec. 4 Excludes teacher diplomas. 5 Includes M. Com. and M. Ed. or M. Paed. ${ }^{6}$ Includes M.A.Sc., M.S.A., M.Sc.F., M.Arch., M.V.Sc., M.Sc. Dent., M. Surgery (where conferred separately). $\quad$ Except diplomas for teachers and theologians.

[^118]:    * Report of the Royal Commission on National Development in the Arts, Letters and Sciences in Canada, Ottawa, Queen's Printer, 1951, Tables I and II, pp. 139-140.

[^119]:    * Prepared in the Department of Veterans Affairs, Ottawa.
    $\dagger$ Ottawa, Queen's Printer, 1951.

[^120]:    *Revised under the direction of Dr. H. O. McCurry, Director, National Gallery of Canada, Ottawa.

[^121]:    * A complete list of Canadian art museums, societies and schools is included in the Canadian section of the current issue of the American Art Annual (Washington, American Federation of Arts).

[^122]:    - Ottawa, Queen's Printer, 1951. See also Royal Commission Studies, a Selection of Essays prepared for the Royal Commission. Ottawa, Queen's Printer, 1951.

[^123]:    * 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 W. Arthur Irwin, Government Film Commissioner, National Film Board. The non-educational services of the National Film Board are outlined in Chapter XXVIII. See also Chapter II, p. 85.

[^124]:    *Prepared by Donald Manson, General Manager, Canadian Broadcasting Corporation.

[^125]:    "It has been suggested that television may eventually supersede radio; if this should happen, most of what we have said of radio programs will apply to television. Again, television may develop and come to concentrate on its more immediately popular capacities such as variety shows, and sports and news actualities, leaving more serious programs to radio and films. For such television programs it will be essential to ensure the maintenance of good taste and a suitable and adequate use of Canadian material and Canadian talent . . . . The element of control necessary and now exercised by governments and by producers in radio and in the cinema will be far more important and far more difficult to achieve in the persuasive and subtle medium of television. We think it important also that, as with radio, the Board of Governors of the CBC endeavour at once to import the best programs from, abroad, while developing so far as possible Canadian talent in Canadian programs."

[^126]:    ${ }^{\bullet}$ Prepared under the direction of E. W. R. Steacie, O.B.E., M.Sc., Ph.D., D.S.C., F.R.S.C., F.R.S., President, National Research Council.

[^127]:    * Prepared in the Business Statistics Section, Research and Development Division, Dominion Bureau of Statistics.
    $\dagger$ A description of the method used in computipg gross and net production figures is given in D.B.S. Bulletin Survey of Production.
    $\ddagger$ Nearly $\$ 75,000,000$ of the 1949 increase was due to the inclusion of part of Newfoundland's value of
    duction. production.

[^128]:    ${ }^{1}$ Based on estimated population figures as given at p. 143. ${ }^{2}$ Not complete. See footnote 1, Table 4.
    ${ }^{3}$ Excludes Newfoundland.

[^129]:    *This analysis takes no account of the deductions for the elimination of duplication between different groups.

[^130]:    ${ }^{1}$ Duplication between agriculture and forestry, as well as duplication under manufactures (see footnote 2, Table 1, p. 369).
    ${ }^{2}$ None reported.

[^131]:    * Except as otherwise indicated, this material was prepared under the direction of Dr. J. G. Taggart, C.B.E., Deputy Minister of Agriculture.

[^132]:    * Revised by W. A. Reeve, Secretary, Canadian Farm Loan Board.

[^133]:    * Prepared by D. M. McRae, Supervisor, Farm Improvement Loans Act, Department of Finance.

[^134]:    - Information supplied by the agricultural authorities of the various provinces.

[^135]:    * Prepared under the direction of Dr. J. G. Taggart, C.B.E., Deputy Minister of Agriculture, by G. J. Matte, Associate Director of Rehabilitation.

[^136]:    * Prepared under the direction of W. H. Horner, Deputy Minister, Department of Agriculture, Regina, Sask.

[^137]:    * Prepared by J. L. Reid, Secretary, Alberta Power Commission, Edmonton, Alts. More detailed information regarding early basic surveys and the development of irrigation projects is given at pp. 375-377 of the 1951 Year Book.

[^138]:    * Prepared by E. H. Tredcroft, Comptroller of Water Rights, Department of Lands and Forests, Victoria, B.C.

[^139]:    - Revised in the Agriculture Division, Dominion Bureau of Statistics

[^140]:    ${ }^{1}$ Includes payments made under the Prairie Farm Assistance Act; other Government subsidies have been included in cash income from individual commodities.

[^141]:    ${ }^{1}$ Includes trucks and automobiles.
    ${ }^{2}$ Includes poultry and animals on fur farms.

[^142]:    ${ }^{1}$ Includes lactose.

[^143]:    ${ }^{1}$ Includes malted milk, cream powder and substandard products of a variable fat content, items that do not appear separately in this table.

    2 Includes milk by-products items not separately listed i.e., condensed buttermilk, powdered buttermilk, sugar of milk, casein and powdered whey in 1948-49. ${ }^{3}$ Includes ice cream and cottage cheese in terms of milk.

[^144]:    ${ }^{1}$ Exclusive of Newfoundland.

[^145]:    ${ }^{1}$ Average cash closing price, Winnipeg Grain Exchange to Sept. 27, 1943. Thereafter, initial payments plus additional payments to producers. ${ }^{2}$ 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. $\quad{ }^{3}$ Average cash closing price, Winnipeg Grain Exchange, except where otherwise noted. 4During March the Canadian Wheat Board assumed control of Canadian flaxseed stocks and the price was held at $\$ 1.64$ for remainder of crop year. ${ }^{5}$ Fixed price to growers.

    6 $\$ 5$ fixed price to growers plus 50 cents participation payment. $\quad 7$ 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 $1948-49 \mathrm{crop}$ year on the basis of $\$ 4$ per bushel for No. 1 C.W. in store Fort William-Port Arthur.

[^146]:    ${ }^{1}$ No sales reported.

[^147]:    ${ }^{1}$ Fluctuations in apparent per capita flour consumption are partly due to the fact that complete data on flour inventories in all positions are not available.
    ${ }^{2}$ Includes amounts dumped or fed to live stock for which no data are available.
    ${ }^{-}$Includes cream expressed as milk.
    ${ }^{2}$ Includes soybean flour.
    ${ }^{4}$ Exclusive of Newioundland.

    Consumption cf Meats.-Production of meats from slaughter, total supply, distribution and per capita consumption of meats and lard are shown in Table 47. All estimates are on a carcass-weight basis except canned meats which are in terms of product.

[^148]:    ${ }^{1}$ Edible meat excluding offal. $\quad{ }^{2}$ Basis cold dressed carcass weight. ${ }^{3}$ 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.

[^149]:    ${ }^{1}$ Estimated totals include allowances for any missing data for countries shown and for other producing countries not shown.

[^150]:    ${ }^{1}$ Estimated totals include allowances for any missing data for countries shown and for other producing countries not shown.

[^151]:    * Sections of this Chapter that deal with forestry and forest administration have been revised in the Forest Economics Section, Forestry Branch, Department of Resources and Development. Sections dealing with forest utilization and forest 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 the Department of Resources and Development, Forestry Branch, Bulletin No. 89, A Forest Classification for Canada, by W. E. D. Halliday. Also see Chapter I for accounts of variations in Canadian physiography, climate, etc.

[^152]:    * Obtainable from the Queen's Printer, Ottawa, price $\$ 1.50$.

[^153]:    ${ }^{1}$ Newioundland not included. $\quad{ }^{2}$ Includes Newioundland and federal lands within provincial boundaries. ${ }^{3}$ Wood values are based on prevailing stumpage rates only; damage to soil, site quality, streamflow regulation, wildlife, recreational and similar values, is not included. ${ }^{\text {E Estimated charge }}$ for new equipment, improvements, maintenance, salaries, etc.

[^154]:    * Prepared by the Forest Economics Section, under the direction of Dr. D. A. Macdonald, Director, Forestry Branch, Department of Resources and Development, in co-operation with the Canadian Pulp and Paper Association.

[^155]:    ${ }^{1}$ Given in terms of rough or unpeeled wood.

[^156]:    ${ }^{1}$ Includes production in British Columbia, Manitoba, New Brunswick and Nova Scotia. ${ }^{2}$ In cludes Newfoundland.

    Manufacturing Processes.-Pulpwood logs come to the mills either by floating down a convenient stream, by truck, by railway, or by water transport. On arrival the bark is removed in barking drums. Slightly different wood-handling methods are employed by the Pacific coast mills.

[^157]:    ${ }^{1}$ Includes Newfoundland.

[^158]:    ${ }^{1}$ Includes Newfoundland.

[^159]:    * Except where otherwise noted, this Chapter has been revised in the Mining, Metallurgical and Chemical Section, Industry and Merchandising Division, Dominion Bureau of Statistics.
    $\dagger$ Prepared under the direction of Marc Boyer, Deputy Minister, Department of Mines and Technical Surveys, Ottawa, by G. H. Murray, Chief, Editorial and Information Division, and Mrs. M. J. Giroux of the Editorial staff.

[^160]:    - For developments in the Quebec-Labrador iron-ore field see p. 487.

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[^161]:    * Revised under the direction of.Marc Boyer. Deputy Minister, in the Editorial and Information Division, Department of Mines and Technical Surveys, Ottawa.

[^162]:    * Information supplied by the Departments of Mines or Mines Branches of the various provinces.

[^163]:    - Revised under the direction of Marc Boyer, Deputy Minister, in the Editorial and Information Division, Department of Mines and Technical Surveys, Ottawa.
    $\dagger$ Compiled from material supplied by the Provincial Governments.

[^164]:    ${ }^{1}$ Beginning with 1931, exchange equalization on gold production is included.
    ${ }^{2}$ Includes value of Newfoundland production from 1949.

[^165]:    ${ }^{1}$ Includes Newfoundland.

    - Includes calcium.
    ${ }^{2}$ Included with magnesium.
    ${ }^{3}$ Not released for publication.
    sulphuric acid made from smelter gases.

[^166]:    ${ }^{1}$ Includes 37 tons valued at $\$ 7,561$ produced in N.W.T. in 1942; and 6 tons valued at $\$ 1,428$ in 1944.

[^167]:    ${ }^{1}$ Includes also palladium, rhodium, ruthenium and osmium.
    ${ }^{2}$ The 1945 figures include an accumulated revision for previous years.

[^168]:    * Prepared by Dr. G. S. Hume, Director-General of Scientific Services, Department of Mines and Technical Surveys.

[^169]:    ${ }^{1}$ 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. 143.

[^170]:    ' 'Production' as used here means quantity and value of sales. 350 lb.

[^171]:    ${ }^{1}$ Totals include minor items not specified.

[^172]:    ${ }^{1}$ Includes freight and smelter charges and cost of ores treated. less cost of process supplies, fuel, electricity, freight and smelter charges. both Saskatchewan and Alberta, is counted as one in the total.
    ${ }^{3}$ A plant, reported by

[^173]:    ${ }^{2}$ Gross value of shipments less
    ${ }^{3}$ Includes natural abrasives.

[^174]:    - Revised under the direction of Major-General H. A. Young, Deputy Minister, Department of Resources and Development, by Norman Marr, Chief, Water Resources Division.
    $\dagger$ More detailed information on the water-power resources of other countries is given in the Year Book 1951, pp. 531-533.

[^175]:    * In addition to water-power development, the construction of fuel-electric plants included: Nova Scotia Power Commission enlargement at Cantleys Point by $10,000 \mathrm{kw}$., with a further addition of $10,000 \mathrm{kw}$. under construction; Nova Scotia Light and Power Company Limited, $26,000 \mathrm{kw}$. at Halifax, and a second unit on order; Seaboard Power Corporation Limited, 18.750 kw . at Glace Bay, N.S., and a similar unit on order; New Brunswick Electric Power Commission, $6,250 \mathrm{kw}$. at Grand Lake, and a similar unit under order, New; Maritime Electric Company at Charlottetown, P.E.I., $7,500 \mathrm{kw}$.; Newfoundland Light and Power Company, a 3,580-h.p. diesel-electric unit on Bell Island.

[^176]:    *To supplement its power output from hydro-electric plants, the Hydro-Electric Power Commission of Ontario is constructing steam-electric plants at Windsor and Toronto with capacities of $264,000 \mathrm{kw}$. and $400,000 \mathrm{kw}$., respectively. At Windsor, the first unit of $66,000 \mathrm{kw}$. was brought into operation in November 1951, the second and third will follow in 1952 and the plant will be completed in 1953. At Toronto one 25cycle $88.000-\mathrm{kw}$. unit and one 60 -cycle $100,000-\mathrm{kw}$. unit were completed in 1951 and similar units were scheduled for operation by early 1953; ultimately the 25 -cycle units will be converted to 60 -cycle operation at $100,000-\mathrm{kw}$. capacity.
    $\dagger$ The Saskatchewan Power Corporation completed the installation of a new steam turbo-generator of $15,000 \mathrm{kw}$. in its Estevan plant and was enlarging its Prince Albert plant by $10,000 \mathrm{kw}$. and its Saskatoon plant by $25,000 \mathrm{kw}$., for operation in 1952 . The City of Winnipeg is building an auxiliary steam plant with one unit of $15,000 \mathrm{kw}$. to be installed in 1952 and an additional $25,000 \mathrm{kw}$. in 1953.

[^177]:    - Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

[^178]:    ${ }^{1}$ Excluding duplications. $\quad{ }^{2}$ Not including auxiliary-plant equipment.
    ${ }^{3}$ Not collected
    after $1943 . \quad 4$ Includes Newfoundland.

[^179]:    ${ }^{1}$ Included with British Columbia.

[^180]:    *The information included under the provincial headings of this Subsection has been revised by the various provincial commissions or authorities concerned.

[^181]:    *The Commission also purchases $160,000 \mathrm{~h}$.p. from the Shawinigan Water and Power Company.

[^182]:    ${ }^{1}$ 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 tha Commission-owned or -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 purchised power.

[^183]:    ${ }^{1}$ Due 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.

[^184]:    ${ }^{1}$ Includes power generated by electric railways for their own use.

[^185]:    - Revised in the Department of Fisheries, Ottawa.

[^186]:    *Prepared by the respective provincial departments responsible for fisheries administration.

[^187]:    ' Figures for Newfoundland not available.

[^188]:    * Revised in the Agriculture Division, Dominion Bureau of Statistics.

[^189]:    ${ }^{1}$ Not including hatters' furs.

[^190]:    * Prepared in the Animal Products Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

[^191]:    ${ }^{1}$ 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. ${ }^{2}$ 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.
    ${ }^{2}$ Not collected.
    4 Includes Newfoundland.

[^192]:    ${ }^{1}$ See footnote 1, Table 1.
    Yukon Territory.
    ${ }^{2}$ Not collected. $\quad{ }^{3}$ See footnote 2, Table 1.

    - Includes

[^193]:    ${ }^{1}$ Figures for the years 1929 and 1933 are for the fiscal years ended Mar. 31 of the following years; for 1939-49 they are for the calendar year. Net imports are total imports less foreign products re-exported. ${ }^{2}$ Consumption figures for the major groups of the Standard Industrial Classification cannot be calculated as statistics of imports and exports are still compiled on the component material classification basis.

[^194]:    ${ }^{1}$ Exclusive of fish processing in Newfoundland.

[^195]:    ${ }^{1}$ Includes "Publishing (only) of Periodicals".

[^196]:    ${ }^{1}$ Exclusive of fish processing in Newfoundland.

[^197]:    ${ }^{1}$ Exclusive of fish processing in Newfoundland.

[^198]:    ${ }^{1}$ Exclusive of Newfoundland.

[^199]:    ${ }^{1}$ The averages of wage-earners and earnings for the years 1933 to 1947 are strictly comparable with those for the years up to 1924 but not with those for the intervening years. The figures for the latest years -as for the earliest-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

[^200]:    ${ }^{1}$ Includes allowance for capital items charged to operating expense of $\$ 18,000,000$ in 1944 and $\$ 23,900,000$ in 1945.

[^201]:    ${ }^{1}$ Includes: biscuits; and tobacco, cigars and cigarettes. ${ }^{2}$ Includes: bags, cotton and jute; fertilizers; slaughtering and meat packing. ${ }^{2}$ Not comparable with previous years. ${ }^{2}$ Includes: cotton yarn and cloth; wire and wire goods; coke and gas; petroleum products; and breweries. ${ }^{5} \mathrm{In}$ cludes: breweries; sugar refineries; cotton yarn and cloth; synthetic textiles and silk; railway rolling-stock; shipbuilding and repairs; brooms, brushes and mops; brass and copper products; and gypsum products.

[^202]:    ${ }^{1}$ Not comparable with previous years. ${ }^{2}$ Publication of these figures authorized by the two
    ${ }^{3}$ Includes bridge-building and structural steel, non-ferrous metal smelting and refining, biscuits, and sugar refineries. 4 Other leading industries for which figures cannot be given because there are fewer than three establishments are: non-ferrous metal smelting and refining, and vegetable oil mills. 5 Includes malt and malt products; sugar refineries; cheese, processed; condensed milk; boxes and bags, paper; bridge-building and structural steel; cement; glass and glass products; fertilizers; and vegetable oils.

[^203]:    ${ }^{1}$ Other leading industries for which statistics cannot be given because there are fewer than three establishments in each industry are: non-ferrous metal smelting and refining, and sugar refining.

[^204]:    * Revised in the Construction Section, Industry and Merchandising Division, Dominion Bureau of Statistics. More detailed information is available in the D.B.S. annual report, The Construction Industry in Canada.

[^205]:    ${ }^{1}$ Includea sub-contract work indicated in the lower part of the table. ${ }^{2}$ Includes work performed by railways, telephone, telegraph and other utility companies utilizing their own employees.

[^206]:    ${ }^{1}$ Includes work performed by railway, telephone, telegraph and other utility companies utilizing their own employees.
    a 10. pc. basis.

[^207]:    ${ }^{1}$ Nine months.

[^208]:    ${ }^{1}$ Exclusive of the municipslities of Newfoundland.

[^209]:    ${ }^{1}$ Exclusive of the municipalities of Newfoundland.

[^210]:    ${ }^{1}$ Compiled by the Department of Labour. ${ }^{2}$ As reported by employers.

[^211]:    *Prepared in the Economic Research Department, Central Mortgage and Housing Corporation.

[^212]:    ${ }^{1}$ Exclusive of a small number of dwellings built by Federal Government Departments as part of their normal operations. $\quad{ }^{2}$ Includes Newfoundland since 1949.

    Details by provinces of loans approved under the National Housing Act, 1944, for the years 1945-51 are shown in Table 10. A total of 84,800 dwellings were completed in Canada in 1951. About 3,500 were built directly by the Federal Government; 29,300 were built with the aid of federal loans, including joint loans under the National Housing Act, 1944; and 1,500 were built with guarantee assistance by the Federal Government.

[^213]:    ${ }^{1}$ Exclusive of the Yukon and Northwest Territories.

[^214]:    * Except as otherwise noted, this Chapter has been revised under the direction of A. MacNamara, C.M.G., Deputy Minister, Department of Labour, Ottawa.

[^215]:    ${ }^{1}$ Females only. $\quad{ }^{2}$ Females; 55 cents for men in canning or processing of fish, vegetables or fruit. ${ }^{3}$ Females; 50 cents for men applying to 48 -hour week. ${ }^{4}$ Rates apply to 36 hours or more. ${ }^{5}$ Females; $\$ 26$ for men over 21 years. ${ }^{6}$ In hotels, beauty parlours, theatres and amusement piaces, rates apply to 40 hours or more; in shops to 39 hours or more; and in offices to 36 hours or more. ${ }^{7}$ Rates apply to 48 hours in factories and offices, except in specified cases; 54 hours in laundries, shops, beauty parlours and theatres; 60 hours in hotels. ${ }^{8}$ Hourly rates. Head waiters and kitchen help, 46 cents; cooks, 53 cents.

[^216]:    - Revised in the Special Surveys Division, Dominion Bureau of Statistics.

[^217]:    ${ }^{1}$ Exclusive of persons in institutions, remote areas and Indian reserves. ${ }^{2}$ Employers, 'own-account' and unpaid family workers. $\quad{ }^{2}$ Revised data from 1946 to 1951 . ${ }^{\text {cludes Manitoba. }}$ Includes Newfoundland. ${ }^{5}$ Ex-

[^218]:    * Newfoundland data have been subtracted from 1950 and 1951 totals: thus all statements made in this analysis are on the basis of the nine other provinces.
    $\dagger$ Revised in the Employment Section, Labour and Prices Division, Dominion Bureau of Statistics.

[^219]:    -The methods used in preparing the current statistics of employment and payrolls and man-hours and hourly earnings are explained in the D.B.S. monthly bulletins on these subjects.

[^220]:    ${ }^{1}$ In 1939 the proportion of female employees in all manufacturing establishments reporting to the annual Census of Industry was 22 p.c.
    ${ }^{2}$ The durable goods group includes wood products, iron and steel products, transportation equipment, non-ferrous metal products, electrical apparatus and supplies, and nonmetallic mineral products; the non-durable goods group consists of the remaining manufacturing industries. ${ }^{2}$ Mainly hotels, restaurants, laundries and dry-cleaning establishments.

[^221]:    ${ }^{1}$ The durable 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.

[^222]:    *Revised in the Employment Section, Labour and Prices Division, Dominion Bureau of Statistics. More complete information is published in D.B.S. bulletins, Earnings and Hours in Manufacturing.

[^223]:    ${ }^{1}$ Exclusive of Newfoundland, Prince Edward Island and the Territories.

[^224]:    ${ }^{1}$ Exclusive of Newfoundland, Prince Edward Island and the Territories.

[^225]:    * For more detailed information, see Department of Labour publication, Wage Rates and Hours of Labour in Canada.

[^226]:    ${ }^{1}$ Exclusive of Newfoundland. ${ }^{2}$ Insufficient data.

[^227]:    ${ }^{1}$ Exclusive of Newfoundland．${ }^{2}$ Insufficient data．${ }^{3}$ Data shown apply to pulp and paper as a whole．

[^228]:    ${ }^{1}$ Not published separately; figures given are averages for the three Maritime Provinces.

[^229]:    ${ }^{1}$ 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. ${ }^{2}$ Rates calculated on the average daily contribution for the last 180 days in the two years preceding claim. The daily rate of benefit is one-sixth of the weekly benefit rate.

[^230]:    * Statistics of unemployment insurance are compiled and published by the Unemployment Insurance Section, Labour and Prices Division, Dominion Bureau of Statistics, from material supplied by the Unemployment Insurance Commission. A more detailed analysis of these data, by province and sex, is available in D.B.S. publication, Annual Report on Benefit Years Established and Terminated Under the Unemployment Insurance Act.

[^231]:    *More detailed information is given in the Department of Labour publication, Canadian Vocationa Training Annual Report, 1950-51.

[^232]:    * More detailed information is given in the Department of Labour publication, Workmen's Compensation in Canada, A Comparison of Provincial Laws.

[^233]:    ${ }^{1}$ Comprises employers individually liable.

[^234]:    ${ }^{1}$ Duplications in columns 1 and 2 are eliminated from these totals.

[^235]:    * Information concerning unions is published in the Department of Labour annual publication, Labour Organization in Canada.

[^236]:    ${ }^{1}$ Figures for 1949 and previous years, are as at Dec. 31; figures for 1951 are as at Jan. 1.

[^237]:    - A complete review of strikes and lockouts during 1950 and 1951 will be found in supplements to the Labour Gazette for April 1951 and April 1952.

[^238]:    ${ }^{1}$ None reported. $\quad{ }^{2}$ Includes non-ferrous metal smelting. $\quad{ }^{2}$ Includes erection of all large bridges. $\quad$ Includes water service.

[^239]:    *This material has been compiled in co-operation with the Board of Transport Commissioners, the Air Transport Board and the Department of Transport.

[^240]:    * Revised under the direction of G. C. Browne, Controller, Telecommunications Division, Department of Transport. Ottawa.
    $\dagger$ 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.

[^241]:    ${ }^{1}$ Includes 46 steam and 3 diesel locomotives, 98 passenger cars and 1,004 freight cars in service in Newfoundland District. in Canadian service.
    ${ }^{2}$ Included with coal burning. ${ }^{3}$ Includes Pullman Company cars

[^242]:    ${ }^{1}$ Does not include Canadian railway capital owned by Canadian railways. ${ }^{2}$ Assumption of approximtately $\$ 40,000,000$ railways debt in Newfoundland is not included.

[^243]:    ${ }^{1}$ Includes expenditure for Newfoundland railways from Apr. 1 to Dec. 31.
    ${ }^{2}$ Details of this item are given in the annual report, Statistics of Steam Railways of Canada, issued by the Public Finance and Transportation Division of the Dominion Bureau of Statistics.

[^244]:    ${ }^{1}$ 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 $1943 . \quad{ }^{3}$ Includes Newfoundland railways irom Apr. 1.

[^245]:    ${ }^{1}$ 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.

[^246]:    ${ }^{1}$ Includes express, baggage, mail and other cars. $\quad{ }^{2}$ Duplications included. ${ }^{3}$ Includes Newfoundland. 4 Includes caboose miles but excludes miles made in passenger and non-revenue trains. ${ }^{5}$ Duplications eliminated; see Table 10 for details of freight carried.

[^247]:    ${ }^{1}$ Working capital, the remainder of the account being eliminated (see p. 591 of the 1942 Year Book). ${ }^{2}$ Includes Federal Government Proprietors Equity and capital stock held by the public; for details see D.B.S. report, Canadian National Railways.

[^248]:    ${ }^{1}$ Excludes electric lines. $\quad{ }^{2}$ Excludes work service.

[^249]:    ${ }^{1}$ Excludes electric lines.

[^250]:    * For further details see D.B.S. publication, Electric Railways of Canada, 1950.

[^251]:    ${ }^{1}$ Includes wages to part-time employees.

[^252]:    * 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 the Territories.

[^253]:    ${ }^{1}$ Reported as at Nov. 30, 1950 partly estimated. $\quad{ }^{3}$ Includes all road allowances. $\quad$ Includes 59,461 miles of unimproved road allowances not in use. $\quad 5$ Includes 697 miles of gravelled and 110 miles of improved earth roads of the Northwest Highway System. ${ }^{6}$ Includes 598 miles of Northwest Highway System and 75 miles of the Atlin Road gravelled and 110 miles of Northwest Highway System improved earth roads.

[^254]:    ${ }^{1}$ Includes payments from railways $\boldsymbol{r e}$ elimination of grade crossings, etc.: 1947, $\mathbf{\$ 6 1 , 0 5 7 ; 1 9 4 8 , \$ 1 0 4 , 2 7 7 ; ~}$ 1949, \$251,911; and 1950, \$227,484. $\quad 2$ Includes contributions from Railway Grade Crossing Fund toward elimination of grade crossings, etc.: 1949, $\$ 243,575$; and $1950, \$ 302,021$. The Federal Government also contributed $\$ 121,310$ toward grade separations, etc., on the Trans-Canada Highway during 1950. cludes $\$ 175,398$ federal administrative costs re Trans-Canada Highway.

[^255]:    ${ }^{1}$ Totals include registrations in the Yukon and Northwest Territories.

[^256]:    ${ }^{1}$ Includes taxis. ${ }^{2}$ Includes service cars, tractors, etc. ${ }^{3}$ Includes station-wagons and seven-passenger cars. 'Includes trolley-buses. ${ }^{\text {S }}$ Includes Department of National Defence vehicles carrying permanent plates. ${ }^{6}$ Included with trucks.

[^257]:    ${ }^{1}$ Included with miscellaneous. ${ }^{2}$ Details for Quebec were not supplied by the Province. ${ }^{3}$ Includes all motor-vehicles licence revenue for the Yukon Territory. - Includes revenue from driver's examinations.

[^258]:    ${ }^{1}$ Estimated net sales for Newfoundland, amounting to $7,188,000 \mathrm{gal}$. in 1949 and $8,842,000 \mathrm{gal}$. in 1950 , are included in net totals; gross sales are not available.

[^259]:    * Statisties are given in more detail in the annual report, Motor Carriers, Freight-Passenger, published by the Dominion Bureau of Statistics.

[^260]:    ${ }^{1}$ Includes all persons killed in motor-vehicle accidents by province in which death occurred.

[^261]:    ${ }^{1}$ Exclusive of 21 accidents in the Northwest Territories with 2 killed and one injured and property damage of $\$ 8,330$. Quebec data not available but estimated total accidents and total persons injured are included. ${ }^{2}$ Property damage over $\$ 50$. ${ }^{2}$ Property damage over $\$ 100$. ${ }^{4}$ Property damage over $\$ 75$, Edmonton estimated. ${ }^{5}$ Estimated. ${ }^{5}$ Not complete, portion included represents accidents over $\$ 50$ in "outports" during the period Aug. 1-Dec. 31, 1950. ${ }^{7}$ Totals for provinces reporting.

[^262]:    * 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.

[^263]:    ${ }^{2}$ Sea-going and inland international.

[^264]:    ${ }^{1}$ Sea-going and inland international. $\quad{ }^{2}$ Includes other small ports not shown separately.

[^265]:    ${ }^{1}$ Approximate-exact figures not available.

[^266]:    ${ }^{1}$ Sales of property, stone, etc.

[^267]:    ${ }^{1}$ Exclusive of harbours under the National Harbours Board as shown in Table 28.

[^268]:    *Sections 1 and 2 of this Part were revised in the Department of Transport and Section 3, except where otherwiseindicated, in the Transportation Section, Public Finance and Transportation Division, Dominion Bureau of Statistics. For military air transportation, see Chapter XXVII on Defence of Canada.

[^269]:    ${ }^{1}$ Includes non-scheduled service.

[^270]:    ${ }^{1}$ Excludes traffic interchanged between carriers. $\quad{ }^{2}$ Includes $421,627 \mathrm{lb}$. of mail between foreign stations. ${ }^{3}$ Includes $292,908 \mathrm{lb}$. of mail between foreign stations. ${ }^{\text {Includes } 1,247,189 \mathrm{lb} \text {. of }}$ mail between foreign stations.

[^271]:    * Prepared by Brigadier C. S. Booth, Representative of Canada to the International Civil Aviation Organization.

[^272]:    *The Transit Agreement provides for the exchange of the first two "freedoms".
    $\dagger$ The Transport Agreement includes all five "freedoms": (1) The privilege to fly across the territory of a contracting State without landing: (2) the privilege to land for non-traffic purposes; (3) the privilege to put down passengers, mail and cargo taken on in the territory of the State whose nationality the aircraft possesses: (4) the privilege to take on passengers, mail and cargo destined for the territory of the State whose nationality the aircraft possesses; and (5) the privilege to take on passengers, mail and cargo destined for the territory of any other contracting State and the privilege to put down passengers, mail and cargo coming from any such territory.

[^273]:    * 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.

[^274]:    ${ }^{2}$ Includes wages charged to expenses and to capital. in both Quebec and Ontario are included under Quebec. systems.

[^275]:    ${ }^{2}$ Statistics of Bell Telephone Company
    ${ }^{2}$ Excludes employees and wages for rural

[^276]:    * Revised in the Department of Transport, Ottawa.

[^277]:    ${ }^{1}$ Applied to the operations of the Department of Transport. ${ }^{2}$ Applied to the operstions of the Department of Transport. ${ }^{2}$ Section 14 (1) of the Canadian
    Broadcasting Act, 1936, 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".

[^278]:    ${ }^{1}$ Includes licences issued free, numbering 10,673 in $1947,10,676$ in $1948,12,782$ in $1949,15,810$ in 1950 , 18,056 in 1951 and 20,303 in 1952. See Table 4 for classification for 1951.

[^279]:    * Prepared by Donald Manson, General Manager, Canadian Broadcasting Corporation, Ottawa.

[^280]:    * Revised by T. J. Allard, General Manager, Canadian Association of Broadcasters, Ottawa.

[^281]:    For footnotes, see end of table, p. 858.

[^282]:    ${ }^{1}$ Less than $\$ 10,000 . \quad{ }^{2}$ Included in St. John's. $\quad{ }^{3}$ Closed May 26, 1951. $\quad$ Included in Rivière-du-Loup. $\quad{ }^{5}$ Closed Jan. 29, $1952 . \quad{ }^{6}$ Included in ThoroId. ${ }^{7}$ Air mail field.

[^283]:    ${ }^{1}$ Circulation not reported in all cases.
    ${ }^{2}$ Includes bi-weeklies, tri-weeklies and national week-end papers.

[^284]:    ${ }^{1}$ Includes 2 national week－end， 2 bilingual and 1 Saturday edition．
    ${ }^{2}$ Includes 2 national week－end．

[^285]:    - Prepared by the Chief of the Crops Section, Agriculture Division, Dominion Bureau of Statistics.

[^286]:    ${ }^{1}$ 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.-With the outset of the 1949-50 crop-year, marketings of western oats and barley were brought under compulsory marketing pools operated by the Canadian Wheat Board. A voluntary pool for Western flaxseed was also provided during 1949-50 but open market prices remained well above the initial pool price and little flax was marketed through the pool. Rye was handled entirely through private trade channels.

[^287]:    - For more detailed information see D.B.S. annual, Live Stock and Animal Products Statistics, and the Department of Agriculture publication, Annual Market Review. Statistics of live stock and poultry are given at pp. 420-422 and 429-432, respectively, of this volume.

[^288]:    * 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.

[^289]:    ${ }^{1}$ Not classified separately prior to 1952.

[^290]:    ${ }^{2}$ Included under light fuel oils prior to 1952.

[^291]:    * Railway and express companies have similar facilities.

[^292]:    ${ }^{1}$ Excludes Newfoundland.

[^293]:    * Revised in the Merchandising and Services Section, Industry and Merchandising Division, Dominir Bureau of Statistics.

[^294]:    aries and wages do not include delivery or proprietors' salaries. ${ }_{2}$ 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. ${ }_{5}$ Times per year-cost of goods sold, divided by average of beginning and year-end inventories.

[^295]:    ${ }^{1}$ Instalment credit not characteristic of this trade.

[^296]:    ${ }^{1}$ Includes Newfoundland.

[^297]:    ${ }^{1}$ Includes Newfoundland.

[^298]:    * Prepared under the direction of Dr. J. G. Taggart, C.B.E., Deputy Minister of Agriculture, by J. E. O'Meara, Marketing Service, Economic Division Department of Agriculture, Ottawa.

[^299]:    ${ }^{1}$ Duplication exists in this column since some associations market produce and also handle supplies. Some market more than one product and many handle most of the supplies listed.

[^300]:    *Revised in the Transportation Section, Public Finance and Transportation Division, Dominion Bureau of Statistics.

[^301]:    For footnote, see end of table, p. 904.

[^302]:    ${ }^{1}$ Figures for freight originating and freight terminat'ng do not agree because freight which originates within a certain year does not all terminate within the same year; some that terminated in 1551 , for instance, originated within the previous year.

[^303]:    * Revised by T. D. MacDonald, Q.C., Director of Investigation and Research, Combines Investigation Act, Department of Justice, Ottawa.

[^304]:    - Prepared by R. W. MacLean, Director, Standards Division, Department of Trade and Commerce. 98452-58졀

[^305]:    * 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.

[^306]:    * Prepared by F. G. Neate, Executive Secretary, 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 Year Book 1947, pp. 770-771.

[^307]:    * Abridged from the D.B.S. report, The Control and Sale of Alcoholic Beverages in Canada, which gives an outline of federal and provincial legislation concerning the control and sale of slcoholic beverages.
    $\dagger$ Excludes sales tax, details of which are not available for separate commodities.

[^308]:    * Prepared by the Superintendent of Bankruptcy, Ottawa.

[^309]:    1 Exclusive of assets realized direct by secured creditors. The amounts so realized were approximately $82,596,068$ in 1942. $\$ 1,799,722$ in 1943, $\$ 1,201,289$ in 1944, $\$ 1,811,803$ in 1945, $\$ 684,039$ in 1946, 8582,811 in 1947. $\$ 1,597,781$ in 1948, $\$ 2,534,369$ in 1949 and $\$ 2,722,285$ in 1950.
    ${ }^{2}$ Exclusive of the city shown separately.

[^310]:    ${ }^{1}$ In addition to the payments by the trustee, secured creditors valued their security or realized on it themselves without the intervention of the trustee to an amount of approximately $84,108,276$. addition to the payments by the trustee, secured ereditors valued their security or realized on it themselves without the intervention of the trustee to an amount of approximately $\$ 40,979$. payments by the trustee, secured creditors valued their security or realized on it themselves without the intervention of the trustee to an amount of approximately $\$ 105,990$.

[^311]:    ${ }^{1}$ Loan authorized under the Export Credits Insurance Act. 1944, and the United Kingdom Financial Agreement Act, 1946.
    ${ }_{2}$ Includes outstanding advances of $\$ 8,700,000$ to the Union of Soviet Socialist Republics under the War Expenditure and Demobilization Appropriation Act, 1945, but excludes accrued interest of $\$ 19,800,000$ and military relief credits settled by funding.
    ${ }^{5}$ Repayments were made in 1948, except for $\$ 2,100,000$ received from Belgium in 1947.

[^312]:    * Based on statistics taken from reports published by the External Trade Section, International Trade Division, Dominion Bureau of Statistics.

[^313]:    ${ }^{1}$ Not ranked among the 30 leading countries.

[^314]:    ${ }^{1}$ Includes other countries not specified.
    ${ }^{2}$ Percentage calculated on grand totals of Tables 5 or 6, lees United States imports or exports.

[^315]:    1 Ireland became a Republic in 1949. $\quad{ }_{5}^{2}$ Included under "Foreign Countries"
    4 Ex-bond.
    ${ }^{3}$ Less than
    $\$ 500$.
    4 Ex-bond.

[^316]:    ${ }^{2}$ Less than $\$ 500 . \quad{ }^{2}$ See "United Kingdom and Other Commonwealth Countries".
    ${ }^{2}$ Includes other countries not specified.

[^317]:    1 Less than $\$ 500$. $\quad{ }^{2} S_{e e}$ "United Kingdom and Other Commonwealth Countries"
    ${ }^{3} \mathrm{In}^{-}$ cludes other countries not specified.

[^318]:    ${ }^{1}$ Includes other countries not specified.

[^319]:    ${ }^{1}$ Cwt.

[^320]:    ${ }^{1}$ Cwt.

[^321]:    For footnotes, see end of table, p. 976.

[^322]:    ${ }^{1}$ Groups, though classified by component material, differ slightly from conventional groups (see text, p. 974 ). ${ }^{2}$ Excludes imports for the use of the United Kingdom Government and Canada's NATO allies.

    Excludes exports of foreign produce.

[^323]:    * Prepared in the International Payments Section, International Trade Division, Dominion Bureau of Statistics.

[^324]:    * Organization for European Economic Co-operation.

[^325]:    ${ }^{1}$ Includes Mutual Aid exports.

[^326]:    ${ }^{1}$ Includes official contributions in kind.
    ${ }^{3}$ Includes errors and omissions.

[^327]:    * Rates inclusive of children and of persons visiting friends or relatives; rates restricted to adults using hotels or other accommodation would be materially higher.

[^328]:    * Prepared in the several branches and divisions concerned and collated in the Information Branch. Department of Trade and Commerce, Ottawa.

[^329]:    * For details concerning the development of the General Agreement on Tariffs and Trade, see Year Book 1950, pp. 966-968.

[^330]:    ${ }^{1}$ This country participated in the Torquay negotiations but bas not yet (November 1952) become a Contracting Party to the General Agreement on Tariffs and Trade.

[^331]:    *Revised in the Prices Section, Labour and Prices Division, Dominion Bureau of Statistics.

[^332]:    ${ }^{1}$ New D.B.S. index for St. John's: June $1951=100$. For explanation of methods see D.B.S. Reference Paper No. 28.

[^333]:    ${ }^{1}$ Includes an estimate for Quebec.
    ${ }^{2}$ Includes provincial profits from liquor control. ${ }^{3}$ Excludes personal property which is inseparable from other taxes. ${ }_{4}$ Includes $\$ 86,142,000$, being excess of refunds over expenditure re expansion of industry. ${ }^{5}$ Includes $\$ 31,596.000$, being excess of refunds over expenditure re expansion of industry.

[^334]:    ${ }^{1}$ Includes an estimate of municipal statistics for Quebec. $\quad{ }^{2}$ Includes Newfoundland. ${ }^{3}$ Includes provincial profits from liquor control. 4 Excludes personal property for municipal governments

[^335]:    ${ }^{1}$ Includes Newfoundland.

[^336]:    ${ }^{1}$ Includes an estimate for Quebec. six months' treasury notes. ${ }^{3}$ Excludes provincial debt accounts.

    Includes and $\$ 750,000,000$ and unguaranteed issues of the Canadian National Railways as at Mar. 31 to correspond with fiscal year end of the Federal Government. ${ }^{3}$ Includes proceeds from sale of mortgaged properties held by the Canadian National Railways. ${ }^{\circ}$ 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.

[^337]:    *Revised, except as otherwise stated, under the direction of Dr. W. C. Clark, C.M. G., Deputy Minister, Department of Finance, Ottaws, Ont.

[^338]:    ${ }^{*}$ Copies of the 1951-52 Budget may be obtained on application from the Department of Finance Ottaws, Ont.

[^339]:    ${ }^{1}$ Direct liabilities only. Indirect liabilities or guarantees by the Government of Canada are given on p. 1063.

[^340]:    ${ }^{1}$ Includes interest on investments, profits of the Bank of Canada and other items.

[^341]:    ${ }^{1}$ Includes $\$ 87,510,068$ adjustment required to place interest on public debt on accrual basis. $\quad{ }^{2} \mathrm{To}$ nearest thousand dollars. $\quad$ I Only a small charge for administration is applicable to 1952 . $\quad$ In 1950 the Department of Mines and Resources was reorganized into the three Departments-Citizenship and Immigration, Mines and Technical Surveys, and Resources and Development. 5 See Mines and Technical Surveys Commerce. ${ }^{6}$ See Resources and Development. ${ }^{7}$ See Mines and Resources. ${ }^{8}$ See Trade an
    ${ }^{\circ}$ This department was dissolved in 1949.
    ${ }^{10}$ See Reconstruction and Supply.

[^342]:    ${ }^{2}$ Excludes refundable portion. ${ }^{2}$ Includes other items not specified. credited to the Old Age Security Fund.
    ${ }^{2}$ Includes interest on investments, profits of the Bank of Canada.
    4 Excludes 2 p.c. Old Age Security sales tax of $\$ 24,297,979$

[^343]:    * More detailed information is given in the annual report, Taxation Statistics, published by the Taxation Division, Department of National Revenue, Ottawa.

[^344]:    *The Income Tax Act assented to June 30, 1948, superseded the Income War Tax Act.

[^345]:    ${ }^{1}$ Includes estimated refundable portion. ${ }^{2}$ Includes deferred tax, $\$ 1,308,982 . \quad{ }^{3}$ Includes deferred tax, $\$ 1,002,027$ and tax on private companies, $\$ 41,972,700$. ${ }^{1}$ Includes deferred tax, $\$ 685,967$ and tax on private companies, $\$ 12,596,108$. 5 Includes deferred tax, $\$ 778,617$ and tax on private companies, $\$ 3,440,514$. $\quad$ Includes deferred tax $\$ 629,029$ and tax on private companies, $\$ 1,120,510$. ${ }_{7}$ Includes deferred tax $\$ 548,007$ and tax on private companies $\$ 87,619,776$. ${ }^{8}$ Excludes Old Age Security taxes. ${ }^{9}$ Includes tax of $\$ 14,612,872$ on undistributed income of companies. Information concerning deferred tax and gift tax no longer available.

[^346]:    ${ }^{1}$ Excludes Newfoundland.

[^347]:    ${ }^{1}$ Under terms of the 1947 and 1952 Dominion-Provincial Taxation Agreements all provinees, except Ontario and Quebec, refrain from levying succession duties, hence amounts shown after 1947 for the rest of the provinces are arrears. $\quad{ }^{2}$ Excludes arrears of pre-union death duties. ${ }^{3}$ Fiscal year ended Nov. 30 of preceding calendar year. $\quad{ }^{4}$ Sixteen months. $\quad{ }^{5}$ Fiscal year ended Oct. 31 of preceding calendar year. ${ }^{6}$ Seventeen months. ${ }^{7}$ Eleven months.

[^348]:    ${ }^{1}$ The rates of federal duty shown are those actually applied but a credit may be made to the taxpayer up to one-half of this amount on account of duty paid to the provinces, see $\mathbf{p} .1046$.

[^349]:    ${ }^{1}$ This statement does not include any special grants voted and paid to the Maritime Provinces, Manitoba, Saskstchewan and British Columbia; it also excludes payments to Provinces under the Dominion-Provincial Taxation Agreements and payments of the transitional grant to the Province of Newfoundland. $\quad 2$ Includes payments under the provisions of the Maritime Additional Subsidies Act and additional annual subsidy under terms of union with Newfoundland.
    ${ }^{3}$ See text at p. 1053.

[^350]:    ${ }^{1}$ Subject to deduction of statutory subsidies. See Table 27, p. 1054.
    ${ }^{2}$ The payments for all five years were recalculated, according to the terms of the Agreement of Junc, 1952 in the light of the revised statistics for gross national product and population. Untario did not enter into the 1917 Agreement, consequently, the payments shown were not actually made

[^351]:    ${ }^{1}$ Subject to deduction of statutory subsidies payable in 1952. See Table 27, p. 1054. ${ }^{2}$ Subject to recalculation after Feb. 28, 1957, in the light of revised statistics for gross national product and population then available.
    ${ }^{3}$ Subject to a deduction for succession duty credits allowed by the Federal Government for provincial succession duties paid to Ontario, since Ontario retained its succession duties. This is estimated at $\$ 10,205,000$ for 1952-53.
    ${ }^{4}$ Quebec had not entered the 1952 Agreement as at Oct. 31.
    1952.

[^352]:    ${ }^{1}$ Based on the official estimates of population given at p. 143.
    ${ }^{2}$ This amount represents retarn on investments, which includes interest on investments, profits of Bank of Canada and other items. ${ }^{3}$ The apparent increase in interest paid is due to the accrued interest on refundable taxes having been charged in the year of repayment. public debt on accrued basis.

[^353]:    ${ }^{1}$ Includes bonds purchased and held by the Treasury for sinking funds. ${ }^{2}$ Includes refundabie portion of income tax and excess profits tax.
    ${ }^{3}$ Includes refundable portion of the excess profits tax.

[^354]:    ${ }_{2}^{1}$ Redeemsble at 101 percent. Amount outstanding includes $\$ 6,696,589.00$ redemption bonus.
    ${ }^{2}$ Redeemsble at 101 percent. Amount outstanding includes $\$ 8,471,360.50$ redemption bonus.

[^355]:    * Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics. Further details are given in the D.B.S. annual report, Financial Statistics of Provincial Governments. Years referred to throughout this Section are fiscal years ended nearest Dec. 31 of year stated.

[^356]:    ${ }^{1}$ Eleven montha due to change in fiscal year.

[^357]:    ${ }^{1}$ Eleven months due to change in fiscal year.

[^358]:    ${ }^{1}$ Excluden bonde assumed by the Province.

[^359]:    ${ }^{1}$ Includes Newfoundland. ${ }^{2}$ Excludes bonds assumed by the Provinces.

[^360]:    - Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistice.

[^361]:    ${ }^{1}$ Includes the following: N.S.-household tax; N.B.-occupancy tax, Fredericton, and rentals tax, Moncton; Sask.-special franchise; Alta.-franchise and other special. ${ }^{2}$ Includes estimated values for some municipalities; total exemptions are incomplete. ${ }^{3}$ Include specified.

    4 Includes temporary exemptions amounting to $\$ 64,659,000$ in 1948 for all municipalities and $871,154,000$ in 1950 for cities and towns only.
    ${ }_{5}$ Cities and towns only.
    ${ }^{6}$ Cities only.
    ${ }^{7}$ Includes $\$ 223,651,933$ (1946), $\$ 247,390,470(1947), \$ 278,368,097$ (1948), $\$ 311,248,321$ (1949) and $\$ 347,871,475$ (1950), valuation of improvements, the total value of which was $\$ 468,844,049$ (1946), $\$ 511,289,782$ (1947), $\$ 574,582,394$ (1948), $\$ 634,949,978$ (1949) and $\$ 852,431,273$ (1950), and the maximum value at which they could be taxed was $\$ 292,353,568$ (1946), $\$ 379,965,133$ (1947), $\$ 430,936,795$ (1948), $\$ 476,212,483$ (1949) and $\$ 522,294,002$ (1950). $\quad 8$ Consists of $\$ 188,328,203$ (1946), $\$ 190,427,963$ (1947), $\$ 199,388,993$ (1948), $\$ 206,974,496$ (1949) and $\$ 226,258,620$ (1950), valuation of exempted properties, and $\$ 245,192,116$ (1946), $\$ 263,899,312$ (1947), $\$ 296,214,297$ (1948), $\$ 323,701,657$ (1949) and $\$ 504,559,798$ (1950), exemptions of taxable improvements as referred to in footnote 7.

[^362]:    ${ }^{1}$ Includes estimates as actual figures are not available in some instances. ${ }^{2}$ Excludes $81,366,821$ in each of the years 1946 and 1947 and $\$ 2,051,422$ in 1948, 1949 and 1950 being compensation through Provincial Government for loss of income tax. ${ }^{3}$ No figures available for Quebec since 1945. 4 Includes certain provincial and other special taxes (see text following this table), but excludes taxes in Improvement Districts.

[^363]:    ${ }^{1}$ Includes social services taxes.

[^364]:    ${ }^{1}$ Excludes rural schools. $\quad{ }^{2}$ Includes $\$ 13,665,946$ in 1949 and $\$ 17,635,077$ in 1950 capital liabilities (building loans and debentures) for Roman Catholic separate schools and $\boldsymbol{\xi 7 1 0 , 3 5 9}$ in 1949 and $\$ 657,419$ in ${ }_{1950}$ for public schools in unorganized areas. ${ }^{3}$ Excludes liabilities of schools and other local boards and commissions but includes in lieu thereof amounts due by municipal revenue fund accounts to such schools and other local authorities; information required to make the necessary eliminations on this account is not available from published reports (see footnote 2). ${ }^{\text {a }}$. Includes $\$ 300,000$ treasury bills.
    cludes $\$ 1,502,417$ treasury bills in 1949 and $\$ 1,457,056$ in 1950.
    Table 48 gives the debenture principal and interest due, by provinces, for the years 1946 and 1948-50. Statistics are not available for Quebec so that it is not possible to give accurate figures for Canada as a whole. However, the trend has been upward since 1947 in most provinces, a reversal of the decline evident from 1940 to 1946. Retirement of direct debenture debt accounted for the major portion

[^365]:    * Prepared in the Research and Development Division, Dominion Bureau of Statistics.

[^366]:    * National Accounts, Income and Expenditure, 1926-1950 and National Accounts, Income and Expenditure, Revised Preliminary 1951.

[^367]:    ${ }^{1}$ Includes Newfoundiand.

[^368]:    ${ }^{1}$ Includes Newfoundland.

[^369]:    ${ }^{1}$ Includes Newfoundiand.

[^370]:    * Prepared in the Balance of Payments Section, International Trade Division, Dominion Bureau of Statistics. A more extended review appears in D.B.S. report, Canada's International Investment Position. Selected Years 1926 to 1949, and statistics for more recent years in D.B.S report, The Caradian Balance of International Payments, 1951, and Foreign Capital Invested in Canada.

[^371]:    ${ }^{1}$ Includes corporate tarable income, 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 and $\$ 48,000,000$ in 1951.

[^372]:    ${ }^{1}$ Includes the Yukon and Northwest Territories.
    ${ }^{2}$ Net authorizations were $\$ 41,160,509$, of which those in excess of $\$ 200,000$ totalled $\$ 22,335,864$ because of partial repayments on account of current authorizations.

[^373]:    ${ }^{1}$ In January 1850 the chartered banks' liability for such of their notes, issued for circulaticn in Canada, as then remained outstanding, was transforred to the Bank of Canada.

[^374]:    * Revised in the Royal Canadian Mint, Ottawa.
    $\dagger$ The Currency Act of 1910 made provision for a silver dollar and a 5 -cent silver coin. The 5-cent silver coin was coined freely until 1921. It still has limited legal tender but has been replaced in the coinage by the nickel 5 -cent piece. In 1942 a 5 -cent piece was coined from 'tombac', a copper-zinc alloy, in order to conserve nickel for war purposes, but this coin was replaced in 1944 by a 5 -cent coin composed of mild steal with a chromium finish.

[^375]:    ' Includes other assets not specified.
    and also deposits elsewhere than in Canada.
    ${ }^{2}$ Includes deposits of Federal and Provincial Governments
    ${ }^{2}$ Includes other liahilities not specified. ${ }^{4}$ After Januarv 1950, the chartered banks' liability for such notes issued for circulation in Canada as then remained outatanding 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.

[^376]:    For footnotes, see end of table.

[^377]:    ${ }^{1}$ 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.

[^378]:    ${ }^{1}$ Plun extre of 2 p.c.
    ${ }^{2}$ Plue extre of 1 p.c.
    ${ }^{2}$ Plus extra of y of 1 p.c.
    ${ }^{4}$ Not reported.

[^379]:    -Prepared by J. E. O'Meara, Economics Division, Marketing Service, Department of Agriculture, Ottawa.

[^380]:    * The main operations of the Foreign Exchange Control Board during 1950 are given in the 1951 Year Book, pp. 1056-1057. Reviews of the Board's activities in earlier years will be found in previous Year Books.

[^381]:    * Revised under the direction of R. W. Warwick, Superintendent of Insurance, Department of Insurance.

[^382]:    ${ }^{1}$ Excludes one loan company incorporated under the laws of Quebec, the capital stock and debentures of which have been issued largely outside Canada.

[^383]:    ${ }^{1}$ 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. ${ }^{3}$ Includes other assets. Includes interest due and accrued. ${ }^{5}$ Includes other company fund liabilities. ${ }_{6}$ For the years 1946-49 chartered by the Provinces of Ontario and Quebec and for the years 1950 and 1951 chartered by all provinces except Nova Scotia, New Brunswick and Manitoba.

[^384]:    ${ }^{1}$ 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.

[^385]:    ${ }^{1}$ Includes $\$ 250,000$ bonds and $\$ 1,534,756$ balances of loans made in amounts greater than $\$ 500 . \quad{ }^{2}$ Includes $\$ 4,046,210$ balances of loans in amounts greater than $\$ 500$. ${ }^{2}$ Includes $\$ 6,762,669$ balances of loans in amounts greater than $\$ 500$. 4 Includes business other than small loans.

    5 Includes
    taxes.

    - Includes $\$ 5,515$ premium on capital stock.

[^386]:    * Further details are given in the Department of Insurance report, Small Loans Companies and MoneyLenders for the year ended Dec. 31, 1950.
    + Prepared by E. C. Gould, Financial Editor, The Monetary Times.

[^387]:    ${ }^{1}$ Department of Finance figures. $\quad{ }^{2}$ 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 issue of 1951 . Figures for the issues 1946 to 1950 inclusive, are for the entire loans, i.e., to the closing dates of the subsequent years. Dollar total for the Sixth Savings Loan of 1951 are to Mar. 31, 1952, but the number of applications has been calculated to Nov. 30, 1951.

[^388]:    * Material in this Chapter, except where otherwise indicated, has been revised under the direction of R. W. Warwick, Superintendent of Insurance, Department of Insurance, Ottawa.

[^389]:    ${ }^{1}$ Net premiums received.
    years since this figure indicates "Gross direct written", disregarding all reinsurance, assumed or ceded.

[^390]:    ${ }^{1}$ Includes the Yukon and Northwest Territories, also certain 'floater business' that cannot be appor-
    tioned to any one province.

[^391]:    ${ }^{1}$ Federal jurisdiction losses, including forests, not included. ${ }^{2}$ Newfoundland excluded.

[^392]:    ${ }^{1}$ Newioundland excluded.

[^393]:    ${ }^{1}$ For statistics of fraternal insurance, see pp. 1148-1150. at p. 143.

[^394]:    * This total does not include fraternal insurance.

[^395]:    ${ }^{1}$ Death claims, matured endowments, disability claims and guaranteed dividends.

[^396]:    ${ }^{1}$ Excludes capital.

[^397]:    ${ }^{1}$ Includes business outside Canada.

[^398]:    ${ }^{1}$ None reported.

[^399]:    ${ }^{1}$ Sprinkler leakage business of fire companies was grouped with fire business from 1923 to 1940, but has been shown separately since 1940 when written under a separate policy.

[^400]:    ${ }^{*}$ Revised by C. F. Black, Superintendent, Veterans Insurance, Department of Veterans Affairs, Ottawa.

[^401]:    * Revised under the direction of C. M. Drury, C.B.E., D.S.O., Deputy Minister, Department of National Defence, Ottawa.

[^402]:    * Prepared in the Economics and Statistics Branch of the Department of Defence Production, Ottawa.

[^403]:    * For a list of the Orders in Council and Minister's orders in force at Dec. 31, 1951, see the report of the Department of Defence Production, Apr. 1-Dec. 31, 1951, p. 52.

[^404]:    ${ }^{1}$ Includes lead smelted from imported ore.

[^405]:    ${ }^{1}$ Prepared in the General Assignments Unit, Dominion Bureau of Statistics.

[^406]:    * Prepared from information supplied by F. F. Worthington, Civil Defence Co-ordinator, Department of National Health and Welfare, Ottawa.

[^407]:    *Revised in the Divisions mentioned in the text of this Section.

[^408]:    Sources for Federal Data
    Subject
    Sources for Provincial Data
    Dominion Bureau of Statistics $\left\{\right.$ COST OF LIVING $\left\{\begin{array}{l}\text { N'f'ld.:-Dept. of Municipal Affairs } \\ \text { and Supply } \\ \text { Alta.:-Dept. of Industries and } \\ \text { Labour } \\ \text { Brovincial Bureau of Statistics } \\ \text { B.C.:-Dept. of Trade and Industry } \\ \text { Bureau of Economics and Statistics }\end{array}\right.$

    Dominion Bureau of Statistics

    N'f'Id.:-Dept. of Municipal Affairs and Supply
    Alta.:-Dept. of Industries and Labour
    B.C.:-Dept. of Trade and Industry Bureau of Economics and Statistics

    Dept. of Resources and Development Northern Administration and Lands Branch
    National Parks Branch
    National Museum of Canada
    Dept. of Citizenship and Immigration
    Indian Affairs Branch (Indian handicrafts)
    National Gallery of Canada
    National Film Board (films, filmstrips, photographs)
    Dept. of Veterans Affairs (veterans only)
    Public Archives
    Dept. of National Health and Welfare
    Physical Fitness Division (theatre arts and handicrafts)

    Dept. of Justice
    Clemency Branch
    The Penitentiary Commission
    Dept. of National Health and Welfare
    Research Division
    National Film Board (films, photographs)

    ## CREATIVE ARTS <br> AND HANDICRAFTS

    

    ## CRIME <br> AND DELINQUENCY

    N'f'ld.:-Dept. of Education
    P.E.I.:-Tourist and Information Branch
    N.S.:-Dept. of Trade and Industry. Handicrafts Division
    Nova Scotia College of Art
    N.B.:-Dept. of Industry and Development, Handicraft Division
    The New Brunswick Museum, Saint John
    Que.:-Dept. of Agriculture (rural handicrafts)
    Ont.:-Royal Ontario Museum
    Dept. of Education
    Man.:-Dept. of Agriculture and Immigration (handicrafts)
    Sask.:-Dept. of Education, Adult Education Division
    Alta.:-Dept. of Economic Affairs (cultural activities)
    B.C.:-Provincial Museum (Indian handicrafts)

    All Provinces:-Depts. of Attorney General
    Additional-
    N'f'ld., N.S.:-Depts. of Public Welfare
    P.E.I., B.C.:-Depts. of Health and Welfare
    Que.: Wept. of Social Welfare and Youth
    Ont.:-Dept. of Reform Institutions
    Man.:-Dept. of Health and Public Welfare
    Sask.:-Dept. of Social Welfare and Rehabilitation
    Alta.:-Dept. of Public Welfare

    For information with regard to individual Crown Companies apply as follows:
    N'f'ld.:-Dept. of Economic Development .i.-Dept. Industry and Natural Resources
    Ont.:-Dept. of Provincial Secretary
    Man.:-Treasury Dept.
    Sask.:-Office of Chief Industrial Executive
    B.C.:-A ttorney-General's Dept.

[^409]:    ${ }^{*}$ Extracts from the Canada Gazette.

